Supplemental Table 1. 2h morphine consumption (mg), with clonidine.

A weighted mean difference less than 0 indicates less morphine consumption with active compared with control.

CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Clo	Clonidine Control Mean SD Total Mean SD Tota						Mean Difference Mean Difference				
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI	IV, Fixed, 95% CI			
Rohrbach 1999	17.4	6.8	20	17.3	4.6	20	10.4%	0.10 [-3.50, 3.70]				
Striebel 1993	6.3	2.7	30	7	2.1	30	89.6%	-0.70 [-1.92, 0.52]				
Total (95% CI)			50			50	100.0%	-0.62 [-1.78, 0.54]	•			
Heterogeneity: Chi ² =					= 0%				-4 -2 0 2 4			
Test for overall effect:	Z = 1.0)4 (P	= 0.30)				F	avours experimental Favours control			

Supplemental Table 2. 12h morphine consumption (mg), with clonidine.

A weighted mean difference less than 0 indicates less morphine consumption with active compared with control.

CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Clo	onidin	e	C	ontrol			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Bernard 1991	3.8	5	25	10.8	6	25	27.3%	-7.00 [-10.06, -3.94]	-
De Kock 1992	19.7	11.1	96	27.6	18.1	91	25.7%	-7.90 [-12.23, -3.57]	
Jeffs 2002	32	13	30	36	15	30	21.4%	-4.00 [-11.10, 3.10]	
Marinangeli 2002	13.07	7.66	60	32.6	9.1	20	25.6%	-19.53 [-23.96, -15.10]	-
Total (95% CI)			211			166	100.0%	-9.79 [-16.20, -3.38]	•
Heterogeneity: Tau² =	36.70;	Chi ² =	25.00	, df = 3	(P < 0	6	-20 -10 0 10 20		
Test for overall effect:	Z = 2.9	9 (P =	0.003)					F	Favours experimental Favours control

Supplemental Table 3. 24h morphine consumption (mg), with clonidine.

A weighted mean difference less than 0 indicates less morphine consumption with active compared with control.

CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Clo	onidin	e	C	ontrol			Mean Difference	Mean D	fference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% C	I IV, Fixed	I, 95% CI
Dimou 2003	6.5	4.9	18	11.3	7	20	25.3%	-4.80 [-8.61, -0.99]	_ -	
Owen 1997	53.4	21.3	14	49.9	23.2	14	1.4%	3.50 [-13.00, 20.00]		
Sung 2000	7.5	6.5	43	11	6.5	65	58.7%	-3.50 [-6.00, -1.00]	—	
Yu 2003	16.1	5.6	15	22	8.2	15	14.6%	-5.90 [-10.93, -0.87]		
Total (95% CI)			90			114	100.0%	-4.08 [-6.00, -2.17]	•	
Heterogeneity: Chi ² =	1.66, d	f = 3 (P = 0.6	55); I ² =	0%				-10 -5	5 10
Test for overall effect:	Z = 4.1	.7 (P <	0.000	1)				1	Favours experimental	

Supplemental Table 4. 2h morphine consumption (mg), with dexmedetomidine.

A weighted mean difference less than 0 indicates less morphine consumption with active compared with control.

CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Dexme	detomi	dine	C	ontrol			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Bakhamees 2007	5	1.4	40	10.2	1.3	40	41.6%	-5.20 [-5.79, -4.61]	•
Gurbet 2006	12	0.7	25	19.5	1	25	42.1%	-7.50 [-7.98, -7.02]	
Scheinin 1992	5.8	5.8	12	15.6	9.7	12	8.5%	-9.80 [-16.19, -3.41]	
Unlugenc 2005	14	12.3	30	15.3	14.4	30	7.7%	-1.30 [-8.08, 5.48]	-
Total (95% CI)			107			107	100.0%	-6.26 [-8.34, -4.18]	•
Heterogeneity: Tau ² =	2.62; Ch	$i^2 = 38.$	38, df :	= 3 (P <	0.00		-10 -5 0 5 10		
Test for overall effect:	Z = 5.90	(P < 0.	00001)		F	avours experimental Favours control			

Supplemental Table 5. 12h morphine consumption (mg), with dexmedetomidine.

A weighted mean difference less than 0 indicates less morphine consumption with active compared with control.

CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Dexme	detomi	dine	C	ontrol			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95%	CI IV, Fixed, 95% CI
Altindis 2008	7.42	3.17	20	13.27	5.93	20	98.6%	-5.85 [-8.80, -2.9	0] -
Unlugenc 2005	20.6	56.8	30	34.8	38.6	30	1.4%	-14.20 [-38.77, 10.3	7]
Total (95% CI)	0 44 df	1 /D	50	12 _ 00/		50	100.0%	-5.97 [-8.89, -3.0	4]
Heterogeneity: Chi ² = 0 Test for overall effect: 2				r = 0%					-20 -10 0 10 20 Favours experimental Favours control

Supplemental Table 6. 24h morphine consumption (mg), with dexmedetomidine.

A weighted mean difference less than 0 indicates less morphine consumption with active compared with control.

CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Dexm	edetomi	dine	C	ontrol			Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Altindis 2008	10.37	4.49	20	17.5	7.72	20	20.8%	-7.13 [-11.04, -3.22]	-
Bakhamees 2007	35.4	6.4	40	47.8	8	40	21.2%	-12.40 [-15.57, -9.23]	-
Gunes 2008	16.03	8.55	32	46.37	12.05	32	20.0%	-30.34 [-35.46, -25.22]	-
Lin 2009	23.3	10	50	32.8	12.4	48	20.4%	-9.50 [-13.97, -5.03]	
Tufanogullari 2008	38	29.23	57	49	26	20	12.9%	-11.00 [-24.69, 2.69]	
Unlugenc 2005	23.8	69.5	30	44	52	30	4.8%	-20.20 [-51.26, 10.86]	
Total (95% CI)			229			190	100.0%	-14.49 [-22.14, -6.84]	•
Heterogeneity: Tau ² =	69.44;	Chi ² = 55	5.47, df	f = 5 (P)	< 0.000)01); I²	= 91%		-20 -10 0 10 20
Test for overall effect:	Z = 3.7	1 (P = 0.	0002)					Fa	avours experimental Favours control

Supplemental Table 7. 1h VAS pain score (cm), with clonidine.

A weighted mean difference less than 0 indicates less pain with active compared with control.

CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Clo	nidir	ıe	Co	ontro	I		Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% C	I IV, Fixed, 95% CI
Pawlik 2005	2.1	1.4	15	2.8	1.8	15	9.3%	-0.70 [-1.85, 0.45]]
Rohrbach 1999	2.75	1.8	20	3.125	2	20	8.9%	-0.38 [-1.55, 0.80]] -
Striebel 1993	3.9	1.1	30	4.2	1.1	30	40.0%	-0.30 [-0.86, 0.26]]
Sung 2000	3.6	1.8	43	3.6	1.2	65	33.1%	0.00 [-0.61, 0.61]] —
Wright 1990	5.2	2.3	30	5	2.4	30	8.8%	0.20 [-0.99, 1.39]]
Total (95% CI)			138			160	100.0%	-0.20 [-0.55, 0.15	1
Heterogeneity: Chi ² =					= 0%				-5 -1 1 3
Test for overall effect:	Z = 1.1	.2 (P	= 0.26)					Favours experimental Favours control

Supplemental Table 8. 2h VAS pain score (cm), with clonidine.

A weighted mean difference less than 0 indicates less pain with active compared with control.

CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Clo	nidir	ie	Co	ontro	l		Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Dimou 2003	5.6	2.1	18	5	2.4	20	23.6%	0.60 [-0.83, 2.03]	-
Rohrbach 1999	2	1.5	20	1.75	1.3	20	33.9%	0.25 [-0.62, 1.12]	
Sung 2000	2.4	1.1	43	3.3	1	65	42.5%	-0.90 [-1.31, -0.49]	-
Total (95% CI)			81			105	100.0%	-0.16 [-1.15, 0.84]	
Heterogeneity: Tau ² =					(P =	0.01);	$1^2 = 76\%$		-2 -1 0 1 2
Test for overall effect:	Z = 0.3	31 (P	= 0.76)				F	avours experimental Favours control

Supplemental Table 9. 4h VAS pain score (cm), with clonidine.

A weighted mean difference less than 0 indicates less pain with active compared with control.

CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Cl	onidin	e	C	ontrol			Mean Difference	
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Dimou 2003	4.8	2.2	18	4.6	2.7	20	24.4%	0.20 [-1.36, 1.76]	-
Park 1996	3.3	1.3	20	4.6	1.3	19	41.8%	-1.30 [-2.12, -0.48]	
Rohrbach 1999	1	1.25	20	1	2.23	20	33.8%	0.00 [-1.12, 1.12]	
Total (95% CI)			58			59	100.0%	-0.49 [-1.51, 0.52]	
Heterogeneity: Tau² =	: 0.47; (Chi² =	4.85, d	f = 2 (F) = 0.0)9); ² =	± 59%		-5 -1 1 3
Test for overall effect:	Z = 0.9)5 (P =	0.34)					F	Favours experimental Favours control

Supplemental Table 10. 12h VAS pain score (cm), with clonidine.

A weighted mean difference less than 0 indicates less pain with active compared with control.

CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Clo	onidin	e	Co	ontro	l		Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% C	I IV, Fixed, 95% CI
Benhamou 1994	3.3	2.4	20	3.7	2.4	20	13.9%	-0.40 [-1.89, 1.09]
Bernard 1991	2.6	1.65	25	4.9	2.5	25	22.3%	-2.30 [-3.47, -1.13] —
Park 1996	3.6	1	20	5.1	1.2	19	63.7%	-1.50 [-2.20, -0.80] —
Total (95% CI)			65			64	100.0%	-1.53 [-2.08, -0.97	1 •
Heterogeneity: Chi ² =	3.88, d	f = 2 (P = 0.1	(4); I ² =	48%				-5 -5 -6 -6 -5 -5
Test for overall effect:	Z = 5.3	9 (P <	0.000	01)					Favours experimental Favours control

Supplemental Table 11. 24h VAS pain score (cm), with clonidine.

A weighted mean difference less than 0 indicates less pain with active compared with control.

CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Clo	nidir	1e	Co	ontro	l		Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI	IV, Fixed, 95% CI
Benhamou 1994	2.5	1.7	20	2.4	2	20	21.8%	0.10 [-1.05, 1.25]	
Dimou 2003	3	2.1	18	3.1	2.1	20	16.1%	-0.10 [-1.44, 1.24]	-
Owen 1997	5.1	1.9	14	5.3	1.7	14	16.2%	-0.20 [-1.54, 1.14]	
Park 1996	2.8	1.1	20	4.2	1.4	19	45.9%	-1.40 [-2.19, -0.61]	
Total (95% CI)			72			73	100.0%	-0.67 [-1.21, -0.13]	•
Heterogeneity: Chi ² =	6.15, d	f = 3	(P = 0)	.10); I²	= 51	%			-5 -1 1 1 3
Test for overall effect:	Z = 2.4	14 (P	= 0.01)				Fa	avours experimental Favours control

Supplemental Table 12. 48h VAS pain score (cm), with clonidine.

A weighted mean difference less than 0 indicates less pain with active compared with control.

CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Clo	nidir	ie	Co	ontro	I		Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI	IV, Fixed, 95% CI
Dimou 2003	2.7	1.8	18	3.1	2	20	20.9%	-0.40 [-1.61, 0.81]	-
Owen 1997	3.5	1.8	14	3.5	2	14	15.3%	0.00 [-1.41, 1.41]	
Park 1996	3.1	1.1	20	2.8	1.1	19	63.8%	0.30 [-0.39, 0.99]	
Total (95% CI)			52			53	100.0%	0.11 [-0.44, 0.66]	•
Heterogeneity: Chi ² = Test for overall effect:					= 0%			_	-2 -1 0 1 2
rest for overall effect.	_ 0	, U	0.70	,				ŀ	avours experimental Favours control

Supplemental Table 13. 1h VAS pain score (cm), with dexmedetomidine. A weighted mean difference less than 0 indicates less pain with active compared with control. CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Dexme	medetomidine Control						Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% C	IV, Random, 95% CI
Gurbet 2006	2.1	0.5	25	2.5	0.5	25	29.9%	-0.40 [-0.68, -0.12] +
Lin 2009	4.5	1.8	50	4.9	1.9	48	27.5%	-0.40 [-1.13, 0.33]
Ozkose 2006	1.4	2.1	20	5.6	2.5	20	21.6%	-4.20 [-5.63, -2.77] —
Tufanogullari 2008	4.67	2.75	57	6	3	20	21.0%	-1.33 [-2.83, 0.17] -
Total (95% CI)			152			113	100.0%	-1.42 [-2.65, -0.18	
Heterogeneity: Tau ² =	1.31; Ch	$i^2 = 27.$	32, df =	= 3 (P <	0.0	0001);	$l^2 = 89\%$		-1 -2 h 3 h
Test for overall effect: I	Z = 2.25	(P = 0.	02)						Favours experimental Favours control

