Supplementary Online Content

Guerra-Londono CE, Privorotskiy A, Cozowicz C, et al. Assessment of intercostal nerve block analgesia for thoracic surgery: a systematic review and meta-analysis. *JAMA Netw Open*. 2021;4(11):e2133394. doi:10.1001/jamanetworkopen.2021.33394

eFigure 1. Risk of Bias Assessment Across Experimental and Observational Studies

eFigure 2. Risk of Bias Assessments Within Each of the Coprimary Outcomes

eFigure 3. Forest Plots With Effect Estimates of Mean Differences in Acute Postoperative Pain Between ICNB and Other Forms of Analgesia

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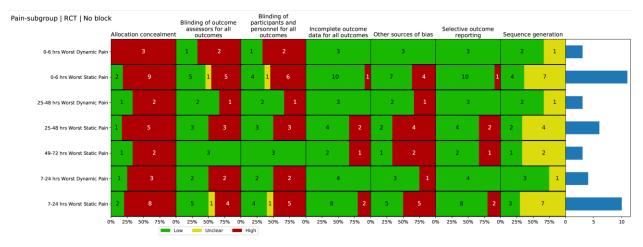
eFigure 10. Forest Plots With Effect Estimates of Mean Differences in Length of Stay Between ICNB and Other Forms of Analgesia

eFigure 11. Forest Plots With Effect Estimates of Mean Differences in Length of Stay Between ICNB and Other Forms of Analgesia: Subgroup Analysis by Type of Surgery

This supplementary material has been provided by the authors to give readers additional information about their work.

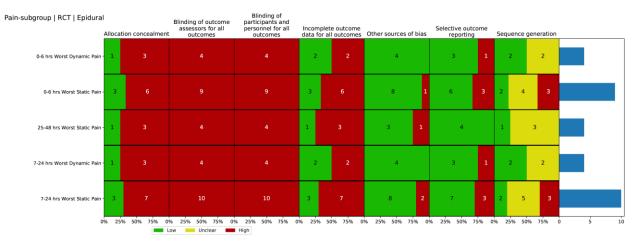




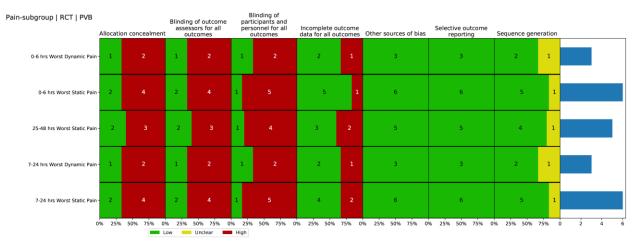


A. Risk of Bias Assessment for Pain in Randomized Controlled Trials: ICNB vs Systemic Analgesia

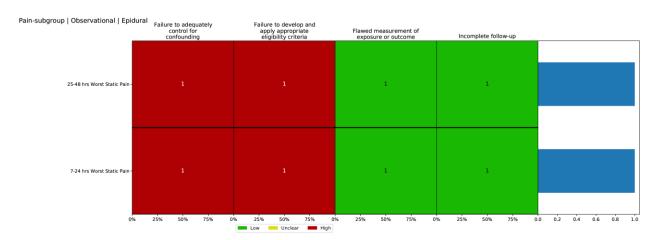
B. Risk of Bias Assessment for Pain in Randomized Controlled Trials: ICNB vs TEA



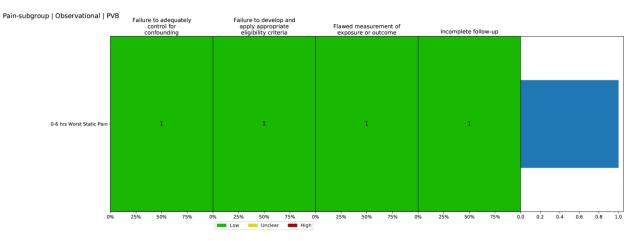
C. Risk of Bias Assessment for Pain in Randomized Controlled Trials: ICNB vs PVB



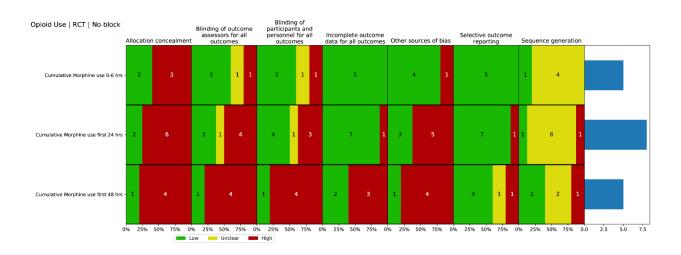
D. Risk of Bias Assessment for Pain in Observational Studies: ICNB vs TEA



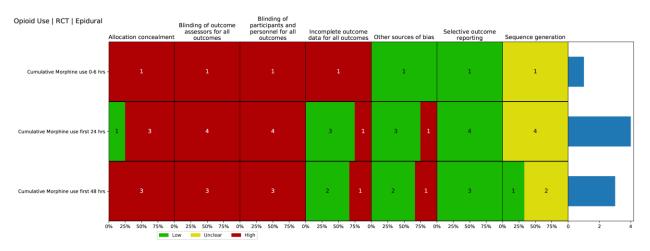
E. Risk of Bias Assessment for Pain in Observational Studies: ICNB vs PVB



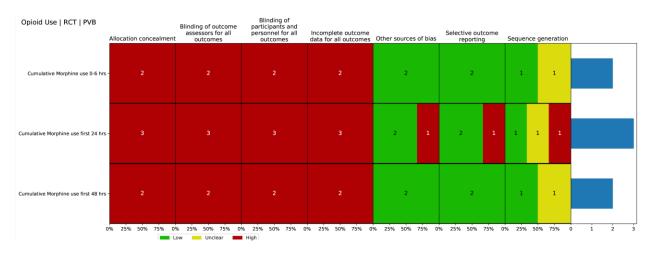
F. Risk of Bias Assessment for Opioid Consumption in Randomized Controlled Trials: ICNB vs Systemic Analgesia



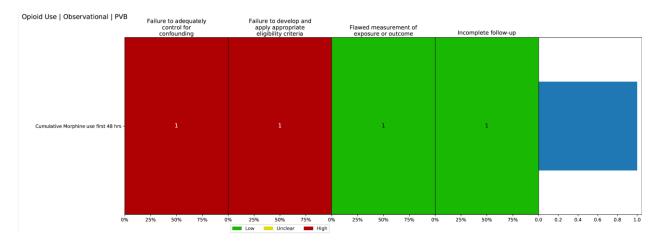
G. Risk of Bias Assessment for Opioid Consumption in Randomized Controlled Trials: ICNB vs TEA



H. Risk of Bias Assessment for Opioid Consumption in Randomized Controlled Trials: ICNB vs PVB



I. Risk of Bias Assessment for Opioid Consumption in Observational Studies: ICNB vs PVB



eFigure 3. Forest Plots With Effect Estimates of Mean Differences in Acute Postoperative Pain Between ICNB and Other Forms of Analgesia

A. Forest Plot With Effect Estimates of Mean Differences in Acute Postoperative Pain Between ICNB and Systemic Analgesia (double-click to open PDF)

	Intervention	Control			
Study	Total Mean SI	Total Mean SD	Hean Difference Favors ICNB Favors System	MD alc Analgesia	95%-CI Weight
Xiang et al, 2020" Thoracoscopic Sin	gle-shot 9 2.20 0.80 gle-shot 40 3.50 0.50 gle-shot 40 7.30 1.50 09	40 5,40 0,80		-2.30 [-2.90; -1.90 [-2.19; 0.20 [-0.43; -1.66 [-1.90; [-18.49;	-1.61] 3.3% 0.83] 0.7% -1.41] 4.0%
Ahmed et al. 2017* Thoracoecopic Bin D'Andelli et al. 200* Thoracoccmy Bin D'Andelli et al. 200* Thoracoccmy Bin Liu et al. 195* Thoracoccmy Bin Hogshad et al. 201* Thoracoccmy Bin Wang et al. 201* Thoracoccmy Bin Wang et al. 2010* Thoracoccmy Bin	Linuous 10 7.00 0.80 11shot 30 0.00 0.50 11shot 15 3.00 2.20 11shot 9 1.60 0.60 11shot 9 1.60 0.60 11shot 9 1.20 0.80 11shot 9 2.80 0.80 11shot 9 2.80 0.80 11shot 9 2.80 0.80 11shot 9 2.80 0.83 11shot 9 2.80 0.83	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-0.79] 3.0% -0.86] 1.5% -0.30] 0.2% -1.7] 1.2% -1.83] 51.2% -3.92] 0.1% -3.92] 0.1% -3.49] 1.5% -1.49] 1.5% -1.3%
35-48 has Worst Dynamic Pain Systemic and Revenaph et al. 1994" Not specified Sing Liu et al. 2018" Thorseology Sin Proceedings Sing Press defect model Press defect nodel Press defect nodel Press defect n subgroups = 2.09 (p = 0.) Test for effect in subgroups = 2.09 (p = 0.)	Le-shot 15 3.30 2.40 gle-shot 9 6.80 1.00 gle-shot 40 4.50 1.20 64	11 4.50 1.00		0.50 [-1.33; 2.30 [1.42; -0.30 [-0.89; 0.51 [0.03; [-21.55;	3.18] 0.4% 0.29] 0.8% 0.90] 1.3%
D'Andrilli et al, 2006^{44} Thoracotomy Sin Ravanagh et al, 1994^{44} Not apecified Sing Liu et al, 1995^{44} Thoracotomy Sin Mozell et al, 1991^{42} Thoracotomy Sin	Involution IO 4.00 1.00 glae_shot 60 1.60 0.60 le_shot 15 2.50 2.00 glae_shot 9 2.20 0.80 glae_shot 8 0.70 0.50 glae_shot 40 3.60 1.20 glae_shot 40 3.60 1.20	60 2.00 1.00 15 2.40 2.10 11 2.90 0.90 8 3.50 2.54		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-0.10] 3.2% 1.57] 0.1% 0.05] 0.5% -1.00] 0.1% 0.19] 0.8%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Le-shot 15 2.80 1.80 ple-shot 9 3.00 1.00 ple-shot 8 0.40 0.28 32	11 0.30 0.40		-0.50 [-1.65; 3.70 [3.01; -2.20 [4.16; 1.51 [0.94; [-36.15;	3.391 0.6% -0.241 0.1% 2.081 0.9%
Xiang et al, 202071 Thoracoscopic Sin	Le-ahot 15 4.00 2.20 ple-shot 9 6.90 0.60 ple-shot 40 3.40 0.40 ple-shot 40 5.20 1.60 1.04	40 5,70 1,00		-0.90 [-2.87; 1.00 [0.34; -2.30 [-2.63; -0.60 [-1.24; -1.43 [-1.70; [-0.50;	1.66] 0.6% -1.97] 2.5% 0.04] 0.7% -1.17] 3.9%
Chan et al, 1991* Thoracotomy Con Ahmed et al, 2017* Thoracoscopic Sin Ahmed et al, 2017* Thoracoscopic Sin Liu et al, 1994** Not specified Sin Liu et al, 1995** Thoracotomy Sin Mosell et al, 1995** Thoracotomy Sin Mosell et al, 2020** Thoracotomy Sin Xiang et al, 2020** Thoracoscopic Sin	Linuous 10 5-00 1:05 14040	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		-1.20 [-1.75; -0.40 [-2.02; -0.30 [-1.07; -3.30 [-5.49; -2.80 [-3.28; -1.90 [-2.12; -0.70 [-1.36;	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Fixed effect model Prediction interval Heterogeneity: $J^2 = 954$ [954, 964], $p < 0.00$ Test for subgroup differences: $\chi^2_2 = 228.63$, d	1015	1055		-1.29 [-1.34; [-2.92;	-1.24] 100.0% 0.88]

eFigure 3a. Forest Plots with Effect Estimates of Mean Differences in Acute Postoperative Pain Between ICNB and Systemic Analgesia

