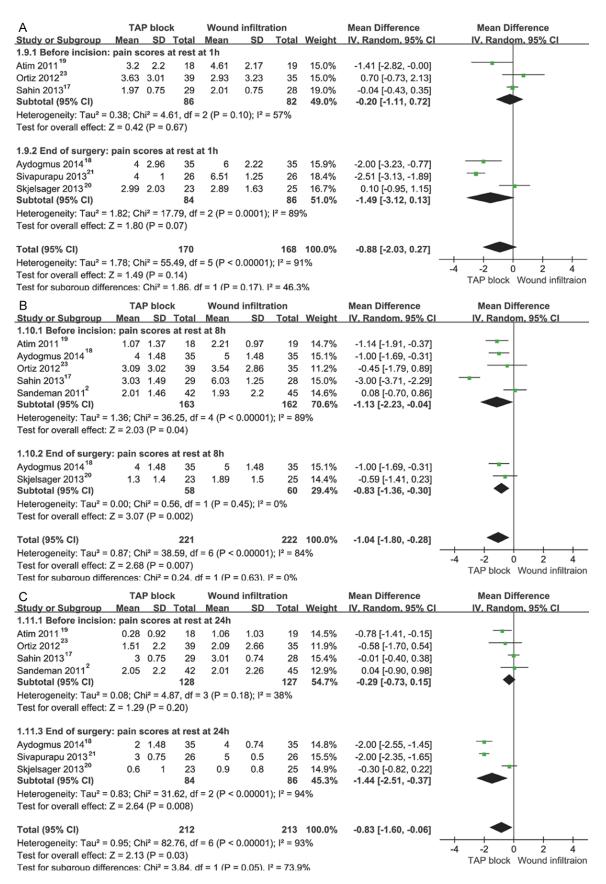
A		P bloc			d infiltra		141-1-1-1	Mean Difference	Mean Difference
Study or Subgroup				Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
1.3.1 Adults: Pain sc						100 AP			
Atim 2011 <sup>19</sup>	3.2		18	4.61	2.17	19	13.0%	-1.41 [-2.82, -0.00]	
Aydogmus 2014 <sup>18</sup>		2.96	35	6	2.22	35	13.8%	-2.00 [-3.23, -0.77]	
Ortiz 2012 23	3.63	3.01	39	2.93	3.23	35	12.9%	0.70 [-0.73, 2.13]	
Sivapurapu 2013 <sup>21</sup>	4	1	26	6.51	1.25	26	16.1%	-2.51 [-3.13, -1.89]	
Skjelsager 2013 <sup>20</sup>	2.99	2.03	23	2.89	1.63	25	14.5%	0.10 [-0.95, 1.15]	
Tolchard 2012 <sup>22</sup>	3.1	1.76	21	4.41	2.76	22	13.1%	-1.31 [-2.69, 0.07]	
Subtotal (95% CI)			162			162	83.3%	-1.12 [-2.21, -0.02]	
Heterogeneity: Tau <sup>2</sup> =	1.51 · C	$hi^2 = 29$		= 5 (P <	0.0001).				
Test for overall effect:				0 (1	0.0001),				
1.3.2 Children: Pain	scores a	at rest a	at 1h						
Sahin 201317	1.97	0.75	29	2.01	0.75	28	16.7%	-0.04 [-0.43, 0.35]	+
Subtotal (95% CI)			29			28	16.7%	-0.04 [-0.43, 0.35]	•
Heterogeneity: Not ap	nlicable								
Test for overall effect:			.84)						
Total (95% CI)			191			190	100.0%	-0.94 [-1.97, 0.09]	•
Heterogeneity: Tau <sup>2</sup> =	1 62· C	$hi^2 = 56$		= 6 (P <	0.00001				
Test for overall effect:				-0(P 5	0.00001	), 1 – 0.	5 70		-4 -2 0 2 4
Test for subaroup diffe				f = 1 /D -	- 0.07)	2 - 60 7	0/		TAP block Wound infiltrat
rest for subdroub diffe	erences.	Chi	3.30. u	1-1(P-	- 0.071.1	09.7	70		
В	TA	P block	<b>K</b>	Wound	d infiltra	tion		Mean Difference	Mean Difference
Study or Subgroup				Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% Cl
1.4.1 Adults: Pain sc									
Atim 2011 <sup>19</sup>	1.07	1.37	18	2.21	0.97	19	15.0%	-1.14 [-1.91, -0.37]	
Aydogmus 2014 <sup>18</sup>	4	1.48	35	5	1.48	35	15.4%	-1.00 [-1.69, -0.31]	
Ortiz 2012 <sup>23</sup>	3.09	3.02	39	3.54	2.86	35	11.8%	-0.45 [-1.79, 0.89]	
Skjelsager 2013 <sup>20</sup>	1.3	1.4	23	1.89	1.5	25	14.7%	-0.59 [-1.41, 0.23]	
Tolchard 2012 <sup>22</sup>	1.61	1.76	21	2.9	2.12	22	12.8%	-1.29 [-2.45, -0.13]	
Subtotal (95% CI)			136			136	69.7%	-0.93 [-1.32, -0.54]	◆
Heterogeneity: Tau <sup>2</sup> =	0.00.0	hi² = 1 ۶		A(P = 0)	76): 12 =				
Test for overall effect:				)					
1.4.2 Children: Pain s Sahin 2013 <sup>17</sup>		at rest a 1.49	at 8h 29	6.03	1.25	28	15.3%	-3.00 [-3.71, -2.29]	-
Sandeman 2011 <sup>2</sup>		1.46	42	1.93	2.2	45	15.0%	0.08 [-0.70, 0.86]	
Subtotal (95% CI)	2.01	1.40	71	1.95	2.2	73	30.3%	-1.46 [-4.48, 1.55]	
Heterogeneity: Tau <sup>2</sup> =				= 1 (P <	0.00001)	; l <sup>2</sup> = 97			