Supplemental Table 14. 2h VAS pain score (cm), with dexmedetomidine. A weighted mean difference less than 0 indicates less pain with active compared with control. CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Dexmed	detomidi	etomidine Control					Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% C	IV, Random, 95% CI
Gurbet 2006	2.1	0.4	25	2.3	0.4	25	71.2%	-0.20 [-0.42, 0.02] -
Lin 2009	3.4	1.6	50	4.1	1.8	48	28.8%	-0.70 [-1.38, -0.02]
Total (95% CI)			75			73	100.0%	-0.34 [-0.79, 0.10	
Heterogeneity: Tau ² =	0 06 [,] Chi	² = 1 90		1 (P =	0 17)			0.54 [0.75, 0.10	'
Test for overall effect:				1 (1 -	V.11)	, 1 - 1	170		-2 -1 0 1 2
restroi overali effect.	2 - 1.72	(1 - 0.1.	,						Favours experimental Favours control

Supplemental Table 15. 24h VAS pain score (cm), with dexmedetomidine. A weighted mean difference less than 0 indicates less pain with active compared with control. CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Dexme	detomi	midine Control					Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% C	IV, Random, 95% CI
Gurbet 2006	1.4	0.3	25	1.9	0.4	25	67.5%	-0.50 [-0.70, -0.30	<u>-</u>
Lin 2009	2.2	1.2	50	3.1	1.6	48	27.4%	-0.90 [-1.46, -0.34]
Tufanogullari 2008	4.33	3.04	57	4	3	20	5.1%	0.33 [-1.20, 1.86] -
Total (95% CI)			132			93	100.0%	-0.57 [-0.92, -0.21	1 🔷
Heterogeneity: Tau ² =	0.04; Ch	$i^2 = 2.9$	6, df =	2 (P =	0.23)	$ ^2 = 3$	3%		-5 -1 1 3
Test for overall effect: 2	Z = 3.11	(P = 0.	002)						Favours experimental Favours control

Supplemental Table 16. 48h VAS pain score (cm), with dexmedetomidine.

A weighted mean difference less than 0 indicates less pain with active compared with control.

CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Dexme	edetomidine Control				Mean Difference	Mean Difference		
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% C	IV, Random, 95% CI
Gurbet 2006	1.2	0.2	25	1.6	0.3	25	83.4%	-0.40 [-0.54, -0.26	5]
Tufanogullari 2008	2.67	2.75	57	4	3	20	16.6%	-1.33 [-2.83, 0.17]
Total (95% CI)			82			45	100.0%	-0.55 [-1.23, 0.12	
Heterogeneity: Tau ² =					-2 -1 0 1 2				
Test for overall effect:	Z = 1.60	(P = 0.	11)						Favours experimental Favours control

Supplemental Table 17. Postoperative early nausea, with clonidine. A risk ratio less than 1 indicates less nausea with active compared with control. CI = Confidence Interval. M-H = Mantel-Haenszel

	Clonidine Control			Risk Ratio	Risk Ratio		
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% CI	M-H, Fixed, 95% CI
Striebel 1993	4	30	4	30	13.8%	1.00 [0.28, 3.63]	
Sung 2000	3	43	10	65	27.5%	0.45 [0.13, 1.55]	-
Wright 1990	7	30	17	30	58.7%	0.41 [0.20, 0.85]	
Total (95% CI)		103		125	100.0%	0.50 [0.29, 0.88]	•
Total events	14		31				
Heterogeneity: Chi ² =	1.41, df	= 2 (P	= 0.49);	$I^2 = 0\%$	5		0.2 0.5 1 2 5
Test for overall effect:	Z = 2.40	(P = 0)).02)			F	avours experimental Favours control

Supplemental Table 18. Postoperative early vomiting, with clonidine. A risk ratio more than 1 indicates more vomiting with active compared with control. CI = Confidence Interval. M-H = Mantel-Haenszel