B. Forest Plot With Effect Estimates of Mean Differences in Acute Postoperative Pain Between ICNB and Other Forms of Analgesia (PVB and TEA) (double-click to open PDF)

eFigure 3b. Forest Plots with Effect	Estimates of Mean Diffs	rences in Acute P	ostoperative Pain Betw	en ICNB and other form	ns of analgesia (PVB and TEA).		
Study			Intervention Total Mean 60	Control Total Mean SD	Mean Difference Favors ICNB , Favors Control	MD	95%-CI Weight
0-6 here Worst Dynamics Pai Sagiroglu et al. 2013 Concha et al. 2004 Pertunen et al. 1995 Vilvanathan et al. 2920 Fixed offoct model Heterogeneity. F' = 615 [Test for effect in subgrou	0%; 87%]; p = 0 p1 = 0.63 (p =		30 7.50 1.40 16 4.00 1.00 15 8.34 1.65 25 4.12 1.76	30 7:70 0:90 15 3:50 1:25 15 9:08 1:45 25 3:16 1:46 05		-0.20 [-0.90; -0.50 [-0.30; -0.74 [-1.85; 0.33 [-0.27; [-2.55;	0.40] 0.5% 1.30] 0.3% 0.37] 0.3% 1.86] 0.2% 0.50] 1.2% 0.50] 1.2%
0-6 haw Works Dynamics Pai then t al. 020 ^m Pertunen et al. 1995 ^m Xiang et al. 2020 ⁿ Fredeotion Anterval Heterogeneity: 7 ² = 6 [Test for effect in subgrou	04, 9041, p = 0.		24 2.00 1.50 15 0.34 1.65 40 3.50 0.50 75	24 1:00 1:50 15 8:56 2:50 40 2:60 0:40 79		1.00 [0.15; 0.22 [-1.74; 0.90 [0.70; 0.89 [0.70; [-1.26;	1,851 0,3% 1,301 0,1% 1,101 4,9% 1,001 5,3% 3,031
os her week meete set bauphin wet al, 2007 Sagiroya at al, 2003 Sagiroya at al, 2004 Concha et al, 2004 Conc		Continuous Continuous Continuous Single-shot Single-shot Single-shot Single-shot Single-shot Single-shot	31 3.80 2.20 38 8.00 1.75 30 5.70 1.90 10 2.90 1.90 16 2.90 1.25 15 4.01 2.10 10 3.00 0.70 10 3.00 0.91 26 3.60 0.91 169	41 3 3 0 3 1 0 30 5 20 3 50 30 5 20 3 2 0 1 5 2 0 3 2 0 3 5 2 0 2 1 0 3 5 2 0 0 1 0 5 5 2 0 5 5 2 0 0 1 0 5 5 2 0 5 5 2 0 0 1 0 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		$\begin{array}{c} 0.00 & [-1.22]\\ 3.00 & [-0.72]\\ 0.51 & $	1.22] 0.1% 3.22] 0.1% 3.24] 0.1% 1.4% 1.4% 1.6% 0.3% 0.3% 0.3% 0.3% 0.3% 0.3% 0.3% 0.3% 0.3% 0.3% 0.3% 0.4% 1.4% 0.3% 0.4% 0.4% 0.3% 0.4% 0.4% 0.4% 0.4% 0.5%
O-6 has Moset Blatts Patt Odomateyu e Gl.9 Moganed et al. 2019 Moganed et al. 2019 Name of the second Xiang et al. 2020 Ving et al. 2019 Production interval Production interval Production interval Production interval Production interval Production interval Production interval	Thoracoscopic Thoracoscopic Thoracoscopic Thoracoscopic Thoracoscopic Thoracoscopic Thoracoscopic	Continuous Single-shot Single-shot Single-shot Single-shot Single-shot Single-shot Dingle-shot	24 3.53 2.21 24 1.00 1.25 35 2.20 0.20 15 4.870 2.60 40 2.80 0.30 14 2.16 1.17 16 .	26 2.83 2.39 24 0.50 1.25 35 2.490 0.20 15 5.70 2.50 40 2.00 0.20 14 2.75 0.70 14 2.75 0.70		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1.90] 0.1% 1.21] 0.4% 0.11] 22.0% 0.47] 0.7% 0.47] 1.7% 1.12] 0.4% 1.12] 0.4% 1.96] 4.1.2%
Deuphin et al. 1997 Concha et al. 2004" Mung et al. 2015" Pertrumen et al. 1995 Pilos essent Pilos essent Prediction interval Reterogensity 7° = 674 [Thoracotomy Thoracotomy Thoracotomy Thoracotomy Thoracotomy	Continuous Single-shot Single-shot Single-shot	31 2.30 2.40 16 0.80 0.70 108 1.70 0.80 15 1.60 1.45 21 3.50 1.90 191	41 2.60 2.60 15 0.00 0.50 130 1.70 1.20 15 1.96 1.20 22 3.50 2.20 22 3.50 2.20		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.061 0.1% 1.231 1.1% 0.261 3.0% 1.231 0.2% 1.231 0.1% 1.231 0.1% 1.641
An and here weret Setter Part Chen et al. 2020 Hutchins et al. 2017 Hutchins et al. 2017 Hutchins et al. 2017 Pixed effect Boodel Pixed effect Boodel Herergenetty: 7' - Bost (Test for effect in subgrou	Thoracoscopic Thoracoscopic Thoracoscopic Thoracoscopic	Continuous Bingle-shot Bingle-shot Bingle-shot	24 2.20 2.15 24 0.00 0.25 25 6.44 1.94 15 2.20 0.40 120	26 2.26 2.22 24 0.00 0.25 23 3.65 2.59 15 1.91 1.15 34 2.00 0.50		$\begin{array}{c} -0.06 & [-1.27] \\ 0.00 & [-0.14] \\ 3.79 & [1.49] \\ 0.20 & [-1.29] \\ 0.20 & [-1.29] \\ 0.07 & [-1.41] \\ [-1.41] \end{array}$	1.151 0.14 0.141 9.74 4.091 0.14 0.631 0.25 0.421 4.14 1.911 4.25
7-24 hrs Worst Dynamic Ps Bagiroglu et al, 2013 ^{an} Concha et al, 2004 ^{an} Pertunen et al, 1995 ^{an} Vilvanathan et al, 2020 ^{an} Protect et al, 1995 ^{an} Heterogensity: 7 ^a = 345 [Test for effect in subgrou	Thoracotomy Thoracotomy Thoracotomy Thoracotomy Thoracotomy 05/ 7751, p = 0 01 = - 3.06 (p =	Continuous Single-shot Single-shot Single-shot	30 3.60 1.80 16 4.00 1.75 15 6.51 1.50 252 3.40 1.19	30 2.40 0.80 15 3.00 2.00 15 6.79 2.00 5 3.00 1.32		1.20 [0.50; 1.00 [-0.33; -0.28 [-1.58; 0.79 [0.20; [-1.83;	1.901 0.4% 2.331 0.1% 0.991 0.1% 1.571 0.1% 1.201 0.1% 2.201 0.0%
Prediction interval Heterogeneity: $T^2 = 916$ [Test for effect in subgrou	p1 z = 19.62 (p	Bingle-shot Single-shot Single-shot	24 2.00 0.75 15 6.51 1.50 40 3.40 0.40 79	24 1.30 0.50 15 6.96 1.60 40 2.00 0.20 79		0.70 [0.34; -0.45 [-1.56; 1.40 [1.26; 1.29 [1.16; [-9.07]	1.06] 1.5% 0.66] 0.2% 1.64] 10.1% 1.41] 11.7% 10.54]
Told here Worst Statis Par Daughter et al. 1997 Sagiter et al. 2007 Sagiter et al. 2013 Sagiter et al. 2013 Mung et al. 2015 Hung et al. 2015 Hung et al. 2013 Sagiter et al. 2014 Sagiter et al. 2015 Sagiter	Thoracoscopic Thoracoscopic Thoracoscopic Thoracoscopic Thoracoscopic Thoracoscopic Thoracoscopic Distant and the second	Continuous Continuous Single-shot Single-shot Single-shot Single-shot Single-shot Single-shot Single-shot Single-shot Single-shot	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	41 3.40 1.60 25 4.00 1.75 31 3.31 3.834 16 1.00 1.75 10 2.00 1.75 10 2.00 1.75 10 2.00 1.75 10 2.00 1.75 10 3.00 1.00 10 3.00 1.00 10 3.00 1.50 10 5.00 1.50 1		$ \begin{array}{c} 0 \ , 80 \\ 1 \ , 00 \\ 1 \ , 00 \\ 0 \ , 80 \\ 0 \ , 00 \ , 00 \\ 0 \ , 00 \ , 00 \\ 0 \ , 00 \ , 00 \\ 0 \ , 00 \ , 00 \ , 00 \\ 0 \ , 00 \ $	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
7-34 here Weerst Statio Pag Hadomatau et al, 2010 Hadomatau et al, 2020 Perfectuen et al, 1995 Wu et al, 2010 Wu et al, 2010 Perfectuen et al, 1995 Perfectuen et al, 1995 Perfectuen et al, 2010 Perfectuen et al, 2010 Perfectuent et a	Thoracoscopic Thoracoscopic Thoracoscopic Thoracoscopic Thoracoscopic Thoracoscopic Thoracoscopic	Continuous Bingle-shot Single-shot Single-shot Bingle-shot Bingle-shot (001)	24 3,68 2,72 24 2,00 0,75 25 6,16 1,95 15 2,21 1,50 32 2,20 0,60 40 2,70 0,40	$\begin{array}{c} 96 & 9 & 71 & 9 & 12 \\ 94 & 1 & 00 & 0 & 75 \\ 93 & 5 & 74 & 81 \\ 18 & 3 & 07 & 2 & 10 \\ 34 & 80 & 0 & 50 \\ 40 & 1 & 70 & 0 & 20 \\ 100 & 1 & 70 & 0 & 20 \\ \end{array}$		$\begin{array}{c} 0.91 & [-0.48]\\ 1.00 & [0.56]\\ 0.42 & [-0.86]\\ -0.86 & [-2.17]\\ 1.00 & [0.96]\\ 0.83 & [-0.96]\\ 0.83 & [-0.96]\\ 0.83 & [-0.96]\\ \end{array}$	2.07] 0.1% 1.42] 1.1% 0.45] 0.1% 0.45] 0.1% 1.10.1% 1.14] 10.1% 2.00]
Fixed affect model Press and a start of the second start of the s			1906 0.001)	1595 -4		0.46 (0.42; (-0.72;	0.50] 100.0% 1.60]

