BMJ Open

Definitions of blinding in randomized controlled trials of interventions published in high-impact anesthesiology journals: a methodological study and survey of authors

Journal:	*BMJ Open*
Manuscript ID	bmjopen-2019-035168
Article Type:	Original research
Date Submitted by the Author:	24-Oct-2019
Complete List of Authors:	Penic, Antonija; Vujanovic Pharmacy Begic, Dinka; University Hospital Tuzla, Department of Endocrinology Balajic, Karolina; University of Split School of Medicine, Department of Reasearch in Biomedicine and Health Kowalski, Martin; University of Split School of Medicine, Department of Resarch in Biomedicine and Health Marusic, Ana; University of Split School of Medicine, Department of Research in Biomedicine and Health Puljak, Livia ; Croatian Catholic University, Center for Evidence-Based Medicine and Health Care
Keywords:	Clinical trials < THERAPEUTICS, STATISTICS & RESEARCH METHODS, EPIDEMIOLOGY

I, the Submitting Author has the right to grant and does grant on behalf of all authors of the Work (as defined in the below author licence), an exclusive licence and/or a non-exclusive licence for contributions from authors who are: i) UK Crown employees; ii) where BMJ has agreed a CC-BY licence shall apply, and/or iii) in accordance with the terms applicable for US Federal Government officers or employees acting as part of their official duties; on a worldwide, perpetual, irrevocable, royalty-free basis to BMJ Publishing Group Ltd ("BMJ") its licensees and where the relevant Journal is co-owned by BMJ to the co-owners of the Journal, to publish the Work in this journal and any other BMJ products and to exploit all rights, as set out in our licence.

The Submitting Author accepts and understands that any supply made under these terms is made by BMJ to the Submitting Author unless you are acting as an employee on behalf of your employer or a postgraduate student of an affiliated institution which is paying any applicable article publishing charge ("APC") for Open Access articles. Where the Submitting Author wishes to make the Work available on an Open Access basis (and intends to pay the relevant APC), the terms of reuse of such Open Access shall be governed by a Creative Commons licence – details of these licences and which Creative Commons licence will apply to this Work are set out in our licence referred to above.

Other than as permitted in any relevant BMJ Author's Self Archiving Policies, I confirm this Work has not been accepted for publication elsewhere, is not being considered for publication elsewhere and does not duplicate material already published. I confirm all authors consent to publication of this Work and authorise the granting of this licence.

Definitions of blinding in randomized controlled trials of interventions published in high-impact anesthesiology journals: a methodological study and survey of authors

Antonija Penić[1], Dinka Begic[2], Karolina Balajic[3], Martin Kowalski[3], Ana Marušić[3], Livia Puljak[4]

Affiliations:

1. Vujanovic Pharmacy, Sinj, Croatia; antonijapenic5@gmail.com

2. Department of Endocrinology, University Hospital Tuzla, Tuzla, Bosnia and Hercegovina; dinka.b@hotmail.com

3. Department of Research in Biomedicine and Health, University of Split School of Medicine, Split, Croatia; karolina-balajic@net.hr, martinkowalski1@gmx.de, ana.marusic@mefst.hr

4. Center for Evidence-based Medicine and Health Care, Catholic University of Croatia, Zagreb, Croatia; livia.puljak@unicath.hr

***Corresponding author:**

Livia Puljak

Center for Evidence-based Medicine and Health Care, Catholic University of Croatia

Ilica 242, 10000 Zagreb, Croatia

Tel no: + 385 (0) 1 370 66 00

Fax no: + 385 (0) 1 370 66 01

Email address: livia.puljak@unicath.hr, livia.puljak@gmail.com

ORCID: 0000-0002-8467-6061

Abstract

Objectives: To analyze completeness of reporting of blinding in randomized controlled trials (RCTs) of interventions in the field of anesthesiology, the actual blinding status of various persons associated with an RCT and trial authors' interpretation of blinding terminology related to RCTs.

Study design: Methodological (research-on-research) study and cross-sectional survey.

Setting: We analyzed reporting related to blinding in published RCTs of interventions published from the beginning of 2014 to the end of 2017 in seven highly cited anesthesiology journals, as well as registered protocols of those RCTs.

Participants: We surveyed corresponding authors of included RCTs about their definitions of blinding.

Primary and secondary outcome measures: Primary outcome was the number of RCTs that clearly described who was blinded in a trial. Secondary outcomes were definitions of blinding terminology in the trials and trial authors' interpretation of blinding terminology.

Results: Out of 622 analyzed RCTs; 38% were not explicitly described as either open-label or blinded studies and 10% did not report any information about blinding or lack of blinding. Only one manuscript fully reported status of blinding for various individuals that may be involved with a trial. The most common descriptor was that a trial was double-blind. We found discrepant information regarding blinding in the majority of registered trial protocols. In most of protocol-manuscript pairs without discrepancies within a protocol, we found discrepancy regarding reporting of blinding between the protocol and published manuscript. The survey of authors of analyzed RCTs showed that they differed in how they defined different levels of blinding in trials.

Conclusions: Reporting of the blinding status of key individuals involved in anesthesiology RCTs published from 2014 to 2017 was inadequate. Reporting guidelines, peer-reviewers and

editors need to insist on avoiding usage of the term double-blind, and request authors to clarify who was blinded.

Keywords: blinding, randomized controlled trial, participants, personnel, methodology

Strengths and limitations

- We analyzed large group of randomized controlled trials published within four years in the seven high-impact anesthesiology journals
- Reporting about blinding was inadequate in the majority of analyzed trials
- Term “double-blind” is ambiguous and researchers interpret it in different ways
- We focused on anesthesiology trials as a specific research field
- Future studies should monitor whether reporting about blinding in trials will improve

Introduction

Available evidence about efficacy and safety of interventions in medicine includes observational studies and studies with a randomized experimental design, i.e. randomized controlled trials (RCTs) [1]. RCTs are considered the highest level of primary evidence for analyzing medical interventions because randomization ensures allocation of participants by chance, and not by choice, which minimizes bias [2]. Apart from method of allocating participants into study arms, there are number of other methodological aspects of an RCT that can contribute to a risk of bias, including performance bias (blinding of participants and personnel) and detection bias (blinding of outcome assessors) [3].

The term "double-blind" is sometimes taken as a token of validity of an RCT [4]. However, it has been shown that the definitions of blinding may vary. Devereaux et al. analyzed how physicians interpret RCT blinding terminology and how textbooks define it [5]. Their study included 91 internal medicine physicians and analysis of 25 textbooks. For single blinding, physicians identified 10 and textbooks 5 different definitions, for double-blinding physicians provided 17 and textbooks 9 different definitions, while for triple blinding physicians gave 15 and textbooks 7 different definitions [5]. That study indicated that both physicians and textbooks provided highly inconsistent interpretations of the blinding terminology used in clinical trials, and suggested that the current ambiguous terminology should be replaced by specific descriptions of who was blinded [5]. According to the CONSORT checklist for reporting RCTs, the following should be reported for blinding: "If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how" [6].

The aim of this study was to analyze completeness of reporting of blinding in RCTs of interventions in the field of anesthesiology, the actual blinding status of various persons

associated with an RCT, information about blinding reported in trial protocols, and the contemporary trial authors' interpretation of blinding terminology related to RCTs.

Methods

Study design

We conducted a cross-sectional study of published RCTs and survey of trials' corresponding authors.

Ethics

Research protocol for the survey of trials' corresponding authors was approved by the Ethics Committee of the University of Split School of Medicine (Klasa: 003-08/18-03/0001, Ur. br.: 2181-198-03-04-18-0049; date: October 12, 2018). All invited study participants received information that the study was approved by the Ethics Committee. Continuation to the survey from the invitation e-mail was considered as consent to participate in the study.

Inclusion criteria

We included RCTs of interventions published from January 2014 to December 2017 in the seven first-quartile journals from the Journal Citation Reports (JCR) category Anesthesiology. Based on the 2017 JCR journal impact factor (JIF) those seven journals were (in alphabetic order) Anaesthesia, Anesthesia and Analgesia, Anesthesiology, Pain, British Journal of Anaesthesia, European Journal of Anaesthesiology, Regional Anesthesia and Pain Medicine. We excluded RCTs published as letters to the editor.

Search

We searched PubMed by combining journal name, 2014-2017 time-frame and the filter for RCTs. We exported titles and abstracts into the EndNote reference management software (Clarivate Analytics, Boston, MA, USA). Two authors independently analyzed titles and abstracts to screen them for eligibility. We retrieved potentially eligible manuscripts in full texts and two authors screened them independently. We resolved any disagreements through discussion.

Outcomes

Primary outcome was the number of RCTs that clearly described who was blinded in a trial. Secondary outcomes were definitions of blinding terminology in the trials (how did the authors define in the manuscript what is single-blinding, double-blinding and triple-blinding) and trial authors' interpretation of blinding terminology related to RCTs.

Data extraction

We extracted data into Microsoft Excel sheet (Microsoft Inc., Redmond, WA, USA) after the data extraction table was piloted with ten studies. We analyzed the whole text of an RCT to see whether it was mentioned that the trial was blinded/masked, and in which part of the manuscript. We then analyzed the methods' section of each included RCT and extracted information about blinding terminology (single-blind, double-blind, triple-blind, no such definition) and whether the trial authors explicitly elaborated who was blinded in a trial.

We checked whether the RCTs mentioned explicitly that they used CONSORT checklist for reporting, or mentioned CONSORT as a reference. We analyzed whether there were any discrepancies in reporting of blinding between abstracts and the body of the manuscript. We

also checked for the occurrence of the term 'double-dummy' in the RCTs to assess the blinding in comparisons of drugs that are administered by different routes [7].

We analyzed whether RCTs mentioned protocol registration, and if yes, we copied the protocol number and name of the registry. We excluded retrospectively registered protocols from further analysis. For prospectively registered trials, we analyzed whether there was any description of blinding in the registered protocol. If we found description of blinding, we compared whether there were any discrepancies between details about blinding reported in the registered protocol and in the published manuscript(s).

Author survey

For the author survey we extracted e-mail address of a corresponding author. We contacted via e-mail corresponding authors of included trials, which contained information about the study and a list of questions. After the initial e-mail invitation, potential participants received four subsequent reminders, one week apart if they did not respond, or indicated that they do not wish to participate. All surveys and reminders were sent between November 1, 2018 and January 9, 2019.

Participants received the following questions together with information about the name of their trial we studied:

1. For authors who only indicated that study was blinded, or double-blind, single-blind, triple-blind, with no further details: Who exactly was blinded in the trial (participants, healthcare providers such as physicians or nurses taking care of a participant, data collectors, outcome assessors, data analysts, manuscript writers) – categorical answers

2. What is authors' personal opinion what does it mean single-blind, double-blind and triple-blind by providing them the same categories from above, as well as response "any two types of trial participants" [8].
3. The authors were asked to assess the frequency of publication of double-blind trials in the literature adhering with their preferred definition. For example, if a participant characterized 'double-blind' as meaning blinding of participants and personnel, that author was subsequently asked to assess the frequency of 'double-blind' trials in which participants and personnel were blinded. The question did not refer to the publications of the participants, but their estimation about the literature.

We emphasized to the survey participants that only aggregate data will be published. In case when we had identical corresponding authors for more than one manuscript included in the study, we contacted them for the most recent manuscript only.

Analysis

We used descriptive statistics, including frequencies and percentages, as well as median and 95% (CI) confidence interval. Data were analyzed using MedCalc statistical software, v 15.2.1 (MedCalc Software bvba, Ostend, Belgium).

Results

Descriptors about blinding

In this study we analyzed 622 RCTs. Study design of 29 (4.7%) trials was explicitly described as non-blinded or open-label, while 357 (57%) were explicitly described as blinded, using terms blinded, single-blinded, double-blinded, triple-blinded or masked in description of study design. Study design of the remaining 236 (38%) trials was not explicitly described as blinded or non-blinded.

In 116 (19%) trials information about blinding status was mentioned in the study title. Descriptors used for blinding in trial titles are shown in Table 1. The most common descriptor was 'double-blind', followed by simply 'blinded'. Statements about blinding were found in 283 (45%) of abstracts. The most common category of descriptor in trial abstracts was 'double-blind' (n=183 out of 283; 65%); some abstracts had more than one category of descriptor (Table 2).

Statements about blinding were found in the section Methods in 470 (76%) of analyzed trials. The most common statement about blinding in the Methods was 'double-blind' (n=191 out of 470; 41%). Categorized statements about blinding found in the Methods are shown in Table 3.

Regarding blinding vs masking terminology, the most common term used in the analyzed trials was blinding (n=477, 76%). Term masking alone was used in 9 (1.4%) trials, while in 45 (7.2%) trials both blinding and masking terms were used. In 91 (15%) trials neither word blinding nor masking was used. Term 'double-dummy' was found in 7 trials, and 'triple-dummy' in 1 trial.

Blinding of individuals involved in trials

Analysis of who was blinded in trials was done for 531 trials where we found at least some descriptors for blinding; the remaining trials were excluded from this analysis because they were described as open-label, or were not described as neither blinded nor open-label. Table 4 indicates prevalence of blinding of various individuals that may be involved in a trial. For all seven categories of individuals in the majority of trials it was unclear whether these individuals were blinded. In 89 (14%) of 622 trials it was clearly reported whether the three key groups of individuals, i.e. participants, healthcare providers and data collectors, were blinded or not.

Other analyses related to blinding

Among the analyzed trials, 47 (8%) explicitly mentioned that they used CONSORT checklist for reporting, or mentioned CONSORT as a reference.

We found discrepancies in reporting of blinding between abstracts and the body of the manuscript in only one trial, which reported in the abstract that the study was double-blind, and in the body of the manuscript that the study was single-blind.

There were 384 (62%) trials that reported protocol trial registration and unique protocol identifier. After searching for those protocols online, we were able to find 315 of those 384 protocols (82%); we were unable to retrieve the rest by searching for the reported protocol identifier. Of the 315 protocols we managed to access, 174 (55%) were registered prospectively, and as many as 141 (45%) were registered retrospectively, i.e. after the study start date reported in a clinical trials register.

Detailed analysis of the 174 prospectively registered protocols was conducted. The majority of the protocols were registered in the ClinicalTrials.gov (n=157; 90%), while the remaining protocols were registered on ACTRN – The Australian and New Zealand Clinical Trial Registry (n=8), UMIN - University Hospital Medical Information Network registry of Japan

(n=7), Netherlands Trial Register – NTR (n=1) and ChiCTR – Chinese Clinical Trial Registry (n=1). Two studies from our cohort were registered on ClinicalTrials.gov as observational studies, and did not have information about blinding. The remaining 155 trials registered on ClinicalTrials.gov had 14 different categories of the study status in the protocol section Study design, which contains pre-determined field called Masking (Table 5).

In the protocols registered on ClincialTrials.gov, the most common descriptor in the sub-section Masking was 'Quadruple (Participant, Care Provider, Investigator, Outcomes Assessor)', found in 39 protocols of the 155 registered on ClinicalTrials.gov. The second most common descriptor was 'None (Open label)' (Table 5). Besides this field, we also analyzed full text of the protocol to find any other descriptions of blinding/masking. Among 157 protocols, 92 did not have any other terminology related to blinding/masking other than information in the pre-determined field Masking. In the remaining 65 trial protocols, 47 (72%) protocols had additional information about blinding that were different from the descriptor provided in the field Masking. The majority of discrepancies accounted for protocols which described the trial as quadruple-blind or triple-blind in the Masking field, but also described it as double-blind in another part of the protocol.

In the other trial registries few trials were registered (Table 6) and we found only one discrepancy; in a trial registered in NTR it was described both that the study used 'single masking' and that it was 'double-blind' (Table 6).

When we compared registered protocols and published manuscripts of the 126 registered trials that did not have discrepancies in the protocol, for 88 (70%) trials we found differences between protocol and published manuscript in description of blinding. The most common differences were in the description of who was blinded, the extent of blinding and whether there was any blinding at all (Table 7).

Survey results

For 362 trials that were described as double-blind, there were 275 unique corresponding authors, and 264 email addresses available. There were 33 e-mails that returned undelivered because they were no longer in use. From the remaining 231 corresponding authors, we received 40 responses (17% response rate). Authors' responses regarding individuals that were blinded in their trials, as well as their opinions about who was blinded in single-, double- and triple-blinded trial are shown in Table 8. One participant who answered the question about blinding in their trial, provided a personal definition for the single-blind trial, but stated the following for the remaining questions: *"I cannot answer the rest of the questions. I don't use "double-blind" or "single-blind" any longer, as I think they are ambiguous. I adhere to Annals of Internal Medicine guidelines that advises authors to avoid those terms, but to specifically note who was blinded."*

Whereas 34 of 40 (85%) authors responded that participants were blinded in their own double-blinded trial, all authors that responded to the third question defined that in a double-blind trial participants are blinded (Table 8). For a single-blind trial, surveyed authors chose at least one from five of six individuals as targets for blinding; only manuscript writers were never considered as individual that could be blinding in a trial. When asked about their personal definition, in respondents' choices of blinded individuals in double- and triple-blind trial, all six types of individuals were chosen. Outcome assessors, data analysts and manuscript writers were more commonly mentioned as individual who could be blinded in a triple-blind trial (Table 8).

In addition, 25 participants estimated the percentage of how often is their personal definition of a double-blind trial used in published trials: this percentage ranged from 20% to 100%, with the median of 80% (95% CI 60% to 80%).

Discussion

We found that only one fifth of analyzed trials reported information about blinding or lack of blinding in the title. Most common description related to blinding, both in the title and in the manuscript, was that study was double-blind. Regarding terminology, blinding as a term was used in the majority of trials, whereas only a few trials used term masking. In the majority of trials described as blinded it was unclear whether participants and other relevant individuals were blinded or not. For less than half of the trials we identified registered protocols, and in the majority of those protocols we found discrepant information about blinding – both within the protocol, and between the protocol and published manuscript.

Blinding is very important for the results of RCTs. Saltaji et al. reported significant differences in effect size of treatment estimates between oral health trials, depending on the use of patient and assessor blinding. Treatment effect size estimates in their methodological study were 0.19 and 0.14 higher in trials with lack of blinding of both patients and assessors or concurrent blinding of patients, assessors, and personnel [9]. Juni et al. reported that trials described as double-blind on average reported 14% lower effects compared to studies that were not described as double-blind [10]. Armijo-Olivo et al. found that physical therapy trials without appropriate blinding of participants and assessors had a tendency to underestimate treatment effect. Although the difference was not statistically significant the authors warn that this does not mean that there is no impact of blinding in physical therapy trials [11].

Studies that investigated the effect of blinding of certain group of individuals in a trial were also conducted. Hrobjartsson et al. showed that trials in the field of complementary and alternative medicine have pronounced bias in patient-reported outcome if participants were not blinded. They analyzed 12 trials with 3869 participants and found that the average difference in effect size for patient-reported outcomes was -0.56 (95% confidence interval -0.71 to -0.41),

indicating that non-blinded participants exaggerated the effect size by an average of 0.56 standard deviation, but with the considerable variation of result [12].

Noseworthy et al. analyzed multiple sclerosis trials and reported in 1994 that trials with blinded raters had lower function scores compared to trials with raters that were not blinded [13].

Multiple earlier studies analyzed in detail who was blinded in RCTs. In 2006, Haar and Hjobjartsson analyzed 200 random RCTs that were published in 2001 in the Cochrane's database Central Register of Controlled Trials (CENTRAL), which indexes only clinical trials. They found that 78% of manuscripts described trials as double-blind. Only in three, i.e. 2% of the analyzed trials, the blinding status of participants, health care providers and data collectors was explicitly reported [8]. In our study this finding was better; we found that the blinding status of these three groups of individuals was explicitly reported in 14% of the analyzed trials.

Haar and Hjobjartsson reported that 56% of trials they analyzed did not report blinding status of any group of participants associated with a trial, and 26% reported no information relevant to blinding beyond indicating that the trial was 'double-blind' [8].

Even though that study was published twelve years ago, results of our study were worse compared to Haar and Hjobjartsson's study, as we found that 57% of analyzed trials were explicitly described as blinded, using terms *blinded, single-blinded, double-blinded, triple-blinded*) or a term *masked*.

In terms of completeness of reporting, in the study of Haar and Hjobjartsson, among the 156 manuscripts describing double-blind trials, they did not find a single manuscript with 'complete reporting'. They found only three (2%) manuscripts with 'partial reporting, 65 (42%) manuscripts with 'minimal reporting', and 88 (56%) manuscripts with 'no reporting' [8].

However, it has been emphasized already that assessment of bias associated with blinding, or lack of blinding, in clinical trials, is hampered with poor reporting [14]. In 2002 Montori et al.

analyzed reporting of quality about blinding in RCTs published in five leading journals, and found that under 25% of RCTs reported explicitly blinding status of the six relevant groups of individuals associated with conduct of a trial. In 83 trials that were described as double-blind, the authors found 8 different combinations of blinded groups of those individuals. Therefore, already sixteen years ago Montori et al. warned that journals should abandon the term double-blind and require explicit reporting of the blinding status of relevant groups of participant that are involved in a clinical trial [14].

In our study, we found that the term double-blind was the most commonly used term related to blinding, i.e. masking. Therefore, it is obvious that warnings aimed towards journal editors [14] were not successful in the efforts to reduce the use of ambiguous term double-blind.

Feys et al. studied whether RCTs with inadequate reporting of blinding enhanced placebo effects for intervention groups and nocebo effects for placebo groups. Their analysis included 110 studies with a total of 23877 participants included. They found unclear risk of bias for allocation concealment in 93 (85%) of trials, for blinding of participants in 51 (46%), blinding of caregiver in93 (85%) and blinding of outcome assessor in 93 (85%) of analyzed trials [15]. Because of the poor overall reporting in analyzed trials, and small number of trials that the authors could rate as either adequately or inadequately blinded, the authors reported that they could not provide robust conclusions regarding presence or absence of nocebo and enhanced placebo effects [15].

Discrepancies in blinding descriptors within trial protocols, and between protocols and published manuscripts

One of the striking findings of our study was related to the discrepancies in blinding/masking information within different registration fields for registered trial protocols, and between

those protocols and published manuscripts. Firstly, we managed to find registered protocols for only about half of trials in our cohort, either because the authors did not report protocol registration in their manuscripts, or because the reported trial protocol was not retrievable. Furthermore, analysis of trial protocols that we managed to find showed that 45% of them were registered retrospectively, i.e. after the study has already started, judging by the study start date that was reported in a clinical trial registry. When we analyzed information about blinding/masking, we found that the majority of protocols had discrepant information about the blinding of the study in their protocols. Analysis of trials in which we did not find discrepancies within a protocol indicated that the majority of those trials had differences between reporting of blinding in a registered protocol and published manuscript.

ClinicalTrials.gov was the most commonly used clinical trial registry. This is in line with the finding that ClinicalTrials.gov contains the majority of the global trial registrations [16]. It has a mandatory field called Masking that individuals registering studies need to fill, and this field offers to study authors an option to choose between five options in a menu. First four options in the menu are individuals involved within a trial: Participant, Care Provider, Investigator and Outcomes Assessor. The fifth option is ‘None (Open Label)’. Study authors are invited to ‘Check all roles that are masked or check None (Open Label)'. Below this menu is a blank field called 'Masking description', in which trialists can fill out additional information about blinding. Based on the number of participants that were checked as blinded, a trial will get a descriptor about being single, double, triple or quadruple blinded. The most common discrepancy within registered protocols was that the study was described as quadruple or triple blind by ClinicalTrials.gov, but trialists themselves called the study ‘double-blind’.

Meaning of double-blind

Suggestion of Montori et al. that vague term double-blind should be abandoned [14] was also repeated later in the literature by other authors. Haar and Hjobjartsson also conducted a survey of corresponding authors of the analyzed trials, with high response rate of 65%. Based on the authors' responses, 20(19%) trials that were described as double-blind in the manuscript did not blind either patients, health care providers or data collectors. therefore, the authors concluded that it is not appropriate to presume blinding of key trial persons based only on the ambiguous term such as double-blind [8]. Survey responders provided 15 different operational meanings of the term double-blind, and typically felt that their preferred definition was the most widely used [8]. Before those two studies, Devereaux et al. reported that hospital physicians used 17 different definitions of the meaning of double-blind [5].

Our survey of authors showed that authors have varying definitions of who should be blinded in a single-blind, double-blind and triple-blind trial. Authors' response about who was blinded in their own double-blind trial did not always match their response about who should be blinded in a double-blind trial generally. Based on the participants' responses that the majority of published trials correspond to their personal definition of a double-blind trial, it appears that the surveyed researchers are not aware of the high heterogeneity of definitions of blinding in clinical trials. This is a further argument for ceasing the use of ambiguous terminology such as single-blind, double-blind and triple-blind, and to require that authors should report specifically who was blinded in their study.

Limitations

Our study had several limitations. We limited our analysis to a recent period, and to seven high-ranking anesthesiology journals, because those should be the ones that will be role models for

the rest of the journals. Furthermore, we did not scrutinize in detail additional online material, such as supplements and appendices, where, theoretically, additional details about blinding could have been located. But, we did analyze all mentions of blinding in the analyzed manuscript, and we did not find a single case where the authors indicated that additional details about blinding were available in a supplement. We used PubMed to search for targeted articles, and we did not search journals' website; theoretically, some articles may have therefore been missed. However, we consider that the likelihood for this was small because these journals are indexed on PubMed, and searching of the journal websites would be more troublesome because of usual lack of search filters that are available on PubMed. Furthermore, we did not attempt to do comparison between the journals that we analyzed, because the focus here was not on individual journals, but the field. Also, we did not do analysis of all medical fields, and we focused on one field of interest.

Another thing that would be worthwhile to explore is journals' instructions for author in terms of reporting requirements. We included studies published over a long period of time, that there is time lag between submission and publication, and that journal web sites only provide information about current instructions for authors, and not also history of their changes, i.e. previous versions of instructions for authors. Therefore, the only proper way to study influence of instructions for authors on reporting in manuscript would be to do it prospectively, having in mind current instructions for authors and current submissions.

Conclusion

Explicit and complete reporting of the blinding status of key individuals involved in RCTs is suboptimal. Anesthesiology trials rarely report who was blinded, and mostly use ambiguous term double-blind, which if not sufficiently informative for readers. Furthermore, we found many discrepancies about reporting of blinding within registered trial protocols, and between

protocols and published manuscripts. Our survey of authors showed that authors differed in their opinion of who was blinded in their own trial and who could be blinded in trials with different levels of blinding. Thus, poor reporting and heterogeneous definitions of ambiguous terminology hinders proper risk of bias assessment and analysis of impact of blinding of certain groups of participants on the study outcomes. Interventions for improving reporting about blinding are warranted.

Declarations

Funding statement

This study was funded by the Croatian Science Foundation, grant No. IP-2014-09-7672 "Professionalism in Health Care", awarded to Professor Ana Marušić. The funder had no role in the design of this study, during its execution and data interpretation.

Competing interests

The authors declare that they have no competing interests.

Authorship contribution

Study design: LP, AM

Data acquisition: AP, DB, KB, MK, LP

Data analysis and interpretation: LP, AM

Writing manuscript draft: LP, AM

Agreeing to submission of the manuscript: AP, DB, KB, MK, AM, LP

Agree to be accountable for all aspects of the work: AP, DB, KB, MK, AM, LP

Reporting checklist

STROBE; checklist is enclosed as a Supplementary file 1

Participant consent form

All participants consented to participate in the study; there are no identifiable information about participants in the manuscript.

Data sharing statement

Data collected during the study are available from the corresponding author on reasonable request.

Patient and public involvement statement

Patients or the public were not involved in the design, or conduct, or reporting, or dissemination of our research.

Acknowledgements

We are grateful to all the participants who took part in this study.

Word count

4190

List of supplementary files

Supplementary file 1: STROBE checklist

References

1. Atkins D, Best D, Briss PA, Eccles M, Falck-Ytter Y, Flottorp S, Guyatt GH, Harbour RT, Haugh MC, Henry D *et al*: **Grading quality of evidence and strength of recommendations**. *BMJ* 2004, **328**(7454):1490.

2. Schulz KF, Grimes DA: **Generation of allocation sequences in randomised trials: chance, not choice**. *Lancet* 2002, **359**(9305):515-519.

3. Higgins JP, Altman DG, Gotzsche PC, Juni P, Moher D, Oxman AD, Savovic J, Schulz KF, Weeks L, Sterne JA: **The Cochrane Collaboration's tool for assessing risk of bias in randomised trials**. *BMJ* 2011, **343**:d5928.

4. Devereaux PJ, Bhandari M, Montori VM, Manns BJ, Ghali WA, Guyatt GH: **Double blind, you are the weakest link--good-bye!** *ACP journal club* 2002, **136**(1):A11.

5. Devereaux PJ, Manns BJ, Ghali WA, Quan H, Lacchetti C, Montori VM, Bhandari M, Guyatt GH: **Physician interpretations and textbook definitions of blinding terminology in randomized controlled trials**. *Jama* 2001, **285**(15):2000-2003.

6. Begg C, Cho M, Eastwood S, Horton R, Moher D, Olkin I, Pitkin R, Rennie D, Schulz KF, Simel D *et al*: **Improving the quality of reporting of randomized controlled trials. The CONSORT statement**. *JAMA* 1996, **276**(8):637-639.

7. Marusic A, Ferencic SF: **Adoption of the double dummy trial design to reduce observer bias in testing treatments**. *Journal of the Royal Society of Medicine* 2013, **106**(5):196-198.

8. Haahr MT, Hrobjartsson A: **Who is blinded in randomized clinical trials? A study of 200 trials and a survey of authors**. *Clin Trials* 2006, **3**(4):360-365.

9. Saltaji H, Armijo-Olivo S, Cummings GG, Amin M, da Costa BR, Flores-Mir C: **Influence of blinding on treatment effect size estimate in randomized controlled**

trials of oral health interventions. *BMC medical research methodology* 2018, **18**(1):42.

10. Juni P, Altman DG, Egger M: **Systematic reviews in health care: Assessing the quality of controlled clinical trials**. *BMJ* 2001, **323**(7303):42-46.
11. Armijo-Olivo S, Fuentes J, da Costa BR, Saltaji H, Ha C, Cummings GG: **Blinding in Physical Therapy Trials and Its Association with Treatment Effects: A Meta-epidemiological Study**. *American journal of physical medicine & rehabilitation* 2017, **96**(1):34-44.
12. Hrobjartsson A, Emanuelsson F, Skou Thomsen AS, Hilden J, Brorson S: **Bias due to lack of patient blinding in clinical trials. A systematic review of trials randomizing patients to blind and nonblind sub-studies**. *International journal of epidemiology* 2014, **43**(4):1272-1283.
13. Noseworthy JH, Ebers GC, Vandervoort MK, Farquhar RE, Yetisir E, Roberts R: **The impact of blinding on the results of a randomized, placebo-controlled multiple sclerosis clinical trial**. *Neurology* 1994, **44**(1):16-20.
14. Montori VM, Bhandari M, Devereaux PJ, Manns BJ, Ghali WA, Guyatt GH: **In the dark: the reporting of blinding status in randomized controlled trials**. *Journal of clinical epidemiology* 2002, **55**(8):787-790.
15. Feys F, Bekkering GE, Singh K, Devroey D: **Do randomized clinical trials with inadequate blinding report enhanced placebo effects for intervention groups and nocebo effects for placebo groups?** *Systematic reviews* 2014, **3**:14.
16. Zarin DA, Tse T, Williams RJ, Rajakannan T: **Update on Trial Registration 11 Years after the ICMJE Policy Was Established**. *N Engl J Med* 2017, **376**(4):383-391.

Table 1. Descriptors for blinding status of the study in titles of analyzed trials, N=116

Blinding status descriptors	N (%)
Double-blind	89 (76)
Blinded	8 (6.8)
Single-blinded	6 (5.1)
Triple-masked	3 (2.6)
Triple-blind	3 (2.6)
Open-label	1 (0.9)
Observer-blinded	1 (0.9)
Blinded evaluation	1 (0.9)
Blinded trial	1 (0.9)
Nonblinded	1 (0.9)
Double-masked	1 (0.9)
Masked	1 (0.9)

Table 2. Descriptors about blinding found in abstracts of analyzed trials; N= 294 descriptors from 283 abstracts

Categories of descriptors	N (%)
Double-blind	183 (62)
Single-blind	25 (8.5)
Blinded personnel	22 (7.5)
Blinded	20 (6.8)
Outcome assessors blinded	14 (4.7)
Open label	8 (2.7)
Patient and assessor blinded	4 (1.4)
Triple-masked	3 (1.0)
Blinded intervention application	3 (1.0)
Unmasked intervention	2 (0.7)
Blinded patients	2 (0.7)
Triple blind	2 (0.7)
Patients and personnel blinded	2 (0.7)
Clinicians not blinded	1 (0.3)
Unblinded assessment	1 (0.3)
Blinded monitoring	1 (0.3)
Success of patients' blinding	1 (0.3)

Table 3. Categorized statements about blinding found in Methods of analyzed trials; N=470

Categories of descriptors	N (%)
Double-blind	191 (41)
Personnel blinded	75 (16)
Single-blind	38 (8.1)
Patients and personnel blinded	37 (7.9)
Outcome assessor blinded	26 (5.5)
Data collectors blinded	19 (4.0)
Non-blinded personnel	17 (3.6)
Patients blinded	16 (3.4)
Blinded	14 (3.0)
Open-label	8 (1.7)
Data analysts blinded	8 (1.7)
Partially blinded	3 (0.6)
Unmasked patients and investigators	3 (0.6)
Non-blinded patients	2 (0.4)
Blinded interventions	2 (0.4)
Triple-blind	1 (0.2)
Unmasking information	1 (0.2)
Non-masked patients and personnel	1 (0.2)
Rater-blinded	1 (0.2)
Masked assignment	1 (0.2)
Masking	1 (0.2)
Outcome assessors and data analysts blinded	1 (0.2)
Data collector and data analysts blinded	1 (0.2)
Data collector and outcome assessor blinded	1 (0.2)

Table 4. Prevalence of blinding of individuals involved in trials described as blinded; N= 622

Individual	Yes, N (%)	No, N (%)	Unclear, N (%)
Participants	227 (37)	46 (7)	349 (56)
Personnel; healthcare providers such as physicians or nurses taking care of a participant	225 (36)	55 (9)	342 (55)
Data collectors	161 (26)	29 (5)	432 (69)
Outcome assessors	130 (21)	21 (3)	471 (76)
Data analysts	43 (7)	20 (3)	559 (90)
Manuscript writers	0 (0)	16 (3)	606 (97)
Investigators	104 (17)	31 (5)	487 (78)

Table 5. Descriptors in the field Study design/Masking in the analyzed protocols that were registered on ClinicalTrials.gov (N = 157)

Blinding terminology used in analyzed clinical trial protocols	N
Quadruple (Participant, Care Provider, Investigator, Outcomes Assessor)	39
None (Open Label)	22
Single (Participant)	15
Double (Participant, Investigator)	14
Double (Participant, Outcomes Assessor)	14
Triple (Participant, Investigator, Outcomes Assessor)	13
Triple (Participant, Care Provider, Investigator)	12
Single (Outcomes Assessor)	8
Single (Investigator)	6
Double (Participant, Care Provider)	5
Triple (Participant, Care Provider, Outcomes Assessor)	4
Study described as observational, without information about blinding/masking	2
Double (Investigator, Outcomes Assessor)	1
Masking: Triple (Participant, Care Provider, Investigator)	1
Single (Care Provider)	1

Table 6. Descriptors of blinding/masking in other clinical trial registries

Descriptors	N
ACTRN (N=8)	
Blinded (masking used)	4
Open (masking not used)	2
Subject and observer blinded	1
Blinded	1
UMIN (N=7)	
Single blind -participants are blinded	3
Single blind -investigator(s) and assessor(s) are blinded	2
Double blind -all involved are blinded	2
NTR (N=1)	
Single masking; double blind	1
ChiCTR (N=1)	
No statement about blinding	1

ACTRN = The Australian and New Zealand Clinical Trial Registry, UMIN = University Hospital Medical Information Network registry of Japan; NTR = Nederlands Trial Register, ChiCTR = Chinese Clinical Trial Registry

Table 7. Differences between protocol and manuscript, in the group of trials that did not have discrepancies within the protocol itself (N of trials = 88)

Differences between protocol and published manuscript	N (%)
Different individuals described as blinded between protocol and manuscript	30 (34)
Protocol reported who was blinded; manuscript did not	10 (11)
Protocol: triple blind; manuscript: double-blind	9 (10)
Protocol reported who was blinded; manuscript only that it was double-blind	9 (10)
Protocol: open label, manuscript: blinding of one or more groups of individuals	8 (9)
Protocol has description of blinding; manuscript no description of blinding	7 (8)
Protocol: quadruple-blind; manuscript: double-blind	6 (7)
Protocol double-blind, manuscript single-blind	2 (2)
Study described as observational on ClinicalTrials.gov	2 (2)
Protocol: quadruple-blind; manuscript: triple-blind	2 (2)
Protocol: no information about blinding; manuscript reported information about blinding	1 (1)
Protocol: open-label; manuscript only reported that participants were not blinded	1 (1)
Protocol: single-blind; manuscript: double-blind	1 (1)

Table 8. Information obtained from surveyed corresponding authors regarding who was blinded in their trials that were described as double-blind, and what is their personal definition of who is blinded in a single-blind, double-blind and triple-blind trial (total N of participants = 40)

Blinding scenarios	Participants, N	Healthcare providers such as physicians or nurses taking care of a participant, N	Data collectors, N	Outcome assessors, N	Data analysts, N	Manuscript writers, N
Who was blinded in your trial described as a double-blind?	34	31	32	28	18	10
What is your personal definition of a single-blind trial?	30	5	5	7	4	0
What is your personal definition of a double blinded trial?	37	33	30	25	12	4
What is your personal definition of a triple-blind trial?	34	34	31	31	26	12

STROBE Statement—checklist of items that should be included in reports of observational studies

	Item No	Recommendation	Page
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	1
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	2
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	3-4
Objectives	3	State specific objectives, including any prespecified hypotheses	3-4
Methods			
Study design	4	Present key elements of study design early in the paper	5
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	5
Participants	6	(*a*) *Cohort study*—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up *Case-control study*—Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls *Cross-sectional study*—Give the eligibility criteria, and the sources and methods of selection of participants	5
		(*b*) *Cohort study*—For matched studies, give matching criteria and number of exposed and unexposed *Case-control study*—For matched studies, give matching criteria and the number of controls per case	
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	6-7
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	6-7
Bias	9	Describe any efforts to address potential sources of bias	6-7
Study size	10	Explain how the study size was arrived at	6-7
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	6-7
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	6-7
		(*b*) Describe any methods used to examine subgroups and interactions	
		(*c*) Explain how missing data were addressed	
		(*d*) *Cohort study*—If applicable, explain how loss to follow-up was addressed *Case-control study*—If applicable, explain how matching of cases and controls was addressed *Cross-sectional study*—If applicable, describe analytical methods taking account of sampling strategy	
		(*e*) Describe any sensitivity analyses	NA

Results			**Page**
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	NA
		(b) Give reasons for non-participation at each stage	9
		(c) Consider use of a flow diagram	
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	9
		(b) Indicate number of participants with missing data for each variable of interest	
		(c) *Cohort study*—Summarise follow-up time (eg, average and total amount)	
Outcome data	15*	*Cohort study*—Report numbers of outcome events or summary measures over time	
		Case-control study—Report numbers in each exposure category, or summary measures of exposure	
		Cross-sectional study—Report numbers of outcome events or summary measures	*9-12*
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	9-12
		(*b*) Report category boundaries when continuous variables were categorized	
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	9-12
Discussion			
Key results	18	Summarise key results with reference to study objectives	13
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	17
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	13-17
Generalisability	21	Discuss the generalisability (external validity) of the study results	13-17
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	19

*Give information separately for cases and controls in case-control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.

BMJ Open

Definitions of blinding in randomized controlled trials of interventions published in high-impact anesthesiology journals: a methodological study and survey of authors

Journal:	*BMJ Open*
Manuscript ID	bmjopen-2019-035168.R1
Article Type:	Original research
Date Submitted by the Author:	17-Dec-2019
Complete List of Authors:	Penic, Antonija; Vujanovic Pharmacy Begic, Dinka; University Hospital Tuzla, Department of Endocrinology Balajic, Karolina; University of Split School of Medicine, Department of Reasearch in Biomedicine and Health Kowalski, Martin; University of Split School of Medicine, Department of Resarch in Biomedicine and Health Marusic, Ana; University of Split School of Medicine, Department of Research in Biomedicine and Health Puljak, Livia ; Croatian Catholic University, Center for Evidence-Based Medicine and Health Care
Primary Subject Heading:	Epidemiology
Secondary Subject Heading:	Research methods
Keywords:	Clinical trials < THERAPEUTICS, STATISTICS & RESEARCH METHODS, EPIDEMIOLOGY

I, the Submitting Author has the right to grant and does grant on behalf of all authors of the Work (as defined in the below author licence), an exclusive licence and/or a non-exclusive licence for contributions from authors who are: i) UK Crown employees; ii) where BMJ has agreed a CC-BY licence shall apply, and/or iii) in accordance with the terms applicable for US Federal Government officers or employees acting as part of their official duties; on a worldwide, perpetual, irrevocable, royalty-free basis to BMJ Publishing Group Ltd ("BMJ") its licensees and where the relevant Journal is co-owned by BMJ to the co-owners of the Journal, to publish the Work in this journal and any other BMJ products and to exploit all rights, as set out in our licence.

The Submitting Author accepts and understands that any supply made under these terms is made by BMJ to the Submitting Author unless you are acting as an employee on behalf of your employer or a postgraduate student of an affiliated institution which is paying any applicable article publishing charge ("APC") for Open Access articles. Where the Submitting Author wishes to make the Work available on an Open Access basis (and intends to pay the relevant APC), the terms of reuse of such Open Access shall be governed by a Creative Commons licence – details of these licences and which Creative Commons licence will apply to this Work are set out in our licence referred to above.

Other than as permitted in any relevant BMJ Author's Self Archiving Policies, I confirm this Work has not been accepted for publication elsewhere, is not being considered for publication elsewhere and does not duplicate material already published. I confirm all authors consent to publication of this Work and authorise the granting of this licence.

Definitions of blinding in randomized controlled trials of interventions published in high-impact anesthesiology journals: a methodological study and survey of authors

Antonija Penić[1], Dinka Begic[2], Karolina Balajic[3], Martin Kowalski[3], Ana Marušić[3], Livia Puljak[4]

Affiliations:

1. Vujanovic Pharmacy, Sinj, Croatia; antonijapenic5@gmail.com

2. Department of Endocrinology, University Hospital Tuzla, Tuzla, Bosnia and Hercegovina; dinka.b@hotmail.com

3. Department of Research in Biomedicine and Health, University of Split School of Medicine, Split, Croatia; karolina-balajic@net.hr, martinkowalski1@gmx.de, ana.marusic@mefst.hr

4. Center for Evidence-based Medicine and Health Care, Catholic University of Croatia, Zagreb, Croatia; livia.puljak@unicath.hr

***Corresponding author:**

Livia Puljak

Center for Evidence-based Medicine and Health Care, Catholic University of Croatia

Ilica 242, 10000 Zagreb, Croatia

Tel no: + 385 (0) 1 370 66 00

Fax no: + 385 (0) 1 370 66 01

Email address: livia.puljak@unicath.hr, livia.puljak@gmail.com

ORCID: 0000-0002-8467-6061

Abstract

Objectives: To analyze completeness of reporting of blinding in randomized controlled trials (RCTs) of interventions in anesthesiology, the actual blinding status of various persons associated with an RCT and trial authors' interpretation of blinding terminology related to RCTs.

Study design: Methodological study and cross-sectional survey.

Setting: We analyzed reporting related to blinding in published RCTs of interventions published from the beginning of 2014 to the end of 2016 in seven highly cited anesthesiology journals, and protocol registrations in ClinicalTrials.gov.

Participants: We surveyed corresponding authors of included RCTs about their definitions of blinding.

Primary and secondary outcome measures: Primary outcome was the number of RCTs that explicitly described who was blinded in a trial. Secondary outcomes were definitions of blinding terminology in the trials and trial authors' interpretation of blinding terminology.

Results: Out of 622 analyzed RCTs, 38% were not explicitly described as either open-label or blinded studies and 10% did not report any information about blinding or lack of blinding. Only one manuscript fully reported status of blinding for various individuals that may be involved with a trial. The most common descriptor was that a trial was double-blind. We found discrepant information regarding blinding in the majority of protocol registrations. Even when there were no discrepancies in the registration, we found discrepancy in the reporting of blinding between the majority of protocol registration and published manuscripts. The survey of authors (40 responses from 231 eligible authors; 17% response rate) of analyzed RCTs showed that they differed in how they defined different levels of blinding in trials.

Conclusions: Reporting of the blinding status of key individuals involved in analyzed anesthesiology RCTs was insufficient. Reporting guidelines, peer-reviewers and editors need to insist clear information on who was blinded in a trial instead of using the "double-blind" term for different blinding practices.

Keywords: blinding, randomized controlled trial, participants, personnel, methodology

Strengths and limitations

- We analyzed large group of randomized controlled trials published in seven high-impact anesthesiology journals
- Reporting about blinding was insufficient in the majority of analyzed trials
- Term “double-blind” is ambiguous and researchers interpret it in different ways
- We focused on anesthesiology trials as a specific research field
- Future studies should monitor whether reporting about blinding in trials will improve

Introduction

Available evidence about efficacy and safety of interventions in medicine includes observational studies and studies with a randomized experimental design, i.e. randomized controlled trials (RCTs) [1]. RCTs are considered the highest level of primary evidence for analyzing medical interventions because randomization ensures allocation of participants by chance, and not by choice, which minimizes bias [2]. Apart from the method of allocating participants into study arms, there are other methodological aspects of an RCT that can contribute to a risk of bias, including performance bias (blinding of participants and personnel) and detection bias (blinding of outcome assessors) [3].

Blinding is very important for the validity of RCT results. Multiple studies reported significant differences in effect size of treatment estimates depending on the use of blinding of key individuals [4-8].

The term "double-blind" is sometimes taken as a token of validity of an RCT [9]. However, it has been shown that the definitions of blinding may vary. Devereaux et al. showed that both physicians and textbooks provided highly inconsistent interpretations of the blinding terminology used in clinical trials, and suggested that the current ambiguous terminology should be replaced by specific descriptions of who was blinded [10]. According to the CONSORT checklist for reporting RCTs, the following should be reported for blinding: "If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how" [11].

The aim of this study was to analyze the completeness of reporting of blinding in RCTs of interventions in the field of anesthesiology, the actual blinding status of various persons associated with an RCT, information about blinding reported in the trial protocol registrations, and the trial authors' interpretation of blinding terminology related to RCTs. The study focused specifically on the field of anesthesiology because pain is a subjective outcome and

there is no objective method for analyzing pain. The analgesic placebo effect has been well documented [12]. In the area of placebo effects, expectations play a major role, triggering a cascade of endogenous opioids and non-opioids, and altering the experience of pain [12]. For this reason, the field of anesthesiology and pain research is likely biased if blinding is not used adequately.

Methods

Study design

We conducted a cross-sectional study of published RCTs and registered data about their protocols in public trial registries, and a survey of trials' corresponding authors.

Ethics

Research protocol for the survey of trials' corresponding authors was approved by the Ethics Committee of the University of Split School of Medicine (Klasa: 003-08/18-03/0001, Ur. br.: 2181-198-03-04-18-0049; date: October 12, 2018). All invited study participants received information that the study was approved by the Ethics Committee. Continuation to the survey from the invitation e-mail was considered as consent to participate in the study. The data were fully anonymized for analysis.

Inclusion criteria

We included RCTs of interventions published from January 2014 to December 2016 in the seven first-quartile journals from the Journal Citation Reports (JCR) category Anesthesiology. Based on the 2015 JCR journal impact factor (JIF) those seven journals were (in alphabetic order) Anaesthesia, Anesthesia & Analgesia, Anesthesiology, British Journal of Anaesthesia, European Journal of Anaesthesiology, Pain, and Regional Anesthesia and Pain Medicine. We excluded RCTs published as letters to the editor.

Search

We searched PubMed by combining journal name, 2014-2016 time-frame, and the publication type filter for RCTs. We exported titles and abstracts into the EndNote reference management software (Clarivate Analytics, Boston, MA, USA). Two authors independently analyzed titles and abstracts to screen them for eligibility. We retrieved potentially eligible manuscripts in full texts and two authors screened them independently. We resolved any disagreements through discussion.

Outcomes

Primary outcome was the number of RCTs that explicitly described who (which individuals or group/s of individuals) was blinded in a trial. Secondary outcomes were the definitions of blinding terminology in the trials (how the authors defined in the manuscript what was "single-blinding", "double-blinding", and "triple-blinding") and trial authors' interpretation of blinding terminology related to RCTs.

Data extraction

We extracted data into a Microsoft Excel sheet (Microsoft Inc., Redmond, WA, USA) after the data extraction table was piloted with ten studies. Data from each trial were extracted independently by two authors (three authors participated in data extraction: AP, KB, MK). Independent extractions were compared for consistency, and discrepancies were resolved via consensus.

For each publication, we analyzed the abstract, full body of the manuscript (and supplementary files if the authors indicated that additional details about methods were in supplementary files) to see whether it was mentioned that the trial was blinded/masked, and in which part of the manuscript. We then analyzed the methods' section of each included RCT

and extracted information about blinding terminology ("single-blind", "double-blind", "triple-blind", no such definition) and whether the trial authors explicitly elaborated who was blinded in a trial.

We checked whether the RCTs mentioned explicitly that they used CONSORT checklist for reporting, or mentioned CONSORT as a reference. We analyzed whether there were any discrepancies in reporting of blinding between abstracts and the body of the manuscript. If the abstract described the study as "double-blind", but body of the manuscript provided more details about who was blinded, we considered this a discrepancy. We also checked for the occurrence of the term "double-dummy" in the RCTs to assess the blinding in comparisons of drugs that are administered by different routes [13].

We analyzed whether RCTs mentioned trial protocol registration, and if yes, we recorded the protocol registration number and the name of the registry. We excluded trials registered after the trial was open for recruitment from further analysis. For trials registered before participants' recruitment, we analyzed whether there was any description of blinding in the protocol registration. If we found description of blinding, we compared whether there were any discrepancies between details about blinding reported in the protocol registration and in the published manuscript(s). We also searched whether RCTs mentioned protocol as a supplementary file, or as a publication in a scholarly journal.

Author survey

For the author survey, we extracted e-mail addresses of corresponding authors. We contacted via e-mail corresponding authors of included trials, including the information about the study and a list of questions. One author (DB) sent all the emails. After the initial e-mail invitation, potential participants received four subsequent reminders, one week apart if they did not

respond, or indicated that they do not wish to participate. All surveys and reminders were sent between November 1, 2018 and January 9, 2019.

We conducted the survey based on the questions described previously [14]. Participants received the following questions, together with the title of their trial:

1. For authors who only indicated that study was blinded, or double-blind, single-blind, triple-blind, with no further details: Who exactly was blinded in the trial [six categories of participants, as used by Haahr and Hrobjartsson [14]: (i) participants, (ii) healthcare providers such as physicians or nurses taking care of a participant, (iii) data collectors, (iv) outcome assessors, (v) data analysts, (vi) manuscript writers] – categorical answers,
2. What authors' personal opinion was about what single-blind, double-blind and triple-blind mean, by providing them the same categorical answers from above, as well as response "any two types of trial participants" [14].
3. The authors were asked to assess the frequency of publication of double-blind trials in the literature adhering with their preferred definition. For example, if a participant characterized "double-blind" to represent blinding of participants and personnel, that author was subsequently asked to assess the frequency of "double-blind" trials in which participants and personnel were blinded. The question did not refer to the publications of the participants, but their estimation about the literature.

We emphasized to the survey participants that only anonymized data would be published. The exact text of the survey is presented in Supplementary file 1. In cases when we had identical corresponding authors for more than one manuscript included in the study, we contacted them for the most recent manuscript only. Two authors (DB, LP) independently categorized the responses obtained via survey.

Analysis

We used descriptive statistics, including frequencies and percentages, as well as median and 95% (CI) confidence interval. Data were analyzed using MedCalc statistical software, v 15.2.1 (MedCalc Software bvba, Ostend, Belgium).

Results

Descriptors about blinding

We analyzed 622 RCTs; study flow chart is shown in Figure 1. The list of included studies is presented in Supplementary file 2. The study design of 29 (4.7%) trials was explicitly described as non-blinded or open-label, while 357 (57%) were explicitly described as blinded, using terms "blinded", "single-blinded", "double-blinded", "triple-blinded" or "masked" in the description of study design. Study design of the remaining 236 (38%) trials was not explicitly described as blinded or non-blinded.

The information about the blinding status was found in 116 (19%) titles; 283 (45%) abstracts and 470 (76%) Methods sections. The most common descriptor for blinding in titles (Table 1), abstracts (Table 2) and section Methods (Table 3) was "double-blind".

Regarding blinding vs masking terminology, the most common term used in the analyzed trials was "blinding" (n=477, 76%). Term masking alone was used in 9 (1.4%) trials, while in 45 (7.2%) trials both blinding and masking terms were used. In 91 (15%) trials neither word blinding nor masking was used. The term "double-dummy" was found in 7 trials, and "triple-dummy" in 1 trial.

Blinding of individuals involved in trials

The analysis of who was blinded in trials was done for 531 trials, where we found at least some descriptors for blinding; the remaining trials were excluded from this analysis because they were described as open-label, or were not described as either blinded or open-label. Table 4 presents the prevalence of blinding of various individuals that may be involved in a trial. For all six categories of individuals in the majority of trials it was unclear whether these individuals were blinded.

In 89 (17%) of 531 trials (14% from the overall sample of 622 trials) it was explicitly reported whether the three key groups of individuals, i.e. participants, healthcare providers and data collectors, were blinded or not. This percentage improved over analyzed time, as it was 10% in year 2014 (25/203), 15% in year 2015 (31/203) and 26% in year 2016 (33/125).

Among the analyzed trials, 47 (8%) explicitly mentioned that they used CONSORT checklist for reporting, or cited CONSORT as a reference.

Discrepancies between abstracts and body of manuscript

We found discrepancies in the reporting of blinding between abstracts and the body of the manuscript in a single trial, which reported in the abstract that the study was double-blind, but that is was single-blind in the body of the manuscript.

Reporting of blinding in protocol registrations

There were 384 (62%) trials that reported trial registration and unique registration identifier. After searching for those protocol registrations online, we were able to find 315 of those 384 (82%); we were unable to retrieve the rest by searching for the reported trial protocol registry identifier. Of the 315 protocol registrations we managed to access, 174 (55%) were registered prospectively, and as many as 141 (45%) were registered after the study start date reported in a clinical trials register.

Detailed analysis of 174 prospectively registered trials in registries was conducted. The majority of the trial protocols were registered in the ClinicalTrials.gov (n=157; 90%). Two studies from our cohort were registered on ClinicalTrials.gov as observational studies, and did not have information about blinding. The remaining 155 trials registered on ClinicalTrials.gov

had 14 different categories of the study status in the section Study design, which contains pre-determined Masking registration field (Table 5).

In the protocol registrations on ClinicialTrials.gov, the most common descriptor in the sub-section Masking was "Quadruple (Participant, Care Provider, Investigator, Outcomes Assessor)" (Table 5). Besides this field, we also analyzed full text of the protocol registration to find any other descriptions of blinding/masking. Among 157 protocol registrations, 92 did not have any other terminology related to blinding/masking other than information in the pre-determined field Masking. In the remaining 65 trial protocol registrations, 47 (72%) protocol registrations had additional information about blinding that were different from the descriptor provided in the field Masking. The majority of discrepancies accounted for protocol registrations which described the trial as quadruple-blind or triple-blind in the Masking registration field, but also described it as double-blind in another part of the protocol registration.

In the other trial registries few trials were registered (Table 6) and we found only one discrepancy; in a trial registered in NTR a study was described to use "single masking" but that it was "double-blind" (Table 6).

Among 126 registered trials that did not have discrepancies in the protocol registration, for 88 (70%) trials we found differences between protocol registration and published manuscript in description of blinding. The most common differences were in the description of who was blinded, the extent of blinding and whether there was any blinding at all (Table 7). We did not find trial protocols published as supplementary files or as a manuscript in a scholarly journal.

Survey results

For 362 trials that were described as double-blind, there were 275 unique corresponding authors, and 264 email addresses available. There were 33 e-mails that returned undelivered because they were no longer in use. From the remaining 231 corresponding authors, we received 40 responses (17% response rate). Authors' responses regarding individuals that were blinded in their trials, as well as their opinions about who was blinded in single-, double- and triple-blinded trial are shown in Table 8. One participant who answered the question about blinding in their trial, provided a personal definition for the single-blind trial, but stated the following for the remaining questions: *"I cannot answer the rest of the questions. I don't use "double-blind" or "single-blind" any longer, as I think they are ambiguous. I adhere to Annals of Internal Medicine guidelines that advises authors to avoid those terms, but to specifically note who was blinded."*

Whereas 34 of 40 (85%) authors responded that participants were blinded in their own double-blinded trial, all authors that responded to the second question stated that in a double-blind trial participants are blinded. Table 8 shows the summary of responses, and Supplementary file 3 contains detailed anonymized responses. For a single-blind trial, surveyed authors chose at least one from five of six individuals as targets for blinding; only manuscript writers were never considered as individual that could be blinding in a trial. When asked about their personal definition, in respondents' choices of blinded individuals in double- and triple-blind trial, all six types of individuals were chosen. Outcome assessors, data analysts and manuscript writers were more commonly mentioned as individual who could be blinded in a triple-blind trial (Table 8).

In addition, 25 participants estimated the percentage of how often their personal definition of a double-blind trial is used in trials they published: this percentage ranged from 20% to 100%, with the median of 80% (95% CI 60% to 80%).

Discussion

We found that only a quarter of analyzed trials reported explicitly whether three key groups of individuals were blinded. One fifth reported the information about blinding or lack of blinding in the title. Most common description related to blinding, both in the title and in the manuscript, was that study was double-blind. Regarding terminology, "blinding" as a term was used in the majority of trials, whereas only a few trials used term masking. In the majority of trials described as blinded, it was unclear whether participants and other relevant individuals were blinded or not. For less than half of the trials we identified that they registered their protocols in public trial registries, and in the majority of those protocol registrations we found discrepant information about blinding – both in different fields in the protocol registration and between the protocol registration and published manuscript.

In 2006, Haar and Hjobjartsson analyzed 200 random RCTs and showed that the blinding status of participants, health care providers and data collectors was explicitly reported in 2% of those trials [14]. In our study this finding was better; we found that the blinding status of these three groups of individuals was explicitly reported in 14% of the analyzed trials.

Haar and Hjobjartsson reported that 56% of trials they analyzed did not report blinding status of any group of participants associated with a trial, and 26% reported no information relevant to blinding beyond indicating that the trial was "double-blind" [14]. Even though that study was published twelve years ago, the results of our study are even worse, as we found that 57% of analyzed trials were explicitly described as blinded, using terms "blinded", "single-blinded", "double-blinded", "triple-blinded") or a term "masked".

In terms of completeness of reporting, Haar and Hjobjartsson, among the 156 manuscripts describing double-blind trials, did not find a single manuscript with "complete reporting". They found only three (2%) manuscripts with "partial reporting", 65 (42%) manuscripts with "minimal reporting", and 88 (56%) manuscripts with "no reporting" [14].

However, it has been emphasized already that the assessment of bias associated with blinding, or lack of blinding, in clinical trials, is hampered by poor reporting [15]. Already sixteen years ago Montori et al. warned that journals should abandon the term double-blind and require explicit reporting of the blinding status of relevant groups of participant that are involved in a clinical trial [15]. Our study shows that warnings aimed towards journal editors [15] were not successful in the efforts to reduce the use of ambiguous term double-blind.

Discrepancies in blinding descriptors within trial protocol registrations, and between protocol registrations and published manuscripts

One of the striking findings of our study was related to the discrepancies in blinding/masking information within different registration fields for trial protocol registrations, and between those protocol registrations and published manuscripts.

Firstly, we were able to identify protocol registrations for only about half of trials in our cohort, either because the authors did not report trial registration in their manuscripts, or because the reported trial protocol registration was not retrievable. Since 2005, International Committee of Medical Journal Editors (ICMJE) recommends that journals require prospective registration of clinical trials, i.e. before or at the time of first patient enrolment [16]. Therefore, it is unfortunate that so many recently published trials do not report trial registration in the manuscript, but this is not an isolated finding. In our recent study of osteoarthritis trials published between 2012 and 2017, we found that 57% of 334 analyzed trials reported that trial was registered [17]. Another recent study showed that 28% of trials published in six high-impact general medicine journals did not comply with ICMJE policy on prospective trial registration [18]. Therefore, even though we analyzed high-impact journals in the field, our results are similar to previous findings, which showed that many trials still do

not report trial registration and adhere to ICMJE policy, even though they were published recently and in high-impact journals.

Furthermore, the analysis of trial protocol registrations that we were able to identify showed that 45% of them were registered after the study has already started, judging by the study start date that was reported in the trial registry. When we analyzed the information about blinding/masking, we found that the majority of protocol registrations had discrepant information about the blinding of the study in different registration fields. The analysis of trials in which we did not find discrepancies between registration fields showed that the majority of those trials had differences between reporting of blinding in a protocol registration and a published manuscript.

ClinicalTrials.gov was the most commonly used clinical trial registry. This is in line with the finding that ClinicalTrials.gov contains the majority of the global trial registrations [19]. It has a mandatory field called "Masking", which offers to study authors to choose among five options in a menu. The first four options in the menu are individuals involved within a trial: Participant, Care Provider, Investigator and Outcomes Assessor. The fifth option is "None (Open Label)". Study authors are invited to "Check all roles that are masked or check None (Open Label)". Below this menu is a blank field called "Masking description", in which trialists can fill out additional information about blinding. Based on the number of participants that were checked as blinded, a trial will get a descriptor about being single, double, triple or quadruple blinded. The most common discrepancy within protocol registrations was that the study was described as quadruple or triple blind by ClinicalTrials.gov, but trialists themselves called the study "double-blind".

Meaning of "double-blind"

Suggestion of Montori et al. that vague term "double-blind" should be abandoned [15] was also repeated later in the literature by other authors [14]. Even before that, Devereaux et al. reported that hospital physicians used 17 different definitions of the meaning of double-blind [10].

Our survey of authors showed that authors have varying definitions of who should be blinded in a single-blind, double-blind and triple-blind trial. Authors' response about who was blinded in their own double-blind trial did not always match their response about who should be blinded in a double-blind trial generally. Based on the participants' responses that the majority of published trials correspond to their personal definition of a double-blind trial, it appears that the surveyed researchers are not aware of the high heterogeneity of definitions of blinding in clinical trials. This is an additional argument for ceasing the use of ambiguous terminology such as "single-blind", "double-blind" and "triple-blind", and to require that authors should report specifically who was blinded in their study.

Limitations

Our study had several limitations. We limited our analysis to a recent period and to seven high-ranking journals, because those should be the ones with best publishing practices and role models for the rest of the journals. Furthermore, we did not scrutinize in detail additional online material, such as supplements and appendices, where, theoretically, additional details about blinding could have been located. But we did analyze all mentions of blinding in the analyzed manuscripts, and we did not find a single case where the authors indicated that additional details about blinding were available in a supplement.

We used PubMed to search for articles instead of journals' website, and we used simple search consisting of journal name, publication type and chosen time frame. Theoretically, some articles may have therefore been missed. However, we consider that the likelihood for this was small

because these journals are all indexed on PubMed, and searching of the journal websites would be more troublesome because of the lack of search filters that are available on PubMed.

We used JIF to define high-impact journals. The use of JIF as a measure of "quality" has been criticized in the research community, specifically due to the asymmetry between the numerator and the denominator, differences across various disciplines, the insufficient citation window, the skewness of the underlying citation distributions, and opaque method of its calculation [20]. However, there is no perfect bibliometric indicator, and we used it because JIF is highly prevalent, and most researchers are familiar with this metrics [21]. Also, we did not analyze all medical fields, but focused on one field of interest. Our survey had response rate of 17%, which carries a high risk of non-responder bias.

Another thing that would be worthwhile to explore is journals' instructions for author in terms of reporting requirements. However, we included studies published over a long period of time, and it has to be taken into account that there is a time lag between submission and publication, and that journal web sites only provide the information about current instructions for authors, and not also the history of their changes, i.e. previous versions of instructions for authors. Therefore, the only proper way to study influence of instructions for authors on reporting in manuscript would be to do it prospectively, having in mind current instructions for authors and current submissions.

It could be argued that perhaps we should not have judged it as discrepancy if an abstract reported that a study was "double-blind", but body of the manuscript reported more details about who was blinded. However, a reporting extension CONSORT for Abstracts explicitly requires authors to report in the abstract [quote]: "*Whether or not participants, care givers, and these assessing the outcomes were blinded to group assignment*". Therefore, if authors want to report their study adequately, adherence to the relevant reporting guideline would also preclude usage of the term "double-blind" in an abstract [22].

Recommendations

The authors should stop using ambiguous term "double-blind", and editors, and peer-reviewers can help in achieving this by requiring clear reporting about blinding. Additionally, editors and peer-reviewers can require authors to provide a CONSORT checklist for both abstract (in line with the extension CONSORT for Abstracts) and the body of the manuscript. In this way, the authors may be compelled into investing more attention to proper reporting.

Conclusion

Explicit and complete reporting of the blinding status of key individuals involved in RCTs is suboptimal. Anesthesiology trials rarely report who was blinded, and mostly use ambiguous term double-blind, which if not sufficiently informative for readers. Furthermore, we found many discrepancies about reporting of blinding within trial protocol registrations, and between protocol registrations and published manuscripts. Our survey of authors showed that authors differed in their opinion of who was blinded in their own trial and who could be blinded in trials with different levels of blinding. Thus, poor reporting and heterogeneous definitions of ambiguous terminology hinders proper risk of bias assessment and analysis of impact of blinding of certain groups of participants on the study outcomes. Interventions for improving reporting about blinding are necessary.

Declarations

Funding statement

This study was funded by the Croatian Science Foundation, grant No. IP-2014-09-7672 "Professionalism in Health Care", awarded to Professor Ana Marušić. The funder had no role in the design of this study, during its execution and data interpretation.

Competing interests

The authors declare that they have no competing interests.

Authorship contribution

Study design: LP, AM

Data acquisition: AP, DB, KB, MK, LP

Data analysis and interpretation: LP, AM

Writing manuscript draft: LP, AM

Agreeing to submission of the manuscript: AP, DB, KB, MK, AM, LP

Agree to be accountable for all aspects of the work: AP, DB, KB, MK, AM, LP

Reporting checklist

STROBE; checklist is enclosed as a Supplementary file 4

Participant consent form

All participants consented to participate in the study; there are no identifiable information about participants in the manuscript.

Data sharing statement

Data collected during the study are available from the corresponding author on reasonable request.

Patient and public involvement statement

Patients or the public were not involved in the design, or conduct, or reporting, or dissemination of our research.

Acknowledgements

We are grateful to all the participants who took part in this study.

Word count

4190

Figure legend

Figure 1. Study inclusion flow chart

List of supplementary files

Supplementary file 1. Survey sent to the study participants

Supplementary file 2. List of included studies

Supplementary file 3. Detailed responses of survey participants

Supplementary file 4: STROBE checklist

References

1. Atkins D, Best D, Briss PA, Eccles M, Falck-Ytter Y, Flottorp S, Guyatt GH, Harbour RT, Haugh MC, Henry D *et al*: **Grading quality of evidence and strength of recommendations**. *BMJ* 2004, **328**(7454):1490.
2. Schulz KF, Grimes DA: **Generation of allocation sequences in randomised trials: chance, not choice**. *Lancet* 2002, **359**(9305):515-519.
3. Higgins JP, Altman DG, Gotzsche PC, Juni P, Moher D, Oxman AD, Savovic J, Schulz KF, Weeks L, Sterne JA: **The Cochrane Collaboration's tool for assessing risk of bias in randomised trials**. *BMJ* 2011, **343**:d5928.
4. Saltaji H, Armijo-Olivo S, Cummings GG, Amin M, da Costa BR, Flores-Mir C: **Influence of blinding on treatment effect size estimate in randomized controlled trials of oral health interventions**. *BMC medical research methodology* 2018, **18**(1):42.
5. Juni P, Altman DG, Egger M: **Systematic reviews in health care: Assessing the quality of controlled clinical trials**. *BMJ* 2001, **323**(7303):42-46.
6. Armijo-Olivo S, Fuentes J, da Costa BR, Saltaji H, Ha C, Cummings GG: **Blinding in Physical Therapy Trials and Its Association with Treatment Effects: A Meta-epidemiological Study**. *American journal of physical medicine & rehabilitation* 2017, **96**(1):34-44.
7. Hrobjartsson A, Emanuelsson F, Skou Thomsen AS, Hilden J, Brorson S: **Bias due to lack of patient blinding in clinical trials. A systematic review of trials randomizing patients to blind and nonblind sub-studies**. *International journal of epidemiology* 2014, **43**(4):1272-1283.
8. Noseworthy JH, Ebers GC, Vandervoort MK, Farquhar RE, Yetisir E, Roberts R: **The impact of blinding on the results of a randomized, placebo-controlled multiple sclerosis clinical trial**. *Neurology* 1994, **44**(1):16-20.
9. Devereaux PJ, Bhandari M, Montori VM, Manns BJ, Ghali WA, Guyatt GH: **Double blind, you are the weakest link--good-bye!** *ACP journal club* 2002, **136**(1):A11.
10. Devereaux PJ, Manns BJ, Ghali WA, Quan H, Lacchetti C, Montori VM, Bhandari M, Guyatt GH: **Physician interpretations and textbook definitions of blinding terminology in randomized controlled trials**. *Jama* 2001, **285**(15):2000-2003.
11. Moher D, Hopewell S, Schulz KF, Montori V, Gotzsche PC, Devereaux PJ, Elbourne D, Egger M, Altman DG: **CONSORT 2010 explanation and elaboration: updated guidelines for reporting parallel group randomised trials**. *BMJ* 2010, **340**:c869.
12. Klinger R, Stuhlreyer J, Schwartz M, Schmitz J, Colloca L: **Clinical Use of Placebo Effects in Patients With Pain Disorders**. *International review of neurobiology* 2018, **139**:107-128.
13. Marusic A, Ferencic SF: **Adoption of the double dummy trial design to reduce observer bias in testing treatments**. *Journal of the Royal Society of Medicine* 2013, **106**(5):196-198.
14. Haahr MT, Hrobjartsson A: **Who is blinded in randomized clinical trials? A study of 200 trials and a survey of authors**. *Clin Trials* 2006, **3**(4):360-365.
15. Montori VM, Bhandari M, Devereaux PJ, Manns BJ, Ghali WA, Guyatt GH: **In the dark: the reporting of blinding status in randomized controlled trials**. *Journal of clinical epidemiology* 2002, **55**(8):787-790.

16. De Angelis C, Drazen JM, Frizelle FA, Haug C, Hoey J, Horton R, Kotzin S, Laine C, Marusic A, Overbeke AJ *et al*: **Clinical trial registration: a statement from the International Committee of Medical Journal Editors**. *Croatian medical journal* 2004, **45**(5):531-532.
17. Krsticevic M, Saric D, Saric F, Slapnicar E, Boric K, Dosenovic S, Kadic AJ, Kegalj MJ, Puljak L: **Selective reporting bias due to discrepancies between registered and published outcomes in osteoarthritis trials**. *Journal of comparative effectiveness research* 2019, **8**(15):1265-1273.
18. Dal-Re R, Ross JS, Marusic A: **Compliance with prospective trial registration guidance remained low in high-impact journals and has implications for primary end point reporting**. *Journal of clinical epidemiology* 2016, **75**:100-107.
19. Zarin DA, Tse T, Williams RJ, Rajakannan T: **Update on Trial Registration 11 Years after the ICMJE Policy Was Established**. *N Engl J Med* 2017, **376**(4):383-391.
20. Larivière V, Sugimoto CR: **The Journal Impact Factor: A Brief History, Critique, and Discussion of Adverse Effects**. In: *Springer Handbook of Science and Technology Indicators*. edn. Edited by Glänzel W, Moed HF, Schmoch U, Thelwall M: Springer, Cham; 2019.
21. Mckiernan EC, Schimanski LA, Nieves CM, Matthias L, Niles MT, Alperin JP: **Use of the Journal Impact Factor in academic review, promotion, and tenure evaluations**. *Elife* 2019, **8**.
22. Hopewell S, Clarke M, Moher D, Wager E, Middleton P, Altman DG, Schulz KF: **CONSORT for reporting randomised trials in journal and conference abstracts**. *Lancet* 2008, **371**(9609):281-283.