Test for overall effect:	Z = 0.95	i (P = 0	.34)						
Total (95% CI)			207			209	100.0%	-1.08 [-1.89, -0.26]	•
Heterogeneity: Tau <sup>2</sup> =	0.99; Cl	ni² = 38	.48, df	= 6 (P <	0.00001	; l <sup>2</sup> = 84	1%	-	
Test for overall effect:		•			0.70				-4 -2 0 2 4 TAP block Wound infiltrati
Test for subaroup diffe	erences:	Chi* =	U.12. d	f = 1 (P =	= 0.73). P	= 0%			
С	TA	P block	< C	Wound	d infiltra	tion		Mean Difference	Mean Difference
Study or Subgroup	Mean	ŞD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
1.5.1 Adults: Pain sc									
Atim 2011 <sup>19</sup>		0.92	18	1.06	1.03	19	14.5%	-0.78 [-1.41, -0.15]	
Aydogmus 2014 <sup>18</sup>		1.48	35	1.00	0.74	35	14.5%		
Ortiz 2012 <sup>23</sup>								-2.00 [-2.55, -1.45]	
	1.51		39	2.09	2.66	35	11.9%	-0.58 [-1.70, 0.54]	-
Sivapurapu 2013 <sup>21</sup>		0.75	26	5	0.5	26	15.5%	-2.00 [-2.35, -1.65]	
Skjelsager 2013 <sup>20</sup>	0.6	1	23	0.9	0.8	25	14.9%	-0.30 [-0.82, 0.22]	
Subtotal (95% CI)	10 10 10 10 10 10 10 10 10 10 10 10 10 1		141			140	71.7%	-1.17 [-1.96, -0.39]	
Heterogeneity: Tau <sup>2</sup> = Test for overall effect:				= 4 (P <	0.00001)	); I <sup>2</sup> = 9(	0%		
			,						
									$\perp$
	3	0.75	29	3.01	0.74	28	15.4%	-0.01 [-0.40, 0.38]	Ť
Sahin 2013 <sup>17</sup>	2.05	2.2	42	2.01	2.26	45	12.9%	0.04 [-0.90, 0.98]	<u> </u>
Sahin 2013 <sup>17</sup>	2.00		71			73	28.3%	-0.00 [-0.36, 0.35]	•
Sahin 2013 <sup>17</sup> Sandeman 2011 <sup>2</sup>	2.00		1 df -	1 (P = 0	.92); I <sup>2</sup> =	0%			
1.5.3 Children: Pain s Sahin 2013 <sup>17</sup> Sandeman 2011 <sup>2</sup> Subtotal (95% CI) Heterogeneity: Tau <sup>2</sup> =	0.00; Cl								
Sahin 2013 <sup>17</sup> Sandeman 2011 <sup>2</sup> Subtotal (95% CI)	0.00; Cl								
Sahin 2013 <sup>17</sup> Sandeman 2011 <sup>2</sup> Subtotal (95% CI) Heterogeneity: Tau <sup>2</sup> =	0.00; Cl					213	100.0%	-0.83 [-1.60, -0.06]	•
Sahin 2013 <sup>17</sup> Sandeman 2011 <sup>2</sup> Subtotal (95% CI) Heterogeneity: Tau <sup>2</sup> = Test for overall effect: Total (95% CI)	0.00; Cł Z = 0.01	1 (P = 0	.99) 212	= 6 (P <	0.00001			-0.83 [-1.60, -0.06]	• • • • •
Sahin 2013 <sup>17</sup> Sandeman 2011 <sup>2</sup> Subtotal (95% CI) Heterogeneity: Tau <sup>2</sup> = Test for overall effect:	0.00; Cl Z = 0.01 0.95; Cl	1 (P = 0	.99) <b>212</b> .76, df	= 6 (P <	0.00001)			-0.83 [-1.60, -0.06]	-4 -2 0 2 4 TAP block Wound infiltrati

**Supplementary Figure 1.** Subgroup analysis of different participants (adults vs children) in rest pain scores at 1 hour (A), 8 hour (B) and 24 hour (C) postoperatively.