	Clonidine Control			Risk Ratio	Risk Ratio		
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% CI	M-H, Fixed, 95% CI
Striebel 1993	0	30	0	30		Not estimable	
Sung 2000	2	43	3	65	32.3%	1.01 [0.18, 5.78]	
Wright 1990	11	30	5	30	67.7%	2.20 [0.87, 5.57]	
Total (95% CI)		103		125	100.0%	1.81 [0.81, 4.08]	
Total events	13		8				
Heterogeneity: Chi ² =	0.60, df	= 1 (P)	= 0.44);	$I^2 = 0\%$	Ś		02 05 1 3 5
Test for overall effect:	Z = 1.44	P = 0).15)			F	avours experimental Favours control

Supplemental Table 19. Postoperative early nausea, with dexmedetomidine. A risk ratio less than 1 indicates less nausea with active compared with control. CI = Confidence Interval. M-H = Mantel-Haenszel

	Dexmedetom	Contr	ol		Risk Ratio	Risk Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% CI	M-H, Fixed, 95% CI
Lin 2009	20	50	22	48	41.8%	0.87 [0.55, 1.38]	-
Scheinin 1992	3	12	2	12	3.7%	1.50 [0.30, 7.43]	
Tufanogullari 2008	20	57	13	20	35.8%	0.54 [0.33, 0.87]	
Yildiz 2006	6	25	10	25	18.6%	0.60 [0.26, 1.40]	-
Total (95% CI)		144		105	100.0%	0.73 [0.53, 0.99]	•
Total events	49		47				
Heterogeneity: Chi ² =	3.08, df = 3 (P)	= 0.38); I ² = 3%				0.5 0.7 1 1.5 2
Test for overall effect:	Z = 2.05 (P =	0.04)				Fa	vours experimental Favours control

Supplemental Table 20. Postoperative early vomiting, with dexmedetomidine. A risk ratio less than 1 indicates less vomiting with active compared with control. CI = Confidence Interval. M-H = Mantel-Haenszel

	Dexmedetom	Contro			Risk Ratio	Risk Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% CI	M-H, Fixed, 95% CI
Lin 2009	9	50	9	48	40.6%	0.96 [0.42, 2.21]	
Tufanogullari 2008	3	57	3	20	19.6%	0.35 [0.08, 1.60]	
Yildiz 2006	3	25	9	25	39.8%	0.33 [0.10, 1.09]	
Total (95% CI)		132		93	100.0%	0.59 [0.32, 1.08]	•
Total events	15		21				
Heterogeneity: Chi ² =	2.65, df = 2 (P	= 0.27); I ² = 25%	6			01 02 05 1 3 5 10
Test for overall effect:	Z = 1.71 (P =	0.09)				ſ	avours experimental Favours control

Supplemental Table 21. Postoperative late nausea, with dexmedetomidine. A risk ratio less than 1 indicates less nausea with active compared with control. CI = Confidence Interval. M-H = Mantel-Haenszel

	Dexmedetom	idine	Conti	rol		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% CI	M-H, Fixed, 95% CI
Gunes 2008	2	32	13	32	25.7%	0.15 [0.04, 0.63]	
Lin 2009	30	50	33	48	66.5%	0.87 [0.65, 1.17]	•
Unlugenc 2005	2	30	4	30	7.9%	0.50 [0.10, 2.53]	
Total (95% CI)		112		110	100.0%	0.66 [0.48, 0.90]	♦
Total events	34		50				
Heterogeneity: Chi ² =	7.69, $df = 2$ (P	= 0.02); $I^2 = 74$			0.01 0.1 1 10 100	
Test for overall effect:	Z = 2.67 (P =	0.008)		F	avours experimental Favours control		

Supplemental Table 22. Postoperative late vomiting, with dexmedetomidine. A risk ratio less than 1 indicates less vomiting with active compared with control. CI = Confidence Interval. M-H = Mantel-Haenszel

	Dexmedetom	Contro	ol		Risk Ratio	Risk Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% CI	M-H, Fixed, 95% CI
Gunes 2008	2	32	4	32	17.9%	0.50 [0.10, 2.54]	-
Lin 2009	15	50	18	48	82.1%	0.80 [0.46, 1.40]	-
Unlugenc 2005	0	30	0	30		Not estimable	
Total (95% CI)		112		110	100.0%	0.75 [0.44, 1.27]	•
Total events	17		22				
Heterogeneity: Chi ² =	0.29, df = 1 (P	= 0.59); $I^2 = 0\%$				01 02 05 1 2 5 10
Test for overall effect:	Z = 1.08 (P =	0.28)				F	avours experimental Favours control

Supplemental Table 23. Intraoperative bradycardia, with clonidine.