Table 1. Descriptors for blinding status of the study in titles of analyzed trials, N=116

Blinding status descriptors	N (%)
Double-blind	89 (76)
Blinded	8 (6.8)
Single-blinded	6 (5.1)
Triple-masked	3 (2.6)
Triple-blind	3 (2.6)
Open-label	1 (0.9)
Observer-blinded	1 (0.9)
Blinded evaluation	1 (0.9)
Blinded trial	1 (0.9)
Nonblinded	1 (0.9)
Double-masked	1 (0.9)
Masked	1 (0.9)

Table 2. Descriptors about blinding found in abstracts of analyzed trials; N= 294 descriptors from 283 abstracts

Categories of descriptors	N (%)
Double-blind	183 (62)
Single-blind	25 (8.5)
Blinded personnel	22 (7.5)
Blinded	20 (6.8)
Outcome assessors blinded	14 (4.7)
Open label	8 (2.7)
Patient and assessor blinded	4 (1.4)
Triple-masked	3 (1.0)
Blinded intervention application	3 (1.0)
Unmasked intervention	2 (0.7)
Blinded patients	2 (0.7)
Triple blind	2 (0.7)
Patients and personnel blinded	2 (0.7)
Clinicians not blinded	1 (0.3)
Unblinded assessment	1 (0.3)
Blinded monitoring	1 (0.3)
Success of patients' blinding	1 (0.3)

Table 3. Categorized statements about blinding found in Methods of analyzed trials; N=470

Categories of descriptors	N (%)
Double-blind	191 (41)
Personnel blinded	75 (16)
Single-blind	38 (8.1)
Patients and personnel blinded	37 (7.9)
Outcome assessor blinded	26 (5.5)
Data collectors blinded	19 (4.0)
Non-blinded personnel	17 (3.6)
Patients blinded	16 (3.4)
Blinded	14 (3.0)
Open-label	8 (1.7)
Data analysts blinded	8 (1.7)
Partially blinded	3 (0.6)
Unmasked patients and investigators	3 (0.6)
Non-blinded patients	2 (0.4)
Blinded interventions	2 (0.4)
Triple-blind	1 (0.2)
Unmasking information	1 (0.2)
Non-masked patients and personnel	1 (0.2)
Rater-blinded	1 (0.2)
Masked assignment	1 (0.2)
Masking	1 (0.2)
Outcome assessors and data analysts blinded	1 (0.2)
Data collector and data analysts blinded	1 (0.2)
Data collector and outcome assessor blinded	1 (0.2)

Table 4. Prevalence of blinding of individuals involved in trials described as blinded; N= 622

Individual	Yes, N (%)	No, N (%)	Unclear, N (%)
Participants	227 (37)	46 (7)	349 (56)
Personnel; healthcare providers such as physicians or nurses taking care of a participant	225 (36)	55 (9)	342 (55)
Data collectors	161 (26)	29 (5)	432 (69)
Outcome assessors	130 (21)	21 (3)	471 (76)
Data analysts	43 (7)	20 (3)	559 (90)
Manuscript writers	0 (0)	16 (3)	606 (97)
Investigators	104 (17)	31 (5)	487 (78)

Table 5. Descriptors in the field Study design/Masking in the analyzed trial protocol registrations on ClinicalTrials.gov (N = 157)

Blinding terminology used in analyzed clinical trial protocol registrations	N
Quadruple (Participant, Care Provider, Investigator, Outcomes Assessor)	39
None (Open Label)	22
Single (Participant)	15
Double (Participant, Investigator)	14
Double (Participant, Outcomes Assessor)	14
Triple (Participant, Investigator, Outcomes Assessor)	13
Triple (Participant, Care Provider, Investigator)	12
Single (Outcomes Assessor)	8
Single (Investigator)	6
Double (Participant, Care Provider)	5
Triple (Participant, Care Provider, Outcomes Assessor)	4
Study described as observational, without information about blinding/masking	2
Double (Investigator, Outcomes Assessor)	1
Masking: Triple (Participant, Care Provider, Investigator)	1
Single (Care Provider)	1

Table 6. Descriptors of blinding/masking in other clinical trial registries

Descriptors	N
ACTRN (N=8)	
Blinded (masking used)	4
Open (masking not used)	2
Subject and observer blinded	1
Blinded	1
UMIN (N=7)	
Single blind -participants are blinded	3
Single blind -investigator(s) and assessor(s) are blinded	2
Double blind -all involved are blinded	2
NTR (N=1)	
Single masking; double blind	1
ChiCTR (N=1)	
No statement about blinding	1

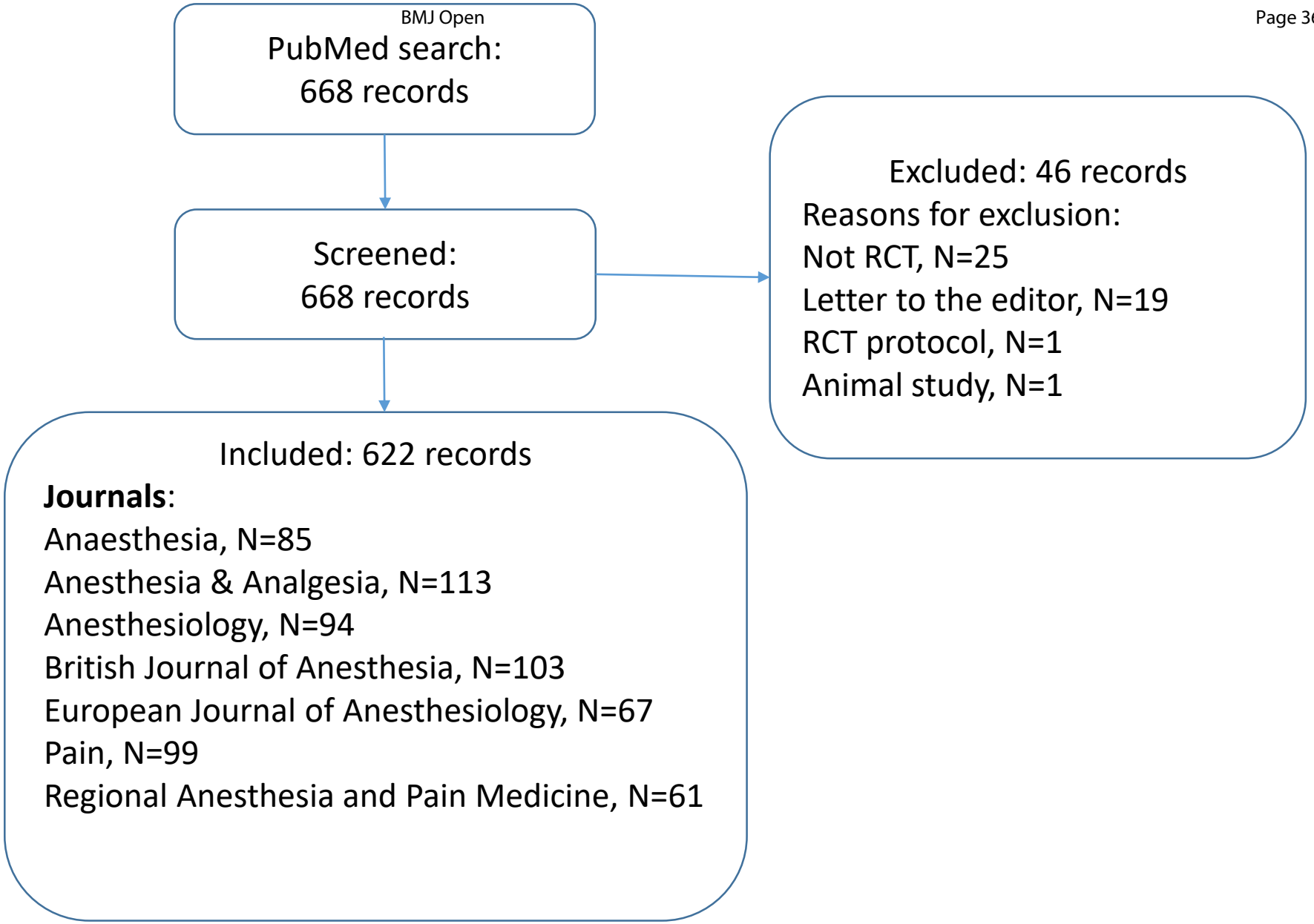
ACTRN = The Australian and New Zealand Clinical Trial Registry, UMIN = University Hospital Medical Information Network registry of Japan; NTR = Nederlands Trial Register, ChiCTR = Chinese Clinical Trial Registry

Table 7. Differences between protocol registration and manuscript, in the group of trials that did not have discrepancies within the protocol registration itself (N of trials = 88)

Differences between protocol and published manuscript	N (%)
Different individuals described as blinded between protocol registration and manuscript	30 (34)
Protocol registration reported who was blinded; manuscript did not	10 (11)
Protocol registration: triple blind; manuscript: double-blind	9 (10)
Protocol registration reported who was blinded; manuscript only that it was double-blind	9 (10)
Protocol registration: open label, manuscript: blinding of one or more groups of individuals	8 (9)
Protocol registration has description of blinding; manuscript no description of blinding	7 (8)
Protocol registration: quadruple-blind; manuscript: double-blind	6 (7)
Protocol registration double-blind, manuscript single-blind	2 (2)
Study described as observational on ClinicalTrials.gov	2 (2)
Protocol registration: quadruple-blind; manuscript: triple-blind	2 (2)
Protocol registration: no information about blinding; manuscript reported information about blinding	1 (1)
Protocol registration: open-label; manuscript only reported that participants were not blinded	1 (1)
Protocol registration: single-blind; manuscript: double-blind	1 (1)

Table 8. Information obtained from surveyed corresponding authors regarding who was blinded in their trials that were described as double-blind, and what is their personal definition of who is blinded in a single-blind, double-blind and triple-blind trial (total N of participants = 40)

Blinding scenarios	Participants, N	Healthcare providers such as physicians or nurses taking care of a participant, N	Data collectors, N	Outcome assessors, N	Data analysts, N	Manuscript writers, N
Who was blinded in your trial described as a double-blind?	34	31	32	28	18	10
What is your personal definition of a single-blind trial?	30	5	5	7	4	0
What is your personal definition of a double-blinded trial?	37	33	30	25	12	4
What is your personal definition of a triple-blind trial?	34	34	31	31	26	12


PubMed search:
668 records
Screened:
668 records
Excluded: 46 records
Reasons for exclusion:
Not RCT, N=25
Letter to the editor, N=19
RCT protocol, N=1
Animal study, N=1
Included: 622 records
Journals:
Anaesthesia, N=85
Anesthesia & Analgesia, N=113
Anesthesiology, N=94
British Journal of Anesthesia, N=103
European Journal of Anesthesiology, N=67
Pain, N=99
Regional Anesthesia and Pain Medicine, N=61

Supplementary file 1. Survey sent to the study participants via e-mail

Dear ...[*insert title and name*],

My name is Dinka Begic, and I am conducting a study about blinding in randomised controlled trials. Together with Prof. Livia Puljak from Cochrane Croatia and our research team, we are trying to further investigate who exactly was blinded in trials described as „double blinded“, and what is the definition of double blinding that researchers use in clinical trials.

We would kindly ask you to participate in our research by answering three quick questions, which should take approximately five minutes of your time. The protocol of our research was approved by the Ethics committee of the University of Split School of Medicine on October 12th, 2018. Your response to this message will be considered as informed consent for participating in this study. We aim to publish anonymized data.

You are receiving invitation to participate in this research because you were a corresponding author for the RCT, which was described as double-blind: [*insert title of the study*]

These questions refer to that particular trial.

Questions

1. Who was blinded in your trial described as a double-blind? Please delete from the list below all of the persons in your trial that were NOT blinded, so that the remaining list contains only those who were blinded.
    a. *participant*s
    b. *healthcare providers such as physicians or nurses taking care of a participant*
    c. *data collectors*
    d. *outcome assessors*
    e. *data analysts*
    f. *manuscript writers*

2.1 What is your personal definition of a single-blind trial? Please delete from the list below all of the persons who, in your personal opinion, are NOT blinded, so that the remaining list contains only individuals who are blinded in a single-blind trial.

    a. *participants*
    b. *healthcare providers such as physicians or nurses taking care of a participant*
    c. *data collectors*
    d. *outcome assessors*
    e. *data analysts*
    f. *manuscript writers*

2.2 What is your personal definition of a double blinded trial? Please delete from the list below all of the persons who, in your personal opinion, are NOT blinded, so that the remaining list contains only individuals who are blinded in a double-blind trial.

a. *participant*s
b. *healthcare providers such as physicians or nurses taking care of a participant*
c. *data collectors*
d. *outcome assessors*
e. *data analysts*
f. *manuscript writers*

2.3 What is your personal definition of a triple-blind trial? Please delete from the list below all of the persons who, in your personal opinion, are NOT blinded, so that the remaining list contains only individuals who are blinded in a triple-blind trial.

a. *participant*s
b. *healthcare providers such as physicians or nurses taking care of a participant*
c. *data collectors*
d. *outcome assessors*
e. *data analysts*
f. *manuscript writers*

3. How often is your personal definition of a double-blind trial used in published trials? Can you please estimate using percentages:

_____

Thank you very much for participating in this study.

Sincere regards,
Dinka Begic, MD
Prof. Livia Puljak, MD, PhD, Cochrane Croatia

Supplementary file 2. List of included studies

1. Nader A, Kendall MC, Manning DW, Beal M, Rahangdale R, Dekker R, De Oliveira GS Jr, Kamenetsky E, McCarthy RJ. Single-Dose Adductor Canal Block With Local Infiltrative Analgesia Compared With Local Infiltrate Analgesia After Total Knee Arthroplasty: A Randomized, Double-Blind, Placebo-Controlled Trial.
Reg Anesth Pain Med. 2016 Nov/Dec;41(6):678-684.

2. Mohamed SA, Abdel-Ghaffar HS, Kamal SM, Fares KM, Hamza HM.
Effect of Topical Morphine on Acute and Chronic Postmastectomy Pain: What Is the Optimum Dose?
Reg Anesth Pain Med. 2016 Nov/Dec;41(6):704-710.

3. Barrington MJ, Viero LP, Kluger R, Clarke AL, Ivanusic JJ, Wong DM.
Determining the Learning Curve for Acquiring Core Sonographic Skills for Ultrasound-Guided Axillary Brachial Plexus Block.
Reg Anesth Pain Med. 2016 Nov/Dec;41(6):667-670.

4. Barrington MJ, Gledhill SR, Kluger R, Clarke AL, Wong DM, Davidson H, Thomas R.
A Randomized Controlled Trial of Ultrasound Versus Nerve Stimulator Guidance for Axillary Brachial Plexus Block.
Reg Anesth Pain Med. 2016 Nov/Dec;41(6):671-677.

5. Cerezo-Téllez E, Torres-Lacomba M, Fuentes-Gallardo I, Perez-Muñoz M, Mayoral-Del-Moral O, Lluch-Girbés E, Prieto-Valiente L, Falla D.
Effectiveness of dry needling for chronic nonspecific neck pain: a randomized, single-blinded, clinical trial.
Pain. 2016 Sep;157(9):1905-17. doi: 10.1097/j.pain.0000000000000591.

6. Kendigelen P, Tutuncu AC, Emre S, Altindas F, Kaya G.
Pudendal Versus Caudal Block in Children Undergoing Hypospadias Surgery: A Randomized Controlled Trial.
Reg Anesth Pain Med. 2016 Sep-Oct;41(5):610-5. doi: 10.1097/AAP.0000000000000447.

7. Dhir S, Sondekoppam RV, Sharma R, Ganapathy S, Athwal GS.
A Comparison of Combined Suprascapular and Axillary Nerve Blocks to Interscalene Nerve Block for Analgesia in Arthroscopic Shoulder Surgery: An Equivalence Study.
Reg Anesth Pain Med. 2016 Sep-Oct;41(5):564-71. doi: 10.1097/AAP.0000000000000436.

8. Kim JS, Lee J, Soh EY, Ahn H, Oh SE, Lee JD, Joe HB.
Analgesic Effects of Ultrasound-Guided Serratus-Intercostal Plane Block and Ultrasound-Guided Intermediate Cervical Plexus Block After Single-Incision Transaxillary Robotic Thyroidectomy: A Prospective, Randomized, Controlled Trial.
Reg Anesth Pain Med. 2016 Sep-Oct;41(5):584-8. doi: 10.1097/AAP.0000000000000430.

9. Maalouf DB, Dorman SM, Sebeo J, Goytizolo EA, Gordon MA, Yadeau JT, Dehipawala SS, Fields K.
Prospective, Randomized Double-Blind Study: Does Decreasing Interscalene Nerve Block Volume for Surgical Anesthesia in Ambulatory Shoulder Surgery Offer Same-Day Patient Recovery Advantages?
Reg Anesth Pain Med. 2016 Jul-Aug;41(4):438-44. doi: 10.1097/AAP.0000000000000418.

10. Schreiber KL, Chelly JE, Lang RS, Abuelkasem E, Geller DA, Marsh JW, Tsung A, Sakai T.
Epidural Versus Paravertebral Nerve Block for Postoperative Analgesia in Patients Undergoing Open Liver Resection: A Randomized Clinical Trial.
Reg Anesth Pain Med. 2016 Jul-Aug;41(4):460-8. doi: 10.1097/AAP.0000000000000422.

11. Teunkens A, Vermeulen K, Van Gerven E, Fieuws S, Van de Velde M, Rex S.
Comparison of 2-Chloroprocaine, Bupivacaine, and Lidocaine for Spinal Anesthesia in Patients Undergoing Knee Arthroscopy in an Outpatient Setting: A Double-Blind Randomized Controlled Trial.
Reg Anesth Pain Med. 2016 Sep-Oct;41(5):576-83. doi: 10.1097/AAP.0000000000000420.

12. Cappelleri G, Cedrati VL, Fedele LL, Gemma M, Camici L, Loiero M, Gallazzi MB, Cornaggia G.
Effects of the Intraneural and Subparaneural Ultrasound-Guided Popliteal Sciatic Nerve Block: A Prospective, Randomized, Double-Blind Clinical and Electrophysiological Comparison.
Reg Anesth Pain Med. 2016 Jul-Aug;41(4):430-7. doi: 10.1097/AAP.0000000000000413.

13. Broderick JE, Keefe FJ, Schneider S, Junghaenel DU, Bruckenthal P, Schwartz JE, Kaell AT, Caldwell DS, McKee D, Gould E.
Cognitive behavioral therapy for chronic pain is effective, but for whom?
Pain. 2016 Sep;157(9):2115-23. doi: 10.1097/j.pain.0000000000000626.

14. Andresen SR, Bing J, Hansen RM, Biering-Sørensen F, Johannesen IL, Hagen EM, Rice AS, Nielsen JF, Bach FW, Finnerup NB.
Ultramicronized palmitoylethanolamide in spinal cord injury neuropathic pain: a randomized, double-blind, placebo-controlled trial.
Pain. 2016 Sep;157(9):2097-103. doi: 10.1097/j.pain.0000000000000623.

15. Miki K, Murakami M, Oka H, Onozawa K, Yoshida S, Osada K.
Efficacy of mirtazapine for the treatment of fibromyalgia without concomitant depression: a randomized, double-blind, placebo-controlled phase IIa study in Japan.
Pain. 2016 Sep;157(9):2089-96. doi: 10.1097/j.pain.0000000000000622.

16. Hanling SR, Hickey A, Lesnik I, Hackworth RJ, Stedje-Larsen E, Drastal CA, McLay RN.
Stellate Ganglion Block for the Treatment of Posttraumatic Stress Disorder: A Randomized, Double-Blind, Controlled Trial.
Reg Anesth Pain Med. 2016 Jul-Aug;41(4):494-500. doi: 10.1097/AAP.0000000000000402.

17. Runge C(1), Børglum J, Jensen JM, Kobborg T, Pedersen A, Sandberg J, Mikkelsen LR, Vase M, Bendtsen TF.
The Analgesic Effect of Obturator Nerve Block Added to a Femoral Triangle Block After Total Knee Arthroplasty: A Randomized Controlled Trial.
Reg Anesth Pain Med. 2016 Jul-Aug;41(4):445-51. doi: 10.1097/AAP.0000000000000406.

18. Arendt-Nielsen L, Harris S, Whiteside GT, Hummel M, Knappenberger T, O'Keefe S, Kapil R, Kyle D.
A randomized, double-blind, positive-controlled, 3-way cross-over human experimental pain study of a TRPV1 antagonist (V116517) in healthy volunteers and comparison with preclinical profile.
Pain. 2016 Sep;157(9):2057-67. doi: 10.1097/j.pain.0000000000000610.

19. Dewinter GB, Teunkens A, Vermeulen K, Al Tmimi L, Van de Velde M, Rex S.
Systemic Lidocaine Fails to Improve Postoperative Pain, But Reduces Time to Discharge Readiness in Patients Undergoing Laparoscopic Sterilization in Day-Case Surgery: A Double-Blind, Randomized, Placebo-Controlled Trial.
Reg Anesth Pain Med. 2016 May-Jun;41(3):362-7. doi: 10.1097/AAP.0000000000000398.

20. Smith SM(1), Amtmann D, Askew RL, Gewandter JS, Hunsinger M, Jensen MP, McDermott
MP, Patel KV, Williams M, Bacci ED, Burke LB, Chambers CT, Cooper SA, Cowan P, Desjardins P, Etropolski M, Farrar JT, Gilron I, Huang IZ, Katz M, Kerns RD, Kopecky EA, Rappaport BA, Resnick M, Strand V, Vanhove GF, Veasley C, Versavel M, Wasan AD, Turk DC, Dworkin RH.
Pain intensity rating training: results from an exploratory study of the ACTTION PROTECCT system.
Pain. 2016 May;157(5):1056-64. doi: 10.1097/j.pain.0000000000000502.

21. Ginosar Y, Haroutounian S, Kagan L, Naveh M, Aharon A, Davidson EM.
Proliposomal Ropivacaine Oil: Pharmacokinetic and Pharmacodynamic Data After Subcutaneous Administration in Volunteers.
Anesth Analg. 2016 May;122(5):1673-80. doi: 10.1213/ANE.0000000000001217.

22. Swenson JD(1), Klingler KR, Pace NL, Davis JJ, Loose EC.
Evaluation of a New Needle Guidance System for Ultrasound: Results of a Prospective, Randomized, Blinded Study.
Reg Anesth Pain Med. 2016 May-Jun;41(3):356-61. doi: 10.1097/AAP.0000000000000390.

23. Dancey E, Murphy BA, Andrew D, Yielder P.
The effect of local vs remote experimental pain on motor learning and sensorimotor integration using a complex typing task.
Pain. 2016 Aug;157(8):1682-95. doi: 10.1097/j.pain.0000000000000570.

24. Leurcharusmee P(1), Aliste J, Van Zundert TC, Engsusophon P, Arnuntasupakul V, Tiyaprasertkul W, Tangjitbampenbun A, Ah-Kye S, Finlayson RJ, Tran DQ.
A Multicenter Randomized Comparison Between Intravenous and Perineural Dexamethasone for Ultrasound-Guided Infraclavicular Block.
Reg Anesth Pain Med. 2016 May-Jun;41(3):328-33. doi: 10.1097/AAP.0000000000000386.

25. Ouchi K, Sugiyama K.
Dexmedetomidine Dose Dependently Enhances the Local Anesthetic Action of Lidocaine in Inferior Alveolar Nerve Block: A Randomized Double-Blind Study.
Reg Anesth Pain Med. 2016 May-Jun;41(3):348-55. doi: 10.1097/AAP.0000000000000380.

26. Lim G, Krohner RG, Metro DG, Rosario BL, Jeong JH, Sakai T.
Low-Fidelity Haptic Simulation Versus Mental Imagery Training for Epidural Anesthesia Technical Achievement in Novice Anesthesiology Residents: A Randomized Comparative Study.
Anesth Analg. 2016 May;122(5):1516-23. doi: 10.1213/ANE.0000000000001260.

27. Elkassabany NM, Antosh S, Ahmed M, Nelson C, Israelite C, Badiola I, Cai LF, Williams R, Hughes C, Mariano ER, Liu J.
The Risk of Falls After Total Knee Arthroplasty with the Use of a Femoral Nerve Block Versus an Adductor Canal Block: A Double-Blinded Randomized Controlled Study.
Anesth Analg. 2016 May;122(5):1696-703. doi: 10.1213/ANE.0000000000001237.

28. Arendt-Nielsen L, Egsgaard LL, Petersen KK.
Evidence for a central mode of action for etoricoxib (COX-2 inhibitor) in patients with painful knee osteoarthritis.
Pain. 2016 Aug;157(8):1634-44. doi: 10.1097/j.pain.0000000000000562.

29. Naik BI, Nemergut EC, Kazemi A, Fernández L, Cederholm SK, McMurry TL, Durieux ME.
The Effect of Dexmedetomidine on Postoperative Opioid Consumption and Pain After Major Spine Surgery.

Anesth Analg. 2016 May;122(5):1646-53. doi: 10.1213/ANE.0000000000001226.

30. Palhais N, Brull R, Kern C, Jacot-Guillarmod A, Charmoy A, Farron A, Albrecht E.
Extrafascial injection for interscalene brachial plexus block reduces respiratory complications compared with a conventional intrafascial injection: a randomized, controlled, double-blind trial.
Br J Anaesth. 2016 Apr;116(4):531-7. doi: 10.1093/bja/aew028.

31. Bartha E, Arfwedson C, Imnell A, Kalman S.
Towards individualized perioperative, goal-directed haemodynamic algorithms for patients of advanced age: observations during a randomized controlled trial (NCT01141894).
Br J Anaesth. 2016 Apr;116(4):486-92. doi: 10.1093/bja/aew025.

32. Li Y, Wang B, Zhang LL, He SF, Hu XW, Wong GT, Zhang Y.
Dexmedetomidine Combined with General Anesthesia Provides Similar Intraoperative Stress Response Reduction When Compared with a Combined General and Epidural Anesthetic Technique.
Anesth Analg. 2016 Apr;122(4):1202-10. doi: 10.1213/ANE.0000000000001165.

33. Kuhn JC, Hauge TH, Rosseland LA, Dahl V, Langesæter E.
Hemodynamics of Phenylephrine Infusion Versus Lower Extremity Compression During Spinal Anesthesia for Cesarean Delivery: A Randomized, Double-Blind, Placebo-Controlled Study.
Anesth Analg. 2016 Apr;122(4):1120-9. doi: 10.1213/ANE.0000000000001174.

34. Barrachina B, Lopez-Picado A, Remon M, Fondarella A, Iriarte I, Bastida R, Rodríguez-Gascón A, Achaerandio MA, Iturricastillo MC, Aizpuru F, Valero CA, Tobalina R, Hernanz R.
Tranexamic Acid Compared with Placebo for Reducing Total Blood Loss in Hip Replacement Surgery: A Randomized Clinical Trial.
Anesth Analg. 2016 Apr;122(4):986-95. doi: 10.1213/ANE.0000000000001159.

35. Paterson E, Sanderson PM, Paterson NA, Liu D, Loeb RG.
The effectiveness of pulse oximetry sonification enhanced with tremolo and brightness for distinguishing clinically important oxygen saturation ranges: a laboratory study.
Anaesthesia. 2016 May;71(5):565-72. doi: 10.1111/anae.13424. Epub 2016 Mar 15.

36. Gilron I, Chaparro LE, Tu D, Holden RR, Milev R, Towheed T, DuMerton-Shore D, Walker S.
Combination of pregabalin with duloxetine for fibromyalgia: a randomized controlled trial.
Pain. 2016 Jul;157(7):1532-40. doi: 10.1097/j.pain.0000000000000558.

37. Joo Y, Kim YC, Lee SC, Kim HY, Park KS, Choi EJ, Moon JY.
Impact of Type of Needle on Incidence of Intravascular Injection During Diagnostic Lumbar Medial Branch Block.
Reg Anesth Pain Med. 2016 May-Jun;41(3):392-7. doi: 10.1097/AAP.0000000000000381.

38. Stourac P, Adamus M, Seidlova D, Pavlik T, Janku P, Krikava I, Mrozek Z, Prochazka M, Klucka J, Stoudek R, Bartikova I, Kosinova M, Harazim H, Robotkova H, Hejduk K, Hodicka Z, Kirchnerova M, Francakova J, Obare Pyszkova L, Hlozkova J, Sevcik P.
Low-Dose or High-Dose Rocuronium Reversed with Neostigmine or Sugammadex for Cesarean Delivery Anesthesia: A Randomized Controlled Noninferiority Trial of Time to Tracheal Intubation and Extubation.
Anesth Analg. 2016 May;122(5):1536-45. doi: 10.1213/ANE.0000000000001197.

39. Campbell CM, Diamond E, Schmidt WK, Kelly M, Allen R, Houghton W, Brady KL, Campbell JN.
A randomized, double-blind, placebo-controlled trial of injected capsaicin for pain in Morton's neuroma.
Pain. 2016 Jun;157(6):1297-304. doi: 10.1097/j.pain.0000000000000544.

40. Murphy SL, Kratz AL, Kidwell K, Lyden AK, Geisser ME, Williams DA.
Brief time-based activity pacing instruction as a singular behavioral intervention was not effective in participants with symptomatic osteoarthritis.
Pain. 2016 Jul;157(7):1563-73. doi: 10.1097/j.pain.0000000000000549.

41. Atkinson JH, Slater MA, Capparelli EV, Patel SM, Wolfson T, Gamst A, Abramson IS, Wallace MS, Funk SD, Rutledge TR, Wetherell JL, Matthews SC, Zisook S, Garfin SR.
A randomized controlled trial of gabapentin for chronic low back pain with and without a radiating component.
Pain. 2016 Jul;157(7):1499-507. doi: 10.1097/j.pain.0000000000000554.

42. Monahan AM, Madison SJ, Loland VJ, Sztain JF, Bishop ML, Sandhu NS, Bellars RH, Khatibi B, Schwartz AK, Ahmed SS, Donohue MC, Nomura ST, Wen CH, Ilfeld BM.
Continuous Popliteal Sciatic Blocks: Does Varying Perineural Catheter Location Relative to the Sciatic Bifurcation Influence Block Effects? A Dual-Center, Randomized, Subject-Masked, Controlled Clinical Trial.
Anesth Analg. 2016 May;122(5):1689-95. doi: 10.1213/ANE.0000000000001211.

43. Ramsingh D, Frank E, Haughton R, Schilling J, Gimenez KM, Banh E, Rinehart J, Cannesson M.
Auscultation versus Point-of-care Ultrasound to Determine Endotracheal versus Bronchial Intubation: A Diagnostic Accuracy Study.
Anesthesiology. 2016 May;124(5):1012-20. doi: 10.1097/ALN.0000000000001073.

44. Yasumura R, Kobayashi Y, Ochiai R.

A comparison of plasma levobupivacaine concentrations following transversus abdominis plane block and rectus sheath block.
Anaesthesia. 2016 May;71(5):544-9. doi: 10.1111/anae.13414. Epub 2016 Mar 4.

45. Abdallah FW, Whelan DB, Chan VW, Prasad GA, Endersby RV, Theodoropolous J, Oldfield S, Oh J, Brull R.
Adductor Canal Block Provides Noninferior Analgesia and Superior Quadriceps Strength Compared with Femoral Nerve Block in Anterior Cruciate Ligament Reconstruction.
Anesthesiology. 2016 May;124(5):1053-64. doi: 10.1097/ALN.0000000000001045.

46. Comelon M, Raeder J, Stubhaug A, Nielsen CS, Draegni T, Lenz H.
Gradual withdrawal of remifentanil infusion may prevent opioid-induced hyperalgesia.
Br J Anaesth. 2016 Apr;116(4):524-30. doi: 10.1093/bja/aev547. Epub 2016 Mar 1.

47. Bonnal A, Dehon A, Nagot N, Macioce V, Nogue E, Morau E.
Patient-controlled oral analgesia versus nurse-controlled parenteral analgesia after caesarean section: a randomised controlled trial.
Anaesthesia. 2016 May;71(5):535-43. doi: 10.1111/anae.13406. Epub 2016 Mar 2.

48. Tan WF, Miao EY, Jin F, Ma H, Lu HW.
Changes in First Postoperative Night Bispectral Index After Daytime Sedation Induced by Dexmedetomidine or Midazolam Under Regional Anesthesia: A Randomized Controlled Trial.
Reg Anesth Pain Med. 2016 May-Jun;41(3):380-6. doi: 10.1097/AAP.0000000000000370.

49. Hamada T, Tsuchiya M, Mizutani K, Takahashi R, Muguruma K, Maeda K, Ueda W, Nishikawa K.
Levobupivacaine-dextran mixture for transversus abdominis plane block and rectus sheath block in patients undergoing laparoscopic colectomy: a randomised controlled trial.
Anaesthesia. 2016 Apr;71(4):411-6. doi: 10.1111/anae.13408. Epub 2016 Feb 26.

50. Myles PS, Chan MT, Kasza J, Paech MJ, Leslie K, Peyton PJ, Sessler DI, Haller G, Beattie WS, Osborne C, Sneyd JR, Forbes A.
Severe Nausea and Vomiting in the Evaluation of Nitrous Oxide in the Gas Mixture for Anesthesia II Trial.
Anesthesiology. 2016 May;124(5):1032-40. doi: 10.1097/ALN.0000000000001057.

51. Rosenfeld DM, Ivancic MG, Hattrup SJ, Renfree KJ, Watkins AR, Hentz JG, Gorlin AW, Spiro JA, Trentman TL.
Perineural versus intravenous dexamethasone as adjuncts to local anaesthetic brachial plexus block for shoulder surgery.
Anaesthesia. 2016 Apr;71(4):380-8. doi: 10.1111/anae.13409. Epub 2016 Feb 22.

52. Cobb B, Cho Y, Hilton G, Ting V, Carvalho B.
Active Warming Utilizing Combined IV Fluid and Forced-Air Warming Decreases Hypothermia and Improves Maternal Comfort During Cesarean Delivery: A Randomized Control Trial.
Anesth Analg. 2016 May;122(5):1490-7. doi: 10.1213/ANE.0000000000001181.

53. Arnuntasupakul V, Van Zundert TC, Vijitpavan A, Aliste J, Engsusophon P, Leurcharusmee P, Ah-Kye S, Finlayson RJ, Tran DQ.
A Randomized Comparison Between Conventional and Waveform-Confirmed Loss of Resistance for Thoracic Epidural Blocks.
Reg Anesth Pain Med. 2016 May-Jun;41(3):368-73. doi: 10.1097/AAP.0000000000000369.

54. Lee EH, Kim WJ, Kim JY, Chin JH, Choi DK, Sim JY, Choo SJ, Chung CH, Lee JW, Choi IC.
Effect of Exogenous Albumin on the Incidence of Postoperative Acute Kidney Injury in Patients Undergoing Off-pump Coronary Artery Bypass Surgery with a Preoperative Albumin Level of Less Than 4.0 g/dl.
Anesthesiology. 2016 May;124(5):1001-11. doi: 10.1097/ALN.0000000000001051.

55. Gaskell AL, Jephcott CG, Smithells JR, Sleigh JW.
Self-administered methoxyflurane for procedural analgesia: experience in a tertiary Australasian centre.
Anaesthesia. 2016 Apr;71(4):417-23. doi: 10.1111/anae.13377. Epub 2016 Feb 15.

56. Choi ES, Oh AY, Seo KS, Hwang JW, Ryu JH, Koo BW, Kim BG.
Optimum dose of neostigmine to reverse shallow neuromuscular blockade with rocuronium and cisatracurium.
Anaesthesia. 2016 Apr;71(4):443-9. doi: 10.1111/anae.13398. Epub 2016 Feb 13.

57. Monsel A, Lu Q, Le Corre M, Brisson H, Arbelot C, Vezinet C, Fléron MH, Ibanez-Estève C, Zerimech F, Balduyck M, Dexheimer F, Wang C, Langeron O, Rouby JJ, Bodin L, Deransy R, Garçon P, Douiri H, Khalifa I, Pons A, Gu WJ, Koskas F, Gaudric J; TETRIS Study Group.
Tapered-cuff Endotracheal Tube Does Not Prevent Early Postoperative Pneumonia Compared with Spherical-cuff Endotracheal Tube after Major Vascular Surgery: A Randomized Controlled Trial.
Anesthesiology. 2016 May;124(5):1041-52. doi: 10.1097/ALN.0000000000001053.

58. Udani AD, Harrison TK, Mariano ER, Derby R, Kan J, Ganaway T, Shum C, Gaba DM, Tanaka P, Kou A, Howard SK; ADAPT (Anesthesiology-Directed Advanced Procedural Training) Research Group.
Comparative-Effectiveness of Simulation-Based Deliberate Practice Versus Self-Guided Practice on Resident Anesthesiologists' Acquisition of Ultrasound-Guided Regional Anesthesia Skills.
Reg Anesth Pain Med. 2016 Mar-Apr;41(2):151-7. doi: 10.1097/AAP.0000000000000361.

59. Stundner O, Meissnitzer M, Brummett CM, Moser S, Forstner R, Koköfer A, Danninger T, Gerner P, Kirchmair L, Fritsch G.
Br J Anaesth. 2016 Mar;116(3):405-12. doi: 10.1093/bja/aev550.

60. Ambrosoli AL, Chiaranda M, Fedele LL, Gemma M, Cedrati V, Cappelleri G.
A randomised controlled trial of intrathecal blockade versus peripheral nerve blockade for day-case knee arthroscopy.
Anaesthesia. 2016 Mar;71(3):280-4. doi: 10.1111/anae.13361. Epub 2016 Jan 6.

61. Monahan AM, Sztain JF, Khatibi B, Furnish TJ, Jæger P, Sessler DI, Mascha EJ, You J, Wen CH, Nakanote KA, Ilfeld BM.
Continuous Adductor Canal Blocks: Does Varying Local Anesthetic Delivery Method (Automatic Repeated Bolus Doses Versus Continuous Basal Infusion) Influence Cutaneous Analgesia and Quadriceps Femoris Strength? A Randomized, Double-Masked, Controlled, Split-Body Volunteer Study.
Anesth Analg. 2016 May;122(5):1681-8. doi: 10.1213/ANE.0000000000001182.

62. Foulds LT, McGuire BE, Shippey BJ.
A randomised cross-over trial comparing the McGrath(®) Series 5 videolaryngoscope with the Macintosh laryngoscope in patients with cervical spine immobilisation.
Anaesthesia. 2016 Apr;71(4):437-42. doi: 10.1111/anae.13384. Epub 2016 Feb 5.

63. Oshan V, Plant N, Gopal P, Rajai A, Roberts SA, Walker RW.
The effect of age and increasing head-up tilt on pre-oxygenation times in children: a randomised exploratory study.
Anaesthesia. 2016 Apr;71(4):429-36. doi: 10.1111/anae.13379. Epub 2016 Feb 5.

64. Palermo TM, Law EF, Bromberg M, Fales J, Eccleston C, Wilson AC.
Problem-solving skills training for parents of children with chronic pain: a pilot randomized controlled trial.
Pain. 2016 Jun;157(6):1213-23. doi: 10.1097/j.pain.0000000000000508.

65. Attal N, Ayache SS, Ciampi De Andrade D, Mhalla A, Baudic S, Jazat F, Ahdab R, Neves DO, Sorel M, Lefaucheur JP, Bouhassira D.
Repetitive transcranial magnetic stimulation and transcranial direct-current stimulation in neuropathic pain due to radiculopathy: a randomized sham-controlled comparative study.
Pain. 2016 Jun;157(6):1224-31. doi: 10.1097/j.pain.0000000000000510.

66. Samuelson ST, Burnett G, Sim AJ, Hofer I, Weinberg AD, Goldberg A, Chang TS, DeMaria S Jr.
Simulation as a set-up for technical proficiency: can a virtual warm-up improve live fibre-optic intubation?

Br J Anaesth. 2016 Mar;116(3):398-404. doi: 10.1093/bja/aev436. Epub 2016 Jan 27.

67. Komasawa N, Kido H, Miyazaki Y, Tatsumi S, Minami T.
Cricoid pressure impedes tracheal intubation with the Pentax-AWS Airwayscope®: a prospective randomized trial.
Br J Anaesth. 2016 Mar;116(3):413-6. doi: 10.1093/bja/aev438. Epub 2016 Jan 27.

68. Jans Ø, Grevstad U, Mandøe H, Kehlet H, Johansson PI.
A randomized trial of the effect of low dose epinephrine infusion in addition to tranexamic acid on blood loss during total hip arthroplasty.
Br J Anaesth. 2016 Mar;116(3):357-62. doi: 10.1093/bja/aev408. Epub 2016 Jan 27.

69. Deschamps A(1), Hall R, Grocott H, Mazer CD, Choi PT, Turgeon AF, de Medicis E, Bussières JS, Hudson C, Syed S, Seal D, Herd S, Lambert J, Denault A, Deschamps A, Mutch A, Turgeon A, Denault A, Todd A, Jerath A, Fayad A, Finnegan B, Kent B, Kennedy B, Cuthbertson BH, Kavanagh B, Warriner B, MacAdams C, Lehmann C, Fudorow C, Hudson C, McCartney C, McIsaac D, Dubois D, Campbell D, Mazer D, Neilpovitz D, Rosen D, Cheng D, Drapeau D, Dillane D, Tran D, Mckeen D, Wijeysundera D, Jacobsohn E, Couture E, de Medicis E, Alam F, Abdallah F, Ralley FE, Chung F, Lellouche F, Dobson G, Germain G, Djaiani G, Gilron I, Hare G, Bryson G, Clarke H, McDonald H, Roman-Smith H, Grocott H, Yang H, Douketis J, Paul J, Beaubien J, Bussières J, Pridham J, Armstrong JN, Parlow J, Murkin J, Gamble J, Duttchen K, Karkouti K, Turner K, Baghirzada L, Szabo L, Lalu M, Wasowicz M, Bautista M, Jacka M, Murphy M, Schmidt M, Verret M, Perrault MA, Beaudet N, Buckley N, Choi P, MacDougall P, Jones P, Drolet P, Beaulieu P, Taneja R, Martin R, Hall R, George R, Chun R, McMullen S, Beattie S, Sampson S, Choi S, Kowalski S, McCluskey S, Syed S, Boet S, Ramsay T, Saha T, Mutter T, Chowdhury T, Uppal V, Mckay W; Canadian Perioperative Anesthesia Clinical Trials Group.

Collaborators: Deschamps A, Mutch A, Turgeon A, Denault A, Todd A, Jerath A, Fayad A, Finnegan B, Kent B, Kennedy B, Cuthbertson BH, Kavanagh B, Warriner B, MacAdams C, Lehmann C, Fudorow C, Hudson C, McCartney C, McIsaac D, Dubois D, Campbell D, Mazer D, Neilpovitz D, Rosen D, Cheng D, Drapeau D, Dillane D, Mckeen D, Wijeysundera D, Jacobsohn E, Couture E, de Medicis E, Alam F, Abdallah F, Ralley FE, Chung F, Lellouche F, Dobson G, Germain G, Djaiani G, Gilron I, Hare G, Bryson G, Clarke H, McDonald H, Roman-Smith H, Grocott H, Douketis J, Paul J, Beaubien J, Bussières J, Pridham J, Armstrong J, Parlow J, Murkin J, Gamble J, Duttchen K, Karkouti K, Turner K, Baghirzada L, Szabo L, Lalu M, Wasowicz M, Bautista M, Jacka M, Murphy M, Schmidt M, Verret M, Perrault MA, Beaudet N, Buckley N, Choi P, MacDougall P, Jones P, Drolet P, Beaulieu P, Taneja R, Martin R, Hall R, George R, Chun R, McMullen S, Beattie S, Sampson S, Choi S, Kowalski S, McCluskey S, Syed S, Boet S, Ramsay T, Saha T, Mutter T, Chowdhury T, Uppal V, Mckay W.

Cerebral Oximetry Monitoring to Maintain Normal Cerebral Oxygen Saturation during

High-risk Cardiac Surgery: A Randomized Controlled Feasibility Trial.
Anesthesiology. 2016 Apr;124(4):826-36. doi: 10.1097/ALN.0000000000001029.

70. McNeer RR, Bennett CL, Dudaryk R.
Intraoperative Noise Increases Perceived Task Load and Fatigue in Anesthesiology Residents: A Simulation-Based Study.
Anesth Analg. 2016 Feb;122(2):512-25. doi: 10.1213/ANE.0000000000001067.

71. Wu J, Zhao Z, Zhu X, Renn CL, Dorsey SG, Faden AI.
Cell cycle inhibition limits development and maintenance of neuropathic pain following spinal cord injury.
Pain. 2016 Feb;157(2):488-503. doi: 10.1097/j.pain.0000000000000393.

72. Seo JH, Cho CW, Hong DM, Jeon Y, Bahk JH.
The effects of thermal softening of double-lumen endobronchial tubes on postoperative sore throat, hoarseness and vocal cord injuries: a prospective double-blind randomized trial.
Br J Anaesth. 2016 Feb;116(2):282-8. doi: 10.1093/bja/aev414.

73. McQuay HJ, Moore RA, Berta A, Gainutdinovs O, Fülesdi B, Porvaneckas N, Petronis S, Mitkovic M, Bucsi L, Samson L, Zegunis V, Ankin ML, Bertolotti M, Pizà-Vallespir B, Cuadripani S, Contini MP, Nizzardo A.
Randomized clinical trial of dexketoprofen/tramadol 25 mg/75 mg in moderate-to-severe pain after total hip arthroplasty.
Br J Anaesth. 2016 Feb;116(2):269-76. doi: 10.1093/bja/aev457.

74. Benger J, Coates D, Davies S, Greenwood R, Nolan J, Rhys M, Thomas M, Voss S.
Randomised comparison of the effectiveness of the laryngeal mask airway supreme, i-gel and current practice in the initial airway management of out of hospital cardiac arrest: a feasibility study.
Br J Anaesth. 2016 Feb;116(2):262-8. doi: 10.1093/bja/aev477.

75. John M, Crook D, Dasari K, Eljelani F, El-Haboby A, Harper CM.
Comparison of resistive heating and forced-air warming to prevent inadvertent perioperative hypothermia.
Br J Anaesth. 2016 Feb;116(2):249-54. doi: 10.1093/bja/aev412.

76. Kaufhold N, Schaller SJ, Stäuble CG, Baumüller E, Ulm K, Blobner M, Fink H.
Sugammadex and neostigmine dose-finding study for reversal of residual neuromuscular block at a train-of-four ratio of 0.2 (SUNDRO20)†,.
Br J Anaesth. 2016 Feb;116(2):233-40. doi: 10.1093/bja/aev437.

77. Buzançais G, Roger C, Bastide S, Jeannes P, Lefrant JY, Muller L.
Comparison of two ultrasound guided approaches for axillary vein catheterization: a randomized controlled non-inferiority trial.
Br J Anaesth. 2016 Feb;116(2):215-22. doi: 10.1093/bja/aev458.

78. Henshaw DS, Jaffe JD, Reynolds JW, Dobson S, Russell GB, Weller RS.
An Evaluation of Ultrasound-Guided Adductor Canal Blockade for Postoperative Analgesia After Medial Unicondylar Knee Arthroplasty.
Anesth Analg. 2016 Apr;122(4):1192-201. doi: 10.1213/ANE.0000000000001162.

79. Rascón-Martínez DM, Fresán-Orellana A, Ocharán-Hernández ME, Genis-Zarate JH, Castellanos-Olivares A.
The Effects of Ketamine on Cognitive Function in Elderly Patients Undergoing Ophthalmic Surgery: A Pilot Study.
Anesth Analg. 2016 Apr;122(4):969-75. doi: 10.1213/ANE.0000000000001153.

80. Gulec E, Biricik E, Turktan M, Hatipoglu Z, Unlugenc H.
The Effect of Intravenous Dexamethasone on Sugammadex Reversal Time in Children Undergoing Adenotonsillectomy.
Anesth Analg. 2016 Apr;122(4):1147-52. doi: 10.1213/ANE.0000000000001142.

81. Turkstra TP, Cusano F, Fridfinnson JA, Batohi P, Rachinsky M.
Early Endotracheal Tube Insertion with the GlideScope: A Randomized Controlled Trial.
Anesth Analg. 2016 Mar;122(3):753-7. doi: 10.1213/ANE.0000000000001147.

82. Frederick HJ, Wofford K, de Lisle Dear G, Schulman SR.
A Randomized Controlled Trial to Determine the Effect of Depth of Anesthesia on Emergence Agitation in Children.
Anesth Analg. 2016 Apr;122(4):1141-6. doi: 10.1213/ANE.0000000000001145.

83. Feuerecker M, van Oosterhout WP, Feuerecker B, Matzel S, Schelling G, Rehm M, Vein AA, Choukèr A.
Headache under simulated microgravity is related to endocrine, fluid distribution, and tight junction changes.
Pain. 2016 May;157(5):1072-8. doi: 10.1097/j.pain.0000000000000481.

84. Fusco P, Cofini V, Petrucci E, Scimia P, Paladini G, Behr AU, Gobbi F, Pozone T, Danelli G, Di Marco M, Vicentini R, Necozione S, Marinangeli F.
Unilateral paravertebral block compared with subarachnoid anesthesia for the management of postoperative pain syndrome after inguinal herniorrhaphy: a randomized controlled clinical trial.
Pain. 2016 May;157(5):1105-13. doi: 10.1097/j.pain.0000000000000487.

85. Lin N, Han R, Zhou J, Gelb AW.

Mild Sedation Exacerbates or Unmasks Focal Neurologic Dysfunction in Neurosurgical Patients with Supratentorial Brain Mass Lesions in a Drug-specific Manner.
Anesthesiology. 2016 Mar;124(3):598-607. doi: 10.1097/ALN.0000000000000994.

86. Weinberg L, Rachbuch C, Ting S, Howard W, Yeomans M, Gordon I, McNicol L, James K, Story D, Christophi C.
A randomised controlled trial of peri-operative lidocaine infusions for open radical prostatectomy.
Anaesthesia. 2016 Apr;71(4):405-10. doi: 10.1111/anae.13368. Epub 2016 Jan 8.

87. Lee SH, Kim N, Lee CY, Ban MG, Oh YJ.
Effects of dexmedetomidine on oxygenation and lung mechanics in patients with moderate chronic obstructive pulmonary disease undergoing lung cancer surgery: A randomised double-blinded trial.
Eur J Anaesthesiol. 2016 Apr;33(4):275-82. doi: 10.1097/EJA.0000000000000405.

88. Neuschwander A, Futier E, Jaber S, Pereira B, Eurin M, Marret E, Szymkewicz O, Beaussier M, Paugam-Burtz C.
The effects of intraoperative lung protective ventilation with positive end-expiratory pressure on blood loss during hepatic resection surgery: A secondary analysis of data from a published randomised control trial (IMPROVE).
Eur J Anaesthesiol. 2016 Apr;33(4):292-8. doi: 10.1097/EJA.0000000000000390.

89. Abou-Arab O, Guinot PG, Dimov E, Diouf M, de Broca B, Biet A, Zaatar R, Bernard E, Dupont H, Lorne E.
Low-positive pressure ventilation improves non-hypoxaemic apnoea tolerance during ear, nose and throat pan-endoscopy: A randomised controlled trial.
Eur J Anaesthesiol. 2016 Apr;33(4):269-74. doi: 10.1097/EJA.0000000000000394.

90. Odor PM, Bampoe S, Hayward J, Chis Ster I, Evans E. Intrapartum epidural fixation methods: a randomised controlled trial of three different epidural catheter securement devices.
Anaesthesia. 2016 Mar;71(3):298-305. doi: 10.1111/anae.13351. Epub 2015 Dec 29.

91. Batllori M, Urra M, Uriarte E, Romero C, Pueyo J, López-Olaondo L, Cambra K, Ibáñez B.
Randomized comparison of three transducer orientation approaches for ultrasound guided internal jugular venous cannulation.
Br J Anaesth. 2016 Mar;116(3):370-6. doi: 10.1093/bja/aev399. Epub 2015 Dec 24.

92. Ham SY, Shim YH, Kim EH, Son MJ, Park WS, Lee JS.
Aprepitant for antiemesis after laparoscopic gynaecological surgery: A randomised controlled trial.
Eur J Anaesthesiol. 2016 Feb;33(2):90-5. doi: 10.1097/EJA.0000000000000242.

93. Loupec T, Frasca D, Rousseau N, Faure JP, Mimoz O, Debaene B.
Appropriate dosing of sugammadex to reverse deep rocuronium-induced neuromuscular blockade in morbidly obese patients.
Anaesthesia. 2016 Mar;71(3):265-72. doi: 10.1111/anae.13344. Epub 2015 Dec 19.

94. Shaikh A, Robinson PN, Hasan M.
The Tulip GT® airway versus the facemask and Guedel airway: a randomised, controlled, cross-over study by Basic Life Support-trained airway providers in anaesthetised patients.
Anaesthesia. 2016 Mar;71(3):315-9. doi: 10.1111/anae.13328. Epub 2015 Dec 19.

95. Viscusi ER, Webster L, Kuss M, Daniels S, Bolognese JA, Zuckerman S, Soergel DG, Subach RA, Cook E, Skobieranda F.
A randomized, phase 2 study investigating TRV130, a biased ligand of the μ-opioid receptor, for the intravenous treatment of acute pain.
Pain. 2016 Jan;157(1):264-72. doi: 10.1097/j.pain.0000000000000363.

96. Dawson RL, McLeod DH, Koerber JP, Plummer JL, Dracopoulos GC.
A randomised controlled trial of perineural vs intravenous dexamethasone for foot surgery.
Anaesthesia. 2016 Mar;71(3):285-90. doi: 10.1111/anae.13346. Epub 2015 Dec 18.

97. Jain D, Jain K, Bala I, Gandhi K.
Evaluation of weight-adjusted doses of palonosetron for prevention of postoperative nausea and vomiting in day care laparoscopic gynaecological surgery: A dose ranging, randomised controlled trial.
Eur J Anaesthesiol. 2016 Feb;33(2):104-9. doi: 10.1097/EJA.0000000000000391.

98. Wanigasekera V, Mezue M, Andersson J, Kong Y, Tracey I.
Disambiguating Pharmacodynamic Efficacy from Behavior with Neuroimaging: Implications for Analgesic Drug Development.
Anesthesiology. 2016 Jan;124(1):159-68. doi: 10.1097/ALN.0000000000000924.

99. Prottengeier J, Petzoldt M, Jess N, Moritz A, Gall C, Schmidt J, Breuer G.
The effect of a standardised source of divided attention in airway management: A randomised, crossover, interventional manikin study.
Eur J Anaesthesiol. 2016 Mar;33(3):195-203. doi: 10.1097/EJA.0000000000000315.

100. Mauermann E, Filitz J, Dolder P, Rentsch KM, Bandschapp O, Ruppen W.
Does Fentanyl Lead to Opioid-induced Hyperalgesia in Healthy Volunteers?: A Double-blind, Randomized, Crossover Trial.
Anesthesiology. 2016 Feb;124(2):453-63. doi: 10.1097/ALN.0000000000000976.

101. Viscusi ER, Barrett AC, Paterson C, Forbes WP.

Efficacy and Safety of Methylnaltrexone for Opioid-Induced Constipation in Patients With Chronic Noncancer Pain: A Placebo Crossover Analysis.
Reg Anesth Pain Med. 2016 Jan-Feb;41(1):93-8. doi: 10.1097/AAP.0000000000000341.

102. Sørensen JK, Jæger P, Dahl JB, Gottschau B, Stephensen SL, Grevstad U.
The Isolated Effect of Adductor Canal Block on Quadriceps Femoris Muscle Strength After Total Knee Arthroplasty: A Triple-Blinded, Randomized, Placebo-Controlled Trial with Individual Patient Analysis.
Anesth Analg. 2016 Feb;122(2):553-8. doi: 10.1213/ANE.0000000000001073.

103. Sitsen E, Olofsen E, Lesman A, Dahan A, Vuyk J.
Epidural Blockade Affects the Pharmacokinetics of Propofol in Surgical Patients.
Anesth Analg. 2016 May;122(5):1341-9. doi: 10.1213/ANE.0000000000001090.

104. Abdallah FW, Dwyer T, Chan VW, Niazi AU, Ogilvie-Harris DJ, Oldfield S, Patel R, Oh J, Brull R.
IV and Perineural Dexmedetomidine Similarly Prolong the Duration of Analgesia after Interscalene Brachial Plexus Block: A Randomized, Three-arm, Triple-masked, Placebo-controlled Trial.
Anesthesiology. 2016 Mar;124(3):683-95. doi: 10.1097/ALN.0000000000000983.

105. Jagannathan N, Hajduk J, Sohn L, Huang A, Sawardekar A, Gebhardt ER, Johnson K, De Oliveira GS.
A randomised comparison of the Ambu® AuraGain™ and the LMA® supreme in infants and children.
Anaesthesia. 2016 Feb;71(2):205-12. doi: 10.1111/anae.13330. Epub 2015 Dec 9.

106. Ishigaki S, Masui K, Kazama T.
Saline Flush After Rocuronium Bolus Reduces Onset Time and Prolongs Duration of Effect: A Randomized Clinical Trial.
Anesth Analg. 2016 Mar;122(3):706-11. doi: 10.1213/ANE.0000000000001094.

107. Brookes J, Sondekoppam R, Armstrong K, Uppal V, Dhir S, Terlecki M, Ganapathy S.
Comparative evaluation of the visibility and block characteristics of a stimulating needle and catheter vs an echogenic needle and catheter for sciatic nerve block with a low-frequency ultrasound probe.
Br J Anaesth. 2015 Dec;115(6):912-9. doi: 10.1093/bja/aev351.

108. Clarke H, Pagé GM, McCartney CJ, Huang A, Stratford P, Andrion J, Kennedy D, Awad IT, Gollish J, Kay J, Katz J.
Pregabalin reduces postoperative opioid consumption and pain for 1 week after hospital discharge, but does not affect function at 6 weeks or 3 months after total hip arthroplasty.
Br J Anaesth. 2015 Dec;115(6):903-11. doi: 10.1093/bja/aev363.

109. Kim HJ, Lee K, Park WK, Lee BR, Joo HM, Koh YW, Seo YW, Kim WS, Yoo YC.
Deep neuromuscular block improves the surgical conditions for laryngeal microsurgery.
Br J Anaesth. 2015 Dec;115(6):867-72. doi: 10.1093/bja/aev368.

110. Song IA, Seo KS, Oh AY, No HJ, Hwang JW, Jeon YT, Park SH, Do SH.
Timing of reversal with respect to three nerve stimulator end-points from cisatracurium-induced neuromuscular block.
Anaesthesia. 2015 Jul;70(7):797-802. doi: 10.1111/anae.13044. Epub 2015 Feb 27.

111. Aziz MF, Abrons RO, Cattano D, Bayman EO, Swanson DE, Hagberg CA, Todd MM, Brambrink AM.
First-Attempt Intubation Success of Video Laryngoscopy in Patients with Anticipated Difficult Direct Laryngoscopy: A Multicenter Randomized Controlled Trial Comparing the C-MAC D-Blade Versus the GlideScope in a Mixed Provider and Diverse Patient PopulationAnesth Analg. 2016 Mar;122(3):740-50. doi: 10.1213/ANE.0000000000001084.

112. Jeppsson A, Waldén K, Roman-Emanuel C, Thimour-Bergström L, Karlsson M.
Preoperative supplementation with fibrinogen concentrate in cardiac surgery: A randomized controlled study.
Br J Anaesth. 2016 Feb;116(2):208-14. doi: 10.1093/bja/aev367. Epub 2015 Nov 17.

113. Djaiani G, Silverton N, Fedorko L, Carroll J, Styra R, Rao V, Katznelson R.
Dexmedetomidine versus Propofol Sedation Reduces Delirium after Cardiac Surgery: A Randomized Controlled Trial.
Anesthesiology. 2016 Feb;124(2):362-8. doi: 10.1097/ALN.0000000000000951.

114. Ishida T, Kiuchi C, Sekiguchi T, Tsujimoto T, Kawamata M.
McGRATH MAC video laryngoscope for insertion of a transoesophageal echocardiography probe: A randomised controlled trial.
Eur J Anaesthesiol. 2016 Apr;33(4):263-8. doi: 10.1097/EJA.0000000000000367.

115. McKay RE, Hall KT, Hills N.
The Effect of Anesthetic Choice (Sevoflurane Versus Desflurane) and Neuromuscular Management on Speed of Airway Reflex Recovery.
Anesth Analg. 2016 Feb;122(2):393-401. doi: 10.1213/ANE.0000000000001022.

116. Dhir S, Armstrong K, Armstrong P, Bouzari A, Mall J, Yu J, Ganapathy S, King G.
A randomised comparison between ultrasound and nerve stimulation for infraclavicular catheter placement.
Anaesthesia. 2016 Feb;71(2):198-204. doi: 10.1111/anae.13302. Epub 2015 Nov 14.

117. Konstantatos AH, Howard W, Story D, Mok LY, Boyd D, Chan MT.
A randomised controlled trial of peri-operative pregabalin vs. placebo for video-assisted thoracoscopic surgery.
Anaesthesia. 2016 Feb;71(2):192-7. doi: 10.1111/anae.13292. Epub 2015 Nov 14.

118. Na HS, Shin HJ, Lee YJ, Kim JH, Koo KH, Do SH.
The effect of tranexamic acid on blood coagulation in total hip replacement arthroplasty: rotational thromboelastographic (ROTEM®) analysis.
Anaesthesia. 2016 Jan;71(1):67-75. doi: 10.1111/anae.13270. Epub 2015 Nov 12.

119. Yazicioğlu D, Caparlar C, Akkaya T, Mercan U, Kulaçoğlu H.
Tizanidine for the management of acute postoperative pain after inguinal hernia repair: A placebo-controlled double-blind trial.
Eur J Anaesthesiol. 2016 Mar;33(3):215-22. doi: 10.1097/EJA.0000000000000371.

120. Horn EP, Bein B, Broch O, Iden T, Böhm R, Latz SK, Höcker J.
Warming before and after epidural block before general anaesthesia for major abdominal surgery prevents perioperative hypothermia: A randomised controlled trial.
Eur J Anaesthesiol. 2016 May;33(5):334-40. doi: 10.1097/EJA.0000000000000369.

121. Hörner E, Schebesta K, Hüpfl M, Kimberger O, Rössler B.
The Impact of Monitoring on the Initiation of Cardiopulmonary Resuscitation in Children: Friend or Foe?
Anesth Analg. 2016 Feb;122(2):490-6. doi: 10.1213/ANE.0000000000001049.

122. Myhre M, Diep LM, Stubhaug A.
Pregabalin Has Analgesic, Ventilatory, and Cognitive Effects in Combination with Remifentanil.
Anesthesiology. 2016 Jan;124(1):141-9. doi: 10.1097/ALN.0000000000000913.

123. Olivieri C, Longhini F, Cena T, Cammarota G, Vaschetto R, Messina A, Berni P, Magnani C, Della Corte F, Navalesi P.
New versus Conventional Helmet for Delivering Noninvasive Ventilation: A Physiologic, Crossover Randomized Study in Critically Ill Patients.
Anesthesiology. 2016 Jan;124(1):101-8. doi: 10.1097/ALN.0000000000000910.

124. Schukro RP, Oehmke MJ, Geroldinger A, Heinze G, Kress HG, Pramhas S.
Efficacy of Duloxetine in Chronic Low Back Pain with a Neuropathic Component: A Randomized, Double-blind, Placebo-controlled Crossover Trial.
Anesthesiology. 2016 Jan;124(1):150-8. doi: 10.1097/ALN.0000000000000902.

125. Boivin A, Nadeau MJ, Dion N, Lévesque S, Nicole PC, Turgeon AF.
Ultrasound-Guided Single-Injection Infraclavicular Block Versus Ultrasound-Guided Double-Injection Axillary Block: A Noninferiority Randomized Controlled Trial.

Anesth Analg. 2016 Jan;122(1):273-8. doi: 10.1213/ANE.0000000000001017.

126. McEvoy MD, Hand WR, Stiegler MP, DiLorenzo AN, Ehrenfeld JM, Moran KR, Lekowski R, Nunnally ME, Manning EL, Shi Y, Shotwell MS, Gupta RK, Corey JM, Schell RM.
A Smartphone-based Decision Support Tool Improves Test Performance Concerning Application of the Guidelines for Managing Regional Anesthesia in the Patient Receiving Antithrombotic or Thrombolytic Therapy.
Anesthesiology. 2016 Jan;124(1):186-98. doi: 10.1097/ALN.0000000000000885.

127. Yang XY, Xiao J, Chen YH, Wang ZT, Wang HL, He DH, Zhang J.
Dexamethasone alone vs in combination with transcutaneous electrical acupoint stimulation or tropisetron for prevention of postoperative nausea and vomiting in gynaecological patients undergoing laparoscopic surgery.
Br J Anaesth. 2015 Dec;115(6):883-9. doi: 10.1093/bja/aev352. Epub 2015 Oct 27.

128. Shoushtarian M, Sahinovic MM, Absalom AR, Kalmar AF, Vereecke HE, Liley DT, Struys MM.
Comparisons of Electroencephalographically Derived Measures of Hypnosis and Antinociception in Response to Standardized Stimuli During Target-Controlled Propofol-Remifentanil Anesthesia.
Anesth Analg. 2016 Feb;122(2):382-92. doi: 10.1213/ANE.0000000000001029.

129. Triffterer L, Marhofer P, Sulyok I, Keplinger M, Mair S, Steinberger M, Klug W, Kimberger O.
Forced-Air Warming During Pediatric Surgery: A Randomized Comparison of a Compressible with a Noncompressible Warming System.
Anesth Analg. 2016 Jan;122(1):219-25. doi: 10.1213/ANE.0000000000001036.

130. Miu M, Royer C, Gaillat C, Schaup B, Menegaux F, Langeron O, Riou B, Aubrun F.
Lack of Analgesic Effect Induced by Ropivacaine Wound Infiltration in Thyroid Surgery: A Randomized, Double-Blind, Placebo-Controlled Trial.
Anesth Analg. 2016 Feb;122(2):559-64. doi: 10.1213/ANE.0000000000001041.

131. Benzon HA, Shah RD, Hansen J, Hajduk J, Billings KR, De Oliveira GS Jr, Suresh S.
The Effect of Systemic Magnesium on Postsurgical Pain in Children Undergoing Tonsillectomies: A Double-Blinded, Randomized, Placebo-Controlled Trial.
Anesth Analg. 2015 Dec;121(6):1627-31. doi: 10.1213/ANE.0000000000001028.

132. Leslie K, Myles PS, Kasza J, Forbes A, Peyton PJ, Chan MT, Paech MJ, Sessler DI, Beattie WS, Devereaux PJ, Wallace S.
Nitrous Oxide and Serious Long-term Morbidity and Mortality in the Evaluation of Nitrous Oxide in the Gas Mixture for Anaesthesia (ENIGMA)-II Trial.
Anesthesiology. 2015 Dec;123(6):1267-80. doi: 10.1097/ALN.0000000000000908.

133. Turan A, Belley-Cote EP, Vincent J, Sessler DI, Devereaux PJ, Yusuf S, van Oostveen R, Cordova G, Yared JP, Yu H, Legare JF, Royse A, Rochon A, Nasr V, Ayad S, Quantz M, Lamy A, Whitlock RP.
Methylprednisolone Does Not Reduce Persistent Pain after Cardiac Surgery.
Anesthesiology. 2015 Dec;123(6):1404-10. doi: 10.1097/ALN.0000000000000915.

134. Du Y, Chen YJ, He B, Wang YW.
The Effects of Single-Dose Etomidate Versus Propofol on Cortisol Levels in Pediatric Patients Undergoing Urologic Surgery: A Randomized Controlled Trial.
Anesth Analg. 2015 Dec;121(6):1580-5. doi: 10.1213/ANE.0000000000000981.

135. Bharti N, Sardana DK, Bala I.
The Analgesic Efficacy of Dexmedetomidine as an Adjunct to Local Anesthetics in Supraclavicular Brachial Plexus Block: A Randomized Controlled Trial.
Anesth Analg. 2015 Dec;121(6):1655-60. doi: 10.1213/ANE.0000000000001006.

136. Jans Ø, Mehlsen J, Kjærsgaard-Andersen P, Husted H, Solgaard S, Josiassen J, Lunn TH, Kehlet H.
Oral Midodrine Hydrochloride for Prevention of Orthostatic Hypotension during Early Mobilization after Hip Arthroplasty: A Randomized, Double-blind, Placebo-controlled Trial.
Anesthesiology. 2015 Dec;123(6):1292-300. doi: 10.1097/ALN.0000000000000890.

137. Bresson J, Gayat E, Agrawal G, Chazot T, Liu N, Hausser-Haw C, Fischler M.
A Randomized Controlled Trial Comparison of NeuroSENSE and Bispectral Brain Monitors During Propofol-Based Versus Sevoflurane-Based General Anesthesia.
Anesth Analg. 2015 Nov;121(5):1194-201. doi: 10.1213/ANE.0000000000000922.

138. Ahn JH, Kim IS, Shin KM, Kang SS, Hong SJ, Park JH, Kim HJ, Lee SH, Kim DY, Jung JH.
Influence of arm position on catheter placement during real-time ultrasound-guided right infraclavicular proximal axillary venous catheterization.
Br J Anaesth. 2016 Mar;116(3):363-9. doi: 10.1093/bja/aev345. Epub 2015 Oct 20.

139. Turan A, Sarwar S, Atim A, Deogaonkar A, Yousef HF, Katyal S, Liu J, You J, Leizman D, Mekhail N, Sessler DI.
Nitrous Oxide for the Treatment of Chronic Low Back Pain.
Anesth Analg. 2015 Nov;121(5):1350-9. doi: 10.1213/ANE.0000000000000951.

140. Madsen MV, Istre O, Staehr-Rye AK, Springborg HH, Rosenberg J, Lund J, Gätke MR.
Postoperative shoulder pain after laparoscopic hysterectomy with deep neuromuscular blockade and low-pressure pneumoperitoneum: A randomised controlled trial.
Eur J Anaesthesiol. 2016 May;33(5):341-7. doi: 10.1097/EJA.0000000000000360.

141. Choi E, Nahm FS, Lee PB.
Comparison of contrast flow and clinical effectiveness between a modified paramedian interlaminar approach and transforaminal approach in cervical epidural steroid injection.
Br J Anaesth. 2015 Nov;115(5):768-74. doi: 10.1093/bja/aev342.

142. Skytte Larsson J, Bragadottir G, Krumbholz V, Redfors B, Sellgren J, Ricksten SE.
Effects of acute plasma volume expansion on renal perfusion, filtration, and oxygenation after cardiac surgery: a randomized study on crystalloid vs colloid.
Br J Anaesth. 2015 Nov;115(5):736-42. doi: 10.1093/bja/aev346.

143. Volz MS, Farmer A, Siegmund B.
Reduction of chronic abdominal pain in patients with inflammatory bowel disease through transcranial direct current stimulation: a randomized controlled trial.
Pain. 2016 Feb;157(2):429-37. doi: 10.1097/j.pain.0000000000000386.

144. Panjasawatwong K, Sessler DI, Stapelfeldt WH, Mayers DB, Mascha EJ, Yang D, Kurz A.
A Randomized Trial of a Supplemental Alarm for Critically Low Systolic Blood Pressure.
Anesth Analg. 2015 Dec;121(6):1500-7. doi: 10.1213/ANE.0000000000000950.

145. Tanggaard K, Jensen K, Lenz K, Vazin M, Binzer J, Lindberg-Larsen VO, Niegsch M, Bendtsen TF, Jorgensen LN, Børglum J.
A randomised controlled trial of bilateral dual transversus abdominis plane blockade for laparoscopic appendicectomy.
Anaesthesia. 2015 Dec;70(12):1395-400. doi: 10.1111/anae.13234. Epub 2015 Oct 14.

146. Lee MC, Tseng KY, Shen YC, Lin CH, Hsu CW, Hsu HJ, Lu IC, Cheng KI.
Nasotracheal intubation in patients with limited mouth opening: a comparison between fibreoptic intubation and the Trachway®.
Anaesthesia. 2016 Jan;71(1):31-8. doi: 10.1111/anae.13232. Epub 2015 Oct 12.

147. Cohen SP, Peterlin BL, Fulton L, Neely ET, Kurihara C, Gupta A, Mali J, Fu DC, Jacobs MB, Plunkett AR, Verdun AJ, Stojanovic MP, Hanling S, Constantinescu O, White RL, McLean BC, Pasquina PF, Zhao Z.
Randomized, double-blind, comparative-effectiveness study comparing pulsed radiofrequency to steroid injections for occipital neuralgia or migraine with occipital nerve tenderness.
Pain. 2015 Dec;156(12):2585-94. doi: 10.1097/j.pain.0000000000000373.

148. Makkar JK, Bhatia N, Bala I, Dwivedi D, Singh PM.
A comparison of single dose dexmedetomidine with propofol for the prevention of emergence delirium after desflurane anaesthesia in children.

Anaesthesia. 2016 Jan;71(1):50-7. doi: 10.1111/anae.13230. Epub 2015 Oct 7.

149. Kleine-Brueggeney M, Greif R, Brenneisen R, Urwyler N, Stueber F, Theiler LG.
Intravenous Delta-9-Tetrahydrocannabinol to Prevent Postoperative Nausea and Vomiting: A Randomized Controlled Trial.
Anesth Analg. 2015 Nov;121(5):1157-64. doi: 10.1213/ANE.0000000000000877.

150. Roelants F, Lavand'homme P.
Clonidine versus sufentanil as an adjuvant to ropivacaine in patient-controlled epidural labour analgesia: A randomised double-blind trial.
Eur J Anaesthesiol. 2015 Nov;32(11):805-11. doi: 10.1097/EJA.0000000000000347.

151. Ganapathy S, Sondekoppam RV, Terlecki M, Brookes J, Das Adhikary S, Subramanian L.
Comparison of efficacy and safety of lateral-to-medial continuous transversus abdominis plane block with thoracic epidural analgesia in patients undergoing abdominal surgery: A randomised, open-label feasibility study.
Eur J Anaesthesiol. 2015 Nov;32(11):797-804. doi: 10.1097/EJA.0000000000000345.

152. Mayr NP, Hapfelmeier A, Martin K, Kurz A, van der Starre P, Babik B, Mazzitelli D, Lange R, Wiesner G, Tassani-Prell P.
Comparison of sedation and general anaesthesia for transcatheter aortic valve implantation on cerebral oxygen saturation and neurocognitive outcome†.
Br J Anaesth. 2016 Jan;116(1):90-9. doi: 10.1093/bja/aev294. Epub 2015 Sep 29.

153. Castro-Alves LJ, Oliveira de Medeiros AC, Neves SP, Carneiro de Albuquerque CL, Modolo NS, De Azevedo VL, De Oliveira GS Jr.
Perioperative Duloxetine to Improve Postoperative Recovery After Abdominal Hysterectomy: A Prospective, Randomized, Double-Blinded, Placebo-Controlled Study.
Anesth Analg. 2016 Jan;122(1):98-104. doi: 10.1213/ANE.0000000000000971.

154. Williams JE, Peacock J, Gubbay AN, Kuo PY, Ellard R, Gupta R, Riley J, Sauzet O, Raftery J, Yao G, Ross J.
Routine screening for pain combined with a pain treatment protocol in head and neck cancer: a randomised controlled trial.
Br J Anaesth. 2015 Oct;115(4):621-8. doi: 10.1093/bja/aev263.

155. Lai CW, Starkie T, Creanor S, Struthers RA, Portch D, Erasmus PD, Mellor N, Hosie KB, Sneyd JR, Minto G.
Randomized controlled trial of stroke volume optimization during elective major abdominal surgery in patients stratified by aerobic fitness.
Br J Anaesth. 2015 Oct;115(4):578-89. doi: 10.1093/bja/aev299.

156. Al Tmimi L, Van Hemelrijck J, Van de Velde M, Sergeant P, Meyns B, Missant C, Jochmans I, Poesen K, Coburn M, Rex S.
Xenon anaesthesia for patients undergoing off-pump coronary artery bypass graft surgery: a prospective randomized controlled pilot trial.
Br J Anaesth. 2015 Oct;115(4):550-9. doi: 10.1093/bja/aev303.

157. Cruz Eng H, Riazi S, Veillette C, Ami N, Niazi AU, Chin KJ, Chan VW, Perlas A.
An Expedited Care Pathway with Ambulatory Brachial Plexus Analgesia Is a Cost-effective Alternative to Standard Inpatient Care after Complex Arthroscopic Elbow Surgery: A Randomized, Single-blinded Study.
Anesthesiology. 2015 Dec;123(6):1256-66. doi: 10.1097/ALN.0000000000000852.

158. Wasan AD, Michna E, Edwards RR, Katz JN, Nedeljkovic SS, Dolman AJ, Janfaza D, Isaac Z, Jamison RN.
Psychiatric Comorbidity Is Associated Prospectively with Diminished Opioid Analgesia and Increased Opioid Misuse in Patients with Chronic Low Back Pain.
Anesthesiology. 2015 Oct;123(4):861-72. doi: 10.1097/ALN.0000000000000768.

159. Olesen AE, Olofsen E, Andresen T, Graversen C, Drewes AM, Dahan A.
Stochastic Pharmacokinetic-Pharmacodynamic Analysis of the Effect of Transdermal Buprenorphine on Electroencephalogram and Analgesia.
Anesth Analg. 2015 Nov;121(5):1165-75. doi: 10.1213/ANE.0000000000000939.

160. Drake-Brockman TF, Ledowski T, Hegarty M, Gessner M, von Ungern-Sternberg BS.
A comparison of the i-gel(™) and the PRO-Breathe(®) laryngeal mask during pressure support ventilation in children.
Anaesthesia. 2015 Dec;70(12):1412-7. doi: 10.1111/anae.13206. Epub 2015 Sep 10.

161. Siddiqui N, Arzola C, Friedman Z, Guerina L, You-Ten KE.
Ultrasound Improves Cricothyrotomy Success in Cadavers with Poorly Defined Neck Anatomy: A Randomized Control Trial.
Anesthesiology. 2015 Nov;123(5):1033-41. doi: 10.1097/ALN.0000000000000848.

162. Kenwright DA, Bernjak A, Draegni T, Dzeroski S, Entwistle M, Horvat M, Kvandal P, Landsverk SA, McClintock PV, Musizza B, Petrovčič J, Raeder J, Sheppard LW, Smith AF, Stankovski T, Stefanovska A.
The discriminatory value of cardiorespiratory interactions in distinguishing awake from anaesthetised states: a randomised observational study.
Anaesthesia. 2015 Dec;70(12):1356-68. doi: 10.1111/anae.13208. Epub 2015 Sep 9.

163. Song Y, Oh J, Chee Y, Cho Y, Lee S, Lim TH.
Effectiveness of chest compression feedback during cardiopulmonary resuscitation in lateral tilted and semirecumbent positions: a randomised controlled simulation study.

Anaesthesia. 2015 Nov;70(11):1235-41. doi: 10.1111/anae.13222. Epub 2015 Sep 8.

164. Sukcharanjit S, Tan AS, Loo AV, Chan XL, Wang CY.
The effect of a forced-air warming blanket on patients' end-tidal and transcutaneous carbon dioxide partial pressures during eye surgery under local anaesthesia: a single-blind, randomised controlled trial.
Anaesthesia. 2015 Dec;70(12):1390-4. doi: 10.1111/anae.13212. Epub 2015 Sep 8.

165. Palermo TM, Law EF, Fales J, Bromberg MH, Jessen-Fiddick T, Tai G.
Internet-delivered cognitive-behavioral treatment for adolescents with chronic pain and their parents: a randomized controlled multicenter trial.
Pain. 2016 Jan;157(1):174-85. doi: 10.1097/j.pain.0000000000000348.

166. Hauber JA, Davis PJ, Bendel LP, Martyn SV, McCarthy DL, Evans MC, Cladis FP, Cunningham S, Lang RS, Campbell NF, Tuchman JB, Young MC.
Dexmedetomidine as a Rapid Bolus for Treatment and Prophylactic Prevention of Emergence Agitation in Anesthetized Children.
Anesth Analg. 2015 Nov;121(5):1308-15. doi: 10.1213/ANE.0000000000000931.

167. Karmali S, Jenkins N, Sciusco A, John J, Haddad F, Ackland GL; POM-X Study Investigators.
Randomized controlled trial of vagal modulation by sham feeding in elective non-gastrointestinal (orthopaedic) surgery.
Br J Anaesth. 2015 Nov;115(5):727-35. doi: 10.1093/bja/aev283. Epub 2015 Aug 30.