eFigure 4. Forest Plots With Effect Estimates of Mean Differences in Acute Postoperative Pain Between ICNB and Other Forms of Analgesia: Subgroup Analysis by Type of Surgery (double-click to open PDF)

eFigure 4. Forest Plots with Effect E	stimates of Mean Diff	erences in Acute Post	loperative Pain Betweer	ICNB and other forms of analg	esia: Subgroup Analy	sis by Type of Surgery
Study	т	Intervention tal Mean SD T	Control Total Mean SD	Mean Difference	мо	95%-CI Weight
0-6 hrs Worst Dynamic Pai Sagiroqlu et al, 2013 ^W Concha et al, 2004 ^P Perttunen et al, 1995 ^B Vilvanathan et al, 2020 ^W Fixed effect model Prediction interval Haterogeneity: 1 ² - 614 [Test for effect in aubgrou	0%; 87%], p = p: z = 0.63 (p	Thoracotomy 30 7.50 1.40 16 4.00 1.00 15 8.34 1.65 25 4.12 1.76 86 0.05 = 0.53)	30 7.70 0.90 15 3.50 1.25 15 9.08 1.45 25 3.16 1.46 85	Favors ICNB Favors Control	-0.20 [-0.80] 0.50 [-0.30] -0.74 [-1.85] 0.96 [0.065] 0.13 [-0.27; [-2.55]	0.40] 0.4% 1.30] 0.2% 0.37] 0.1% 1.86] 0.2% 0.52] 0.9% 2.86]
0-6 hrs Worst Static Pain Dauphin et al. 1997 ¹⁰ Dabraceni et al. 2003 Market et al. 2004 Annu et al. 1996 ¹⁰ Concha et al. 1996 ¹⁰ Concha et al. 1997 ¹⁰ Vilvanathan et al. 1997 ¹⁰ Vilvanathan et al. 2020 ¹⁰ Pixed effect model Heterogeneity: $r_{i}^{2} = 408$.			$\begin{array}{c} 41 & 3.80 & 3.10 \\ 25 & 6.00 & 2.50 \\ 30 & 5.20 & 2.20 \\ 31 & 4.29 & 2.04 \\ 15 & 2.00 & 1.00 \\ 15 & 6.15 & 3.30 \\ 18 & 4.47 & 2.24 \\ 25 & 2.80 & 1.55 \\ 200 \end{array}$		0.00 [-1.22; 2.00 [0.76; 0.50 [-0.54; 0.90 [0.11] -1.34 [-3.29; -0.07 [-1.73; 0.80 [0.10; 0.64 [0.27; [-0.76;	1.22] 0.14 3.22] 0.14 1.54] 0.14 1.69] 0.24 0.61] 0.04 1.60] 0.34 1.50] 0.34 1.02] 1.05 1.02] 1.05
0-6 hrs Worst Static Pain Kadomatsu et al, 2018 ⁶⁷ Chen et al, 2020 ⁸⁶ Mogahed et al, 2019 ⁷⁰ Wu et al, 2018 ⁶⁷ Xiang et al, 2020 ⁷¹	Continuous Single-shot Single-shot Single-shot Single-shot Single-shot Single-shot	24 3.53 2.21 24 1.00 1.25 35 2.20 0.20 32 2.70 0.60 40 2.80 0.30 14 3.16 1.17	26 2.83 2.39 24 0.50 1.25 35 2.40 0.20 34 2.50 0.50 40 2.00 0.20 14 2.75 0.70 173		0.70 [-0.58; 0.50 [-0.21; -0.20 [-0.29; 0.20 [-0.07; 0.80 [0.69; 0.41 [-0.30]; 0.22 [0.15; [-1.41;	1.98] 0.1% 1.21] 0.3% 0.47] 2.0% 0.47] 2.0% 0.91] 11.7% 0.29] 31.1% 2.14]
0-6 brs Worst Static Pair	Systemic and Single-shot Single-shot Single-shot	Algesia Thora 30 3.00 0.50 35 2.20 0.20 40 2.80 0.30	30 4.10 0.70 35 3.50 0.10 40 4.50 0.60	*	-1.10 [-1.41; -1.30 [-1.37; -1.70 [-1.91; -1.33 [-1.40; [-5.11;	-0.79] 1.5% -1.23] 26.6% -1.49] 3.4% -1.27] 31.6% 2.35] —
0-6 hrs Worst Static Pain Chan et al, 1991 ⁴¹ D'Andrilli et al, 2006 ⁴¹ Liu et al, 1995 ⁴³ Movell et al, 1991 ⁴³	Systemic and Continuous Single-shot Single-shot Single-shot Single-shot	ligesia Thora 10 7.00 0.80 60 2.30 1.00 9 1.60 0.60 8 1.30 0.84 50 2.70 0.80 15 3.70 0.59	10 8.10 0.60 60 3.60 1.40 11 3.80 0.50 8 5.70 1.97 50 7.10 1.30 15 5.30 0.60 41 5.80 1.00	+ + + + + + + + + + + +	-1.10 [-1.72; -1.30 [-1.74; -2.20 [-2.69] -4.40 [-5.88; -4.40 [-4.82] -1.60 [-2.03; 0.20 [-0.26; -1.88 [-2.07] [-6.54]	-0.48] 0.4% -0.86] 0.8% -1.71] 0.6% -2.92] 0.1% -3.98] 0.8% -1.17] 0.8% 0.66] 0.7% -1.69] 4.1% 2.41]
25-48 hrs Worst Static Pa Dauphin et al, 1997 ⁹¹ Concha et al, 2004 ¹⁹ Perttunen et al, 1995 ³³ Fixed effect model Prediction interval Neterogeneity: I ² = 71% [Test for effect in subgrou	<pre>in [Epidural Continuous Single-shot Single-shot 1%; 91%], p = p: s = 2.74 (p)</pre>	Thoracotomy 31 2.30 2.40 16 0.80 0.70 15 1.60 1.45 62	41 2.60 2.60 15 0.00 0.50 15 1.96 1.20 71	+	-0.30 [-1.46; 0.80 [0.37; -0.36 [-1.31; 0.51 [0.15; [-9.53;	0.86] 0.1% 1.23] 0.8% 0.59] 0.2% 0.88] 1.1% 9.84]
25-48 hrs Worst Static Pa Kadomatsu et al, 2018" Chen et al, 2020" Hutchins et al, 2017" Wu et al, 2018" Fixed effect model Prediction interval Heterogeneity: 7° = 84% Test for effect in subgrou	in PVB Thos Continuous Single-shot Single-shot Single-shot	24 2.20 2.15 24 0.00 0.25 25 6.44 1.94 32 2.20 0.40	26 2.26 2.22 24 0.00 0.25 23 3.65 2.59 34 2.00 0.50 107		-0.06 [-1.27] 0.00 [-0.14] 2.79 [1.49] 0.20 [-0.02] 0.08 [-0.04] [-2.21]	1.15] 0.1% 0.14] 7.3% 4.09] 0.1% 0.42] 3.1% 0.20] 10.6% 2.89]
$\begin{array}{c} 25-40 \text{ hrs Worst Static Pec}\\ \text{Carretta et al., 1996"}\\ 0 \text{Andrill et al., 2006"}\\ 10 \text{Andrill et al., 2006"}\\ \text{Morell et al., 1991"}\\ \text{Zhu et al., 2010"}\\ \text{Fixed effact model}\\ \text{Prediction interval}\\ \text{Hetrogeneity } i^2 = 705\\ \text{Test for effect in subgrou}\\ \end{array}$	Continuous Single-shot Single-shot Single-shot Single-shot	10 4.00 1.00 60 1.60 0.60 9 2.20 0.80 8 0.70 0.56 40 3.60 1.20	20 3.40 1.13 60 2.00 1.00 11 2.90 0.90 8 3.50 2.54 41 4.00 1.50 140		0.60 [-0.19; -0.40 [-0.70; -0.70 [-1.45; -2.80 [-4.60; -0.40 [-0.99; -0.38 [-0.62; [-2.47]	1.39] 0.2% -0.10] 1.7% 0.05] 0.3% -1.00] 0.0% 0.19] 0.4% -0.15] 2.6% 1.59]
7-24 hrs Worst Dynamic Pa Sagiroglu et al, 2013 ^W Concha et al, 2004 ^W Perttunen et al, 1995 ³⁰ Vilvanathan et al, 2020 ^W Fixed effect model Prediction interval Haterogensity: $I^2 = 344$ [Test for effect in aubgrou	in Epidural Continuous Single-shot Single-shot Single-shot	Thoracotomy 30 3.60 1.80 16 4.00 1.75 15 6.51 1.50 252 3.40 1.19 313	30 2.40 0.80 15 3.00 2.00 15 6.79 2.00 5 3.00 1.32 65		1.20 [0.50; 1.00 [-0.33; -0.28 [-1.55; 0.40 [-0.77; 0.79 [0.28; [-1.53;	1.90] 0.3% 2.33] 0.1% 0.99] 0.1% 1.57] 0.1% 1.29] 0.6% 2.91] —
7-24 hrs Worst Static Pai Hung et al, 2015 ⁹⁶ Pompeo et al, 2013 ⁹¹ Ueda et al, 2020 ⁹³ Fixed effect model Prediction interval Reterogeneity: I ² = 35% [Test for effect in subgrou	n Epidural Single-shot Single-shot Single-shot 0%; 79%], p = p: z - 2.27 (p	Thoracoscopic 108 1.90 1.20 10 2.10 0.60 21 3.80 2.50 139 0.12 - 0.02)	130 1.80 1.70 20 1.50 0.50 22 3.20 2.80 172		0.10 [-0.27; 0.60 [0.17; 0.60 [-0.99; 0.32 [0.04; [-3.10;	0.47] 1.1% 1.03] 0.1% 2.19] 0.1% 0.60] 1.9% 3.79]
7-24 kms Worst Static Fai Desphin et al. 1997 Debreconi et al. 2034 Sagiroglu et al. 2013 Asantila et al. 1986 Concha et al. 1986 Perttunen et al. 1997 Vilvanathan et al. 2007 Vilvanathan et al. 2007 Prediction interval Heterogeneity: T^2 - 38 (Teat for effect in subgrou	Single-shot Single-shot Single-shot Single-shot	16 1.00 1.00 15 2.21 1.50 10 5.10 1.30 252 2.60 1.08 386	$\begin{array}{c} 41 \ 2.40 \ 1.60 \\ 25 \ 4.00 \ 1.75 \\ 30 \ 0.80 \ 1.60 \\ 31 \ 3.31 \ 2.24 \\ 15 \ 1.00 \ 1.20 \\ 15 \ 2.51 \ 1.20 \\ 18 \ 3.14 \ 2.69 \\ 25 \ 2.16 \ 1.21 \\ 200 \end{array}$	•	0.80 [-0.21; 1.00 [-0.18; 1.10 [0.16; 0.89 [-0.22; 0.00 [-0.70; -0.30 [-1.27; 1.96 [0.47; 0.44 [-0.05; 0.52 [-0.43;	1.81] 0.1% 2.10] 0.1% 2.04] 0.2% 2.00] 0.1% 0.70] 0.3% 3.44] 0.2% 0.93] 0.6% 0.82] 1.6% 1.60]
Fixed effect model Prediction interval	Single-shot Single-shot Single-shot Single-shot	24 2.00 0.75 25 6.16 1.95 32 2.80 0.60 40 2.70 0.40	26 2.71 2.12 24 1.00 0.75 23 5.74 2.51 34 2.60 0.50 40 1.70 0.20 147	+++++++++++++++++++++++++++++++++++++++	0.91 [-0.45; 1.00 [0.58; 0.42 [-0.86; 0.20 [-0.07; 1.00 [0.86; 0.84 [0.72; [-0.80;	2.27] 0.1% 1.42] 0.0% 1.70] 0.1% 0.47] 2.0% 1.14] 7.6% 0.96] 10.6% 2.23]
7-24 hrs Worst Static Pai Carretta et al, 1996" Chan et al, 1991" D'Andrilli et al, 2006" Liu et al, 2019" Wang et al, 2019" Zhu et al, 2019" Fixed effect model Freddtion interval	n Systemic ar Continuous Continuous Single-shot Single-shot Single-shot Single-shot Single-shot	algesia Thor 10 5.00 1.00 10 2.50 0.80 60 2.20 0.80 9 3.40 1.00 8 1.30 0.56 50 3.40 0.90 40 3.80 1.20	20 5.60 1.33 10 4.60 1.33 10 4.60 1.00 11 3.70 0.70 8 4.60 3.11 - 50 6.20 1.50 41 4.50 1.80 200		-0.60 [-1.45; -2.10 [-2.89; -1.20 [-1.75; -0.30 [-1.75; -3.30 [-5.49; -2.80 [-3.28; -0.70 [-1.36; -1.55 [-1.81; [-4.26;	0.25] 0.2% -1.31] 0.2% -0.65] 0.5% 0.47] 0.2% -1.11] 0.0% -2.32] 0.6% -0.04] 0.3% -1.29] 2.2% 1.35]
Heterogeneity: $I^2 = 0.05$ (I) Test for effect in subgrou Fixed effect model Prediction interval Heterogeneity: $I^2 = 0.75$ (Test for overall effect: s Test for subgroup differen			1860	-4 -2 0 2 4	-0.34 [-0.38; [-2.29;	-0.31] 100.0% 1.94]