A risk ratio more than 1 indicates more bradycardia with active compared with control.

CI = Confidence Interval. M-H = Mantel-Haenszel

	Clonidine C		Cont	Control		Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% CI	M-H, Fixed, 95% CI
Bernard 1991	0	25	0	25		Not estimable	
De Kock 1992	0	96	0	91		Not estimable	
Morris 2005	4	21	3	18	37.9%	1.14 [0.29, 4.44]	- •
Owen 1997	8	14	4	14	46.9%	2.00 [0.78, 5.14]	+-
Pawlik 2005	2	15	0	15	5.9%	5.00 [0.26, 96.13]	-
Sung 2000	2	43	1	65	9.3%	3.02 [0.28, 32.32]	-
Total (95% CI)		214		228	100.0%	1.95 [0.95, 3.98]	•
Total events	16		8				
Heterogeneity: Chi ² =	1.12, df	= 3 (P)	= 0.77);	$I^2 = 0\%$	6		0.01 0.1 1 10 100
Test for overall effect:	Z = 1.83	P = 0).07)			F	avours experimental Favours control

Supplemental Table 24. Intraoperative hypotension, with clonidine.

A risk ratio more than 1 indicates more hypotension with active compared with control.

CI = Confidence Interval. M-H = Mantel-Haenszel

	Clonidine Control			Risk Ratio	Risk Ratio		
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% C	I M-H, Fixed, 95% CI
Bernard 1991	3	25	0	25	7.3%	7.00 [0.38, 128.87	1 -
De Kock 1992	0	96	0	91		Not estimable	1
Morris 2005	5	21	3	18	47.3%	1.43 [0.40, 5.17) -
Owen 1997	5	14	1	14	14.7%	5.00 [0.67, 37.51	1 +
Sung 2000	4	43	2	65	23.3%	3.02 [0.58, 15.79)
Wright 1990	14	30	0	30	7.3%	29.00 [1.81, 465.07]
Total (95% CI)		229		243	100.0%	4.75 [2.17, 10.43	· •
Total events	31		6				
Heterogeneity: Chi ² =	5.35, df	= 4 (P)	= 0.25);	$I^2 = 25$	%		0.01 0.1 1 10 100
Test for overall effect:	Z = 3.89	(P = 0)	.0001)				Favours experimental Favours control

Supplemental Table 25. Intraoperative hypertension, with clonidine.

A risk ratio less than 1 indicates less hypertension with active compared with control.

CI = Confidence Interval. M-H = Mantel-Haenszel

	Clonid	nidine Control			Risk Ratio	Risk Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% (CI M-H, Random, 95% CI
Bernard 1991	0	25	1	25	8.5%	0.33 [0.01, 7.81	
Morris 2005	4	21	4	18	26.1%	0.86 [0.25, 2.95	5]
Owen 1997	5	14	6	14	31.2%	0.83 [0.33, 2.11	[] - •
Sung 2000	6	43	51	65	34.1%	0.18 [0.08, 0.38	3] —
Total (95% CI)		103		122	100.0%	0.46 [0.16, 1.29	
Total events	15		62				
Heterogeneity: Tau2 =	0.66; Ch	$ni^2 = 9.$	01, df =	3 (P =	0.03); I ²	= 67%	0.02 0.1 1 10 50
Test for overall effect:	Z = 1.48	S(P=0)).14)				Favours experimental Favours control

Supplemental Table 26. Intraoperative hypertension, with dexmedetomidine. A risk ratio less than 1 indicates less hypertension with active compared with control. CI = Confidence Interval. M-H = Mantel-Haenszel

Study or Subgroup	Dexmedetom Events	Contr Events		Weight	Risk Ratio M-H, Fixed, 95% CI	Risk Ra M–H, Fixed,		
Tufanogullari 2008	4	60	5	20	28.3%	0.27 [0.08, 0.90]		
Yildiz 2006	5	25	19	25	71.7%	0.26 [0.12, 0.59]	-	
Total (95% CI)		85		45	100.0%	0.26 [0.13, 0.52]	•	
Total events	9		24					
Heterogeneity: Chi ² = Test for overall effect:				6			0.1 0.2 0.5 1	2 5 10
rest for overall effect.	L - 3.03 (r =	0.0001)				Fa	avours experimental Fa	avours control

Supplemental Table 27. Postoperative bradycardia, with clonidine.