168. Lazaar S, Boselli E, Chassard D, Allaouchiche B, Bouvet L.
Effect of acute cigarette smoking on gastric contents in regular smoker volunteers. A prospective randomized cross-over study.
Br J Anaesth. 2015 Oct;115(4):590-4. doi: 10.1093/bja/aev264. Epub 2015 Aug 30.

169. Maecken T, Heite L, Wolf B, Zahn PK, Litz RJ.
Ultrasound-guided catheterisation of the subclavian vein: freehand vs needle-guided technique.
Anaesthesia. 2015 Nov;70(11):1242-9. doi: 10.1111/anae.13187. Epub 2015 Aug 28.

170. Wei L, Deng X, Sui J, Wang L, Liu J.
Dexmedetomidine Improves Intubating Conditions Without Muscle Relaxants in Children After Induction With Propofol and Remifentanil.
Anesth Analg. 2015 Sep;121(3):785-90. doi: 10.1213/ANE.0000000000000812.

171. Lobo K, Donado C, Cornelissen L, Kim J, Ortiz R, Peake RW, Kellogg M, Alexander ME, Zurakowski D, Kurgansky KE, Peyton J, Bilge A, Boretsky K, McCann ME, Berde CB, Cravero J.
A Phase 1, Dose-escalation, Double-blind, Block-randomized, Controlled Trial of Safety and Efficacy of Neosaxitoxin Alone and in Combination with 0.2% Bupivacaine, with and without Epinephrine, for Cutaneous Anesthesia.

Anesthesiology. 2015 Oct;123(4):873-85. doi: 10.1097/ALN.0000000000000831.

172. Ghali AM, Shabana AM, El Btarny AM.
The Effect of Low-Dose Dexmedetomidine as an Adjuvant to Levobupivacaine in Patients Undergoing Vitreoretinal Surgery Under Sub-Tenon's Block Anesthesia.
Anesth Analg. 2015 Nov;121(5):1378-82. doi: 10.1213/ANE.0000000000000908.

173. Nielsen RV, Siegel H, Fomsgaard JS, Andersen JD, Martusevicius R, Mathiesen O, Dahl JB.
Preoperative dexamethasone reduces acute but not sustained pain after lumbar disk surgery: a randomized, blinded, placebo-controlled trial.
Pain. 2015 Dec;156(12):2538-44. doi: 10.1097/j.pain.0000000000000326.

174. Kallidaikurichi Srinivasan K, Iohom G, Loughnane F, Lee PJ.
Conventional Landmark-Guided Midline Versus Preprocedure Ultrasound-Guided Paramedian Techniques in Spinal Anesthesia.
Anesth Analg. 2015 Oct;121(4):1089-96. doi: 10.1213/ANE.0000000000000911.

175. Willingham MD, Karren E, Shanks AM, O'Connor MF, Jacobsohn E, Kheterpal S, Avidan MS.
Concurrence of Intraoperative Hypotension, Low Minimum Alveolar Concentration, and Low Bispectral Index Is Associated with Postoperative Death.
Anesthesiology. 2015 Oct;123(4):775-85. doi: 10.1097/ALN.0000000000000822.

176. Jess G, Pogatzki-Zahn EM, Zahn PK, Meyer-Frießem CH.
Monitoring heart rate variability to assess experimentally induced pain using the analgesia nociception index: A randomised volunteer study.
Eur J Anaesthesiol. 2016 Feb;33(2):118-25. doi: 10.1097/EJA.0000000000000304.

177. Shin HJ, Choi ES, Lee GW, Do SH.
Effects of Preoperative Serotonin-Receptor-Antagonist Administration in Spinal Anesthesia-Induced Hypotension: A Randomized, Double-blind Comparison Study of Ramosetron and Ondansetron.
Reg Anesth Pain Med. 2015 Sep-Oct;40(5):583-8. doi: 10.1097/AAP.0000000000000300.

178. Katz N, Kopecky EA, O'Connor M, Brown RH, Fleming AB.
A phase 3, multicenter, randomized, double-blind, placebo-controlled, safety, tolerability, and efficacy study of Xtampza ER in patients with moderate-to-severe chronic low back pain.
Pain. 2015 Dec;156(12):2458-67. doi: 10.1097/j.pain.0000000000000315.

179. Song Y, Shim JK, Song JW, Kim EK, Kwak YL.
Dexmedetomidine added to an opioid-based analgesic regimen for the prevention of postoperative nausea and vomiting in highly susceptible patients: A randomised controlled trial.

Eur J Anaesthesiol. 2016 Feb;33(2):75-83. doi: 10.1097/EJA.0000000000000327.

180. Gasanova I, Alexander J, Ogunnaike B, Hamid C, Rogers D, Minhajuddin A, Joshi GP.
Transversus Abdominis Plane Block Versus Surgical Site Infiltration for Pain Management After Open Total Abdominal Hysterectomy.
Anesth Analg. 2015 Nov;121(5):1383-8. doi: 10.1213/ANE.0000000000000909.

181. Picton P, Dering A, Alexander A, Neff M, Miller BS, Shanks A, Housey M, Mashour GA.
Influence of Ventilation Strategies and Anesthetic Techniques on Regional Cerebral Oximetry in the Beach Chair Position: A Prospective Interventional Study with a Randomized Comparison of Two Anesthetics.
Anesthesiology. 2015 Oct;123(4):765-74. doi: 10.1097/ALN.0000000000000798.

182. Bailey KM, Bird SJ, McGrath PJ, Chorney JE.
Preparing Parents to Be Present for Their Child's Anesthesia Induction: A Randomized Controlled Trial.
Anesth Analg. 2015 Oct;121(4):1001-10. doi: 10.1213/ANE.0000000000000900.

183. Klinger RY, Thunberg CA, White WD, Fontes M, Waldron NH, Piccini JP, Hughes GC, Podgoreanu MV, Stafford-Smith M, Newman MF, Mathew JP.
Intraoperative Magnesium Administration Does Not Reduce Postoperative Atrial Fibrillation After Cardiac Surgery.
Anesth Analg. 2015 Oct;121(4):861-7. doi: 10.1213/ANE.0000000000000873.

184. Jæger P, Koscielniak-Nielsen ZJ, Hilsted KL, Fabritius ML, Dahl JB.
Adductor Canal Block With 10 mL Versus 30 mL Local Anesthetics and Quadriceps Strength: A Paired, Blinded, Randomized Study in Healthy Volunteers.
Reg Anesth Pain Med. 2015 Sep-Oct;40(5):553-8. doi: 10.1097/AAP.0000000000000298.

185. Lunn TH, Husted H, Laursen MB, Hansen LT, Kehlet H.
Analgesic and sedative effects of perioperative gabapentin in total knee arthroplasty: a randomized, double-blind, placebo-controlled dose-finding study.
Pain. 2015 Dec;156(12):2438-48. doi: 10.1097/j.pain.0000000000000309.

186. Monagle J, Siu L, Worrell J, Goodchild CS, Serrao JM.
A Phase 1c Trial Comparing the Efficacy and Safety of a New Aqueous Formulation of Alphaxalone with Propofol.
Anesth Analg. 2015 Oct;121(4):914-24. doi: 10.1213/ANE.0000000000000856.

187. Blanco R, Ansari T, Girgis E.
Quadratus lumborum block for postoperative pain after caesarean section: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Nov;32(11):812-8. doi: 10.1097/EJA.0000000000000299.

188. Hanouz JL, Lammens S, Tasle M, Lesage A, Gérard JL, Plaud B.
Preoxygenation by spontaneous breathing or noninvasive positive pressure ventilation with and without positive end-expiratory pressure: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Dec;32(12):881-7. doi: 10.1097/EJA.0000000000000297.

189. Murouchi T, Iwasaki S, Yamakage M.
Chronological Changes in Ropivacaine Concentration and Analgesic Effects Between Transversus Abdominis Plane Block and Rectus Sheath Block.
Reg Anesth Pain Med. 2015 Sep-Oct;40(5):568-71. doi: 10.1097/AAP.0000000000000288.

190. Kapural L, Yu C, Doust MW, Gliner BE, Vallejo R, Sitzman BT, Amirdelfan K, Morgan DM, Brown LL, Yearwood TL, Bundschu R, Burton AW, Yang T, Benyamin R, Burgher AH.
Novel 10-kHz High-frequency Therapy (HF10 Therapy) Is Superior to Traditional Low-frequency Spinal Cord Stimulation for the Treatment of Chronic Back and Leg Pain: The SENZA-RCT Randomized Controlled Trial.
Anesthesiology. 2015 Oct;123(4):851-60. doi: 10.1097/ALN.0000000000000774.

191. Choi SS, Jun IG, Cho SS, Kim SK, Hwang GS, Kim YK.
Effect of stroke volume variation-directed fluid management on blood loss during living-donor right hepatectomy: a randomised controlled study.
Anaesthesia. 2015 Nov;70(11):1250-8. doi: 10.1111/anae.13155. Epub 2015 Jul 27.

192. Birnbach DJ, Rosen LF, Fitzpatrick M, Carling P, Arheart KL, Munoz-Price LS.
A New Approach to Pathogen Containment in the Operating Room: Sheathing the Laryngoscope After Intubation.
Anesth Analg. 2015 Nov;121(5):1209-14. doi: 10.1213/ANE.0000000000000854.

193. Wesselink EM, Kappen TH, van Klei WA, Dieleman JM, van Dijk D, Slooter AJ.
Intraoperative hypotension and delirium after on-pump cardiac surgery.
Br J Anaesth. 2015 Sep;115(3):427-33. doi: 10.1093/bja/aev256. Epub 2015 Jul 25.

194. Leslie K, McIlroy D, Kasza J, Forbes A, Kurz A, Khan J, Meyhoff CS, Allard R, Landoni G, Jara X, Lurati Buse G, Candiotti K, Lee HS, Gupta R, VanHelder T, Purayil W, De Hert S, Treschan T, Devereaux PJ.
Neuraxial block and postoperative epidural analgesia: effects on outcomes in the POISE-2 trial†.
Br J Anaesth. 2016 Jan;116(1):100-12. doi: 10.1093/bja/aev255. Epub 2015 Jul 25.

195. Czaplik M, Rossaint R, Kaliciak J, Follmann A, Kirfel S, Scharrer R, Guski M, Vorländer M, Marx G, Coburn M.
Psychoacoustic analysis of noise and the application of earplugs in an ICU: A

randomised controlled clinical trial.
Eur J Anaesthesiol. 2016 Jan;33(1):14-21. doi: 10.1097/EJA.0000000000000313.

196. Karan SB, Rackovsky E, Voter WA, Kanel JA, Farris N, Jensen J, Liu L, Ward DS.
A Randomized, Prospective, Double-Blinded Study of Physostigmine to Prevent Sedation-Induced Ventilatory Arrhythmias.
Anesth Analg. 2015 Sep;121(3):652-60. doi: 10.1213/ANE.0000000000000834.

197. Monks DT, Hoppe DW, Downey K, Shah V, Bernstein P, Carvalho JC.
A Perioperative Course of Gabapentin Does Not Produce a Clinically Meaningful Improvement in Analgesia after Cesarean Delivery: A Randomized Controlled Trial.
Anesthesiology. 2015 Aug;123(2):320-6. doi: 10.1097/ALN.0000000000000722.

198. Duncan AE, Kateby Kashy B, Sarwar S, Singh A, Stenina-Adognravi O, Christoffersen S, Alfirevic A, Sale S, Yang D, Thomas JD, Gillinov M, Sessler DI.
Hyperinsulinemic Normoglycemia Does Not Meaningfully Improve Myocardial Performance during Cardiac Surgery: A Randomized Trial.
Anesthesiology. 2015 Aug;123(2):272-87. doi: 10.1097/ALN.0000000000000723.

199. Lin SY, Huang HA, Lin SC, Huang YT, Wang KY, Shi HY.
The effect of an anaesthetic patient information video on perioperative anxiety: A randomised study.
Eur J Anaesthesiol. 2016 Feb;33(2):134-9. doi: 10.1097/EJA.0000000000000307.

200. Ramsingh D, Rinehart J, Kain Z, Strom S, Canales C, Alexander B, Capatina A, Ma M, Le KV, Cannesson M.
Impact assessment of perioperative point-of-care ultrasound training on anesthesiology residents.
Anesthesiology. 2015 Sep;123(3):670-82. doi: 10.1097/ALN.0000000000000776.

201. Kim H, Jung SM, Yu H, Park SJ.
Video Distraction and Parental Presence for the Management of Preoperative Anxiety and Postoperative Behavioral Disturbance in Children: A Randomized Controlled Trial.
Anesth Analg. 2015 Sep;121(3):778-84. doi: 10.1213/ANE.0000000000000839.

202. Pryor KO, Root JC, Mehta M, Stern E, Pan H, Veselis RA, Silbersweig DA.
Effect of propofol on the medial temporal lobe emotional memory system: a functional magnetic resonance imaging study in human subjects.
Br J Anaesth. 2015 Jul;115 Suppl 1:i104-i113. doi: 10.1093/bja/aev038.

203. YaDeau JT, Lin Y, Mayman DJ, Goytizolo EA, Alexiades MM, Padgett DE, Kahn RL, Jules-Elysee KM, Ranawat AS, Bhagat DD, Fields KG, Goon AK, Curren J, Westrich GH.
Pregabalin and pain after total knee arthroplasty: a double-blind, randomized,

placebo-controlled, multidose trial.
Br J Anaesth. 2015 Aug;115(2):285-93. doi: 10.1093/bja/aev217.

204. Benedetti F, Durando J, Giudetti L, Pampallona A, Vighetti S.
High-altitude headache: the effects of real vs sham oxygen administration.
Pain. 2015 Nov;156(11):2326-36. doi: 10.1097/j.pain.0000000000000288.

205. Andersen LP, Gögenur I, Fenger AQ, Petersen MC, Rosenberg J, Werner MU.
Analgesic and antihyperalgesic effects of melatonin in a human inflammatory pain model: a randomized, double-blind, placebo-controlled, three-arm crossover study.
Pain. 2015 Nov;156(11):2286-94. doi: 10.1097/j.pain.0000000000000284.

206. Martini CH, Boon M, Broens SJ, Hekkelman EF, Oudhoff LA, Buddeke AW, Dahan A.
Ability of the nociception level, a multiparameter composite of autonomic signals, to detect noxious stimuli during propofol-remifentanil anesthesia.
Anesthesiology. 2015 Sep;123(3):524-34. doi: 10.1097/ALN.0000000000000757.

207. Auyong DB, Yuan SC, Rymer AN, Green CL, Hanson NA.
A randomized crossover study comparing a novel needle guidance technology for simulated internal jugular vein cannulation.
Anesthesiology. 2015 Sep;123(3):535-41. doi: 10.1097/ALN.0000000000000759.

208. Baeumler PI, Fleckenstein J, Benedikt F, Bader J, Irnich D.
Acupuncture-induced changes of pressure pain threshold are mediated by segmental inhibition--a randomized controlled trial.
Pain. 2015 Nov;156(11):2245-55. doi: 10.1097/j.pain.0000000000000283.

209. Sztain JF, Machi AT, Kormylo NJ, Abramson WB, Madison SJ, Monahan AM, Khatibi B, Ball ST, Gonzales FB, Sessler DI, Mascha EJ, You J, Nakanote KA, Ilfeld BM.
Continuous Adductor Canal Versus Continuous Femoral Nerve Blocks: Relative Effects on Discharge Readiness Following Unicompartment Knee Arthroplasty.
Reg Anesth Pain Med. 2015 Sep-Oct;40(5):559-67. doi: 10.1097/AAP.0000000000000279.

210. Marian AA, Ranganath Y, Bayman EO, Senasu J, Brennan TJ.
A Comparison of 2 Ultrasound-Guided Approaches to the Saphenous Nerve Block: Adductor Canal Versus Distal Transsartorial: A Prospective, Randomized, Blinded, Noninferiority Trial.
Reg Anesth Pain Med. 2015 Sep-Oct;40(5):623-30. doi: 10.1097/AAP.0000000000000277.

211. Bergeron-Vézina K, Corriveau H, Martel M, Harvey MP, Léonard G.
High- and low-frequency transcutaneous electrical nerve stimulation does not reduce experimental pain in elderly individuals.
Pain. 2015 Oct;156(10):2093-9. doi: 10.1097/j.pain.0000000000000276.

212. Nasri-Heir C, Khan J, Benoliel R, Feng C, Yarnitsky D, Kuo F, Hirschberg C, Hartwell G, Huang CY, Heir G, Korczeniewska O, Diehl SR, Eliav E.
Altered pain modulation in patients with persistent postendodontic pain.
Pain. 2015 Oct;156(10):2032-41. doi: 10.1097/j.pain.0000000000000265.

213. Rozet I, Metzner J, Brown M, Treggiari MM, Slimp JC, Kinney G, Sharma D, Lee LA, Vavilala MS.
Dexmedetomidine Does Not Affect Evoked Potentials During Spine Surgery.
Anesth Analg. 2015 Aug;121(2):492-501. doi: 10.1213/ANE.0000000000000840.

214. Demant DT, Lund K, Finnerup NB, Vollert J, Maier C, Segerdahl MS, Jensen TS, Sindrup SH.
Pain relief with lidocaine 5% patch in localized peripheral neuropathic pain in relation to pain phenotype: a randomised, double-blind, and placebo-controlled, phenotype panel study.
Pain. 2015 Nov;156(11):2234-44. doi: 10.1097/j.pain.0000000000000266.

215. Dewinter G, Teunkens A, Vermeulen K, Devroe S, Van Hemelrijck J, Meuleman C, Vergote I, Fieuws S, Van de Velde M, Rex S.
Alizapride and ondansetron for the prevention of postoperative nausea and vomiting in patients undergoing laparoscopic gynaecological surgery: A double-blind, randomised, placebo-controlled noninferiority study.
Eur J Anaesthesiol. 2016 Feb;33(2):96-103. doi: 10.1097/EJA.0000000000000288.

216. Malcharek MJ, Bartz M, Rogos B, Günther L, Sablotzki A, Gille J, Schneider G.
Comparison of Enk Fibreoptic Atomizer with translaryngeal injection for topical anaesthesia for awake fibreoptic intubation in patients at risk of secondary cervical injury: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Sep;32(9):615-23. doi: 10.1097/EJA.0000000000000285.

217. Thomas-Kattappurathu G, Kasisomayajula A, Short J.
Best position and depth of anaesthesia for laryngeal mask airway removal in children: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Sep;32(9):624-30. doi: 10.1097/EJA.0000000000000286.

218. Desmet M, Vanneste B, Reynvoet M, Van Cauwelaert J, Verhelst L, Pottel H, Missant C, Van de Velde M.
A randomised controlled trial of intravenous dexamethasone combined with interscalene brachial plexus blockade for shoulder surgery.
Anaesthesia. 2015 Oct;70(10):1180-5. doi: 10.1111/anae.13156. Epub 2015 Jun 17.

219. Jove M, Griffin DW, Minkowitz HS, Ben-David B, Evashenk MA, Palmer PP.
Sufentanil Sublingual Tablet System for the Management of Postoperative Pain after Knee or Hip Arthroplasty: A Randomized, Placebo-controlled Study.
Anesthesiology. 2015 Aug;123(2):434-43. doi: 10.1097/ALN.0000000000000746.

220. Machi AT, Sztain JF, Kormylo NJ, Madison SJ, Abramson WB, Monahan AM, Khatibi B, Ball ST, Gonzales FB, Sessler DI, Mascha EJ, You J, Nakanote KA, Ilfeld BM.
Discharge Readiness after Tricompartment Knee Arthroplasty: Adductor Canal versus Femoral Continuous Nerve Blocks-A Dual-center, Randomized Trial.
Anesthesiology. 2015 Aug;123(2):444-56. doi: 10.1097/ALN.0000000000000741.

221. Moore A, Gregoire-Bertrand F, Massicotte N, Gauthier A, Lallo A, Ruel M, Todorov A, Girard F.
I-gel Versus LMA-Fastrach Supraglottic Airway for Flexible Bronchoscope-Guided Tracheal Intubation Using a Parker (GlideRite) Endotracheal Tube: A Randomized Controlled Trial.
Anesth Analg. 2015 Aug;121(2):430-6. doi: 10.1213/ANE.0000000000000807.

222. Ziegler D, Duan WR, An G, Thomas JW, Nothaft W.
A randomized double-blind, placebo-, and active-controlled study of T-type calcium channel blocker ABT-639 in patients with diabetic peripheral neuropathic pain.
Pain. 2015 Oct;156(10):2013-20. doi: 10.1097/j.pain.0000000000000263.

223. Luger M, Hiesmayr M, Köppel P, Sima B, Ranz I, Weiss C, König J, Luger E, Kruschitz R, Ludvik B, Schindler K.
Influence of intravenous thiamine supplementation on blood lactate concentration prior to cardiac surgery: A double-blinded, randomised controlled pilot study.
Eur J Anaesthesiol. 2015 Aug;32(8):543-8. doi: 10.1097/EJA.0000000000000205.

224. Sivashanmugam T, Ray S, Ravishankar M, Jaya V, Selvam E, Karmakar MK.
Reg Anesth Pain Med. 2015 Jul-Aug;40(4):337-43. doi:
Randomized Comparison of Extrafascial Versus Subfascial Injection of Local Anesthetic During Ultrasound-Guided Supraclavicular Brachial Plexus Block.
10.1097/AAP.0000000000000264.

225. Terkawi AS, Tiouririne M, Mehta SH, Hackworth JM, Tsang S, Durieux ME.
Ondansetron Does Not Attenuate Hemodynamic Changes in Patients Undergoing Elective Cesarean Delivery Using Subarachnoid Anesthesia: A Double-Blind, Placebo-Controlled, Randomized Trial.
Reg Anesth Pain Med. 2015 Jul-Aug;40(4):344-8. doi: 10.1097/AAP.0000000000000274.

226. Kleine-Brueggeney M, Nicolet A, Nabecker S, Seiler S, Stucki F, Greif R, Theiler L.
Blind intubation of anaesthetised children with supraglottic airway devices AmbuAura-i and Air-Q cannot be recommended: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Sep;32(9):631-9. doi: 10.1097/EJA.0000000000000261.

227. Wegner A, Elsenbruch S, Rebernik L, Roderigo T, Engelbrecht E, Jäger M, Engler H, Schedlowski M, Benson S.
Inflammation-induced pain sensitization in men and women: does sex matter in

experimental endotoxemia?
Pain. 2015 Oct;156(10):1954-64. doi: 10.1097/j.pain.0000000000000256.

228. Dear BF, Gandy M, Karin E, Staples LG, Johnston L, Fogliati VJ, Wootton BM, Terides MD, Kayrouz R, Perry KN, Sharpe L, Nicholas MK, Titov N.
The Pain Course: a randomised controlled trial examining an internet-delivered pain management program when provided with different levels of clinician support.
Pain. 2015 Oct;156(10):1920-35. doi: 10.1097/j.pain.0000000000000251.

229. Serra J, Duan WR, Locke C, Solà R, Liu W, Nothaft W.
Effects of a T-type calcium channel blocker, ABT-639, on spontaneous activity in C-nociceptors in patients with painful diabetic neuropathy: a randomized controlled trial.
Pain. 2015 Nov;156(11):2175-83. doi: 10.1097/j.pain.0000000000000249.

230. Moerman AT, Vanbiervliet VM, Van Wesemael A, Bouchez SM, Wouters PF, De Hert SG.
Assessment of Cerebral Autoregulation Patterns with Near-infrared Spectroscopy during Pharmacological-induced Pressure Changes.
Anesthesiology. 2015 Aug;123(2):327-35. doi: 10.1097/ALN.0000000000000715.

231. Gillies MA, Shah AS, Mullenheim J, Tricklebank S, Owen T, Antonelli J, Strachan F, Mills NL, Pearse RM.
Perioperative myocardial injury in patients receiving cardiac output-guided haemodynamic therapy: a substudy of the OPTIMISE Trial.
Br J Anaesth. 2015 Aug;115(2):227-33. doi: 10.1093/bja/aev137. Epub 2015 May 21.

232. Davidson AJ, Morton NS, Arnup SJ, de Graaff JC, Disma N, Withington DE, Frawley G, Hunt RW, Hardy P, Khotcholava M, von Ungern Sternberg BS, Wilton N, Tuo P, Salvo I, Ormond G, Stargatt R, Locatelli BG, McCann ME; General Anesthesia compared to Spinal anesthesia (GAS) Consortium.
Apnea after Awake Regional and General Anesthesia in Infants: The General Anesthesia Compared to Spinal Anesthesia Study--Comparing Apnea and Neurodevelopmental Outcomes, a Randomized Controlled Trial.
Anesthesiology. 2015 Jul;123(1):38-54. doi: 10.1097/ALN.0000000000000709.

233. Frawley G, Bell G, Disma N, Withington DE, de Graaff JC, Morton NS, McCann ME, Arnup SJ, Bagshaw O, Wolfler A, Bellinger D, Davidson AJ; General Anesthesia compared to Spinal anesthesia (GAS) Consortium.
Predictors of Failure of Awake Regional Anesthesia for Neonatal Hernia Repair: Data from the General Anesthesia Compared to Spinal Anesthesia Study--Comparing Apnea and Neurodevelopmental Outcomes.
Anesthesiology. 2015 Jul;123(1):55-65. doi: 10.1097/ALN.0000000000000708.

234. Rasmussen CD, Holtermann A, Bay H, Søgaard K, Birk Jørgensen M.
A multifaceted workplace intervention for low back pain in nurses' aides: a

pragmatic stepped wedge cluster randomised controlled trial.
Pain. 2015 Sep;156(9):1786-94. doi: 10.1097/j.pain.0000000000000234.

235. Rauck RL, Hale ME, Bass A, Bramson C, Pixton G, Wilson JG, Setnik B, Meisner P, Sommerville KW, Malhotra BK, Wolfram G.
A randomized double-blind, placebo-controlled efficacy and safety study of ALO-02 (extended-release oxycodone surrounding sequestered naltrexone) for moderate-to-severe chronic low back pain treatment.
Pain. 2015 Sep;156(9):1660-9. doi: 10.1097/j.pain.0000000000000230.

236. Saager L, Duncan AE, Yared JP, Hesler BD, You J, Deogaonkar A, Sessler DI, Kurz A.
Intraoperative tight glucose control using hyperinsulinemic normoglycemia increases delirium after cardiac surgery.
Anesthesiology. 2015 Jun;122(6):1214-23. doi: 10.1097/ALN.0000000000000669.

237. Curry N, Rourke C, Davenport R, Beer S, Pankhurst L, Deary A, Thomas H, Llewelyn C, Green L, Doughty H, Nordmann G, Brohi K, Stanworth S.
Early cryoprecipitate for major haemorrhage in trauma: a randomised controlled feasibility trial.
Br J Anaesth. 2015 Jul;115(1):76-83. doi: 10.1093/bja/aev134. Epub 2015 May 19.

238. Parke RL, McGuinness SP, Gilder E, McCarthy LW, Cowdrey KA.
A randomised feasibility study to assess a novel strategy to rationalise fluid in patients after cardiac surgery.
Br J Anaesth. 2015 Jul;115(1):45-52. doi: 10.1093/bja/aev118. Epub 2015 May 19.

239. Haas T, Spielmann N, Restin T, Seifert B, Henze G, Obwegeser J, Min K, Jeszenszky D, Weiss M, Schmugge M.
Higher fibrinogen concentrations for reduction of transfusion requirements during major paediatric surgery: A prospective randomised controlled trial.
Br J Anaesth. 2015 Aug;115(2):234-43. doi: 10.1093/bja/aev136. Epub 2015 May 15.

240. Khalili-Mahani N, Martini CH, Olofsen E, Dahan A, Niesters M.
Effect of subanaesthetic ketamine on plasma and saliva cortisol secretion.
Br J Anaesth. 2015 Jul;115(1):68-75. doi: 10.1093/bja/aev135. Epub 2015 May 16.

241. Warner DO, LeBlanc A, Kadimpati S, Vickers KS, Shi Y, Montori VM.
Decision Aid for Cigarette Smokers Scheduled for Elective Surgery.
Anesthesiology. 2015 Jul;123(1):18-28. doi: 10.1097/ALN.0000000000000704.

242. Perotti L, Cusato M, Ingelmo P, Niebel TL, Somaini M, Riva F, Tinelli C, De Andrés J, Fanelli G, Braschi A, Regazzi M, Allegri M.
A Comparison of Differences Between the Systemic Pharmacokinetics of Levobupivacaine and Ropivacaine During Continuous Epidural Infusion: A

Prospective, Randomized, Multicenter, Double-Blind Controlled Trial.
Anesth Analg. 2015 Aug;121(2):348-56. doi: 10.1213/ANE.0000000000000775.

243. YaDeau JT, Paroli L, Fields KG, Kahn RL, LaSala VR, Jules-Elysee KM, Kim DH, Haskins SC, Hedden J, Goon A, Roberts MM, Levine DS.
Addition of Dexamethasone and Buprenorphine to Bupivacaine Sciatic Nerve Block: A Randomized Controlled Trial.
Reg Anesth Pain Med. 2015 Jul-Aug;40(4):321-9. doi: 10.1097/AAP.0000000000000254.

244. Khaw KS, Lee SW, Ngan Kee WD, Law LW, Lau TK, Ng FF, Leung TY.
Randomized trial of anaesthetic interventions in external cephalic version for breech presentation.
Br J Anaesth. 2015 Jun;114(6):944-50. doi: 10.1093/bja/aev107. Epub 2015 May 10.

245. Ahmed SU, Zhang Y, Chen L, Cohen A, St Hillary K, Vo T, Houghton M, Mao J.
Effect of 1.5% Topical Diclofenac on Clinical Neuropathic Pain.
Anesthesiology. 2015 Jul;123(1):191-8. doi: 10.1097/ALN.0000000000000693.

246. Feiner JR, Gropper MA, Toy P, Lieberman J, Twiford J, Weiskopf RB.
A Clinical Trial to Detect Subclinical Transfusion-induced Lung Injury during Surgery.
Anesthesiology. 2015 Jul;123(1):126-35. doi: 10.1097/ALN.0000000000000689.

247. Brueckmann B, Sasaki N, Grobara P, Li MK, Woo T, de Bie J, Maktabi M, Lee J, Kwo J, Pino R, Sabouri AS, McGovern F, Staehr-Rye AK, Eikermann M.
Effects of sugammadex on incidence of postoperative residual neuromuscular blockade: a randomized, controlled study.
Br J Anaesth. 2015 Nov;115(5):743-51. doi: 10.1093/bja/aev104. Epub 2015 May 2.

248. Tiyaprasertkul W, Bernucci F, González AP, Leurcharusmee P, Yazer MS, Techasuk W, Arnuntasupakul V, de la Garza DC, Finlayson RJ, Tran DQ.
A Randomized Comparison Between Single- and Triple-Injection Subparaneural Popliteal Sciatic Nerve Block.
Reg Anesth Pain Med. 2015 Jul-Aug;40(4):315-20. doi: 10.1097/AAP.0000000000000253.

249. Støving K, Rothe C, Rosenstock CV, Aasvang EK, Lundstrøm LH, Lange KH.
Cutaneous Sensory Block Area, Muscle-Relaxing Effect, and Block Duration of the Transversus Abdominis Plane Block: A Randomized, Blinded, and Placebo-Controlled Study in Healthy Volunteers.
Reg Anesth Pain Med. 2015 Jul-Aug;40(4):355-62. doi: 10.1097/AAP.0000000000000252.

250. Tassonyi E, Pongrácz A, Nemes R, Asztalos L, Lengyel S, Fülesdi B.

Reversal of Pipecuronium-Induced Moderate Neuromuscular Block with Sugammadex in the Presence of a Sevoflurane Anesthetic: A Randomized Trial.
Anesth Analg. 2015 Aug;121(2):373-80. doi: 10.1213/ANE.0000000000000766.

251. Sopata M, Katz N, Carey W, Smith MD, Keller D, Verburg KM, West CR, Wolfram G, Brown MT.
Efficacy and safety of tanezumab in the treatment of pain from bone metastases.
Pain. 2015 Sep;156(9):1703-13. doi: 10.1097/j.pain.0000000000000211.

252. Prestgaard T, Wormgoor ME, Haugen S, Harstad H, Mowinckel P, Brox JI.
Ultrasound-guided intra-articular and rotator interval corticosteroid injections in adhesive capsulitis of the shoulder: a double-blind, sham-controlled randomized study.
Pain. 2015 Sep;156(9):1683-91. doi: 10.1097/j.pain.0000000000000209.

253. Kerper LF, Spies CD, Salz AL, Wei-Gerlach E, Balzer F, Neumann T, Tafelski S, Lau A, Neuner B, Romanczuk-Seiferth N, Glaesmer H, Wernecke KD, Brähler E, Krampe H.
Effects of an Innovative Psychotherapy Program for Surgical Patients: Bridging Intervention in Anesthesiology--A Randomized Controlled Trial.
Anesthesiology. 2015 Jul;123(1):148-59. doi: 10.1097/ALN.0000000000000685.

254. Kovacheva VP, Soens MA, Tsen LC.
A Randomized, Double-blinded Trial of a "Rule of Threes" Algorithm versus Continuous Infusion of Oxytocin during Elective Cesarean Delivery.
Anesthesiology. 2015 Jul;123(1):92-100. doi: 10.1097/ALN.0000000000000682.

255. Bryskin RB, Londergan B, Wheatley R, Heng R, Lewis M, Barraza M, Mercer E, Ye G.
Transversus Abdominis Plane Block Versus Caudal Epidural for Lower Abdominal Surgery in Children: A Double-Blinded Randomized Controlled Trial.
Anesth Analg. 2015 Aug;121(2):471-8. doi: 10.1213/ANE.0000000000000779.

256. Puri GD, Mathew PJ, Biswas I, Dutta A, Sood J, Gombar S, Palta S, Tsering M, Gautam PL, Jayant A, Arora I, Bajaj V, Punia TS, Singh G.
A Multicenter Evaluation of a Closed-Loop Anesthesia Delivery System: A Randomized Controlled Trial.
Anesth Analg. 2016 Jan;122(1):106-14. doi: 10.1213/ANE.0000000000000769.

257. Borrat X, Valencia JF, Magrans R, Gimenez-Mila M, Mellado R, Sendino O, Perez M, Nunez M, Jospin M, Jensen EW, Troconiz I, Gambus PL.
Sedation-analgesia with propofol and remifentanil: concentrations required to avoid gag reflex in upper gastrointestinal endoscopy.
Anesth Analg. 2015 Jul;121(1):90-6. doi: 10.1213/ANE.0000000000000756.

258. Kurz A, Fleischmann E, Sessler DI, Buggy DJ, Apfel C, Akça O;

Factorial Trial Investigators.
Collaborators: Fleischmann E, Erdik E, Eredics K, Kabon B, Herbst F, Kazerounian S, Kugener A, Marschalek C, Mikocki P, Niedermayer M, Obewegeser E, Ratzenboeck I, Rozum R, Sindhuber S, Schlemitz K, Schebesta K, Stift A, Kurz A, Sessler DI, Bala E, Chen ST, Devarajan J, Maheshwari A, Mahboobi R, Mascha E, Nagem H, Rajogopalan S, Reynolds L, Alvarez A, Stocchi L, Doufas AG, Govinda R, Kasuya Y, Komatsu R, Lenhardt R, Orhan-Sungur M, Sengupta P, Wadhwa A, Galandiuk S, Buggy D, Arain M, Burke S, McGuire B, Ragheb J, Taguchi A.
Effects of supplemental oxygen and dexamethasone on surgical site infection: a factorial randomized trial‡.
Br J Anaesth. 2015 Sep;115(3):434-43. doi: 10.1093/bja/aev062. Epub 2015 Apr 20.

259. Brulotte V, Ruel MM, Lafontaine E, Chouinard P, Girard F.
Impact of pregabalin on the occurrence of postthoracotomy pain syndrome: a randomized trial.
Reg Anesth Pain Med. 2015 May-Jun;40(3):262-9. doi: 10.1097/AAP.0000000000000241.

260. Terry EL, Thompson KA, Rhudy JL.
Experimental reduction of pain catastrophizing modulates pain report but not spinal nociception as verified by mediation analyses.
Pain. 2015 Aug;156(8):1477-88. doi: 10.1097/j.pain.0000000000000192.

261. Katz NP, Mou J, Trudeau J, Xiang J, Vorsanger G, Orman C, Kim M.
Development and preliminary validation of an integrated efficacy-tolerability composite measure for the evaluation of analgesics.
Pain. 2015 Jul;156(7):1357-65. doi: 10.1097/j.pain.0000000000000186.

262. Ueda K, Bayman EO, Johnson C, Odum NJ, Lee JJ.
A randomised controlled trial of radial artery cannulation guided by Doppler vs. palpation vs. ultrasound.
Anaesthesia. 2015 Sep;70(9):1039-44. doi: 10.1111/anae.13062. Epub 2015 Apr 8.

263. Hodkinson DJ, Khawaja N, O'Daly O, Thacker MA, Zelaya FO, Wooldridge CL, Renton TF, Williams SC, Howard MA.
Cerebral analgesic response to nonsteroidal anti-inflammatory drug ibuprofen.
Pain. 2015 Jul;156(7):1301-10. doi: 10.1097/j.pain.0000000000000176.

264. Kim DH, Yoon DM, Yoon KB.
Incidence of intravascular injection and the spread of contrast media during S1 transforaminal epidural steroid injection by two approaches: anteroposterior vs oblique.
Anaesthesia. 2015 Aug;70(8):975-84. doi: 10.1111/anae.13079. Epub 2015 Apr 7.

265. Murphy GS, Szokol JW, Avram MJ, Greenberg SB, Marymont JH, Shear T, Parikh KN, Patel SS, Gupta DK.
Intraoperative Methadone for the Prevention of Postoperative Pain: A Randomized,

Double-blinded Clinical Trial in Cardiac Surgical Patients.
Anesthesiology. 2015 May;122(5):1112-22. doi: 10.1097/ALN.0000000000000633.

266. Lindholm P, Lamusuo S, Taiminen T, Pesonen U, Lahti A, Virtanen A, Forssell H, Hietala J, Hagelberg N, Pertovaara A, Parkkola R, Jääskeläinen S.
Right secondary somatosensory cortex-a promising novel target for the treatment of drug-resistant neuropathic orofacial pain with repetitive transcranial magnetic stimulation.
Pain. 2015 Jul;156(7):1276-83. doi: 10.1097/j.pain.0000000000000175.

267. Germano Filho PA, Cavalcanti IL, Barrucand L, Verçosa N.
Effect of magnesium sulphate on sugammadex reversal time for neuromuscular blockade: a randomised controlled study.
Anaesthesia. 2015 Aug;70(8):956-61. doi: 10.1111/anae.12987. Epub 2015 Apr 1.

268. Zanaty OM, El Metainy SA.
A comparative evaluation of nebulized dexmedetomidine, nebulized ketamine, and their combination as premedication for outpatient pediatric dental surgery.
Anesth Analg. 2015 Jul;121(1):167-71. doi: 10.1213/ANE.0000000000000728.

269. Park JH, Lim BG, Kim H, Lee IO, Kong MH, Kim NS.
Comparison of Surgical Pleth Index-guided Analgesia with Conventional Analgesia Practices in Children: A Randomized Controlled Trial.
Anesthesiology. 2015 Jun;122(6):1280-7. doi: 10.1097/ALN.0000000000000650.

270. Cappelleri G, Ghisi D, Ceravola E, Guzzetti L, Ambrosoli AL, Gemma M, Cornaggia G.
A randomised controlled comparison between stimulating and standard catheters for lumbar plexus block.
Anaesthesia. 2015 Aug;70(8):948-55. doi: 10.1111/anae.13077. Epub 2015 Mar 21.

271. Booth JL, Harris LC, Eisenach JC, Pan PH.
A Randomized Controlled Trial Comparing Two Multimodal Analgesic Techniques in Patients Predicted to Have Severe Pain After Cesarean Delivery.
Anesth Analg. 2016 Apr;122(4):1114-9. doi: 10.1213/ANE.0000000000000695.

272. Dingley J, Liu X, Gill H, Smit E, Sabir H, Tooley J, Chakkarapani E, Windsor D, Thoresen M.
The feasibility of using a portable xenon delivery device to permit earlier xenon ventilation with therapeutic cooling of neonates during ambulance retrieval.
Anesth Analg. 2015 Jun;120(6):1331-6. doi: 10.1213/ANE.0000000000000693.

273. Sterling M, Vicenzino B, Souvlis T, Connelly LB.
Dry-needling and exercise for chronic whiplash-associated disorders: a randomized single-blind placebo-controlled trial.

Pain. 2015 Apr;156(4):635-43. doi: 10.1097/01.j.pain.0000460359.40116.c1.

274. Ramsden CE, Faurot KR, Zamora D, Palsson OS, MacIntosh BA, Gaylord S, Taha AY, Rapoport SI, Hibbeln JR, Davis JM, Mann JD.
Targeted alterations in dietary n-3 and n-6 fatty acids improve life functioning and reduce psychological distress among patients with chronic headache: a secondary analysis of a randomized trial.
Pain. 2015 Apr;156(4):587-96. doi: 10.1097/01.j.pain.0000460348.84965.47.

275. Fortier MA, Bunzli E, Walthall J, Olshansky E, Saadat H, Santistevan R, Mayes L, Kain ZN.
Web-based tailored intervention for preparation of parents and children for outpatient surgery (WebTIPS): formative evaluation and randomized controlled trial.
Anesth Analg. 2015 Apr;120(4):915-22. doi: 10.1213/ANE.0000000000000632.

276. Chang JE, Min SW, Kim CS, Kwon YS, Hwang JY.
Effects of the jaw-thrust manoeuvre in the semi-sitting position on securing a clear airway during fibreoptic intubation.
Anaesthesia. 2015 Aug;70(8):933-8. doi: 10.1111/anae.13041. Epub 2015 Mar 19.

277. Koköfer A, Nawratil J, Felder TK, Stundner O, Mader N, Gerner P.
Ropivacaine 0.375% vs. 0.75% with prilocaine for intermediate cervical plexus block for carotid endarterectomy: A randomised trial.
Eur J Anaesthesiol. 2015 Nov;32(11):781-9. doi: 10.1097/EJA.0000000000000243.

278. Lunn TH, Frokjaer VG, Hansen TB, Kristensen PW, Lind T, Kehlet H.
Analgesic effect of perioperative escitalopram in high pain catastrophizing patients after total knee arthroplasty: a randomized, double-blind, placebo-controlled trial.
Anesthesiology. 2015 Apr;122(4):884-94. doi: 10.1097/ALN.0000000000000597.

279. Martel MO, Finan PH, Dolman AJ, Subramanian S, Edwards RR, Wasan AD, Jamison RN.
Self-reports of medication side effects and pain-related activity interference in patients with chronic pain: a longitudinal cohort study.
Pain. 2015 Jun;156(6):1092-100. doi: 10.1097/j.pain.0000000000000154.

280. Schaldemose EL, Horjales-Araujo E, Svensson P, Finnerup NB.
Altered thermal grill response and paradoxical heat sensations after topical capsaicin application.
Pain. 2015 Jun;156(6):1101-11. doi: 10.1097/j.pain.0000000000000155.

281. Palermo TM, Law EF, Zhou C, Holley AL, Logan D, Tai G.
Trajectories of change during a randomized controlled trial of internet-delivered psychological treatment for adolescent chronic pain: how does change in pain and

function relate?
Pain. 2015 Apr;156(4):626-34. doi: 10.1097/01.j.pain.0000460355.17246.6c.

282. Kramer A, Müller D, Pförtner R, Mohr C, Groeben H.
Fibreoptic vs videolaryngoscopic (C-MAC(®) D-BLADE) nasal awake intubation under local anaesthesia.
Anaesthesia. 2015 Apr;70(4):400-6. doi: 10.1111/anae.13016.

283. Roh GU, Shim JK, Song JW, Kang HM, Kwak YL.
Effect of glucose-insulin-potassium on hyperlactataemia in patients undergoing valvular heart surgery: A randomised controlled study.
Eur J Anaesthesiol. 2015 Aug;32(8):555-62. doi: 10.1097/EJA.0000000000000250.

284. Poterman M, Vos JJ, Vereecke HE, Struys MM, Vanoverschelde H, Scheeren TW, Kalmar AF.
Differential effects of phenylephrine and norepinephrine on peripheral tissue oxygenation during general anaesthesia: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Aug;32(8):571-80. doi: 10.1097/EJA.0000000000000247.

285. Gao W, Liu DD, Li D, Cui GX.
Effect of Therapeutic Hypercapnia on Inflammatory Responses to One-lung Ventilation in Lobectomy Patients.
Anesthesiology. 2015 Jun;122(6):1235-52. doi: 10.1097/ALN.0000000000000627.

286. Gilron I, Tu D, Holden RR, Jackson AC, DuMerton-Shore D.
Combination of morphine with nortriptyline for neuropathic pain.
Pain. 2015 Aug;156(8):1440-8. doi: 10.1097/j.pain.0000000000000149.

287. Rini C, Porter LS, Somers TJ, McKee DC, DeVellis RF, Smith M, Winkel G, Ahern DK, Goldman R, Stiller JL, Mariani C, Patterson C, Jordan JM, Caldwell DS, Keefe FJ.
Automated Internet-based pain coping skills training to manage osteoarthritis pain: a randomized controlled trial.
Pain. 2015 May;156(5):837-48. doi: 10.1097/j.pain.0000000000000121.

288. Guglielminotti J, Grillot N, Paule M, Mentré F, Servin F, Montravers P, Longrois D.
Prediction of movement to surgical stimulation by the pupillary dilatation reflex amplitude evoked by a standardized noxious test.
Anesthesiology. 2015 May;122(5):985-93. doi: 10.1097/ALN.0000000000000624.

289. Abdallah FW, Morgan PJ, Cil T, Escallon JM, Semple JL, Chan VW.
Comparing the DN4 tool with the IASP grading system for chronic neuropathic pain screening after breast tumor resection with and without paravertebral blocks: a prospective 6-month validation study.
Pain. 2015 Apr;156(4):740-9. doi: 10.1097/j.pain.0000000000000108.

290. Holbech JV, Bach FW, Finnerup NB, Brøsen K, Jensen TS, Sindrup SH.
Imipramine and pregabalin combination for painful polyneuropathy: a randomized controlled trial.
Pain. 2015 May;156(5):958-66. doi: 10.1097/j.pain.0000000000000143.

291. Lee SM, Landry J, Jones PM, Buhrmann O, Morley-Forster P.
Long-term quit rates after a perioperative smoking cessation randomized controlled trial.
Anesth Analg. 2015 Mar;120(3):582-7. doi: 10.1213/ANE.0000000000000555.

292. Keplinger M, Marhofer P, Kettner SC, Marhofer D, Kimberger O, Zeitlinger M.
A pharmacodynamic evaluation of dexmedetomidine as an additive drug to ropivacaine for peripheral nerve blockade: A randomised, triple-blind, controlled study in volunteers.
Eur J Anaesthesiol. 2015 Nov;32(11):790-6. doi: 10.1097/EJA.0000000000000246.

293. Hogan M, Needham A, Ortmann E, Bottrill F, Collier TJ, Besser MW, Klein AA.
Haemoconcentration of residual cardiopulmonary bypass blood using Hemosep ®: a randomised controlled trial.
Anaesthesia. 2015 May;70(5):563-70. doi: 10.1111/anae.13019. Epub 2015 Feb 18.

294. Besson M, Matthey A, Daali Y, Poncet A, Vuilleumier P, Curatolo M, Zeilhofer HU, Desmeules J.
GABAergic modulation in central sensitization in humans: a randomized placebo-controlled pharmacokinetic-pharmacodynamic study comparing clobazam with clonazepam in healthy volunteers.
Pain. 2015 Mar;156(3):397-404. doi: 10.1097/01.j.pain.0000460331.33385.e8.

295. Wylde V, Lenguerrand E, Gooberman-Hill R, Beswick AD, Marques E, Noble S, Horwood J, Pyke M, Dieppe P, Blom AW.
Effect of local anaesthetic infiltration on chronic postsurgical pain after total hip and knee replacement: the APEX randomised controlled trials.
Pain. 2015 Jun;156(6):1161-70. doi: 10.1097/j.pain.0000000000000114.

296. Petrar SD, Seltenrich ME, Head SJ, Schwarz SK.
Hemidiaphragmatic paralysis following ultrasound-guided supraclavicular versus infraclavicular brachial plexus blockade: a randomized clinical trial.
Reg Anesth Pain Med. 2015 Mar-Apr;40(2):133-8. doi: 10.1097/AAP.0000000000000215.

297. Keplinger M, Marhofer P, Marhofer D, Schroegendorfer K, Haslik W, Zeitlinger M, Mayer CV, Kettner SC.
Effective local anaesthetic volumes for sciatic nerve blockade: a clinical evaluation of the ED99.
Anaesthesia. 2015 May;70(5):585-90. doi: 10.1111/anae.13013. Epub 2015 Jan 20.

298. McVicar J, Niazi AU, Murgatroyd H, Chin KJ, Chan VW.
Novice performance of ultrasound-guided needling skills: effect of a needle guidance system.
Reg Anesth Pain Med. 2015 Mar-Apr;40(2):150-3. doi: 10.1097/AAP.0000000000000209.

299. Ngan Kee WD, Lee SW, Ng FF, Tan PE, Khaw KS.
Randomized double-blinded comparison of norepinephrine and phenylephrine for maintenance of blood pressure during spinal anesthesia for cesarean delivery.
Anesthesiology. 2015 Apr;122(4):736-45. doi: 10.1097/ALN.0000000000000601.

300. Singla N, Desjardins PJ, Cosca EB, Parulan C, Arriaga A, Poole KC, Batz DM, Chang PD.
Delayed-onset muscle soreness: a pilot study to assess analgesic study design features.
Pain. 2015 Jun;156(6):1036-45. doi: 10.1097/j.pain.0000000000000109.

301. Abdallah FW, Johnson J, Chan V, Murgatroyd H, Ghafari M, Ami N, Jin R, Brull R.
Intravenous dexamethasone and perineural dexamethasone similarly prolong the duration of analgesia after supraclavicular brachial plexus block: a randomized, triple-arm, double-blind, placebo-controlled trial.
Reg Anesth Pain Med. 2015 Mar-Apr;40(2):125-32. doi: 10.1097/AAP.0000000000000210.

302. Kancir AS, Johansen JK, Ekeloef NP, Pedersen EB.
The effect of 6% hydroxyethyl starch 130/0.4 on renal function, arterial blood pressure, and vasoactive hormones during radical prostatectomy: a randomized controlled trial.
Anesth Analg. 2015 Mar;120(3):608-18. doi: 10.1213/ANE.0000000000000596.

303. Heard C, Harutunians M, Houck J, Joshi P, Johnson K, Lerman J.
Propofol anesthesia for children undergoing magnetic resonance imaging: a comparison with isoflurane, nitrous oxide, and a laryngeal mask airway.
Anesth Analg. 2015 Jan;120(1):157-64. doi: 10.1213/ANE.0000000000000504.

304. Najman IE, Meirelles R, Ramos LB, Guimarães TC, do Nascimento P Jr.
A randomised controlled trial of periconal eye blockade with or without ultrasound guidance.
Anaesthesia. 2015 May;70(5):571-6. doi: 10.1111/anae.12976. Epub 2015 Jan 22.

305. Woo JH, Kim YJ, Kim DY, Cho S.
Dose-dependency of dexamethasone on the analgesic effect of interscalene block for arthroscopic shoulder surgery using ropivacaine 0.5%: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Sep;32(9):650-5. doi: 10.1097/EJA.0000000000000213.

306. Smith SB, Carr S, Psikula S, Das A, Grichnik K.
A pilot study on the effect of nasal continuous positive airway pressure on arterial partial pressure of carbon dioxide during spinal anesthesia with intravenous sedation for total knee arthroplasty.
Anesth Analg. 2015 Feb;120(2):479-83. doi: 10.1213/ANE.0000000000000536.

307. Basaria S, Travison TG, Alford D, Knapp PE, Teeter K, Cahalan C, Eder R, Lakshman K, Bachman E, Mensing G, Martel MO, Le D, Stroh H, Bhasin S, Wasan AD, Edwards RR.
Effects of testosterone replacement in men with opioid-induced androgen deficiency: a randomized controlled trial.
Pain. 2015 Feb;156(2):280-8. doi: 10.1097/01.j.pain.0000460308.86819.aa.

308. Taddio A, Parikh C, Yoon EW, Sgro M, Singh H, Habtom E, Ilersich AF, Pillai Riddell R, Shah V.
Impact of parent-directed education on parental use of pain treatments during routine infant vaccinations: a cluster randomized trial.
Pain. 2015 Jan;156(1):185-91. doi: 10.1016/j.pain.0000000000000021.

309. Hurley DA, Tully MA, Lonsdale C, Boreham CA, van Mechelen W, Daly L, Tynan A, McDonough SM.
Supervised walking in comparison with fitness training for chronic back pain in physiotherapy: results of the SWIFT single-blinded randomized controlled trial (ISRCTN17592092).
Pain. 2015 Jan;156(1):131-47. doi: 10.1016/j.pain.0000000000000013.

310. Rauck RL, North J, Eisenach JC.
Intrathecal clonidine and adenosine: effects on pain and sensory processing in patients with chronic regional pain syndrome.
Pain. 2015 Jan;156(1):88-95. doi: 10.1016/j.pain.0000000000000007.

311. Eisenach JC, Tong C, Curry RS.
Failure of intrathecal ketorolac to reduce remifentanil-induced postinfusion hyperalgesia in humans.
Pain. 2015 Jan;156(1):81-7. doi: 10.1016/j.pain.0000000000000005.

312. Fagerlund AJ, Hansen OA, Aslaksen PM.
Transcranial direct current stimulation as a treatment for patients with fibromyalgia: a randomized controlled trial.
Pain. 2015 Jan;156(1):62-71. doi: 10.1016/j.pain.0000000000000006.

313. Wylde V, Sayers A, Lenguerrand E, Gooberman-Hill R, Pyke M, Beswick AD, Dieppe P, Blom AW.
Preoperative widespread pain sensitization and chronic pain after hip and knee replacement: a cohort analysis.

Pain. 2015 Jan;156(1):47-54. doi: 10.1016/j.pain.0000000000000002.

314. Aslaksen PM, Zwarg ML, Eilertsen HI, Gorecka MM, Bjørkedal E.
Opposite effects of the same drug: reversal of topical analgesia by nocebo information.
Pain. 2015 Jan;156(1):39-46. doi: 10.1016/j.pain.0000000000000004.

315. Eisenberg E, Burstein Y, Suzan E, Treister R, Aviram J.
Spinal cord stimulation attenuates temporal summation in patients with neuropathic pain.
Pain. 2015 Mar;156(3):381-5. doi: 10.1097/01.j.pain.0000460342.69718.a2.

316. Hansen AB, Olsen KS.
The number of in-out catheterisations is reduced by mobilising the postoperative patient with bladder needs to the toilet in the recovery room: A randomised clinical trial.
Eur J Anaesthesiol. 2015 Jul;32(7):486-92. doi: 10.1097/EJA.0000000000000214.

317. Wikkelsø AJ, Edwards HM, Afshari A, Stensballe J, Langhoff-Roos J, Albrechtsen C, Ekelund K, Hanke G, Secher EL, Sharif HF, Pedersen LM, Troelstrup A, Lauenborg J, Mitchell AU, Fuhrmann L, Svare J, Madsen MG, Bødker B, Møller AM; FIB-PPH trial group.
Pre-emptive treatment with fibrinogen concentrate for postpartum haemorrhage: randomized controlled trial.
Br J Anaesth. 2015 Apr;114(4):623-33. doi: 10.1093/bja/aeu444. Epub 2015 Jan 13.

318. Baumüller E, Schaller SJ, Chiquito Lama Y, Frick CG, Bauhofer T, Eikermann M, Fink H, Blobner M.
Postoperative impairment of motor function at train-of-four ratio ≥0.9 cannot be improved by sugammadex (1 mg kg-1).
Br J Anaesth. 2015 May;114(5):785-93. doi: 10.1093/bja/aeu453. Epub 2015 Jan 13.

319. Goldberg A, Silverman E, Samuelson S, Katz D, Lin HM, Levine A, DeMaria S.
Learning through simulated independent practice leads to better future performance in a simulated crisis than learning through simulated supervised practice.
Br J Anaesth. 2015 May;114(5):794-800. doi: 10.1093/bja/aeu457. Epub 2015 Jan 8.

320. Zhu F, Gomersall CD, Ng SK, Underwood MJ, Lee A.
A randomized controlled trial of adaptive support ventilation mode to wean patients after fast-track cardiac valvular surgery.
Anesthesiology. 2015 Apr;122(4):832-40. doi: 10.1097/ALN.0000000000000589.

321. Paech M, Sng B, Ng L, Nathan E, Sia A, Carvalho B.
Methylnaltrexone to prevent intrathecal morphine-induced pruritus after Caesarean

delivery: a multicentre, randomized clinical trial.
Br J Anaesth. 2015 Mar;114(3):469-76. doi: 10.1093/bja/aeu410. Epub 2015 Jan 7.

322. El-Tahan MR.
A comparison of the disconnection technique with continuous bronchial suction for lung deflation when using the Arndt endobronchial blocker during video-assisted thoracoscopy: A randomised trial.
Eur J Anaesthesiol. 2015 Jun;32(6):411-7. doi: 10.1097/EJA.0000000000000194.

323. Pilge S, Kreuzer M, Karatchiviev V, Kochs EF, Malcharek M, Schneider G.
Differences between state entropy and bispectral index during analysis of identical electroencephalogram signals: a comparison with two randomised anaesthetic techniques.
Eur J Anaesthesiol. 2015 May;32(5):354-65. doi: 10.1097/EJA.0000000000000189.

324. Orliaguet GA, Benabbes Lambert F, Chazot T, Glasman P, Fischler M, Liu N.
Feasibility of closed-loop titration of propofol and remifentanil guided by the bispectral monitor in pediatric and adolescent patients: a prospective randomized study.
Anesthesiology. 2015 Apr;122(4):759-67. doi: 10.1097/ALN.0000000000000577.

325. Szental JA, Webb A, Weeraratne C, Campbell A, Sivakumar H, Leong S.
Postoperative pain after laparoscopic cholecystectomy is not reduced by intraoperative analgesia guided by analgesia nociception index (ANI®) monitoring: a randomized clinical trial.
Br J Anaesth. 2015 Apr;114(4):640-5. doi: 10.1093/bja/aeu411. Epub 2014 Dec 23.

326. Oofuvong M, Geater AF, Chongsuvivatwong V, Chanchayanon T, Sriyanaluk B, Saefung B, Nuanjun K.
Excess costs and length of hospital stay attributable to perioperative respiratory events in children.
Anesth Analg. 2015 Feb;120(2):411-9. doi: 10.1213/ANE.0000000000000557.

327. Borkett KM, Riff DS, Schwartz HI, Winkle PJ, Pambianco DJ, Lees JP, Wilhelm-Ogunbiyi K.
A Phase IIa, randomized, double-blind study of remimazolam (CNS 7056) versus midazolam for sedation in upper gastrointestinal endoscopy.
Anesth Analg. 2015 Apr;120(4):771-80. doi: 10.1213/ANE.0000000000000548.

328. Khalafallah AA, Chilvers CR, Thomas M, Chilvers CM, Sexton M, Vialle M, Robertson IK.
Usefulness of non-invasive spectrophotometric haemoglobin estimation for detecting low haemoglobin levels when compared with a standard laboratory assay for preoperative assessment.
Br J Anaesth. 2015 Apr;114(4):669-76. doi: 10.1093/bja/aeu403. Epub 2014 Dec 13.

329. Schmidt AR, Buehler P, Seglias L, Stark T, Brotschi B, Renner T, Sabandal C, Klaghofer R, Weiss M, Schmitz A.
Gastric pH and residual volume after 1 and 2 h fasting time for clear fluids in children†.
Br J Anaesth. 2015 Mar;114(3):477-82. doi: 10.1093/bja/aeu399. Epub 2014 Dec 13.

330. MacDonald N, Ahmad T, Mohr O, Kirk-Bayley J, Moppett I, Hinds CJ, Pearse RM.
Dynamic preload markers to predict fluid responsiveness during and after major gastrointestinal surgery: an observational substudy of the OPTIMISE trial.
Br J Anaesth. 2015 Apr;114(4):598-604. doi: 10.1093/bja/aeu398. Epub 2014 Dec 11.

331. Moppett IK, Rowlands M(2), Mannings A(2), Moran CG(3), Wiles MD(4); NOTTS Investigators.
Collaborators: Van deWalt G, Corrie K, Waits P, Whiteley W, Bardsley J, Bray S,
LiDCO-based fluid management in patients undergoing hip fracture surgery under spinal anaesthesia: a randomized trial and systematic review.
Evley R.
Br J Anaesth. 2015 Mar;114(3):444-59. doi: 10.1093/bja/aeu386. Epub 2014 Dec 11.

332. Lee WK, Kim MS, Kang SW, Kim S, Lee JR.
Type of anaesthesia and patient quality of recovery: a randomized trial comparing propofol-remifentanil total i.v. anaesthesia with desflurane anaesthesia.
Br J Anaesth. 2015 Apr;114(4):663-8. doi: 10.1093/bja/aeu405. Epub 2014 Dec 10.

333. Fuzier R, Casalprim J, Bataille B, Harper I, Magues JP.
The echogenicity of nerve blockade needles.
Anaesthesia. 2015 Apr;70(4):462-6. doi: 10.1111/anae.12977. Epub 2014 Dec 11.

334. Zou ZY, Zhao YL, Yang XL, Zhang GY, Zhou HG.
Effects of different remifentanil target concentrations on MAC BAR of sevoflurane in gynaecological patients with CO2 pneumoperitoneum stimulus.
Br J Anaesth. 2015 Apr;114(4):634-9. doi: 10.1093/bja/aeu400. Epub 2014 Dec 9.

335. Dumans-Nizard V, Parquin JF, Moyer JD, Dreyfus JF, Fischler M, Le Guen M.
Left double-lumen tube with or without a carinal hook: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Jun;32(6):418-24. doi: 10.1097/EJA.0000000000000201.

336. Kranke P, Thompson JP, Dalby PL, Eberhart LH, Novikova E, Johnson BM, Russ SF, Noble R, Brigandi RA.
Comparison of vestipitant with ondansetron for the treatment of breakthrough postoperative nausea and vomiting after failed prophylaxis with ondansetron.
Br J Anaesth. 2015 Mar;114(3):423-9. doi: 10.1093/bja/aeu376. Epub 2014 Dec 8.

337. Gilron I, Tu D, Dumerton-Shore D, Duggan S, Rooney R, McGrath M, Orr E.
The effect of triple vs. double nonopioid therapy on postoperative pain and functional outcome after abdominal hysterectomy: a randomised double-blind control trial.
Eur J Anaesthesiol. 2015 Apr;32(4):269-76. doi: 10.1097/EJA.0000000000000190.

338. Kim HC, Lee YH, Jeon YT, Hwang JW, Lim YJ, Park JE, Park HP.
The effect of intraoperative dexmedetomidine on postoperative catheter-related bladder discomfort in patients undergoing transurethral bladder tumour resection: A double-blind randomised study.
Eur J Anaesthesiol. 2015 Sep;32(9):596-601. doi: 10.1097/EJA.0000000000000196.

339. Yazer MS, Finlayson RJ, Tran DQ.
A randomized comparison between infraclavicular block and targeted intracluster injection supraclavicular block.
Reg Anesth Pain Med. 2015 Jan-Feb;40(1):11-5. doi: 10.1097/AAP.0000000000000193.

340. Finlayson RJ, Etheridge JP, Tiyaprasertkul W, Nelems B, Tran DQ.
A randomized comparison between ultrasound- and fluoroscopy-guided c7 medial branch block.
Reg Anesth Pain Med. 2015 Jan-Feb;40(1):52-7. doi: 10.1097/AAP.0000000000000186.

341. McCahon RA, Evans DA, Kerslake RW, McClelland SH, Hardman JG, Norris AM.
Cadaveric study of movement of an unstable atlanto-axial (C1/C2) cervical segment during laryngoscopy and intubation using the Airtraq(®) , Macintosh and McCoy laryngoscopes.
Anaesthesia. 2015 Apr;70(4):452-61. doi: 10.1111/anae.12956. Epub 2014 Dec 5.

342. Wang JF, Li JB, Zhao YJ, Yi WJ, Bian JJ, Wan XJ, Zhu KM, Deng XM.
Up-regulation of programmed cell death 1 ligand 1 on neutrophils may be involved in sepsis-induced immunosuppression: an animal study and a prospective case-control study.
Anesthesiology. 2015 Apr;122(4):852-63. doi: 10.1097/ALN.0000000000000525.

343. DeMaria S, Govindaraj S, Huang A, Hyman J, McCormick P, Lin HM, Levine A.
The influence of positive end-expiratory pressure on surgical field conditions during functional endoscopic sinus surgery.
Anesth Analg. 2015 Feb;120(2):305-10. doi: 10.1213/ANE.0000000000000550.

344. Visoiu M, Cassara A, Yang CI.
Bilateral Paravertebral Blockade (T7-10) Versus Incisional Local Anesthetic Administration for Pediatric Laparoscopic Cholecystectomy: A Prospective, Randomized Clinical Study.
Anesth Analg. 2015 May;120(5):1106-13. doi: 10.1213/ANE.0000000000000545.

345. Deep sedation for endoscopic cholangiopancreatography with or without pre or intraprocedural opioids: A double-blind randomised controlled trial.
Fassoulaki A, Iatrelli I, Vezakis A, Polydorou A.
Eur J Anaesthesiol. 2015 Sep;32(9):602-8. doi: 10.1097/EJA.0000000000000187.

346. Khodayari-Rostamabad A, Olesen SS, Graversen C, Malver LP, Kurita GP, Sjøgren P, Christrup LL, Drewes AM.
Disruption of cortical connectivity during remifentanil administration is associated with cognitive impairment but not with analgesia.
Anesthesiology. 2015 Jan;122(1):140-9. doi: 10.1097/ALN.0000000000000510.

347. de Almeida JP, Vincent JL, Galas FR, de Almeida EP, Fukushima JT, Osawa EA, Bergamin F, Park CL, Nakamura RE, Fonseca SM, Cutait G, Alves JI, Bazan M, Vieira S, Sandrini AC, Palomba H, Ribeiro U Jr, Crippa A, Dalloglio M, Diz Mdel P, Kalil Filho R, Auler JO Jr, Rhodes A, Hajjar LA.
Transfusion requirements in surgical oncology patients: a prospective, randomized controlled trial.
Anesthesiology. 2015 Jan;122(1):29-38. doi: 10.1097/ALN.0000000000000511.

348. Esper T, Wehner M, Meinecke CD, Rueffert H.
Blood/Gas partition coefficients for isoflurane, sevoflurane, and desflurane in a clinically relevant patient population.
Anesth Analg. 2015 Jan;120(1):45-50. doi: 10.1213/ANE.0000000000000516.

349. Ebert TJ, Novalija J, Uhrich TD, Barney JA.
The effectiveness of oxygen delivery and reliability of carbon dioxide waveforms: a crossover comparison of 4 nasal cannulae.
Anesth Analg. 2015 Feb;120(2):342-8. doi: 10.1213/ANE.0000000000000537.

350. Ishiyama T, Kotoda M, Asano N, Ikemoto K, Mitsui K, Sato H, Matsukawa T, Sessler DI.
The effects of Patent Blue dye on peripheral and cerebral oxyhaemoglobin saturations.
Anaesthesia. 2015 Apr;70(4):429-33. doi: 10.1111/anae.12932. Epub 2014 Nov 10.

351. Park C, Choi JB, Lee YS, Chang HS, Shin CS, Kim S, Han DW.
The effect of intra-operative transcutaneous electrical nerve stimulation on posterior neck pain following thyroidectomy.
Anaesthesia. 2015 Apr;70(4):434-9. doi: 10.1111/anae.12933. Epub 2014 Nov 10.

352. Jagannathan N, Sequera-Ramos L, Sohn L, Huang A, Sawardekar A, Wasson N, Miriyala A, De Oliveira GS.
Randomized comparison of experts and trainees with nasal and oral fibreoptic intubation in children less than 2 yr of age.
Br J Anaesth. 2015 Feb;114(2):290-6. doi: 10.1093/bja/aeu370. Epub 2014 Nov 5.

353. Grevstad U, Mathiesen O, Valentiner LS, Jaeger P, Hilsted KL, Dahl JB.
Effect of adductor canal block versus femoral nerve block on quadriceps strength, mobilization, and pain after total knee arthroplasty: a randomized, blinded study.
Reg Anesth Pain Med. 2015 Jan-Feb;40(1):3-10. doi: 10.1097/AAP.0000000000000169.

354. Bashandy GM, Abbas DN.
Pectoral nerves I and II blocks in multimodal analgesia for breast cancer surgery: a randomized clinical trial.
Reg Anesth Pain Med. 2015 Jan-Feb;40(1):68-74. doi: 10.1097/AAP.0000000000000163.

355. Munirama S, Joy J, Columb M, Habershaw R, Eisma R, Corner G, Cochran S, McLeod G.
A randomised, single-blind technical study comparing the ultrasonic visibility of smooth-surfaced and textured needles in a soft embalmed cadaver model.
Anaesthesia. 2015 May;70(5):537-42. doi: 10.1111/anae.12925. Epub 2014 Nov 5.

356. Vanelderen P, Van Zundert J, Kozicz T, Puylaert M, De Vooght P, Mestrum R, Heylen R, Roubos E, Vissers K.
Effect of minocycline on lumbar radicular neuropathic pain: a randomized, placebo-controlled, double-blind clinical trial with amitriptyline as a comparator.
Anesthesiology. 2015 Feb;122(2):399-406. doi: 10.1097/ALN.0000000000000508.

357. Brouwer TA, Rosier PF, Moons KG, Zuithoff NP, van Roon EN, Kalkman CJ.
Postoperative bladder catheterization based on individual bladder capacity: a randomized trial.
Anesthesiology. 2015 Jan;122(1):46-54. doi: 10.1097/ALN.0000000000000507.

358. Koh WU, Min HG, Park HS, Karm MH, Lee KK, Yang HS, Ro YJ.
Use of hyaluronidase as an adjuvant to ropivacaine to reduce axillary brachial plexus block onset time: a prospective, randomised controlled study.
Anaesthesia. 2015 Mar;70(3):282-9. doi: 10.1111/anae.12879. Epub 2014 Oct 28.

359. Cohen SP, Hayek S, Semenov Y, Pasquina PF, White RL, Veizi E, Huang JH, Kurihara C, Zhao Z, Guthmiller KB, Griffith SR, Verdun AV, Giampetro DM, Vorobeychik Y.
Epidural steroid injections, conservative treatment, or combination treatment for cervical radicular pain: a multicenter, randomized, comparative-effectiveness study.
Anesthesiology. 2014 Nov;121(5):1045-55. doi: 10.1097/ALN.0000000000000409.

360. Ringold FG, Minkowitz HS, Gan TJ, Aqua KA, Chiang YK, Evashenk MA, Palmer PP.
Sufentanil sublingual tablet system for the management of postoperative pain following open abdominal surgery: a randomized, placebo-controlled study.
Reg Anesth Pain Med. 2015 Jan-Feb;40(1):22-30. doi: 10.1097/AAP.0000000000000152.

361. Bong CL, Lim E, Allen JC, Choo WL, Siow YN, Teo PB, Tan JS.
A comparison of single-dose dexmedetomidine or propofol on the incidence of emergence delirium in children undergoing general anaesthesia for magnetic resonance imaging.
Anaesthesia. 2015 Apr;70(4):393-9. doi: 10.1111/anae.12867. Epub 2014 Oct 14.

362. Ogilvie E, Vlachou A, Edsell M, Fletcher SN, Valencia O, Meineri M, Sharma V.
Simulation-based teaching versus point-of-care teaching for identification of basic transoesophageal echocardiography views: a prospective randomised study.
Anaesthesia. 2015 Mar;70(3):330-5. doi: 10.1111/anae.12903. Epub 2014 Oct 11.

363. Siddiqui NT, Davies S, McGeer A, Carvalho JC, Friedman Z.
The effect of gowning on labor epidural catheter colonization rate: a randomized controlled trial.
Reg Anesth Pain Med. 2014 Nov-Dec;39(6):520-4. doi: 10.1097/AAP.0000000000000171.

364. Chen H, Liao Z, Fang Y, Niu B, Chen A, Cao F, Mei W, Tian Y.
Continuous right thoracic paravertebral block following bolus initiation reduced postoperative pain after right-lobe hepatectomy: a randomized, double-blind, placebo-controlled trial.
Reg Anesth Pain Med. 2014 Nov-Dec;39(6):506-12. doi: 10.1097/AAP.0000000000000167.

365. Nakayama Y, Nakajima Y, Tanaka KA, Sessler DI, Maeda S, Iida J, Ogawa S, Mizobe T.
Thromboelastometry-guided intraoperative haemostatic management reduces bleeding and red cell transfusion after paediatric cardiac surgery.
Br J Anaesth. 2015 Jan;114(1):91-102. doi: 10.1093/bja/aeu339. Epub 2014 Oct 10.

366. Bebawy JF, Houston CC, Kosky JL, Badri AM, Hemmer LB, Moreland NC, Carabini LM, Koht A, Gupta DK.
Nicardipine is superior to esmolol for the management of postcraniotomy emergence hypertension: a randomized open-label study.
Anesth Analg. 2015 Jan;120(1):186-92. doi: 10.1213/ANE.0000000000000473.

367. Terkawi AS, Durieux ME, Gottschalk A, Brenin D, Tiouririne M.
Effect of intravenous lidocaine on postoperative recovery of patients undergoing mastectomy: a double-blind, placebo-controlled randomized trial.
Reg Anesth Pain Med. 2014 Nov-Dec;39(6):472-7. doi: 10.1097/AAP.0000000000000140.

368. D'Angelo OM, Diaz-Gil D, Nunn D, Simons JC, Gianatasio C, Mueller N, Meyer MJ, Pierce E, Rosow C, Eikermann M.
Anesthesia and increased hypercarbic drive impair the coordination between breathing and swallowing.
Anesthesiology. 2014 Dec;121(6):1175-83. doi: 10.1097/ALN.0000000000000462.

369. Kappen TH, Vergouwe Y, van Wolfswinkel L, Kalkman CJ, Moons KG, van Klei WA.
Impact of adding therapeutic recommendations to risk assessments from a prediction model for postoperative nausea and vomiting.
Br J Anaesth. 2015 Feb;114(2):252-60. doi: 10.1093/bja/aeu321. Epub 2014 Oct 1.

370. Rakel BA, Zimmerman MB, Geasland K, Embree J, Clark CR, Noiseux NO, Callaghan JJ, Herr K, Walsh D, Sluka KA.
Transcutaneous electrical nerve stimulation for the control of pain during rehabilitation after total knee arthroplasty: A randomized, blinded, placebo-controlled trial.
Pain. 2014 Dec;155(12):2599-611. doi: 10.1016/j.pain.2014.09.025. Epub 2014 Sep 28.

371. Yamamoto H, Sakura S, Wada M, Shido A.
A prospective, randomized comparison between single- and multiple-injection techniques for ultrasound-guided subgluteal sciatic nerve block.
Anesth Analg. 2014 Dec;119(6):1442-8. doi: 10.1213/ANE.0000000000000462.

372. Westergaard B, Jensen K, Lenz K, Bendtsen TF, Vazin M, Tanggaard K, Worm BS, Krogsgaard M, Børglum J.
A randomised controlled trial of ultrasound-guided blockade of the saphenous nerve and the posterior branch of the obturator nerve for postoperative analgesia after day-case knee arthroscopy.
Anaesthesia. 2014 Dec;69(12):1337-44. doi: 10.1111/anae.12794. Epub 2014 Sep 29.

373. Brück S, Trautner H, Wolff A, Hain J, Mols G, Pakos P, Roewer N, Lange M.
Comparison of the C-MAC(®) and GlideScope(®) videolaryngoscopes in patients with cervical spine disorders and immobilisation.
Anaesthesia. 2015 Feb;70(2):160-5. doi: 10.1111/anae.12858. Epub 2014 Sep 29.

374. Knutsen KV, Madar AA, Brekke M, Meyer HE, Natvig B, Mdala I, Lagerløv P.
Effect of vitamin D on musculoskeletal pain and headache: A randomized, double-blind, placebo-controlled trial among adult ethnic minorities in Norway.
Pain. 2014 Dec;155(12):2591-8. doi: 10.1016/j.pain.2014.09.024. Epub 2014 Sep 23.