eFigure 5. Forest Plots With Effect Estimates of Mean Differences in Postoperative Morphine Milligram Equivalents Between ICNB and Other Forms of Analgesia: Subgroup Analysis by Type of Surgery (double-click to open PDF)

eFigure 5. Forest Plots with Effec	t Estimates of Mean Differences in Postoperat	ive Mo	rphine M	illigram	Equivaler	nts (MME) Between	ICNB and other forms of analges	ia: Subgrou	p Analysis by	Type of Sur	gery.
Study	7	otal	Interv Mean		Total	Co Mean	ntrol SD	Mean Difference Favors ICNB Favors Control	MD		95%-CI	Weight
Kaiser et al, 1998 ⁷⁸ Sagiroglu et al, 2013 ⁸⁰ Asantila et al, 1986 ⁸⁹ Perttunen et al, 1995 ³⁸ Fixed effect model Prediction interval Heterogeneity: $I^2 = 0$ %	Single-shot Single-shot		26.90 18.67 7.50	24.01 10.40 2.37 36.80	15 30 30 15 90	13.53	7.46		5.14	[2.10; [-31.95;	22.67] 9.72] 5.20] 19.05] 5.23] 5.61]	0.3% 4.1% 35.4% 0.1% 39.9%
Chan et al, 1931^{41} Ghafouri et al, 2008^{32} Bergh et al, 1966^{38} Liu et al, 1995^{90} Fixed effect model Prediction interval Heterogeneity: $r^2 = 968$	<pre>first 24 hrs Systemic analgesi Continuous Repeated intercostal block Single-shot Single-shot [92%; >98%], p < 0.001 oup: z = 0.34 (p = 0.74)</pre>	a 10 25 30 9 74	6.42		10 25 6 11 52	35.80 3.00 12.50 16.70	2.39	+	-19.20 3.42 3.81 -3.50 0.26	[-1.63; [-6.89;	5.29] 9.26] -0.11] 1.76]	3.0% 24.3% 2.9% 7.4% 37.6%
Kaiser et al, 1998 ⁷⁸ Concha et al, 2004 ¹⁹ Perttunen et al, 1995 ³⁸ Fixed effect model Prediction interval Heterogeneity: I ² = 94%	-	15 16	38.87 78.00 119.63	29.00	15	52.72 7.83 123.00	3.12		- 70.17	[-42.37; [55.87; [-44.53; [36.11; [-739.02;	84.47] 37.79] 60.52]	0.1% 0.4% 0.6%
Carretta et al, 1996 ³¹ Bergh et al, 1966 ³⁸ Joucken et al, 1987 ⁴⁴ Zhu et al, 2018 ³⁷ Fixed effect model Prediction interval Heterogeneity: I ² = 76%	<pre>first 40 hrs Systemic analgesi Continuous Single-shot Single-shot Single-shot (338; >918), p = 0.006 oup; z = -11.67 (p < 0.001)</pre>		46.50	11.59	20 6 15 41 82	18.25 23.35 57.00 91.55	6.00 21.25	•	-7.04 -10.50 -13.45	[-8.98; [-12.40; [-24.23; [-15.68; [-13.70; [-33.05;	3.23] -11.22] -9.76]	1.4% 3.0% 0.5% 17.1% 21.9%
Fixed effect model Prediction interval Heterogeneity: $I^2 = 96$ % Test for overall effect:	[94%; 97%], p < 0.001	285	Ð		269			-50 0 50	-0.69	[-1.62; [-22.81;		100.0%

eFigure 6. Forest Plots With Effect Estimates of Odds Ratios for Postoperative Complications Between ICNB and Other Forms of Analgesia (double-click to open PDF)