A risk ratio more than 1 indicates more bradycardia with active compared with control.

CI = Confidence Interval. M-H = Mantel-Haenszel

	Clonidine		Control			Risk Ratio	Risk Ratio
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% C	M-H, Fixed, 95% CI
De Kock 1992	0	96	0	91		Not estimable	
Marinangeli 2002	0	20	0	20		Not estimable	<u> </u>
Owen 1997	4	14	3	14	100.0%	1.33 [0.36, 4.90]	
Striebel 1993	0	30	0	30		Not estimable	
Total (95% CI)		160		155	100.0%	1.33 [0.36, 4.90]	
Total events	4		3				
Heterogeneity: Not ap	plicable						0,1 0,2 0,5 1 2 5 10
Test for overall effect:	Z = 0.43	P = 0	.66)			1	Favours experimental Favours control

Supplemental Table 28. Postoperative hypotension, with clonidine.

A risk ratio more than 1 indicates more hypotension with active compared with control.

CI = Confidence Interval. M-H = Mantel-Haenszel

	Clonid	nidine Control			Risk Ratio	Risk Ratio		
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Fixed, 95% C	M-H, Fixed, 95%	CI
De Kock 1992	0	96	0	91		Not estimable		
Marinangeli 2002	3	60	0	20	17.5%	2.41 [0.13, 44.74]	· ·	
Owen 1997	9	14	3	14	70.7%	3.00 [1.02, 8.80]		_
Striebel 1993	0	30	0	30		Not estimable		
Wright 1990	3	30	0	30	11.8%	7.00 [0.38, 129.93]	· -	•
Total (95% CI)		230		185	100.0%	3.37 [1.27, 8.92]	•	-
Total events	15		3					
Heterogeneity: Chi ² =	0.34, df	= 2 (P	= 0.85);	$I^2 = 0\%$	6		0.01 0.1 1	10 100
Test for overall effect:	Z = 2.44	(P = 0)	.01)				Favours experimental Favour	

Supplemental Table 29. Postoperative hypertension, with clonidine.

A risk ratio less than 1 indicates less hypertension with active compared with control.

CI = Confidence Interval. M-H = Mantel-Haenszel

Study or Subgroup	Clonid Events			Weight	Risk Ratio M-H, Random, 95% CI		Risk Ratio M-H, Random, 95% CI		
De Kock 1992	0	96	0	91		Not estimable	_		
Pawlik 2005	0	15	8	15	100.0%	0.06 [0.00, 0.94]	_		
Total (95% CI)		111		106	100.0%	0.06 [0.00, 0.94]	•		
Total events	0		8						
Heterogeneity: Not ap	plicable						0.002 0.1	10 500	
Test for overall effect:	Z = 2.01	P = 0	.04)			F	avours experimental		

Supplemental Table 30. Postoperative bradycardia, with dexmedetomidine. A risk ratio more than 1 indicates more bradycardia with active compared with control. CI = Confidence Interval. M-H = Mantel-Haenszel

Charles on Calonian	Dexmedetom	Conti	-	Wataba	Risk Ratio	Risk Ratio	
Study or Subgroup	Events	Iotai	Events	Total	Weight	M-H, Fixed, 95% CI	M-H, Fixed, 95% CI
Lawrence 1997	14	25	0	25	50.0%	29.00 [1.82, 461.09]	
Yildiz 2006	2	25	0	25	50.0%	5.00 [0.25, 99.16]	
Total (95% CI)		50		50	100.0%	17.00 [2.35, 123.10]	-
Total events	16		0				
Heterogeneity: Chi ² =	0.79, $df = 1$ (P	0.37); I ² = 0%	6			0.002 0.1 1 10 500
Test for overall effect:	Z = 2.80 (P =	0.005)					
Total of Chall Check		0.000/				1	avours experimental Favours control

