

MEDLINE (3 March 2020)

The Ovid® 2020 Ovid Technologies Inc. software platform was used.

Databases searched:

Ovid MEDLINE(R) ALL 1946 to March 02, 2020

Embase 1974 to 2020 March 02

Journals@Ovid Full Text March 02, 2020

Global Health 1910 to 2020 Week 08

ERIC 1965 to August 2019

Ovid Healthstar 1966 to January 2020

Search Strategy:

1. "surg*".m_titl.
2. apgar.m_titl.
3. 1 and 2
N = 309
4. remove duplicates from 3
N = 135
5. limit 4 to english language
6. limit 5 to journal articles
N = 128

GREY LITERATURE

Grey literature was searched according to the CADTH Grey Matters Light guidelines (ref). A search in each database was performed using keywords "surg*" and "apgar". Databases searched included:

University of York Centre for Reviews and Dissemination (CRD): N=0.

Canadian HTA Database Search: N=0.

TRIP Database: N=259. Titles reviewed and 24 identified of which 22 were duplicates, 2 articles retained.

The Cochrane Library: N=9. Titles reviewed, 0 retained.

Health Quality Ontario Publications and OHTAC Recommendations: N=2. Titles reviewed, 0 retained.

L'Institut national d'excellence en santé et en services sociaux (INESSS): N=0.

Canadian Agency for Drugs and Technologies in Health (CADTH): N=18. Titles reviewed, 0 articles retained.

Healthy Canadians Recalls & Alerts: N=0.

European Medicines Agency (EMA) Patient Safety: N=41. Titles reviewed, 0 retained.

New Zealand Medicines and Medical Devices Safety Authority Medsafe Prescriber Update: N=7. Titles reviewed, 0 retained.

MedWatch: The FDA Safety Information and Adverse Event Reporting Program: N=0.

Medicines and Healthcare Products Regulatory Agency (MHRA) Drug Safety Update: N=0.

Canadian Medical Association CMA Infobase: Clinical Practice Guidelines: N=0.

National Guideline Clearing House (NGC): N=4. Titles reviewed, 0 retained.

National Institute for Health and Care Excellence – NICE Guidelines: N=8. Titles reviewed, 0 retained.

HAND SEARCHING

References and citations from all identified articles were hand searched for any additional unidentified articles. No new articles were identified.

CONTACT WITH AUTHORS

The authors who originally derived and evaluated the SAS were successfully contacted electronically. They were not aware of any additional unpublished data.

INCLUSION and EXCLUSION CRITERIA

Studies were included for analysis if they:

- A defined patient population
- Application of the SAS as defined by Gawande et al 2007.
- Association of SAS with patient-important post-operative outcomes such as mortality and major complications
- Adequate description of methodology for quality assessment using the Newcastle-Ottawa criteria
- A quality assessment of $\geq 6/9$ stars on the Newcastle-Ottawa Scale for observational studies
- A low risk of bias as determined by the Cochrane Bias Tool for RCTs

Studies were excluded from the analysis if they:

- An undefined patient population
- Improper use/application of the SAS
- Inadequate methodology for quality assessment using the Newcastle-Ottawa criteria
- A quality assessment of less than 6/9 stars on the Newcastle-Ottawa Scale
- An indeterminate or high risk of bias as determined by the Cochrane Bias Tool for RCTs
- Review articles
- No AUROC or c-statistic reported