eFigure 6. Forest Plots with Effect Estimates of Odds Ratios of								
Study 30-day montality Epidural			Total R		Total	Odds Ratio Favors ICNB Favors Contro	OR	95%-CI Weight
30-stay mortalizy mpidusel 10-stay mortalizy mpidusel 10-stay = 10-stay 10-stay = 10-stay 10-stay 10-stay = 10-stay 10-stay = 10-stay 10-stay = 10-stay 1	Single-shot Single-shot Single-shot (Exparel)	0 1 1	20 108 618 746	0 0 2 2 .	20 130 618 768		0.50 [0.05; 0.50 [0.05]	0.05 0.05 5.521 0.65 5.521 0.65
The second probability of the second probab		205 05 03 44 54	31 54 10 618 851	0 7 5 7 8 5 4 .	41 30 54 31 130 618 904		- 7.03 [0.33; 0.13 [0.01; 1.00 [0.27; 0.39 [0.02; 0.44 [0.11; 0.65 [0.44; 0.66 [0.46; [0.05;	151.95] 0.14 2.61] 1.04 3.67] 1.44 8.16] 0.54 1.66] 2.14 0.97] 18.34 0.95] 23.64 0.95]
Prediction interval. Heterogeneity: $I^2 = 158$ [08: 918]; $p = 0.65$ Test for effect in subgroup: $x = 2.44$ ($p =$	as, Cardiac arrest) PV Continuous Single-shot Single-shot	0 15 16	24 32 20 76	1506	26 34 20 80		0.35 [0.01; 5.12 [1.58; 3.15 [0.12; 3.40 [1.27; [0.00] 9	8,93] 0,4% 16,59] 0,8% 82,16] 0,1% 9,08] 1,4% 708507,27]
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	5 0.001	rt.emi.c 6 5 1.1	analges 10 25 41 76	0 3 8 11	10 30 40 80		2.84 [0.63; 0.56 [0.16; 1.07 [0.44]	0.05 12.80] 0.65 1.07] 2.25 2.63] 2.85
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	Continuous Continuous Continuous Continuous	1001	22 15 30 67	0000.	25 15 30 70	-	3.56 (0.14) 3.56 (0.14)	91,92] 0,15 0,05 91,92] 0,15
The Tori shout in anomator is -0.77 ($p = 1.8885008$ (sites of linearization states) in a state of the sta	Continuous Single-ahot Single-ahot	5 5 10	24 24 50 98	2406	26 24 50 300		3.16 [0.55; 1.32 [0.31; 1.91 [0.64;	18.11] 0.5% 5.65] 1.0% 0.0% 5.75] 1.45
Hypertematican [ppideral] Hagirogiu ed.2013" Ambrogi ed.2014" Ambrogi ed.2014" Thoracotomy Units ed.2014" Thoracotomy Units ed.2004 Thoracotomy Name demands Production interval Production interval Production interval Production interval Production interval	Continuous Single-shot Single-shot Single-shot Single-shot	0011	30 20 10 16 25 101	52014 12	30 - 20 31 15 25 121		0.08 [0.00; 0.18 [0.01; 0.93 [0.05; 0.22 [0.05; 0.20 [0.06] [0.01;	1,44] 1,6% 4,01] 0,7% 0,0% 16,39] 0,3% 2,11] 1,2% 0,74] 3,8% 5,50]
Norman (Yuni Ling) – Bularni (Datareseni at 4 2002 m Conta et al 2002 m Datareseni at 2004 m	Continuous Continuous Single-shot Bingle-shot Bingle-shot Bingle-shot Bingle-shot	0 6 12 9 10 40	22 30 16 108 42 15 21 25 279	123235264	25 30 15 41 15 22 303		$\begin{array}{c} 0.36 & [0.01] \\ 5.09 & [0.98] \\ 2.40 & [0.47] \\ 1.21 & [0.17] \\ 0.86 & [0.34] \\ 3.00 & [0.68] \\ 0.50 & [0.04] \\ 2.11 & [0.62] \\ 1.60 & [0.96] \\ \hline & [0.35] \end{array}$	9.37] 0.4% 26.43] 0.4% 12.13] 0.6% 8.72] 0.5% 2.20] 2.9% 13.33] 0.6% 5.07] 0.6% 7.13] 1.1% 2.66] 7.3%
Nouraenciputita (2010") Radomastar (4, 2010") Dann (4, 2020") Partians (4, 2010") Partians (4, 2010") Nang (4, 2020") Xiang (4, 2020") Xiang (4, 2020") Partians (4, 2020	Continuous Bingle-shot Bingle-shot Bingle-shot Bingle-shot Bingle-shot	5 12 9 3 1 42	24 25 15 32 40	6473711 29	26 23 15 34 20 40		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
$\label{eq:constraints} \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Single-shot Single-shot Single-shot	0 7 1 5 13	30 92 40 40 202	0 3 5 13 21	30 46 40 41 157		1.10 [0.29; 0.18 [0.02; 0.31 [0.10; 0.44 [0.20; [0.00]	6.0% 4.79] 1.1% 1.61] 1.5% 0.94] 6.0% 22885.00]
$\label{eq:constraints} \begin{array}{l} \text{Measurements}(\mathbf{k}) \in \mathcal{M}(\mathbf{k}) \\ \text{Risor 44.} (2015^{24}) \\ \text{Mong 44.} (2015^{24}) \\ $	Single-shot (Exparel) Single-shot Single-shot	2 0 2 7 11	54 108 15 618 795	1147	54 130 15 618 817		2.04 [0.18; 0.40 [0.02; 2.15 [0.17; 1.76 [0.51; 1.55 [0.62; [0.25;	23.17] 0.3% 9.87] 0.4% 26.67] 0.3% 6.04] 1.2% 4.04] 2.2% 10.33]
Prutitus Epidemi. Bagirogiu etd. 2013* Thoracotomy Beierhencich etd. 2014* Thoracotomy Heierhencich etd. 2011* Thoracotomy Hundig etd. 2002* Thoracotomy Fluxed effect model Prediction intervel Prediction intervel Pre	Continuous Single-shot Single-shot Single-shot	0 4 7 3 0 3.4	30 42 15 15	0 2 11 2 1.7	30 15 41 15 15 16		2.17 [0.33; 0.55 [0.19; 1.62 [0.23; 0.17 [0.01; 0.77 [0.36; [0.02]	0.04 14.06] 0.55 1.58] 2.84 11.46] 0.55 3.96] 0.74 1.46] 4.54 33.75]
Profiles 978 Chen et al. 3020" Pertunen et al. 1995" Thoracoscopic Xia et al. 2020" Thoracoscopic Thoracoscopic Prediction intervat Description intervat Description	Single-shot Single-shot Single-shot	0 1 2 1	24 15 20 59	0 4 1 5	24 15 20 59	+	0.69 [0.12; 2.11 [0.18; 1.00 [0.25]	0.0% 3.79] 1.0% 25.35] 0.39 3.93] 1.8%
Designing of the provided and the provid	<pre>continuous Continuous Continuous Continuous Continuous Continuous Continuous Continuous Singla-abot Singla-ab</pre>	0 0 11 1 0 6 11 1 0 0 6 11 1 0 0 4 55 89 7	31 35 30 54 20 10 16 108 43 15 10 25 53 247 677	hypoxes 2 0 13 1 1 0 5 13 4 1 0 8 5 1 1 0 1 101	1.8) 41 15 30 54 20 31 15 130 45 20 25 32 247 720	Tepidural	$\begin{array}{ccccccc} 0.25 & (0.01) \\ 0.17 & (0.01) \\ 0.81 & (0.33) \\ 1.00 & (0.06) \\ 0.97 & (0.04) \\ 0.98 & (0.33) \\ 0.88 & (0.33) \\ 0.82 & (0.02) \\ 0.82 & (0.02) \\ 0.24 & (0.02) \\ 0.24 & (0.07) \\ 1.30 & (0.72) \\ 0.36 & (0.63) \\ (0.23) \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Pulmonary complications (Prosmonia, Respir Radomateu eta) 2010" Thoracoscopic Perturne eta, 1995" Thoracotomy Thoracotomy Thoracotomy Intercomenty: 2' - 0', p = NA	atory depression, respire Continuous Single-shot Single-shot	tory fa 3 0 4	24 15 40 79	hypose 3 1 0 4	mln) 26 15 40 01	POB	1.10 [0.20] 1.00 [0.06] 1.07 [0.25]	6.03] 0.0% 17.62] 0.3% 0.0% 4.63] 1.0%
Provide a start of the start of	Continuous Continuous Continuous Single-shot Single-shot Single-shot Single-shot Single-shot Single-shot	LOTY 1 6 3 6 1 0 2 4 0 2 3	10 25 41 60 20 17 15 12 8 40 240	hypone 1 3 9 3 2 6 2 0 2 44	20 30 40 20 17 15 6 8 40 206	Systems() is klightly	2.11 (0.12; 0.28 (0.09; 0.97 (0.18; 0.63 (0.21; 0.30 (0.03; 0.18 (0.01; 0.23 (0.04; 1.00 (0.13; 0.19 (0.61; 0.45 (0.26; 0.13;	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Urinary Retention Rpidural Ambrogi et al. 2014" Thoracoscopic Conche et al. 2004" Thoracotomy Wurnig et al. 2002" Thoracotomy Fixed effect model	Bingle-shot Single-shot Single-shot	0 1 0 1	20 13 15 46	3104	20 - 9 15 44		0.12 [0.01; 0.80 [0.04; 0.28 [0.04;	2.53) 1.0% 14.89] 0.3% 0.0% 1.91] 1.3%
Unionary Referention PVB Kadomary et al. 2020 ⁴⁰ Therecoscopic Chen et al. 2020 ⁴⁰ Therecoscopic Files of the state of the state of the Files of the state of the state of the state of the Prediction Interval Prediction Anterval	Continuous Single-shot Single-shot	0000	24 24 40 88	0000	26 24 40 90			0.0% 0.0% 0.0% 0.0%
Fixed effect model Frediction interval Heterogenetty: $I^2 = 128$ (0%) 35%), $p = 0.2$ Test for overall effect: $z = -1.56$ ($p = 0.1$ Test for subgroup differences: $\chi_{1,4}^2 = 39.50$,	$\frac{1}{2}$ $dt = 16 \ (p < 0.001)$	345	4786	387		.01 0.1 1 10 10	0.88 [0.75; [0.21;	1,03] 100.0% 3,82]

eFigure 7. Forest Plots With Effect Estimates of Odds Ratios for Postoperative Complications Between ICNB and Other Forms of Analgesia: Subgroup Analysis by Type of Surgery (double-click to open PDF)