375. Craig MG, Grant EN, Tao W, McIntire DD, Leveno KJ.
A randomized control trial of bupivacaine and fentanyl versus fentanyl-only for epidural analgesia during the second stage of labor.
Anesthesiology. 2015 Jan;122(1):172-7. doi: 10.1097/ALN.0000000000000454.

376. Dubuis E, Thompson V, Leite MI, Blaes F, Maihöfner C, Greensmith D, Vincent A, Shenker N, Kuttikat A, Leuwer M, Goebel A.
Longstanding complex regional pain syndrome is associated with activating

autoantibodies against alpha-1a adrenoceptors.
Pain. 2014 Nov;155(11):2408-17. doi: 10.1016/j.pain.2014.09.022. Epub 2014 Sep 22.

377. Madison SJ, Monahan AM, Agarwal RR, Furnish TJ, Mascha EJ, Xu Z, Donohue MC, Morgan AC, Ilfeld BM.
A randomized, triple-masked, active-controlled investigation of the relative effects of dose, concentration, and infusion rate for continuous popliteal-sciatic nerve blocks in volunteers.
Br J Anaesth. 2015 Jan;114(1):121-9. doi: 10.1093/bja/aeu333. Epub 2014 Sep 23.

378. Dardashti A, Ederoth P, Algotsson L, Brondén B, Grins E, Larsson M, Nozohoor S, Zinko G, Bjursten H.
Erythropoietin and protection of renal function in cardiac surgery (the EPRICS Trial).
Anesthesiology. 2014 Sep;121(3):582-90. doi: 10.1097/ALN.0000000000000321.

379. Effects of dexamethasone on cognitive decline after cardiac surgery: a randomized clinical trial.
Ottens TH, Dieleman JM, Sauër AM, Peelen LM, Nierich AP, de Groot WJ, Nathoe HM, Buijsrogge MP, Kalkman CJ, van Dijk D; DExamethasone for Cardiac Surgery (DECS) Study Group.
Anesthesiology. 2014 Sep;121(3):492-500. doi: 10.1097/ALN.0000000000000336.

380. Roozekrans M, van der Schrier R, Okkerse P, Hay J, McLeod JF, Dahan A.
Two studies on reversal of opioid-induced respiratory depression by BK-channel blocker GAL021 in human volunteers.
Anesthesiology. 2014 Sep;121(3):459-68. doi: 10.1097/ALN.0000000000000367.

381. Boyle Y, Fernando D, Kurz H, Miller SR, Zucchetto M, Storey J.
The effect of a combination of gabapentin and donepezil in an experimental pain model in healthy volunteers: Results of a randomized controlled trial.
Pain. 2014 Dec;155(12):2510-6. doi: 10.1016/j.pain.2014.09.003. Epub 2014 Sep 10.

382. Olivan-Blázquez B, Herrera-Mercadal P, Puebla-Guedea M, Pérez-Yus MC, Andrés E, Fayed N, López-Del-Hoyo Y, Magallon R, Roca M, Garcia-Campayo J.
Efficacy of memantine in the treatment of fibromyalgia: A double-blind, randomised, controlled trial with 6-month follow-up.
Pain. 2014 Dec;155(12):2517-25. doi: 10.1016/j.pain.2014.09.004. Epub 2014 Sep 16.

383. Rahe-Meyer N, Fennema H, Schulman S, Klimscha W, Przemeck M, Blobner M, Wulf H, Speek M, McCrary Sisk C, Williams-Herman D, Woo T, Szegedi A.
Effect of reversal of neuromuscular blockade with sugammadex versus usual care on

bleeding risk in a randomized study of surgical patients.
Anesthesiology. 2014 Nov;121(5):969-77. doi: 10.1097/ALN.0000000000000424.

384. Landoni G, Guarracino F, Cariello C, Franco A, Baldassarri R, Volatile compared with total intravenous anaesthesia in patients undergoing high-risk cardiac surgery: a randomized multicentre study.
Borghi G, Covello RD, Gerli C, Crivellari M, Zangrillo A.
Br J Anaesth. 2014 Dec;113(6):955-63. doi: 10.1093/bja/aeu290. Epub 2014 Sep 3.

385. Potura E, Lindner G, Biesenbach P, Funk GC, Reiterer C, Kabon B, Schwarz C, Druml W, Fleischmann E.
An acetate-buffered balanced crystalloid versus 0.9% saline in patients with end-stage renal disease undergoing cadaveric renal transplantation: a prospective randomized controlled trial.
Anesth Analg. 2015 Jan;120(1):123-9. doi: 10.1213/ANE.0000000000000419.

386. de Vos CC, Meier K, Zaalberg PB, Nijhuis HJ, Duyvendak W, Vesper J, Enggaard TP, Lenders MW.
Spinal cord stimulation in patients with painful diabetic neuropathy: a multicentre randomized clinical trial.
Pain. 2014 Nov;155(11):2426-31. doi: 10.1016/j.pain.2014.08.031. Epub 2014 Aug 29.

387. Bouhassira D, Wilhelm S, Schacht A, Perrot S, Kosek E, Cruccu G, Freynhagen R, Tesfaye S, Lledó A, Choy E, Marchettini P, Micó JA, Spaeth M, Skljarevski V, Tölle T.
Neuropathic pain phenotyping as a predictor of treatment response in painful diabetic neuropathy: data from the randomized, double-blind, COMBO-DN study.
Pain. 2014 Oct;155(10):2171-9. doi: 10.1016/j.pain.2014.08.020. Epub 2014 Aug 27.

388. Chen CC, Yang CC, Hu CC, Shih HN, Chang YH, Hsieh PH.
Acupuncture for pain relief after total knee arthroplasty: a randomized controlled trial.
Reg Anesth Pain Med. 2015 Jan-Feb;40(1):31-6. doi: 10.1097/AAP.0000000000000138.

389. Rocha Rde O, Teixeira MJ, Yeng LT, Cantara MG, Faria VG, Liggieri V, Loduca A, Müller BM, Souza AC, de Andrade DC.
Thoracic sympathetic block for the treatment of complex regional pain syndrome type I: a double-blind randomized controlled study.
Pain. 2014 Nov;155(11):2274-81. doi: 10.1016/j.pain.2014.08.015. Epub 2014 Aug 19.

390. Demant DT, Lund K, Vollert J, Maier C, Segerdahl M, Finnerup NB, Jensen TS, Sindrup SH.
The effect of oxcarbazepine in peripheral neuropathic pain depends on pain

phenotype: a randomised, double-blind, placebo-controlled phenotype-stratified study.
Pain. 2014 Nov;155(11):2263-73. doi: 10.1016/j.pain.2014.08.014. Epub 2014 Aug 17.

391. Na HS, Shin HJ, Kang SB, Hwang JW, Do SH.
Effects of magnesium sulphate on coagulation after laparoscopic colorectal cancer surgery, measured by rotational thromboelastometry (ROTEM®).
Anaesthesia. 2014 Dec;69(12):1314-21. doi: 10.1111/anae.12684. Epub 2014 Aug 5.

392. Kancir AS, Pleckaitiene L, Hansen TB, Ekeløf NP, Pedersen EB.
Lack of nephrotoxicity by 6% hydroxyethyl starch 130/0.4 during hip arthroplasty: a randomized controlled trial.
Anesthesiology. 2014 Nov;121(5):948-58. doi: 10.1097/ALN.0000000000000413.

393. Schepens T, Cammu G, Saldien V, De Neve N, Jorens PG, Foubert L, Vercauteren M.
Electromyographic activity of the diaphragm during neostigmine or sugammadex-enhanced recovery after neuromuscular blockade with rocuronium: a randomised controlled study in healthy volunteers.
Eur J Anaesthesiol. 2015 Jan;32(1):49-57. doi: 10.1097/EJA.0000000000000140.

394. Spielberg DR, Barrett JS, Hammer GB, Drover DR, Reece T, Cohane CA, Schulman SR.
Predictors of arterial blood pressure control during deliberate hypotension with sodium nitroprusside in children.
Anesth Analg. 2014 Oct;119(4):867-74. doi: 10.1213/ANE.0000000000000376.

395. Abdallah FW, Chan VW, Gandhi R, Koshkin A, Abbas S, Brull R.
The analgesic effects of proximal, distal, or no sciatic nerve block on posterior knee pain after total knee arthroplasty: a double-blind placebo-controlled randomized trial.
Anesthesiology. 2014 Dec;121(6):1302-10. doi: 10.1097/ALN.0000000000000406.

396. Ilyas S, Symons J, Bradley WP, Segal R, Taylor H, Lee K, Balkin M, Bain C, Ng I.
A prospective randomised controlled trial comparing tracheal intubation plus manual in-line stabilisation of the cervical spine using the Macintosh laryngoscope vs the McGrath(®) Series 5 videolaryngoscope.
Anaesthesia. 2014 Dec;69(12):1345-50. doi: 10.1111/anae.12804. Epub 2014 Aug 2.

397. Ihle K, Rodriguez-Raecke R, Luedtke K, May A.
tDCS modulates cortical nociceptive processing but has little to no impact on pain perception.
Pain. 2014 Oct;155(10):2080-7. doi: 10.1016/j.pain.2014.07.018. Epub 2014 Jul 30.

398. Rubes D, Klein AA, Lips M, Rulisek J, Kopecky P, Blaha J, Mlejnsky F, Lindner J, Dohnalova A, Kunstyr J.
The effect of adjusting tracheal tube cuff pressure during deep hypothermic circulatory arrest: a randomised trial.
Eur J Anaesthesiol. 2014 Sep;31(9):452-6. doi: 10.1097/EJA.0000000000000100.

399. Gillis C, Li C, Lee L, Awasthi R, Augustin B, Gamsa A, Liberman AS, Stein B, Charlebois P, Feldman LS, Carli F.
Prehabilitation versus rehabilitation: a randomized control trial in patients undergoing colorectal resection for cancer.
Anesthesiology. 2014 Nov;121(5):937-47. doi: 10.1097/ALN.0000000000000393.

400. Diakomi M, Papaioannou M, Mela A, Kouskouni E, Makris A.
Preoperative fascia iliaca compartment block for positioning patients with hip fractures for central nervous blockade: a randomized trial.
Reg Anesth Pain Med. 2014 Sep-Oct;39(5):394-8. doi: 10.1097/AAP.0000000000000133.

401. Abdel-Ghaffar HS, Kalefa MA, Imbaby AS.
Efficacy of ketamine as an adjunct to lidocaine in intravenous regional anesthesia.
Reg Anesth Pain Med. 2014 Sep-Oct;39(5):418-22. doi: 10.1097/AAP.0000000000000128.

402. Passi Y, Sathyamoorthy M, Lerman J, Heard C, Marino M.
Comparison of the laryngoscopy views with the size 1 Miller and Macintosh laryngoscope blades lifting the epiglottis or the base of the tongue in infants and children <2 yr of age.
Br J Anaesth. 2014 Nov;113(5):869-74. doi: 10.1093/bja/aeu228. Epub 2014 Jul 25.

403. Kjelstrup T, Hol PK, Courivaud F, Smith HJ, Røkkum M, Klaastad Ø.
MRI of axillary brachial plexus blocks: a randomised controlled study.
Eur J Anaesthesiol. 2014 Nov;31(11):611-9. doi: 10.1097/EJA.0000000000000122.

404. Chiari P, Angoulvant D, Mewton N, Desebbe O, Obadia JF, Robin J, Farhat F, Jegaden O, Bastien O, Lehot JJ, Ovize M.
Cyclosporine protects the heart during aortic valve surgery.
Anesthesiology. 2014 Aug;121(2):232-8. doi: 10.1097/ALN.0000000000000331.

405. Wadhwa A, Kabon B, Fleischmann E, Kurz A, Sessler DI.
Supplemental postoperative oxygen does not reduce surgical site infection and major healing-related complications from bariatric surgery in morbidly obese patients: a randomized, blinded trial.
Anesth Analg. 2014 Aug;119(2):357-65. doi: 10.1213/ANE.0000000000000318.

406. Jagla C, Martus P, Stein C.
Peripheral opioid receptor blockade increases postoperative morphine demands--a

randomized, double-blind, placebo-controlled trial.
Pain. 2014 Oct;155(10):2056-62. doi: 10.1016/j.pain.2014.07.011. Epub 2014 Jul 18.

407. Kumar N, Thapa D, Gombar S, Ahuja V, Gupta R.
Analgesic efficacy of pre-operative stellate ganglion block on postoperative pain relief: a randomised controlled trial.
Anaesthesia. 2014 Sep;69(9):954-660. doi: 10.1111/anae.12774. Epub 2014 Jul 7.

408. Arzola C, Mikhael R, Margarido C, Carvalho JC.
Spinal ultrasound versus palpation for epidural catheter insertion in labour: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Jul;32(7):499-505. doi: 10.1097/EJA.0000000000000119.

409. Tang WX, Li JJ, Bu HM, Fu ZJ.
Spinal anaesthesia with low-dose bupivacaine in marginally hyperbaric solutions for caesarean section: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Jul;32(7):493-8. doi: 10.1097/EJA.0000000000000112.

410. van der Voort PH, van Zanten M, Bosman RJ, van Stijn I, Wester JP, van Raalte R, Oudemans-van Straaten HM, Zandstra DF.
Testing a conceptual model on early opening of the microcirculation in severe sepsis and septic shock: a randomised controlled pilot study.
Eur J Anaesthesiol. 2015 Mar;32(3):189-98. doi: 10.1097/EJA.0000000000000126.

411. Wu YT, Ho CW, Chen YL, Li TY, Lee KC, Chen LC.
Ultrasound-guided pulsed radiofrequency stimulation of the suprascapular nerve for adhesive capsulitis: a prospective, randomized, controlled trial.
Anesth Analg. 2014 Sep;119(3):686-92. doi: 10.1213/ANE.0000000000000354.

412. Bicalho GP, Braz LG, de Jesus LS, Pedigone CM, de Carvalho LR, Módolo NS, Braz JR.
The humidity in a Dräger Primus anesthesia workstation using low or high fresh gas flow and with or without a heat and moisture exchanger in pediatric patients.
Anesth Analg. 2014 Oct;119(4):926-31. doi: 10.1213/ANE.0000000000000353.

413. Pestaña D, Espinosa E, Eden A, Nájera D, Collar L, Aldecoa C, Higuera E, Escribano S, Bystritski D, Pascual J, Fernández-Garijo P, de Prada B, Muriel A, Pizov R.
Perioperative goal-directed hemodynamic optimization using noninvasive cardiac output monitoring in major abdominal surgery: a prospective, randomized, multicenter, pragmatic trial: POEMAS Study (PeriOperative goal-directed thErapy in Major Abdominal Surgery).
Anesth Analg. 2014 Sep;119(3):579-87. doi: 10.1213/ANE.0000000000000295.

414. Shanks AM, Avidan MS, Kheterpal S, Tremper KK, Vandervest JC, Cavanaugh JM,

Mashour GA.
Alerting thresholds for the prevention of intraoperative awareness with explicit recall: a secondary analysis of the Michigan Awareness Control Study.
Eur J Anaesthesiol. 2015 May;32(5):346-53. doi: 10.1097/EJA.0000000000000123.

415. Jaura AI, Flood G, Gallagher HC, Buggy DJ.
Differential effects of serum from patients administered distinct anaesthetic techniques on apoptosis in breast cancer cells in vitro: a pilot study.
Br J Anaesth. 2014 Jul;113 Suppl 1:i63-7. doi: 10.1093/bja/aet581. Epub 2014 Jul 9.

416. Buckley A, McQuaid S, Johnson P, Buggy DJ.
Effect of anaesthetic technique on the natural killer cell anti-tumour activity of serum from women undergoing breast cancer surgery: a pilot study.
Br J Anaesth. 2014 Jul;113 Suppl 1:i56-62. doi: 10.1093/bja/aeu200. Epub 2014 Jul 9.

417. Saari TI, Ihmsen H, Mell J, Fröhlich K, Fechner J, Schüttler J, Jeleazcov C.
Influence of intensive care treatment on the protein binding of sufentanil and hydromorphone during pain therapy in postoperative cardiac surgery patients.
Br J Anaesth. 2014 Oct;113(4):677-87. doi: 10.1093/bja/aeu160. Epub 2014 Jul 6.

418. McLeod JF, Leempoels JM, Peng SX, Dax SL, Myers LJ, Golder FJ.
GAL-021, a new intravenous BKCa-channel blocker, is well tolerated and stimulates ventilation in healthy volunteers.
Br J Anaesth. 2014 Nov;113(5):875-83. doi: 10.1093/bja/aeu182. Epub 2014 Jul 2.

419. Clarke HA, Katz J, McCartney CJ, Stratford P, Kennedy D, Pagé MG, Awad IT, Gollish J, Kay J.
Perioperative gabapentin reduces 24 h opioid consumption and improves in-hospital rehabilitation but not post-discharge outcomes after total knee arthroplasty with peripheral nerve block.
Br J Anaesth. 2014 Nov;113(5):855-64. doi: 10.1093/bja/aeu202. Epub 2014 Jun 30.

420. Staehr-Rye AK, Rasmussen LS, Rosenberg J, Juul P, Lindekaer AL, Riber C, Gätke MR.
Surgical space conditions during low-pressure laparoscopic cholecystectomy with deep versus moderate neuromuscular blockade: a randomized clinical study.
Anesth Analg. 2014 Nov;119(5):1084-92. doi: 10.1213/ANE.0000000000000316.

421. Van Hemelrijck J, Levien LJ, Veeckman L, Pitman A, Zafirelis Z, Standl T.
A safety and efficacy evaluation of hemoglobin-based oxygen carrier HBOC-201 in a randomized, multicenter red blood cell controlled trial in noncardiac surgery patients.
Anesth Analg. 2014 Oct;119(4):766-76. doi: 10.1213/ANE.0000000000000305.

422. Bendtsen TF, Pedersen EM, Haroutounian S, Søballe K, Moriggl B, Nikolajsen L, Hasselstrøm JB, Fisker AK, Strid JM, Iversen B, Børglum J.
The suprasacral parallel shift vs lumbar plexus blockade with ultrasound guidance in healthy volunteers--a randomised controlled trial.
Anaesthesia. 2014 Nov;69(11):1227-40. doi: 10.1111/anae.12753. Epub 2014 Jun 28.

423. Gulyam Kuruba SM, Mukhtar K, Singh SK.
A randomised controlled trial of ultrasound-guided transversus abdominis plane block for renal transplantation.
Anaesthesia. 2014 Nov;69(11):1222-6. doi: 10.1111/anae.12704. Epub 2014 Jun 28.

424. Silbert BS, Evered LA, Scott DA.
Incidence of postoperative cognitive dysfunction after general or spinal anaesthesia for extracorporeal shock wave lithotripsy.
Br J Anaesth. 2014 Nov;113(5):784-91. doi: 10.1093/bja/aeu163. Epub 2014 Jun 27.

425. Mercier FJ, Diemunsch P, Ducloy-Bouthors AS, Mignon A, Fischler M, Malinovsky JM, Bolandard F, Aya AG, Raucoules-Aimé M, Chassard D), Keita H, Rigouzzo A, Le Gouez A; CAESAR Working Group.
6% Hydroxyethyl starch (130/0.4) vs Ringer's lactate preloading before spinal anaesthesia for Caesarean delivery: the randomized, double-blind, multicentre CAESAR trial.
Br J Anaesth. 2014 Sep;113(3):459-67. doi: 10.1093/bja/aeu103. Epub 2014 Jun 26.

426. Xu YJ, Chen WK, Zhu Y, Wang SL, Miao CH.
Effect of thoracic epidural anaesthesia on serum vascular endothelial growth factor C and cytokines in patients undergoing anaesthesia and surgery for colon cancer.
Br J Anaesth. 2014 Jul;113 Suppl 1:i49-55. doi: 10.1093/bja/aeu148. Epub 2014 Jun 25.

427. McEvoy MD, Hand WR, Stoll WD, Furse CM, Nietert PJ.
Reg Anesth Pain Med. 2014 Jul-Aug;39(4):299-305. doi:
Adherence to guidelines for the management of local anesthetic systemic toxicity is improved by an electronic decision support tool and designated "Reader".
10.1097/AAP.0000000000000097.

428. Karmakar MK, Samy W, Li JW, Lee A, Chan WC, Chen PP, Ho AM.
Thoracic paravertebral block and its effects on chronic pain and health-related quality of life after modified radical mastectomy.
Reg Anesth Pain Med. 2014 Jul-Aug;39(4):289-98. doi:
10.1097/AAP.0000000000000113.

429. Soergel DG, Subach RA, Burnham N, Lark MW, James IE, Sadler BM, Skobieranda F, Violin JD, Webster LR.

Biased agonism of the μ-opioid receptor by TRV130 increases analgesia and reduces on-target adverse effects versus morphine: A randomized, double-blind, placebo-controlled, crossover study in healthy volunteers.
Pain. 2014 Sep;155(9):1829-35. doi: 10.1016/j.pain.2014.06.011. Epub 2014 Jun 19.

430. Hamdani M, Chassot O, Fournier R.
Ultrasound-guided continuous interscalene block: the influence of local anesthetic background delivery method on postoperative analgesia after shoulder surgery: a randomized trial.
Reg Anesth Pain Med. 2014 Sep-Oct;39(5):387-93. doi: 10.1097/AAP.0000000000000112.

431. Gimbel JS, Kivitz AJ, Bramson C, Nemeth MA, Keller DS, Brown MT, West CR, Verburg KM.
Long-term safety and effectiveness of tanezumab as treatment for chronic low back pain.
Pain. 2014 Sep;155(9):1793-801. doi: 10.1016/j.pain.2014.06.004. Epub 2014 Jun 14.

432. Russell T, Ng L, Nathan E, Debenham E.
Supplementation of standard pre-oxygenation with nasal prong oxygen or machine oxygen flush during a simulated leak scenario.
Anaesthesia. 2014 Oct;69(10):1133-7. doi: 10.1111/anae.12630. Epub 2014 Jun 14.

433. Choquet O, Noble GB, Abbal B, Morau D, Bringuier S, Capdevila X.
Subparaneural versus circumferential extraneural injection at the bifurcation level in ultrasound-guided popliteal sciatic nerve blocks: a prospective, randomized, double-blind study.
Reg Anesth Pain Med. 2014 Jul-Aug;39(4):306-11. doi: 10.1097/AAP.0000000000000095.

434. Marshall SD, Mehra R.
The effects of a displayed cognitive aid on non-technical skills in a simulated 'can't intubate, can't oxygenate' crisis.
Anaesthesia. 2014 Jul;69(7):669-77. doi: 10.1111/anae.12601.

435. Cheung CW, Qiu Q, Ying AC, Choi SW, Law WL, Irwin MG.
The effects of intra-operative dexmedetomidine on postoperative pain, side-effects and recovery in colorectal surgery.
Anaesthesia. 2014 Nov;69(11):1214-21. doi: 10.1111/anae.12759. Epub 2014 Jun 10.

436. Cappelleri G, Ambrosoli AL, Turconi S, Gemma M, Ricci EB, Cornaggia G.
Effect of local anesthetic dilution on the onset time and duration of double-injection sciatic nerve block: a prospective, randomized, blinded evaluation.
Anesth Analg. 2014 Aug;119(2):489-93. doi: 10.1213/ANE.0000000000000293.

437. Simpson DM, Rice AS, Emir B, Landen J, Semel D, Chew ML, Sporn J.
A randomized, double-blind, placebo-controlled trial and open-label extension study to evaluate the efficacy and safety of pregabalin in the treatment of neuropathic pain associated with human immunodeficiency virus neuropathy.
Pain. 2014 Oct;155(10):1943-54. doi: 10.1016/j.pain.2014.05.027. Epub 2014 Jun 4.

438. Saporito A, Sturini E, Borgeat A, Aguirre J.
The effect of continuous popliteal sciatic nerve block on unplanned postoperative visits and readmissions after foot surgery--a randomised, controlled study comparing day-care and inpatient management.
Anaesthesia. 2014 Nov;69(11):1197-205. doi: 10.1111/anae.12710. Epub 2014 Jun 6.

439. Stipic SS, Carev M, Kardum G, Roje Z, Litre DM, Elezovic N.
Are postoperative behavioural changes after adenotonsillectomy in children influenced by the type of anaesthesia?: A randomised clinical study.
Eur J Anaesthesiol. 2015 May;32(5):311-9. doi: 10.1097/EJA.0000000000000104.

440. Sahinovic MM, Eleveld DJ, Kalmar AF, Heeremans EH, De Smet T, Seshagiri CV, Absalom AR, Vereecke HE, Struys MM.
Accuracy of the composite variability index as a measure of the balance between nociception and antinociception during anesthesia.
Anesth Analg. 2014 Aug;119(2):288-301. doi: 10.1213/ANE.0000000000000274.

441. Krage R, Tjon Soei Len L, Schober P, Kolenbrander M, van Groeningen D, Loer SA, Wagner C, Zwaan L.
Does individual experience affect performance during cardiopulmonary resuscitation with additional external distractors?
Anaesthesia. 2014 Sep;69(9):983-9. doi: 10.1111/anae.12747. Epub 2014 Jun 2.

442. Hashimoto Y, Asai T, Arai T, Okuda Y.
Effect of cricoid pressure on placement of the I-gel™ : a randomised study.
Anaesthesia. 2014 Aug;69(8):878-82. doi: 10.1111/anae.12731. Epub 2014 May 28.

443. Zhang Q, Gao Z, Wang H, Ma L, Guo F, Zhong H, Xiong L, Wang Q.
The effect of pre-treatment with transcutaneous electrical acupoint stimulation on the quality of recovery after ambulatory breast surgery: a prospective, randomised controlled trial.
Anaesthesia. 2014 Aug;69(8):832-9. doi: 10.1111/anae.12639. Epub 2014 May 28.

444. Broderick JE, Keefe FJ, Bruckenthal P, Junghaenel DU, Schneider S, Schwartz JE, Kaell AT, Caldwell DS, McKee D, Reed S, Gould E.
Nurse practitioners can effectively deliver pain coping skills training to osteoarthritis patients with chronic pain: A randomized, controlled trial.
Pain. 2014 Sep;155(9):1743-54. doi: 10.1016/j.pain.2014.05.024. Epub 2014 May 24.

445. Arngrim N, Schytz HW, Asghar MS, Amin FM, Hougaard A, Larsen VA, de Koning PJ, Larsson HB, Olesen J, Ashina M.
Association of acetazolamide infusion with headache and cranial artery dilation in healthy volunteers.
Pain. 2014 Aug;155(8):1649-58. doi: 10.1016/j.pain.2014.05.019. Epub 2014 May 23.

446. Murphy GS, Szokol JW, Avram MJ, Greenberg SB, Shear TD, Vender JS, Levin SD, Koh JL, Parikh KN, Patel SS.
Effect of ventilation on cerebral oxygenation in patients undergoing surgery in the beach chair position: a randomized controlled trial.
Br J Anaesth. 2014 Oct;113(4):618-27. doi: 10.1093/bja/aeu109. Epub 2014 May 23.

447. Meyhoff CS, Jorgensen LN, Wetterslev J, Siersma VD, Rasmussen LS; PROXI Trial Group.
Risk of new or recurrent cancer after a high perioperative inspiratory oxygen fraction during abdominal surgery.
Br J Anaesth. 2014 Jul;113 Suppl 1:i74-i81. doi: 10.1093/bja/aeu110. Epub 2014 May 23.

448. Willingham M, Ben Abdallah A, Gradwohl S, Helsten D, Lin N, Villafranca A, Jacobsohn E, Avidan M, Kaiser H.
Association between intraoperative electroencephalographic suppression and postoperative mortality.
Br J Anaesth. 2014 Dec;113(6):1001-8. doi: 10.1093/bja/aeu105. Epub 2014 May 22.

449. Bidd H, Dulai R, Edelman N, Giles J, Patel C.
The effect of intra-operative passive movement therapy on non-surgical site pain after breast reconstructive surgery: a preliminary study.
Anaesthesia. 2014 Aug;69(8):872-7. doi: 10.1111/anae.12729. Epub 2014 May 22.

450. Cho YJ, Ryu H, Lee J, Park IK, Kim YT, Lee YH, Lee H, Hong DM, Seo JH, Bahk JH, Jeon Y.
A randomised controlled trial comparing incentive spirometry with the Acapella® device for physiotherapy after thoracoscopic lung resection surgery.
Anaesthesia. 2014 Aug;69(8):891-8. doi: 10.1111/anae.12750. Epub 2014 May 21.

451. Hanson NA, Allen CJ, Hostetter LS, Nagy R, Derby RE, Slee AE, Arslan A, Auyong DB.
Continuous ultrasound-guided adductor canal block for total knee arthroplasty: a randomized, double-blind trial.
Anesth Analg. 2014 Jun;118(6):1370-7. doi: 10.1213/ANE.0000000000000197.

452. Techasuk W, González AP, Bernucci F, Cupido T, Finlayson RJ, Tran DQ.
A randomized comparison between double-injection and targeted

intracluster-injection ultrasound-guided supraclavicular brachial plexus block.
Anesth Analg. 2014 Jun;118(6):1363-9. doi: 10.1213/ANE.0000000000000224.

453. Nicol AL, Wu II, Ferrante FM.
Botulinum toxin type a injections for cervical and shoulder girdle myofascial pain using an enriched protocol design.
Anesth Analg. 2014 Jun;118(6):1326-35. doi: 10.1213/ANE.0000000000000192.

454. Lenhardt R, Burkhart MT, Brock GN, Kanchi-Kandadai S, Sharma R, Akça O.
Is video laryngoscope-assisted flexible tracheoscope intubation feasible for patients with predicted difficult airway? A prospective, randomized clinical trial.
Anesth Analg. 2014 Jun;118(6):1259-65. doi: 10.1213/ANE.0000000000000220.

455. Evansa I, Logina I, Vanags I, Borgeat A.
Ultrasound versus fluoroscopic-guided epidural steroid injections in patients with degenerative spinal diseases: a randomised study.
Eur J Anaesthesiol. 2015 Apr;32(4):262-8. doi: 10.1097/EJA.0000000000000103.

456. Gamez R, Slinger P.
A simulator study of tube exchange with three different designs of double-lumen tubes.
Anesth Analg. 2014 Aug;119(2):449-53. doi: 10.1213/ANE.0000000000000250.

457. Birnbach DJ, Rosen LF, Fitzpatrick M, Carling P, Arheart KL, Munoz-Price LS.
Double gloves: a randomized trial to evaluate a simple strategy to reduce contamination in the operating room.
Anesth Analg. 2015 Apr;120(4):848-52. doi: 10.1213/ANE.0000000000000230.

458. van Loon K, van Rheineck Leyssius AT, van Zaane B, Denteneer M, Kalkman CJ.
Capnography during deep sedation with propofol by nonanesthesiologists: a randomized controlled trial.
Anesth Analg. 2014 Jul;119(1):49-55. doi: 10.1213/ANE.0b013e3182a1f0a2.

459. Defresne AA, Hans GA, Goffin PJ, Bindelle SP, Amabili PJ, DeRoover AM, Poirrier R, Brichant JF, Joris JL.
Recruitment of lung volume during surgery neither affects the postoperative spirometry nor the risk of hypoxaemia after laparoscopic gastric bypass in morbidly obese patients: a randomized controlled study.
Br J Anaesth. 2014 Sep;113(3):501-7. doi: 10.1093/bja/aeu101. Epub 2014 May 15.

460. Jones EB, Sharpe L.
The effect of cognitive bias modification for interpretation on avoidance of pain during an acute experimental pain task.
Pain. 2014 Aug;155(8):1569-76. doi: 10.1016/j.pain.2014.05.003. Epub 2014 May 9.

461. Sauër AM, Slooter AJ, Veldhuijzen DS, van Eijk MM, Devlin JW, van Dijk D.
Intraoperative dexamethasone and delirium after cardiac surgery: a randomized clinical trial.
Anesth Analg. 2014 Nov;119(5):1046-52. doi: 10.1213/ANE.0000000000000248.

462. Fernandez-Bustamante A, Klawitter J, Repine JE, Agazio A, Janocha AJ, Shah C, Moss M, Douglas IS, Tran ZV, Erzurum SC, Christians U, Seres T.
Early effect of tidal volume on lung injury biomarkers in surgical patients with healthy lungs.
Anesthesiology. 2014 Sep;121(3):469-81. doi: 10.1097/ALN.0000000000000301.

463. Nilsson PM, Russell L, Ringsted C, Hertz P, Konge L.
Simulation-based training in flexible fibreoptic intubation: A randomised study.
Eur J Anaesthesiol. 2015 Sep;32(9):609-14. doi: 10.1097/EJA.0000000000000092.

464. Dubois PE, Putz L, Jamart J, Marotta ML, Gourdin M, Donnez O.
Deep neuromuscular block improves surgical conditions during laparoscopic hysterectomy: a randomised controlled trial.
Eur J Anaesthesiol. 2014 Aug;31(8):430-6. doi: 10.1097/EJA.0000000000000094.

465. Quan Z, Tian M, Chi P, Cao Y, Li X, Peng K.
Modified short-axis out-of-plane ultrasound versus conventional long-axis in-plane ultrasound to guide radial artery cannulation: a randomized controlled trial.
Anesth Analg. 2014 Jul;119(1):163-9. doi: 10.1213/ANE.0000000000000242.

466. Alfonsi P, Passard A, Guignard B, Chauvin M, Sessler DI.
Nefopam and meperidine are infra-additive on the shivering threshold in humans.
Anesth Analg. 2014 Jul;119(1):58-63. doi: 10.1213/ANE.0000000000000193.

467. Price GC, McLellan S, Paterson RL, Hay A.
A prospective randomised controlled trial of the LMA Supreme vs cuffed tracheal tube as the airway device during percutaneous tracheostomy.
Anaesthesia. 2014 Jul;69(7):757-63. doi: 10.1111/anae.12595. Epub 2014 May 7.

468. Sohn LE, Jagannathan N, Sequera-Ramos L, Sawardekar A, Schaldenbrand K, De Oliveira GS.
A randomised comparison of free-handed vs air-Q assisted fibreoptic-guided tracheal intubation in children < 2 years of age.
Anaesthesia. 2014 Jul;69(7):723-8. doi: 10.1111/anae.12667. Epub 2014 May 2.

469. Lequeux PY, Hecquet F, Bredas P.
Does anesthetic regimen influence implicit memory during general anesthesia?
Anesth Analg. 2014 Nov;119(5):1174-9. doi: 10.1213/ANE.0000000000000162.

470. Vitiello MV, McCurry SM, Shortreed SM, Baker LD, Rybarczyk BD,

Keefe FJ, Von Korff M.
Short-term improvement in insomnia symptoms predicts long-term improvements in sleep, pain, and fatigue in older adults with comorbid osteoarthritis and insomnia.
Pain. 2014 Aug;155(8):1547-54. doi: 10.1016/j.pain.2014.04.032. Epub 2014 May 1.

471. Nakayama Y, Nakajima Y, Sessler DI, Ishii S, Shibasaki M, Ogawa S, Takeshita J, Shime N, Mizobe T.
A novel method for ultrasound-guided radial arterial catheterization in pediatric patients.
Anesth Analg. 2014 May;118(5):1019-26. doi: 10.1213/ANE.0000000000000164.

472. Short TG, Leslie K, Campbell D, Chan MT, Corcoran T, O'Loughlin E, Frampton C, Myles P.
A pilot study for a prospective, randomized, double-blind trial of the influence of anesthetic depth on long-term outcome.
Anesth Analg. 2014 May;118(5):981-6. doi: 10.1213/ANE.0000000000000209.

473. Brown CH 4th, Azman AS, Gottschalk A, Mears SC, Sieber FE.
Sedation depth during spinal anesthesia and survival in elderly patients undergoing hip fracture repair.
Anesth Analg. 2014 May;118(5):977-80. doi: 10.1213/ANE.0000000000000157.

474. Bisbe E, Moltó L, Arroyo R, Muniesa JM, Tejero M.
Randomized trial comparing ferric carboxymaltose vs oral ferrous glycine sulphate for postoperative anaemia after total knee arthroplasty.
Br J Anaesth. 2014 Sep;113(3):402-9. doi: 10.1093/bja/aeu092. Epub 2014 Apr 29.

475. Kim HC, Yoo DH, Kim HJ, Jeon YT, Hwang JW, Park HP.
A prospective randomised comparison of two insertion methods for i-gel placement in anaesthetised paralysed patients: standard vs. rotational technique.
Anaesthesia. 2014 Jul;69(7):729-34. doi: 10.1111/anae.12680. Epub 2014 Apr 28.

476. Adelborg K, Bjørnshave K, Mortensen MB, Espeseth E, Wolff A, Løfgren B.
A randomised crossover comparison of mouth-to-face-shield ventilation and mouth-to-pocket-mask ventilation by surf lifeguards in a manikin.
Anaesthesia. 2014 Jul;69(7):712-6. doi: 10.1111/anae.12669. Epub 2014 Apr 28.

477. Ueki M, Kawasaki T, Habe K, Hamada K, Kawasaki C, Sata T.
The effects of dexmedetomidine on inflammatory mediators after cardiopulmonary bypass.
Anaesthesia. 2014 Jul;69(7):693-700. doi: 10.1111/anae.12636. Epub 2014 Apr 28.

478. Wang ZX, Huang CY, Hua YP, Huang WQ, Deng LH, Liu KX.
Dexmedetomidine reduces intestinal and hepatic injury after hepatectomy with inflow occlusion under general anaesthesia: a randomized controlled trial.

Br J Anaesth. 2014 Jun;112(6):1055-64. doi: 10.1093/bja/aeu132. Epub 2014 Apr 24.

479. Perniola A, Magnuson A, Axelsson K, Gupta A.
Intraperitoneal local anesthetics have predominant local analgesic effect: a randomized, double-blind study.
Anesthesiology. 2014 Aug;121(2):352-61. doi: 10.1097/ALN.0000000000000267.

480. Farag E, Atim A, Ghosh R, Bauer M, Sreenivasalu T, Kot M, Kurz A, Dalton JE, Mascha EJ, Mounir-Soliman L, Zaky S, Ali Sakr Esa W, Udeh BL, Barsoum W, Sessler DI.
Comparison of three techniques for ultrasound-guided femoral nerve catheter insertion: a randomized, blinded trial.
Anesthesiology. 2014 Aug;121(2):239-48. doi: 10.1097/ALN.0000000000000262.

481. Wu Q, Zhang N, Shen Y, Jia Y, Lei W.
Influence of polyvinyl chloride infusion extension tube on propofol injection pain: a randomised controlled study.
Eur J Anaesthesiol. 2014 Dec;31(12):663-8. doi: 10.1097/EJA.0000000000000081.

482. de Man FR, Erwteman M, van Groeningen D, Ziedses des Plantes PV, Boer C, Loer SA, Krage R.
The effect of audible alarms on anaesthesiologists' response times to adverse events in a simulated anaesthesia environment: a randomised trial.
Anaesthesia. 2014 Jun;69(6):598-603. doi: 10.1111/anae.12640. Epub 2014 Apr 17.

483. Kok WF, van Harten AE, Koene BM, Mariani MA, Koerts J, Tucha O, Absalom AR, Scheeren TW.
A pilot study of cerebral tissue oxygenation and postoperative cognitive dysfunction among patients undergoing coronary artery bypass grafting randomised to surgery with or without cardiopulmonary bypass*.
Anaesthesia. 2014 Jun;69(6):613-22. doi: 10.1111/anae.12634. Epub 2014 Apr 22.

484. Hee HI, Lee S, Chia SN, Lu QS, Liew AP, Ng A.
Bacterial contamination of surgical scrub suits worn outside the operating theatre: a randomised crossover study.
Anaesthesia. 2014 Aug;69(8):816-25. doi: 10.1111/anae.12633. Epub 2014 Apr 18.

485. Lim CW, Min SW, Kim CS, Chang JE, Park JE, Hwang JY.
The use of a nasogastric tube to facilitate nasotracheal intubation: a randomised controlled trial.
Anaesthesia. 2014 Jun;69(6):591-7. doi: 10.1111/anae.12627. Epub 2014 Apr 18.

486. Li C, Xu M, Wu Y, Li YS, Huang WQ, Liu KX.
Limb remote ischemic preconditioning attenuates lung injury after pulmonary resection under propofol-remifentanil anesthesia: a randomized controlled study.
Anesthesiology. 2014 Aug;121(2):249-59. doi: 10.1097/ALN.0000000000000266.

487. Hindman BJ, Santoni BG, Puttlitz CM, From RP, Todd MM.
Intubation biomechanics: laryngoscope force and cervical spine motion during intubation with Macintosh and Airtraq laryngoscopes.
Anesthesiology. 2014 Aug;121(2):260-71. doi: 10.1097/ALN.0000000000000263.

488. Patel NP, El-Wahab N, Fernando R, Wilson S, Robson SC, Columb MO, Lyons GR.
Fetal effects of combined spinal-epidural vs epidural labour analgesia: a prospective, randomised double-blind study.
Anaesthesia. 2014 May;69(5):458-67. doi: 10.1111/anae.12602.

489. Thomson AJ, Morrison G, Thomson E, Beattie C, Nimmo AF, Glen JB.
Induction of general anaesthesia by effect-site target-controlled infusion of propofol: influence of pharmacokinetic model and ke0 value.
Anaesthesia. 2014 May;69(5):429-35. doi: 10.1111/anae.12597.

490. Amris K, Wæhrens EE, Christensen R, Bliddal H, Danneskiold-Samsøe B; IMPROvE Study Group.
Interdisciplinary rehabilitation of patients with chronic widespread pain: primary endpoint of the randomized, nonblinded, parallel-group IMPROvE trial.
Pain. 2014 Jul;155(7):1356-64. doi: 10.1016/j.pain.2014.04.012. Epub 2014 Apr 13.

491. Englberger L, Dietrich W, Eberle B, Erdoes G, Keller D, Carrel T.
A novel blood-sparing agent in cardiac surgery? First in-patient experience with the synthetic serine protease inhibitor MDCO-2010: a phase II, randomized, double-blind, placebo-controlled study in patients undergoing coronary artery bypass grafting with cardiopulmonary bypass.
Anesth Analg. 2014 Jul;119(1):16-25. doi: 10.1213/ANE.0000000000000218.

492. Le Guen M, Liu N, Tounou F, Augé M, Tuil O, Chazot T, Dardelle D, Laloë PA, Bonnet F, Sessler DI, Fischler M.
Dexmedetomidine reduces propofol and remifentanil requirements during bispectral index-guided closed-loop anesthesia: a double-blind, placebo-controlled trial.
Anesth Analg. 2014 May;118(5):946-55. doi: 10.1213/ANE.0000000000000185.

493. Lindholm EE, Aune E, Frøland G, Kirkebøen KA, Otterstad JE.
Analysis of transthoracic echocardiographic data in major vascular surgery from a prospective randomised trial comparing sevoflurane and fentanyl with propofol and remifentanil anaesthesia.
Anaesthesia. 2014 Jun;69(6):558-72. doi: 10.1111/anae.12604. Epub 2014 Apr 10.

494. Niesters M, Proto PL, Aarts L, Sarton EY, Drewes AM, Dahan A.
Tapentadol potentiates descending pain inhibition in chronic pain patients with diabetic polyneuropathy.
Br J Anaesth. 2014 Jul;113(1):148-56. doi: 10.1093/bja/aeu056. Epub 2014 Apr 8.

495. Hand WR, Bridges KH, Stiegler MP, Schell RM, DiLorenzo AN, Ehrenfeld JM, Nietert PJ, McEvoy MD.
Effect of a cognitive aid on adherence to perioperative assessment and management guidelines for the cardiac evaluation of noncardiac surgical patients.
Anesthesiology. 2014 Jun;120(6):1339-49, quiz 1349-53. doi: 10.1097/ALN.0000000000000251.

496. Taddio A, Smart S, Sheedy M, Yoon EW, Vyas C, Parikh C, Pillai Riddell R, Shah V.
Impact of prenatal education on maternal utilization of analgesic interventions at future infant vaccinations: a cluster randomized trial.
Pain. 2014 Jul;155(7):1288-92. doi: 10.1016/j.pain.2014.03.024. Epub 2014 Apr 3.

497. Qutub H, El-Tahan MR, Mowafi HA, El Ghoneimy YF, Regal MA, Al Saflan AA.
Effect of tidal volume on extravascular lung water content during one-lung ventilation for video-assisted thoracoscopic surgery: a randomised, controlled trial.
Eur J Anaesthesiol. 2014 Sep;31(9):466-73. doi: 10.1097/EJA.0000000000000072.

498. Tiseo PJ, Kivitz AJ, Ervin JE, Ren H, Mellis SJ.
Fasinumab (REGN475), an antibody against nerve growth factor for the treatment of pain: results from a double-blind, placebo-controlled exploratory study in osteoarthritis of the knee.
Pain. 2014 Jul;155(7):1245-52. doi: 10.1016/j.pain.2014.03.018. Epub 2014 Mar 29.

499. Arab SA, Alharbi MK, Nada EM, Alrefai DA, Mowafi HA.
Ultrasound-guided supraclavicular brachial plexus block: single versus triple injection technique for upper limb arteriovenous access surgery.
Anesth Analg. 2014 May;118(5):1120-5. doi: 10.1213/ANE.0000000000000155.

500. Rahangdale R, Kendall MC, McCarthy RJ, Tureanu L, Doty R Jr, Weingart A, De Oliveira GS Jr.
The effects of perineural versus intravenous dexamethasone on sciatic nerve blockade outcomes: a randomized, double-blind, placebo-controlled study.
Anesth Analg. 2014 May;118(5):1113-9. doi: 10.1213/ANE.0000000000000137.

501. Gupta RK, Bruehl S, Burns JW, Buvanendran A, Chont M, Schuster E, France CR.
Relationship between endogenous opioid function and opioid analgesic adverse effects.
Reg Anesth Pain Med. 2014 May-Jun;39(3):219-24. doi: 10.1097/AAP.0000000000000083.

502. Sato K, Adachi T, Shirai N, Naoi N.
Continuous versus single-injection sciatic nerve block added to continuous femoral nerve block for analgesia after total knee arthroplasty: a prospective, randomized, double-blind study.

Reg Anesth Pain Med. 2014 May-Jun;39(3):225-9. doi: 10.1097/AAP.0000000000000076.

503. Qi J, Du B, Gurnaney H, Lu P, Zuo Y.
A prospective randomized observer-blinded study to assess postoperative analgesia provided by an ultrasound-guided bilateral thoracic paravertebral block for children undergoing the Nuss procedure.
Reg Anesth Pain Med. 2014 May-Jun;39(3):208-13. doi: 10.1097/AAP.0000000000000071.

504. Horn EP, Bein B, Steinfath M, Ramaker K, Buchloh B, Höcker J.
The incidence and prevention of hypothermia in newborn bonding after cesarean delivery: a randomized controlled trial.
Anesth Analg. 2014 May;118(5):997-1002. doi: 10.1213/ANE.0000000000000160.

505. Twersky RS, Goel V, Narayan P, Weedon J.
The risk of hypertension after preoperative discontinuation of angiotensin-converting enzyme inhibitors or angiotensin receptor antagonists in ambulatory and same-day admission patients.
Anesth Analg. 2014 May;118(5):938-44. doi: 10.1213/ANE.0000000000000076.

506. Yang CW, Jung SM, Kwon HU, Kang PS, Cho CK, Oh JY, Lee Y, Choi J.
A comparison of posterior and medial cord stimulation for neurostimulation-guided vertical infraclavicular block: a randomized noninferiority clinical trial.
Anesth Analg. 2014 Apr;118(4):874-8. doi: 10.1213/ANE.0000000000000143.

507. Miller RD, Ward TA, McCulloch CE, Cohen NH.
A comparison of lidocaine and bupivacaine digital nerve blocks on noninvasive continuous hemoglobin monitoring in a randomized trial in volunteers.
Anesth Analg. 2014 Apr;118(4):766-71. doi: 10.1213/ANE.0000000000000144.

508. Sil S, Arnold LM, Lynch-Jordan A, Ting TV, Peugh J, Cunningham N, Powers SW, Lovell DJ, Hashkes PJ, Passo M, Schikler KN, Kashikar-Zuck S.
Identifying treatment responders and predictors of improvement after cognitive-behavioral therapy for juvenile fibromyalgia.
Pain. 2014 Jul;155(7):1206-12. doi: 10.1016/j.pain.2014.03.005. Epub 2014 Mar 17.

509. Kim MS, Oh JT, Min JY, Lee KH, Lee JR.
A randomised comparison of the i-gel™ and the Laryngeal Mask Airway Classic™ in infants.
Anaesthesia. 2014 Apr;69(4):362-7. doi: 10.1111/anae.12592.

510. Niraj G, Kelkar A, Hart E, Horst C, Malik D, Yeow C, Singh B, Chaudhri S.
Comparison of analgesic efficacy of four-quadrant transversus abdominis plane (TAP) block and continuous posterior TAP analgesia with epidural analgesia in patients undergoing laparoscopic colorectal surgery: an open-label, randomised,

non-inferiority trial.
Anaesthesia. 2014 Apr;69(4):348-55. doi: 10.1111/anae.12546.

511. Stein MH, Cohen S, Mohiuddin MA, Dombrovskiy V, Lowenwirt I.
Prophylactic vs therapeutic blood patch for obstetric patients with accidental dural puncture--a randomised controlled trial.
Anaesthesia. 2014 Apr;69(4):320-6. doi: 10.1111/anae.12562.

512. Kus A, Gok CN, Hosten T, Gurkan Y, Solak M, Toker K.
The LMA-Supreme versus the I-gel in simulated difficult airway in children: a randomised study.
Eur J Anaesthesiol. 2014 May;31(5):280-4. doi: 10.1097/EJA.0000000000000062.

513. Chappell AS, Iyengar S, Lobo ED, Prucka WR.
Results from clinical trials of a selective ionotropic glutamate receptor 5 (iGluR5) antagonist, LY5454694 tosylate, in 2 chronic pain conditions.
Pain. 2014 Jun;155(6):1140-9. doi: 10.1016/j.pain.2014.02.023. Epub 2014 Mar 12.

514. Terkelsen AJ, Gierthmühlen J, Finnerup NB, Højlund AP, Jensen TS.
Bilateral hypersensitivity to capsaicin, thermal, and mechanical stimuli in unilateral complex regional pain syndrome.
Anesthesiology. 2014 May;120(5):1225-36. doi: 10.1097/ALN.0000000000000220.

515. Margarit SC, Vasian HN, Balla E, Vesa S, Ionescu DC.
The influence of total intravenous anaesthesia and isoflurane anaesthesia on plasma interleukin-6 and interleukin-10 concentrations after colorectal surgery for cancer: a randomised controlled trial.
Eur J Anaesthesiol. 2014 Dec;31(12):678-84. doi: 10.1097/EJA.0000000000000057.

516. Czarnetzki C, Tassonyi E, Lysakowski C, Elia N, Tramèr MR.
Efficacy of sugammadex for the reversal of moderate and deep rocuronium-induced neuromuscular block in patients pretreated with intravenous magnesium: a randomized controlled trial.
Anesthesiology. 2014 Jul;121(1):59-67. doi: 10.1097/ALN.0000000000000204.

517. Au Yeung ST, Colagiuri B, Lovibond PF, Colloca L.
Partial reinforcement, extinction, and placebo analgesia.
Pain. 2014 Jun;155(6):1110-7. doi: 10.1016/j.pain.2014.02.022. Epub 2014 Mar 3.

518. Savilampi J, Ahlstrand R, Magnuson A, Geijer H, Wattwil M.
Aspiration induced by remifentanil: a double-blind, randomized, crossover study in healthy volunteers.
Anesthesiology. 2014 Jul;121(1):52-8. doi: 10.1097/ALN.0000000000000202.

519. Kortekaas KA, van der Baan A, Aarts LP, Palmen M, Cobbaert CM, Verhagen JC, Engbers FH, Klautz RJ, Lindeman JH.

Cardiospecific sevoflurane treatment quenches inflammation but does not attenuate myocardial cell damage markers: a proof-of-concept study in patients undergoing mitral valve repair.
Br J Anaesth. 2014 Jun;112(6):1005-14. doi: 10.1093/bja/aet588. Epub 2014 Mar 3.

520. Kruisselbrink R, Arzola C, Endersby R, Tse C, Chan V, Perlas A.
Intra- and interrater reliability of ultrasound assessment of gastric volume.
Anesthesiology. 2014 Jul;121(1):46-51. doi: 10.1097/ALN.0000000000000193.

521. Singh PP, Lemanu DP, Taylor MH, Hill AG.
Association between preoperative glucocorticoids and long-term survival and cancer recurrence after colectomy: follow-up analysis of a previous randomized controlled trial.
Br J Anaesth. 2014 Jul;113 Suppl 1:i68-73. doi: 10.1093/bja/aet577. Epub 2014 Feb 27.

522. Wang H, Xie Y, Zhang Q, Xu N, Zhong H, Dong H, Liu L, Jiang T, Wang Q, Xiong L.
Transcutaneous electric acupoint stimulation reduces intra-operative remifentanil consumption and alleviates postoperative side-effects in patients undergoing sinusotomy: a prospective, randomized, placebo-controlled trial.
Br J Anaesth. 2014 Jun;112(6):1075-82. doi: 10.1093/bja/aeu001. Epub 2014 Feb 26.

523. Marhofer D, Karmakar MK, Marhofer P, Kettner SC, Weber M, Zeitlinger M.
Does circumferential spread of local anaesthetic improve the success of peripheral nerve block?
Br J Anaesth. 2014 Jul;113(1):177-85. doi: 10.1093/bja/aeu002. Epub 2014 Feb 25.

524. Heyse B, Proost JH, Hannivoort LN, Eleveld DJ, Luginbühl M, Struys MM, Vereecke HE.
A response surface model approach for continuous measures of hypnotic and analgesic effect during sevoflurane-remifentanil interaction: quantifying the pharmacodynamic shift evoked by stimulation.
Anesthesiology. 2014 Jun;120(6):1390-9. doi: 10.1097/ALN.0000000000000180.

525. Cho EJ, Yoon SZ, Cho JE, Lee HW.
Comparison of the effects of 0.03 and 0.05 mg/kg midazolam with placebo on prevention of emergence agitation in children having strabismus surgery.
Anesthesiology. 2014 Jun;120(6):1354-61. doi: 10.1097/ALN.0000000000000181.

526. Weller JM, Torrie J, Boyd M, Frengley R, Garden A, Ng WL, Frampton C.
Improving team information sharing with a structured call-out in anaesthetic emergencies: a randomized controlled trial.
Br J Anaesth. 2014 Jun;112(6):1042-9. doi: 10.1093/bja/aet579. Epub 2014 Feb 20.

527. Freiermuth D, Skarvan K, Filipovic M, Seeberger MD, Bolliger D.
Volatile anaesthetics and positive pressure ventilation reduce left atrial performance: a transthoracic echocardiographic study in young healthy adults.
Br J Anaesth. 2014 Jun;112(6):1032-41. doi: 10.1093/bja/aet583. Epub 2014 Feb 20.

528. Yoshimura T, Ueda K, Kakinuma A, Sawai J, Nakata Y.
Bronchial blocker lung collapse technique: nitrous oxide for facilitating lung collapse during one-lung ventilation with a bronchial blocker.
Anesth Analg. 2014 Mar;118(3):666-70. doi: 10.1213/ANE.0000000000000106.

529. Ferrando C, Mugarra A, Gutierrez A, Carbonell JA, García M, Soro M, Tusman G, Belda FJ.
Setting individualized positive end-expiratory pressure level with a positive end-expiratory pressure decrement trial after a recruitment maneuver improves oxygenation and lung mechanics during one-lung ventilation.
Anesth Analg. 2014 Mar;118(3):657-65. doi: 10.1213/ANE.0000000000000105.

530. Zeidan AM, Salem MR, Mazoit JX, Abdullah MA, Ghattas T, Crystal GJ.
The effectiveness of cricoid pressure for occluding the esophageal entrance in anesthetized and paralyzed patients: an experimental and observational glidescope study.
Anesth Analg. 2014 Mar;118(3):580-6. doi: 10.1213/ANE.0000000000000068.

531. Faraoni D, Cacheux C, Van Aelbrouck C, Ickx BE, Barvais L, Levy JH.
Effect of two doses of tranexamic acid on fibrinolysis evaluated by thromboelastography during cardiac surgery: a randomised, controlled study.
Eur J Anaesthesiol. 2014 Sep;31(9):491-8. doi: 10.1097/EJA.0000000000000051.

532. Chen KZ, Ye M, Hu CB, Shen X.
Dexmedetomidine vs remifentanil intravenous anaesthesia and spontaneous ventilation for airway foreign body removal in children.
Br J Anaesth. 2014 May;112(5):892-7. doi: 10.1093/bja/aet490. Epub 2014 Feb 18.

533. Ziemann-Gimmel P, Goldfarb AA, Koppman J, Marema RT.
Opioid-free total intravenous anaesthesia reduces postoperative nausea and vomiting in bariatric surgery beyond triple prophylaxis.
Br J Anaesth. 2014 May;112(5):906-11. doi: 10.1093/bja/aet551. Epub 2014 Feb 18.

534. Bruehl S, Burns JW, Gupta R, Buvanendran A, Chont M, Schuster E, France CR.
Endogenous opioid inhibition of chronic low-back pain influences degree of back pain relief after morphine administration.
Reg Anesth Pain Med. 2014 Mar-Apr;39(2):120-5. doi: 10.1097/AAP.0000000000000058.

535. Paul A, Gibson AA, Robinson OD, Koch J.
The traffic light bougie: a study of a novel safety modification.

Anaesthesia. 2014 Mar;69(3):214-8. doi: 10.1111/anae.12522.

536. Gruenewald M, Willms S, Broch O, Kott M, Steinfath M, Bein B.
Sufentanil administration guided by surgical pleth index vs standard practice during sevoflurane anaesthesia: a randomized controlled pilot study.
Br J Anaesth. 2014 May;112(5):898-905. doi: 10.1093/bja/aet485. Epub 2014 Feb 16.

537. Chiono J, Raux O, Bringuier S, Sola C, Bigorre M, Capdevila X, Dadure C.
Bilateral suprazygomatic maxillary nerve block for cleft palate repair in children: a prospective, randomized, double-blind study versus placebo.
Anesthesiology. 2014 Jun;120(6):1362-9. doi: 10.1097/ALN.0000000000000171.

538. Verhage RJ, Boone J, Rijkers GT, Cromheecke GJ, Kroese AC, Weijs TJ, Borel Rinkes IH, van Hillegersberg R.
Reduced local immune response with continuous positive airway pressure during one-lung ventilation for oesophagectomy.
Br J Anaesth. 2014 May;112(5):920-8. doi: 10.1093/bja/aet476. Epub 2014 Feb 11.

539. Fowler IM, Tucker AA, Weimerskirch BP, Moran TJ, Mendez RJ.
A randomized comparison of the efficacy of 2 techniques for piriformis muscle injection: ultrasound-guided versus nerve stimulator with fluoroscopic guidance.
Reg Anesth Pain Med. 2014 Mar-Apr;39(2):126-32. doi: 10.1097/AAP.0000000000000056.

540. Adelborg K, Al-Mashhadi RH, Nielsen LH, Dalgas C, Mortensen MB, Løfgren B.
A randomised crossover comparison of manikin ventilation through Soft Seal®, i-gel™ and AuraOnce™ supraglottic airway devices by surf lifeguards.
Anaesthesia. 2014 Apr;69(4):343-7. doi: 10.1111/anae.12545. Epub 2014 Feb 7.

541. Zheng Z, Wang K, Yao D, Xue CC, Arendt-Nielsen L.
Adaptability to pain is associated with potency of local pain inhibition, but not conditioned pain modulation: a healthy human study.
Pain. 2014 May;155(5):968-76. doi: 10.1016/j.pain.2014.01.024. Epub 2014 Feb 3.

542. Kleinsasser AT, Pircher I, Truebsbach S, Knotzer H, Loeckinger A, Treml B.
Pulmonary function after emergence on 100% oxygen in patients with chronic obstructive pulmonary disease: a randomized, controlled trial.
Anesthesiology. 2014 May;120(5):1146-51. doi: 10.1097/ALN.0000000000000161.

543. Garutti I, Puente-Maestu L, Laso J, Sevilla R, Ferrando A, Frias I, Reyes A, Ojeda E, Gónzalez-Aragoneses F.
Comparison of gas exchange after lung resection with a Boussignac CPAP or Venturi mask.
Br J Anaesth. 2014 May;112(5):929-35. doi: 10.1093/bja/aet477. Epub 2014 Feb 3.

544. Techasuk W, Bernucci F, Cupido T, González AP, Correa JA, Finlayson RJ, Tran

DQ.
Minimum effective volume of combined lidocaine-bupivacaine for analgesic subparaneural popliteal sciatic nerve block.
Reg Anesth Pain Med. 2014 Mar-Apr;39(2):108-11. doi: 10.1097/AAP.0000000000000051.

545. Kim EM, Lee JR, Koo BN, Im YJ, Oh HJ, Lee JH.
Analgesic efficacy of caudal dexamethasone combined with ropivacaine in children undergoing orchiopexy.
Br J Anaesth. 2014 May;112(5):885-91. doi: 10.1093/bja/aet484. Epub 2014 Feb 2.

546. Liu N, Le Guen M, Boichut N, Genty A, Hérail T, Schmartz D, Khefif G, Landais A, Bussac JJ, Charmeau A, Baars J, Rehberg B, Tricoche S, Chazot T, Sessler DI, Fischler M.
Nitrous oxide does not produce a clinically important sparing effect during closed-loop delivered propofol-remifentanil anaesthesia guided by the bispectral index: a randomized multicentre study.
Br J Anaesth. 2014 May;112(5):842-51. doi: 10.1093/bja/aet479. Epub 2014 Jan 31.

547. Freeman R, Baron R, Bouhassira D, Cabrera J, Emir B.
Sensory profiles of patients with neuropathic pain based on the neuropathic pain symptoms and signs.
Pain. 2014 Feb;155(2):367-76. doi: 10.1016/j.pain.2013.10.023. Epub 2013 Oct 25.

548. Nie Y, Liu Y, Luo Q, Huang S.
Effect of dexmedetomidine combined with sufentanil for post-caesarean section intravenous analgesia: a randomised, placebo-controlled study.
Eur J Anaesthesiol. 2014 Apr;31(4):197-203. doi: 10.1097/EJA.0000000000000011.

549. Ilfeld BM, Madison SJ, Suresh PJ, Sandhu NS, Kormylo NJ, Malhotra N, Loland VJ, Wallace MS, Proudfoot JA, Morgan AC, Wen CH, Wallace AM.
Treatment of postmastectomy pain with ambulatory continuous paravertebral nerve blocks: a randomized, triple-masked, placebo-controlled study.
Reg Anesth Pain Med. 2014 Mar-Apr;39(2):89-96. doi: 10.1097/AAP.0000000000000035.

550. Li BL, Yuen VM, Song XR, Ye J, Ni J, Huang JX, Irwin MG.
Intranasal dexmedetomidine following failed chloral hydrate sedation in children.
Anaesthesia. 2014 Mar;69(3):240-4. doi: 10.1111/anae.12533. Epub 2014 Jan 21.

551. Yoshida T, Fujiwara T, Furutani K, Ohashi N, Baba H.
Effects of ropivacaine concentration on the spread of sensory block produced by continuous thoracic paravertebral block: a prospective, randomised, controlled, double-blind study.
Anaesthesia. 2014 Mar;69(3):231-9. doi: 10.1111/anae.12531. Epub 2014 Jan 21.

552. Yin J, Wang SL, Liu XB.

The effects of general anaesthesia on memory in children: a comparison between propofol and sevoflurane.
Anaesthesia. 2014 Feb;69(2):118-23. doi: 10.1111/anae.12504.

553. Wepner F, Scheuer R, Schuetz-Wieser B, Machacek P, Pieler-Bruha E, Cross HS, Hahne J, Friedrich M.
Effects of vitamin D on patients with fibromyalgia syndrome: a randomized placebo-controlled trial.
Pain. 2014 Feb;155(2):261-8. doi: 10.1016/j.pain.2013.10.002.

554. Jahn P, Kuss O, Schmidt H, Bauer A, Kitzmantel M, Jordan K, Krasemann S, Landenberger M.
Improvement of pain-related self-management for cancer patients through a modular transitional nursing intervention: a cluster-randomized multicenter trial.
Pain. 2014 Apr;155(4):746-54. doi: 10.1016/j.pain.2014.01.006. Epub 2014 Jan 13.

555. Hubert V, Duwat A, Deransy R, Mahjoub Y, Dupont H.
Effect of simulation training on compliance with difficult airway management algorithms, technical ability, and skills retention for emergency cricothyrotomy.
Anesthesiology. 2014 Apr;120(4):999-1008. doi: 10.1097/ALN.0000000000000138.

556. So-Osman C, Nelissen RG, Koopman-van Gemert AW, Kluyver E, Pöll RG, Onstenk R, Van Hilten JA, Jansen-Werkhoven TM, van den Hout WB, Brand R, Brand A.
Patient blood management in elective total hip- and knee-replacement surgery (part 2): a randomized controlled trial on blood salvage as transfusion alternative using a restrictive transfusion policy in patients with a preoperative hemoglobin above 13 g/dl.
Anesthesiology. 2014 Apr;120(4):852-60. doi: 10.1097/ALN.0000000000000135.

557. Zoric L, Cuvillon P, Alonso S, Demattei C, Vialles N, Asencio G, Ripart J, Nouvellon E.
Single-shot intraoperative local anaesthetic infiltration does not reduce morphine consumption after total hip arthroplasty: a double-blinded placebo-controlled randomized study.
Br J Anaesth. 2014 Apr;112(4):722-8. doi: 10.1093/bja/aet439. Epub 2014 Jan 14.

558. So-Osman C, Nelissen RG, Koopman-van Gemert AW, Kluyver E, Pöll RG, Onstenk R, Patient blood management in elective total hip- and knee-replacement surgery (Part 1): a randomized controlled trial on erythropoietin and blood salvage as transfusion alternatives using a restrictive transfusion policy in erythropoietin-eligible patients.
Van Hilten JA, Jansen-Werkhoven TM, van den Hout WB, Brand R, Brand A.
Anesthesiology. 2014 Apr;120(4):839-51. doi: 10.1097/ALN.0000000000000134.

559. Whitlock EL, Torres BA, Lin N, Helsten DL, Nadelson MR, Mashour GA, Avidan MS.
Postoperative delirium in a substudy of cardiothoracic surgical patients in the

BAG-RECALL clinical trial.
Anesth Analg. 2014 Apr;118(4):809-17. doi: 10.1213/ANE.0000000000000028.

560. Grevstad U, Mathiesen O, Lind T, Dahl JB.
Effect of adductor canal block on pain in patients with severe pain after total knee arthroplasty: a randomized study with individual patient analysis.
Br J Anaesth. 2014 May;112(5):912-9. doi: 10.1093/bja/aet441. Epub 2014 Jan 8.

561. Kim DH, Lin Y, Goytizolo EA, Kahn RL, Maalouf DB, Manohar A, Patt ML, Goon AK,
Lee YY, Ma Y, Yadeau JT.
Adductor canal block versus femoral nerve block for total knee arthroplasty: a prospective, randomized, controlled trial.
Anesthesiology. 2014 Mar;120(3):540-50. doi: 10.1097/ALN.0000000000000119.

562. Ngan Kee WD, Khaw KS, Ng FF, Ng KK, So R, Lee A.
Synergistic interaction between fentanyl and bupivacaine given intrathecally for labor analgesia.
Anesthesiology. 2014 May;120(5):1126-36. doi: 10.1097/ALN.0000000000000118.

563. Minehart RD, Rudolph J, Pian-Smith MC, Raemer DB.
Improving faculty feedback to resident trainees during a simulated case: a randomized, controlled trial of an educational intervention.
Anesthesiology. 2014 Jan;120(1):160-71. doi: 10.1097/ALN.0000000000000058.

564. Ferrero NA, Bortsov AV, Arora H, Martinelli SM, Kolarczyk LM, Teeter EC, Zvara DA, Kumar PA.
Simulator training enhances resident performance in transesophageal echocardiography.
Anesthesiology. 2014 Jan;120(1):149-59. doi: 10.1097/ALN.0000000000000063.

565. Ogino Y, Kakeda T, Nakamura K, Saito S.
Dehydration enhances pain-evoked activation in the human brain compared with rehydration.
Anesth Analg. 2014 Jun;118(6):1317-25. doi: 10.1213/ANE.0b013e3182a9b028.

566. Mori Y, Kamada T, Ochiai R.
Reduction in the incidence of acute kidney injury after aortic arch surgery with low-dose atrial natriuretic peptide: a randomised controlled trial.
Eur J Anaesthesiol. 2014 Jul;31(7):381-7. doi: 10.1097/EJA.0000000000000035.

567. Luciano JV, Guallar JA, Aguado J, López-Del-Hoyo Y, Olivan B, Magallón R, Alda M, Serrano-Blanco A, Gili M, Garcia-Campayo J.
Effectiveness of group acceptance and commitment therapy for fibromyalgia: a 6-month randomized controlled trial (EFFIGACT study).
Pain. 2014 Apr;155(4):693-702. doi: 10.1016/j.pain.2013.12.029. Epub 2013 Dec 28.

568. Cui Y, Hu L, Liu YJ, Wu YM, Jing L.
Intravenous alanyl-L-glutamine balances glucose-insulin homeostasis and facilitates recovery in patients undergoing colonic resection: a randomised controlled trial.
Eur J Anaesthesiol. 2014 Apr;31(4):212-8. doi: 10.1097/EJA.0b013e328360c6b9.

569. Ross VH, Dean LS, Thomas JA, Harris LC, Pan PH.
A randomized controlled comparison between combined spinal-epidural and single-shot spinal techniques in morbidly obese parturients undergoing cesarean delivery: time for initiation of anesthesia.
Anesth Analg. 2014 Jan;118(1):168-72. doi: 10.1213/ANE.0000000000000022.

570. Lee HC, Yun MJ, Hwang JW, Na HS, Kim DH, Park JY.
Higher operating tables provide better laryngeal views for tracheal intubation.
Br J Anaesth. 2014 Apr;112(4):749-55. doi: 10.1093/bja/aet428. Epub 2013 Dec 18.

571. Pedersen L, Borchgrevink PC(2), Breivik HP(3), Fredheim OM(4).
A randomized, double-blind, double-dummy comparison of short- and long-acting dihydrocodeine in chronic non-malignant pain.
Pain. 2014 May;155(5):881-8. doi: 10.1016/j.pain.2013.12.016. Epub 2013 Dec 15.

572. Ciampi de Andrade D, Mhalla A(2), Adam F(2), Texeira MJ(3), Bouhassira D(4).
Repetitive transcranial magnetic stimulation induced analgesia depends on N-methyl-D-aspartate glutamate receptors.
Pain. 2014 Mar;155(3):598-605. doi: 10.1016/j.pain.2013.12.022. Epub 2013 Dec 14.

573. Law CJ, Jacobson GM, Kluger M, Chaddock M, Scott M, Sleigh JW.
Randomized controlled trial of the effect of depth of anaesthesia on postoperative pain.
Br J Anaesth. 2014 Apr;112(4):675-80. doi: 10.1093/bja/aet419. Epub 2013 Dec 8.

574. Martinez V, Cymerman A, Ben Ammar S, Fiaud JF, Rapon C, Poindessous F, Judet T, Chauvin M, Bouhassira D, Sessler D, Mazoit X, Fletcher D.
The analgesic efficiency of combined pregabalin and ketamine for total hip arthroplasty: a randomised, double-blind, controlled study.
Anaesthesia. 2014 Jan;69(1):46-52. doi: 10.1111/anae.12495.

575. Fritsch G, Danninger T, Allerberger K, Tsodikov A, Felder TK, Kapeller M, Gerner P, Brummett CM.
Dexmedetomidine added to ropivacaine extends the duration of interscalene brachial plexus blocks for elective shoulder surgery when compared with ropivacaine alone: a single-center, prospective, triple-blind, randomized controlled trial.
Reg Anesth Pain Med. 2014 Jan-Feb;39(1):37-47. doi: 10.1097/AAP.0000000000000033.

576. Børglum J, Johansen K, Christensen MD, Lenz K, Bendtsen TF, Tanggaard K, Christensen AF, Moriggl B, Jensen K.
Ultrasound-guided single-penetration dual-injection block for leg and foot surgery: a prospective, randomized, double-blind study.
Reg Anesth Pain Med. 2014 Jan-Feb;39(1):18-25. doi: 10.1097/AAP.0000000000000030.

577. Bouvet L, Albert ML, Augris C, Boselli E, Ecochard R, Rabilloud M, Chassard D, Allaouchiche B.
Real-time detection of gastric insufflation related to facemask pressure-controlled ventilation using ultrasonography of the antrum and epigastric auscultation in nonparalyzed patients: a prospective, randomized, double-blind study.
Anesthesiology. 2014 Feb;120(2):326-34. doi: 10.1097/ALN.0000000000000094.

578. Duma A, Helsten D, Brown F, Bottros MM, Nagele P.
The effect of nitrous oxide anesthesia on early postoperative opioid consumption and pain.
Reg Anesth Pain Med. 2014 Jan-Feb;39(1):31-6. doi: 10.1097/AAP.0000000000000039.

579. Siddik-Sayyid SM, Taha SK, Kanazi GE, Aouad MT.
A randomized controlled trial of variable rate phenylephrine infusion with rescue phenylephrine boluses versus rescue boluses alone on physician interventions during spinal anesthesia for elective cesarean delivery.
Anesth Analg. 2014 Mar;118(3):611-8. doi: 10.1213/01.ane.0000437731.60260.ce.

580. Sharma SK, Rogers BB, Alexander JM, McIntire DD, Leveno KJ.
A randomized trial of the effects of antibiotic prophylaxis on epidural-related fever in labor.
Anesth Analg. 2014 Mar;118(3):604-10. doi: 10.1213/ANE.0b013e3182a5d539.

581. Murphy GS, Szokol JW, Avram MJ, Greenberg SB, Shear T, Vender JS, Gray J, Landry E.
The effect of single low-dose dexamethasone on blood glucose concentrations in the perioperative period: a randomized, placebo-controlled investigation in gynecologic surgical patients.
Anesth Analg. 2014 Jun;118(6):1204-12. doi: 10.1213/ANE.0b013e3182a53981.

582. Colombo R, Raimondi F, Corona A, Rivetti I, Pagani F, Porta VD, Guzzetti S.
Comparison of the Surgical Pleth Index with autonomic nervous system modulation on cardiac activity during general anaesthesia: A randomised cross-over study.
Eur J Anaesthesiol. 2014 Feb;31(2):76-84. doi: 10.1097/01.EJA.0000436116.06728.b3.

583. Li X, Zhou M, Xia Q, Li W, Zhang Y.
Effect of parecoxib sodium on postoperative shivering: a randomised, double-blind clinical trial.

Eur J Anaesthesiol. 2014 Apr;31(4):225-30. doi: 10.1097/01.EJA.0000436684.94403.1e.

584. Schebesta K, Karanovic G, Krafft P, Rössler B, Kimberger O.
Distance from the glottis to the grille: the LMA Unique, Air-Q and CobraPLA as intubation conduits: a randomised trial.
Eur J Anaesthesiol. 2014 Mar;31(3):159-65. doi: 10.1097/EJA.0000000000000019.

585. Sng BL, Tan HS, Sia AT.
Closed-loop double-vasopressor automated system vs manual bolus vasopressor to treat hypotension during spinal anaesthesia for caesarean section: a randomised controlled trial.
Anaesthesia. 2014 Jan;69(1):37-45. doi: 10.1111/anae.12460. Epub 2013 Nov 20.

586. Olsen KS, Petersen JT, Pedersen NA, Rovsing L.
Self-positioning followed by induction of anaesthesia and insertion of a laryngeal mask airway versus endotracheal intubation and subsequent positioning for spinal surgery in the prone position: a randomised clinical trial.
Eur J Anaesthesiol. 2014 May;31(5):259-65. doi: 10.1097/EJA.0000000000000004.

587. De Oliveira GS Jr, Fitzgerald PC, Hansen N, Ahmad S, McCarthy RJ.
The effect of ketamine on hypoventilation during deep sedation with midazolam and propofol: a randomised, double-blind, placebo-controlled trial.
Eur J Anaesthesiol. 2014 Dec;31(12):654-62. doi: 10.1097/EJA.0000000000000025.

588. Martini CH, Boon M, Bevers RF, Aarts LP, Dahan A.
Evaluation of surgical conditions during laparoscopic surgery in patients with moderate vs deep neuromuscular block.
Br J Anaesth. 2014 Mar;112(3):498-505. doi: 10.1093/bja/aet377. Epub 2013 Nov 15.