Supplemental Table 31. Time to response to verbal command (min), with clonidine. A weighted mean difference more than 0 indicates more time with active compared with control. CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Clo	nidir	ine Control					Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Fixed, 95% CI	IV, Fixed, 95% CI
De Deyne 2000	8.7	3.1	30	7.5	3.3	30	83.1%	1.20 [-0.42, 2.82]	+
Morris 2005	15.3	8.1	21	13.2	5.6	18	11.7%	2.10 [-2.22, 6.42]	-
Segal 1991	5.5	6.1	28	11	12	15	5.2%	-5.50 [-11.98, 0.98]	
Total (95% CI)			79			63	100.0%	0.96 [-0.52, 2.43]	•
Heterogeneity: Chi ² =	4.17, d	f = 2	(P = 0)	.12); I²	= 52	%			-4 -2 0 2 4
Test for overall effect:	Z = 1.2	?7 (P	= 0.20)				Fa	vours experimental Favours control

Supplemental Table 32. Time to extubation (min), with dexmedetomidine.

A weighted mean difference less than 0 indicates less time with active compared with control.

CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Dexme	detomi	tomidine Control					Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% C	I IV, Random, 95% CI
Bakhamees 2007	5.1	0.7	40	7.5	1.3	40	31.8%	-2.40 [-2.86, -1.94] -
Ozkose 2006	3.9	1.5	20	7	1.8	20	27.6%	-3.10 [-4.13, -2.07] —
Tufanogullari 2008	6.67	4.82	60	7	3	20	20.6%	-0.33 [-2.12, 1.46]
Unlugenc 2005	6.3	4.3	30	5.7	2.9	30	20.0%	0.60 [-1.26, 2.46]
Total (95% CI)			150			110	100.0%	-1.57 [-2.89, -0.24	
Heterogeneity: Tau ² =	1.38; Ch	$i^2 = 16$.	50, df :	= 3 (P =	0.0	009); I²	= 82%		1 1 1
Test for overall effect:	Z = 2.32	(P = 0.0)	02)						Favours experimental Favours control

Supplemental Table 33. Time to spontaneous eye opening (min), with dexmedetomidine. A weighted mean difference less than 0 indicates less time with active compared with control. CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Dexme	nedetomidine Control						Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% C	IV, Random, 95% CI
Lawrence 1997	3.5	2.5	25	3.2	2.9	25	33.5%	0.30 [-1.20, 1.80]
Ozkose 2006	3.8	1.6	20	6.9	2.5	20	34.6%	-3.10 [-4.40, -1.80] —
Tufanogullari 2008	6.33	4.68	60	6	3	20	31.9%	0.33 [-1.44, 2.10]
Total (95% CI)			105			65	100.0%	-0.87 [-3.25, 1.52	
Heterogeneity: Tau ² =	3.84; Ch	$i^2 = 14$.	90, df =	= 2 (P =	0.0	006); I²	= 87%		1 1 1
Test for overall effect: 2	Z = 0.71	(P = 0.	48)		Favours experimental Favours control				

Supplemental Table 34. Time to response to verbal command (min), with dexmedetomidine. A weighted mean difference less than 0 indicates less time with active compared with control. CI = Confidence Interval. IV = Inverse Variance. SD = Standard Deviation.

	Dexme	detomi	dine	Co	ontro	I		Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% C	IV, Random, 95% CI
Bakhamees 2007	3.5	0.6	40	3.9	1.2	40	21.7%	-0.40 [-0.82, 0.02] -
Lawrence 1997	5.6	3.2	25	5.1	3.3	25	16.5%	0.50 [-1.30, 2.30]
Ozkose 2006	4.2	1.3	20	7.5	2.1	20	19.7%	-3.30 [-4.38, -2.22] ——
Scheinin 1992	9.1	3.6	12	7.8	2.8	12	13.0%	1.30 [-1.28, 3.88] -
Tufanogullari 2008	7	4.73	60	6	3	20	16.6%	1.00 [-0.78, 2.78] -
Unlugenc 2005	11.7	6	30	10.3	4.6	30	12.5%	1.40 [-1.31, 4.11]
Total (95% CI)			187			147	100.0%	-0.14 [-1.60, 1.31	
Heterogeneity: Tau2 =	2.48; Ch	$i^2 = 33$.	48, df =	= 5 (P <	0.0	0001);	$I^2 = 85\%$		-1 -5 \ 1 \ 1
Test for overall effect:	Z = 0.19	(P = 0.	85)						Favours experimental Favours control