udy		Interver Events 1		vents 1	otal	Odds Ratio Favors ICNB Favors Contr	OR	95%-CI	Weig
uphin et al. 1997 ⁹¹	Continuous	as, Card	i.ac ari	0	41	ral Thoracotomy	7.03 [0.33;	151.95]	0.3
suphin et al, 1997 ⁹¹ sgiroglu et al, 2013 ⁹⁸ ce et al, 2015 ⁹⁴ santila et al, 1986 ⁹⁹ shran et al, 2017 ²⁶	Continuous Single-shot (Exparel) Single-shot Single-shot (Exparel)	5 0 44	30 54 10 618	3 5 3 65	30 54 31 618		1.00 [0.27; 0.39 [0.02; 0.65 [0.44;	2.61] 3.67] 8.16] 0.97]	1. 1. 22.
xed effect model	$\{ [0]; 79\}, p = 0.72$ group: $\pi = -2.07$ (p =	51	743	76	774		0.68 [0.47; [0.02;	0.98] 23.01]	26.
rdiovascular Compli domatau ctal, 2018 ⁶⁷	cations (MI, Arrhythmi Continuous		iac arr 24 32	est) 1 5	PVB 26 34	Thoracoscopic	0.35 [0.01;	8.93] 16.59]	0.1
a ctal, 2020 ⁴⁴ med effect model ediction interval terogeneity: I ² = 1	Single-shot Single-shot 5% [0%; 91%], p = 0.4 group: z = 2.44 (p = 0	1 16 .2	20 76	5 0 6	20 80	-	5.12 [1.58; 3.15 [0.12; 3.40 [1.27; [0.00; 9	82.16] 9.08] 708507.27]	0.1
theter / Injection breceni et al, 2003 ⁴⁴	site Infection Epidu Continuous Continuous Continuous	ural Th	oracoto 22 15	omy 0	25 15		- 3.56 [0.14;	91,92]	0.
diction interval		÷	30 67	0	30 70		3.56 [0.14;	91.92]	0.
natoma (site of inj	plicable group: z = 0.77 (p = 0 ection/catheter) PVE Continuous Single-abot	Thora	coscopi	2	26		3.16 [0.55;		0.
eng et al, 202072 xed effect model	Continuous Single-shot Single-shot %, p = 0.33 group: z = 1.16 (p = 0	10	24 24 50 98	4 0 6	26 24 50 100	-	3.16 [0.55; 1.32 [0.31; 1.91 [0.64;	18.11] 5.65] 5.75]	1.
potension Epidur giroglu G 2013 ^m antila R 1986 ^m Incha M 2004 ^m Ivanathan S 2020 ^m	continuous	0	30 10	5	30 -		0.08 [0.00;	1.44]	2.0
ncha M 2004 ¹⁹ lvanathan S 2020 ⁸⁶ wed effect model ediction interval terogeneity: I ² = 0	Single-shot Single-shot Single-shot (0%; 86%), p = 0.45 group: z = -2.16 (p =	1	16 25 81	1 4 10	31 15 25 101		0.93 [0.05; 0.22 [0.02; 0.21 [0.05; [0.00;	16.39] 2.11] 0.87] 71092.65]	0.
st for effect in sub uses/Vomiting Epi breceni et al. 2003 ⁸⁴	group: z = -2.16 (p = dural Thoracotomy Continuous	0	22	1	25		0.36 [0.01;	9.37]	0.
giroglu etal, 2013 ncha etal, 2004 lierhenrich etal, 2013 rttunen etal, 1995	dural Thoracotomy Continuous Single-shot ²⁰ Single-shot Single-shot 5 Single-shot	8 6 12 9	30 16 42 15	2 3 13 5 6	30 15 41 15		5.09 [0.98; 2.40 [0.47; 0.86 [0.34; 3.00 [0.68;	26.43] 12.13] 2.20] 13.31]	0. 0. 3.
Lvanathan et al. 2020 red effect model adiction interval terogeneity: $I^2 = 8$ at for effect in sub	\$ [03; 773], p = 0.82	10 45 .05)	25 150	6 30	25 151	-	2.11 [0.62; 1.73 [1.01; [0.29;	7.13] 2.99] 11.90]	1.7.
isea/Vomiting PVE domatsu ctal, 2018	Continuous	5	24 24	6	26 24	_	0.88 [0.23; 0.71 [0.14;	3.36] 3.60]	1.
etal, 2018 ⁶⁹ a etal, 2020 ⁶⁴	Single-shot Single-shot Single-shot Single-shot	12 9 3	25 32 20 40	6 4 7 1	23 34 20 40	-	2.11 [0.65; 1.51 [0.49; 3.35 [0.32; 1.00 [0.06;	6.90] 4.69] 35.36] 16.56]	1. 1. 0.
ed effect model	\$ [03; 423], n = NA	33	165	26	167	-	1.38 [0.76] [0.50;	2.51] 3.71]	7.
urologic Complicati		cotomy 2 2 7	54 15	1	54 15		2.04 [0.18; 2.15 [0.17; 1.76 [0.51;	23.17] 26.67]	0. 0. 1.
xed effect model ediction interval terogeneity: $I^2 = 0$	\$ [<0\$; <0\$], p = 0.36	11	618 687	4 6	618 687	F	1.86 [0.85] 1.86 [0.88; [0.87;	6.04] 5.11] 3.99]	2.
st for effect in sub uritus Epidural giroglu et al, 2013 ^m ierhenrich et al, 2017 rttunen et al, 1995 ^m rnig et al, 2002 ^m wed effect model ediction isterrel	Thoracotomy Continuous	0	30	0	30 15		2 17 10 22.	14.06]	0.
ierhenrich et al, 2011 rttunen et al, 1995 ³⁵ rnig et al, 2002 ⁷⁹	<pre>% Single-shot Single-shot Single-shot</pre>	7 3 0	16 42 15 15	11 2 2	41 15 15		2.17 [0.33; 0.55 [0.19; 1.62 [0.23; 0.17 [0.01;	1.58] 11.46] 3.96]	0. 3. 0. 5.
terogeneity: $I^2 = 0$ st for effect in sub	0 = [00; 050], p = 0.99 group: $z = -0.67$ (p =	14 0.51)	118	17	116	-	0.77 [0.36; [0.02;	1.66] 33.75]	5.
Imonary complication brogi etal, 2014 ⁹⁶ ng etal, 2015 ⁹⁶ mpeo etal, 2013 ⁹⁸ xed effect model	ns (Pneumonia, Respira Single-shot Single-shot Single-shot	tory dep 1 6 0	20 108 10	, xesp 1 5 1	20	y failure, hypoxemia)	Epidural Th 1.00 [0.06; 1.47 [0.44; 0.62 [0.02;	0racoscopic 17.18] 4.96] 16.57]	0.1.0.
	<pre>% [0%; 22%], p = 0.39 %group: z = 0.44 (p = 0)</pre>	7	138	7	20 170	-	1.26 [0.44; [0.06]	3.60] 24.82]	2.
			ression 31 15	2	41 15	y failure, pypoxemia)	Epidural Th 0.25 [0.01; 0.17 [0.01;	oracotomy 5.41] 3.96]	o. o.
uppin et al. 1997 ⁹¹ iser et al. 1998 ⁷⁸ giroglu et al. 2013 ⁶⁶ ee et al. 2015 ⁶⁶ antila et al. 1986 ⁶⁷⁹ hoba et al. 2004 ⁹⁷⁹ isrbenich et al. 2011	Continuous Single-shot (Exparel) Single-shot	0 11 0	30 54 10 16	2 0 13 1 0	30 54 31		0.81 [0.32; 0.97 [0.04;	2.00]	0. 0. 3. 0.
ncha etal, 2004 ¹⁹ Lerhenrich etal, 2011 rttunen etal, 1995 ³⁵		11	43	0 13 4 0	15 45 15		0.85 [0.33; 0.20 [0.02;	2.17] 2.02]	3.
alil et al. 2015^{90}	Single-shot (Exparel) Single-shot (Exparel)	0 4 55 82	25 53 247 539	0 8 51 94	25 32 247 550		0.24 [0.07; 1.10 [0.72; 0.83 [0.60; [0.17;	0.89] 1.69] 1.16] 2.51]	0. 3. 15. 29.
	3% [0%; 56%], p = 0.8 group: z = -1.09 (p =					1	[0.17;	2.51]	
Imonary complication cretta etal. 1996 ⁵¹ lvenbach etal. 1989 ⁵⁰ Andrilli etal. 2006 ⁴¹ lilkan etal. 1973 ⁴⁰ ust etal. 1976 ⁴⁷ usken etal. 1987 ⁴⁶ Jan etal. 1975 ⁶⁰	ns (Pneumonia, Respirs Continuous Continuous Single-shot Single-shot	tory dep: 6 6	10 25 60	1 16 9	20 30 60	y failure, hypoxemia)	Systemic anal 2.11 [0.12; 0.28 [0.09; 0.63 [0.21; 0.30 [0.03;	gesia Tho 37.72] 0.89] 1.89]	0. 4. 3.
lilkan etal, 1973* ust etal, 1976* ucken etal, 1987*	Single-shot Single-shot Single-shot	2	20 17 15	9 3 2 6	20 17 15		0.18 [0.01; 0.23 [0.04;	1.89] 3.15] 3.98] 1.41]	3. 1. 0. 2.
zell ctal. 1991 ^{c2} sed effect model adiction interval	Single-shot	4 20	12 8 167	2 0 39	6 8 176	-	1.00 (0.13; 0.43 (0.23; [0.10;	8.00] 0.79] 1.89]	0.
	$\hat{z} = [0\hat{z}; 52\hat{z}], p = NA$ group: $z = -2.70$ ($p =$ PVB Thoracoscopic Continuous	0.007)	24	0	26				0
inary Retention domatsu et al, 2018" en et al, 2020" ang et al, 2020" xed effect model ediction interval	Continuous Single-shot Single-shot	0	24 24 40 88	0	26 24 40 90				0.0.0
	plicable group: $z = NA (p = NA)$								

eFigure 8. Forest Plots With Effect Estimates of Mean Differences in Postoperative Pulmonary Function Between ICNB and Other Forms of Analgesia (double-click to open PDF)

eFigure 8. Forest Plots with Effect Estimate	s of Mean Differenc	es of Postoperative Pulmonary Function	n Betweer	1 ICNB ar	nd other i	orms of a	analgesi	a.			
Study			Total	Interve Mean		Total	Co Mean	ntrol SD	Mean Difference Favors ICNB Favors Contro	МО	95%-CI Weight
	poracotomy horacotomy horacotomy	Single-shot Single-shot Single-shot 01 001)	5 8 10 23	37.80 88.90 71.21	22.40	8		10.23 12.20 4.33		-4.80 [-23.11; 49.90 [32.22; 15.15 [11.63; 15.75 [12.35; [-297.61;	67.58] 0.5% 18.67] 11.6% 19.14] 12.5%
de la Rocha et al, 1984 ³³ Th	poracotomy poracotomy poracotomy poracotomy poracotomy 94%], p = 0.4		5 8	77.00 45.40 101.80 72.72	19.30 21.22	10 8	57.00 47.05 51.70 53.67	10.47 8.91		20.00 [-6.75; -1.65 [-19.77; 50.10 [34.15; 19.05 [15.99; 19.57 [16.63; [-62.01;	16.47] 0.4% 66.05] 0.6% 22.11] 15.4% 22.52] 16.6%
FEV1 7-24 hrs Systemic analge de la Rocha et al, 1984 ³³ Th	<pre>bsia horacotomy horacotomy horacotomy 96%], p < 0.0</pre>	Single-shot Single-shot Single-shot	8	36.20 76.30 80.30	7.92	8		14.57 16.13 4.55		0.85 [-20.68; 44.10 [31.65; 18.40 [14.41; 20.19 [16.45; [-236.53;	56.55] 0.9% 22.39] 9.1% 23.93] 10.3%
	horacotomy horacotomy horacotomy	Single-shot Single-shot Single-shot	8	46.80 117.90 80.95	45.56	8		9.91 15.84 4.12	•	-0.90 [-18.32; -61.50 [28.08; 20.13 [16.61; 19.75 [16.32; [-281.58;	94.92] 0.1% 23.65] 11.6% 23.18] 12.3%
	horacotomy horacotomy horacotomy	Continuous Single-shot Single-shot	8	45.89 87.20 67.39	23.20	8	46.55 39.70 58.26	8.49	+		64.62] 0.5% 11.80] 20.2% 11.38] 23.1%
Kaiser et al, 199878 T			15	41.00 49.73 60.30	23.22	15	40.74	13.00 12.15 12.30		-1.00 [-10.79; 8.99 [-4.27; 5.40 [-3.54; 3.78 [-2.13; [-30.86;	22.25] 0.8% 14.34] 1.8% 9.69] 4.1%
	97%], p = 0.0		8	38.07 75.80 76.08	10.32	8		11.77 16.50 3.04		-3.91 [-14.07; 39.10 [25.61; 10.87 [8.11; 10.95 [8.34; [-227.83;	52.59] 0.8% 13.63] 18.9% 13.57] 21.1%
Fixed effect model Prediction interval Heterogeneity: I^2 = 89% [85%; 9 Test for overall effect: z = 23. Test for subgroup differences:)	2%], $p < 0.00.26 (p < 0.001$	1	231			275			-50 0 50	14.24 [13.04; [-3.29;	15.44] 100.0% 35.76]

eFigure 9. Forest Plots With Effect Estimates of Mean Differences in Postoperative Pulmonary Function Between ICNB and Other Forms of Analgesia: Subgroup Analysis by Type of Surgery (double-click to open PDF)