589. Ghai B, Jain K, Bansal D, Wig J.
End-tidal concentrations of sevoflurane and desflurane for ProSeal laryngeal mask airway removal in anaesthetised adults: a randomised double-blind study.
Eur J Anaesthesiol. 2014 May;31(5):274-9. doi: 10.1097/EJA.0b013e328365cad7.

590. Schachtel B, Aspley S, Shephard A, Shea T, Smith G, Sanner K, Savino L, Rezuke J, Schachtel E.
Onset of action of a lozenge containing flurbiprofen 8.75 mg: a randomized, double-blind, placebo-controlled trial with a new method for measuring onset of analgesic activity.
Pain. 2014 Feb;155(2):422-8. doi: 10.1016/j.pain.2013.11.001. Epub 2013 Nov 12.

591. Perniola A, Fant F, Magnuson A, Axelsson K, Gupta A.
Postoperative pain after abdominal hysterectomy: a randomized, double-blind, controlled trial comparing continuous infusion vs patient-controlled intraperitoneal injection of local anaesthetic.

Br J Anaesth. 2014 Feb;112(2):328-36. doi: 10.1093/bja/aet345. Epub 2013 Oct 31.

592. Le Guen M, Nicolas-Robin A, Lebard C, Arnulf I, Langeron O.
Earplugs and eye masks vs routine care prevent sleep impairment in post-anaesthesia care unit: a randomized study.
Br J Anaesth. 2014 Jan;112(1):89-95. doi: 10.1093/bja/aet304. Epub 2013 Oct 29.

593. Skhirtladze K, Base EM, Lassnigg A, Kaider A, Linke S, Dworschak M, Hiesmayr MJ.
Comparison of the effects of albumin 5%, hydroxyethyl starch 130/0.4 6%, and Ringer's lactate on blood loss and coagulation after cardiac surgery.
Br J Anaesth. 2014 Feb;112(2):255-64. doi: 10.1093/bja/aet348. Epub 2013 Oct 29.

594. Ju NY, Gao H, Huang W, Niu FF, Lan WX, Li F, Gao W.
Therapeutic effect of inhaled budesonide (Pulmicort® Turbuhaler) on the inflammatory response to one-lung ventilation.
Anaesthesia. 2014 Jan;69(1):14-23. doi: 10.1111/anae.12479. Epub 2013 Oct 28.

595. Chun HR, Jeon IS, Park SY, Lee SJ, Kang SH, Kim SI.
Efficacy of palonosetron for the prevention of postoperative nausea and vomiting: a randomized, double-blinded, placebo-controlled trial.
Br J Anaesth. 2014 Mar;112(3):485-90. doi: 10.1093/bja/aet340. Epub 2013 Oct 22.

596. Stocki D, Matot I, Einav S, Eventov-Friedman S, Ginosar Y, Weiniger CF.
A randomized controlled trial of the efficacy and respiratory effects of patient-controlled intravenous remifentanil analgesia and patient-controlled epidural analgesia in laboring women.
Anesth Analg. 2014 Mar;118(3):589-97. doi: 10.1213/ANE.0b013e3182a7cd1b.

597. Malcharek MJ, Rockmann K, Zumpe R, Sorge O, Winter V, Sablotzki A, Schneider G.
Comparison of Aintree and Fastrach techniques for low-skill fibreoptic intubation in patients at risk of secondary cervical injury: a randomised controlled trial.
Eur J Anaesthesiol. 2014 Mar;31(3):153-8. doi: 10.1097/EJA.0b013e328365ae49.

598. Jepsen CH, Gätke MR, Thøgersen B, Mollerup LT, Ruhnau B, Rewers M, Rosenstock CV.
Tracheal intubation with a flexible fibreoptic scope or the McGrath videolaryngoscope in simulated difficult airway scenarios: a randomised controlled manikin study.
Eur J Anaesthesiol. 2014 Mar;31(3):131-6. doi: 10.1097/EJA.0b013e32836590a7.

599. Boselie JJ, Vancleef LM, Smeets T, Peters ML.
Increasing optimism abolishes pain-induced impairments in executive task performance.
Pain. 2014 Feb;155(2):334-40. doi: 10.1016/j.pain.2013.10.014. Epub 2013 Oct 19.

600. Soltész S, Fraisl P, Noé KG, Hinkelbein J, Mellinghoff H, Mencke T.
Dexamethasone decreases the duration of rocuronium-induced neuromuscular block: a randomised controlled study.
Eur J Anaesthesiol. 2014 Aug;31(8):417-22. doi: 10.1097/EJA.0b013e328365c9ee.

601. Treskatsch S, Klambeck M, Mousa SA, Kopf A, Schäfer M.
Influence of high-dose intraoperative remifentanil with or without amantadine on postoperative pain intensity and morphine consumption in major abdominal surgery patients: a randomised trial.
Eur J Anaesthesiol. 2014 Jan;31(1):41-9. doi: 10.1097/01.EJA.0000434967.03790.0e.

602. Fahlenkamp AV, Coburn M, Rossaint R, Stoppe C, Haase H.
Comparison of the effects of xenon and sevoflurane anaesthesia on leucocyte function in surgical patients: a randomized trial.
Br J Anaesth. 2014 Feb;112(2):272-80. doi: 10.1093/bja/aet330. Epub 2013 Oct 16.

603. Kokki M, Välitalo P, Kuusisto M, Ranta VP, Raatikainen K, Hautajärvi H, Kokki H.
Central nervous system penetration of oxycodone after intravenous and epidural administration.
Br J Anaesth. 2014 Jan;112(1):133-40. doi: 10.1093/bja/aet337. Epub 2013 Oct 16.

604. Kim HJ, Lee HC, Jung YS, Lee J, Min JJ, Hong DM, Choi EK, Oh S, Jeon Y.
Effect of palonosetron on the QTc interval in patients undergoing sevoflurane anaesthesia.
Br J Anaesth. 2014 Mar;112(3):460-8. doi: 10.1093/bja/aet335. Epub 2013 Oct 14.

605. Kappen TH, Moons KG, van Wolfswinkel L, Kalkman CJ, Vergouwe Y, van Klei WA.
Impact of risk assessments on prophylactic antiemetic prescription and the incidence of postoperative nausea and vomiting: a cluster-randomized trial.
Anesthesiology. 2014 Feb;120(2):343-54. doi: 10.1097/ALN.0000000000000009.

606. Schumann M, Biesler I, Börgers A, Pförtner R, Mohr C, Groeben H.
Tracheal intubation in patients with odentogenous abscesses and reduced mouth opening.
Br J Anaesth. 2014 Feb;112(2):348-54. doi: 10.1093/bja/aet310. Epub 2013 Sep 26.

607. Abdallah FW, Morgan PJ, Cil T, McNaught A, Escallon JM, Semple JL, Wu W, Chan VW.
Ultrasound-guided multilevel paravertebral blocks and total intravenous anesthesia improve the quality of recovery after ambulatory breast tumor resection.
Anesthesiology. 2014 Mar;120(3):703-13. doi: 10.1097/ALN.0000436117.52143.bc.

608. Goon SS, Stamatakis EA, Adapa RM, Kasahara M, Bishop S, Wood DF, Wheeler DW,

Menon DK, Gupta AK.
Clinical decision-making augmented by simulation training: neural correlates demonstrated by functional imaging: a pilot study.
Br J Anaesth. 2014 Jan;112(1):124-32. doi: 10.1093/bja/aet326. Epub 2013 Sep 24.

609. Libri V, Gibbs JS, Pinato DJ, Iddamalgoda T, Khengar RH, Gin-Sing W, Huson L, Anand P.
Capsaicin 8% patch for treprostinil subcutaneous infusion site pain in pulmonary hypertension patients.
Br J Anaesth. 2014 Feb;112(2):337-47. doi: 10.1093/bja/aet308. Epub 2013 Sep 22.

610. Hechler T, Ruhe AK, Schmidt P, Hirsch J, Wager J, Dobe M, Krummenauer F, Zernikow B.
Inpatient-based intensive interdisciplinary pain treatment for highly impaired children with severe chronic pain: randomized controlled trial of efficacy and economic effects.
Pain. 2014 Jan;155(1):118-28. doi: 10.1016/j.pain.2013.09.015. Epub 2013 Sep 21.

611. Pappagallo M, Breuer B, Lin HM, Moberly JB, Tai J, Noto C, Sanchez A, Manfredi PL.
A pilot trial of intravenous pamidronate for chronic low back pain.
Pain. 2014 Jan;155(1):108-17. doi: 10.1016/j.pain.2013.09.016. Epub 2013 Sep 21.

612. Yates DR, Davies SJ, Milner HE, Wilson RJ.
Crystalloid or colloid for goal-directed fluid therapy in colorectal surgery.
Br J Anaesth. 2014 Feb;112(2):281-9. doi: 10.1093/bja/aet307. Epub 2013 Sep 20.

613. Le Guen M, Grassin-Delyle S, Cornet C, Genty A, Chazot T, Dardelle D, Liu N, Dreyfus JF, Mazoit JX, Devillier P, Alvarez JC, Sessler DI, Fischler M.
Comparison of the potency of different propofol formulations: a randomized, double-blind trial using closed-loop administration.
Anesthesiology. 2014 Feb;120(2):355-64. doi: 10.1097/01.anes.0000435741.97234.04.

614. Grüne F, Kazmaier S, Sonntag H, Stolker RJ, Weyland A.
Moderate hyperventilation during intravenous anesthesia increases net cerebral lactate efflux.
Anesthesiology. 2014 Feb;120(2):335-42. doi: 10.1097/ALN.0b013e3182a8eb09.

615. Kim MH, Nahm FS, Kim TK, Chang MJ, Do SH.
Comparison of postoperative pain in the first and second knee in staged bilateral total knee arthroplasty: clinical evidence of enhanced pain sensitivity after surgical injury.
Pain. 2014 Jan;155(1):22-7. doi: 10.1016/j.pain.2013.08.027. Epub 2013 Aug 30.

616. Hillyard S, Cowman S, Ramasundaram R, Seed PT, O'Sullivan G.
Does adding milk to tea delay gastric emptying?

Br J Anaesth. 2014 Jan;112(1):66-71. doi: 10.1093/bja/aet261. Epub 2013 Aug 19.

617. Boogmans T, Vertommen J, Valkenborgh T, Devroe S, Roofthooft E, Van de Velde M.
Epidural neostigmine and clonidine improves the quality of combined spinal epidural analgesia in labour: a randomised, double-blind controlled trial.
Eur J Anaesthesiol. 2014 Apr;31(4):190-6. doi: 10.1097/EJA.0b013e32836249e9.

618. Jeleazcov C, Saari TI, Ihmsen H, Mell J, Fröhlich K, Krajinovic L, Fechner J, Schüttler J.
Population pharmacokinetic modeling of hydromorphone in cardiac surgery patients during postoperative pain therapy.
Anesthesiology. 2014 Feb;120(2):378-91. doi: 10.1097/ALN.0b013e3182a76d05.

619. Sigaut S, Tremey B, Ouattara A, Couturier R, Taberlet C, Grassin-Delyle S, Dreyfus JF, Schlumberger S, Fischler M.
Comparison of two doses of tranexamic acid in adults undergoing cardiac surgery with cardiopulmonary bypass.
Anesthesiology. 2014 Mar;120(3):590-600. doi: 10.1097/ALN.0b013e3182a443e8.

620. Wuethrich PY, Burkhard FC, Thalmann GN, Stueber F, Studer UE.
Restrictive deferred hydration combined with preemptive norepinephrine infusion during radical cystectomy reduces postoperative complications and hospitalization time: a randomized clinical trial.
Anesthesiology. 2014 Feb;120(2):365-77. doi: 10.1097/ALN.0b013e3182a44440.

621. Ionescu DC, Hadade AI, Mocan TA, Margarit SD.
The influence of a prophylactic dose of dexamethasone for postoperative nausea and vomiting on plasma interleukin concentrations after laparoscopic cholecystectomy: a randomised trial.
Eur J Anaesthesiol. 2014 Apr;31(4):204-11. doi: 10.1097/EJA.0b013e3283642a01.

622. Huang GS, Wang CC, Hu MH, Cherng CH, Lee MS, Tsai CS, Chan WH, Hsieh XX, Lin
LC.
Bilateral passive leg raising attenuates and delays tourniquet deflation-induced hypotension and tachycardia under spinal anaesthesia: a randomised controlled trial.
Eur J Anaesthesiol. 2014 Jan;31(1):15-22. doi: 10.1097/EJA.0b013e32836286e3.

Supplementary file 3. Detailed survey responses

Participant code	Who was blinded in your trial described as a double-blind?	*What is your personal definition of a single-blind trial?*	What is your personal definition of a double blinded trial?	What is your personal definition of a triple-blind trial?	How often is your personal definition of a double-blind trial used in published trials?
1	participants healthcare providers such as physicians or nurses taking care of a participant data collectors data analysts	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	No answer
2	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	50%
3	data analysts manuscript writers	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	I am unable to respond ; in RCTs of rTMS this is less than 50 %

4	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	100%
5	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	I suppose that in the prospective clinical trials, nowadays, it will be used in a high percentage (80%?), if it is possible to perform the masking in the study area in question. But, of the total of studies that exist, I suspect that it will not be more than 20% of the total, taking into account the high number of retrospective studies.
6	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	1. participants OR 2. healthcare providers such as physicians or nurses taking care of a participant	1. participants 2. healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors 5.	1. participants 2. healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors 5. data analysts 6.	25%

7	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	participants	> 1. participants > 2. healthcare providers such as physicians or nurses taking care > of a participant > 3. data collectors > 4. outcome assessors > 5. data analysts > 6. manuscript writers	Never heard of this term?	Not sure I would hope at least 80%
8	a. participants b. data collectors c. outcome assessors d. data analysts	1. data collectors 2. outcome assessors 3. data analysts	1. participants 2. data collectors 3. outcome assessors 4. data analysts	1. participants 2. healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors 5. data analysts	20%
9	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	No response?	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	In trials performed by pharmaceutical companies ph 1 trials are often single blinded whereas all other trials are called double-blinded but are often triple blinded…….or more …….as the only unblinded person(s) is a pharmacist or an assessor who may be unblinded by side effect reports. Those unblinded folks would be clearly specified in the protocol and would not be involved in collection of efficacy data.
10	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors manuscript writers	No response?	I cannot answer the rest of the questions. I don't use "double-blind" or "single-blind" any longer, as I think they are ambiguous. I adhere to Annals of Internal Medicine guidelines that advises authors to avoid those terms, but to specifically note		No answer

			who was blinded.		
11	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	1. healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analyst	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	I don't specify my personal definition in my trials
12	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	100%
13	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	90%

14	data collectors outcome assessors	participants data collectors outcome assessors data analysts	participants data collectors outcome assessors data analysts	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	60%
15	participants * healthcare providers such as physicians or nurses taking care of a participant * outcome assessors	participants 4. outcome assessors	1. participants and/or 2. healthcare providers such as physicians or nurses taking care of a participant 4. outcome assessors	1. participants 2. healthcare providers such as physicians or nurses taking care of a participant 5. outcome assessors	90%
16	participants data collectors	participants	a. participants b. data collector	participants data collectors healthcare providers such as physicians or nurses taking care of a participant	70%
17	participants * healthcare providers such as physicians or nurses taking care of a participant * data collectors * outcome assessors * data analysts	healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors 5. data analysts	. participants 2. healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors 5. data analysts	1. participants 2. healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors 5. data analysts	_I do not know

18	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	This is very hard to estimate. It probably depends on the field of interest and will widely vary between e.g. Oncology, Anesthesiology, Pain, Surgery, Internal Medicine etc.
19	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	90%
20	healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	20%

21	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	participants	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts	No answer
22	participants data collectors outcome assessors data analysts	data collectors outcome assessors	participants data collectors outcome assessors	participants data collectors outcome assessors data analysts	50%
23	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	participants	participants healthcare providers such as physicians or nurses taking care of a participant outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	95%

24	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	either participants or healthcare providers such as physicians or nurses taking care of a participant, but generally particiapnts	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	just a and b probably 90%, with the addition of assessors probably around 40%.
25	participants healthcare providers such as physicians or nurses taking care of a participant	participants	participants healthcare providers such as physicians or nurses taking care of a participant	participants b. healthcare providers such as physicians or nurses taking care of a participant d. outcome assessors	80%

26	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants, healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	90%
27	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	participants	participants healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant data analystist	From my point of view, data collector does not "take part" inthe definition of single/double/triple blind trial,because the data colector always is blinded. In my research is very difficult to use a double or triple blind trial. I have only used in research with drugs (5% of my reserach).
28	* participants * healthcare providers such as physicians or nurses taking care of a participant * data collectors * outcome assessors * data analysts	participants	1. participants 2. healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors	1. participants 2. healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors 5. data analysts	Sorry, can't answer. However I rarely see "triple-blind" used, despite my answer to 3...and that many of my own "double-blind" trials were "triple-blind"

29	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	Do not know. Do you mean what I read or what I have published? I have publishes only one trial.
30	participants ALL healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors data analysts		80%

31	outcome assessors data analysts manuscript writers	a. participants b. data collectors c. outcome assessors d. data analysts	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	70%
32	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	80%
33	participants healthcare providers such as physicians or nurses taking care of a participant data collectors Note that the healthcare providers were at the same time the data collectors and the outcome assessors in our trial.	participants	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors	a. Participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors	90%
34	participants data collectors outcome assessors data analysts manuscript writers	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	I do not have a personal definition. double blind is any two of the patient, the clinician, the outcome/data collectors. Many trials cannot be truely blinded, including the one you refer to above, where the administering physician is targeting a certain depth of anaesthesia.

35	participants healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant outcome assessors	50%
36	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	No answer
37	participants healthcare providers such as physicians or nurses taking care of a participant (ATTEMPTED BUT SUCCESS UNCERTAIN) data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	SORRY, BUT I HAVE NO IDEA.

38	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	80%
39	healthcare providers such as physicians or nurses taking care of a participant - after first day only [nurses in preadmission clinic were actually part of the intervention] data collectors outcome assessors data analysts manuscript writers	participants healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant outcome assessors	75
40	No answer	No answer	No answer	No answer	90

STROBE Statement—checklist of items that should be included in reports of observational studies

	Item No	Recommendation	Page
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	1
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	2
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	3-4
Objectives	3	State specific objectives, including any prespecified hypotheses	3-4
Methods			
Study design	4	Present key elements of study design early in the paper	5
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	5
Participants	6	(*a*) *Cohort study*—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up *Case-control study*—Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls *Cross-sectional study*—Give the eligibility criteria, and the sources and methods of selection of participants	5
		(*b*) *Cohort study*—For matched studies, give matching criteria and number of exposed and unexposed *Case-control study*—For matched studies, give matching criteria and the number of controls per case	
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	6-7
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	6-7
Bias	9	Describe any efforts to address potential sources of bias	6-7
Study size	10	Explain how the study size was arrived at	6-7
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	6-7
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	6-7
		(*b*) Describe any methods used to examine subgroups and interactions	
		(*c*) Explain how missing data were addressed	
		(*d*) *Cohort study*—If applicable, explain how loss to follow-up was addressed *Case-control study*—If applicable, explain how matching of cases and controls was addressed *Cross-sectional study*—If applicable, describe analytical methods taking account of sampling strategy	
		(*e*) Describe any sensitivity analyses	NA

Results			**Page**
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	NA
		(b) Give reasons for non-participation at each stage	9
		(c) Consider use of a flow diagram	
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	9
		(b) Indicate number of participants with missing data for each variable of interest	
		(c) *Cohort study*—Summarise follow-up time (eg, average and total amount)	
Outcome data	15*	*Cohort study*—Report numbers of outcome events or summary measures over time	
		Case-control study—Report numbers in each exposure category, or summary measures of exposure	
		Cross-sectional study—Report numbers of outcome events or summary measures	*9-12*
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	9-12
		(*b*) Report category boundaries when continuous variables were categorized	
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	9-12
Discussion			
Key results	18	Summarise key results with reference to study objectives	13
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	17
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	13-17
Generalisability	21	Discuss the generalisability (external validity) of the study results	13-17
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	19

*Give information separately for cases and controls in case-control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.

BMJ Open

Definitions of blinding in randomized controlled trials of interventions published in high-impact anesthesiology journals: a methodological study and survey of authors

Journal:	*BMJ Open*
Manuscript ID	bmjopen-2019-035168.R2
Article Type:	Original research
Date Submitted by the Author:	20-Jan-2020
Complete List of Authors:	Penic, Antonija; Vujanovic Pharmacy Begic, Dinka; University Hospital Tuzla, Department of Endocrinology Balajic, Karolina; University of Split School of Medicine, Department of Reasearch in Biomedicine and Health Kowalski, Martin; University of Split School of Medicine, Department of Resarch in Biomedicine and Health Marusic, Ana; University of Split School of Medicine, Department of Research in Biomedicine and Health Puljak, Livia ; Croatian Catholic University, Center for Evidence-Based Medicine and Health Care
Primary Subject Heading:	Epidemiology
Secondary Subject Heading:	Research methods
Keywords:	Clinical trials < THERAPEUTICS, STATISTICS & RESEARCH METHODS, EPIDEMIOLOGY

I, the Submitting Author has the right to grant and does grant on behalf of all authors of the Work (as defined in the below author licence), an exclusive licence and/or a non-exclusive licence for contributions from authors who are: i) UK Crown employees; ii) where BMJ has agreed a CC-BY licence shall apply, and/or iii) in accordance with the terms applicable for US Federal Government officers or employees acting as part of their official duties; on a worldwide, perpetual, irrevocable, royalty-free basis to BMJ Publishing Group Ltd ("BMJ") its licensees and where the relevant Journal is co-owned by BMJ to the co-owners of the Journal, to publish the Work in this journal and any other BMJ products and to exploit all rights, as set out in our licence.

The Submitting Author accepts and understands that any supply made under these terms is made by BMJ to the Submitting Author unless you are acting as an employee on behalf of your employer or a postgraduate student of an affiliated institution which is paying any applicable article publishing charge ("APC") for Open Access articles. Where the Submitting Author wishes to make the Work available on an Open Access basis (and intends to pay the relevant APC), the terms of reuse of such Open Access shall be governed by a Creative Commons licence – details of these licences and which Creative Commons licence will apply to this Work are set out in our licence referred to above.

Other than as permitted in any relevant BMJ Author's Self Archiving Policies, I confirm this Work has not been accepted for publication elsewhere, is not being considered for publication elsewhere and does not duplicate material already published. I confirm all authors consent to publication of this Work and authorise the granting of this licence.

Definitions of blinding in randomized controlled trials of interventions published in high-impact anesthesiology journals: a methodological study and survey of authors

Antonija Penić[1], Dinka Begic[2], Karolina Balajic[3], Martin Kowalski[3], Ana Marušić[3], Livia Puljak[4]

Affiliations:

1. Vujanovic Pharmacy, Sinj, Croatia; antonijapenic5@gmail.com

2. Department of Endocrinology, University Hospital Tuzla, Tuzla, Bosnia and Hercegovina; dinka.b@hotmail.com

3. Department of Research in Biomedicine and Health, University of Split School of Medicine, Split, Croatia; karolina-balajic@net.hr, martinkowalski1@gmx.de, ana.marusic@mefst.hr

4. Center for Evidence-based Medicine and Health Care, Catholic University of Croatia, Zagreb, Croatia; livia.puljak@unicath.hr

***Corresponding author:**

Livia Puljak

Center for Evidence-based Medicine and Health Care, Catholic University of Croatia

Ilica 242, 10000 Zagreb, Croatia

Tel no: + 385 (0) 1 370 66 00

Fax no: + 385 (0) 1 370 66 01

Email address: livia.puljak@unicath.hr, livia.puljak@gmail.com

ORCID: 0000-0002-8467-6061

Abstract

Objectives: To analyze completeness of reporting of blinding in randomized controlled trials (RCTs) of interventions in anesthesiology, the actual blinding status of various persons associated with an RCT and trial authors' interpretation of blinding terminology related to RCTs.

Methods: This was a methodological study and cross-sectional survey. We analyzed reporting related to blinding in published RCTs of interventions published in seven highly cited anesthesiology journals from 2014 to 2016, and registered protocols in ClinicalTrials.gov. We surveyed corresponding authors of included RCTs about their definitions of blinding. Primary outcome was the number of RCTs that explicitly described who was blinded in a trial. Secondary outcomes were definitions of blinding terminology in the trials; trial authors' interpretation of blinding terminology; discrepancies in blinding description within registered protocols, and between registered protocols and publications.

Results: Out of 622 analyzed RCTs, 38% were not explicitly described as either open-label or blinded studies and 10% did not report any information about blinding or lack of blinding. Only one manuscript fully reported status of blinding for various individuals that may be involved with a trial. The most common descriptor was that a trial was double-blind. We found discrepant information regarding blinding in the majority of registered protocols. Even when there were no discrepancies in the registration, we found discrepancies in the reporting of blinding between the majority of registered protocols and published manuscripts. The survey of authors (40 responses from 231 eligible authors; 17% response rate) of analyzed RCTs showed that they differed in how they defined different levels of blinding in trials.

Conclusions: Reporting of the blinding status of key individuals involved in analyzed anesthesiology RCTs was insufficient. Reporting guidelines, peer-reviewers and editors

should insist on clear information on who was blinded in a trial instead of using the term "double-blind" for different blinding practices.

Keywords: blinding, randomized controlled trial, participants, personnel, methodology

Strengths and limitations

- We analyzed a large group of randomized controlled trials published in seven high-impact anesthesiology journals
- Reporting about blinding was insufficient in the majority of analyzed trials
- The term “double-blind” is ambiguous and researchers interpret it in different ways
- We focused on anesthesiology trials as a specific research field
- Future studies should monitor whether reporting about blinding in trials will improve

Introduction

The available evidence about the efficacy and safety of interventions in medicine includes observational studies and studies with a randomized experimental design, i.e., randomized controlled trials (RCTs) [1]. RCTs are considered the highest level of primary evidence for analyzing medical interventions because randomization ensures the allocation of participants by chance, and not by choice, which minimizes bias [2]. Apart from the method of allocating participants into study arms, there are other methodological aspects of an RCT that can contribute to a risk of bias, including performance bias (blinding of participants and personnel) and detection bias (blinding of outcome assessors) [3].

Blinding is very important for the validity of RCT results. Multiple studies reported significant differences in the effect size of treatment estimates depending on the use of blinding of key individuals [4-8].

The term "double-blind" is sometimes taken as a token of validity of an RCT [9]. However, it has been shown that the definitions of blinding may vary. Devereaux et al. showed that both physicians and textbooks provided highly inconsistent interpretations of the blinding terminology used in clinical trials, and suggested that the current ambiguous terminology should be replaced by specific descriptions of who was blinded [10]. According to the CONSORT checklist for reporting RCTs, the following should be reported for blinding: "If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how" [11].

The aim of this study was to analyze the completeness of the reporting of blinding in RCTs of interventions in the field of anesthesiology, the actual blinding status of the various persons involved in an RCT, information about the blinding reported in the registered trial protocol, and the trial authors' interpretation of the blinding terminology related to RCTs. The study focused specifically on the field of anesthesiology because pain is a subjective outcome and

there is no objective method for analyzing pain. The analgesic placebo effect has been well documented [12]. In the area of placebo effects, expectations play a major role, triggering a cascade of endogenous opioids and non-opioids, and altering the experience of pain [12]. For this reason, the field of anesthesiology and pain research is likely biased if blinding is not used adequately.

Methods

Study design

We conducted a cross-sectional study of published RCTs and registered data from their protocols in public trial registries. Additionally, we surveyed the trials' corresponding authors.

Ethics

The research protocol for the survey of trials' corresponding authors was approved by the Ethics Committee of the University of Split School of Medicine (Klasa: 003-08/18-03/0001, Ur. br.: 2181-198-03-04-18-0049; date: October 12, 2018). All invited study participants received information that the study was approved by the Ethics Committee. The participants' continuation on to the survey from the invitation e-mail was considered as consent to participate in the study. The data were fully anonymized for analysis.

Inclusion criteria

We included RCTs of interventions published from January 2014 to December 2016 in the seven first-quartile journals from the Anesthesiology category in Journal Citation Reports (JCR). Based on the 2015 JCR journal impact factor (JIF), those seven journals were (in alphabetic order) Anaesthesia, Anesthesia & Analgesia, Anesthesiology, British Journal of Anaesthesia, European Journal of Anaesthesiology, Pain, and Regional Anesthesia and Pain Medicine. We excluded RCTs published as letters to the editor.

Search

We searched PubMed by combining the journal name, the 2014-2016 time-frame, and the publication type filter for RCTs. We exported titles and abstracts into the EndNote reference management software (Clarivate Analytics, Boston, MA, USA). Two authors independently analyzed titles and abstracts to screen them for eligibility. We retrieved potentially eligible full text manuscripts and two authors screened them independently. We resolved any disagreements through discussion.

Outcomes

The primary outcome was the number of RCTs that explicitly described who (which individuals or group/s of individuals) was blinded in a trial. Secondary outcomes were the definitions of the blinding terminology in the trials (how the authors defined "single-blinding", "double-blinding", and "triple-blinding" in the manuscript), trial authors' interpretation of the blinding terminology related to RCTs, as well as discrepancies in the blinding description within registered protocols, and between registered protocols and publications.

Data extraction

We extracted data into a Microsoft Excel sheet (Microsoft Inc., Redmond, WA, USA) after the data extraction table was piloted with ten studies. Data from each trial were extracted independently by two authors (three authors participated in data extraction: AP, KB, MK). Independent extractions were compared for consistency and discrepancies were resolved via consensus.

For each publication, we analyzed the abstract, the full body of the manuscript (and supplementary files if the authors indicated that additional details about the methods were in

supplementary files) to see whether and in which part of the manuscript there was an explicit mention that the trial was blinded/masked. We then analyzed the Methods section of each included RCT and extracted information about the blinding terminology ("single-blind", "double-blind", "triple-blind", or no such definition) and whether the trial authors explicitly elaborated on who was blinded in a trial.

We checked whether the RCTs explicitly mentioned using the CONSORT checklist for reporting or mentioned CONSORT as a reference. We analyzed whether there were any discrepancies in the reporting of blinding between abstracts and the body of the manuscript. If the abstract described the study as "double-blind", but the body of the manuscript provided more details about who was blinded, we considered this a discrepancy. We also checked for the occurrence of the term "double-dummy" in the RCTs to assess the blinding in comparisons of drugs that are administered by different routes [13].

We analyzed whether the RCTs mentioned trial protocol registration, and if yes, we recorded the protocol registration number and the name of the registry. We excluded trials registered after the trial was open for recruitment from further analysis. For trials registered before participants' recruitment, we analyzed whether there was any description of blinding in the registered protocol. If we found a description of blinding, we compared whether there were any discrepancies between the details about blinding reported in the registered protocol and in the published manuscript(s). We also searched whether the RCTs mentioned a protocol as a supplementary file or as a publication in a scholarly journal.

Author survey

For the author survey, we extracted e-mail addresses of corresponding authors. We contacted corresponding authors of the included trials via e-mail, wherein they received information about

the study and a list of questions. One author (DB) sent all the emails. After the initial e-mail invitation, potential participants received four subsequent reminders one week apart if they did not respond or indicated that they did not wish to participate. All surveys and reminders were sent between November 1, 2018 and January 9, 2019.

We conducted the survey based on questions described previously [14]. Participants received the following questions together with the title of their trial:

1. For authors who only indicated that the study was blinded, double-blind, single-blind, triple-blind, or provided no further details: "Who exactly was blinded in the trial [six categories of participants, as used by Haahr and Hrobjartsson [14]: (i) participants, (ii) healthcare providers such as physicians or nurses taking care of a participant, (iii) data collectors, (iv) outcome assessors, (v) data analysts, (vi) manuscript writers]" – categorical answers.
2. What were authors' personal opinions about the definitions of single-blind, double-blind and triple-blind by providing them the same categorical answers from above, as well as the response of "any two types of trial participants" [14].
3. The authors were asked to assess the frequency of the publication of double-blind trials in the literature adhering to their preferred definition. For example, if a participant characterized "double-blind" to represent blinding of participants and personnel, that author was subsequently asked to assess the frequency of "double-blind" trials in which participants and personnel were blinded. The question did not refer to the publications of the participants, but their estimation of the use of the term in the literature.

We emphasized to the survey participants that only anonymized data would be published. The exact text of the survey is presented in Supplementary file 1. In cases when we had identical corresponding authors for more than one manuscript included in the study, we contacted them

for the most recent manuscript only. Two authors (DB, LP) independently categorized the responses obtained via survey.

Analysis

We used descriptive statistics including frequencies and percentages, as well as medians and 95% (CI) confidence intervals. Data were analyzed using MedCalc statistical software, v 15.2.1 (MedCalc Software bvba, Ostend, Belgium).

Results

Descriptors about blinding

We analyzed 622 RCTs; the study flow chart is shown in Figure 1. The list of included studies is presented in Supplementary file 2. In the description of the study design, 29 (4.7%) trials were explicitly described as non-blinded or open-label, while 357 (57%) were explicitly described as blinded, using terms "blinded", "single-blinded", "double-blinded", "triple-blinded" or "masked" in the description of study design. The study design of the remaining 236 (38%) trials was not explicitly described as blinded or non-blinded.

The information about the blinding status was found in 116 (19%) titles; 283 (45%) abstracts and 470 (76%) Methods sections. The most common descriptor for blinding in titles (Table 1), abstracts (Table 2) and Methods sections (Table 3) was "double-blind".

Regarding the blinding vs masking terminology, the most common term used in the analyzed trials was "blinding" (n=477, 76%). Masking as a term alone was used in 9 (1.4%) trials, while in 45 (7.2%) trials both blinding and masking terms were used. In 91 (15%) trials, neither the word blinding nor masking was used. The term "double-dummy" was found in 7 trials and "triple-dummy" in 1 trial.

Blinding of individuals involved in trials

We analyzed 531 trials to determine who was blinded in the trials. Concerning these trials, we found at least some descriptors for blinding, while the remaining trials were excluded from this analysis because they were described as open-label, or were not described as either blinded or open-label. Table 4 presents the prevalence of the blinding of various individuals that may be involved in a trial. For all six categories of individuals in the majority of trials, it was unclear whether these individuals were blinded.

In 89 (17%) of 531 trials (14% from the overall sample of 622 trials), it was explicitly reported whether the three key groups of individuals, i.e. the participants, healthcare providers and data collectors, were blinded or not. This percentage seemed to improve over the analyzed time frame, as it was 10% in 2014 (25/203), 15% in 2015 (31/203) and 26% in 2016 (33/125).

Among the analyzed trials, 47 (8%) explicitly mentioned that they used the CONSORT checklist for reporting or cited CONSORT as a reference.

Discrepancies between abstracts and the body of the manuscript

We found discrepancies in the reporting of blinding between abstracts and the body of the manuscript in a single trial, which reported in the abstract that the study was double-blind, but that is was single-blind in the body of the manuscript.

Reporting of blinding in registered protocols

There were 384 (62%) trials that reported trial registration and a unique registration identifier. After searching for those registered protocols online, we were able to find 315 of those 384 (82%), but we were unable to retrieve the rest from our search using the reported trial registry identifier. Of the 315 registered protocols we managed to access, 174 (55%) were registered prospectively and as many as 141 (45%) were registered after the study start date reported in a clinical trials registry.

We conducted a detailed analysis of 174 prospectively registered trials in registries. The majority of the trial protocols were registered in ClinicalTrials.gov (n=157; 90%). Two studies from our cohort were registered on ClinicalTrials.gov as observational studies and did not have information about blinding. The remaining 155 trials registered on ClinicalTrials.gov had 14 different categories describing the design characteristics of the study in the Study

design section, which contains the mandatory registration field for the selection of the masking type (Table 5).

In the registered protocols on ClinicialTrials.gov, the most common descriptor in the Masking sub-section was "Quadruple (Participant, Care Provider, Investigator, Outcomes Assessor)" (Table 5). Besides this field, we also analyzed the full text of the registered protocol to find any other descriptions of blinding/masking. Among 157 registered protocols, 92 did not have any other terminology related to blinding/masking other than the information in the mandatory Masking field, and therefore no within-protocol discrepancies. In the remaining 65 registered trial protocols, 18 protocols had no discrepancies, while 47 (72%) registered protocols had additional information about the blinding that was different from the descriptor provided in the Masking field. Registered protocols that described the trial as quadruple-blind or triple-blind in the Masking registration field accounted for the majority of discrepancies, but the description of the trial as double-blind was also in another part of the registered protocol.

In the 17 protocols registered in other trial registries, a few trials were registered (Table 6) and we found only one discrepancy in a trial registered in the Nederlands Trial Register (NTR) which indicated "single masking" but instead the masking was "double-blind" (Table 6). The remaining 16 registered protocols did not have any discrepancies related to blinding.

Among 126 registered trials that did not have discrepancies in the registered protocols, for 88 (70%) trials we found differences between the registered protocol and published manuscript in the description of blinding. The most common differences were in the description of who was blinded, the extent of blinding and whether there was any blinding at all (Table 7). We did not find trial protocols published as supplementary files or as a manuscript in a scholarly journal.

Survey results

For 362 trials that were described as double-blind, there were 275 unique corresponding authors and 264 email addresses available. There were 33 undelivered e-mails because the addresses were no longer in use. From the remaining 231 corresponding authors, we received 40 responses (17% response rate). Authors' responses regarding individuals that were blinded in their trials, as well as their opinions about who was blinded in single-, double- and triple-blinded trials are shown in Table 8. One participant who answered the question about blinding in their trial provided a personal definition for the single-blind trial, but stated the following for the remaining questions: *"I cannot answer the rest of the questions. I don't use "double-blind" or "single-blind" any longer, as I think they are ambiguous. I adhere to Annals of Internal Medicine guidelines that advises authors to avoid those terms, but to specifically note who was blinded."*

Whereas 34 of 40 (85%) authors responded that participants were blinded in their own double-blinded trial, all authors that responded to the second question stated that participants are blinded in a double-blind trial. Table 8 shows the summary of responses, and Supplementary file 3 contains detailed anonymized responses. For a single-blind trial, surveyed authors chose at least one from five of six individuals as targets for blinding; only manuscript writers were never considered as individuals that could be blinded in a trial. When asked about their personal definition, respondents chose all six types of individuals given choices of blinded individuals in double- and triple-blind trials. Outcome assessors, data analysts and manuscript writers were more commonly mentioned as individuals who could be blinded in a triple-blind trial (Table 8).

In addition, 25 participants estimated the percentage of how often their personal definition of a double-blind trial is used in trials they published: this percentage ranged from 20% to 100%, with a median of 80% (95% CI 60% to 80%).

Reporting checklist

This study was reported in line with the STROBE checklist, which is enclosed as a Supplementary file 4.

Discussion

We found that only a quarter of analyzed trials reported explicitly whether three key groups of individuals were blinded. One-fifth reported information about blinding or the lack of blinding in the title. The most common description related to blinding, both in the title and in the manuscript, was that the study was double-blind. Regarding terminology, "blinding" as a term was used in the majority of trials, whereas only a few trials used the term masking. In the majority of trials described as blinded, it was unclear whether participants and other relevant individuals were blinded or not. For less than half of the trials, we identified that they registered their protocols in public trial registries, and in the majority of those registered protocols we found discrepant information about blinding – both in different fields in the registered protocol and between the registered protocol and published manuscript.

In 2006, Haar and Hjobjartsson analyzed 200 random RCTs and showed that the blinding status of participants, health care providers and data collectors was explicitly reported in 2% of those trials [14]. In our study this finding was better; we found that the blinding status of these three groups of individuals was explicitly reported in 14% of the analyzed trials.

Twelve years ago it was indicated that 26% of trials reported no information relevant to blinding beyond indicating that the trial was "double-blind" [14]. We found that 57% of analyzed trials were explicitly described as blinded, using the terms "blinded", "single-blinded", "double-blinded", "triple-blinded" or "masked". Our study shows that warnings aimed towards journal editors [15] were not successful in the efforts to reduce the use of the ambiguous term double-blind.

Discrepancies in blinding descriptors within registered trial protocols and between registered protocols and published manuscripts

One of the striking findings of our study was related to the discrepancies in blinding/masking information within different registration fields for registered trial protocols, and between those registered protocols and published manuscripts.

Firstly, we were able to identify registered protocols for only about half of the trials in our cohort, either because the authors did not report trial registration in their manuscripts, or because the reported registered protocol was not retrievable. Since 2005, the International Committee of Medical Journal Editors (ICMJE) recommends that journals require prospective registration of clinical trials, i.e. before or at the time of first patient enrolment [16]. Therefore, it is unfortunate that so many recently published trials do not report trial registration in the manuscript, but this is not an isolated finding. In our recent study of osteoarthritis trials published between 2012 and 2017, we found that 57% of 334 analyzed trials reported their registration [17]. Another recent study showed that 28% of trials published in six high-impact general medicine journals did not comply with the ICMJE policy on prospective trial registration [18]. Therefore, even though we analyzed high-impact journals in the field, our results are similar to previous findings, which showed that many trials still do not report trial registration and adhere to ICMJE policy, even though they were published recently and in high-impact journals.

Furthermore, the analysis of registered trial protocols that we were able to identify showed that 45% of them were registered after the study has already started, judging by the study start date that was reported in the trial registry. When we analyzed the information about blinding/masking, we found that the majority of registered protocols had discrepant information about the blinding of the study in different registration fields. Our analysis of trials in which we did not find discrepancies between registration fields showed that the majority of those trials had differences between the reporting of blinding in a registered protocol and a published manuscript.

ClinicalTrials.gov was the most commonly used clinical trial registry. This is in line with the finding that ClinicalTrials.gov contains the majority of global trial registrations [19]. Within the registry, the mandatory field called "Masking" offers study authors a choice of five options in a menu. The first four options in the menu are individuals involved in a trial: Participant, Care Provider, Investigator and Outcomes Assessor. The fifth option is "None (Open Label)". Study authors are invited to "Check all roles that are masked or check None (Open Label)". Below this menu is a blank field called "Masking description", in which trialists can fill out additional information about blinding. Based on the number of participants that are checked as blinded, a trial will get a descriptor about being single, double, triple or quadruple blinded. The most common discrepancy within registered protocols was that the study was described as quadruple or triple blind by ClinicalTrials.gov, but trialists themselves called the study "double-blind".

The meaning of "double-blind"

The suggestion by Montori et al. that the vague term "double-blind" should be abandoned [15] was also repeated later in the literature by other authors [14]. Even before that, Devereaux et al. reported that hospital physicians used 17 different definitions of the meaning of double-blind [10].

Our survey of authors showed that authors have varying definitions of who should be blinded in a single-blind, double-blind and triple-blind trial. Authors' response about who was blinded in their own double-blind trial did not always match their response about who should be blinded in a double-blind trial generally. Based on the participants' responses that the majority of published trials correspond to their personal definition of a double-blind trial, it appears that the surveyed researchers are not aware of the high heterogeneity of the definitions of blinding in clinical trials. This is an additional argument for ceasing the use of ambiguous terminology such

as “single-blind”, “double-blind” and “triple-blind”, and to require that authors should report specifically who was blinded in their study.

Limitations

Our study had several limitations. We limited our analysis to a recent period and to seven high-ranking journals. We did not scrutinize in detail additional online material, such as supplements and appendices, where, theoretically, additional details about blinding could have been located. But we did analyze all mentions of blinding in the analyzed manuscripts and we did not find a single case where the authors indicated that additional details about blinding were available in a supplement.

We used PubMed to search for articles instead of journals’ websites and we used a simple search consisting of the journal name, publication type and chosen time frame. We used the JIF to define high-impact journals. The use of the JIF as a measure of “quality” has been criticized in the research community, specifically due to the asymmetry between the numerator and the denominator, differences across various disciplines, the insufficient citation window, the skewness of the underlying citation distributions, and the opaque method of its calculation [20]. However, there is no perfect bibliometric indicator and we used it because the JIF is highly prevalent, and most researchers are familiar with this metrics [21]. Also, we did not analyze all medical fields, but focused on one field of interest. Our survey had a response rate of 17%, which carries a high risk of non-responder bias.

Another thing that would be worthwhile to explore is the journals’ instructions for authors in terms of reporting requirements. However, the only proper way to study the influence of instructions for authors on reporting in a manuscript would be to conduct it prospectively, having in mind the current instructions for authors and current submissions.

It could be argued that perhaps we should not have judged an abstract as having a discrepancy that reported therein that a study was "double-blind", but the body of the manuscript reported more details about who was blinded. However, the reporting extension to CONSORT for Abstracts explicitly requires authors to report in the abstract [quote]: "*Whether or not participants, care givers, and these assessing the outcomes were blinded to group assignment*". Therefore, if authors want to report their study adequately, adherence to the relevant reporting guideline would also preclude the usage of the term "double-blind" in an abstract [22].

Recommendations

Authors of RCTs should stop using the ambiguous term "double-blind", and editors and peer-reviewers can help in achieving this by requiring clear reporting about the blinding. Additionally, editors and peer-reviewers can require authors to provide a CONSORT checklist for both the abstract (in line with the CONSORT extension for Abstracts) and the body of the manuscript. In this way, authors of RCTs may be compelled to invest more attention to proper reporting.

Conclusion

Explicit and complete reporting of the blinding status of key individuals involved in RCTs is suboptimal. Anesthesiology trials rarely report who was blinded and mostly use the ambiguous term double-blind, which is not sufficiently informative for readers. Furthermore, we found many discrepancies about reporting of blinding within registered trial protocols, and between registered protocols and published manuscripts. Our survey of authors showed that authors differed in their opinion of who was blinded in their own trial and who could be blinded in trials with different levels of blinding. Thus, poor reporting and heterogeneous

definitions of ambiguous terminology hinders a proper risk of bias assessment and analysis of the impact of blinding of certain groups of participants on the study outcomes. Interventions for improving the reporting about blinding are necessary.

Declarations

Funding statement

This study was funded by the Croatian Science Foundation, grant No. IP-2014-09-7672 "Professionalism in Health Care", awarded to Professor Ana Marušić. The funder had no role in the design of this study, during its execution and data interpretation.

Competing interests

The authors declare that they have no competing interests.

Authorship contribution

Study design: LP, AM

Data acquisition: AP, DB, KB, MK, LP

Data analysis and interpretation: LP, AM

Writing manuscript draft: LP, AM

Agreeing to submission of the manuscript: AP, DB, KB, MK, AM, LP

Agree to be accountable for all aspects of the work: AP, DB, KB, MK, AM, LP

Participant consent form

All participants consented to participate in the study; there is no identifiable information about participants in the manuscript.

Data sharing statement

Data collected during the study are available from the corresponding author on reasonable request.

Patient and public involvement statement

Patients or the public were not involved in the design, or conduct, or reporting, or dissemination of our research.

Acknowledgements

We are grateful to all the participants who took part in this study. We are also very grateful to Prof. Shelly Pranic, PhD, for proofreading final version of the manuscript.

Word count

4190

Figure legend

Figure 1. Study inclusion flow chart

List of supplementary files

Supplementary file 1. Survey sent to the study participants

Supplementary file 2. List of included studies

Supplementary file 3. Detailed responses of survey participants

Supplementary file 4: STROBE checklist

References

1. Atkins D, Best D, Briss PA, Eccles M, Falck-Ytter Y, Flottorp S, Guyatt GH, Harbour RT, Haugh MC, Henry D *et al*: **Grading quality of evidence and strength of recommendations**. *BMJ* 2004, **328**(7454):1490.
2. Schulz KF, Grimes DA: **Generation of allocation sequences in randomised trials: chance, not choice**. *Lancet* 2002, **359**(9305):515-519.
3. Higgins JP, Altman DG, Gotzsche PC, Juni P, Moher D, Oxman AD, Savovic J, Schulz KF, Weeks L, Sterne JA: **The Cochrane Collaboration's tool for assessing risk of bias in randomised trials**. *BMJ* 2011, **343**:d5928.
4. Saltaji H, Armijo-Olivo S, Cummings GG, Amin M, da Costa BR, Flores-Mir C: **Influence of blinding on treatment effect size estimate in randomized controlled trials of oral health interventions**. *BMC medical research methodology* 2018, **18**(1):42.
5. Juni P, Altman DG, Egger M: **Systematic reviews in health care: Assessing the quality of controlled clinical trials**. *BMJ* 2001, **323**(7303):42-46.
6. Armijo-Olivo S, Fuentes J, da Costa BR, Saltaji H, Ha C, Cummings GG: **Blinding in Physical Therapy Trials and Its Association with Treatment Effects: A Meta-epidemiological Study**. *American journal of physical medicine & rehabilitation* 2017, **96**(1):34-44.
7. Hrobjartsson A, Emanuelsson F, Skou Thomsen AS, Hilden J, Brorson S: **Bias due to lack of patient blinding in clinical trials. A systematic review of trials randomizing patients to blind and nonblind sub-studies**. *International journal of epidemiology* 2014, **43**(4):1272-1283.
8. Noseworthy JH, Ebers GC, Vandervoort MK, Farquhar RE, Yetisir E, Roberts R: **The impact of blinding on the results of a randomized, placebo-controlled multiple sclerosis clinical trial**. *Neurology* 1994, **44**(1):16-20.
9. Devereaux PJ, Bhandari M, Montori VM, Manns BJ, Ghali WA, Guyatt GH: **Double blind, you are the weakest link--good-bye!** *ACP journal club* 2002, **136**(1):A11.
10. Devereaux PJ, Manns BJ, Ghali WA, Quan H, Lacchetti C, Montori VM, Bhandari M, Guyatt GH: **Physician interpretations and textbook definitions of blinding terminology in randomized controlled trials**. *Jama* 2001, **285**(15):2000-2003.
11. Moher D, Hopewell S, Schulz KF, Montori V, Gotzsche PC, Devereaux PJ, Elbourne D, Egger M, Altman DG: **CONSORT 2010 explanation and elaboration: updated guidelines for reporting parallel group randomised trials**. *BMJ* 2010, **340**:c869.
12. Klinger R, Stuhlreyer J, Schwartz M, Schmitz J, Colloca L: **Clinical Use of Placebo Effects in Patients With Pain Disorders**. *International review of neurobiology* 2018, **139**:107-128.
13. Marusic A, Ferencic SF: **Adoption of the double dummy trial design to reduce observer bias in testing treatments**. *Journal of the Royal Society of Medicine* 2013, **106**(5):196-198.
14. Haahr MT, Hrobjartsson A: **Who is blinded in randomized clinical trials? A study of 200 trials and a survey of authors**. *Clin Trials* 2006, **3**(4):360-365.
15. Montori VM, Bhandari M, Devereaux PJ, Manns BJ, Ghali WA, Guyatt GH: **In the dark: the reporting of blinding status in randomized controlled trials**. *Journal of clinical epidemiology* 2002, **55**(8):787-790.

16. De Angelis C, Drazen JM, Frizelle FA, Haug C, Hoey J, Horton R, Kotzin S, Laine C, Marusic A, Overbeke AJ *et al*: **Clinical trial registration: a statement from the International Committee of Medical Journal Editors**. *Croatian medical journal* 2004, **45**(5):531-532.
17. Krsticevic M, Saric D, Saric F, Slapnicar E, Boric K, Dosenovic S, Kadic AJ, Kegalj MJ, Puljak L: **Selective reporting bias due to discrepancies between registered and published outcomes in osteoarthritis trials**. *Journal of comparative effectiveness research* 2019, **8**(15):1265-1273.
18. Dal-Re R, Ross JS, Marusic A: **Compliance with prospective trial registration guidance remained low in high-impact journals and has implications for primary end point reporting**. *Journal of clinical epidemiology* 2016, **75**:100-107.
19. Zarin DA, Tse T, Williams RJ, Rajakannan T: **Update on Trial Registration 11 Years after the ICMJE Policy Was Established**. *N Engl J Med* 2017, **376**(4):383-391.
20. Larivière V, Sugimoto CR: **The Journal Impact Factor: A Brief History, Critique, and Discussion of Adverse Effects**. In: *Springer Handbook of Science and Technology Indicators*. edn. Edited by Glänzel W, Moed HF, Schmoch U, Thelwall M: Springer, Cham; 2019.
21. Mckiernan EC, Schimanski LA, Nieves CM, Matthias L, Niles MT, Alperin JP: **Use of the Journal Impact Factor in academic review, promotion, and tenure evaluations**. *Elife* 2019, **8**.
22. Hopewell S, Clarke M, Moher D, Wager E, Middleton P, Altman DG, Schulz KF: **CONSORT for reporting randomised trials in journal and conference abstracts**. *Lancet* 2008, **371**(9609):281-283.

Table 1. Descriptors for blinding status of the study in titles of analyzed trials, N=116

Blinding status descriptors	N (%)
Double-blind	89 (76)
Blinded	8 (6.8)
Single-blinded	6 (5.1)
Triple-masked	3 (2.6)
Triple-blind	3 (2.6)
Open-label	1 (0.9)
Observer-blinded	1 (0.9)
Blinded evaluation	1 (0.9)
Blinded trial	1 (0.9)
Nonblinded	1 (0.9)
Double-masked	1 (0.9)
Masked	1 (0.9)

Table 2. Descriptors about blinding found in abstracts of analyzed trials; N= 294 descriptors from 283 abstracts

Categories of descriptors	N (%)
Double-blind	183 (62)
Single-blind	25 (8.5)
Blinded personnel	22 (7.5)
Blinded	20 (6.8)
Outcome assessors blinded	14 (4.7)
Open label	8 (2.7)
Patient and assessor blinded	4 (1.4)
Triple-masked	3 (1.0)
Blinded intervention application	3 (1.0)
Unmasked intervention	2 (0.7)
Blinded patients	2 (0.7)
Triple blind	2 (0.7)
Patients and personnel blinded	2 (0.7)
Clinicians not blinded	1 (0.3)
Unblinded assessment	1 (0.3)
Blinded monitoring	1 (0.3)
Success of patients' blinding	1 (0.3)

Table 3. Categorized statements about blinding found in the Methods section of analyzed trials; N=470

Categories of descriptors	N (%)
Double-blind	191 (41)
Personnel blinded	75 (16)
Single-blind	38 (8.1)
Patients and personnel blinded	37 (7.9)
Outcome assessor blinded	26 (5.5)
Data collectors blinded	19 (4.0)
Non-blinded personnel	17 (3.6)
Patients blinded	16 (3.4)
Blinded	14 (3.0)
Open-label	8 (1.7)
Data analysts blinded	8 (1.7)
Partially blinded	3 (0.6)
Unmasked patients and investigators	3 (0.6)
Non-blinded patients	2 (0.4)
Blinded interventions	2 (0.4)
Triple-blind	1 (0.2)
Unmasking information	1 (0.2)
Non-masked patients and personnel	1 (0.2)
Rater-blinded	1 (0.2)
Masked assignment	1 (0.2)
Masking	1 (0.2)
Outcome assessors and data analysts blinded	1 (0.2)
Data collector and data analysts blinded	1 (0.2)
Data collector and outcome assessor blinded	1 (0.2)

Table 4. Prevalence of blinding of individuals involved in trials described as blinded; N= 622

Individual	Yes, N (%)	No, N (%)	Unclear, N (%)
Participants	227 (37)	46 (7)	349 (56)
Personnel; healthcare providers such as physicians or nurses taking care of a participant	225 (36)	55 (9)	342 (55)
Data collectors	161 (26)	29 (5)	432 (69)
Outcome assessors	130 (21)	21 (3)	471 (76)
Data analysts	43 (7)	20 (3)	559 (90)
Manuscript writers	0 (0)	16 (3)	606 (97)
Investigators	104 (17)	31 (5)	487 (78)

Table 5. Descriptors in the Study design/Masking field in the analyzed registered trial protocols on ClinicalTrials.gov (N = 157)

Blinding terminology used in analyzed registered clinical trial protocols	N
Quadruple (Participant, Care Provider, Investigator, Outcomes Assessor)	39
None (Open Label)	22
Single (Participant)	15
Double (Participant, Investigator)	14
Double (Participant, Outcomes Assessor)	14
Triple (Participant, Investigator, Outcomes Assessor)	13
Triple (Participant, Care Provider, Investigator)	12
Single (Outcomes Assessor)	8
Single (Investigator)	6
Double (Participant, Care Provider)	5
Triple (Participant, Care Provider, Outcomes Assessor)	4
Study described as observational, without information about blinding/masking	2
Double (Investigator, Outcomes Assessor)	1
Masking: Triple (Participant, Care Provider, Investigator)	1
Single (Care Provider)	1

Table 6. Descriptors of blinding/masking in other clinical trial registries

Descriptors	N
ACTRN (N=8)	
Blinded (masking used)	4
Open (masking not used)	2
Subject and observer blinded	1
Blinded	1
UMIN (N=7)	
Single blind -participants are blinded	3
Single blind -investigator(s) and assessor(s) are blinded	2
Double blind -all involved are blinded	2
NTR (N=1)	
Single masking; double blind	1
ChiCTR (N=1)	
No statement about blinding	1

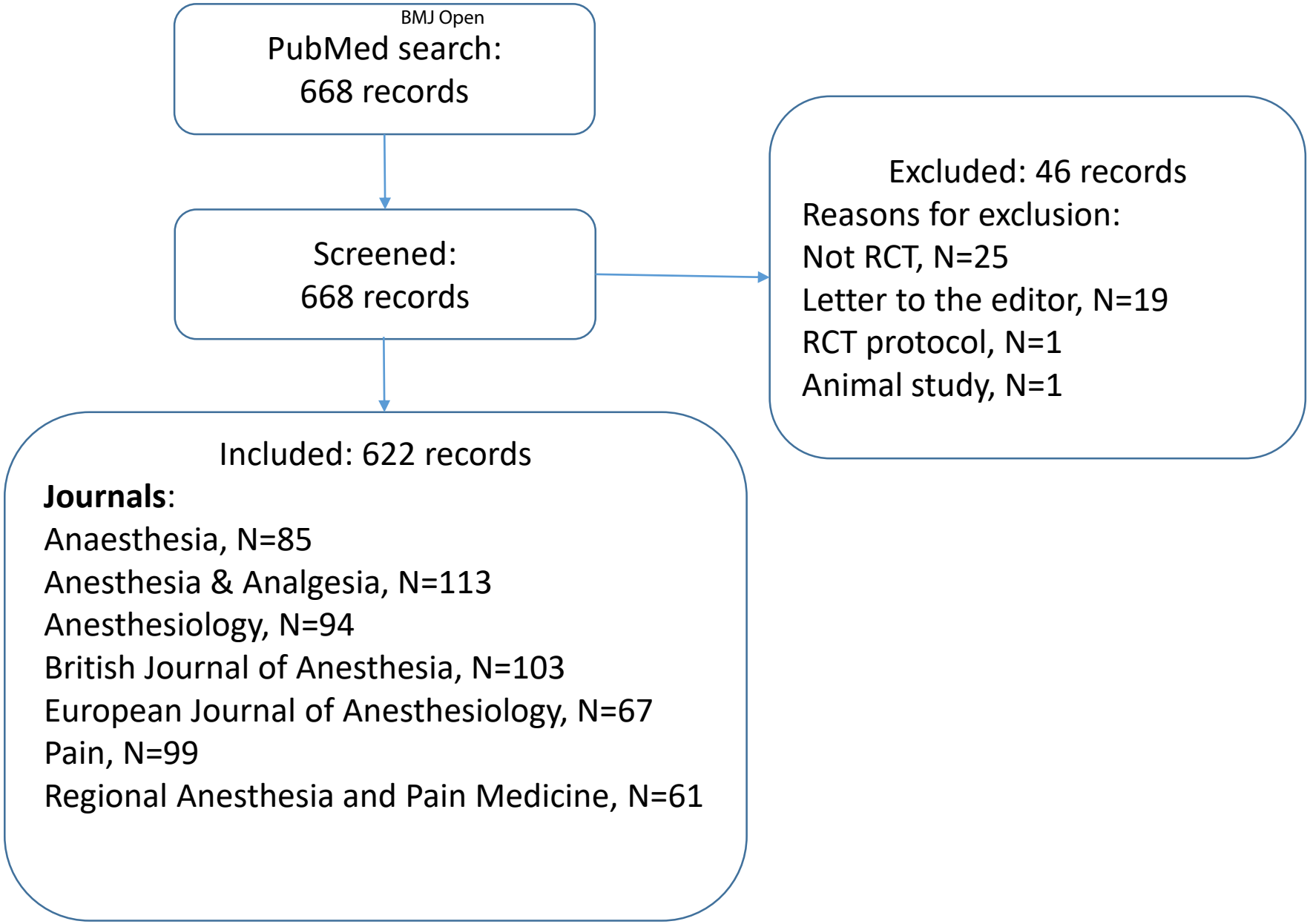
ACTRN = The Australian and New Zealand Clinical Trial Registry, UMIN = University Hospital Medical Information Network registry of Japan; NTR = Nederlands Trial Register, ChiCTR = Chinese Clinical Trial Registry

Table 7. Differences between the registered protocol and manuscript in the group of trials that did not have discrepancies within the registered protocol itself (N of trials = 88)

Differences between protocol and published manuscript	N (%)
Different individuals described as blinded between registered protocol and manuscript	30 (34)
Registered protocol reported who was blinded; manuscript did not	10 (11)
Registered protocol: triple blind; manuscript: double-blind	9 (10)
Registered protocol reported who was blinded; manuscript only that it was double-blind	9 (10)
Registered protocol: open label, manuscript: blinding of one or more groups of individuals	8 (9)
Registered protocol has description of blinding; manuscript no description of blinding	7 (8)
Registered protocol: quadruple-blind; manuscript: double-blind	6 (7)
Registered protocol double-blind, manuscript single-blind	2 (2)
Study described as observational on ClinicalTrials.gov	2 (2)
Registered protocol: quadruple-blind; manuscript: triple-blind	2 (2)
Registered protocol: no information about blinding; manuscript reported information about blinding	1 (1)
Registered protocol: open-label; manuscript only reported that participants were not blinded	1 (1)
Registered protocol: single-blind; manuscript: double-blind	1 (1)

Table 8. Surveyed corresponding authors' responses regarding who was blinded in their trials of those described as double-blinded and what is their personal definition of who is blinded in a single-blind, double-blind and triple-blind trial (total N of participants = 40)

Blinding scenarios	Participants, N	Healthcare providers such as physicians or nurses taking care of a participant, N	Data collectors, N	Outcome assessors, N	Data analysts, N	Manuscript writers, N
Who was blinded in your trial described as a double-blind?	34	31	32	28	18	10
What is your personal definition of a single-blind trial?	30	5	5	7	4	0
What is your personal definition of a double-blinded trial?	37	33	30	25	12	4
What is your personal definition of a triple-blind trial?	34	34	31	31	26	12


PubMed search:
668 records
Screened:
668 records
Excluded: 46 records
Reasons for exclusion:
Not RCT, N=25
Letter to the editor, N=19
RCT protocol, N=1
Animal study, N=1
Included: 622 records
Journals:
Anaesthesia, N=85
Anesthesia & Analgesia, N=113
Anesthesiology, N=94
British Journal of Anesthesia, N=103
European Journal of Anesthesiology, N=67
Pain, N=99
Regional Anesthesia and Pain Medicine, N=61

Supplementary file 1. Survey sent to the study participants via e-mail

Dear ...[*insert title and name*],

My name is Dinka Begic, and I am conducting a study about blinding in randomised controlled trials. Together with Prof. Livia Puljak from Cochrane Croatia and our research team, we are trying to further investigate who exactly was blinded in trials described as „double blinded“, and what is the definition of double blinding that researchers use in clinical trials.

We would kindly ask you to participate in our research by answering three quick questions, which should take approximately five minutes of your time. The protocol of our research was approved by the Ethics committee of the University of Split School of Medicine on October 12th, 2018. Your response to this message will be considered as informed consent for participating in this study. We aim to publish anonymized data.

You are receiving invitation to participate in this research because you were a corresponding author for the RCT, which was described as double-blind: [*insert title of the study*]

These questions refer to that particular trial.

Questions

1. Who was blinded in your trial described as a double-blind? Please delete from the list below all of the persons in your trial that were NOT blinded, so that the remaining list contains only those who were blinded.
    a. *participants*
    b. *healthcare providers such as physicians or nurses taking care of a participant*
    c. *data collectors*
    d. *outcome assessors*
    e. *data analysts*
    f. *manuscript writers*

2.1 What is your personal definition of a single-blind trial? Please delete from the list below all of the persons who, in your personal opinion, are NOT blinded, so that the remaining list contains only individuals who are blinded in a single-blind trial.

    a. *participants*
    b. *healthcare providers such as physicians or nurses taking care of a participant*
    c. *data collectors*
    d. *outcome assessors*
    e. *data analysts*
    f. *manuscript writers*

2.2 What is your personal definition of a double blinded trial? Please delete from the list below all of the persons who, in your personal opinion, are NOT blinded, so that the remaining list contains only individuals who are blinded in a double-blind trial.

a. *participant*s
b. *healthcare providers such as physicians or nurses taking care of a participant*
c. *data collectors*
d. *outcome assessors*
e. *data analysts*
f. *manuscript writers*

2.3 What is your personal definition of a triple-blind trial? Please delete from the list below all of the persons who, in your personal opinion, are NOT blinded, so that the remaining list contains only individuals who are blinded in a triple-blind trial.

a. *participant*s
b. *healthcare providers such as physicians or nurses taking care of a participant*
c. *data collectors*
d. *outcome assessors*
e. *data analysts*
f. *manuscript writers*

3. How often is your personal definition of a double-blind trial used in published trials? Can you please estimate using percentages:

_____

Thank you very much for participating in this study.

Sincere regards,
Dinka Begic, MD
Prof. Livia Puljak, MD, PhD, Cochrane Croatia

Supplementary file 2. List of included studies

1. Nader A, Kendall MC, Manning DW, Beal M, Rahangdale R, Dekker R, De Oliveira GS Jr, Kamenetsky E, McCarthy RJ. Single-Dose Adductor Canal Block With Local Infiltrative Analgesia Compared With Local Infiltrate Analgesia After Total Knee Arthroplasty: A Randomized, Double-Blind, Placebo-Controlled Trial.
Reg Anesth Pain Med. 2016 Nov/Dec;41(6):678-684.

2. Mohamed SA, Abdel-Ghaffar HS, Kamal SM, Fares KM, Hamza HM.
Effect of Topical Morphine on Acute and Chronic Postmastectomy Pain: What Is the Optimum Dose?
Reg Anesth Pain Med. 2016 Nov/Dec;41(6):704-710.

3. Barrington MJ, Viero LP, Kluger R, Clarke AL, Ivanusic JJ, Wong DM.
Determining the Learning Curve for Acquiring Core Sonographic Skills for Ultrasound-Guided Axillary Brachial Plexus Block.
Reg Anesth Pain Med. 2016 Nov/Dec;41(6):667-670.

4. Barrington MJ, Gledhill SR, Kluger R, Clarke AL, Wong DM, Davidson H, Thomas R.
A Randomized Controlled Trial of Ultrasound Versus Nerve Stimulator Guidance for Axillary Brachial Plexus Block.
Reg Anesth Pain Med. 2016 Nov/Dec;41(6):671-677.

5. Cerezo-Téllez E, Torres-Lacomba M, Fuentes-Gallardo I, Perez-Muñoz M, Mayoral-Del-Moral O, Lluch-Girbés E, Prieto-Valiente L, Falla D.
Effectiveness of dry needling for chronic nonspecific neck pain: a randomized, single-blinded, clinical trial.
Pain. 2016 Sep;157(9):1905-17. doi: 10.1097/j.pain.0000000000000591.

6. Kendigelen P, Tutuncu AC, Emre S, Altindas F, Kaya G.
Pudendal Versus Caudal Block in Children Undergoing Hypospadias Surgery: A Randomized Controlled Trial.
Reg Anesth Pain Med. 2016 Sep-Oct;41(5):610-5. doi: 10.1097/AAP.0000000000000447.

7. Dhir S, Sondekoppam RV, Sharma R, Ganapathy S, Athwal GS.
A Comparison of Combined Suprascapular and Axillary Nerve Blocks to Interscalene Nerve Block for Analgesia in Arthroscopic Shoulder Surgery: An Equivalence Study.
Reg Anesth Pain Med. 2016 Sep-Oct;41(5):564-71. doi: 10.1097/AAP.0000000000000436.

8. Kim JS, Lee J, Soh EY, Ahn H, Oh SE, Lee JD, Joe HB.
Analgesic Effects of Ultrasound-Guided Serratus-Intercostal Plane Block and Ultrasound-Guided Intermediate Cervical Plexus Block After Single-Incision Transaxillary Robotic Thyroidectomy: A Prospective, Randomized, Controlled Trial.
Reg Anesth Pain Med. 2016 Sep-Oct;41(5):584-8. doi: 10.1097/AAP.0000000000000430.

9. Maalouf DB, Dorman SM, Sebeo J, Goytizolo EA, Gordon MA, Yadeau JT, Dehipawala SS, Fields K.
Prospective, Randomized Double-Blind Study: Does Decreasing Interscalene Nerve Block Volume for Surgical Anesthesia in Ambulatory Shoulder Surgery Offer Same-Day Patient Recovery Advantages?
Reg Anesth Pain Med. 2016 Jul-Aug;41(4):438-44. doi: 10.1097/AAP.0000000000000418.

10. Schreiber KL, Chelly JE, Lang RS, Abuelkasem E, Geller DA, Marsh JW, Tsung A, Sakai T.
Epidural Versus Paravertebral Nerve Block for Postoperative Analgesia in Patients Undergoing Open Liver Resection: A Randomized Clinical Trial.
Reg Anesth Pain Med. 2016 Jul-Aug;41(4):460-8. doi: 10.1097/AAP.0000000000000422.

11. Teunkens A, Vermeulen K, Van Gerven E, Fieuws S, Van de Velde M, Rex S.
Comparison of 2-Chloroprocaine, Bupivacaine, and Lidocaine for Spinal Anesthesia in Patients Undergoing Knee Arthroscopy in an Outpatient Setting: A Double-Blind Randomized Controlled Trial.
Reg Anesth Pain Med. 2016 Sep-Oct;41(5):576-83. doi: 10.1097/AAP.0000000000000420.

12. Cappelleri G, Cedrati VL, Fedele LL, Gemma M, Camici L, Loiero M, Gallazzi MB, Cornaggia G.
Effects of the Intraneural and Subparaneural Ultrasound-Guided Popliteal Sciatic Nerve Block: A Prospective, Randomized, Double-Blind Clinical and Electrophysiological Comparison.
Reg Anesth Pain Med. 2016 Jul-Aug;41(4):430-7. doi: 10.1097/AAP.0000000000000413.

13. Broderick JE, Keefe FJ, Schneider S, Junghaenel DU, Bruckenthal P, Schwartz JE, Kaell AT, Caldwell DS, McKee D, Gould E.
Cognitive behavioral therapy for chronic pain is effective, but for whom?
Pain. 2016 Sep;157(9):2115-23. doi: 10.1097/j.pain.0000000000000626.

14. Andresen SR, Bing J, Hansen RM, Biering-Sørensen F, Johannesen IL, Hagen EM, Rice AS, Nielsen JF, Bach FW, Finnerup NB.
Ultramicronized palmitoylethanolamide in spinal cord injury neuropathic pain: a randomized, double-blind, placebo-controlled trial.
Pain. 2016 Sep;157(9):2097-103. doi: 10.1097/j.pain.0000000000000623.

15. Miki K, Murakami M, Oka H, Onozawa K, Yoshida S, Osada K.
Efficacy of mirtazapine for the treatment of fibromyalgia without concomitant depression: a randomized, double-blind, placebo-controlled phase IIa study in Japan.
Pain. 2016 Sep;157(9):2089-96. doi: 10.1097/j.pain.0000000000000622.

16. Hanling SR, Hickey A, Lesnik I, Hackworth RJ, Stedje-Larsen E, Drastal CA, McLay RN.
Stellate Ganglion Block for the Treatment of Posttraumatic Stress Disorder: A Randomized, Double-Blind, Controlled Trial.
Reg Anesth Pain Med. 2016 Jul-Aug;41(4):494-500. doi: 10.1097/AAP.0000000000000402.

17. Runge C(1), Børglum J, Jensen JM, Kobborg T, Pedersen A, Sandberg J, Mikkelsen LR, Vase M, Bendtsen TF.
The Analgesic Effect of Obturator Nerve Block Added to a Femoral Triangle Block After Total Knee Arthroplasty: A Randomized Controlled Trial.
Reg Anesth Pain Med. 2016 Jul-Aug;41(4):445-51. doi: 10.1097/AAP.0000000000000406.

18. Arendt-Nielsen L, Harris S, Whiteside GT, Hummel M, Knappenberger T, O'Keefe S, Kapil R, Kyle D.
A randomized, double-blind, positive-controlled, 3-way cross-over human experimental pain study of a TRPV1 antagonist (V116517) in healthy volunteers and comparison with preclinical profile.
Pain. 2016 Sep;157(9):2057-67. doi: 10.1097/j.pain.0000000000000610.

19. Dewinter GB, Teunkens A, Vermeulen K, Al Tmimi L, Van de Velde M, Rex S.
Systemic Lidocaine Fails to Improve Postoperative Pain, But Reduces Time to Discharge Readiness in Patients Undergoing Laparoscopic Sterilization in Day-Case Surgery: A Double-Blind, Randomized, Placebo-Controlled Trial.
Reg Anesth Pain Med. 2016 May-Jun;41(3):362-7. doi: 10.1097/AAP.0000000000000398.

20. Smith SM(1), Amtmann D, Askew RL, Gewandter JS, Hunsinger M, Jensen MP, McDermott
MP, Patel KV, Williams M, Bacci ED, Burke LB, Chambers CT, Cooper SA, Cowan P, Desjardins P, Etropolski M, Farrar JT, Gilron I, Huang IZ, Katz M, Kerns RD, Kopecky EA, Rappaport BA, Resnick M, Strand V, Vanhove GF, Veasley C, Versavel M, Wasan AD, Turk DC, Dworkin RH.
Pain intensity rating training: results from an exploratory study of the ACTTION PROTECCT system.
Pain. 2016 May;157(5):1056-64. doi: 10.1097/j.pain.0000000000000502.

21. Ginosar Y, Haroutounian S, Kagan L, Naveh M, Aharon A, Davidson EM.
Proliposomal Ropivacaine Oil: Pharmacokinetic and Pharmacodynamic Data After Subcutaneous Administration in Volunteers.
Anesth Analg. 2016 May;122(5):1673-80. doi: 10.1213/ANE.0000000000001217.

22. Swenson JD(1), Klingler KR, Pace NL, Davis JJ, Loose EC.
Evaluation of a New Needle Guidance System for Ultrasound: Results of a Prospective, Randomized, Blinded Study.
Reg Anesth Pain Med. 2016 May-Jun;41(3):356-61. doi: 10.1097/AAP.0000000000000390.

23. Dancey E, Murphy BA, Andrew D, Yielder P.
The effect of local vs remote experimental pain on motor learning and sensorimotor integration using a complex typing task.
Pain. 2016 Aug;157(8):1682-95. doi: 10.1097/j.pain.0000000000000570.

24. Leurcharusmee P(1), Aliste J, Van Zundert TC, Engsusophon P, Arnuntasupakul V, Tiyaprasertkul W, Tangjitbampenbun A, Ah-Kye S, Finlayson RJ, Tran DQ.
A Multicenter Randomized Comparison Between Intravenous and Perineural Dexamethasone for Ultrasound-Guided Infraclavicular Block.
Reg Anesth Pain Med. 2016 May-Jun;41(3):328-33. doi: 10.1097/AAP.0000000000000386.

25. Ouchi K, Sugiyama K.
Dexmedetomidine Dose Dependently Enhances the Local Anesthetic Action of Lidocaine in Inferior Alveolar Nerve Block: A Randomized Double-Blind Study.
Reg Anesth Pain Med. 2016 May-Jun;41(3):348-55. doi: 10.1097/AAP.0000000000000380.

26. Lim G, Krohner RG, Metro DG, Rosario BL, Jeong JH, Sakai T.
Low-Fidelity Haptic Simulation Versus Mental Imagery Training for Epidural Anesthesia Technical Achievement in Novice Anesthesiology Residents: A Randomized Comparative Study.
Anesth Analg. 2016 May;122(5):1516-23. doi: 10.1213/ANE.0000000000001260.

27. Elkassabany NM, Antosh S, Ahmed M, Nelson C, Israelite C, Badiola I, Cai LF, Williams R, Hughes C, Mariano ER, Liu J.
The Risk of Falls After Total Knee Arthroplasty with the Use of a Femoral Nerve Block Versus an Adductor Canal Block: A Double-Blinded Randomized Controlled Study.
Anesth Analg. 2016 May;122(5):1696-703. doi: 10.1213/ANE.0000000000001237.