			Interve	ntion		Contro	1		
tudy		Total	Mean	SD	Total	Mean S	D Mean Difference Favors ICNB Favors Control	MD	95%-CI Wei
EV1 25-48 hrs Systemic an	algesia Thoracotomy								
e la Rocha et al, 1984 ³³	Single-shot		37.80			42.60 10.2		-4.80 [-23.11	
ozell et al, 1991 ⁴²	Single-shot		88.90			39.00 12.2		49.90 [32.22	
oledo-Pereyra et al, 19794	Single-shot		71.21	3.68		56.06 4.3	3 🖓	15.15 [11.63	
ixed effect model rediction interval		23			28		1	15.75 [12.35	; 19.14] 1: ; 337.36]
eterogeneity: $I^2 = 90$ % [72% est for effect in subgroup:								[-297.61	; 337.36]
EV1 49-72 hrs Systemic an hafouri et al, 2008 ⁵²	algesia Thoracotomy Repeated intercostal block	25	77.00	43.00	25	57.00 53.0	o <u> </u>	20.00 [-6.75	; 46.75] (
e la Rocha et al, 1984 ³³	Single-shot		45.40	19.30	10	47.05 10.4	7	-1.65 [-19.77	
ozell et al, 1991 ⁶²	Single-shot		101.80			51.70 8.9		50.10 [34.15	
oledo-Pereyra et al, 197942	Single-shot		72.72	3.03		53.67 3.8	9	19.05 [15.99	
ixed effect model		48			53		•	19.57 [16.63	
rediction interval								[-62.01	; 106.32]
eterogeneity: I ² = 85% [61% est for effect in subgroup:									
EV1 7-24 hrs Systemic ana	lgesia Thoracotomy						_		
	Single-shot		36.20			35.35 14.5		0.85 [-20.68	
ozell et al, 1991 ⁴²	Single-shot		80.30			61.90 4.5		44.10 [31.65 18.40 [14.41	
oledo-Pereyra et al, 197942	Single-shot	23	80.30	4.55	28	01.90 4.5	° 🖬	20.19 [16.45	
ixed effect model rediction interval									; 281.38]
eterogeneity: I ² = 89% [70%	; >96%], p < 0.001								
est for effect in subgroup:	$z = 10.58 \ (p < 0.001)$								
EV1 72 hrs Systemic analg e laRochaet al, 1984 ³³	esia Thoracotomy Single-shot		46.80			47.70 9.9		-0.90 [-18.32	
ozell et al, 1991 ²	Single-shot		117.90			56.40 15.8		- 61.50 [28.08	
oledo-Perevra et al, 1979ª		10	80.95	3.90	10	60.82 4.1	2	20.13 [16.61 19.75 [16.32	
ixed effect model rediction interval	Sangat Shot	- 23			- 28				; 325.75]
eterogeneity: $I^2 = 83\%$ [46%	: >94%1, p < 0.001								
est for effect in subgroup:									
VC 25-48 hrs Systemic ana			45.89			46.55 11.8		-0.66 [-8.26	
rretta et al, 1996 ⁵¹	Continuous		87.20			39.70 8.4		47.50 [30.38	
ozell et al, 1991 ⁶²	Single-shot	28	67.39	3.05	10	58.26 3.0	5 a l	9.13 [6.46	
oledo-Pereyra et al, 197942	Single-shot	20			30				; 255.69]
ixed effect model rediction interval								1 224104	, 100.001
eterogeneity: I ² = 92% [80% est for effect in subgroup:									
		10	38.07	14.12	20	41.98 11.1	,	-3.91 [-14.07	6.251 1
VC 7-24 hrs Systemic anal			38.07			41.98 11.1		-3.91 [-14.07 39.10 [25.61	
	Continuous	10	75.80			36.70 16.5		39.10 [25.61 10.87 [8.11	
ozell et al, 1991 ⁶²	Single-shot	28	10.00	9.20	38	J. 21 J.(· I¥	10.95 [8.34	
bledo-Pereyra et al, 1979ª ixed effect model	Single-shot								; 256.97]
rediction interval									
eterogeneity: I ² = 92% [80% est for effect in subgroup:		173			213			14.69 [13.47	; 15.92] 100
									38.33]
ixed effect model									

eFigure 10. Forest Plots With Effect Estimates of Mean Differences in Length of Stay (Hours) Between ICNB and Other Forms of Analgesia (double-click to open PDF)

eFigure 10. Forest Plots with Effect Estimates of Mean Differences of Length of Stay (hours) Between ICNB and other forms of analgesia.

				Interv	ention		с	ontrol				
Study			Total	Mean	SD	Total	Mean	SD	Mean Difference	MD	95%-CI Weight	:
									Favors ICNB Favors Control			
Hospital LOS (hrs) Epi	dural											
Debreceni et al, 200384	Thoracotomy	Continuous		192.00			168.00	72.00		24.00 [-17.25;		8
Kaiser et al, 199878	Thoracotomy	Continuous		372.00			364.80	50.40		7.20 [-29.74;		
Sagiroglu et al, 2013 ⁸⁸	Thoracotomy	Continuous		312.00			288.00		! *	24.00 [2.53;		
Hung et al, 2015%	Thoracoscopic	Single-shot		127.20			144.00			-16.80 [-32.97;		
Perttunen et al, 199536	Thoracotomy	Single-shot	- +	175.20			175.20			0.00 [-25.76;		
Pompeo et al, 2013 ⁸¹	Thoracoscopic	Single-shot		28.80			36.00			-7.20 [-17.51;	3.11] 12.3%	
Ueda et al, 2020 ⁸³	Thoracoscopic	Single-shot		259.20	139.20		268.80	122.40 -		-9.60 [-88.09;		
Fixed effect model			221			257			9	-3.38 [-10.75;	4.00] 24.1%	i
Prediction interval			•							[-31.34;	32.40]	
Heterogeneity: $I^2 = 48$ % Test for effect in subgro												
lest for enect in subgro	up: 2 = -0.90 (p = 0.57										
Hospital LOS (hrs) PVE												
Hutchins et al, 2017	Thoracoscopic	Single-shot	25	29.28	39.36	23	38,40	43.44		-9.12 [-32.64;	14.40] 2.4%	k
Perttunen et al, 1995 ³⁶	Thoracotomy	Single-shot		175.20	36.00		184.80			-9.60 [-47.65;		
Xia et al, 202064	Thoracoscopic	Single-shot	20	96.00	9,60		57,60			38.40 [28.99;		
Xiang et al, 202071	Thoracoscopic	Single-shot	40	76.80	12.00	40	79,20	9,60		-2.40 [-7.16;	2.361 57.8%	ł
Fixed effect model			100			98			Te .	5.27 [1.11;	9.42] 75.9%	5
Prediction interval										[-116.15;	128.49]	
Heterogeneity: $I^2 = 95$ %	[90%; >97%], p	< 0.001										
Test for effect in subgro	up: $z = 2.48$ (p	= 0.01)										
Fixed effect model			321			355			•	3.18 [-0.44;	6.80] 100.0%	\$
Prediction interval										[-40.22;	48.90]	
Heterogeneity: I^2 = 87%												
Test for overall effect:									-50 0 50			
Test for subgroup differe	ences: $\chi_1^2 = 4.01$,	df = 1 (p = 0.05)										

eFigure 11. Forest Plots With Effect Estimates of Mean Differences in Length of Stay (Hours) Between ICNB and Other Forms of Analgesia: Subgroup Analysis by Type of Surgery (double-click to open PDF)

$ \begin{array}{ c } \hline truth m m m m m m m m m m m m m m m m m m m$	eFigure 11. Forest Plots with Effe	ct Estimates of Mean Difference	s of Leng	th of Stay	(hours) Be	etween IO	CNB and o	ther forms	of analgesia: Subgroup analysis	by Type of Surgery.		
Boopital LOS (hrs) Epidural Thoracoscopic Favors ICNE Favors ICNE Favors Control Hung et al, 2015* Single-shot 108 127,20 55.20 130 144.00 72.00				Inter	vention		•	Control				
Biospital LOS (hrs) Epidural Thoracoscopic Hung et al, 2013** Single-shot 100 28.80 3.60 20 36.00 19.20	Study		Total	Mean	SD	Total	Mean	SD	Mean Difference	MD	95%-CI Wei	ight
Hung et al, 2015^{m} Single-shot108 127.20 55.20130 144.00 72.00Image: Constraint of the state									Favors ICNB Favors Contro	ol		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $												
Ueda et al. 2020^{m} Single-shot 21 259.20 139.20 22 268.80 122.40 -9.60 [-8.69; 68.9] 0.24 Pixed effect model 139 172 -9.60 [-8.69; 68.9] 0.24 Prediction interval 139 172 -9.60 [-8.69; 68.9] 0.24 Respiration interval 139 172 -9.60 [-8.69; 68.9] 0.24 Bespiration interval 139 172 -9.60 [-8.69; 68.9] 0.24 Bespiration interval 139 172 -9.60 [-8.69; 68.9] 0.24 Bespiration interval 139 172 -9.60 [-8.69; 68.9] 0.24 Bespiration interval 139 172 -9.60 [-8.69; 68.9] 0.24 Raiser et al, 1998 ^m Continuous 15 372.00 52.80 15 364.80 50.40 Sigricolu et al, 2013 ^m Continuous 30 312.00 48.00 30 288.00 36.00 Prediction interval 62 85 -9.12 [-2.74; 44.14] 1.04 Respiration interval 62 85 -9.12 [-32.64; 14.40] 2.44 Ital post in subgroup: z = -1.98 (p = 0.05) -9.60 [-8.99; 68.99] -9.12 [-32.64; 14.40] -9.12 [-32.64; 14.40] 2.44 Kate al, 2020 ^m Single-shot 20 96.00 9.60 20 5												
pixed effect model 139 172 -9.97 [-48.61; -1.33] 17.7% Heterogeneity: $T^2 = 0^3$ [0%; >78%], $p = 0.51$ -1.26 [$p = 0.02$] Heterogeneity: $T^2 = -0^3$ [0%; >78%], $p = 0.51$ -9.97 [-48.61; -1.33] 17.7% Heterogeneity: $T^2 = -0^3$ [0%; >78%], $p = 0.51$ -9.97 [-48.62; 28.9] Heterogeneity: $T^2 = -0^3$ [0%; >78%], $p = 0.51$ -9.97 [-48.62; 28.9] Heterogeneity: $T^2 = -0^3$ [0%; >78%], $p = 0.51$ -9.97 [-48.62; 28.9] Heterogeneity: $T^2 = 0^3$ [0%; >78%] 15 372.00 52.80 15 364.80 50.40 Sagiroglu et al, 1998" Continuous 30 312.00 80.00 30 288.00 36.00 Pertune et al, 1998" Single-shot 15 175.20 36.00 15 175.20 36.00 Pixad effect model 10 15 175.20 36.00 15 175.20 36.00 16 0.15; 28.45; 66.48 Pixad effect model 10 15 175.20 36.00 15 175.20 36.00 16 0.15; 28.45; 66.48 Pixad effect model 10.001 25 29.28 39.36 23 38.40 43.44 -41.41.41 -9.12 [-32.64; 14.40] 2.44 Mixad effect model 10 50; 76.00 12.00 40 79.20 9.60 50.60 -9.60 -9.12 [-32.64; 14.40] 2.44 -4.46 Mixad effect model 10.15; 12.91 10.15; 12.												
Prediction interval [-48.82; 28.9] Respiration interval [-48.82; 28.9] Perturne et al. 2017* [-48.82; 28.9] Prediction interval [-48.82; 28.9] Respiration interval [Single-shot			139.20			122.40 -	•			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			139			172			-			
Test for effect in subgroup: $z = -2.26 (p = 0.02)$ Respital LOS (hrs) Epidural Thoracotomy Debrecent et al. (2003 ^W Continuous 15 372.00 52.00 15 364.00 72.00 Raiser et al. (1998 ^W Continuous 15 372.00 52.00 15 364.00 72.00 Pixed effect model Pixel Thoracotomy 15 372.00 52.00 15 364.00 72.00 Pixed effect model Pixel Thoracotomy 15 372.00 52.00 15 375.20 36.00 Pixed effect model PW Thoracotomy 15 175.20 36.00 15 175.20 36.00 Rate Los (hrs) PW Thoracotomy 15 1.09 (hrs) PW Thoracotomy 15 10 000 1000			-			-			;	[-48.82	; 28.89]	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $												
Debreceni et al, 2003 ^{at} Continuous 22 192.00 72.00 25 168.00 72.00 25 168.00 72.00 24.00 [-17.25; 65.25] 0.88 Saiser et al, 1998 ^a Continuous 15 372.00 52.80 15 364.80 50.40 30 248.00 30 248.00 36.00 32 24.00 [-2.9.74; 44.14] 1.08 Pertunen et al, 1995 ^a Single-shot 15 175.20 36.00 30 248.00 30 248.00 36.00 32 40.00 [-25.76; 25.76] 2.09.44 Prediction interval 82 85 85 85 14.30 [0.15; 28.45] 6.64 Prediction interval 82 85 85 14.30 [0.15; 28.45] 6.64 Nutchins et al, 2017 ^a Single-shot 20 96.00 9.60 20 57.60 19.20 -9.12 [-32.64; 14.40] 2.48 Xiang et al, 2020 ^{at} Single-shot 20 96.00 9.60 20 57.60 19.20 38.40 [28.99; 47.81] 14.90 2.48 Prediction interval 85 83 83 84.44 -9.12 [-32.64; 14.40] 2.48 Stingle-shot 20 96.00 9.60 20 57.60 19.20 16.79.20 14.90 [2.17; 9.63] 75.70 Prediction interval 85 83 85 83 85.83 83.40 [2.89; 7.75,2] -1.40,96; 51.39] <t< td=""><td>Test for effect in subgr</td><td>soup: $z = -2.26$ ($p = 0$</td><td>.02)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Test for effect in subgr	soup: $z = -2.26$ ($p = 0$.02)									
$\begin{array}{c c c c c c c c c c c c c c c c c c c $												
Raiser et al, 1998" Continuous 15 372.00 52.80 15 364.80 50.40 Sagiroglu et al, 2013" Continuous 30 312.00 48.00 30 288.00 36.00 7.20 [-29.74; 44.14] 1.04 Perturnen et al, 1998" Single-shot 15 175.20 36.00 15 175.20 36.00 15 175.20 36.00 15 175.20 36.00 16 175.20 36.00 7.20 [-29.74; 44.14] 1.04 Prixed effect model 82 85 15 175.20 36.00 15 175.20 36.00 15 175.20 36.00 16 0.15; 28.45] 6.64 Prixed effect model 10 312.00 48.00 30 312.00 48.00 30 288.00 36.00 16 0.15; 28.45] 6.64 Mospital LOS (hrs) PVM Thoraccecopic 1.30 (1 -0.15; 28.45] 6.64 Hutchins et al, 2017" Single-shot 25 29.28 39.36 23 38.40 43.44												
$\begin{array}{c c c c c c c c c c c c c c c c c c c $												
Perturnen et al. 1995 ²⁸ Single-shot 15 175.20 36.00 15 175.20 36.00 15 175.20 36.00 $0.00 \ [-25.76] 25.76] 2.08$ Prediction interval 62 5 65 664 $1-30.02 \ (-32.76] 20.45]$ Respitat Log (http://signam.com/signam.												
prediction interval 82 85 14.30 [0.15; 28.45] 6.64 Iterrogeneity: $r^2 = 0^{1}$ [0%; >80%], $p = 0.62$ - - - Iterrogeneity: $r^2 = 0^{1}$ [0%; >80%], $p = 0.62$ - - - Test for effect in aubgroup: $z = 1.98$ ($p = 0.05$) - - - Hotebrins et al., 2017 ^m Single=shot 20 96.00 9.60 20 57.60 19.20 - Fixed effect model 85 - - - Prediction interval 85 83 - - Reterogeneity: $r^2 = 978$ [93%; >98%], $p < 0.001$ - - - Prediction interval - - - - Reterogeneity: $r^2 = 978$ [93%; >98%], $p < 0.001$ - - - Prediction interval - - - - Reterogeneity: $r^2 = 888$ [80%; 93%], $p < 0.001$ - - - - Prediction interval - - - - - Reterogeneity: $r^2 = 888$ [80%; 93%], $p < 0.001$ - - - - Freediction interval - - - -									÷			
prediction interval [-13.02; 41.62] Heterogeneity: 1 ² - 08 [08; 2808], p = 0.62 Test for effect in subgroup: z = 1.98 (p = 0.05) Hospital LOS (hrs) PVB Thorecoscopic Hutchins et al, 2017 ⁴⁶ Single-shot 25 29.28 39.36 23 38.40 43.44 Xiang et al, 2020 ⁴⁷ Single-shot 20 96.00 9.60 20 57.60 19.20 Prediction interval 40 76.80 12.00 40 79.20 9.60 38.40 [28.99; 47.81] 14.98 Prediction interval 85 83 Prediction interval 85 83 Prediction interval 85 Heterogeneity: 1 ² = 988 [808; 938], p < 0.001		Single-shot			36.00			36.00	 			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			82			85						6.6%
Test for effect in subgroup: = - 1.98 (p = 0.05) Hospital LOS (hrs) PVB Thoracoscopic Hutchins et al, 2017 ^{ac} Single-shot 25 29.28 39.36 23 38.40 43.44 Xia et al, 2020 ^{ac} Single-shot 20 96.00 9.60 20 57.60 19.20 Prediction interval 40 76.80 12.00 40 79.20 9.60 38.40 (28.99; 47.81] 14.98 Prediction interval 85 83 Prediction interval 16 915; >983], p < 0.001			-			-				[-13.02	; 41.62]	
Hospital LOS (hrs) PVA Thoracoscopic Hutchins et al, 2017 ^M Single-shot 25 29.28 39.36 23 38.40 43.44 Via et al, 2017 ^M Single-shot 20 96.00 9.60 25 76.50 19.20 Via et al, 2017 ^M Single-shot 40 96.00 9.60 25 76.50 19.20												
Hutchins et al, 2017 ⁴⁶ Single-shot 25 29.28 39.36 23 38.40 43.44	Test for effect in subgr	soup: $z = 1.98$ ($p = 0$.	05)									
Hutchins et al, 2017 ⁴⁶ Single-shot 25 29.28 39.36 23 38.40 43.44												
Xia et al, 2020 ⁴⁴ Single-shot 20 96.00 9.60 20 57.60 19.20 38.40 [28.99; 47.81] 14.98 Fixed effect model 85 83 83 38.40 [28.99; 47.81] 14.98 Prediction interval 85 83 83 38.40 [28.99; 47.81] 14.98 Prediction interval 85 83 83												
xiang et al, 2020 ²¹ Single-shot 40 76.80 12.00 40 79.20 9.60 -2.40 -7.16; 2.36] 58.3 Prediction interval 85 83 83 83 -1.40; -2.40; -7.16; 2.36] 58.3% Heterogeneity: 7 ² - 97% [93%; >98%], p < 0.001												
Fixed effect model 85 83 5.45 [1.27; 9.63] 75.7% Prediction interval [-378.01; 397.57% [-378.01; 397.57% Heterogeneity: $I^2 = 97\%$ [93%; >98%], $p < 0.001$;			
prediction interval [-378.01; 397.52] Heterogeneity: 7 ² = 97% [93%; >98%], p < 0.001		Single-shot			12.00		79.20	9.60				
Heterogeneity: $I^2 = 975$ (935; >981), $\rho < 0.001$ Test for effect in subgroup: $z = 2.55$ ($\rho = 0.01$) Picad effect model 306 340 3.30 (-0.34; 6.94] 100.05 Picat for overall effect: $z = 1.76$ ($\rho = 0.08$) -50 0 50			85			83			•			5.7%
Test for effect in subgroup: z = 2.55 (p = 0.01) Fixed effect model 306 340 Prediction interval Heterogeneity: I^2 = 88% [80%; 93%], p < 0.001			-			-				[-378.01]	; 397.52]	
Fixed effect model 306 340 a 3.30 [-0.34; 6.94] 100.0% Prediction interval [-40.96; 51.59] [-40.96; 51.59] Heterogeneity: I ² = 88% [80%; 93%], p < 0.001												
Prediction interval [-40.96; 51.59] Heterogeneity: I ² = 88 [80%; 93%], p < 0.001	Test for effect in subgr	soup: $z = 2.55$ ($p = 0$.	01)									
Prediction interval [-40.96; 51.59] Heterogeneity: I ² = 88 [80%; 93%], p < 0.001												
Heterogeneity: $I^2 = 88 \ [80 \ 93 \ 93 \ p < 0.001$			306			340			•			0.0%
Test for overall effect: $z = 1.78$ ($p = 0.08$) -50 0 50										[-40.96	; 51.59]	
			L						1 1 1			
Test for subgroup differences: χ_2^2 = 12.40, df = 2 (p = 0.002)									-50 0 50			
	Test for subgroup differ	ences: $\chi_2^2 = 12.40$, df	= 2 (p	- 0.00	2)							