28. Arendt-Nielsen L, Egsgaard LL, Petersen KK.
Evidence for a central mode of action for etoricoxib (COX-2 inhibitor) in patients with painful knee osteoarthritis.
Pain. 2016 Aug;157(8):1634-44. doi: 10.1097/j.pain.0000000000000562.

29. Naik BI, Nemergut EC, Kazemi A, Fernández L, Cederholm SK, McMurry TL, Durieux ME.
The Effect of Dexmedetomidine on Postoperative Opioid Consumption and Pain After Major Spine Surgery.

Anesth Analg. 2016 May;122(5):1646-53. doi: 10.1213/ANE.0000000000001226.

30. Palhais N, Brull R, Kern C, Jacot-Guillarmod A, Charmoy A, Farron A, Albrecht E.
Extrafascial injection for interscalene brachial plexus block reduces respiratory complications compared with a conventional intrafascial injection: a randomized, controlled, double-blind trial.
Br J Anaesth. 2016 Apr;116(4):531-7. doi: 10.1093/bja/aew028.

31. Bartha E, Arfwedson C, Imnell A, Kalman S.
Towards individualized perioperative, goal-directed haemodynamic algorithms for patients of advanced age: observations during a randomized controlled trial (NCT01141894).
Br J Anaesth. 2016 Apr;116(4):486-92. doi: 10.1093/bja/aew025.

32. Li Y, Wang B, Zhang LL, He SF, Hu XW, Wong GT, Zhang Y.
Dexmedetomidine Combined with General Anesthesia Provides Similar Intraoperative Stress Response Reduction When Compared with a Combined General and Epidural Anesthetic Technique.
Anesth Analg. 2016 Apr;122(4):1202-10. doi: 10.1213/ANE.0000000000001165.

33. Kuhn JC, Hauge TH, Rosseland LA, Dahl V, Langesæter E.
Hemodynamics of Phenylephrine Infusion Versus Lower Extremity Compression During Spinal Anesthesia for Cesarean Delivery: A Randomized, Double-Blind, Placebo-Controlled Study.
Anesth Analg. 2016 Apr;122(4):1120-9. doi: 10.1213/ANE.0000000000001174.

34. Barrachina B, Lopez-Picado A, Remon M, Fondarella A, Iriarte I, Bastida R, Rodríguez-Gascón A, Achaerandio MA, Iturricastillo MC, Aizpuru F, Valero CA, Tobalina R, Hernanz R.
Tranexamic Acid Compared with Placebo for Reducing Total Blood Loss in Hip Replacement Surgery: A Randomized Clinical Trial.
Anesth Analg. 2016 Apr;122(4):986-95. doi: 10.1213/ANE.0000000000001159.

35. Paterson E, Sanderson PM, Paterson NA, Liu D, Loeb RG.
The effectiveness of pulse oximetry sonification enhanced with tremolo and brightness for distinguishing clinically important oxygen saturation ranges: a laboratory study.
Anaesthesia. 2016 May;71(5):565-72. doi: 10.1111/anae.13424. Epub 2016 Mar 15.

36. Gilron I, Chaparro LE, Tu D, Holden RR, Milev R, Towheed T, DuMerton-Shore D, Walker S.
Combination of pregabalin with duloxetine for fibromyalgia: a randomized controlled trial.
Pain. 2016 Jul;157(7):1532-40. doi: 10.1097/j.pain.0000000000000558.

37. Joo Y, Kim YC, Lee SC, Kim HY, Park KS, Choi EJ, Moon JY.
Impact of Type of Needle on Incidence of Intravascular Injection During Diagnostic Lumbar Medial Branch Block.
Reg Anesth Pain Med. 2016 May-Jun;41(3):392-7. doi: 10.1097/AAP.0000000000000381.

38. Stourac P, Adamus M, Seidlova D, Pavlik T, Janku P, Krikava I, Mrozek Z, Prochazka M, Klucka J, Stoudek R, Bartikova I, Kosinova M, Harazim H, Robotkova H, Hejduk K, Hodicka Z, Kirchnerova M, Francakova J, Obare Pyszkova L, Hlozkova J, Sevcik P.
Low-Dose or High-Dose Rocuronium Reversed with Neostigmine or Sugammadex for Cesarean Delivery Anesthesia: A Randomized Controlled Noninferiority Trial of Time to Tracheal Intubation and Extubation.
Anesth Analg. 2016 May;122(5):1536-45. doi: 10.1213/ANE.0000000000001197.

39. Campbell CM, Diamond E, Schmidt WK, Kelly M, Allen R, Houghton W, Brady KL, Campbell JN.
A randomized, double-blind, placebo-controlled trial of injected capsaicin for pain in Morton's neuroma.
Pain. 2016 Jun;157(6):1297-304. doi: 10.1097/j.pain.0000000000000544.

40. Murphy SL, Kratz AL, Kidwell K, Lyden AK, Geisser ME, Williams DA.
Brief time-based activity pacing instruction as a singular behavioral intervention was not effective in participants with symptomatic osteoarthritis.
Pain. 2016 Jul;157(7):1563-73. doi: 10.1097/j.pain.0000000000000549.

41. Atkinson JH, Slater MA, Capparelli EV, Patel SM, Wolfson T, Gamst A, Abramson IS, Wallace MS, Funk SD, Rutledge TR, Wetherell JL, Matthews SC, Zisook S, Garfin SR.
A randomized controlled trial of gabapentin for chronic low back pain with and without a radiating component.
Pain. 2016 Jul;157(7):1499-507. doi: 10.1097/j.pain.0000000000000554.

42. Monahan AM, Madison SJ, Loland VJ, Sztain JF, Bishop ML, Sandhu NS, Bellars RH, Khatibi B, Schwartz AK, Ahmed SS, Donohue MC, Nomura ST, Wen CH, Ilfeld BM.
Continuous Popliteal Sciatic Blocks: Does Varying Perineural Catheter Location Relative to the Sciatic Bifurcation Influence Block Effects? A Dual-Center, Randomized, Subject-Masked, Controlled Clinical Trial.
Anesth Analg. 2016 May;122(5):1689-95. doi: 10.1213/ANE.0000000000001211.

43. Ramsingh D, Frank E, Haughton R, Schilling J, Gimenez KM, Banh E, Rinehart J, Cannesson M.
Auscultation versus Point-of-care Ultrasound to Determine Endotracheal versus Bronchial Intubation: A Diagnostic Accuracy Study.
Anesthesiology. 2016 May;124(5):1012-20. doi: 10.1097/ALN.0000000000001073.

44. Yasumura R, Kobayashi Y, Ochiai R.

A comparison of plasma levobupivacaine concentrations following transversus abdominis plane block and rectus sheath block.
Anaesthesia. 2016 May;71(5):544-9. doi: 10.1111/anae.13414. Epub 2016 Mar 4.

45. Abdallah FW, Whelan DB, Chan VW, Prasad GA, Endersby RV, Theodoropolous J, Oldfield S, Oh J, Brull R.
Adductor Canal Block Provides Noninferior Analgesia and Superior Quadriceps Strength Compared with Femoral Nerve Block in Anterior Cruciate Ligament Reconstruction.
Anesthesiology. 2016 May;124(5):1053-64. doi: 10.1097/ALN.0000000000001045.

46. Comelon M, Raeder J, Stubhaug A, Nielsen CS, Draegni T, Lenz H.
Gradual withdrawal of remifentanil infusion may prevent opioid-induced hyperalgesia.
Br J Anaesth. 2016 Apr;116(4):524-30. doi: 10.1093/bja/aev547. Epub 2016 Mar 1.

47. Bonnal A, Dehon A, Nagot N, Macioce V, Nogue E, Morau E.
Patient-controlled oral analgesia versus nurse-controlled parenteral analgesia after caesarean section: a randomised controlled trial.
Anaesthesia. 2016 May;71(5):535-43. doi: 10.1111/anae.13406. Epub 2016 Mar 2.

48. Tan WF, Miao EY, Jin F, Ma H, Lu HW.
Changes in First Postoperative Night Bispectral Index After Daytime Sedation Induced by Dexmedetomidine or Midazolam Under Regional Anesthesia: A Randomized Controlled Trial.
Reg Anesth Pain Med. 2016 May-Jun;41(3):380-6. doi: 10.1097/AAP.0000000000000370.

49. Hamada T, Tsuchiya M, Mizutani K, Takahashi R, Muguruma K, Maeda K, Ueda W, Nishikawa K.
Levobupivacaine-dextran mixture for transversus abdominis plane block and rectus sheath block in patients undergoing laparoscopic colectomy: a randomised controlled trial.
Anaesthesia. 2016 Apr;71(4):411-6. doi: 10.1111/anae.13408. Epub 2016 Feb 26.

50. Myles PS, Chan MT, Kasza J, Paech MJ, Leslie K, Peyton PJ, Sessler DI, Haller G, Beattie WS, Osborne C, Sneyd JR, Forbes A.
Severe Nausea and Vomiting in the Evaluation of Nitrous Oxide in the Gas Mixture for Anesthesia II Trial.
Anesthesiology. 2016 May;124(5):1032-40. doi: 10.1097/ALN.0000000000001057.

51. Rosenfeld DM, Ivancic MG, Hattrup SJ, Renfree KJ, Watkins AR, Hentz JG, Gorlin AW, Spiro JA, Trentman TL.
Perineural versus intravenous dexamethasone as adjuncts to local anaesthetic brachial plexus block for shoulder surgery.
Anaesthesia. 2016 Apr;71(4):380-8. doi: 10.1111/anae.13409. Epub 2016 Feb 22.

52. Cobb B, Cho Y, Hilton G, Ting V, Carvalho B.
Active Warming Utilizing Combined IV Fluid and Forced-Air Warming Decreases Hypothermia and Improves Maternal Comfort During Cesarean Delivery: A Randomized Control Trial.
Anesth Analg. 2016 May;122(5):1490-7. doi: 10.1213/ANE.0000000000001181.

53. Arnuntasupakul V, Van Zundert TC, Vijitpavan A, Aliste J, Engsusophon P, Leurcharusmee P, Ah-Kye S, Finlayson RJ, Tran DQ.
A Randomized Comparison Between Conventional and Waveform-Confirmed Loss of Resistance for Thoracic Epidural Blocks.
Reg Anesth Pain Med. 2016 May-Jun;41(3):368-73. doi: 10.1097/AAP.0000000000000369.

54. Lee EH, Kim WJ, Kim JY, Chin JH, Choi DK, Sim JY, Choo SJ, Chung CH, Lee JW, Choi IC.
Effect of Exogenous Albumin on the Incidence of Postoperative Acute Kidney Injury in Patients Undergoing Off-pump Coronary Artery Bypass Surgery with a Preoperative Albumin Level of Less Than 4.0 g/dl.
Anesthesiology. 2016 May;124(5):1001-11. doi: 10.1097/ALN.0000000000001051.

55. Gaskell AL, Jephcott CG, Smithells JR, Sleigh JW.
Self-administered methoxyflurane for procedural analgesia: experience in a tertiary Australasian centre.
Anaesthesia. 2016 Apr;71(4):417-23. doi: 10.1111/anae.13377. Epub 2016 Feb 15.

56. Choi ES, Oh AY, Seo KS, Hwang JW, Ryu JH, Koo BW, Kim BG.
Optimum dose of neostigmine to reverse shallow neuromuscular blockade with rocuronium and cisatracurium.
Anaesthesia. 2016 Apr;71(4):443-9. doi: 10.1111/anae.13398. Epub 2016 Feb 13.

57. Monsel A, Lu Q, Le Corre M, Brisson H, Arbelot C, Vezinet C, Fléron MH, Ibanez-Estève C, Zerimech F, Balduyck M, Dexheimer F, Wang C, Langeron O, Rouby JJ, Bodin L, Deransy R, Garçon P, Douiri H, Khalifa I, Pons A, Gu WJ, Koskas F, Gaudric J; TETRIS Study Group.
Tapered-cuff Endotracheal Tube Does Not Prevent Early Postoperative Pneumonia Compared with Spherical-cuff Endotracheal Tube after Major Vascular Surgery: A Randomized Controlled Trial.
Anesthesiology. 2016 May;124(5):1041-52. doi: 10.1097/ALN.0000000000001053.

58. Udani AD, Harrison TK, Mariano ER, Derby R, Kan J, Ganaway T, Shum C, Gaba DM, Tanaka P, Kou A, Howard SK; ADAPT (Anesthesiology-Directed Advanced Procedural Training) Research Group.
Comparative-Effectiveness of Simulation-Based Deliberate Practice Versus Self-Guided Practice on Resident Anesthesiologists' Acquisition of Ultrasound-Guided Regional Anesthesia Skills.
Reg Anesth Pain Med. 2016 Mar-Apr;41(2):151-7. doi: 10.1097/AAP.0000000000000361.

59. Stundner O, Meissnitzer M, Brummett CM, Moser S, Forstner R, Koköfer A, Danninger T, Gerner P, Kirchmair L, Fritsch G.
Br J Anaesth. 2016 Mar;116(3):405-12. doi: 10.1093/bja/aev550.

60. Ambrosoli AL, Chiaranda M, Fedele LL, Gemma M, Cedrati V, Cappelleri G.
A randomised controlled trial of intrathecal blockade versus peripheral nerve blockade for day-case knee arthroscopy.
Anaesthesia. 2016 Mar;71(3):280-4. doi: 10.1111/anae.13361. Epub 2016 Jan 6.

61. Monahan AM, Sztain JF, Khatibi B, Furnish TJ, Jæger P, Sessler DI, Mascha EJ, You J, Wen CH, Nakanote KA, Ilfeld BM.
Continuous Adductor Canal Blocks: Does Varying Local Anesthetic Delivery Method (Automatic Repeated Bolus Doses Versus Continuous Basal Infusion) Influence Cutaneous Analgesia and Quadriceps Femoris Strength? A Randomized, Double-Masked, Controlled, Split-Body Volunteer Study.
Anesth Analg. 2016 May;122(5):1681-8. doi: 10.1213/ANE.0000000000001182.

62. Foulds LT, McGuire BE, Shippey BJ.
A randomised cross-over trial comparing the McGrath(®) Series 5 videolaryngoscope with the Macintosh laryngoscope in patients with cervical spine immobilisation.
Anaesthesia. 2016 Apr;71(4):437-42. doi: 10.1111/anae.13384. Epub 2016 Feb 5.

63. Oshan V, Plant N, Gopal P, Rajai A, Roberts SA, Walker RW.
The effect of age and increasing head-up tilt on pre-oxygenation times in children: a randomised exploratory study.
Anaesthesia. 2016 Apr;71(4):429-36. doi: 10.1111/anae.13379. Epub 2016 Feb 5.

64. Palermo TM, Law EF, Bromberg M, Fales J, Eccleston C, Wilson AC.
Problem-solving skills training for parents of children with chronic pain: a pilot randomized controlled trial.
Pain. 2016 Jun;157(6):1213-23. doi: 10.1097/j.pain.0000000000000508.

65. Attal N, Ayache SS, Ciampi De Andrade D, Mhalla A, Baudic S, Jazat F, Ahdab R, Neves DO, Sorel M, Lefaucheur JP, Bouhassira D.
Repetitive transcranial magnetic stimulation and transcranial direct-current stimulation in neuropathic pain due to radiculopathy: a randomized sham-controlled comparative study.
Pain. 2016 Jun;157(6):1224-31. doi: 10.1097/j.pain.0000000000000510.

66. Samuelson ST, Burnett G, Sim AJ, Hofer I, Weinberg AD, Goldberg A, Chang TS, DeMaria S Jr.
Simulation as a set-up for technical proficiency: can a virtual warm-up improve live fibre-optic intubation?

Br J Anaesth. 2016 Mar;116(3):398-404. doi: 10.1093/bja/aev436. Epub 2016 Jan 27.

67. Komasawa N, Kido H, Miyazaki Y, Tatsumi S, Minami T.
Cricoid pressure impedes tracheal intubation with the Pentax-AWS Airwayscope®: a prospective randomized trial.
Br J Anaesth. 2016 Mar;116(3):413-6. doi: 10.1093/bja/aev438. Epub 2016 Jan 27.

68. Jans Ø, Grevstad U, Mandøe H, Kehlet H, Johansson PI.
A randomized trial of the effect of low dose epinephrine infusion in addition to tranexamic acid on blood loss during total hip arthroplasty.
Br J Anaesth. 2016 Mar;116(3):357-62. doi: 10.1093/bja/aev408. Epub 2016 Jan 27.

69. Deschamps A(1), Hall R, Grocott H, Mazer CD, Choi PT, Turgeon AF, de Medicis E, Bussières JS, Hudson C, Syed S, Seal D, Herd S, Lambert J, Denault A, Deschamps A, Mutch A, Turgeon A, Denault A, Todd A, Jerath A, Fayad A, Finnegan B, Kent B, Kennedy B, Cuthbertson BH, Kavanagh B, Warriner B, MacAdams C, Lehmann C, Fudorow C, Hudson C, McCartney C, McIsaac D, Dubois D, Campbell D, Mazer D, Neilpovitz D, Rosen D, Cheng D, Drapeau D, Dillane D, Tran D, Mckeen D, Wijeysundera D, Jacobsohn E, Couture E, de Medicis E, Alam F, Abdallah F, Ralley FE, Chung F, Lellouche F, Dobson G, Germain G, Djaiani G, Gilron I, Hare G, Bryson G, Clarke H, McDonald H, Roman-Smith H, Grocott H, Yang H, Douketis J, Paul J, Beaubien J, Bussières J, Pridham J, Armstrong JN, Parlow J, Murkin J, Gamble J, Duttchen K, Karkouti K, Turner K, Baghirzada L, Szabo L, Lalu M, Wasowicz M, Bautista M, Jacka M, Murphy M, Schmidt M, Verret M, Perrault MA, Beaudet N, Buckley N, Choi P, MacDougall P, Jones P, Drolet P, Beaulieu P, Taneja R, Martin R, Hall R, George R, Chun R, McMullen S, Beattie S, Sampson S, Choi S, Kowalski S, McCluskey S, Syed S, Boet S, Ramsay T, Saha T, Mutter T, Chowdhury T, Uppal V, Mckay W; Canadian Perioperative Anesthesia Clinical Trials Group.

Collaborators: Deschamps A, Mutch A, Turgeon A, Denault A, Todd A, Jerath A, Fayad A, Finnegan B, Kent B, Kennedy B, Cuthbertson BH, Kavanagh B, Warriner B, MacAdams C, Lehmann C, Fudorow C, Hudson C, McCartney C, McIsaac D, Dubois D, Campbell D, Mazer D, Neilpovitz D, Rosen D, Cheng D, Drapeau D, Dillane D, Mckeen D, Wijeysundera D, Jacobsohn E, Couture E, de Medicis E, Alam F, Abdallah F, Ralley FE, Chung F, Lellouche F, Dobson G, Germain G, Djaiani G, Gilron I, Hare G, Bryson G, Clarke H, McDonald H, Roman-Smith H, Grocott H, Douketis J, Paul J, Beaubien J, Bussières J, Pridham J, Armstrong J, Parlow J, Murkin J, Gamble J, Duttchen K, Karkouti K, Turner K, Baghirzada L, Szabo L, Lalu M, Wasowicz M, Bautista M, Jacka M, Murphy M, Schmidt M, Verret M, Perrault MA, Beaudet N, Buckley N, Choi P, MacDougall P, Jones P, Drolet P, Beaulieu P, Taneja R, Martin R, Hall R, George R, Chun R, McMullen S, Beattie S, Sampson S, Choi S, Kowalski S, McCluskey S, Syed S, Boet S, Ramsay T, Saha T, Mutter T, Chowdhury T, Uppal V, Mckay W.

Cerebral Oximetry Monitoring to Maintain Normal Cerebral Oxygen Saturation during

High-risk Cardiac Surgery: A Randomized Controlled Feasibility Trial.
Anesthesiology. 2016 Apr;124(4):826-36. doi: 10.1097/ALN.0000000000001029.

70. McNeer RR, Bennett CL, Dudaryk R.
Intraoperative Noise Increases Perceived Task Load and Fatigue in Anesthesiology Residents: A Simulation-Based Study.
Anesth Analg. 2016 Feb;122(2):512-25. doi: 10.1213/ANE.0000000000001067.

71. Wu J, Zhao Z, Zhu X, Renn CL, Dorsey SG, Faden AI.
Cell cycle inhibition limits development and maintenance of neuropathic pain following spinal cord injury.
Pain. 2016 Feb;157(2):488-503. doi: 10.1097/j.pain.0000000000000393.

72. Seo JH, Cho CW, Hong DM, Jeon Y, Bahk JH.
The effects of thermal softening of double-lumen endobronchial tubes on postoperative sore throat, hoarseness and vocal cord injuries: a prospective double-blind randomized trial.
Br J Anaesth. 2016 Feb;116(2):282-8. doi: 10.1093/bja/aev414.

73. McQuay HJ, Moore RA, Berta A, Gainutdinovs O, Fülesdi B, Porvaneckas N, Petronis S, Mitkovic M, Bucsi L, Samson L, Zegunis V, Ankin ML, Bertolotti M, Pizà-Vallespir B, Cuadripani S, Contini MP, Nizzardo A.
Randomized clinical trial of dexketoprofen/tramadol 25 mg/75 mg in moderate-to-severe pain after total hip arthroplasty.
Br J Anaesth. 2016 Feb;116(2):269-76. doi: 10.1093/bja/aev457.

74. Benger J, Coates D, Davies S, Greenwood R, Nolan J, Rhys M, Thomas M, Voss S.
Randomised comparison of the effectiveness of the laryngeal mask airway supreme, i-gel and current practice in the initial airway management of out of hospital cardiac arrest: a feasibility study.
Br J Anaesth. 2016 Feb;116(2):262-8. doi: 10.1093/bja/aev477.

75. John M, Crook D, Dasari K, Eljelani F, El-Haboby A, Harper CM.
Comparison of resistive heating and forced-air warming to prevent inadvertent perioperative hypothermia.
Br J Anaesth. 2016 Feb;116(2):249-54. doi: 10.1093/bja/aev412.

76. Kaufhold N, Schaller SJ, Stäuble CG, Baumüller E, Ulm K, Blobner M, Fink H.
Sugammadex and neostigmine dose-finding study for reversal of residual neuromuscular block at a train-of-four ratio of 0.2 (SUNDRO20)†,.
Br J Anaesth. 2016 Feb;116(2):233-40. doi: 10.1093/bja/aev437.

77. Buzançais G, Roger C, Bastide S, Jeannes P, Lefrant JY, Muller L.
Comparison of two ultrasound guided approaches for axillary vein catheterization: a randomized controlled non-inferiority trial.
Br J Anaesth. 2016 Feb;116(2):215-22. doi: 10.1093/bja/aev458.

78. Henshaw DS, Jaffe JD, Reynolds JW, Dobson S, Russell GB, Weller RS.
An Evaluation of Ultrasound-Guided Adductor Canal Blockade for Postoperative Analgesia After Medial Unicondylar Knee Arthroplasty.
Anesth Analg. 2016 Apr;122(4):1192-201. doi: 10.1213/ANE.0000000000001162.

79. Rascón-Martínez DM, Fresán-Orellana A, Ocharán-Hernández ME, Genis-Zarate JH, Castellanos-Olivares A.
The Effects of Ketamine on Cognitive Function in Elderly Patients Undergoing Ophthalmic Surgery: A Pilot Study.
Anesth Analg. 2016 Apr;122(4):969-75. doi: 10.1213/ANE.0000000000001153.

80. Gulec E, Biricik E, Turktan M, Hatipoglu Z, Unlugenc H.
The Effect of Intravenous Dexamethasone on Sugammadex Reversal Time in Children Undergoing Adenotonsillectomy.
Anesth Analg. 2016 Apr;122(4):1147-52. doi: 10.1213/ANE.0000000000001142.

81. Turkstra TP, Cusano F, Fridfinnson JA, Batohi P, Rachinsky M.
Early Endotracheal Tube Insertion with the GlideScope: A Randomized Controlled Trial.
Anesth Analg. 2016 Mar;122(3):753-7. doi: 10.1213/ANE.0000000000001147.

82. Frederick HJ, Wofford K, de Lisle Dear G, Schulman SR.
A Randomized Controlled Trial to Determine the Effect of Depth of Anesthesia on Emergence Agitation in Children.
Anesth Analg. 2016 Apr;122(4):1141-6. doi: 10.1213/ANE.0000000000001145.

83. Feuerecker M, van Oosterhout WP, Feuerecker B, Matzel S, Schelling G, Rehm M, Vein AA, Choukèr A.
Headache under simulated microgravity is related to endocrine, fluid distribution, and tight junction changes.
Pain. 2016 May;157(5):1072-8. doi: 10.1097/j.pain.0000000000000481.

84. Fusco P, Cofini V, Petrucci E, Scimia P, Paladini G, Behr AU, Gobbi F, Pozone T, Danelli G, Di Marco M, Vicentini R, Necozione S, Marinangeli F.
Unilateral paravertebral block compared with subarachnoid anesthesia for the management of postoperative pain syndrome after inguinal herniorrhaphy: a randomized controlled clinical trial.
Pain. 2016 May;157(5):1105-13. doi: 10.1097/j.pain.0000000000000487.

85. Lin N, Han R, Zhou J, Gelb AW.

Mild Sedation Exacerbates or Unmasks Focal Neurologic Dysfunction in Neurosurgical Patients with Supratentorial Brain Mass Lesions in a Drug-specific Manner.
Anesthesiology. 2016 Mar;124(3):598-607. doi: 10.1097/ALN.0000000000000994.

86. Weinberg L, Rachbuch C, Ting S, Howard W, Yeomans M, Gordon I, McNicol L, James K, Story D, Christophi C.
A randomised controlled trial of peri-operative lidocaine infusions for open radical prostatectomy.
Anaesthesia. 2016 Apr;71(4):405-10. doi: 10.1111/anae.13368. Epub 2016 Jan 8.

87. Lee SH, Kim N, Lee CY, Ban MG, Oh YJ.
Effects of dexmedetomidine on oxygenation and lung mechanics in patients with moderate chronic obstructive pulmonary disease undergoing lung cancer surgery: A randomised double-blinded trial.
Eur J Anaesthesiol. 2016 Apr;33(4):275-82. doi: 10.1097/EJA.0000000000000405.

88. Neuschwander A, Futier E, Jaber S, Pereira B, Eurin M, Marret E, Szymkewicz O, Beaussier M, Paugam-Burtz C.
The effects of intraoperative lung protective ventilation with positive end-expiratory pressure on blood loss during hepatic resection surgery: A secondary analysis of data from a published randomised control trial (IMPROVE).
Eur J Anaesthesiol. 2016 Apr;33(4):292-8. doi: 10.1097/EJA.0000000000000390.

89. Abou-Arab O, Guinot PG, Dimov E, Diouf M, de Broca B, Biet A, Zaatar R, Bernard E, Dupont H, Lorne E.
Low-positive pressure ventilation improves non-hypoxaemic apnoea tolerance during ear, nose and throat pan-endoscopy: A randomised controlled trial.
Eur J Anaesthesiol. 2016 Apr;33(4):269-74. doi: 10.1097/EJA.0000000000000394.

90. Odor PM, Bampoe S, Hayward J, Chis Ster I, Evans E. Intrapartum epidural fixation methods: a randomised controlled trial of three different epidural catheter securement devices.
Anaesthesia. 2016 Mar;71(3):298-305. doi: 10.1111/anae.13351. Epub 2015 Dec 29.

91. Batllori M, Urra M, Uriarte E, Romero C, Pueyo J, López-Olaondo L, Cambra K, Ibáñez B.
Randomized comparison of three transducer orientation approaches for ultrasound guided internal jugular venous cannulation.
Br J Anaesth. 2016 Mar;116(3):370-6. doi: 10.1093/bja/aev399. Epub 2015 Dec 24.

92. Ham SY, Shim YH, Kim EH, Son MJ, Park WS, Lee JS.
Aprepitant for antiemesis after laparoscopic gynaecological surgery: A randomised controlled trial.
Eur J Anaesthesiol. 2016 Feb;33(2):90-5. doi: 10.1097/EJA.0000000000000242.

93. Loupec T, Frasca D, Rousseau N, Faure JP, Mimoz O, Debaene B.
Appropriate dosing of sugammadex to reverse deep rocuronium-induced neuromuscular blockade in morbidly obese patients.
Anaesthesia. 2016 Mar;71(3):265-72. doi: 10.1111/anae.13344. Epub 2015 Dec 19.

94. Shaikh A, Robinson PN, Hasan M.
The Tulip GT® airway versus the facemask and Guedel airway: a randomised, controlled, cross-over study by Basic Life Support-trained airway providers in anaesthetised patients.
Anaesthesia. 2016 Mar;71(3):315-9. doi: 10.1111/anae.13328. Epub 2015 Dec 19.

95. Viscusi ER, Webster L, Kuss M, Daniels S, Bolognese JA, Zuckerman S, Soergel DG, Subach RA, Cook E, Skobieranda F.
A randomized, phase 2 study investigating TRV130, a biased ligand of the μ-opioid receptor, for the intravenous treatment of acute pain.
Pain. 2016 Jan;157(1):264-72. doi: 10.1097/j.pain.0000000000000363.

96. Dawson RL, McLeod DH, Koerber JP, Plummer JL, Dracopoulos GC.
A randomised controlled trial of perineural vs intravenous dexamethasone for foot surgery.
Anaesthesia. 2016 Mar;71(3):285-90. doi: 10.1111/anae.13346. Epub 2015 Dec 18.

97. Jain D, Jain K, Bala I, Gandhi K.
Evaluation of weight-adjusted doses of palonosetron for prevention of postoperative nausea and vomiting in day care laparoscopic gynaecological surgery: A dose ranging, randomised controlled trial.
Eur J Anaesthesiol. 2016 Feb;33(2):104-9. doi: 10.1097/EJA.0000000000000391.

98. Wanigasekera V, Mezue M, Andersson J, Kong Y, Tracey I.
Disambiguating Pharmacodynamic Efficacy from Behavior with Neuroimaging: Implications for Analgesic Drug Development.
Anesthesiology. 2016 Jan;124(1):159-68. doi: 10.1097/ALN.0000000000000924.

99. Prottengeier J, Petzoldt M, Jess N, Moritz A, Gall C, Schmidt J, Breuer G.
The effect of a standardised source of divided attention in airway management: A randomised, crossover, interventional manikin study.
Eur J Anaesthesiol. 2016 Mar;33(3):195-203. doi: 10.1097/EJA.0000000000000315.

100. Mauermann E, Filitz J, Dolder P, Rentsch KM, Bandschapp O, Ruppen W.
Does Fentanyl Lead to Opioid-induced Hyperalgesia in Healthy Volunteers?: A Double-blind, Randomized, Crossover Trial.
Anesthesiology. 2016 Feb;124(2):453-63. doi: 10.1097/ALN.0000000000000976.

101. Viscusi ER, Barrett AC, Paterson C, Forbes WP.

Efficacy and Safety of Methylnaltrexone for Opioid-Induced Constipation in Patients With Chronic Noncancer Pain: A Placebo Crossover Analysis.
Reg Anesth Pain Med. 2016 Jan-Feb;41(1):93-8. doi: 10.1097/AAP.0000000000000341.

102. Sørensen JK, Jæger P, Dahl JB, Gottschau B, Stephensen SL, Grevstad U.
The Isolated Effect of Adductor Canal Block on Quadriceps Femoris Muscle Strength After Total Knee Arthroplasty: A Triple-Blinded, Randomized, Placebo-Controlled Trial with Individual Patient Analysis.
Anesth Analg. 2016 Feb;122(2):553-8. doi: 10.1213/ANE.0000000000001073.

103. Sitsen E, Olofsen E, Lesman A, Dahan A, Vuyk J.
Epidural Blockade Affects the Pharmacokinetics of Propofol in Surgical Patients.
Anesth Analg. 2016 May;122(5):1341-9. doi: 10.1213/ANE.0000000000001090.

104. Abdallah FW, Dwyer T, Chan VW, Niazi AU, Ogilvie-Harris DJ, Oldfield S, Patel R, Oh J, Brull R.
IV and Perineural Dexmedetomidine Similarly Prolong the Duration of Analgesia after Interscalene Brachial Plexus Block: A Randomized, Three-arm, Triple-masked, Placebo-controlled Trial.
Anesthesiology. 2016 Mar;124(3):683-95. doi: 10.1097/ALN.0000000000000983.

105. Jagannathan N, Hajduk J, Sohn L, Huang A, Sawardekar A, Gebhardt ER, Johnson K, De Oliveira GS.
A randomised comparison of the Ambu® AuraGain™ and the LMA® supreme in infants and children.
Anaesthesia. 2016 Feb;71(2):205-12. doi: 10.1111/anae.13330. Epub 2015 Dec 9.

106. Ishigaki S, Masui K, Kazama T.
Saline Flush After Rocuronium Bolus Reduces Onset Time and Prolongs Duration of Effect: A Randomized Clinical Trial.
Anesth Analg. 2016 Mar;122(3):706-11. doi: 10.1213/ANE.0000000000001094.

107. Brookes J, Sondekoppam R, Armstrong K, Uppal V, Dhir S, Terlecki M, Ganapathy S.
Comparative evaluation of the visibility and block characteristics of a stimulating needle and catheter vs an echogenic needle and catheter for sciatic nerve block with a low-frequency ultrasound probe.
Br J Anaesth. 2015 Dec;115(6):912-9. doi: 10.1093/bja/aev351.

108. Clarke H, Pagé GM, McCartney CJ, Huang A, Stratford P, Andrion J, Kennedy D, Awad IT, Gollish J, Kay J, Katz J.
Pregabalin reduces postoperative opioid consumption and pain for 1 week after hospital discharge, but does not affect function at 6 weeks or 3 months after total hip arthroplasty.
Br J Anaesth. 2015 Dec;115(6):903-11. doi: 10.1093/bja/aev363.

109. Kim HJ, Lee K, Park WK, Lee BR, Joo HM, Koh YW, Seo YW, Kim WS, Yoo YC.
Deep neuromuscular block improves the surgical conditions for laryngeal microsurgery.
Br J Anaesth. 2015 Dec;115(6):867-72. doi: 10.1093/bja/aev368.

110. Song IA, Seo KS, Oh AY, No HJ, Hwang JW, Jeon YT, Park SH, Do SH.
Timing of reversal with respect to three nerve stimulator end-points from cisatracurium-induced neuromuscular block.
Anaesthesia. 2015 Jul;70(7):797-802. doi: 10.1111/anae.13044. Epub 2015 Feb 27.

111. Aziz MF, Abrons RO, Cattano D, Bayman EO, Swanson DE, Hagberg CA, Todd MM, Brambrink AM.
First-Attempt Intubation Success of Video Laryngoscopy in Patients with Anticipated Difficult Direct Laryngoscopy: A Multicenter Randomized Controlled Trial Comparing the C-MAC D-Blade Versus the GlideScope in a Mixed Provider and Diverse Patient PopulationAnesth Analg. 2016 Mar;122(3):740-50. doi: 10.1213/ANE.0000000000001084.

112. Jeppsson A, Waldén K, Roman-Emanuel C, Thimour-Bergström L, Karlsson M.
Preoperative supplementation with fibrinogen concentrate in cardiac surgery: A randomized controlled study.
Br J Anaesth. 2016 Feb;116(2):208-14. doi: 10.1093/bja/aev367. Epub 2015 Nov 17.

113. Djaiani G, Silverton N, Fedorko L, Carroll J, Styra R, Rao V, Katznelson R.
Dexmedetomidine versus Propofol Sedation Reduces Delirium after Cardiac Surgery: A Randomized Controlled Trial.
Anesthesiology. 2016 Feb;124(2):362-8. doi: 10.1097/ALN.0000000000000951.

114. Ishida T, Kiuchi C, Sekiguchi T, Tsujimoto T, Kawamata M.
McGRATH MAC video laryngoscope for insertion of a transoesophageal echocardiography probe: A randomised controlled trial.
Eur J Anaesthesiol. 2016 Apr;33(4):263-8. doi: 10.1097/EJA.0000000000000367.

115. McKay RE, Hall KT, Hills N.
The Effect of Anesthetic Choice (Sevoflurane Versus Desflurane) and Neuromuscular Management on Speed of Airway Reflex Recovery.
Anesth Analg. 2016 Feb;122(2):393-401. doi: 10.1213/ANE.0000000000001022.

116. Dhir S, Armstrong K, Armstrong P, Bouzari A, Mall J, Yu J, Ganapathy S, King G.
A randomised comparison between ultrasound and nerve stimulation for infraclavicular catheter placement.
Anaesthesia. 2016 Feb;71(2):198-204. doi: 10.1111/anae.13302. Epub 2015 Nov 14.

117. Konstantatos AH, Howard W, Story D, Mok LY, Boyd D, Chan MT.
A randomised controlled trial of peri-operative pregabalin vs. placebo for video-assisted thoracoscopic surgery.
Anaesthesia. 2016 Feb;71(2):192-7. doi: 10.1111/anae.13292. Epub 2015 Nov 14.

118. Na HS, Shin HJ, Lee YJ, Kim JH, Koo KH, Do SH.
The effect of tranexamic acid on blood coagulation in total hip replacement arthroplasty: rotational thromboelastographic (ROTEM®) analysis.
Anaesthesia. 2016 Jan;71(1):67-75. doi: 10.1111/anae.13270. Epub 2015 Nov 12.

119. Yazicioğlu D, Caparlar C, Akkaya T, Mercan U, Kulaçoğlu H.
Tizanidine for the management of acute postoperative pain after inguinal hernia repair: A placebo-controlled double-blind trial.
Eur J Anaesthesiol. 2016 Mar;33(3):215-22. doi: 10.1097/EJA.0000000000000371.

120. Horn EP, Bein B, Broch O, Iden T, Böhm R, Latz SK, Höcker J.
Warming before and after epidural block before general anaesthesia for major abdominal surgery prevents perioperative hypothermia: A randomised controlled trial.
Eur J Anaesthesiol. 2016 May;33(5):334-40. doi: 10.1097/EJA.0000000000000369.

121. Hörner E, Schebesta K, Hüpfl M, Kimberger O, Rössler B.
The Impact of Monitoring on the Initiation of Cardiopulmonary Resuscitation in Children: Friend or Foe?
Anesth Analg. 2016 Feb;122(2):490-6. doi: 10.1213/ANE.0000000000001049.

122. Myhre M, Diep LM, Stubhaug A.
Pregabalin Has Analgesic, Ventilatory, and Cognitive Effects in Combination with Remifentanil.
Anesthesiology. 2016 Jan;124(1):141-9. doi: 10.1097/ALN.0000000000000913.

123. Olivieri C, Longhini F, Cena T, Cammarota G, Vaschetto R, Messina A, Berni P, Magnani C, Della Corte F, Navalesi P.
New versus Conventional Helmet for Delivering Noninvasive Ventilation: A Physiologic, Crossover Randomized Study in Critically Ill Patients.
Anesthesiology. 2016 Jan;124(1):101-8. doi: 10.1097/ALN.0000000000000910.

124. Schukro RP, Oehmke MJ, Geroldinger A, Heinze G, Kress HG, Pramhas S.
Efficacy of Duloxetine in Chronic Low Back Pain with a Neuropathic Component: A Randomized, Double-blind, Placebo-controlled Crossover Trial.
Anesthesiology. 2016 Jan;124(1):150-8. doi: 10.1097/ALN.0000000000000902.

125. Boivin A, Nadeau MJ, Dion N, Lévesque S, Nicole PC, Turgeon AF.
Ultrasound-Guided Single-Injection Infraclavicular Block Versus Ultrasound-Guided Double-Injection Axillary Block: A Noninferiority Randomized Controlled Trial.

Anesth Analg. 2016 Jan;122(1):273-8. doi: 10.1213/ANE.0000000000001017.

126. McEvoy MD, Hand WR, Stiegler MP, DiLorenzo AN, Ehrenfeld JM, Moran KR, Lekowski R, Nunnally ME, Manning EL, Shi Y, Shotwell MS, Gupta RK, Corey JM, Schell RM.
A Smartphone-based Decision Support Tool Improves Test Performance Concerning Application of the Guidelines for Managing Regional Anesthesia in the Patient Receiving Antithrombotic or Thrombolytic Therapy.
Anesthesiology. 2016 Jan;124(1):186-98. doi: 10.1097/ALN.0000000000000885.

127. Yang XY, Xiao J, Chen YH, Wang ZT, Wang HL, He DH, Zhang J.
Dexamethasone alone vs in combination with transcutaneous electrical acupoint stimulation or tropisetron for prevention of postoperative nausea and vomiting in gynaecological patients undergoing laparoscopic surgery.
Br J Anaesth. 2015 Dec;115(6):883-9. doi: 10.1093/bja/aev352. Epub 2015 Oct 27.

128. Shoushtarian M, Sahinovic MM, Absalom AR, Kalmar AF, Vereecke HE, Liley DT, Struys MM.
Comparisons of Electroencephalographically Derived Measures of Hypnosis and Antinociception in Response to Standardized Stimuli During Target-Controlled Propofol-Remifentanil Anesthesia.
Anesth Analg. 2016 Feb;122(2):382-92. doi: 10.1213/ANE.0000000000001029.

129. Triffterer L, Marhofer P, Sulyok I, Keplinger M, Mair S, Steinberger M, Klug W, Kimberger O.
Forced-Air Warming During Pediatric Surgery: A Randomized Comparison of a Compressible with a Noncompressible Warming System.
Anesth Analg. 2016 Jan;122(1):219-25. doi: 10.1213/ANE.0000000000001036.

130. Miu M, Royer C, Gaillat C, Schaup B, Menegaux F, Langeron O, Riou B, Aubrun F.
Lack of Analgesic Effect Induced by Ropivacaine Wound Infiltration in Thyroid Surgery: A Randomized, Double-Blind, Placebo-Controlled Trial.
Anesth Analg. 2016 Feb;122(2):559-64. doi: 10.1213/ANE.0000000000001041.

131. Benzon HA, Shah RD, Hansen J, Hajduk J, Billings KR, De Oliveira GS Jr, Suresh S.
The Effect of Systemic Magnesium on Postsurgical Pain in Children Undergoing Tonsillectomies: A Double-Blinded, Randomized, Placebo-Controlled Trial.
Anesth Analg. 2015 Dec;121(6):1627-31. doi: 10.1213/ANE.0000000000001028.

132. Leslie K, Myles PS, Kasza J, Forbes A, Peyton PJ, Chan MT, Paech MJ, Sessler DI, Beattie WS, Devereaux PJ, Wallace S.
Nitrous Oxide and Serious Long-term Morbidity and Mortality in the Evaluation of Nitrous Oxide in the Gas Mixture for Anaesthesia (ENIGMA)-II Trial.
Anesthesiology. 2015 Dec;123(6):1267-80. doi: 10.1097/ALN.0000000000000908.

133. Turan A, Belley-Cote EP, Vincent J, Sessler DI, Devereaux PJ, Yusuf S, van Oostveen R, Cordova G, Yared JP, Yu H, Legare JF, Royse A, Rochon A, Nasr V, Ayad S, Quantz M, Lamy A, Whitlock RP.
Methylprednisolone Does Not Reduce Persistent Pain after Cardiac Surgery.
Anesthesiology. 2015 Dec;123(6):1404-10. doi: 10.1097/ALN.0000000000000915.

134. Du Y, Chen YJ, He B, Wang YW.
The Effects of Single-Dose Etomidate Versus Propofol on Cortisol Levels in Pediatric Patients Undergoing Urologic Surgery: A Randomized Controlled Trial.
Anesth Analg. 2015 Dec;121(6):1580-5. doi: 10.1213/ANE.0000000000000981.

135. Bharti N, Sardana DK, Bala I.
The Analgesic Efficacy of Dexmedetomidine as an Adjunct to Local Anesthetics in Supraclavicular Brachial Plexus Block: A Randomized Controlled Trial.
Anesth Analg. 2015 Dec;121(6):1655-60. doi: 10.1213/ANE.0000000000001006.

136. Jans Ø, Mehlsen J, Kjærsgaard-Andersen P, Husted H, Solgaard S, Josiassen J, Lunn TH, Kehlet H.
Oral Midodrine Hydrochloride for Prevention of Orthostatic Hypotension during Early Mobilization after Hip Arthroplasty: A Randomized, Double-blind, Placebo-controlled Trial.
Anesthesiology. 2015 Dec;123(6):1292-300. doi: 10.1097/ALN.0000000000000890.

137. Bresson J, Gayat E, Agrawal G, Chazot T, Liu N, Hausser-Haw C, Fischler M.
A Randomized Controlled Trial Comparison of NeuroSENSE and Bispectral Brain Monitors During Propofol-Based Versus Sevoflurane-Based General Anesthesia.
Anesth Analg. 2015 Nov;121(5):1194-201. doi: 10.1213/ANE.0000000000000922.

138. Ahn JH, Kim IS, Shin KM, Kang SS, Hong SJ, Park JH, Kim HJ, Lee SH, Kim DY, Jung JH.
Influence of arm position on catheter placement during real-time ultrasound-guided right infraclavicular proximal axillary venous catheterization.
Br J Anaesth. 2016 Mar;116(3):363-9. doi: 10.1093/bja/aev345. Epub 2015 Oct 20.

139. Turan A, Sarwar S, Atim A, Deogaonkar A, Yousef HF, Katyal S, Liu J, You J, Leizman D, Mekhail N, Sessler DI.
Nitrous Oxide for the Treatment of Chronic Low Back Pain.
Anesth Analg. 2015 Nov;121(5):1350-9. doi: 10.1213/ANE.0000000000000951.

140. Madsen MV, Istre O, Staehr-Rye AK, Springborg HH, Rosenberg J, Lund J, Gätke MR.
Postoperative shoulder pain after laparoscopic hysterectomy with deep neuromuscular blockade and low-pressure pneumoperitoneum: A randomised controlled trial.
Eur J Anaesthesiol. 2016 May;33(5):341-7. doi: 10.1097/EJA.0000000000000360.

141. Choi E, Nahm FS, Lee PB.
Comparison of contrast flow and clinical effectiveness between a modified paramedian interlaminar approach and transforaminal approach in cervical epidural steroid injection.
Br J Anaesth. 2015 Nov;115(5):768-74. doi: 10.1093/bja/aev342.

142. Skytte Larsson J, Bragadottir G, Krumbholz V, Redfors B, Sellgren J, Ricksten SE.
Effects of acute plasma volume expansion on renal perfusion, filtration, and oxygenation after cardiac surgery: a randomized study on crystalloid vs colloid.
Br J Anaesth. 2015 Nov;115(5):736-42. doi: 10.1093/bja/aev346.

143. Volz MS, Farmer A, Siegmund B.
Reduction of chronic abdominal pain in patients with inflammatory bowel disease through transcranial direct current stimulation: a randomized controlled trial.
Pain. 2016 Feb;157(2):429-37. doi: 10.1097/j.pain.0000000000000386.

144. Panjasawatwong K, Sessler DI, Stapelfeldt WH, Mayers DB, Mascha EJ, Yang D, Kurz A.
A Randomized Trial of a Supplemental Alarm for Critically Low Systolic Blood Pressure.
Anesth Analg. 2015 Dec;121(6):1500-7. doi: 10.1213/ANE.0000000000000950.

145. Tanggaard K, Jensen K, Lenz K, Vazin M, Binzer J, Lindberg-Larsen VO, Niegsch M, Bendtsen TF, Jorgensen LN, Børglum J.
A randomised controlled trial of bilateral dual transversus abdominis plane blockade for laparoscopic appendicectomy.
Anaesthesia. 2015 Dec;70(12):1395-400. doi: 10.1111/anae.13234. Epub 2015 Oct 14.

146. Lee MC, Tseng KY, Shen YC, Lin CH, Hsu CW, Hsu HJ, Lu IC, Cheng KI.
Nasotracheal intubation in patients with limited mouth opening: a comparison between fibreoptic intubation and the Trachway®.
Anaesthesia. 2016 Jan;71(1):31-8. doi: 10.1111/anae.13232. Epub 2015 Oct 12.

147. Cohen SP, Peterlin BL, Fulton L, Neely ET, Kurihara C, Gupta A, Mali J, Fu DC, Jacobs MB, Plunkett AR, Verdun AJ, Stojanovic MP, Hanling S, Constantinescu O, White RL, McLean BC, Pasquina PF, Zhao Z.
Randomized, double-blind, comparative-effectiveness study comparing pulsed radiofrequency to steroid injections for occipital neuralgia or migraine with occipital nerve tenderness.
Pain. 2015 Dec;156(12):2585-94. doi: 10.1097/j.pain.0000000000000373.

148. Makkar JK, Bhatia N, Bala I, Dwivedi D, Singh PM.
A comparison of single dose dexmedetomidine with propofol for the prevention of emergence delirium after desflurane anaesthesia in children.

Anaesthesia. 2016 Jan;71(1):50-7. doi: 10.1111/anae.13230. Epub 2015 Oct 7.

149. Kleine-Brueggeney M, Greif R, Brenneisen R, Urwyler N, Stueber F, Theiler LG.
Intravenous Delta-9-Tetrahydrocannabinol to Prevent Postoperative Nausea and Vomiting: A Randomized Controlled Trial.
Anesth Analg. 2015 Nov;121(5):1157-64. doi: 10.1213/ANE.0000000000000877.

150. Roelants F, Lavand'homme P.
Clonidine versus sufentanil as an adjuvant to ropivacaine in patient-controlled epidural labour analgesia: A randomised double-blind trial.
Eur J Anaesthesiol. 2015 Nov;32(11):805-11. doi: 10.1097/EJA.0000000000000347.

151. Ganapathy S, Sondekoppam RV, Terlecki M, Brookes J, Das Adhikary S, Subramanian L.
Comparison of efficacy and safety of lateral-to-medial continuous transversus abdominis plane block with thoracic epidural analgesia in patients undergoing abdominal surgery: A randomised, open-label feasibility study.
Eur J Anaesthesiol. 2015 Nov;32(11):797-804. doi: 10.1097/EJA.0000000000000345.

152. Mayr NP, Hapfelmeier A, Martin K, Kurz A, van der Starre P, Babik B, Mazzitelli D, Lange R, Wiesner G, Tassani-Prell P.
Comparison of sedation and general anaesthesia for transcatheter aortic valve implantation on cerebral oxygen saturation and neurocognitive outcome†.
Br J Anaesth. 2016 Jan;116(1):90-9. doi: 10.1093/bja/aev294. Epub 2015 Sep 29.

153. Castro-Alves LJ, Oliveira de Medeiros AC, Neves SP, Carneiro de Albuquerque CL, Modolo NS, De Azevedo VL, De Oliveira GS Jr.
Perioperative Duloxetine to Improve Postoperative Recovery After Abdominal Hysterectomy: A Prospective, Randomized, Double-Blinded, Placebo-Controlled Study.
Anesth Analg. 2016 Jan;122(1):98-104. doi: 10.1213/ANE.0000000000000971.

154. Williams JE, Peacock J, Gubbay AN, Kuo PY, Ellard R, Gupta R, Riley J, Sauzet O, Raftery J, Yao G, Ross J.
Routine screening for pain combined with a pain treatment protocol in head and neck cancer: a randomised controlled trial.
Br J Anaesth. 2015 Oct;115(4):621-8. doi: 10.1093/bja/aev263.

155. Lai CW, Starkie T, Creanor S, Struthers RA, Portch D, Erasmus PD, Mellor N, Hosie KB, Sneyd JR, Minto G.
Randomized controlled trial of stroke volume optimization during elective major abdominal surgery in patients stratified by aerobic fitness.
Br J Anaesth. 2015 Oct;115(4):578-89. doi: 10.1093/bja/aev299.

156. Al Tmimi L, Van Hemelrijck J, Van de Velde M, Sergeant P, Meyns B, Missant C, Jochmans I, Poesen K, Coburn M, Rex S.
Xenon anaesthesia for patients undergoing off-pump coronary artery bypass graft surgery: a prospective randomized controlled pilot trial.
Br J Anaesth. 2015 Oct;115(4):550-9. doi: 10.1093/bja/aev303.

157. Cruz Eng H, Riazi S, Veillette C, Ami N, Niazi AU, Chin KJ, Chan VW, Perlas A.
An Expedited Care Pathway with Ambulatory Brachial Plexus Analgesia Is a Cost-effective Alternative to Standard Inpatient Care after Complex Arthroscopic Elbow Surgery: A Randomized, Single-blinded Study.
Anesthesiology. 2015 Dec;123(6):1256-66. doi: 10.1097/ALN.0000000000000852.

158. Wasan AD, Michna E, Edwards RR, Katz JN, Nedeljkovic SS, Dolman AJ, Janfaza D, Isaac Z, Jamison RN.
Psychiatric Comorbidity Is Associated Prospectively with Diminished Opioid Analgesia and Increased Opioid Misuse in Patients with Chronic Low Back Pain.
Anesthesiology. 2015 Oct;123(4):861-72. doi: 10.1097/ALN.0000000000000768.

159. Olesen AE, Olofsen E, Andresen T, Graversen C, Drewes AM, Dahan A.
Stochastic Pharmacokinetic-Pharmacodynamic Analysis of the Effect of Transdermal Buprenorphine on Electroencephalogram and Analgesia.
Anesth Analg. 2015 Nov;121(5):1165-75. doi: 10.1213/ANE.0000000000000939.

160. Drake-Brockman TF, Ledowski T, Hegarty M, Gessner M, von Ungern-Sternberg BS.
A comparison of the i-gel(™) and the PRO-Breathe(®) laryngeal mask during pressure support ventilation in children.
Anaesthesia. 2015 Dec;70(12):1412-7. doi: 10.1111/anae.13206. Epub 2015 Sep 10.

161. Siddiqui N, Arzola C, Friedman Z, Guerina L, You-Ten KE.
Ultrasound Improves Cricothyrotomy Success in Cadavers with Poorly Defined Neck Anatomy: A Randomized Control Trial.
Anesthesiology. 2015 Nov;123(5):1033-41. doi: 10.1097/ALN.0000000000000848.

162. Kenwright DA, Bernjak A, Draegni T, Dzeroski S, Entwistle M, Horvat M, Kvandal P, Landsverk SA, McClintock PV, Musizza B, Petrovčič J, Raeder J, Sheppard LW, Smith AF, Stankovski T, Stefanovska A.
The discriminatory value of cardiorespiratory interactions in distinguishing awake from anaesthetised states: a randomised observational study.
Anaesthesia. 2015 Dec;70(12):1356-68. doi: 10.1111/anae.13208. Epub 2015 Sep 9.

163. Song Y, Oh J, Chee Y, Cho Y, Lee S, Lim TH.
Effectiveness of chest compression feedback during cardiopulmonary resuscitation in lateral tilted and semirecumbent positions: a randomised controlled simulation study.

Anaesthesia. 2015 Nov;70(11):1235-41. doi: 10.1111/anae.13222. Epub 2015 Sep 8.

164. Sukcharanjit S, Tan AS, Loo AV, Chan XL, Wang CY.
The effect of a forced-air warming blanket on patients' end-tidal and transcutaneous carbon dioxide partial pressures during eye surgery under local anaesthesia: a single-blind, randomised controlled trial.
Anaesthesia. 2015 Dec;70(12):1390-4. doi: 10.1111/anae.13212. Epub 2015 Sep 8.

165. Palermo TM, Law EF, Fales J, Bromberg MH, Jessen-Fiddick T, Tai G.
Internet-delivered cognitive-behavioral treatment for adolescents with chronic pain and their parents: a randomized controlled multicenter trial.
Pain. 2016 Jan;157(1):174-85. doi: 10.1097/j.pain.0000000000000348.

166. Hauber JA, Davis PJ, Bendel LP, Martyn SV, McCarthy DL, Evans MC, Cladis FP, Cunningham S, Lang RS, Campbell NF, Tuchman JB, Young MC.
Dexmedetomidine as a Rapid Bolus for Treatment and Prophylactic Prevention of Emergence Agitation in Anesthetized Children.
Anesth Analg. 2015 Nov;121(5):1308-15. doi: 10.1213/ANE.0000000000000931.

167. Karmali S, Jenkins N, Sciusco A, John J, Haddad F, Ackland GL; POM-X Study Investigators.
Randomized controlled trial of vagal modulation by sham feeding in elective non-gastrointestinal (orthopaedic) surgery.
Br J Anaesth. 2015 Nov;115(5):727-35. doi: 10.1093/bja/aev283. Epub 2015 Aug 30.

168. Lazaar S, Boselli E, Chassard D, Allaouchiche B, Bouvet L.
Effect of acute cigarette smoking on gastric contents in regular smoker volunteers. A prospective randomized cross-over study.
Br J Anaesth. 2015 Oct;115(4):590-4. doi: 10.1093/bja/aev264. Epub 2015 Aug 30.

169. Maecken T, Heite L, Wolf B, Zahn PK, Litz RJ.
Ultrasound-guided catheterisation of the subclavian vein: freehand vs needle-guided technique.
Anaesthesia. 2015 Nov;70(11):1242-9. doi: 10.1111/anae.13187. Epub 2015 Aug 28.

170. Wei L, Deng X, Sui J, Wang L, Liu J.
Dexmedetomidine Improves Intubating Conditions Without Muscle Relaxants in Children After Induction With Propofol and Remifentanil.
Anesth Analg. 2015 Sep;121(3):785-90. doi: 10.1213/ANE.0000000000000812.

171. Lobo K, Donado C, Cornelissen L, Kim J, Ortiz R, Peake RW, Kellogg M, Alexander ME, Zurakowski D, Kurgansky KE, Peyton J, Bilge A, Boretsky K, McCann ME, Berde CB, Cravero J.
A Phase 1, Dose-escalation, Double-blind, Block-randomized, Controlled Trial of Safety and Efficacy of Neosaxitoxin Alone and in Combination with 0.2% Bupivacaine, with and without Epinephrine, for Cutaneous Anesthesia.

Anesthesiology. 2015 Oct;123(4):873-85. doi: 10.1097/ALN.0000000000000831.

172. Ghali AM, Shabana AM, El Btarny AM.
The Effect of Low-Dose Dexmedetomidine as an Adjuvant to Levobupivacaine in Patients Undergoing Vitreoretinal Surgery Under Sub-Tenon's Block Anesthesia.
Anesth Analg. 2015 Nov;121(5):1378-82. doi: 10.1213/ANE.0000000000000908.

173. Nielsen RV, Siegel H, Fomsgaard JS, Andersen JD, Martusevicius R, Mathiesen O, Dahl JB.
Preoperative dexamethasone reduces acute but not sustained pain after lumbar disk surgery: a randomized, blinded, placebo-controlled trial.
Pain. 2015 Dec;156(12):2538-44. doi: 10.1097/j.pain.0000000000000326.

174. Kallidaikurichi Srinivasan K, Iohom G, Loughnane F, Lee PJ.
Conventional Landmark-Guided Midline Versus Preprocedure Ultrasound-Guided Paramedian Techniques in Spinal Anesthesia.
Anesth Analg. 2015 Oct;121(4):1089-96. doi: 10.1213/ANE.0000000000000911.

175. Willingham MD, Karren E, Shanks AM, O'Connor MF, Jacobsohn E, Kheterpal S, Avidan MS.
Concurrence of Intraoperative Hypotension, Low Minimum Alveolar Concentration, and Low Bispectral Index Is Associated with Postoperative Death.
Anesthesiology. 2015 Oct;123(4):775-85. doi: 10.1097/ALN.0000000000000822.

176. Jess G, Pogatzki-Zahn EM, Zahn PK, Meyer-Frießem CH.
Monitoring heart rate variability to assess experimentally induced pain using the analgesia nociception index: A randomised volunteer study.
Eur J Anaesthesiol. 2016 Feb;33(2):118-25. doi: 10.1097/EJA.0000000000000304.

177. Shin HJ, Choi ES, Lee GW, Do SH.
Effects of Preoperative Serotonin-Receptor-Antagonist Administration in Spinal Anesthesia-Induced Hypotension: A Randomized, Double-blind Comparison Study of Ramosetron and Ondansetron.
Reg Anesth Pain Med. 2015 Sep-Oct;40(5):583-8. doi: 10.1097/AAP.0000000000000300.

178. Katz N, Kopecky EA, O'Connor M, Brown RH, Fleming AB.
A phase 3, multicenter, randomized, double-blind, placebo-controlled, safety, tolerability, and efficacy study of Xtampza ER in patients with moderate-to-severe chronic low back pain.
Pain. 2015 Dec;156(12):2458-67. doi: 10.1097/j.pain.0000000000000315.

179. Song Y, Shim JK, Song JW, Kim EK, Kwak YL.
Dexmedetomidine added to an opioid-based analgesic regimen for the prevention of postoperative nausea and vomiting in highly susceptible patients: A randomised controlled trial.

Eur J Anaesthesiol. 2016 Feb;33(2):75-83. doi: 10.1097/EJA.0000000000000327.

180. Gasanova I, Alexander J, Ogunnaike B, Hamid C, Rogers D, Minhajuddin A, Joshi GP.
Transversus Abdominis Plane Block Versus Surgical Site Infiltration for Pain Management After Open Total Abdominal Hysterectomy.
Anesth Analg. 2015 Nov;121(5):1383-8. doi: 10.1213/ANE.0000000000000909.

181. Picton P, Dering A, Alexander A, Neff M, Miller BS, Shanks A, Housey M, Mashour GA.
Influence of Ventilation Strategies and Anesthetic Techniques on Regional Cerebral Oximetry in the Beach Chair Position: A Prospective Interventional Study with a Randomized Comparison of Two Anesthetics.
Anesthesiology. 2015 Oct;123(4):765-74. doi: 10.1097/ALN.0000000000000798.

182. Bailey KM, Bird SJ, McGrath PJ, Chorney JE.
Preparing Parents to Be Present for Their Child's Anesthesia Induction: A Randomized Controlled Trial.
Anesth Analg. 2015 Oct;121(4):1001-10. doi: 10.1213/ANE.0000000000000900.

183. Klinger RY, Thunberg CA, White WD, Fontes M, Waldron NH, Piccini JP, Hughes GC, Podgoreanu MV, Stafford-Smith M, Newman MF, Mathew JP.
Intraoperative Magnesium Administration Does Not Reduce Postoperative Atrial Fibrillation After Cardiac Surgery.
Anesth Analg. 2015 Oct;121(4):861-7. doi: 10.1213/ANE.0000000000000873.

184. Jæger P, Koscielniak-Nielsen ZJ, Hilsted KL, Fabritius ML, Dahl JB.
Adductor Canal Block With 10 mL Versus 30 mL Local Anesthetics and Quadriceps Strength: A Paired, Blinded, Randomized Study in Healthy Volunteers.
Reg Anesth Pain Med. 2015 Sep-Oct;40(5):553-8. doi: 10.1097/AAP.0000000000000298.

185. Lunn TH, Husted H, Laursen MB, Hansen LT, Kehlet H.
Analgesic and sedative effects of perioperative gabapentin in total knee arthroplasty: a randomized, double-blind, placebo-controlled dose-finding study.
Pain. 2015 Dec;156(12):2438-48. doi: 10.1097/j.pain.0000000000000309.

186. Monagle J, Siu L, Worrell J, Goodchild CS, Serrao JM.
A Phase 1c Trial Comparing the Efficacy and Safety of a New Aqueous Formulation of Alphaxalone with Propofol.
Anesth Analg. 2015 Oct;121(4):914-24. doi: 10.1213/ANE.0000000000000856.

187. Blanco R, Ansari T, Girgis E.
Quadratus lumborum block for postoperative pain after caesarean section: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Nov;32(11):812-8. doi: 10.1097/EJA.0000000000000299.

188. Hanouz JL, Lammens S, Tasle M, Lesage A, Gérard JL, Plaud B.
Preoxygenation by spontaneous breathing or noninvasive positive pressure ventilation with and without positive end-expiratory pressure: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Dec;32(12):881-7. doi: 10.1097/EJA.0000000000000297.

189. Murouchi T, Iwasaki S, Yamakage M.
Chronological Changes in Ropivacaine Concentration and Analgesic Effects Between Transversus Abdominis Plane Block and Rectus Sheath Block.
Reg Anesth Pain Med. 2015 Sep-Oct;40(5):568-71. doi: 10.1097/AAP.0000000000000288.

190. Kapural L, Yu C, Doust MW, Gliner BE, Vallejo R, Sitzman BT, Amirdelfan K, Morgan DM, Brown LL, Yearwood TL, Bundschu R, Burton AW, Yang T, Benyamin R, Burgher AH.
Novel 10-kHz High-frequency Therapy (HF10 Therapy) Is Superior to Traditional Low-frequency Spinal Cord Stimulation for the Treatment of Chronic Back and Leg Pain: The SENZA-RCT Randomized Controlled Trial.
Anesthesiology. 2015 Oct;123(4):851-60. doi: 10.1097/ALN.0000000000000774.

191. Choi SS, Jun IG, Cho SS, Kim SK, Hwang GS, Kim YK.
Effect of stroke volume variation-directed fluid management on blood loss during living-donor right hepatectomy: a randomised controlled study.
Anaesthesia. 2015 Nov;70(11):1250-8. doi: 10.1111/anae.13155. Epub 2015 Jul 27.

192. Birnbach DJ, Rosen LF, Fitzpatrick M, Carling P, Arheart KL, Munoz-Price LS.
A New Approach to Pathogen Containment in the Operating Room: Sheathing the Laryngoscope After Intubation.
Anesth Analg. 2015 Nov;121(5):1209-14. doi: 10.1213/ANE.0000000000000854.

193. Wesselink EM, Kappen TH, van Klei WA, Dieleman JM, van Dijk D, Slooter AJ.
Intraoperative hypotension and delirium after on-pump cardiac surgery.
Br J Anaesth. 2015 Sep;115(3):427-33. doi: 10.1093/bja/aev256. Epub 2015 Jul 25.

194. Leslie K, McIlroy D, Kasza J, Forbes A, Kurz A, Khan J, Meyhoff CS, Allard R, Landoni G, Jara X, Lurati Buse G, Candiotti K, Lee HS, Gupta R, VanHelder T, Purayil W, De Hert S, Treschan T, Devereaux PJ.
Neuraxial block and postoperative epidural analgesia: effects on outcomes in the POISE-2 trial†.
Br J Anaesth. 2016 Jan;116(1):100-12. doi: 10.1093/bja/aev255. Epub 2015 Jul 25.

195. Czaplik M, Rossaint R, Kaliciak J, Follmann A, Kirfel S, Scharrer R, Guski M, Vorländer M, Marx G, Coburn M.
Psychoacoustic analysis of noise and the application of earplugs in an ICU: A

randomised controlled clinical trial.
Eur J Anaesthesiol. 2016 Jan;33(1):14-21. doi: 10.1097/EJA.0000000000000313.

196. Karan SB, Rackovsky E, Voter WA, Kanel JA, Farris N, Jensen J, Liu L, Ward DS.
A Randomized, Prospective, Double-Blinded Study of Physostigmine to Prevent Sedation-Induced Ventilatory Arrhythmias.
Anesth Analg. 2015 Sep;121(3):652-60. doi: 10.1213/ANE.0000000000000834.

197. Monks DT, Hoppe DW, Downey K, Shah V, Bernstein P, Carvalho JC.
A Perioperative Course of Gabapentin Does Not Produce a Clinically Meaningful Improvement in Analgesia after Cesarean Delivery: A Randomized Controlled Trial.
Anesthesiology. 2015 Aug;123(2):320-6. doi: 10.1097/ALN.0000000000000722.

198. Duncan AE, Kateby Kashy B, Sarwar S, Singh A, Stenina-Adognravi O, Christoffersen S, Alfirevic A, Sale S, Yang D, Thomas JD, Gillinov M, Sessler DI.
Hyperinsulinemic Normoglycemia Does Not Meaningfully Improve Myocardial Performance during Cardiac Surgery: A Randomized Trial.
Anesthesiology. 2015 Aug;123(2):272-87. doi: 10.1097/ALN.0000000000000723.

199. Lin SY, Huang HA, Lin SC, Huang YT, Wang KY, Shi HY.
The effect of an anaesthetic patient information video on perioperative anxiety: A randomised study.
Eur J Anaesthesiol. 2016 Feb;33(2):134-9. doi: 10.1097/EJA.0000000000000307.

200. Ramsingh D, Rinehart J, Kain Z, Strom S, Canales C, Alexander B, Capatina A, Ma M, Le KV, Cannesson M.
Impact assessment of perioperative point-of-care ultrasound training on anesthesiology residents.
Anesthesiology. 2015 Sep;123(3):670-82. doi: 10.1097/ALN.0000000000000776.

201. Kim H, Jung SM, Yu H, Park SJ.
Video Distraction and Parental Presence for the Management of Preoperative Anxiety and Postoperative Behavioral Disturbance in Children: A Randomized Controlled Trial.
Anesth Analg. 2015 Sep;121(3):778-84. doi: 10.1213/ANE.0000000000000839.

202. Pryor KO, Root JC, Mehta M, Stern E, Pan H, Veselis RA, Silbersweig DA.
Effect of propofol on the medial temporal lobe emotional memory system: a functional magnetic resonance imaging study in human subjects.
Br J Anaesth. 2015 Jul;115 Suppl 1:i104-i113. doi: 10.1093/bja/aev038.

203. YaDeau JT, Lin Y, Mayman DJ, Goytizolo EA, Alexiades MM, Padgett DE, Kahn RL, Jules-Elysee KM, Ranawat AS, Bhagat DD, Fields KG, Goon AK, Curren J, Westrich GH.
Pregabalin and pain after total knee arthroplasty: a double-blind, randomized,

placebo-controlled, multidose trial.
Br J Anaesth. 2015 Aug;115(2):285-93. doi: 10.1093/bja/aev217.

204. Benedetti F, Durando J, Giudetti L, Pampallona A, Vighetti S.
High-altitude headache: the effects of real vs sham oxygen administration.
Pain. 2015 Nov;156(11):2326-36. doi: 10.1097/j.pain.0000000000000288.

205. Andersen LP, Gögenur I, Fenger AQ, Petersen MC, Rosenberg J, Werner MU.
Analgesic and antihyperalgesic effects of melatonin in a human inflammatory pain model: a randomized, double-blind, placebo-controlled, three-arm crossover study.
Pain. 2015 Nov;156(11):2286-94. doi: 10.1097/j.pain.0000000000000284.

206. Martini CH, Boon M, Broens SJ, Hekkelman EF, Oudhoff LA, Buddeke AW, Dahan A.
Ability of the nociception level, a multiparameter composite of autonomic signals, to detect noxious stimuli during propofol-remifentanil anesthesia.
Anesthesiology. 2015 Sep;123(3):524-34. doi: 10.1097/ALN.0000000000000757.

207. Auyong DB, Yuan SC, Rymer AN, Green CL, Hanson NA.
A randomized crossover study comparing a novel needle guidance technology for simulated internal jugular vein cannulation.
Anesthesiology. 2015 Sep;123(3):535-41. doi: 10.1097/ALN.0000000000000759.

208. Baeumler PI, Fleckenstein J, Benedikt F, Bader J, Irnich D.
Acupuncture-induced changes of pressure pain threshold are mediated by segmental inhibition--a randomized controlled trial.
Pain. 2015 Nov;156(11):2245-55. doi: 10.1097/j.pain.0000000000000283.

209. Sztain JF, Machi AT, Kormylo NJ, Abramson WB, Madison SJ, Monahan AM, Khatibi B, Ball ST, Gonzales FB, Sessler DI, Mascha EJ, You J, Nakanote KA, Ilfeld BM.
Continuous Adductor Canal Versus Continuous Femoral Nerve Blocks: Relative Effects on Discharge Readiness Following Unicompartment Knee Arthroplasty.
Reg Anesth Pain Med. 2015 Sep-Oct;40(5):559-67. doi: 10.1097/AAP.0000000000000279.

210. Marian AA, Ranganath Y, Bayman EO, Senasu J, Brennan TJ.
A Comparison of 2 Ultrasound-Guided Approaches to the Saphenous Nerve Block: Adductor Canal Versus Distal Transsartorial: A Prospective, Randomized, Blinded, Noninferiority Trial.
Reg Anesth Pain Med. 2015 Sep-Oct;40(5):623-30. doi: 10.1097/AAP.0000000000000277.

211. Bergeron-Vézina K, Corriveau H, Martel M, Harvey MP, Léonard G.
High- and low-frequency transcutaneous electrical nerve stimulation does not reduce experimental pain in elderly individuals.
Pain. 2015 Oct;156(10):2093-9. doi: 10.1097/j.pain.0000000000000276.

212. Nasri-Heir C, Khan J, Benoliel R, Feng C, Yarnitsky D, Kuo F, Hirschberg C, Hartwell G, Huang CY, Heir G, Korczeniewska O, Diehl SR, Eliav E.
Altered pain modulation in patients with persistent postendodontic pain.
Pain. 2015 Oct;156(10):2032-41. doi: 10.1097/j.pain.0000000000000265.

213. Rozet I, Metzner J, Brown M, Treggiari MM, Slimp JC, Kinney G, Sharma D, Lee LA, Vavilala MS.
Dexmedetomidine Does Not Affect Evoked Potentials During Spine Surgery.
Anesth Analg. 2015 Aug;121(2):492-501. doi: 10.1213/ANE.0000000000000840.

214. Demant DT, Lund K, Finnerup NB, Vollert J, Maier C, Segerdahl MS, Jensen TS, Sindrup SH.
Pain relief with lidocaine 5% patch in localized peripheral neuropathic pain in relation to pain phenotype: a randomised, double-blind, and placebo-controlled, phenotype panel study.
Pain. 2015 Nov;156(11):2234-44. doi: 10.1097/j.pain.0000000000000266.

215. Dewinter G, Teunkens A, Vermeulen K, Devroe S, Van Hemelrijck J, Meuleman C, Vergote I, Fieuws S, Van de Velde M, Rex S.
Alizapride and ondansetron for the prevention of postoperative nausea and vomiting in patients undergoing laparoscopic gynaecological surgery: A double-blind, randomised, placebo-controlled noninferiority study.
Eur J Anaesthesiol. 2016 Feb;33(2):96-103. doi: 10.1097/EJA.0000000000000288.

216. Malcharek MJ, Bartz M, Rogos B, Günther L, Sablotzki A, Gille J, Schneider G.
Comparison of Enk Fibreoptic Atomizer with translaryngeal injection for topical anaesthesia for awake fibreoptic intubation in patients at risk of secondary cervical injury: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Sep;32(9):615-23. doi: 10.1097/EJA.0000000000000285.

217. Thomas-Kattappurathu G, Kasisomayajula A, Short J.
Best position and depth of anaesthesia for laryngeal mask airway removal in children: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Sep;32(9):624-30. doi: 10.1097/EJA.0000000000000286.

218. Desmet M, Vanneste B, Reynvoet M, Van Cauwelaert J, Verhelst L, Pottel H, Missant C, Van de Velde M.
A randomised controlled trial of intravenous dexamethasone combined with interscalene brachial plexus blockade for shoulder surgery.
Anaesthesia. 2015 Oct;70(10):1180-5. doi: 10.1111/anae.13156. Epub 2015 Jun 17.

219. Jove M, Griffin DW, Minkowitz HS, Ben-David B, Evashenk MA, Palmer PP.
Sufentanil Sublingual Tablet System for the Management of Postoperative Pain after Knee or Hip Arthroplasty: A Randomized, Placebo-controlled Study.
Anesthesiology. 2015 Aug;123(2):434-43. doi: 10.1097/ALN.0000000000000746.

220. Machi AT, Sztain JF, Kormylo NJ, Madison SJ, Abramson WB, Monahan AM, Khatibi B, Ball ST, Gonzales FB, Sessler DI, Mascha EJ, You J, Nakanote KA, Ilfeld BM.
Discharge Readiness after Tricompartment Knee Arthroplasty: Adductor Canal versus Femoral Continuous Nerve Blocks-A Dual-center, Randomized Trial.
Anesthesiology. 2015 Aug;123(2):444-56. doi: 10.1097/ALN.0000000000000741.

221. Moore A, Gregoire-Bertrand F, Massicotte N, Gauthier A, Lallo A, Ruel M, Todorov A, Girard F.
I-gel Versus LMA-Fastrach Supraglottic Airway for Flexible Bronchoscope-Guided Tracheal Intubation Using a Parker (GlideRite) Endotracheal Tube: A Randomized Controlled Trial.
Anesth Analg. 2015 Aug;121(2):430-6. doi: 10.1213/ANE.0000000000000807.

222. Ziegler D, Duan WR, An G, Thomas JW, Nothaft W.
A randomized double-blind, placebo-, and active-controlled study of T-type calcium channel blocker ABT-639 in patients with diabetic peripheral neuropathic pain.
Pain. 2015 Oct;156(10):2013-20. doi: 10.1097/j.pain.0000000000000263.

223. Luger M, Hiesmayr M, Köppel P, Sima B, Ranz I, Weiss C, König J, Luger E, Kruschitz R, Ludvik B, Schindler K.
Influence of intravenous thiamine supplementation on blood lactate concentration prior to cardiac surgery: A double-blinded, randomised controlled pilot study.
Eur J Anaesthesiol. 2015 Aug;32(8):543-8. doi: 10.1097/EJA.0000000000000205.

224. Sivashanmugam T, Ray S, Ravishankar M, Jaya V, Selvam E, Karmakar MK.
Reg Anesth Pain Med. 2015 Jul-Aug;40(4):337-43. doi:
Randomized Comparison of Extrafascial Versus Subfascial Injection of Local Anesthetic During Ultrasound-Guided Supraclavicular Brachial Plexus Block.
10.1097/AAP.0000000000000264.

225. Terkawi AS, Tiouririne M, Mehta SH, Hackworth JM, Tsang S, Durieux ME.
Ondansetron Does Not Attenuate Hemodynamic Changes in Patients Undergoing Elective Cesarean Delivery Using Subarachnoid Anesthesia: A Double-Blind, Placebo-Controlled, Randomized Trial.
Reg Anesth Pain Med. 2015 Jul-Aug;40(4):344-8. doi: 10.1097/AAP.0000000000000274.

226. Kleine-Brueggeney M, Nicolet A, Nabecker S, Seiler S, Stucki F, Greif R, Theiler L.
Blind intubation of anaesthetised children with supraglottic airway devices AmbuAura-i and Air-Q cannot be recommended: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Sep;32(9):631-9. doi: 10.1097/EJA.0000000000000261.

227. Wegner A, Elsenbruch S, Rebernik L, Roderigo T, Engelbrecht E, Jäger M, Engler H, Schedlowski M, Benson S.
Inflammation-induced pain sensitization in men and women: does sex matter in

experimental endotoxemia?
Pain. 2015 Oct;156(10):1954-64. doi: 10.1097/j.pain.0000000000000256.

228. Dear BF, Gandy M, Karin E, Staples LG, Johnston L, Fogliati VJ, Wootton BM, Terides MD, Kayrouz R, Perry KN, Sharpe L, Nicholas MK, Titov N.
The Pain Course: a randomised controlled trial examining an internet-delivered pain management program when provided with different levels of clinician support.
Pain. 2015 Oct;156(10):1920-35. doi: 10.1097/j.pain.0000000000000251.

229. Serra J, Duan WR, Locke C, Solà R, Liu W, Nothaft W.
Effects of a T-type calcium channel blocker, ABT-639, on spontaneous activity in C-nociceptors in patients with painful diabetic neuropathy: a randomized controlled trial.
Pain. 2015 Nov;156(11):2175-83. doi: 10.1097/j.pain.0000000000000249.

230. Moerman AT, Vanbiervliet VM, Van Wesemael A, Bouchez SM, Wouters PF, De Hert SG.
Assessment of Cerebral Autoregulation Patterns with Near-infrared Spectroscopy during Pharmacological-induced Pressure Changes.
Anesthesiology. 2015 Aug;123(2):327-35. doi: 10.1097/ALN.0000000000000715.

231. Gillies MA, Shah AS, Mullenheim J, Tricklebank S, Owen T, Antonelli J, Strachan F, Mills NL, Pearse RM.
Perioperative myocardial injury in patients receiving cardiac output-guided haemodynamic therapy: a substudy of the OPTIMISE Trial.
Br J Anaesth. 2015 Aug;115(2):227-33. doi: 10.1093/bja/aev137. Epub 2015 May 21.

232. Davidson AJ, Morton NS, Arnup SJ, de Graaff JC, Disma N, Withington DE, Frawley G, Hunt RW, Hardy P, Khotcholava M, von Ungern Sternberg BS, Wilton N, Tuo P, Salvo I, Ormond G, Stargatt R, Locatelli BG, McCann ME; General Anesthesia compared to Spinal anesthesia (GAS) Consortium.
Apnea after Awake Regional and General Anesthesia in Infants: The General Anesthesia Compared to Spinal Anesthesia Study--Comparing Apnea and Neurodevelopmental Outcomes, a Randomized Controlled Trial.
Anesthesiology. 2015 Jul;123(1):38-54. doi: 10.1097/ALN.0000000000000709.

233. Frawley G, Bell G, Disma N, Withington DE, de Graaff JC, Morton NS, McCann ME, Arnup SJ, Bagshaw O, Wolfler A, Bellinger D, Davidson AJ; General Anesthesia compared to Spinal anesthesia (GAS) Consortium.
Predictors of Failure of Awake Regional Anesthesia for Neonatal Hernia Repair: Data from the General Anesthesia Compared to Spinal Anesthesia Study--Comparing Apnea and Neurodevelopmental Outcomes.
Anesthesiology. 2015 Jul;123(1):55-65. doi: 10.1097/ALN.0000000000000708.

234. Rasmussen CD, Holtermann A, Bay H, Søgaard K, Birk Jørgensen M.
A multifaceted workplace intervention for low back pain in nurses' aides: a

pragmatic stepped wedge cluster randomised controlled trial.
Pain. 2015 Sep;156(9):1786-94. doi: 10.1097/j.pain.0000000000000234.

235. Rauck RL, Hale ME, Bass A, Bramson C, Pixton G, Wilson JG, Setnik B, Meisner P, Sommerville KW, Malhotra BK, Wolfram G.
A randomized double-blind, placebo-controlled efficacy and safety study of ALO-02 (extended-release oxycodone surrounding sequestered naltrexone) for moderate-to-severe chronic low back pain treatment.
Pain. 2015 Sep;156(9):1660-9. doi: 10.1097/j.pain.0000000000000230.

236. Saager L, Duncan AE, Yared JP, Hesler BD, You J, Deogaonkar A, Sessler DI, Kurz A.
Intraoperative tight glucose control using hyperinsulinemic normoglycemia increases delirium after cardiac surgery.
Anesthesiology. 2015 Jun;122(6):1214-23. doi: 10.1097/ALN.0000000000000669.

237. Curry N, Rourke C, Davenport R, Beer S, Pankhurst L, Deary A, Thomas H, Llewelyn C, Green L, Doughty H, Nordmann G, Brohi K, Stanworth S.
Early cryoprecipitate for major haemorrhage in trauma: a randomised controlled feasibility trial.
Br J Anaesth. 2015 Jul;115(1):76-83. doi: 10.1093/bja/aev134. Epub 2015 May 19.

238. Parke RL, McGuinness SP, Gilder E, McCarthy LW, Cowdrey KA.
A randomised feasibility study to assess a novel strategy to rationalise fluid in patients after cardiac surgery.
Br J Anaesth. 2015 Jul;115(1):45-52. doi: 10.1093/bja/aev118. Epub 2015 May 19.

239. Haas T, Spielmann N, Restin T, Seifert B, Henze G, Obwegeser J, Min K, Jeszenszky D, Weiss M, Schmugge M.
Higher fibrinogen concentrations for reduction of transfusion requirements during major paediatric surgery: A prospective randomised controlled trial.
Br J Anaesth. 2015 Aug;115(2):234-43. doi: 10.1093/bja/aev136. Epub 2015 May 15.

240. Khalili-Mahani N, Martini CH, Olofsen E, Dahan A, Niesters M.
Effect of subanaesthetic ketamine on plasma and saliva cortisol secretion.
Br J Anaesth. 2015 Jul;115(1):68-75. doi: 10.1093/bja/aev135. Epub 2015 May 16.

241. Warner DO, LeBlanc A, Kadimpati S, Vickers KS, Shi Y, Montori VM.
Decision Aid for Cigarette Smokers Scheduled for Elective Surgery.
Anesthesiology. 2015 Jul;123(1):18-28. doi: 10.1097/ALN.0000000000000704.

242. Perotti L, Cusato M, Ingelmo P, Niebel TL, Somaini M, Riva F, Tinelli C, De Andrés J, Fanelli G, Braschi A, Regazzi M, Allegri M.
A Comparison of Differences Between the Systemic Pharmacokinetics of Levobupivacaine and Ropivacaine During Continuous Epidural Infusion: A

Prospective, Randomized, Multicenter, Double-Blind Controlled Trial.
Anesth Analg. 2015 Aug;121(2):348-56. doi: 10.1213/ANE.0000000000000775.

243. YaDeau JT, Paroli L, Fields KG, Kahn RL, LaSala VR, Jules-Elysee KM, Kim DH, Haskins SC, Hedden J, Goon A, Roberts MM, Levine DS.
Addition of Dexamethasone and Buprenorphine to Bupivacaine Sciatic Nerve Block: A Randomized Controlled Trial.
Reg Anesth Pain Med. 2015 Jul-Aug;40(4):321-9. doi: 10.1097/AAP.0000000000000254.

244. Khaw KS, Lee SW, Ngan Kee WD, Law LW, Lau TK, Ng FF, Leung TY.
Randomized trial of anaesthetic interventions in external cephalic version for breech presentation.
Br J Anaesth. 2015 Jun;114(6):944-50. doi: 10.1093/bja/aev107. Epub 2015 May 10.

245. Ahmed SU, Zhang Y, Chen L, Cohen A, St Hillary K, Vo T, Houghton M, Mao J.
Effect of 1.5% Topical Diclofenac on Clinical Neuropathic Pain.
Anesthesiology. 2015 Jul;123(1):191-8. doi: 10.1097/ALN.0000000000000693.

246. Feiner JR, Gropper MA, Toy P, Lieberman J, Twiford J, Weiskopf RB.
A Clinical Trial to Detect Subclinical Transfusion-induced Lung Injury during Surgery.
Anesthesiology. 2015 Jul;123(1):126-35. doi: 10.1097/ALN.0000000000000689.

247. Brueckmann B, Sasaki N, Grobara P, Li MK, Woo T, de Bie J, Maktabi M, Lee J, Kwo J, Pino R, Sabouri AS, McGovern F, Staehr-Rye AK, Eikermann M.
Effects of sugammadex on incidence of postoperative residual neuromuscular blockade: a randomized, controlled study.
Br J Anaesth. 2015 Nov;115(5):743-51. doi: 10.1093/bja/aev104. Epub 2015 May 2.

248. Tiyaprasertkul W, Bernucci F, González AP, Leurcharusmee P, Yazer MS, Techasuk W, Arnuntasupakul V, de la Garza DC, Finlayson RJ, Tran DQ.
A Randomized Comparison Between Single- and Triple-Injection Subparaneural Popliteal Sciatic Nerve Block.
Reg Anesth Pain Med. 2015 Jul-Aug;40(4):315-20. doi: 10.1097/AAP.0000000000000253.

249. Støving K, Rothe C, Rosenstock CV, Aasvang EK, Lundstrøm LH, Lange KH.
Cutaneous Sensory Block Area, Muscle-Relaxing Effect, and Block Duration of the Transversus Abdominis Plane Block: A Randomized, Blinded, and Placebo-Controlled Study in Healthy Volunteers.
Reg Anesth Pain Med. 2015 Jul-Aug;40(4):355-62. doi: 10.1097/AAP.0000000000000252.

250. Tassonyi E, Pongrácz A, Nemes R, Asztalos L, Lengyel S, Fülesdi B.

Reversal of Pipecuronium-Induced Moderate Neuromuscular Block with Sugammadex in the Presence of a Sevoflurane Anesthetic: A Randomized Trial.
Anesth Analg. 2015 Aug;121(2):373-80. doi: 10.1213/ANE.0000000000000766.

251. Sopata M, Katz N, Carey W, Smith MD, Keller D, Verburg KM, West CR, Wolfram G, Brown MT.
Efficacy and safety of tanezumab in the treatment of pain from bone metastases.
Pain. 2015 Sep;156(9):1703-13. doi: 10.1097/j.pain.0000000000000211.

252. Prestgaard T, Wormgoor ME, Haugen S, Harstad H, Mowinckel P, Brox JI.
Ultrasound-guided intra-articular and rotator interval corticosteroid injections in adhesive capsulitis of the shoulder: a double-blind, sham-controlled randomized study.
Pain. 2015 Sep;156(9):1683-91. doi: 10.1097/j.pain.0000000000000209.

253. Kerper LF, Spies CD, Salz AL, Wei-Gerlach E, Balzer F, Neumann T, Tafelski S, Lau A, Neuner B, Romanczuk-Seiferth N, Glaesmer H, Wernecke KD, Brähler E, Krampe H.
Effects of an Innovative Psychotherapy Program for Surgical Patients: Bridging Intervention in Anesthesiology--A Randomized Controlled Trial.
Anesthesiology. 2015 Jul;123(1):148-59. doi: 10.1097/ALN.0000000000000685.

254. Kovacheva VP, Soens MA, Tsen LC.
A Randomized, Double-blinded Trial of a "Rule of Threes" Algorithm versus Continuous Infusion of Oxytocin during Elective Cesarean Delivery.
Anesthesiology. 2015 Jul;123(1):92-100. doi: 10.1097/ALN.0000000000000682.

255. Bryskin RB, Londergan B, Wheatley R, Heng R, Lewis M, Barraza M, Mercer E, Ye G.
Transversus Abdominis Plane Block Versus Caudal Epidural for Lower Abdominal Surgery in Children: A Double-Blinded Randomized Controlled Trial.
Anesth Analg. 2015 Aug;121(2):471-8. doi: 10.1213/ANE.0000000000000779.

256. Puri GD, Mathew PJ, Biswas I, Dutta A, Sood J, Gombar S, Palta S, Tsering M, Gautam PL, Jayant A, Arora I, Bajaj V, Punia TS, Singh G.
A Multicenter Evaluation of a Closed-Loop Anesthesia Delivery System: A Randomized Controlled Trial.
Anesth Analg. 2016 Jan;122(1):106-14. doi: 10.1213/ANE.0000000000000769.

257. Borrat X, Valencia JF, Magrans R, Gimenez-Mila M, Mellado R, Sendino O, Perez M, Nunez M, Jospin M, Jensen EW, Troconiz I, Gambus PL.
Sedation-analgesia with propofol and remifentanil: concentrations required to avoid gag reflex in upper gastrointestinal endoscopy.
Anesth Analg. 2015 Jul;121(1):90-6. doi: 10.1213/ANE.0000000000000756.

258. Kurz A, Fleischmann E, Sessler DI, Buggy DJ, Apfel C, Akça O;

Factorial Trial Investigators.
Collaborators: Fleischmann E, Erdik E, Eredics K, Kabon B, Herbst F, Kazerounian S, Kugener A, Marschalek C, Mikocki P, Niedermayer M, Obewegeser E, Ratzenboeck I, Rozum R, Sindhuber S, Schlemitz K, Schebesta K, Stift A, Kurz A, Sessler DI, Bala E, Chen ST, Devarajan J, Maheshwari A, Mahboobi R, Mascha E, Nagem H, Rajogopalan S, Reynolds L, Alvarez A, Stocchi L, Doufas AG, Govinda R, Kasuya Y, Komatsu R, Lenhardt R, Orhan-Sungur M, Sengupta P, Wadhwa A, Galandiuk S, Buggy D, Arain M, Burke S, McGuire B, Ragheb J, Taguchi A.
Effects of supplemental oxygen and dexamethasone on surgical site infection: a factorial randomized trial‡.
Br J Anaesth. 2015 Sep;115(3):434-43. doi: 10.1093/bja/aev062. Epub 2015 Apr 20.

259. Brulotte V, Ruel MM, Lafontaine E, Chouinard P, Girard F.
Impact of pregabalin on the occurrence of postthoracotomy pain syndrome: a randomized trial.
Reg Anesth Pain Med. 2015 May-Jun;40(3):262-9. doi: 10.1097/AAP.0000000000000241.

260. Terry EL, Thompson KA, Rhudy JL.
Experimental reduction of pain catastrophizing modulates pain report but not spinal nociception as verified by mediation analyses.
Pain. 2015 Aug;156(8):1477-88. doi: 10.1097/j.pain.0000000000000192.

261. Katz NP, Mou J, Trudeau J, Xiang J, Vorsanger G, Orman C, Kim M.
Development and preliminary validation of an integrated efficacy-tolerability composite measure for the evaluation of analgesics.
Pain. 2015 Jul;156(7):1357-65. doi: 10.1097/j.pain.0000000000000186.

262. Ueda K, Bayman EO, Johnson C, Odum NJ, Lee JJ.
A randomised controlled trial of radial artery cannulation guided by Doppler vs. palpation vs. ultrasound.
Anaesthesia. 2015 Sep;70(9):1039-44. doi: 10.1111/anae.13062. Epub 2015 Apr 8.

263. Hodkinson DJ, Khawaja N, O'Daly O, Thacker MA, Zelaya FO, Wooldridge CL, Renton TF, Williams SC, Howard MA.
Cerebral analgesic response to nonsteroidal anti-inflammatory drug ibuprofen.
Pain. 2015 Jul;156(7):1301-10. doi: 10.1097/j.pain.0000000000000176.

264. Kim DH, Yoon DM, Yoon KB.
Incidence of intravascular injection and the spread of contrast media during S1 transforaminal epidural steroid injection by two approaches: anteroposterior vs oblique.
Anaesthesia. 2015 Aug;70(8):975-84. doi: 10.1111/anae.13079. Epub 2015 Apr 7.

265. Murphy GS, Szokol JW, Avram MJ, Greenberg SB, Marymont JH, Shear T, Parikh KN, Patel SS, Gupta DK.
Intraoperative Methadone for the Prevention of Postoperative Pain: A Randomized,

Double-blinded Clinical Trial in Cardiac Surgical Patients.
Anesthesiology. 2015 May;122(5):1112-22. doi: 10.1097/ALN.0000000000000633.

266. Lindholm P, Lamusuo S, Taiminen T, Pesonen U, Lahti A, Virtanen A, Forssell H, Hietala J, Hagelberg N, Pertovaara A, Parkkola R, Jääskeläinen S.
Right secondary somatosensory cortex-a promising novel target for the treatment of drug-resistant neuropathic orofacial pain with repetitive transcranial magnetic stimulation.
Pain. 2015 Jul;156(7):1276-83. doi: 10.1097/j.pain.0000000000000175.

267. Germano Filho PA, Cavalcanti IL, Barrucand L, Verçosa N.
Effect of magnesium sulphate on sugammadex reversal time for neuromuscular blockade: a randomised controlled study.
Anaesthesia. 2015 Aug;70(8):956-61. doi: 10.1111/anae.12987. Epub 2015 Apr 1.

268. Zanaty OM, El Metainy SA.
A comparative evaluation of nebulized dexmedetomidine, nebulized ketamine, and their combination as premedication for outpatient pediatric dental surgery.
Anesth Analg. 2015 Jul;121(1):167-71. doi: 10.1213/ANE.0000000000000728.

269. Park JH, Lim BG, Kim H, Lee IO, Kong MH, Kim NS.
Comparison of Surgical Pleth Index-guided Analgesia with Conventional Analgesia Practices in Children: A Randomized Controlled Trial.
Anesthesiology. 2015 Jun;122(6):1280-7. doi: 10.1097/ALN.0000000000000650.

270. Cappelleri G, Ghisi D, Ceravola E, Guzzetti L, Ambrosoli AL, Gemma M, Cornaggia G.
A randomised controlled comparison between stimulating and standard catheters for lumbar plexus block.
Anaesthesia. 2015 Aug;70(8):948-55. doi: 10.1111/anae.13077. Epub 2015 Mar 21.

271. Booth JL, Harris LC, Eisenach JC, Pan PH.
A Randomized Controlled Trial Comparing Two Multimodal Analgesic Techniques in Patients Predicted to Have Severe Pain After Cesarean Delivery.
Anesth Analg. 2016 Apr;122(4):1114-9. doi: 10.1213/ANE.0000000000000695.

272. Dingley J, Liu X, Gill H, Smit E, Sabir H, Tooley J, Chakkarapani E, Windsor D, Thoresen M.
The feasibility of using a portable xenon delivery device to permit earlier xenon ventilation with therapeutic cooling of neonates during ambulance retrieval.
Anesth Analg. 2015 Jun;120(6):1331-6. doi: 10.1213/ANE.0000000000000693.

273. Sterling M, Vicenzino B, Souvlis T, Connelly LB.
Dry-needling and exercise for chronic whiplash-associated disorders: a randomized single-blind placebo-controlled trial.

Pain. 2015 Apr;156(4):635-43. doi: 10.1097/01.j.pain.0000460359.40116.c1.

274. Ramsden CE, Faurot KR, Zamora D, Palsson OS, MacIntosh BA, Gaylord S, Taha AY, Rapoport SI, Hibbeln JR, Davis JM, Mann JD.
Targeted alterations in dietary n-3 and n-6 fatty acids improve life functioning and reduce psychological distress among patients with chronic headache: a secondary analysis of a randomized trial.
Pain. 2015 Apr;156(4):587-96. doi: 10.1097/01.j.pain.0000460348.84965.47.

275. Fortier MA, Bunzli E, Walthall J, Olshansky E, Saadat H, Santistevan R, Mayes L, Kain ZN.
Web-based tailored intervention for preparation of parents and children for outpatient surgery (WebTIPS): formative evaluation and randomized controlled trial.
Anesth Analg. 2015 Apr;120(4):915-22. doi: 10.1213/ANE.0000000000000632.

276. Chang JE, Min SW, Kim CS, Kwon YS, Hwang JY.
Effects of the jaw-thrust manoeuvre in the semi-sitting position on securing a clear airway during fibreoptic intubation.
Anaesthesia. 2015 Aug;70(8):933-8. doi: 10.1111/anae.13041. Epub 2015 Mar 19.

277. Koköfer A, Nawratil J, Felder TK, Stundner O, Mader N, Gerner P.
Ropivacaine 0.375% vs. 0.75% with prilocaine for intermediate cervical plexus block for carotid endarterectomy: A randomised trial.
Eur J Anaesthesiol. 2015 Nov;32(11):781-9. doi: 10.1097/EJA.0000000000000243.

278. Lunn TH, Frokjaer VG, Hansen TB, Kristensen PW, Lind T, Kehlet H.
Analgesic effect of perioperative escitalopram in high pain catastrophizing patients after total knee arthroplasty: a randomized, double-blind, placebo-controlled trial.
Anesthesiology. 2015 Apr;122(4):884-94. doi: 10.1097/ALN.0000000000000597.

279. Martel MO, Finan PH, Dolman AJ, Subramanian S, Edwards RR, Wasan AD, Jamison RN.
Self-reports of medication side effects and pain-related activity interference in patients with chronic pain: a longitudinal cohort study.
Pain. 2015 Jun;156(6):1092-100. doi: 10.1097/j.pain.0000000000000154.

280. Schaldemose EL, Horjales-Araujo E, Svensson P, Finnerup NB.
Altered thermal grill response and paradoxical heat sensations after topical capsaicin application.
Pain. 2015 Jun;156(6):1101-11. doi: 10.1097/j.pain.0000000000000155.

281. Palermo TM, Law EF, Zhou C, Holley AL, Logan D, Tai G.
Trajectories of change during a randomized controlled trial of internet-delivered psychological treatment for adolescent chronic pain: how does change in pain and

function relate?
Pain. 2015 Apr;156(4):626-34. doi: 10.1097/01.j.pain.0000460355.17246.6c.

282. Kramer A, Müller D, Pförtner R, Mohr C, Groeben H.
Fibreoptic vs videolaryngoscopic (C-MAC(®) D-BLADE) nasal awake intubation under local anaesthesia.
Anaesthesia. 2015 Apr;70(4):400-6. doi: 10.1111/anae.13016.

283. Roh GU, Shim JK, Song JW, Kang HM, Kwak YL.
Effect of glucose-insulin-potassium on hyperlactataemia in patients undergoing valvular heart surgery: A randomised controlled study.
Eur J Anaesthesiol. 2015 Aug;32(8):555-62. doi: 10.1097/EJA.0000000000000250.

284. Poterman M, Vos JJ, Vereecke HE, Struys MM, Vanoverschelde H, Scheeren TW, Kalmar AF.
Differential effects of phenylephrine and norepinephrine on peripheral tissue oxygenation during general anaesthesia: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Aug;32(8):571-80. doi: 10.1097/EJA.0000000000000247.

285. Gao W, Liu DD, Li D, Cui GX.
Effect of Therapeutic Hypercapnia on Inflammatory Responses to One-lung Ventilation in Lobectomy Patients.
Anesthesiology. 2015 Jun;122(6):1235-52. doi: 10.1097/ALN.0000000000000627.

286. Gilron I, Tu D, Holden RR, Jackson AC, DuMerton-Shore D.
Combination of morphine with nortriptyline for neuropathic pain.
Pain. 2015 Aug;156(8):1440-8. doi: 10.1097/j.pain.0000000000000149.

287. Rini C, Porter LS, Somers TJ, McKee DC, DeVellis RF, Smith M, Winkel G, Ahern DK, Goldman R, Stiller JL, Mariani C, Patterson C, Jordan JM, Caldwell DS, Keefe FJ.
Automated Internet-based pain coping skills training to manage osteoarthritis pain: a randomized controlled trial.
Pain. 2015 May;156(5):837-48. doi: 10.1097/j.pain.0000000000000121.

288. Guglielminotti J, Grillot N, Paule M, Mentré F, Servin F, Montravers P, Longrois D.
Prediction of movement to surgical stimulation by the pupillary dilatation reflex amplitude evoked by a standardized noxious test.
Anesthesiology. 2015 May;122(5):985-93. doi: 10.1097/ALN.0000000000000624.

289. Abdallah FW, Morgan PJ, Cil T, Escallon JM, Semple JL, Chan VW.
Comparing the DN4 tool with the IASP grading system for chronic neuropathic pain screening after breast tumor resection with and without paravertebral blocks: a prospective 6-month validation study.
Pain. 2015 Apr;156(4):740-9. doi: 10.1097/j.pain.0000000000000108.

290. Holbech JV, Bach FW, Finnerup NB, Brøsen K, Jensen TS, Sindrup SH.
Imipramine and pregabalin combination for painful polyneuropathy: a randomized controlled trial.
Pain. 2015 May;156(5):958-66. doi: 10.1097/j.pain.0000000000000143.

291. Lee SM, Landry J, Jones PM, Buhrmann O, Morley-Forster P.
Long-term quit rates after a perioperative smoking cessation randomized controlled trial.
Anesth Analg. 2015 Mar;120(3):582-7. doi: 10.1213/ANE.0000000000000555.

292. Keplinger M, Marhofer P, Kettner SC, Marhofer D, Kimberger O, Zeitlinger M.
A pharmacodynamic evaluation of dexmedetomidine as an additive drug to ropivacaine for peripheral nerve blockade: A randomised, triple-blind, controlled study in volunteers.
Eur J Anaesthesiol. 2015 Nov;32(11):790-6. doi: 10.1097/EJA.0000000000000246.

293. Hogan M, Needham A, Ortmann E, Bottrill F, Collier TJ, Besser MW, Klein AA.
Haemoconcentration of residual cardiopulmonary bypass blood using Hemosep ®: a randomised controlled trial.
Anaesthesia. 2015 May;70(5):563-70. doi: 10.1111/anae.13019. Epub 2015 Feb 18.

294. Besson M, Matthey A, Daali Y, Poncet A, Vuilleumier P, Curatolo M, Zeilhofer HU, Desmeules J.
GABAergic modulation in central sensitization in humans: a randomized placebo-controlled pharmacokinetic-pharmacodynamic study comparing clobazam with clonazepam in healthy volunteers.
Pain. 2015 Mar;156(3):397-404. doi: 10.1097/01.j.pain.0000460331.33385.e8.

295. Wylde V, Lenguerrand E, Gooberman-Hill R, Beswick AD, Marques E, Noble S, Horwood J, Pyke M, Dieppe P, Blom AW.
Effect of local anaesthetic infiltration on chronic postsurgical pain after total hip and knee replacement: the APEX randomised controlled trials.
Pain. 2015 Jun;156(6):1161-70. doi: 10.1097/j.pain.0000000000000114.

296. Petrar SD, Seltenrich ME, Head SJ, Schwarz SK.
Hemidiaphragmatic paralysis following ultrasound-guided supraclavicular versus infraclavicular brachial plexus blockade: a randomized clinical trial.
Reg Anesth Pain Med. 2015 Mar-Apr;40(2):133-8. doi: 10.1097/AAP.0000000000000215.

297. Keplinger M, Marhofer P, Marhofer D, Schroegendorfer K, Haslik W, Zeitlinger M, Mayer CV, Kettner SC.
Effective local anaesthetic volumes for sciatic nerve blockade: a clinical evaluation of the ED99.
Anaesthesia. 2015 May;70(5):585-90. doi: 10.1111/anae.13013. Epub 2015 Jan 20.

298. McVicar J, Niazi AU, Murgatroyd H, Chin KJ, Chan VW.
Novice performance of ultrasound-guided needling skills: effect of a needle guidance system.
Reg Anesth Pain Med. 2015 Mar-Apr;40(2):150-3. doi: 10.1097/AAP.0000000000000209.

299. Ngan Kee WD, Lee SW, Ng FF, Tan PE, Khaw KS.
Randomized double-blinded comparison of norepinephrine and phenylephrine for maintenance of blood pressure during spinal anesthesia for cesarean delivery.
Anesthesiology. 2015 Apr;122(4):736-45. doi: 10.1097/ALN.0000000000000601.

300. Singla N, Desjardins PJ, Cosca EB, Parulan C, Arriaga A, Poole KC, Batz DM, Chang PD.
Delayed-onset muscle soreness: a pilot study to assess analgesic study design features.
Pain. 2015 Jun;156(6):1036-45. doi: 10.1097/j.pain.0000000000000109.

301. Abdallah FW, Johnson J, Chan V, Murgatroyd H, Ghafari M, Ami N, Jin R, Brull R.
Intravenous dexamethasone and perineural dexamethasone similarly prolong the duration of analgesia after supraclavicular brachial plexus block: a randomized, triple-arm, double-blind, placebo-controlled trial.
Reg Anesth Pain Med. 2015 Mar-Apr;40(2):125-32. doi: 10.1097/AAP.0000000000000210.

302. Kancir AS, Johansen JK, Ekeloef NP, Pedersen EB.
The effect of 6% hydroxyethyl starch 130/0.4 on renal function, arterial blood pressure, and vasoactive hormones during radical prostatectomy: a randomized controlled trial.
Anesth Analg. 2015 Mar;120(3):608-18. doi: 10.1213/ANE.0000000000000596.

303. Heard C, Harutunians M, Houck J, Joshi P, Johnson K, Lerman J.
Propofol anesthesia for children undergoing magnetic resonance imaging: a comparison with isoflurane, nitrous oxide, and a laryngeal mask airway.
Anesth Analg. 2015 Jan;120(1):157-64. doi: 10.1213/ANE.0000000000000504.

304. Najman IE, Meirelles R, Ramos LB, Guimarães TC, do Nascimento P Jr.
A randomised controlled trial of periconal eye blockade with or without ultrasound guidance.
Anaesthesia. 2015 May;70(5):571-6. doi: 10.1111/anae.12976. Epub 2015 Jan 22.

305. Woo JH, Kim YJ, Kim DY, Cho S.
Dose-dependency of dexamethasone on the analgesic effect of interscalene block for arthroscopic shoulder surgery using ropivacaine 0.5%: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Sep;32(9):650-5. doi: 10.1097/EJA.0000000000000213.

306. Smith SB, Carr S, Psikula S, Das A, Grichnik K.
A pilot study on the effect of nasal continuous positive airway pressure on arterial partial pressure of carbon dioxide during spinal anesthesia with intravenous sedation for total knee arthroplasty.
Anesth Analg. 2015 Feb;120(2):479-83. doi: 10.1213/ANE.0000000000000536.

307. Basaria S, Travison TG, Alford D, Knapp PE, Teeter K, Cahalan C, Eder R, Lakshman K, Bachman E, Mensing G, Martel MO, Le D, Stroh H, Bhasin S, Wasan AD, Edwards RR.
Effects of testosterone replacement in men with opioid-induced androgen deficiency: a randomized controlled trial.
Pain. 2015 Feb;156(2):280-8. doi: 10.1097/01.j.pain.0000460308.86819.aa.

308. Taddio A, Parikh C, Yoon EW, Sgro M, Singh H, Habtom E, Ilersich AF, Pillai Riddell R, Shah V.
Impact of parent-directed education on parental use of pain treatments during routine infant vaccinations: a cluster randomized trial.
Pain. 2015 Jan;156(1):185-91. doi: 10.1016/j.pain.0000000000000021.

309. Hurley DA, Tully MA, Lonsdale C, Boreham CA, van Mechelen W, Daly L, Tynan A, McDonough SM.
Supervised walking in comparison with fitness training for chronic back pain in physiotherapy: results of the SWIFT single-blinded randomized controlled trial (ISRCTN17592092).
Pain. 2015 Jan;156(1):131-47. doi: 10.1016/j.pain.0000000000000013.

310. Rauck RL, North J, Eisenach JC.
Intrathecal clonidine and adenosine: effects on pain and sensory processing in patients with chronic regional pain syndrome.
Pain. 2015 Jan;156(1):88-95. doi: 10.1016/j.pain.0000000000000007.

311. Eisenach JC, Tong C, Curry RS.
Failure of intrathecal ketorolac to reduce remifentanil-induced postinfusion hyperalgesia in humans.
Pain. 2015 Jan;156(1):81-7. doi: 10.1016/j.pain.0000000000000005.

312. Fagerlund AJ, Hansen OA, Aslaksen PM.
Transcranial direct current stimulation as a treatment for patients with fibromyalgia: a randomized controlled trial.
Pain. 2015 Jan;156(1):62-71. doi: 10.1016/j.pain.0000000000000006.

313. Wylde V, Sayers A, Lenguerrand E, Gooberman-Hill R, Pyke M, Beswick AD, Dieppe P, Blom AW.
Preoperative widespread pain sensitization and chronic pain after hip and knee replacement: a cohort analysis.

Pain. 2015 Jan;156(1):47-54. doi: 10.1016/j.pain.0000000000000002.

314. Aslaksen PM, Zwarg ML, Eilertsen HI, Gorecka MM, Bjørkedal E.
Opposite effects of the same drug: reversal of topical analgesia by nocebo information.
Pain. 2015 Jan;156(1):39-46. doi: 10.1016/j.pain.0000000000000004.

315. Eisenberg E, Burstein Y, Suzan E, Treister R, Aviram J.
Spinal cord stimulation attenuates temporal summation in patients with neuropathic pain.
Pain. 2015 Mar;156(3):381-5. doi: 10.1097/01.j.pain.0000460342.69718.a2.

316. Hansen AB, Olsen KS.
The number of in-out catheterisations is reduced by mobilising the postoperative patient with bladder needs to the toilet in the recovery room: A randomised clinical trial.
Eur J Anaesthesiol. 2015 Jul;32(7):486-92. doi: 10.1097/EJA.0000000000000214.

317. Wikkelsø AJ, Edwards HM, Afshari A, Stensballe J, Langhoff-Roos J, Albrechtsen C, Ekelund K, Hanke G, Secher EL, Sharif HF, Pedersen LM, Troelstrup A, Lauenborg J, Mitchell AU, Fuhrmann L, Svare J, Madsen MG, Bødker B, Møller AM; FIB-PPH trial group.
Pre-emptive treatment with fibrinogen concentrate for postpartum haemorrhage: randomized controlled trial.
Br J Anaesth. 2015 Apr;114(4):623-33. doi: 10.1093/bja/aeu444. Epub 2015 Jan 13.

318. Baumüller E, Schaller SJ, Chiquito Lama Y, Frick CG, Bauhofer T, Eikermann M, Fink H, Blobner M.
Postoperative impairment of motor function at train-of-four ratio ≥0.9 cannot be improved by sugammadex (1 mg kg-1).
Br J Anaesth. 2015 May;114(5):785-93. doi: 10.1093/bja/aeu453. Epub 2015 Jan 13.

319. Goldberg A, Silverman E, Samuelson S, Katz D, Lin HM, Levine A, DeMaria S.
Learning through simulated independent practice leads to better future performance in a simulated crisis than learning through simulated supervised practice.
Br J Anaesth. 2015 May;114(5):794-800. doi: 10.1093/bja/aeu457. Epub 2015 Jan 8.

320. Zhu F, Gomersall CD, Ng SK, Underwood MJ, Lee A.
A randomized controlled trial of adaptive support ventilation mode to wean patients after fast-track cardiac valvular surgery.
Anesthesiology. 2015 Apr;122(4):832-40. doi: 10.1097/ALN.0000000000000589.

321. Paech M, Sng B, Ng L, Nathan E, Sia A, Carvalho B.
Methylnaltrexone to prevent intrathecal morphine-induced pruritus after Caesarean

delivery: a multicentre, randomized clinical trial.
Br J Anaesth. 2015 Mar;114(3):469-76. doi: 10.1093/bja/aeu410. Epub 2015 Jan 7.

322. El-Tahan MR.
A comparison of the disconnection technique with continuous bronchial suction for lung deflation when using the Arndt endobronchial blocker during video-assisted thoracoscopy: A randomised trial.
Eur J Anaesthesiol. 2015 Jun;32(6):411-7. doi: 10.1097/EJA.0000000000000194.

323. Pilge S, Kreuzer M, Karatchiviev V, Kochs EF, Malcharek M, Schneider G.
Differences between state entropy and bispectral index during analysis of identical electroencephalogram signals: a comparison with two randomised anaesthetic techniques.
Eur J Anaesthesiol. 2015 May;32(5):354-65. doi: 10.1097/EJA.0000000000000189.

324. Orliaguet GA, Benabbes Lambert F, Chazot T, Glasman P, Fischler M, Liu N.
Feasibility of closed-loop titration of propofol and remifentanil guided by the bispectral monitor in pediatric and adolescent patients: a prospective randomized study.
Anesthesiology. 2015 Apr;122(4):759-67. doi: 10.1097/ALN.0000000000000577.

325. Szental JA, Webb A, Weeraratne C, Campbell A, Sivakumar H, Leong S.
Postoperative pain after laparoscopic cholecystectomy is not reduced by intraoperative analgesia guided by analgesia nociception index (ANI®) monitoring: a randomized clinical trial.
Br J Anaesth. 2015 Apr;114(4):640-5. doi: 10.1093/bja/aeu411. Epub 2014 Dec 23.

326. Oofuvong M, Geater AF, Chongsuvivatwong V, Chanchayanon T, Sriyanaluk B, Saefung B, Nuanjun K.
Excess costs and length of hospital stay attributable to perioperative respiratory events in children.
Anesth Analg. 2015 Feb;120(2):411-9. doi: 10.1213/ANE.0000000000000557.

327. Borkett KM, Riff DS, Schwartz HI, Winkle PJ, Pambianco DJ, Lees JP, Wilhelm-Ogunbiyi K.
A Phase IIa, randomized, double-blind study of remimazolam (CNS 7056) versus midazolam for sedation in upper gastrointestinal endoscopy.
Anesth Analg. 2015 Apr;120(4):771-80. doi: 10.1213/ANE.0000000000000548.

328. Khalafallah AA, Chilvers CR, Thomas M, Chilvers CM, Sexton M, Vialle M, Robertson IK.
Usefulness of non-invasive spectrophotometric haemoglobin estimation for detecting low haemoglobin levels when compared with a standard laboratory assay for preoperative assessment.
Br J Anaesth. 2015 Apr;114(4):669-76. doi: 10.1093/bja/aeu403. Epub 2014 Dec 13.

329. Schmidt AR, Buehler P, Seglias L, Stark T, Brotschi B, Renner T, Sabandal C, Klaghofer R, Weiss M, Schmitz A.
Gastric pH and residual volume after 1 and 2 h fasting time for clear fluids in children†.
Br J Anaesth. 2015 Mar;114(3):477-82. doi: 10.1093/bja/aeu399. Epub 2014 Dec 13.

330. MacDonald N, Ahmad T, Mohr O, Kirk-Bayley J, Moppett I, Hinds CJ, Pearse RM.
Dynamic preload markers to predict fluid responsiveness during and after major gastrointestinal surgery: an observational substudy of the OPTIMISE trial.
Br J Anaesth. 2015 Apr;114(4):598-604. doi: 10.1093/bja/aeu398. Epub 2014 Dec 11.

331. Moppett IK, Rowlands M(2), Mannings A(2), Moran CG(3), Wiles MD(4); NOTTS Investigators.
Collaborators: Van deWalt G, Corrie K, Waits P, Whiteley W, Bardsley J, Bray S,
LiDCO-based fluid management in patients undergoing hip fracture surgery under spinal anaesthesia: a randomized trial and systematic review.
Evley R.
Br J Anaesth. 2015 Mar;114(3):444-59. doi: 10.1093/bja/aeu386. Epub 2014 Dec 11.

332. Lee WK, Kim MS, Kang SW, Kim S, Lee JR.
Type of anaesthesia and patient quality of recovery: a randomized trial comparing propofol-remifentanil total i.v. anaesthesia with desflurane anaesthesia.
Br J Anaesth. 2015 Apr;114(4):663-8. doi: 10.1093/bja/aeu405. Epub 2014 Dec 10.

333. Fuzier R, Casalprim J, Bataille B, Harper I, Magues JP.
The echogenicity of nerve blockade needles.
Anaesthesia. 2015 Apr;70(4):462-6. doi: 10.1111/anae.12977. Epub 2014 Dec 11.

334. Zou ZY, Zhao YL, Yang XL, Zhang GY, Zhou HG.
Effects of different remifentanil target concentrations on MAC BAR of sevoflurane in gynaecological patients with CO2 pneumoperitoneum stimulus.
Br J Anaesth. 2015 Apr;114(4):634-9. doi: 10.1093/bja/aeu400. Epub 2014 Dec 9.

335. Dumans-Nizard V, Parquin JF, Moyer JD, Dreyfus JF, Fischler M, Le Guen M.
Left double-lumen tube with or without a carinal hook: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Jun;32(6):418-24. doi: 10.1097/EJA.0000000000000201.

336. Kranke P, Thompson JP, Dalby PL, Eberhart LH, Novikova E, Johnson BM, Russ SF, Noble R, Brigandi RA.
Comparison of vestipitant with ondansetron for the treatment of breakthrough postoperative nausea and vomiting after failed prophylaxis with ondansetron.
Br J Anaesth. 2015 Mar;114(3):423-9. doi: 10.1093/bja/aeu376. Epub 2014 Dec 8.

337. Gilron I, Tu D, Dumerton-Shore D, Duggan S, Rooney R, McGrath M, Orr E.
The effect of triple vs. double nonopioid therapy on postoperative pain and functional outcome after abdominal hysterectomy: a randomised double-blind control trial.
Eur J Anaesthesiol. 2015 Apr;32(4):269-76. doi: 10.1097/EJA.0000000000000190.

338. Kim HC, Lee YH, Jeon YT, Hwang JW, Lim YJ, Park JE, Park HP.
The effect of intraoperative dexmedetomidine on postoperative catheter-related bladder discomfort in patients undergoing transurethral bladder tumour resection: A double-blind randomised study.
Eur J Anaesthesiol. 2015 Sep;32(9):596-601. doi: 10.1097/EJA.0000000000000196.

339. Yazer MS, Finlayson RJ, Tran DQ.
A randomized comparison between infraclavicular block and targeted intracluster injection supraclavicular block.
Reg Anesth Pain Med. 2015 Jan-Feb;40(1):11-5. doi: 10.1097/AAP.0000000000000193.

340. Finlayson RJ, Etheridge JP, Tiyaprasertkul W, Nelems B, Tran DQ.
A randomized comparison between ultrasound- and fluoroscopy-guided c7 medial branch block.
Reg Anesth Pain Med. 2015 Jan-Feb;40(1):52-7. doi: 10.1097/AAP.0000000000000186.

341. McCahon RA, Evans DA, Kerslake RW, McClelland SH, Hardman JG, Norris AM.
Cadaveric study of movement of an unstable atlanto-axial (C1/C2) cervical segment during laryngoscopy and intubation using the Airtraq(®) , Macintosh and McCoy laryngoscopes.
Anaesthesia. 2015 Apr;70(4):452-61. doi: 10.1111/anae.12956. Epub 2014 Dec 5.

342. Wang JF, Li JB, Zhao YJ, Yi WJ, Bian JJ, Wan XJ, Zhu KM, Deng XM.
Up-regulation of programmed cell death 1 ligand 1 on neutrophils may be involved in sepsis-induced immunosuppression: an animal study and a prospective case-control study.
Anesthesiology. 2015 Apr;122(4):852-63. doi: 10.1097/ALN.0000000000000525.

343. DeMaria S, Govindaraj S, Huang A, Hyman J, McCormick P, Lin HM, Levine A.
The influence of positive end-expiratory pressure on surgical field conditions during functional endoscopic sinus surgery.
Anesth Analg. 2015 Feb;120(2):305-10. doi: 10.1213/ANE.0000000000000550.

344. Visoiu M, Cassara A, Yang CI.
Bilateral Paravertebral Blockade (T7-10) Versus Incisional Local Anesthetic Administration for Pediatric Laparoscopic Cholecystectomy: A Prospective, Randomized Clinical Study.
Anesth Analg. 2015 May;120(5):1106-13. doi: 10.1213/ANE.0000000000000545.

345. Deep sedation for endoscopic cholangiopancreatography with or without pre or intraprocedural opioids: A double-blind randomised controlled trial.
Fassoulaki A, Iatrelli I, Vezakis A, Polydorou A.
Eur J Anaesthesiol. 2015 Sep;32(9):602-8. doi: 10.1097/EJA.0000000000000187.

346. Khodayari-Rostamabad A, Olesen SS, Graversen C, Malver LP, Kurita GP, Sjøgren P, Christrup LL, Drewes AM.
Disruption of cortical connectivity during remifentanil administration is associated with cognitive impairment but not with analgesia.
Anesthesiology. 2015 Jan;122(1):140-9. doi: 10.1097/ALN.0000000000000510.

347. de Almeida JP, Vincent JL, Galas FR, de Almeida EP, Fukushima JT, Osawa EA, Bergamin F, Park CL, Nakamura RE, Fonseca SM, Cutait G, Alves JI, Bazan M, Vieira S, Sandrini AC, Palomba H, Ribeiro U Jr, Crippa A, Dalloglio M, Diz Mdel P, Kalil Filho R, Auler JO Jr, Rhodes A, Hajjar LA.
Transfusion requirements in surgical oncology patients: a prospective, randomized controlled trial.
Anesthesiology. 2015 Jan;122(1):29-38. doi: 10.1097/ALN.0000000000000511.

348. Esper T, Wehner M, Meinecke CD, Rueffert H.
Blood/Gas partition coefficients for isoflurane, sevoflurane, and desflurane in a clinically relevant patient population.
Anesth Analg. 2015 Jan;120(1):45-50. doi: 10.1213/ANE.0000000000000516.

349. Ebert TJ, Novalija J, Uhrich TD, Barney JA.
The effectiveness of oxygen delivery and reliability of carbon dioxide waveforms: a crossover comparison of 4 nasal cannulae.
Anesth Analg. 2015 Feb;120(2):342-8. doi: 10.1213/ANE.0000000000000537.

350. Ishiyama T, Kotoda M, Asano N, Ikemoto K, Mitsui K, Sato H, Matsukawa T, Sessler DI.
The effects of Patent Blue dye on peripheral and cerebral oxyhaemoglobin saturations.
Anaesthesia. 2015 Apr;70(4):429-33. doi: 10.1111/anae.12932. Epub 2014 Nov 10.

351. Park C, Choi JB, Lee YS, Chang HS, Shin CS, Kim S, Han DW.
The effect of intra-operative transcutaneous electrical nerve stimulation on posterior neck pain following thyroidectomy.
Anaesthesia. 2015 Apr;70(4):434-9. doi: 10.1111/anae.12933. Epub 2014 Nov 10.

352. Jagannathan N, Sequera-Ramos L, Sohn L, Huang A, Sawardekar A, Wasson N, Miriyala A, De Oliveira GS.
Randomized comparison of experts and trainees with nasal and oral fibreoptic intubation in children less than 2 yr of age.
Br J Anaesth. 2015 Feb;114(2):290-6. doi: 10.1093/bja/aeu370. Epub 2014 Nov 5.

353. Grevstad U, Mathiesen O, Valentiner LS, Jaeger P, Hilsted KL, Dahl JB.
Effect of adductor canal block versus femoral nerve block on quadriceps strength, mobilization, and pain after total knee arthroplasty: a randomized, blinded study.
Reg Anesth Pain Med. 2015 Jan-Feb;40(1):3-10. doi: 10.1097/AAP.0000000000000169.

354. Bashandy GM, Abbas DN.
Pectoral nerves I and II blocks in multimodal analgesia for breast cancer surgery: a randomized clinical trial.
Reg Anesth Pain Med. 2015 Jan-Feb;40(1):68-74. doi: 10.1097/AAP.0000000000000163.

355. Munirama S, Joy J, Columb M, Habershaw R, Eisma R, Corner G, Cochran S, McLeod G.
A randomised, single-blind technical study comparing the ultrasonic visibility of smooth-surfaced and textured needles in a soft embalmed cadaver model.
Anaesthesia. 2015 May;70(5):537-42. doi: 10.1111/anae.12925. Epub 2014 Nov 5.

356. Vanelderen P, Van Zundert J, Kozicz T, Puylaert M, De Vooght P, Mestrum R, Heylen R, Roubos E, Vissers K.
Effect of minocycline on lumbar radicular neuropathic pain: a randomized, placebo-controlled, double-blind clinical trial with amitriptyline as a comparator.
Anesthesiology. 2015 Feb;122(2):399-406. doi: 10.1097/ALN.0000000000000508.

357. Brouwer TA, Rosier PF, Moons KG, Zuithoff NP, van Roon EN, Kalkman CJ.
Postoperative bladder catheterization based on individual bladder capacity: a randomized trial.
Anesthesiology. 2015 Jan;122(1):46-54. doi: 10.1097/ALN.0000000000000507.

358. Koh WU, Min HG, Park HS, Karm MH, Lee KK, Yang HS, Ro YJ.
Use of hyaluronidase as an adjuvant to ropivacaine to reduce axillary brachial plexus block onset time: a prospective, randomised controlled study.
Anaesthesia. 2015 Mar;70(3):282-9. doi: 10.1111/anae.12879. Epub 2014 Oct 28.

359. Cohen SP, Hayek S, Semenov Y, Pasquina PF, White RL, Veizi E, Huang JH, Kurihara C, Zhao Z, Guthmiller KB, Griffith SR, Verdun AV, Giampetro DM, Vorobeychik Y.
Epidural steroid injections, conservative treatment, or combination treatment for cervical radicular pain: a multicenter, randomized, comparative-effectiveness study.
Anesthesiology. 2014 Nov;121(5):1045-55. doi: 10.1097/ALN.0000000000000409.

360. Ringold FG, Minkowitz HS, Gan TJ, Aqua KA, Chiang YK, Evashenk MA, Palmer PP.
Sufentanil sublingual tablet system for the management of postoperative pain following open abdominal surgery: a randomized, placebo-controlled study.
Reg Anesth Pain Med. 2015 Jan-Feb;40(1):22-30. doi: 10.1097/AAP.0000000000000152.

361. Bong CL, Lim E, Allen JC, Choo WL, Siow YN, Teo PB, Tan JS.
A comparison of single-dose dexmedetomidine or propofol on the incidence of emergence delirium in children undergoing general anaesthesia for magnetic resonance imaging.
Anaesthesia. 2015 Apr;70(4):393-9. doi: 10.1111/anae.12867. Epub 2014 Oct 14.

362. Ogilvie E, Vlachou A, Edsell M, Fletcher SN, Valencia O, Meineri M, Sharma V.
Simulation-based teaching versus point-of-care teaching for identification of basic transoesophageal echocardiography views: a prospective randomised study.
Anaesthesia. 2015 Mar;70(3):330-5. doi: 10.1111/anae.12903. Epub 2014 Oct 11.

363. Siddiqui NT, Davies S, McGeer A, Carvalho JC, Friedman Z.
The effect of gowning on labor epidural catheter colonization rate: a randomized controlled trial.
Reg Anesth Pain Med. 2014 Nov-Dec;39(6):520-4. doi: 10.1097/AAP.0000000000000171.

364. Chen H, Liao Z, Fang Y, Niu B, Chen A, Cao F, Mei W, Tian Y.
Continuous right thoracic paravertebral block following bolus initiation reduced postoperative pain after right-lobe hepatectomy: a randomized, double-blind, placebo-controlled trial.
Reg Anesth Pain Med. 2014 Nov-Dec;39(6):506-12. doi: 10.1097/AAP.0000000000000167.

365. Nakayama Y, Nakajima Y, Tanaka KA, Sessler DI, Maeda S, Iida J, Ogawa S, Mizobe T.
Thromboelastometry-guided intraoperative haemostatic management reduces bleeding and red cell transfusion after paediatric cardiac surgery.
Br J Anaesth. 2015 Jan;114(1):91-102. doi: 10.1093/bja/aeu339. Epub 2014 Oct 10.

366. Bebawy JF, Houston CC, Kosky JL, Badri AM, Hemmer LB, Moreland NC, Carabini LM, Koht A, Gupta DK.
Nicardipine is superior to esmolol for the management of postcraniotomy emergence hypertension: a randomized open-label study.
Anesth Analg. 2015 Jan;120(1):186-92. doi: 10.1213/ANE.0000000000000473.

367. Terkawi AS, Durieux ME, Gottschalk A, Brenin D, Tiouririne M.
Effect of intravenous lidocaine on postoperative recovery of patients undergoing mastectomy: a double-blind, placebo-controlled randomized trial.
Reg Anesth Pain Med. 2014 Nov-Dec;39(6):472-7. doi: 10.1097/AAP.0000000000000140.

368. D'Angelo OM, Diaz-Gil D, Nunn D, Simons JC, Gianatasio C, Mueller N, Meyer MJ, Pierce E, Rosow C, Eikermann M.
Anesthesia and increased hypercarbic drive impair the coordination between breathing and swallowing.
Anesthesiology. 2014 Dec;121(6):1175-83. doi: 10.1097/ALN.0000000000000462.

369. Kappen TH, Vergouwe Y, van Wolfswinkel L, Kalkman CJ, Moons KG, van Klei WA.
Impact of adding therapeutic recommendations to risk assessments from a prediction model for postoperative nausea and vomiting.
Br J Anaesth. 2015 Feb;114(2):252-60. doi: 10.1093/bja/aeu321. Epub 2014 Oct 1.

370. Rakel BA, Zimmerman MB, Geasland K, Embree J, Clark CR, Noiseux NO, Callaghan JJ, Herr K, Walsh D, Sluka KA.
Transcutaneous electrical nerve stimulation for the control of pain during rehabilitation after total knee arthroplasty: A randomized, blinded, placebo-controlled trial.
Pain. 2014 Dec;155(12):2599-611. doi: 10.1016/j.pain.2014.09.025. Epub 2014 Sep 28.

371. Yamamoto H, Sakura S, Wada M, Shido A.
A prospective, randomized comparison between single- and multiple-injection techniques for ultrasound-guided subgluteal sciatic nerve block.
Anesth Analg. 2014 Dec;119(6):1442-8. doi: 10.1213/ANE.0000000000000462.

372. Westergaard B, Jensen K, Lenz K, Bendtsen TF, Vazin M, Tanggaard K, Worm BS, Krogsgaard M, Børglum J.
A randomised controlled trial of ultrasound-guided blockade of the saphenous nerve and the posterior branch of the obturator nerve for postoperative analgesia after day-case knee arthroscopy.
Anaesthesia. 2014 Dec;69(12):1337-44. doi: 10.1111/anae.12794. Epub 2014 Sep 29.

373. Brück S, Trautner H, Wolff A, Hain J, Mols G, Pakos P, Roewer N, Lange M.
Comparison of the C-MAC(®) and GlideScope(®) videolaryngoscopes in patients with cervical spine disorders and immobilisation.
Anaesthesia. 2015 Feb;70(2):160-5. doi: 10.1111/anae.12858. Epub 2014 Sep 29.

374. Knutsen KV, Madar AA, Brekke M, Meyer HE, Natvig B, Mdala I, Lagerløv P.
Effect of vitamin D on musculoskeletal pain and headache: A randomized, double-blind, placebo-controlled trial among adult ethnic minorities in Norway.
Pain. 2014 Dec;155(12):2591-8. doi: 10.1016/j.pain.2014.09.024. Epub 2014 Sep 23.

375. Craig MG, Grant EN, Tao W, McIntire DD, Leveno KJ.
A randomized control trial of bupivacaine and fentanyl versus fentanyl-only for epidural analgesia during the second stage of labor.
Anesthesiology. 2015 Jan;122(1):172-7. doi: 10.1097/ALN.0000000000000454.

376. Dubuis E, Thompson V, Leite MI, Blaes F, Maihöfner C, Greensmith D, Vincent A, Shenker N, Kuttikat A, Leuwer M, Goebel A.
Longstanding complex regional pain syndrome is associated with activating

autoantibodies against alpha-1a adrenoceptors.
Pain. 2014 Nov;155(11):2408-17. doi: 10.1016/j.pain.2014.09.022. Epub 2014 Sep 22.

377. Madison SJ, Monahan AM, Agarwal RR, Furnish TJ, Mascha EJ, Xu Z, Donohue MC, Morgan AC, Ilfeld BM.
A randomized, triple-masked, active-controlled investigation of the relative effects of dose, concentration, and infusion rate for continuous popliteal-sciatic nerve blocks in volunteers.
Br J Anaesth. 2015 Jan;114(1):121-9. doi: 10.1093/bja/aeu333. Epub 2014 Sep 23.

378. Dardashti A, Ederoth P, Algotsson L, Brondén B, Grins E, Larsson M, Nozohoor S, Zinko G, Bjursten H.
Erythropoietin and protection of renal function in cardiac surgery (the EPRICS Trial).
Anesthesiology. 2014 Sep;121(3):582-90. doi: 10.1097/ALN.0000000000000321.

379. Effects of dexamethasone on cognitive decline after cardiac surgery: a randomized clinical trial.
Ottens TH, Dieleman JM, Sauër AM, Peelen LM, Nierich AP, de Groot WJ, Nathoe HM, Buijsrogge MP, Kalkman CJ, van Dijk D; DExamethasone for Cardiac Surgery (DECS) Study Group.
Anesthesiology. 2014 Sep;121(3):492-500. doi: 10.1097/ALN.0000000000000336.

380. Roozekrans M, van der Schrier R, Okkerse P, Hay J, McLeod JF, Dahan A.
Two studies on reversal of opioid-induced respiratory depression by BK-channel blocker GAL021 in human volunteers.
Anesthesiology. 2014 Sep;121(3):459-68. doi: 10.1097/ALN.0000000000000367.

381. Boyle Y, Fernando D, Kurz H, Miller SR, Zucchetto M, Storey J.
The effect of a combination of gabapentin and donepezil in an experimental pain model in healthy volunteers: Results of a randomized controlled trial.
Pain. 2014 Dec;155(12):2510-6. doi: 10.1016/j.pain.2014.09.003. Epub 2014 Sep 10.

382. Olivan-Blázquez B, Herrera-Mercadal P, Puebla-Guedea M, Pérez-Yus MC, Andrés E, Fayed N, López-Del-Hoyo Y, Magallon R, Roca M, Garcia-Campayo J.
Efficacy of memantine in the treatment of fibromyalgia: A double-blind, randomised, controlled trial with 6-month follow-up.
Pain. 2014 Dec;155(12):2517-25. doi: 10.1016/j.pain.2014.09.004. Epub 2014 Sep 16.

383. Rahe-Meyer N, Fennema H, Schulman S, Klimscha W, Przemeck M, Blobner M, Wulf H, Speek M, McCrary Sisk C, Williams-Herman D, Woo T, Szegedi A.
Effect of reversal of neuromuscular blockade with sugammadex versus usual care on

bleeding risk in a randomized study of surgical patients.
Anesthesiology. 2014 Nov;121(5):969-77. doi: 10.1097/ALN.0000000000000424.

384. Landoni G, Guarracino F, Cariello C, Franco A, Baldassarri R, Volatile compared with total intravenous anaesthesia in patients undergoing high-risk cardiac surgery: a randomized multicentre study.
Borghi G, Covello RD, Gerli C, Crivellari M, Zangrillo A.
Br J Anaesth. 2014 Dec;113(6):955-63. doi: 10.1093/bja/aeu290. Epub 2014 Sep 3.

385. Potura E, Lindner G, Biesenbach P, Funk GC, Reiterer C, Kabon B, Schwarz C, Druml W, Fleischmann E.
An acetate-buffered balanced crystalloid versus 0.9% saline in patients with end-stage renal disease undergoing cadaveric renal transplantation: a prospective randomized controlled trial.
Anesth Analg. 2015 Jan;120(1):123-9. doi: 10.1213/ANE.0000000000000419.

386. de Vos CC, Meier K, Zaalberg PB, Nijhuis HJ, Duyvendak W, Vesper J, Enggaard TP, Lenders MW.
Spinal cord stimulation in patients with painful diabetic neuropathy: a multicentre randomized clinical trial.
Pain. 2014 Nov;155(11):2426-31. doi: 10.1016/j.pain.2014.08.031. Epub 2014 Aug 29.

387. Bouhassira D, Wilhelm S, Schacht A, Perrot S, Kosek E, Cruccu G, Freynhagen R, Tesfaye S, Lledó A, Choy E, Marchettini P, Micó JA, Spaeth M, Skljarevski V, Tölle T.
Neuropathic pain phenotyping as a predictor of treatment response in painful diabetic neuropathy: data from the randomized, double-blind, COMBO-DN study.
Pain. 2014 Oct;155(10):2171-9. doi: 10.1016/j.pain.2014.08.020. Epub 2014 Aug 27.

388. Chen CC, Yang CC, Hu CC, Shih HN, Chang YH, Hsieh PH.
Acupuncture for pain relief after total knee arthroplasty: a randomized controlled trial.
Reg Anesth Pain Med. 2015 Jan-Feb;40(1):31-6. doi: 10.1097/AAP.0000000000000138.

389. Rocha Rde O, Teixeira MJ, Yeng LT, Cantara MG, Faria VG, Liggieri V, Loduca A, Müller BM, Souza AC, de Andrade DC.
Thoracic sympathetic block for the treatment of complex regional pain syndrome type I: a double-blind randomized controlled study.
Pain. 2014 Nov;155(11):2274-81. doi: 10.1016/j.pain.2014.08.015. Epub 2014 Aug 19.

390. Demant DT, Lund K, Vollert J, Maier C, Segerdahl M, Finnerup NB, Jensen TS, Sindrup SH.
The effect of oxcarbazepine in peripheral neuropathic pain depends on pain

phenotype: a randomised, double-blind, placebo-controlled phenotype-stratified study.
Pain. 2014 Nov;155(11):2263-73. doi: 10.1016/j.pain.2014.08.014. Epub 2014 Aug 17.

391. Na HS, Shin HJ, Kang SB, Hwang JW, Do SH.
Effects of magnesium sulphate on coagulation after laparoscopic colorectal cancer surgery, measured by rotational thromboelastometry (ROTEM®).
Anaesthesia. 2014 Dec;69(12):1314-21. doi: 10.1111/anae.12684. Epub 2014 Aug 5.

392. Kancir AS, Pleckaitiene L, Hansen TB, Ekeløf NP, Pedersen EB.
Lack of nephrotoxicity by 6% hydroxyethyl starch 130/0.4 during hip arthroplasty: a randomized controlled trial.
Anesthesiology. 2014 Nov;121(5):948-58. doi: 10.1097/ALN.0000000000000413.

393. Schepens T, Cammu G, Saldien V, De Neve N, Jorens PG, Foubert L, Vercauteren M.
Electromyographic activity of the diaphragm during neostigmine or sugammadex-enhanced recovery after neuromuscular blockade with rocuronium: a randomised controlled study in healthy volunteers.
Eur J Anaesthesiol. 2015 Jan;32(1):49-57. doi: 10.1097/EJA.0000000000000140.

394. Spielberg DR, Barrett JS, Hammer GB, Drover DR, Reece T, Cohane CA, Schulman SR.
Predictors of arterial blood pressure control during deliberate hypotension with sodium nitroprusside in children.
Anesth Analg. 2014 Oct;119(4):867-74. doi: 10.1213/ANE.0000000000000376.

395. Abdallah FW, Chan VW, Gandhi R, Koshkin A, Abbas S, Brull R.
The analgesic effects of proximal, distal, or no sciatic nerve block on posterior knee pain after total knee arthroplasty: a double-blind placebo-controlled randomized trial.
Anesthesiology. 2014 Dec;121(6):1302-10. doi: 10.1097/ALN.0000000000000406.

396. Ilyas S, Symons J, Bradley WP, Segal R, Taylor H, Lee K, Balkin M, Bain C, Ng I.
A prospective randomised controlled trial comparing tracheal intubation plus manual in-line stabilisation of the cervical spine using the Macintosh laryngoscope vs the McGrath(®) Series 5 videolaryngoscope.
Anaesthesia. 2014 Dec;69(12):1345-50. doi: 10.1111/anae.12804. Epub 2014 Aug 2.

397. Ihle K, Rodriguez-Raecke R, Luedtke K, May A.
tDCS modulates cortical nociceptive processing but has little to no impact on pain perception.
Pain. 2014 Oct;155(10):2080-7. doi: 10.1016/j.pain.2014.07.018. Epub 2014 Jul 30.

398. Rubes D, Klein AA, Lips M, Rulisek J, Kopecky P, Blaha J, Mlejnsky F, Lindner J, Dohnalova A, Kunstyr J.
The effect of adjusting tracheal tube cuff pressure during deep hypothermic circulatory arrest: a randomised trial.
Eur J Anaesthesiol. 2014 Sep;31(9):452-6. doi: 10.1097/EJA.0000000000000100.

399. Gillis C, Li C, Lee L, Awasthi R, Augustin B, Gamsa A, Liberman AS, Stein B, Charlebois P, Feldman LS, Carli F.
Prehabilitation versus rehabilitation: a randomized control trial in patients undergoing colorectal resection for cancer.
Anesthesiology. 2014 Nov;121(5):937-47. doi: 10.1097/ALN.0000000000000393.

400. Diakomi M, Papaioannou M, Mela A, Kouskouni E, Makris A.
Preoperative fascia iliaca compartment block for positioning patients with hip fractures for central nervous blockade: a randomized trial.
Reg Anesth Pain Med. 2014 Sep-Oct;39(5):394-8. doi: 10.1097/AAP.0000000000000133.

401. Abdel-Ghaffar HS, Kalefa MA, Imbaby AS.
Efficacy of ketamine as an adjunct to lidocaine in intravenous regional anesthesia.
Reg Anesth Pain Med. 2014 Sep-Oct;39(5):418-22. doi: 10.1097/AAP.0000000000000128.

402. Passi Y, Sathyamoorthy M, Lerman J, Heard C, Marino M.
Comparison of the laryngoscopy views with the size 1 Miller and Macintosh laryngoscope blades lifting the epiglottis or the base of the tongue in infants and children <2 yr of age.
Br J Anaesth. 2014 Nov;113(5):869-74. doi: 10.1093/bja/aeu228. Epub 2014 Jul 25.

403. Kjelstrup T, Hol PK, Courivaud F, Smith HJ, Røkkum M, Klaastad Ø.
MRI of axillary brachial plexus blocks: a randomised controlled study.
Eur J Anaesthesiol. 2014 Nov;31(11):611-9. doi: 10.1097/EJA.0000000000000122.

404. Chiari P, Angoulvant D, Mewton N, Desebbe O, Obadia JF, Robin J, Farhat F, Jegaden O, Bastien O, Lehot JJ, Ovize M.
Cyclosporine protects the heart during aortic valve surgery.
Anesthesiology. 2014 Aug;121(2):232-8. doi: 10.1097/ALN.0000000000000331.

405. Wadhwa A, Kabon B, Fleischmann E, Kurz A, Sessler DI.
Supplemental postoperative oxygen does not reduce surgical site infection and major healing-related complications from bariatric surgery in morbidly obese patients: a randomized, blinded trial.
Anesth Analg. 2014 Aug;119(2):357-65. doi: 10.1213/ANE.0000000000000318.

406. Jagla C, Martus P, Stein C.
Peripheral opioid receptor blockade increases postoperative morphine demands--a

randomized, double-blind, placebo-controlled trial.
Pain. 2014 Oct;155(10):2056-62. doi: 10.1016/j.pain.2014.07.011. Epub 2014 Jul 18.

407. Kumar N, Thapa D, Gombar S, Ahuja V, Gupta R.
Analgesic efficacy of pre-operative stellate ganglion block on postoperative pain relief: a randomised controlled trial.
Anaesthesia. 2014 Sep;69(9):954-660. doi: 10.1111/anae.12774. Epub 2014 Jul 7.

408. Arzola C, Mikhael R, Margarido C, Carvalho JC.
Spinal ultrasound versus palpation for epidural catheter insertion in labour: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Jul;32(7):499-505. doi: 10.1097/EJA.0000000000000119.

409. Tang WX, Li JJ, Bu HM, Fu ZJ.
Spinal anaesthesia with low-dose bupivacaine in marginally hyperbaric solutions for caesarean section: A randomised controlled trial.
Eur J Anaesthesiol. 2015 Jul;32(7):493-8. doi: 10.1097/EJA.0000000000000112.

410. van der Voort PH, van Zanten M, Bosman RJ, van Stijn I, Wester JP, van Raalte R, Oudemans-van Straaten HM, Zandstra DF.
Testing a conceptual model on early opening of the microcirculation in severe sepsis and septic shock: a randomised controlled pilot study.
Eur J Anaesthesiol. 2015 Mar;32(3):189-98. doi: 10.1097/EJA.0000000000000126.

411. Wu YT, Ho CW, Chen YL, Li TY, Lee KC, Chen LC.
Ultrasound-guided pulsed radiofrequency stimulation of the suprascapular nerve for adhesive capsulitis: a prospective, randomized, controlled trial.
Anesth Analg. 2014 Sep;119(3):686-92. doi: 10.1213/ANE.0000000000000354.

412. Bicalho GP, Braz LG, de Jesus LS, Pedigone CM, de Carvalho LR, Módolo NS, Braz JR.
The humidity in a Dräger Primus anesthesia workstation using low or high fresh gas flow and with or without a heat and moisture exchanger in pediatric patients.
Anesth Analg. 2014 Oct;119(4):926-31. doi: 10.1213/ANE.0000000000000353.

413. Pestaña D, Espinosa E, Eden A, Nájera D, Collar L, Aldecoa C, Higuera E, Escribano S, Bystritski D, Pascual J, Fernández-Garijo P, de Prada B, Muriel A, Pizov R.
Perioperative goal-directed hemodynamic optimization using noninvasive cardiac output monitoring in major abdominal surgery: a prospective, randomized, multicenter, pragmatic trial: POEMAS Study (PeriOperative goal-directed thErapy in Major Abdominal Surgery).
Anesth Analg. 2014 Sep;119(3):579-87. doi: 10.1213/ANE.0000000000000295.

414. Shanks AM, Avidan MS, Kheterpal S, Tremper KK, Vandervest JC, Cavanaugh JM,

Mashour GA.
Alerting thresholds for the prevention of intraoperative awareness with explicit recall: a secondary analysis of the Michigan Awareness Control Study.
Eur J Anaesthesiol. 2015 May;32(5):346-53. doi: 10.1097/EJA.0000000000000123.

415. Jaura AI, Flood G, Gallagher HC, Buggy DJ.
Differential effects of serum from patients administered distinct anaesthetic techniques on apoptosis in breast cancer cells in vitro: a pilot study.
Br J Anaesth. 2014 Jul;113 Suppl 1:i63-7. doi: 10.1093/bja/aet581. Epub 2014 Jul 9.

416. Buckley A, McQuaid S, Johnson P, Buggy DJ.
Effect of anaesthetic technique on the natural killer cell anti-tumour activity of serum from women undergoing breast cancer surgery: a pilot study.
Br J Anaesth. 2014 Jul;113 Suppl 1:i56-62. doi: 10.1093/bja/aeu200. Epub 2014 Jul 9.

417. Saari TI, Ihmsen H, Mell J, Fröhlich K, Fechner J, Schüttler J, Jeleazcov C.
Influence of intensive care treatment on the protein binding of sufentanil and hydromorphone during pain therapy in postoperative cardiac surgery patients.
Br J Anaesth. 2014 Oct;113(4):677-87. doi: 10.1093/bja/aeu160. Epub 2014 Jul 6.

418. McLeod JF, Leempoels JM, Peng SX, Dax SL, Myers LJ, Golder FJ.
GAL-021, a new intravenous BKCa-channel blocker, is well tolerated and stimulates ventilation in healthy volunteers.
Br J Anaesth. 2014 Nov;113(5):875-83. doi: 10.1093/bja/aeu182. Epub 2014 Jul 2.

419. Clarke HA, Katz J, McCartney CJ, Stratford P, Kennedy D, Pagé MG, Awad IT, Gollish J, Kay J.
Perioperative gabapentin reduces 24 h opioid consumption and improves in-hospital rehabilitation but not post-discharge outcomes after total knee arthroplasty with peripheral nerve block.
Br J Anaesth. 2014 Nov;113(5):855-64. doi: 10.1093/bja/aeu202. Epub 2014 Jun 30.

420. Staehr-Rye AK, Rasmussen LS, Rosenberg J, Juul P, Lindekaer AL, Riber C, Gätke MR.
Surgical space conditions during low-pressure laparoscopic cholecystectomy with deep versus moderate neuromuscular blockade: a randomized clinical study.
Anesth Analg. 2014 Nov;119(5):1084-92. doi: 10.1213/ANE.0000000000000316.

421. Van Hemelrijck J, Levien LJ, Veeckman L, Pitman A, Zafirelis Z, Standl T.
A safety and efficacy evaluation of hemoglobin-based oxygen carrier HBOC-201 in a randomized, multicenter red blood cell controlled trial in noncardiac surgery patients.
Anesth Analg. 2014 Oct;119(4):766-76. doi: 10.1213/ANE.0000000000000305.

422. Bendtsen TF, Pedersen EM, Haroutounian S, Søballe K, Moriggl B, Nikolajsen L, Hasselstrøm JB, Fisker AK, Strid JM, Iversen B, Børglum J.
The suprasacral parallel shift vs lumbar plexus blockade with ultrasound guidance in healthy volunteers--a randomised controlled trial.
Anaesthesia. 2014 Nov;69(11):1227-40. doi: 10.1111/anae.12753. Epub 2014 Jun 28.

423. Gulyam Kuruba SM, Mukhtar K, Singh SK.
A randomised controlled trial of ultrasound-guided transversus abdominis plane block for renal transplantation.
Anaesthesia. 2014 Nov;69(11):1222-6. doi: 10.1111/anae.12704. Epub 2014 Jun 28.

424. Silbert BS, Evered LA, Scott DA.
Incidence of postoperative cognitive dysfunction after general or spinal anaesthesia for extracorporeal shock wave lithotripsy.
Br J Anaesth. 2014 Nov;113(5):784-91. doi: 10.1093/bja/aeu163. Epub 2014 Jun 27.

425. Mercier FJ, Diemunsch P, Ducloy-Bouthors AS, Mignon A, Fischler M, Malinovsky JM, Bolandard F, Aya AG, Raucoules-Aimé M, Chassard D), Keita H, Rigouzzo A, Le Gouez A; CAESAR Working Group.
6% Hydroxyethyl starch (130/0.4) vs Ringer's lactate preloading before spinal anaesthesia for Caesarean delivery: the randomized, double-blind, multicentre CAESAR trial.
Br J Anaesth. 2014 Sep;113(3):459-67. doi: 10.1093/bja/aeu103. Epub 2014 Jun 26.

426. Xu YJ, Chen WK, Zhu Y, Wang SL, Miao CH.
Effect of thoracic epidural anaesthesia on serum vascular endothelial growth factor C and cytokines in patients undergoing anaesthesia and surgery for colon cancer.
Br J Anaesth. 2014 Jul;113 Suppl 1:i49-55. doi: 10.1093/bja/aeu148. Epub 2014 Jun 25.

427. McEvoy MD, Hand WR, Stoll WD, Furse CM, Nietert PJ.
Reg Anesth Pain Med. 2014 Jul-Aug;39(4):299-305. doi:
Adherence to guidelines for the management of local anesthetic systemic toxicity is improved by an electronic decision support tool and designated "Reader".
10.1097/AAP.0000000000000097.

428. Karmakar MK, Samy W, Li JW, Lee A, Chan WC, Chen PP, Ho AM.
Thoracic paravertebral block and its effects on chronic pain and health-related quality of life after modified radical mastectomy.
Reg Anesth Pain Med. 2014 Jul-Aug;39(4):289-98. doi:
10.1097/AAP.0000000000000113.

429. Soergel DG, Subach RA, Burnham N, Lark MW, James IE, Sadler BM, Skobieranda F, Violin JD, Webster LR.

Biased agonism of the μ-opioid receptor by TRV130 increases analgesia and reduces on-target adverse effects versus morphine: A randomized, double-blind, placebo-controlled, crossover study in healthy volunteers.
Pain. 2014 Sep;155(9):1829-35. doi: 10.1016/j.pain.2014.06.011. Epub 2014 Jun 19.

430. Hamdani M, Chassot O, Fournier R.
Ultrasound-guided continuous interscalene block: the influence of local anesthetic background delivery method on postoperative analgesia after shoulder surgery: a randomized trial.
Reg Anesth Pain Med. 2014 Sep-Oct;39(5):387-93. doi: 10.1097/AAP.0000000000000112.

431. Gimbel JS, Kivitz AJ, Bramson C, Nemeth MA, Keller DS, Brown MT, West CR, Verburg KM.
Long-term safety and effectiveness of tanezumab as treatment for chronic low back pain.
Pain. 2014 Sep;155(9):1793-801. doi: 10.1016/j.pain.2014.06.004. Epub 2014 Jun 14.

432. Russell T, Ng L, Nathan E, Debenham E.
Supplementation of standard pre-oxygenation with nasal prong oxygen or machine oxygen flush during a simulated leak scenario.
Anaesthesia. 2014 Oct;69(10):1133-7. doi: 10.1111/anae.12630. Epub 2014 Jun 14.

433. Choquet O, Noble GB, Abbal B, Morau D, Bringuier S, Capdevila X.
Subparaneural versus circumferential extraneural injection at the bifurcation level in ultrasound-guided popliteal sciatic nerve blocks: a prospective, randomized, double-blind study.
Reg Anesth Pain Med. 2014 Jul-Aug;39(4):306-11. doi: 10.1097/AAP.0000000000000095.

434. Marshall SD, Mehra R.
The effects of a displayed cognitive aid on non-technical skills in a simulated 'can't intubate, can't oxygenate' crisis.
Anaesthesia. 2014 Jul;69(7):669-77. doi: 10.1111/anae.12601.

435. Cheung CW, Qiu Q, Ying AC, Choi SW, Law WL, Irwin MG.
The effects of intra-operative dexmedetomidine on postoperative pain, side-effects and recovery in colorectal surgery.
Anaesthesia. 2014 Nov;69(11):1214-21. doi: 10.1111/anae.12759. Epub 2014 Jun 10.

436. Cappelleri G, Ambrosoli AL, Turconi S, Gemma M, Ricci EB, Cornaggia G.
Effect of local anesthetic dilution on the onset time and duration of double-injection sciatic nerve block: a prospective, randomized, blinded evaluation.
Anesth Analg. 2014 Aug;119(2):489-93. doi: 10.1213/ANE.0000000000000293.

437. Simpson DM, Rice AS, Emir B, Landen J, Semel D, Chew ML, Sporn J.
A randomized, double-blind, placebo-controlled trial and open-label extension study to evaluate the efficacy and safety of pregabalin in the treatment of neuropathic pain associated with human immunodeficiency virus neuropathy.
Pain. 2014 Oct;155(10):1943-54. doi: 10.1016/j.pain.2014.05.027. Epub 2014 Jun 4.

438. Saporito A, Sturini E, Borgeat A, Aguirre J.
The effect of continuous popliteal sciatic nerve block on unplanned postoperative visits and readmissions after foot surgery--a randomised, controlled study comparing day-care and inpatient management.
Anaesthesia. 2014 Nov;69(11):1197-205. doi: 10.1111/anae.12710. Epub 2014 Jun 6.

439. Stipic SS, Carev M, Kardum G, Roje Z, Litre DM, Elezovic N.
Are postoperative behavioural changes after adenotonsillectomy in children influenced by the type of anaesthesia?: A randomised clinical study.
Eur J Anaesthesiol. 2015 May;32(5):311-9. doi: 10.1097/EJA.0000000000000104.

440. Sahinovic MM, Eleveld DJ, Kalmar AF, Heeremans EH, De Smet T, Seshagiri CV, Absalom AR, Vereecke HE, Struys MM.
Accuracy of the composite variability index as a measure of the balance between nociception and antinociception during anesthesia.
Anesth Analg. 2014 Aug;119(2):288-301. doi: 10.1213/ANE.0000000000000274.

441. Krage R, Tjon Soei Len L, Schober P, Kolenbrander M, van Groeningen D, Loer SA, Wagner C, Zwaan L.
Does individual experience affect performance during cardiopulmonary resuscitation with additional external distractors?
Anaesthesia. 2014 Sep;69(9):983-9. doi: 10.1111/anae.12747. Epub 2014 Jun 2.

442. Hashimoto Y, Asai T, Arai T, Okuda Y.
Effect of cricoid pressure on placement of the I-gel™ : a randomised study.
Anaesthesia. 2014 Aug;69(8):878-82. doi: 10.1111/anae.12731. Epub 2014 May 28.

443. Zhang Q, Gao Z, Wang H, Ma L, Guo F, Zhong H, Xiong L, Wang Q.
The effect of pre-treatment with transcutaneous electrical acupoint stimulation on the quality of recovery after ambulatory breast surgery: a prospective, randomised controlled trial.
Anaesthesia. 2014 Aug;69(8):832-9. doi: 10.1111/anae.12639. Epub 2014 May 28.

444. Broderick JE, Keefe FJ, Bruckenthal P, Junghaenel DU, Schneider S, Schwartz JE, Kaell AT, Caldwell DS, McKee D, Reed S, Gould E.
Nurse practitioners can effectively deliver pain coping skills training to osteoarthritis patients with chronic pain: A randomized, controlled trial.
Pain. 2014 Sep;155(9):1743-54. doi: 10.1016/j.pain.2014.05.024. Epub 2014 May 24.

445. Arngrim N, Schytz HW, Asghar MS, Amin FM, Hougaard A, Larsen VA, de Koning PJ, Larsson HB, Olesen J, Ashina M.
Association of acetazolamide infusion with headache and cranial artery dilation in healthy volunteers.
Pain. 2014 Aug;155(8):1649-58. doi: 10.1016/j.pain.2014.05.019. Epub 2014 May 23.

446. Murphy GS, Szokol JW, Avram MJ, Greenberg SB, Shear TD, Vender JS, Levin SD, Koh JL, Parikh KN, Patel SS.
Effect of ventilation on cerebral oxygenation in patients undergoing surgery in the beach chair position: a randomized controlled trial.
Br J Anaesth. 2014 Oct;113(4):618-27. doi: 10.1093/bja/aeu109. Epub 2014 May 23.

447. Meyhoff CS, Jorgensen LN, Wetterslev J, Siersma VD, Rasmussen LS; PROXI Trial Group.
Risk of new or recurrent cancer after a high perioperative inspiratory oxygen fraction during abdominal surgery.
Br J Anaesth. 2014 Jul;113 Suppl 1:i74-i81. doi: 10.1093/bja/aeu110. Epub 2014 May 23.

448. Willingham M, Ben Abdallah A, Gradwohl S, Helsten D, Lin N, Villafranca A, Jacobsohn E, Avidan M, Kaiser H.
Association between intraoperative electroencephalographic suppression and postoperative mortality.
Br J Anaesth. 2014 Dec;113(6):1001-8. doi: 10.1093/bja/aeu105. Epub 2014 May 22.

449. Bidd H, Dulai R, Edelman N, Giles J, Patel C.
The effect of intra-operative passive movement therapy on non-surgical site pain after breast reconstructive surgery: a preliminary study.
Anaesthesia. 2014 Aug;69(8):872-7. doi: 10.1111/anae.12729. Epub 2014 May 22.

450. Cho YJ, Ryu H, Lee J, Park IK, Kim YT, Lee YH, Lee H, Hong DM, Seo JH, Bahk JH, Jeon Y.
A randomised controlled trial comparing incentive spirometry with the Acapella® device for physiotherapy after thoracoscopic lung resection surgery.
Anaesthesia. 2014 Aug;69(8):891-8. doi: 10.1111/anae.12750. Epub 2014 May 21.

451. Hanson NA, Allen CJ, Hostetter LS, Nagy R, Derby RE, Slee AE, Arslan A, Auyong DB.
Continuous ultrasound-guided adductor canal block for total knee arthroplasty: a randomized, double-blind trial.
Anesth Analg. 2014 Jun;118(6):1370-7. doi: 10.1213/ANE.0000000000000197.

452. Techasuk W, González AP, Bernucci F, Cupido T, Finlayson RJ, Tran DQ.
A randomized comparison between double-injection and targeted

intracluster-injection ultrasound-guided supraclavicular brachial plexus block.
Anesth Analg. 2014 Jun;118(6):1363-9. doi: 10.1213/ANE.0000000000000224.

453. Nicol AL, Wu II, Ferrante FM.
Botulinum toxin type a injections for cervical and shoulder girdle myofascial pain using an enriched protocol design.
Anesth Analg. 2014 Jun;118(6):1326-35. doi: 10.1213/ANE.0000000000000192.

454. Lenhardt R, Burkhart MT, Brock GN, Kanchi-Kandadai S, Sharma R, Akça O.
Is video laryngoscope-assisted flexible tracheoscope intubation feasible for patients with predicted difficult airway? A prospective, randomized clinical trial.
Anesth Analg. 2014 Jun;118(6):1259-65. doi: 10.1213/ANE.0000000000000220.

455. Evansa I, Logina I, Vanags I, Borgeat A.
Ultrasound versus fluoroscopic-guided epidural steroid injections in patients with degenerative spinal diseases: a randomised study.
Eur J Anaesthesiol. 2015 Apr;32(4):262-8. doi: 10.1097/EJA.0000000000000103.

456. Gamez R, Slinger P.
A simulator study of tube exchange with three different designs of double-lumen tubes.
Anesth Analg. 2014 Aug;119(2):449-53. doi: 10.1213/ANE.0000000000000250.

457. Birnbach DJ, Rosen LF, Fitzpatrick M, Carling P, Arheart KL, Munoz-Price LS.
Double gloves: a randomized trial to evaluate a simple strategy to reduce contamination in the operating room.
Anesth Analg. 2015 Apr;120(4):848-52. doi: 10.1213/ANE.0000000000000230.

458. van Loon K, van Rheineck Leyssius AT, van Zaane B, Denteneer M, Kalkman CJ.
Capnography during deep sedation with propofol by nonanesthesiologists: a randomized controlled trial.
Anesth Analg. 2014 Jul;119(1):49-55. doi: 10.1213/ANE.0b013e3182a1f0a2.

459. Defresne AA, Hans GA, Goffin PJ, Bindelle SP, Amabili PJ, DeRoover AM, Poirrier R, Brichant JF, Joris JL.
Recruitment of lung volume during surgery neither affects the postoperative spirometry nor the risk of hypoxaemia after laparoscopic gastric bypass in morbidly obese patients: a randomized controlled study.
Br J Anaesth. 2014 Sep;113(3):501-7. doi: 10.1093/bja/aeu101. Epub 2014 May 15.

460. Jones EB, Sharpe L.
The effect of cognitive bias modification for interpretation on avoidance of pain during an acute experimental pain task.
Pain. 2014 Aug;155(8):1569-76. doi: 10.1016/j.pain.2014.05.003. Epub 2014 May 9.

461. Sauër AM, Slooter AJ, Veldhuijzen DS, van Eijk MM, Devlin JW, van Dijk D.
Intraoperative dexamethasone and delirium after cardiac surgery: a randomized clinical trial.
Anesth Analg. 2014 Nov;119(5):1046-52. doi: 10.1213/ANE.0000000000000248.

462. Fernandez-Bustamante A, Klawitter J, Repine JE, Agazio A, Janocha AJ, Shah C, Moss M, Douglas IS, Tran ZV, Erzurum SC, Christians U, Seres T.
Early effect of tidal volume on lung injury biomarkers in surgical patients with healthy lungs.
Anesthesiology. 2014 Sep;121(3):469-81. doi: 10.1097/ALN.0000000000000301.

463. Nilsson PM, Russell L, Ringsted C, Hertz P, Konge L.
Simulation-based training in flexible fibreoptic intubation: A randomised study.
Eur J Anaesthesiol. 2015 Sep;32(9):609-14. doi: 10.1097/EJA.0000000000000092.

464. Dubois PE, Putz L, Jamart J, Marotta ML, Gourdin M, Donnez O.
Deep neuromuscular block improves surgical conditions during laparoscopic hysterectomy: a randomised controlled trial.
Eur J Anaesthesiol. 2014 Aug;31(8):430-6. doi: 10.1097/EJA.0000000000000094.

465. Quan Z, Tian M, Chi P, Cao Y, Li X, Peng K.
Modified short-axis out-of-plane ultrasound versus conventional long-axis in-plane ultrasound to guide radial artery cannulation: a randomized controlled trial.
Anesth Analg. 2014 Jul;119(1):163-9. doi: 10.1213/ANE.0000000000000242.

466. Alfonsi P, Passard A, Guignard B, Chauvin M, Sessler DI.
Nefopam and meperidine are infra-additive on the shivering threshold in humans.
Anesth Analg. 2014 Jul;119(1):58-63. doi: 10.1213/ANE.0000000000000193.

467. Price GC, McLellan S, Paterson RL, Hay A.
A prospective randomised controlled trial of the LMA Supreme vs cuffed tracheal tube as the airway device during percutaneous tracheostomy.
Anaesthesia. 2014 Jul;69(7):757-63. doi: 10.1111/anae.12595. Epub 2014 May 7.

468. Sohn LE, Jagannathan N, Sequera-Ramos L, Sawardekar A, Schaldenbrand K, De Oliveira GS.
A randomised comparison of free-handed vs air-Q assisted fibreoptic-guided tracheal intubation in children < 2 years of age.
Anaesthesia. 2014 Jul;69(7):723-8. doi: 10.1111/anae.12667. Epub 2014 May 2.

469. Lequeux PY, Hecquet F, Bredas P.
Does anesthetic regimen influence implicit memory during general anesthesia?
Anesth Analg. 2014 Nov;119(5):1174-9. doi: 10.1213/ANE.0000000000000162.

470. Vitiello MV, McCurry SM, Shortreed SM, Baker LD, Rybarczyk BD,

Keefe FJ, Von Korff M.
Short-term improvement in insomnia symptoms predicts long-term improvements in sleep, pain, and fatigue in older adults with comorbid osteoarthritis and insomnia.
Pain. 2014 Aug;155(8):1547-54. doi: 10.1016/j.pain.2014.04.032. Epub 2014 May 1.

471. Nakayama Y, Nakajima Y, Sessler DI, Ishii S, Shibasaki M, Ogawa S, Takeshita J, Shime N, Mizobe T.
A novel method for ultrasound-guided radial arterial catheterization in pediatric patients.
Anesth Analg. 2014 May;118(5):1019-26. doi: 10.1213/ANE.0000000000000164.

472. Short TG, Leslie K, Campbell D, Chan MT, Corcoran T, O'Loughlin E, Frampton C, Myles P.
A pilot study for a prospective, randomized, double-blind trial of the influence of anesthetic depth on long-term outcome.
Anesth Analg. 2014 May;118(5):981-6. doi: 10.1213/ANE.0000000000000209.

473. Brown CH 4th, Azman AS, Gottschalk A, Mears SC, Sieber FE.
Sedation depth during spinal anesthesia and survival in elderly patients undergoing hip fracture repair.
Anesth Analg. 2014 May;118(5):977-80. doi: 10.1213/ANE.0000000000000157.

474. Bisbe E, Moltó L, Arroyo R, Muniesa JM, Tejero M.
Randomized trial comparing ferric carboxymaltose vs oral ferrous glycine sulphate for postoperative anaemia after total knee arthroplasty.
Br J Anaesth. 2014 Sep;113(3):402-9. doi: 10.1093/bja/aeu092. Epub 2014 Apr 29.

475. Kim HC, Yoo DH, Kim HJ, Jeon YT, Hwang JW, Park HP.
A prospective randomised comparison of two insertion methods for i-gel placement in anaesthetised paralysed patients: standard vs. rotational technique.
Anaesthesia. 2014 Jul;69(7):729-34. doi: 10.1111/anae.12680. Epub 2014 Apr 28.

476. Adelborg K, Bjørnshave K, Mortensen MB, Espeseth E, Wolff A, Løfgren B.
A randomised crossover comparison of mouth-to-face-shield ventilation and mouth-to-pocket-mask ventilation by surf lifeguards in a manikin.
Anaesthesia. 2014 Jul;69(7):712-6. doi: 10.1111/anae.12669. Epub 2014 Apr 28.

477. Ueki M, Kawasaki T, Habe K, Hamada K, Kawasaki C, Sata T.
The effects of dexmedetomidine on inflammatory mediators after cardiopulmonary bypass.
Anaesthesia. 2014 Jul;69(7):693-700. doi: 10.1111/anae.12636. Epub 2014 Apr 28.

478. Wang ZX, Huang CY, Hua YP, Huang WQ, Deng LH, Liu KX.
Dexmedetomidine reduces intestinal and hepatic injury after hepatectomy with inflow occlusion under general anaesthesia: a randomized controlled trial.

Br J Anaesth. 2014 Jun;112(6):1055-64. doi: 10.1093/bja/aeu132. Epub 2014 Apr 24.

479. Perniola A, Magnuson A, Axelsson K, Gupta A.
Intraperitoneal local anesthetics have predominant local analgesic effect: a randomized, double-blind study.
Anesthesiology. 2014 Aug;121(2):352-61. doi: 10.1097/ALN.0000000000000267.

480. Farag E, Atim A, Ghosh R, Bauer M, Sreenivasalu T, Kot M, Kurz A, Dalton JE, Mascha EJ, Mounir-Soliman L, Zaky S, Ali Sakr Esa W, Udeh BL, Barsoum W, Sessler DI.
Comparison of three techniques for ultrasound-guided femoral nerve catheter insertion: a randomized, blinded trial.
Anesthesiology. 2014 Aug;121(2):239-48. doi: 10.1097/ALN.0000000000000262.

481. Wu Q, Zhang N, Shen Y, Jia Y, Lei W.
Influence of polyvinyl chloride infusion extension tube on propofol injection pain: a randomised controlled study.
Eur J Anaesthesiol. 2014 Dec;31(12):663-8. doi: 10.1097/EJA.0000000000000081.

482. de Man FR, Erwteman M, van Groeningen D, Ziedses des Plantes PV, Boer C, Loer SA, Krage R.
The effect of audible alarms on anaesthesiologists' response times to adverse events in a simulated anaesthesia environment: a randomised trial.
Anaesthesia. 2014 Jun;69(6):598-603. doi: 10.1111/anae.12640. Epub 2014 Apr 17.

483. Kok WF, van Harten AE, Koene BM, Mariani MA, Koerts J, Tucha O, Absalom AR, Scheeren TW.
A pilot study of cerebral tissue oxygenation and postoperative cognitive dysfunction among patients undergoing coronary artery bypass grafting randomised to surgery with or without cardiopulmonary bypass*.
Anaesthesia. 2014 Jun;69(6):613-22. doi: 10.1111/anae.12634. Epub 2014 Apr 22.

484. Hee HI, Lee S, Chia SN, Lu QS, Liew AP, Ng A.
Bacterial contamination of surgical scrub suits worn outside the operating theatre: a randomised crossover study.
Anaesthesia. 2014 Aug;69(8):816-25. doi: 10.1111/anae.12633. Epub 2014 Apr 18.

485. Lim CW, Min SW, Kim CS, Chang JE, Park JE, Hwang JY.
The use of a nasogastric tube to facilitate nasotracheal intubation: a randomised controlled trial.
Anaesthesia. 2014 Jun;69(6):591-7. doi: 10.1111/anae.12627. Epub 2014 Apr 18.

486. Li C, Xu M, Wu Y, Li YS, Huang WQ, Liu KX.
Limb remote ischemic preconditioning attenuates lung injury after pulmonary resection under propofol-remifentanil anesthesia: a randomized controlled study.
Anesthesiology. 2014 Aug;121(2):249-59. doi: 10.1097/ALN.0000000000000266.

487. Hindman BJ, Santoni BG, Puttlitz CM, From RP, Todd MM.
Intubation biomechanics: laryngoscope force and cervical spine motion during intubation with Macintosh and Airtraq laryngoscopes.
Anesthesiology. 2014 Aug;121(2):260-71. doi: 10.1097/ALN.0000000000000263.

488. Patel NP, El-Wahab N, Fernando R, Wilson S, Robson SC, Columb MO, Lyons GR.
Fetal effects of combined spinal-epidural vs epidural labour analgesia: a prospective, randomised double-blind study.
Anaesthesia. 2014 May;69(5):458-67. doi: 10.1111/anae.12602.

489. Thomson AJ, Morrison G, Thomson E, Beattie C, Nimmo AF, Glen JB.
Induction of general anaesthesia by effect-site target-controlled infusion of propofol: influence of pharmacokinetic model and ke0 value.
Anaesthesia. 2014 May;69(5):429-35. doi: 10.1111/anae.12597.

490. Amris K, Wæhrens EE, Christensen R, Bliddal H, Danneskiold-Samsøe B; IMPROvE Study Group.
Interdisciplinary rehabilitation of patients with chronic widespread pain: primary endpoint of the randomized, nonblinded, parallel-group IMPROvE trial.
Pain. 2014 Jul;155(7):1356-64. doi: 10.1016/j.pain.2014.04.012. Epub 2014 Apr 13.

491. Englberger L, Dietrich W, Eberle B, Erdoes G, Keller D, Carrel T.
A novel blood-sparing agent in cardiac surgery? First in-patient experience with the synthetic serine protease inhibitor MDCO-2010: a phase II, randomized, double-blind, placebo-controlled study in patients undergoing coronary artery bypass grafting with cardiopulmonary bypass.
Anesth Analg. 2014 Jul;119(1):16-25. doi: 10.1213/ANE.0000000000000218.

492. Le Guen M, Liu N, Tounou F, Augé M, Tuil O, Chazot T, Dardelle D, Laloë PA, Bonnet F, Sessler DI, Fischler M.
Dexmedetomidine reduces propofol and remifentanil requirements during bispectral index-guided closed-loop anesthesia: a double-blind, placebo-controlled trial.
Anesth Analg. 2014 May;118(5):946-55. doi: 10.1213/ANE.0000000000000185.

493. Lindholm EE, Aune E, Frøland G, Kirkebøen KA, Otterstad JE.
Analysis of transthoracic echocardiographic data in major vascular surgery from a prospective randomised trial comparing sevoflurane and fentanyl with propofol and remifentanil anaesthesia.
Anaesthesia. 2014 Jun;69(6):558-72. doi: 10.1111/anae.12604. Epub 2014 Apr 10.

494. Niesters M, Proto PL, Aarts L, Sarton EY, Drewes AM, Dahan A.
Tapentadol potentiates descending pain inhibition in chronic pain patients with diabetic polyneuropathy.
Br J Anaesth. 2014 Jul;113(1):148-56. doi: 10.1093/bja/aeu056. Epub 2014 Apr 8.

495. Hand WR, Bridges KH, Stiegler MP, Schell RM, DiLorenzo AN, Ehrenfeld JM, Nietert PJ, McEvoy MD.
Effect of a cognitive aid on adherence to perioperative assessment and management guidelines for the cardiac evaluation of noncardiac surgical patients.
Anesthesiology. 2014 Jun;120(6):1339-49, quiz 1349-53. doi: 10.1097/ALN.0000000000000251.

496. Taddio A, Smart S, Sheedy M, Yoon EW, Vyas C, Parikh C, Pillai Riddell R, Shah V.
Impact of prenatal education on maternal utilization of analgesic interventions at future infant vaccinations: a cluster randomized trial.
Pain. 2014 Jul;155(7):1288-92. doi: 10.1016/j.pain.2014.03.024. Epub 2014 Apr 3.

497. Qutub H, El-Tahan MR, Mowafi HA, El Ghoneimy YF, Regal MA, Al Saflan AA.
Effect of tidal volume on extravascular lung water content during one-lung ventilation for video-assisted thoracoscopic surgery: a randomised, controlled trial.
Eur J Anaesthesiol. 2014 Sep;31(9):466-73. doi: 10.1097/EJA.0000000000000072.

498. Tiseo PJ, Kivitz AJ, Ervin JE, Ren H, Mellis SJ.
Fasinumab (REGN475), an antibody against nerve growth factor for the treatment of pain: results from a double-blind, placebo-controlled exploratory study in osteoarthritis of the knee.
Pain. 2014 Jul;155(7):1245-52. doi: 10.1016/j.pain.2014.03.018. Epub 2014 Mar 29.

499. Arab SA, Alharbi MK, Nada EM, Alrefai DA, Mowafi HA.
Ultrasound-guided supraclavicular brachial plexus block: single versus triple injection technique for upper limb arteriovenous access surgery.
Anesth Analg. 2014 May;118(5):1120-5. doi: 10.1213/ANE.0000000000000155.

500. Rahangdale R, Kendall MC, McCarthy RJ, Tureanu L, Doty R Jr, Weingart A, De Oliveira GS Jr.
The effects of perineural versus intravenous dexamethasone on sciatic nerve blockade outcomes: a randomized, double-blind, placebo-controlled study.
Anesth Analg. 2014 May;118(5):1113-9. doi: 10.1213/ANE.0000000000000137.

501. Gupta RK, Bruehl S, Burns JW, Buvanendran A, Chont M, Schuster E, France CR.
Relationship between endogenous opioid function and opioid analgesic adverse effects.
Reg Anesth Pain Med. 2014 May-Jun;39(3):219-24. doi: 10.1097/AAP.0000000000000083.

502. Sato K, Adachi T, Shirai N, Naoi N.
Continuous versus single-injection sciatic nerve block added to continuous femoral nerve block for analgesia after total knee arthroplasty: a prospective, randomized, double-blind study.

Reg Anesth Pain Med. 2014 May-Jun;39(3):225-9. doi: 10.1097/AAP.0000000000000076.

503. Qi J, Du B, Gurnaney H, Lu P, Zuo Y.
A prospective randomized observer-blinded study to assess postoperative analgesia provided by an ultrasound-guided bilateral thoracic paravertebral block for children undergoing the Nuss procedure.
Reg Anesth Pain Med. 2014 May-Jun;39(3):208-13. doi: 10.1097/AAP.0000000000000071.

504. Horn EP, Bein B, Steinfath M, Ramaker K, Buchloh B, Höcker J.
The incidence and prevention of hypothermia in newborn bonding after cesarean delivery: a randomized controlled trial.
Anesth Analg. 2014 May;118(5):997-1002. doi: 10.1213/ANE.0000000000000160.

505. Twersky RS, Goel V, Narayan P, Weedon J.
The risk of hypertension after preoperative discontinuation of angiotensin-converting enzyme inhibitors or angiotensin receptor antagonists in ambulatory and same-day admission patients.
Anesth Analg. 2014 May;118(5):938-44. doi: 10.1213/ANE.0000000000000076.

506. Yang CW, Jung SM, Kwon HU, Kang PS, Cho CK, Oh JY, Lee Y, Choi J.
A comparison of posterior and medial cord stimulation for neurostimulation-guided vertical infraclavicular block: a randomized noninferiority clinical trial.
Anesth Analg. 2014 Apr;118(4):874-8. doi: 10.1213/ANE.0000000000000143.

507. Miller RD, Ward TA, McCulloch CE, Cohen NH.
A comparison of lidocaine and bupivacaine digital nerve blocks on noninvasive continuous hemoglobin monitoring in a randomized trial in volunteers.
Anesth Analg. 2014 Apr;118(4):766-71. doi: 10.1213/ANE.0000000000000144.

508. Sil S, Arnold LM, Lynch-Jordan A, Ting TV, Peugh J, Cunningham N, Powers SW, Lovell DJ, Hashkes PJ, Passo M, Schikler KN, Kashikar-Zuck S.
Identifying treatment responders and predictors of improvement after cognitive-behavioral therapy for juvenile fibromyalgia.
Pain. 2014 Jul;155(7):1206-12. doi: 10.1016/j.pain.2014.03.005. Epub 2014 Mar 17.

509. Kim MS, Oh JT, Min JY, Lee KH, Lee JR.
A randomised comparison of the i-gel™ and the Laryngeal Mask Airway Classic™ in infants.
Anaesthesia. 2014 Apr;69(4):362-7. doi: 10.1111/anae.12592.

510. Niraj G, Kelkar A, Hart E, Horst C, Malik D, Yeow C, Singh B, Chaudhri S.
Comparison of analgesic efficacy of four-quadrant transversus abdominis plane (TAP) block and continuous posterior TAP analgesia with epidural analgesia in patients undergoing laparoscopic colorectal surgery: an open-label, randomised,

non-inferiority trial.
Anaesthesia. 2014 Apr;69(4):348-55. doi: 10.1111/anae.12546.

511. Stein MH, Cohen S, Mohiuddin MA, Dombrovskiy V, Lowenwirt I.
Prophylactic vs therapeutic blood patch for obstetric patients with accidental dural puncture--a randomised controlled trial.
Anaesthesia. 2014 Apr;69(4):320-6. doi: 10.1111/anae.12562.

512. Kus A, Gok CN, Hosten T, Gurkan Y, Solak M, Toker K.
The LMA-Supreme versus the I-gel in simulated difficult airway in children: a randomised study.
Eur J Anaesthesiol. 2014 May;31(5):280-4. doi: 10.1097/EJA.0000000000000062.

513. Chappell AS, Iyengar S, Lobo ED, Prucka WR.
Results from clinical trials of a selective ionotropic glutamate receptor 5 (iGluR5) antagonist, LY5454694 tosylate, in 2 chronic pain conditions.
Pain. 2014 Jun;155(6):1140-9. doi: 10.1016/j.pain.2014.02.023. Epub 2014 Mar 12.

514. Terkelsen AJ, Gierthmühlen J, Finnerup NB, Højlund AP, Jensen TS.
Bilateral hypersensitivity to capsaicin, thermal, and mechanical stimuli in unilateral complex regional pain syndrome.
Anesthesiology. 2014 May;120(5):1225-36. doi: 10.1097/ALN.0000000000000220.

515. Margarit SC, Vasian HN, Balla E, Vesa S, Ionescu DC.
The influence of total intravenous anaesthesia and isoflurane anaesthesia on plasma interleukin-6 and interleukin-10 concentrations after colorectal surgery for cancer: a randomised controlled trial.
Eur J Anaesthesiol. 2014 Dec;31(12):678-84. doi: 10.1097/EJA.0000000000000057.

516. Czarnetzki C, Tassonyi E, Lysakowski C, Elia N, Tramèr MR.
Efficacy of sugammadex for the reversal of moderate and deep rocuronium-induced neuromuscular block in patients pretreated with intravenous magnesium: a randomized controlled trial.
Anesthesiology. 2014 Jul;121(1):59-67. doi: 10.1097/ALN.0000000000000204.

517. Au Yeung ST, Colagiuri B, Lovibond PF, Colloca L.
Partial reinforcement, extinction, and placebo analgesia.
Pain. 2014 Jun;155(6):1110-7. doi: 10.1016/j.pain.2014.02.022. Epub 2014 Mar 3.

518. Savilampi J, Ahlstrand R, Magnuson A, Geijer H, Wattwil M.
Aspiration induced by remifentanil: a double-blind, randomized, crossover study in healthy volunteers.
Anesthesiology. 2014 Jul;121(1):52-8. doi: 10.1097/ALN.0000000000000202.

519. Kortekaas KA, van der Baan A, Aarts LP, Palmen M, Cobbaert CM, Verhagen JC, Engbers FH, Klautz RJ, Lindeman JH.

Cardiospecific sevoflurane treatment quenches inflammation but does not attenuate myocardial cell damage markers: a proof-of-concept study in patients undergoing mitral valve repair.
Br J Anaesth. 2014 Jun;112(6):1005-14. doi: 10.1093/bja/aet588. Epub 2014 Mar 3.

520. Kruisselbrink R, Arzola C, Endersby R, Tse C, Chan V, Perlas A.
Intra- and interrater reliability of ultrasound assessment of gastric volume.
Anesthesiology. 2014 Jul;121(1):46-51. doi: 10.1097/ALN.0000000000000193.

521. Singh PP, Lemanu DP, Taylor MH, Hill AG.
Association between preoperative glucocorticoids and long-term survival and cancer recurrence after colectomy: follow-up analysis of a previous randomized controlled trial.
Br J Anaesth. 2014 Jul;113 Suppl 1:i68-73. doi: 10.1093/bja/aet577. Epub 2014 Feb 27.

522. Wang H, Xie Y, Zhang Q, Xu N, Zhong H, Dong H, Liu L, Jiang T, Wang Q, Xiong L.
Transcutaneous electric acupoint stimulation reduces intra-operative remifentanil consumption and alleviates postoperative side-effects in patients undergoing sinusotomy: a prospective, randomized, placebo-controlled trial.
Br J Anaesth. 2014 Jun;112(6):1075-82. doi: 10.1093/bja/aeu001. Epub 2014 Feb 26.

523. Marhofer D, Karmakar MK, Marhofer P, Kettner SC, Weber M, Zeitlinger M.
Does circumferential spread of local anaesthetic improve the success of peripheral nerve block?
Br J Anaesth. 2014 Jul;113(1):177-85. doi: 10.1093/bja/aeu002. Epub 2014 Feb 25.

524. Heyse B, Proost JH, Hannivoort LN, Eleveld DJ, Luginbühl M, Struys MM, Vereecke HE.
A response surface model approach for continuous measures of hypnotic and analgesic effect during sevoflurane-remifentanil interaction: quantifying the pharmacodynamic shift evoked by stimulation.
Anesthesiology. 2014 Jun;120(6):1390-9. doi: 10.1097/ALN.0000000000000180.

525. Cho EJ, Yoon SZ, Cho JE, Lee HW.
Comparison of the effects of 0.03 and 0.05 mg/kg midazolam with placebo on prevention of emergence agitation in children having strabismus surgery.
Anesthesiology. 2014 Jun;120(6):1354-61. doi: 10.1097/ALN.0000000000000181.

526. Weller JM, Torrie J, Boyd M, Frengley R, Garden A, Ng WL, Frampton C.
Improving team information sharing with a structured call-out in anaesthetic emergencies: a randomized controlled trial.
Br J Anaesth. 2014 Jun;112(6):1042-9. doi: 10.1093/bja/aet579. Epub 2014 Feb 20.

527. Freiermuth D, Skarvan K, Filipovic M, Seeberger MD, Bolliger D.
Volatile anaesthetics and positive pressure ventilation reduce left atrial performance: a transthoracic echocardiographic study in young healthy adults.
Br J Anaesth. 2014 Jun;112(6):1032-41. doi: 10.1093/bja/aet583. Epub 2014 Feb 20.

528. Yoshimura T, Ueda K, Kakinuma A, Sawai J, Nakata Y.
Bronchial blocker lung collapse technique: nitrous oxide for facilitating lung collapse during one-lung ventilation with a bronchial blocker.
Anesth Analg. 2014 Mar;118(3):666-70. doi: 10.1213/ANE.0000000000000106.

529. Ferrando C, Mugarra A, Gutierrez A, Carbonell JA, García M, Soro M, Tusman G, Belda FJ.
Setting individualized positive end-expiratory pressure level with a positive end-expiratory pressure decrement trial after a recruitment maneuver improves oxygenation and lung mechanics during one-lung ventilation.
Anesth Analg. 2014 Mar;118(3):657-65. doi: 10.1213/ANE.0000000000000105.

530. Zeidan AM, Salem MR, Mazoit JX, Abdullah MA, Ghattas T, Crystal GJ.
The effectiveness of cricoid pressure for occluding the esophageal entrance in anesthetized and paralyzed patients: an experimental and observational glidescope study.
Anesth Analg. 2014 Mar;118(3):580-6. doi: 10.1213/ANE.0000000000000068.

531. Faraoni D, Cacheux C, Van Aelbrouck C, Ickx BE, Barvais L, Levy JH.
Effect of two doses of tranexamic acid on fibrinolysis evaluated by thromboelastography during cardiac surgery: a randomised, controlled study.
Eur J Anaesthesiol. 2014 Sep;31(9):491-8. doi: 10.1097/EJA.0000000000000051.

532. Chen KZ, Ye M, Hu CB, Shen X.
Dexmedetomidine vs remifentanil intravenous anaesthesia and spontaneous ventilation for airway foreign body removal in children.
Br J Anaesth. 2014 May;112(5):892-7. doi: 10.1093/bja/aet490. Epub 2014 Feb 18.

533. Ziemann-Gimmel P, Goldfarb AA, Koppman J, Marema RT.
Opioid-free total intravenous anaesthesia reduces postoperative nausea and vomiting in bariatric surgery beyond triple prophylaxis.
Br J Anaesth. 2014 May;112(5):906-11. doi: 10.1093/bja/aet551. Epub 2014 Feb 18.

534. Bruehl S, Burns JW, Gupta R, Buvanendran A, Chont M, Schuster E, France CR.
Endogenous opioid inhibition of chronic low-back pain influences degree of back pain relief after morphine administration.
Reg Anesth Pain Med. 2014 Mar-Apr;39(2):120-5. doi: 10.1097/AAP.0000000000000058.

535. Paul A, Gibson AA, Robinson OD, Koch J.
The traffic light bougie: a study of a novel safety modification.

Anaesthesia. 2014 Mar;69(3):214-8. doi: 10.1111/anae.12522.

536. Gruenewald M, Willms S, Broch O, Kott M, Steinfath M, Bein B.
Sufentanil administration guided by surgical pleth index vs standard practice during sevoflurane anaesthesia: a randomized controlled pilot study.
Br J Anaesth. 2014 May;112(5):898-905. doi: 10.1093/bja/aet485. Epub 2014 Feb 16.

537. Chiono J, Raux O, Bringuier S, Sola C, Bigorre M, Capdevila X, Dadure C.
Bilateral suprazygomatic maxillary nerve block for cleft palate repair in children: a prospective, randomized, double-blind study versus placebo.
Anesthesiology. 2014 Jun;120(6):1362-9. doi: 10.1097/ALN.0000000000000171.

538. Verhage RJ, Boone J, Rijkers GT, Cromheecke GJ, Kroese AC, Weijs TJ, Borel Rinkes IH, van Hillegersberg R.
Reduced local immune response with continuous positive airway pressure during one-lung ventilation for oesophagectomy.
Br J Anaesth. 2014 May;112(5):920-8. doi: 10.1093/bja/aet476. Epub 2014 Feb 11.

539. Fowler IM, Tucker AA, Weimerskirch BP, Moran TJ, Mendez RJ.
A randomized comparison of the efficacy of 2 techniques for piriformis muscle injection: ultrasound-guided versus nerve stimulator with fluoroscopic guidance.
Reg Anesth Pain Med. 2014 Mar-Apr;39(2):126-32. doi: 10.1097/AAP.0000000000000056.

540. Adelborg K, Al-Mashhadi RH, Nielsen LH, Dalgas C, Mortensen MB, Løfgren B.
A randomised crossover comparison of manikin ventilation through Soft Seal®, i-gel™ and AuraOnce™ supraglottic airway devices by surf lifeguards.
Anaesthesia. 2014 Apr;69(4):343-7. doi: 10.1111/anae.12545. Epub 2014 Feb 7.

541. Zheng Z, Wang K, Yao D, Xue CC, Arendt-Nielsen L.
Adaptability to pain is associated with potency of local pain inhibition, but not conditioned pain modulation: a healthy human study.
Pain. 2014 May;155(5):968-76. doi: 10.1016/j.pain.2014.01.024. Epub 2014 Feb 3.

542. Kleinsasser AT, Pircher I, Truebsbach S, Knotzer H, Loeckinger A, Treml B.
Pulmonary function after emergence on 100% oxygen in patients with chronic obstructive pulmonary disease: a randomized, controlled trial.
Anesthesiology. 2014 May;120(5):1146-51. doi: 10.1097/ALN.0000000000000161.

543. Garutti I, Puente-Maestu L, Laso J, Sevilla R, Ferrando A, Frias I, Reyes A, Ojeda E, Gónzalez-Aragoneses F.
Comparison of gas exchange after lung resection with a Boussignac CPAP or Venturi mask.
Br J Anaesth. 2014 May;112(5):929-35. doi: 10.1093/bja/aet477. Epub 2014 Feb 3.

544. Techasuk W, Bernucci F, Cupido T, González AP, Correa JA, Finlayson RJ, Tran

DQ.
Minimum effective volume of combined lidocaine-bupivacaine for analgesic subparaneural popliteal sciatic nerve block.
Reg Anesth Pain Med. 2014 Mar-Apr;39(2):108-11. doi: 10.1097/AAP.0000000000000051.

545. Kim EM, Lee JR, Koo BN, Im YJ, Oh HJ, Lee JH.
Analgesic efficacy of caudal dexamethasone combined with ropivacaine in children undergoing orchiopexy.
Br J Anaesth. 2014 May;112(5):885-91. doi: 10.1093/bja/aet484. Epub 2014 Feb 2.

546. Liu N, Le Guen M, Boichut N, Genty A, Hérail T, Schmartz D, Khefif G, Landais A, Bussac JJ, Charmeau A, Baars J, Rehberg B, Tricoche S, Chazot T, Sessler DI, Fischler M.
Nitrous oxide does not produce a clinically important sparing effect during closed-loop delivered propofol-remifentanil anaesthesia guided by the bispectral index: a randomized multicentre study.
Br J Anaesth. 2014 May;112(5):842-51. doi: 10.1093/bja/aet479. Epub 2014 Jan 31.

547. Freeman R, Baron R, Bouhassira D, Cabrera J, Emir B.
Sensory profiles of patients with neuropathic pain based on the neuropathic pain symptoms and signs.
Pain. 2014 Feb;155(2):367-76. doi: 10.1016/j.pain.2013.10.023. Epub 2013 Oct 25.

548. Nie Y, Liu Y, Luo Q, Huang S.
Effect of dexmedetomidine combined with sufentanil for post-caesarean section intravenous analgesia: a randomised, placebo-controlled study.
Eur J Anaesthesiol. 2014 Apr;31(4):197-203. doi: 10.1097/EJA.0000000000000011.

549. Ilfeld BM, Madison SJ, Suresh PJ, Sandhu NS, Kormylo NJ, Malhotra N, Loland VJ, Wallace MS, Proudfoot JA, Morgan AC, Wen CH, Wallace AM.
Treatment of postmastectomy pain with ambulatory continuous paravertebral nerve blocks: a randomized, triple-masked, placebo-controlled study.
Reg Anesth Pain Med. 2014 Mar-Apr;39(2):89-96. doi: 10.1097/AAP.0000000000000035.

550. Li BL, Yuen VM, Song XR, Ye J, Ni J, Huang JX, Irwin MG.
Intranasal dexmedetomidine following failed chloral hydrate sedation in children.
Anaesthesia. 2014 Mar;69(3):240-4. doi: 10.1111/anae.12533. Epub 2014 Jan 21.

551. Yoshida T, Fujiwara T, Furutani K, Ohashi N, Baba H.
Effects of ropivacaine concentration on the spread of sensory block produced by continuous thoracic paravertebral block: a prospective, randomised, controlled, double-blind study.
Anaesthesia. 2014 Mar;69(3):231-9. doi: 10.1111/anae.12531. Epub 2014 Jan 21.

552. Yin J, Wang SL, Liu XB.

The effects of general anaesthesia on memory in children: a comparison between propofol and sevoflurane.
Anaesthesia. 2014 Feb;69(2):118-23. doi: 10.1111/anae.12504.

553. Wepner F, Scheuer R, Schuetz-Wieser B, Machacek P, Pieler-Bruha E, Cross HS, Hahne J, Friedrich M.
Effects of vitamin D on patients with fibromyalgia syndrome: a randomized placebo-controlled trial.
Pain. 2014 Feb;155(2):261-8. doi: 10.1016/j.pain.2013.10.002.

554. Jahn P, Kuss O, Schmidt H, Bauer A, Kitzmantel M, Jordan K, Krasemann S, Landenberger M.
Improvement of pain-related self-management for cancer patients through a modular transitional nursing intervention: a cluster-randomized multicenter trial.
Pain. 2014 Apr;155(4):746-54. doi: 10.1016/j.pain.2014.01.006. Epub 2014 Jan 13.

555. Hubert V, Duwat A, Deransy R, Mahjoub Y, Dupont H.
Effect of simulation training on compliance with difficult airway management algorithms, technical ability, and skills retention for emergency cricothyrotomy.
Anesthesiology. 2014 Apr;120(4):999-1008. doi: 10.1097/ALN.0000000000000138.

556. So-Osman C, Nelissen RG, Koopman-van Gemert AW, Kluyver E, Pöll RG, Onstenk R, Van Hilten JA, Jansen-Werkhoven TM, van den Hout WB, Brand R, Brand A.
Patient blood management in elective total hip- and knee-replacement surgery (part 2): a randomized controlled trial on blood salvage as transfusion alternative using a restrictive transfusion policy in patients with a preoperative hemoglobin above 13 g/dl.
Anesthesiology. 2014 Apr;120(4):852-60. doi: 10.1097/ALN.0000000000000135.

557. Zoric L, Cuvillon P, Alonso S, Demattei C, Vialles N, Asencio G, Ripart J, Nouvellon E.
Single-shot intraoperative local anaesthetic infiltration does not reduce morphine consumption after total hip arthroplasty: a double-blinded placebo-controlled randomized study.
Br J Anaesth. 2014 Apr;112(4):722-8. doi: 10.1093/bja/aet439. Epub 2014 Jan 14.

558. So-Osman C, Nelissen RG, Koopman-van Gemert AW, Kluyver E, Pöll RG, Onstenk R, Patient blood management in elective total hip- and knee-replacement surgery (Part 1): a randomized controlled trial on erythropoietin and blood salvage as transfusion alternatives using a restrictive transfusion policy in erythropoietin-eligible patients.
Van Hilten JA, Jansen-Werkhoven TM, van den Hout WB, Brand R, Brand A.
Anesthesiology. 2014 Apr;120(4):839-51. doi: 10.1097/ALN.0000000000000134.

559. Whitlock EL, Torres BA, Lin N, Helsten DL, Nadelson MR, Mashour GA, Avidan MS.
Postoperative delirium in a substudy of cardiothoracic surgical patients in the

BAG-RECALL clinical trial.
Anesth Analg. 2014 Apr;118(4):809-17. doi: 10.1213/ANE.0000000000000028.

560. Grevstad U, Mathiesen O, Lind T, Dahl JB.
Effect of adductor canal block on pain in patients with severe pain after total knee arthroplasty: a randomized study with individual patient analysis.
Br J Anaesth. 2014 May;112(5):912-9. doi: 10.1093/bja/aet441. Epub 2014 Jan 8.

561. Kim DH, Lin Y, Goytizolo EA, Kahn RL, Maalouf DB, Manohar A, Patt ML, Goon AK,
Lee YY, Ma Y, Yadeau JT.
Adductor canal block versus femoral nerve block for total knee arthroplasty: a prospective, randomized, controlled trial.
Anesthesiology. 2014 Mar;120(3):540-50. doi: 10.1097/ALN.0000000000000119.

562. Ngan Kee WD, Khaw KS, Ng FF, Ng KK, So R, Lee A.
Synergistic interaction between fentanyl and bupivacaine given intrathecally for labor analgesia.
Anesthesiology. 2014 May;120(5):1126-36. doi: 10.1097/ALN.0000000000000118.

563. Minehart RD, Rudolph J, Pian-Smith MC, Raemer DB.
Improving faculty feedback to resident trainees during a simulated case: a randomized, controlled trial of an educational intervention.
Anesthesiology. 2014 Jan;120(1):160-71. doi: 10.1097/ALN.0000000000000058.

564. Ferrero NA, Bortsov AV, Arora H, Martinelli SM, Kolarczyk LM, Teeter EC, Zvara DA, Kumar PA.
Simulator training enhances resident performance in transesophageal echocardiography.
Anesthesiology. 2014 Jan;120(1):149-59. doi: 10.1097/ALN.0000000000000063.

565. Ogino Y, Kakeda T, Nakamura K, Saito S.
Dehydration enhances pain-evoked activation in the human brain compared with rehydration.
Anesth Analg. 2014 Jun;118(6):1317-25. doi: 10.1213/ANE.0b013e3182a9b028.

566. Mori Y, Kamada T, Ochiai R.
Reduction in the incidence of acute kidney injury after aortic arch surgery with low-dose atrial natriuretic peptide: a randomised controlled trial.
Eur J Anaesthesiol. 2014 Jul;31(7):381-7. doi: 10.1097/EJA.0000000000000035.

567. Luciano JV, Guallar JA, Aguado J, López-Del-Hoyo Y, Olivan B, Magallón R, Alda M, Serrano-Blanco A, Gili M, Garcia-Campayo J.
Effectiveness of group acceptance and commitment therapy for fibromyalgia: a 6-month randomized controlled trial (EFFIGACT study).
Pain. 2014 Apr;155(4):693-702. doi: 10.1016/j.pain.2013.12.029. Epub 2013 Dec 28.

568. Cui Y, Hu L, Liu YJ, Wu YM, Jing L.
Intravenous alanyl-L-glutamine balances glucose-insulin homeostasis and facilitates recovery in patients undergoing colonic resection: a randomised controlled trial.
Eur J Anaesthesiol. 2014 Apr;31(4):212-8. doi: 10.1097/EJA.0b013e328360c6b9.

569. Ross VH, Dean LS, Thomas JA, Harris LC, Pan PH.
A randomized controlled comparison between combined spinal-epidural and single-shot spinal techniques in morbidly obese parturients undergoing cesarean delivery: time for initiation of anesthesia.
Anesth Analg. 2014 Jan;118(1):168-72. doi: 10.1213/ANE.0000000000000022.

570. Lee HC, Yun MJ, Hwang JW, Na HS, Kim DH, Park JY.
Higher operating tables provide better laryngeal views for tracheal intubation.
Br J Anaesth. 2014 Apr;112(4):749-55. doi: 10.1093/bja/aet428. Epub 2013 Dec 18.

571. Pedersen L, Borchgrevink PC(2), Breivik HP(3), Fredheim OM(4).
A randomized, double-blind, double-dummy comparison of short- and long-acting dihydrocodeine in chronic non-malignant pain.
Pain. 2014 May;155(5):881-8. doi: 10.1016/j.pain.2013.12.016. Epub 2013 Dec 15.

572. Ciampi de Andrade D, Mhalla A(2), Adam F(2), Texeira MJ(3), Bouhassira D(4).
Repetitive transcranial magnetic stimulation induced analgesia depends on N-methyl-D-aspartate glutamate receptors.
Pain. 2014 Mar;155(3):598-605. doi: 10.1016/j.pain.2013.12.022. Epub 2013 Dec 14.

573. Law CJ, Jacobson GM, Kluger M, Chaddock M, Scott M, Sleigh JW.
Randomized controlled trial of the effect of depth of anaesthesia on postoperative pain.
Br J Anaesth. 2014 Apr;112(4):675-80. doi: 10.1093/bja/aet419. Epub 2013 Dec 8.

574. Martinez V, Cymerman A, Ben Ammar S, Fiaud JF, Rapon C, Poindessous F, Judet T, Chauvin M, Bouhassira D, Sessler D, Mazoit X, Fletcher D.
The analgesic efficiency of combined pregabalin and ketamine for total hip arthroplasty: a randomised, double-blind, controlled study.
Anaesthesia. 2014 Jan;69(1):46-52. doi: 10.1111/anae.12495.

575. Fritsch G, Danninger T, Allerberger K, Tsodikov A, Felder TK, Kapeller M, Gerner P, Brummett CM.
Dexmedetomidine added to ropivacaine extends the duration of interscalene brachial plexus blocks for elective shoulder surgery when compared with ropivacaine alone: a single-center, prospective, triple-blind, randomized controlled trial.
Reg Anesth Pain Med. 2014 Jan-Feb;39(1):37-47. doi: 10.1097/AAP.0000000000000033.

576. Børglum J, Johansen K, Christensen MD, Lenz K, Bendtsen TF, Tanggaard K, Christensen AF, Moriggl B, Jensen K.
Ultrasound-guided single-penetration dual-injection block for leg and foot surgery: a prospective, randomized, double-blind study.
Reg Anesth Pain Med. 2014 Jan-Feb;39(1):18-25. doi: 10.1097/AAP.0000000000000030.

577. Bouvet L, Albert ML, Augris C, Boselli E, Ecochard R, Rabilloud M, Chassard D, Allaouchiche B.
Real-time detection of gastric insufflation related to facemask pressure-controlled ventilation using ultrasonography of the antrum and epigastric auscultation in nonparalyzed patients: a prospective, randomized, double-blind study.
Anesthesiology. 2014 Feb;120(2):326-34. doi: 10.1097/ALN.0000000000000094.

578. Duma A, Helsten D, Brown F, Bottros MM, Nagele P.
The effect of nitrous oxide anesthesia on early postoperative opioid consumption and pain.
Reg Anesth Pain Med. 2014 Jan-Feb;39(1):31-6. doi: 10.1097/AAP.0000000000000039.

579. Siddik-Sayyid SM, Taha SK, Kanazi GE, Aouad MT.
A randomized controlled trial of variable rate phenylephrine infusion with rescue phenylephrine boluses versus rescue boluses alone on physician interventions during spinal anesthesia for elective cesarean delivery.
Anesth Analg. 2014 Mar;118(3):611-8. doi: 10.1213/01.ane.0000437731.60260.ce.

580. Sharma SK, Rogers BB, Alexander JM, McIntire DD, Leveno KJ.
A randomized trial of the effects of antibiotic prophylaxis on epidural-related fever in labor.
Anesth Analg. 2014 Mar;118(3):604-10. doi: 10.1213/ANE.0b013e3182a5d539.

581. Murphy GS, Szokol JW, Avram MJ, Greenberg SB, Shear T, Vender JS, Gray J, Landry E.
The effect of single low-dose dexamethasone on blood glucose concentrations in the perioperative period: a randomized, placebo-controlled investigation in gynecologic surgical patients.
Anesth Analg. 2014 Jun;118(6):1204-12. doi: 10.1213/ANE.0b013e3182a53981.

582. Colombo R, Raimondi F, Corona A, Rivetti I, Pagani F, Porta VD, Guzzetti S.
Comparison of the Surgical Pleth Index with autonomic nervous system modulation on cardiac activity during general anaesthesia: A randomised cross-over study.
Eur J Anaesthesiol. 2014 Feb;31(2):76-84. doi: 10.1097/01.EJA.0000436116.06728.b3.

583. Li X, Zhou M, Xia Q, Li W, Zhang Y.
Effect of parecoxib sodium on postoperative shivering: a randomised, double-blind clinical trial.

Eur J Anaesthesiol. 2014 Apr;31(4):225-30. doi: 10.1097/01.EJA.0000436684.94403.1e.

584. Schebesta K, Karanovic G, Krafft P, Rössler B, Kimberger O.
Distance from the glottis to the grille: the LMA Unique, Air-Q and CobraPLA as intubation conduits: a randomised trial.
Eur J Anaesthesiol. 2014 Mar;31(3):159-65. doi: 10.1097/EJA.0000000000000019.

585. Sng BL, Tan HS, Sia AT.
Closed-loop double-vasopressor automated system vs manual bolus vasopressor to treat hypotension during spinal anaesthesia for caesarean section: a randomised controlled trial.
Anaesthesia. 2014 Jan;69(1):37-45. doi: 10.1111/anae.12460. Epub 2013 Nov 20.

586. Olsen KS, Petersen JT, Pedersen NA, Rovsing L.
Self-positioning followed by induction of anaesthesia and insertion of a laryngeal mask airway versus endotracheal intubation and subsequent positioning for spinal surgery in the prone position: a randomised clinical trial.
Eur J Anaesthesiol. 2014 May;31(5):259-65. doi: 10.1097/EJA.0000000000000004.

587. De Oliveira GS Jr, Fitzgerald PC, Hansen N, Ahmad S, McCarthy RJ.
The effect of ketamine on hypoventilation during deep sedation with midazolam and propofol: a randomised, double-blind, placebo-controlled trial.
Eur J Anaesthesiol. 2014 Dec;31(12):654-62. doi: 10.1097/EJA.0000000000000025.

588. Martini CH, Boon M, Bevers RF, Aarts LP, Dahan A.
Evaluation of surgical conditions during laparoscopic surgery in patients with moderate vs deep neuromuscular block.
Br J Anaesth. 2014 Mar;112(3):498-505. doi: 10.1093/bja/aet377. Epub 2013 Nov 15.

589. Ghai B, Jain K, Bansal D, Wig J.
End-tidal concentrations of sevoflurane and desflurane for ProSeal laryngeal mask airway removal in anaesthetised adults: a randomised double-blind study.
Eur J Anaesthesiol. 2014 May;31(5):274-9. doi: 10.1097/EJA.0b013e328365cad7.

590. Schachtel B, Aspley S, Shephard A, Shea T, Smith G, Sanner K, Savino L, Rezuke J, Schachtel E.
Onset of action of a lozenge containing flurbiprofen 8.75 mg: a randomized, double-blind, placebo-controlled trial with a new method for measuring onset of analgesic activity.
Pain. 2014 Feb;155(2):422-8. doi: 10.1016/j.pain.2013.11.001. Epub 2013 Nov 12.

591. Perniola A, Fant F, Magnuson A, Axelsson K, Gupta A.
Postoperative pain after abdominal hysterectomy: a randomized, double-blind, controlled trial comparing continuous infusion vs patient-controlled intraperitoneal injection of local anaesthetic.

Br J Anaesth. 2014 Feb;112(2):328-36. doi: 10.1093/bja/aet345. Epub 2013 Oct 31.

592. Le Guen M, Nicolas-Robin A, Lebard C, Arnulf I, Langeron O.
Earplugs and eye masks vs routine care prevent sleep impairment in post-anaesthesia care unit: a randomized study.
Br J Anaesth. 2014 Jan;112(1):89-95. doi: 10.1093/bja/aet304. Epub 2013 Oct 29.

593. Skhirtladze K, Base EM, Lassnigg A, Kaider A, Linke S, Dworschak M, Hiesmayr MJ.
Comparison of the effects of albumin 5%, hydroxyethyl starch 130/0.4 6%, and Ringer's lactate on blood loss and coagulation after cardiac surgery.
Br J Anaesth. 2014 Feb;112(2):255-64. doi: 10.1093/bja/aet348. Epub 2013 Oct 29.

594. Ju NY, Gao H, Huang W, Niu FF, Lan WX, Li F, Gao W.
Therapeutic effect of inhaled budesonide (Pulmicort® Turbuhaler) on the inflammatory response to one-lung ventilation.
Anaesthesia. 2014 Jan;69(1):14-23. doi: 10.1111/anae.12479. Epub 2013 Oct 28.

595. Chun HR, Jeon IS, Park SY, Lee SJ, Kang SH, Kim SI.
Efficacy of palonosetron for the prevention of postoperative nausea and vomiting: a randomized, double-blinded, placebo-controlled trial.
Br J Anaesth. 2014 Mar;112(3):485-90. doi: 10.1093/bja/aet340. Epub 2013 Oct 22.

596. Stocki D, Matot I, Einav S, Eventov-Friedman S, Ginosar Y, Weiniger CF.
A randomized controlled trial of the efficacy and respiratory effects of patient-controlled intravenous remifentanil analgesia and patient-controlled epidural analgesia in laboring women.
Anesth Analg. 2014 Mar;118(3):589-97. doi: 10.1213/ANE.0b013e3182a7cd1b.

597. Malcharek MJ, Rockmann K, Zumpe R, Sorge O, Winter V, Sablotzki A, Schneider G.
Comparison of Aintree and Fastrach techniques for low-skill fibreoptic intubation in patients at risk of secondary cervical injury: a randomised controlled trial.
Eur J Anaesthesiol. 2014 Mar;31(3):153-8. doi: 10.1097/EJA.0b013e328365ae49.

598. Jepsen CH, Gätke MR, Thøgersen B, Mollerup LT, Ruhnau B, Rewers M, Rosenstock CV.
Tracheal intubation with a flexible fibreoptic scope or the McGrath videolaryngoscope in simulated difficult airway scenarios: a randomised controlled manikin study.
Eur J Anaesthesiol. 2014 Mar;31(3):131-6. doi: 10.1097/EJA.0b013e32836590a7.

599. Boselie JJ, Vancleef LM, Smeets T, Peters ML.
Increasing optimism abolishes pain-induced impairments in executive task performance.
Pain. 2014 Feb;155(2):334-40. doi: 10.1016/j.pain.2013.10.014. Epub 2013 Oct 19.

600. Soltész S, Fraisl P, Noé KG, Hinkelbein J, Mellinghoff H, Mencke T.
Dexamethasone decreases the duration of rocuronium-induced neuromuscular block: a randomised controlled study.
Eur J Anaesthesiol. 2014 Aug;31(8):417-22. doi: 10.1097/EJA.0b013e328365c9ee.

601. Treskatsch S, Klambeck M, Mousa SA, Kopf A, Schäfer M.
Influence of high-dose intraoperative remifentanil with or without amantadine on postoperative pain intensity and morphine consumption in major abdominal surgery patients: a randomised trial.
Eur J Anaesthesiol. 2014 Jan;31(1):41-9. doi: 10.1097/01.EJA.0000434967.03790.0e.

602. Fahlenkamp AV, Coburn M, Rossaint R, Stoppe C, Haase H.
Comparison of the effects of xenon and sevoflurane anaesthesia on leucocyte function in surgical patients: a randomized trial.
Br J Anaesth. 2014 Feb;112(2):272-80. doi: 10.1093/bja/aet330. Epub 2013 Oct 16.

603. Kokki M, Välitalo P, Kuusisto M, Ranta VP, Raatikainen K, Hautajärvi H, Kokki H.
Central nervous system penetration of oxycodone after intravenous and epidural administration.
Br J Anaesth. 2014 Jan;112(1):133-40. doi: 10.1093/bja/aet337. Epub 2013 Oct 16.

604. Kim HJ, Lee HC, Jung YS, Lee J, Min JJ, Hong DM, Choi EK, Oh S, Jeon Y.
Effect of palonosetron on the QTc interval in patients undergoing sevoflurane anaesthesia.
Br J Anaesth. 2014 Mar;112(3):460-8. doi: 10.1093/bja/aet335. Epub 2013 Oct 14.

605. Kappen TH, Moons KG, van Wolfswinkel L, Kalkman CJ, Vergouwe Y, van Klei WA.
Impact of risk assessments on prophylactic antiemetic prescription and the incidence of postoperative nausea and vomiting: a cluster-randomized trial.
Anesthesiology. 2014 Feb;120(2):343-54. doi: 10.1097/ALN.0000000000000009.

606. Schumann M, Biesler I, Börgers A, Pförtner R, Mohr C, Groeben H.
Tracheal intubation in patients with odentogenous abscesses and reduced mouth opening.
Br J Anaesth. 2014 Feb;112(2):348-54. doi: 10.1093/bja/aet310. Epub 2013 Sep 26.

607. Abdallah FW, Morgan PJ, Cil T, McNaught A, Escallon JM, Semple JL, Wu W, Chan VW.
Ultrasound-guided multilevel paravertebral blocks and total intravenous anesthesia improve the quality of recovery after ambulatory breast tumor resection.
Anesthesiology. 2014 Mar;120(3):703-13. doi: 10.1097/ALN.0000436117.52143.bc.

608. Goon SS, Stamatakis EA, Adapa RM, Kasahara M, Bishop S, Wood DF, Wheeler DW,

Menon DK, Gupta AK.
Clinical decision-making augmented by simulation training: neural correlates demonstrated by functional imaging: a pilot study.
Br J Anaesth. 2014 Jan;112(1):124-32. doi: 10.1093/bja/aet326. Epub 2013 Sep 24.

609. Libri V, Gibbs JS, Pinato DJ, Iddamalgoda T, Khengar RH, Gin-Sing W, Huson L, Anand P.
Capsaicin 8% patch for treprostinil subcutaneous infusion site pain in pulmonary hypertension patients.
Br J Anaesth. 2014 Feb;112(2):337-47. doi: 10.1093/bja/aet308. Epub 2013 Sep 22.

610. Hechler T, Ruhe AK, Schmidt P, Hirsch J, Wager J, Dobe M, Krummenauer F, Zernikow B.
Inpatient-based intensive interdisciplinary pain treatment for highly impaired children with severe chronic pain: randomized controlled trial of efficacy and economic effects.
Pain. 2014 Jan;155(1):118-28. doi: 10.1016/j.pain.2013.09.015. Epub 2013 Sep 21.

611. Pappagallo M, Breuer B, Lin HM, Moberly JB, Tai J, Noto C, Sanchez A, Manfredi PL.
A pilot trial of intravenous pamidronate for chronic low back pain.
Pain. 2014 Jan;155(1):108-17. doi: 10.1016/j.pain.2013.09.016. Epub 2013 Sep 21.

612. Yates DR, Davies SJ, Milner HE, Wilson RJ.
Crystalloid or colloid for goal-directed fluid therapy in colorectal surgery.
Br J Anaesth. 2014 Feb;112(2):281-9. doi: 10.1093/bja/aet307. Epub 2013 Sep 20.

613. Le Guen M, Grassin-Delyle S, Cornet C, Genty A, Chazot T, Dardelle D, Liu N, Dreyfus JF, Mazoit JX, Devillier P, Alvarez JC, Sessler DI, Fischler M.
Comparison of the potency of different propofol formulations: a randomized, double-blind trial using closed-loop administration.
Anesthesiology. 2014 Feb;120(2):355-64. doi: 10.1097/01.anes.0000435741.97234.04.

614. Grüne F, Kazmaier S, Sonntag H, Stolker RJ, Weyland A.
Moderate hyperventilation during intravenous anesthesia increases net cerebral lactate efflux.
Anesthesiology. 2014 Feb;120(2):335-42. doi: 10.1097/ALN.0b013e3182a8eb09.

615. Kim MH, Nahm FS, Kim TK, Chang MJ, Do SH.
Comparison of postoperative pain in the first and second knee in staged bilateral total knee arthroplasty: clinical evidence of enhanced pain sensitivity after surgical injury.
Pain. 2014 Jan;155(1):22-7. doi: 10.1016/j.pain.2013.08.027. Epub 2013 Aug 30.

616. Hillyard S, Cowman S, Ramasundaram R, Seed PT, O'Sullivan G.
Does adding milk to tea delay gastric emptying?

Br J Anaesth. 2014 Jan;112(1):66-71. doi: 10.1093/bja/aet261. Epub 2013 Aug 19.

617. Boogmans T, Vertommen J, Valkenborgh T, Devroe S, Roofthooft E, Van de Velde M.
Epidural neostigmine and clonidine improves the quality of combined spinal epidural analgesia in labour: a randomised, double-blind controlled trial.
Eur J Anaesthesiol. 2014 Apr;31(4):190-6. doi: 10.1097/EJA.0b013e32836249e9.

618. Jeleazcov C, Saari TI, Ihmsen H, Mell J, Fröhlich K, Krajinovic L, Fechner J, Schüttler J.
Population pharmacokinetic modeling of hydromorphone in cardiac surgery patients during postoperative pain therapy.
Anesthesiology. 2014 Feb;120(2):378-91. doi: 10.1097/ALN.0b013e3182a76d05.

619. Sigaut S, Tremey B, Ouattara A, Couturier R, Taberlet C, Grassin-Delyle S, Dreyfus JF, Schlumberger S, Fischler M.
Comparison of two doses of tranexamic acid in adults undergoing cardiac surgery with cardiopulmonary bypass.
Anesthesiology. 2014 Mar;120(3):590-600. doi: 10.1097/ALN.0b013e3182a443e8.

620. Wuethrich PY, Burkhard FC, Thalmann GN, Stueber F, Studer UE.
Restrictive deferred hydration combined with preemptive norepinephrine infusion during radical cystectomy reduces postoperative complications and hospitalization time: a randomized clinical trial.
Anesthesiology. 2014 Feb;120(2):365-77. doi: 10.1097/ALN.0b013e3182a44440.

621. Ionescu DC, Hadade AI, Mocan TA, Margarit SD.
The influence of a prophylactic dose of dexamethasone for postoperative nausea and vomiting on plasma interleukin concentrations after laparoscopic cholecystectomy: a randomised trial.
Eur J Anaesthesiol. 2014 Apr;31(4):204-11. doi: 10.1097/EJA.0b013e3283642a01.

622. Huang GS, Wang CC, Hu MH, Cherng CH, Lee MS, Tsai CS, Chan WH, Hsieh XX, Lin
LC.
Bilateral passive leg raising attenuates and delays tourniquet deflation-induced hypotension and tachycardia under spinal anaesthesia: a randomised controlled trial.
Eur J Anaesthesiol. 2014 Jan;31(1):15-22. doi: 10.1097/EJA.0b013e32836286e3.

Supplementary file 3. Detailed survey responses

Participant code	Who was blinded in your trial described as a double-blind?	*What is your personal definition of a single-blind trial?*	What is your personal definition of a double blinded trial?	What is your personal definition of a triple-blind trial?	How often is your personal definition of a double-blind trial used in published trials?
1	participants healthcare providers such as physicians or nurses taking care of a participant data collectors data analysts	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	No answer
2	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	50%
3	data analysts manuscript writers	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	I am unable to respond ; in RCTs of rTMS this is less than 50 %

4	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	100%
5	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	I suppose that in the prospective clinical trials, nowadays, it will be used in a high percentage (80%?), if it is possible to perform the masking in the study area in question. But, of the total of studies that exist, I suspect that it will not be more than 20% of the total, taking into account the high number of retrospective studies.
6	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	1. participants OR 2. healthcare providers such as physicians or nurses taking care of a participant	1. participants 2. healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors 5.	1. participants 2. healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors 5. data analysts 6.	25%

7	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	participants	> 1. participants > 2. healthcare providers such as physicians or nurses taking care > of a participant > 3. data collectors > 4. outcome assessors > 5. data analysts > 6. manuscript writers	Never heard of this term?	Not sure I would hope at least 80%
8	a. participants b. data collectors c. outcome assessors d. data analysts	1. data collectors 2. outcome assessors 3. data analysts	1. participants 2. data collectors 3. outcome assessors 4. data analysts	1. participants 2. healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors 5. data analysts	20%
9	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	No response?	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	In trials performed by pharmaceutical companies ph 1 trials are often single blinded whereas all other trials are called double-blinded but are often triple blinded…….or more …….as the only unblinded person(s) is a pharmacist or an assessor who may be unblinded by side effect reports. Those unblinded folks would be clearly specified in the protocol and would not be involved in collection of efficacy data.
10	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors manuscript writers	No response?	I cannot answer the rest of the questions. I don't use "double-blind" or "single-blind" any longer, as I think they are ambiguous. I adhere to Annals of Internal Medicine guidelines that advises authors to avoid those terms, but to specifically note		No answer

			who was blinded.		
11	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	1. healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analyst	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	I don't specify my personal definition in my trials
12	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	100%
13	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	90%

14	data collectors outcome assessors	participants data collectors outcome assessors data analysts	participants data collectors outcome assessors data analysts	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	60%
15	participants * healthcare providers such as physicians or nurses taking care of a participant * outcome assessors	participants 4. outcome assessors	1. participants and/or 2. healthcare providers such as physicians or nurses taking care of a participant 4. outcome assessors	1. participants 2. healthcare providers such as physicians or nurses taking care of a participant 5. outcome assessors	90%
16	participants data collectors	participants	a. participants b. data collector	participants data collectors healthcare providers such as physicians or nurses taking care of a participant	70%
17	participants * healthcare providers such as physicians or nurses taking care of a participant * data collectors * outcome assessors * data analysts	healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors 5. data analysts	. participants 2. healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors 5. data analysts	1. participants 2. healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors 5. data analysts	_I do not know

18	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	This is very hard to estimate. It probably depends on the field of interest and will widely vary between e.g. Oncology, Anesthesiology, Pain, Surgery, Internal Medicine etc.
19	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	90%
20	healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	20%

21	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	participants	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts	No answer
22	participants data collectors outcome assessors data analysts	data collectors outcome assessors	participants data collectors outcome assessors	participants data collectors outcome assessors data analysts	50%
23	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	participants	participants healthcare providers such as physicians or nurses taking care of a participant outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	95%

24	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	either participants or healthcare providers such as physicians or nurses taking care of a participant, but generally particiapnts	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	just a and b probably 90%, with the addition of assessors probably around 40%.
25	participants healthcare providers such as physicians or nurses taking care of a participant	participants	participants healthcare providers such as physicians or nurses taking care of a participant	participants b. healthcare providers such as physicians or nurses taking care of a participant d. outcome assessors	80%

26	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants, healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	90%
27	participants healthcare providers such as physicians or nurses taking care of a participant data collectors	participants	participants healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant data analystist	From my point of view, data collector does not "take part" inthe definition of single/double/triple blind trial,because the data colector always is blinded. In my research is very difficult to use a double or triple blind trial. I have only used in research with drugs (5% of my reserach).
28	* participants * healthcare providers such as physicians or nurses taking care of a participant * data collectors * outcome assessors * data analysts	participants	1. participants 2. healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors	1. participants 2. healthcare providers such as physicians or nurses taking care of a participant 3. data collectors 4. outcome assessors 5. data analysts	Sorry, can't answer. However I rarely see "triple-blind" used, despite my answer to 3...and that many of my own "double-blind" trials were "triple-blind"

29	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	Do not know. Do you mean what I read or what I have published? I have publishes only one trial.
30	participants ALL healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors data analysts		80%

31	outcome assessors data analysts manuscript writers	a. participants b. data collectors c. outcome assessors d. data analysts	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	70%
32	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	80%
33	participants healthcare providers such as physicians or nurses taking care of a participant data collectors Note that the healthcare providers were at the same time the data collectors and the outcome assessors in our trial.	participants	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors	a. Participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors	90%
34	participants data collectors outcome assessors data analysts manuscript writers	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	I do not have a personal definition. double blind is any two of the patient, the clinician, the outcome/data collectors. Many trials cannot be truely blinded, including the one you refer to above, where the administering physician is targeting a certain depth of anaesthesia.

35	participants healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant outcome assessors	50%
36	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts manuscript writers	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	a. participants b. healthcare providers such as physicians or nurses taking care of a participant c. data collectors d. outcome assessors e. data analysts f. manuscript writers	No answer
37	participants healthcare providers such as physicians or nurses taking care of a participant (ATTEMPTED BUT SUCCESS UNCERTAIN) data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	SORRY, BUT I HAVE NO IDEA.

38	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors	participants healthcare providers such as physicians or nurses taking care of a participant data collectors outcome assessors data analysts	80%
39	healthcare providers such as physicians or nurses taking care of a participant - after first day only [nurses in preadmission clinic were actually part of the intervention] data collectors outcome assessors data analysts manuscript writers	participants healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant	participants healthcare providers such as physicians or nurses taking care of a participant outcome assessors	75
40	No answer	No answer	No answer	No answer	90

STROBE Statement—checklist of items that should be included in reports of observational studies

	Item No	Recommendation	Page
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	1
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	2
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	3-4
Objectives	3	State specific objectives, including any prespecified hypotheses	3-4
Methods			
Study design	4	Present key elements of study design early in the paper	5
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	5
Participants	6	(*a*) *Cohort study*—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up *Case-control study*—Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls *Cross-sectional study*—Give the eligibility criteria, and the sources and methods of selection of participants	5
		(*b*) *Cohort study*—For matched studies, give matching criteria and number of exposed and unexposed *Case-control study*—For matched studies, give matching criteria and the number of controls per case	
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	6-7
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	6-7
Bias	9	Describe any efforts to address potential sources of bias	6-7
Study size	10	Explain how the study size was arrived at	6-7
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	6-7
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	6-7
		(*b*) Describe any methods used to examine subgroups and interactions	
		(*c*) Explain how missing data were addressed	
		(*d*) *Cohort study*—If applicable, explain how loss to follow-up was addressed *Case-control study*—If applicable, explain how matching of cases and controls was addressed *Cross-sectional study*—If applicable, describe analytical methods taking account of sampling strategy	
		(*e*) Describe any sensitivity analyses	NA

Results			**Page**
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	NA
		(b) Give reasons for non-participation at each stage	9
		(c) Consider use of a flow diagram	
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	9
		(b) Indicate number of participants with missing data for each variable of interest	
		(c) *Cohort study*—Summarise follow-up time (eg, average and total amount)	
Outcome data	15*	*Cohort study*—Report numbers of outcome events or summary measures over time	
		Case-control study—Report numbers in each exposure category, or summary measures of exposure	
		Cross-sectional study—Report numbers of outcome events or summary measures	*9-12*
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	9-12
		(*b*) Report category boundaries when continuous variables were categorized	
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	9-12
Discussion			
Key results	18	Summarise key results with reference to study objectives	13
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	17
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	13-17
Generalisability	21	Discuss the generalisability (external validity) of the study results	13-17
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	19

*Give information separately for cases and controls in case-control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.