A		block			d infiltra		144-1-1-4	Mean Difference	Mean Difference
Study or Subgroup	Mean			Mean	SD		Weight	IV, Random, 95% CI	IV, Random, 95% Cl
1.6.1 Non-Laparosco Atim 2011 <sup>19</sup>	-						40.00/	4 44 5 0 00 0 001	
Aum 2011 Aydogmus 2014 <sup>18</sup>	3.2	2.2 2.96	18 35	4.61 6	2.17 2.22	19 35	13.0% 13.8%	-1.41 [-2.82, -0.00] -2.00 [-3.23, -0.77]	
Sahin 2013 <sup>17</sup>	1.97		29	2.01	0.75	28	16.7%	-0.04 [-0.43, 0.35]	+
Sivapurapu 2013 <sup>21</sup>	4	1	26	6.51	1.25	26	16.1%	-2.51 [-3.13, -1.89]	
Skjelsager 2013 <sup>20</sup>	2.99		23	2.89	1.63	25	14.5%	0.10 [-0.95, 1.15]	_ <b>_</b>
Subtotal (95% CI)			131			133	74.0%	-1.16 [-2.42, 0.11]	
Heterogeneity: Tau <sup>2</sup> =	1.84; Ch	i² = 51.	52, df =	= 4 (P <	0.00001	); l <sup>2</sup> = 92	2%		
Test for overall effect:	Z = 1.79	(P = 0.	07)						
1.6.2 Laparoscopic s	uraerv:	pain so	ores a	t rest af	t 1h				
Ortiz 201223	3.63		39	2.93	3.23	35	12.9%	0.70 [-0.73, 2.13]	
Tolchard 2012 <sup>22</sup>	3.1	1.76	21	4.41	2.76	22	13.1%	-1.31 [-2.69, 0.07]	
Subtotal (95% CI)			60			57	26.0%	-0.31 [-2.28, 1.66]	
Heterogeneity: Tau <sup>2</sup> =				1 (P = 0	.05); l² =	75%			
Test for overall effect:	Z = 0.31	(P = 0.	75)						
Total (95% CI)			191			190	100.0%	-0.94 [-1.97, 0.09]	-
Heterogeneity: Tau <sup>2</sup> =	1.62; Ch	i² = 56.	16, df =	= 6 (P <	0.00001	); l <sup>2</sup> = 89	9%		-4 -2 0 2 4
Test for overall effect:	Z = 1.78	(P = 0.	08)						TAP block Wound infiltraion
Test for subaroup diffe	rences:	Chi <sup>2</sup> = (	).50. df	= 1 (P =	= 0.48). I	<sup>2</sup> = 0%			
В	TAF	block		Wound	d infiltra	tion		Mean Difference	Mean Difference
Study or Subgroup	Mean				SD		Weight	IV, Random, 95% CI	IV, Random, 95% Cl
1.7.1 Non-Laparosco	pic surg	ery: pa	ain sco	res at re	est at 8h	1			
Atim 2011 <sup>19</sup>	1.07	1.37	18	2.21	0.97	19	15.0%	-1.14 [-1.91, -0.37]	
Aydogmus 2014 <sup>18</sup>	4	1.48	35	5	1.48	35	15.4%	-1.00 [-1.69, -0.31]	
Sahin 2013 17	3.03	1.49	29	6.03	1.25	28	15.3%	-3.00 [-3.71, -2.29]	
Skjelsager 2013 <sup>20</sup>	1.3	1.4	23	1.89	1.5	25	14.7%	-0.59 [-1.41, 0.23]	
Subtotal (95% CI)			105			107	60.5%	-1.44 [-2.51, -0.37]	-
Heterogeneity: Tau <sup>2</sup> =				= 3 (P <	0.0001);	$ ^2 = 88^{\circ}$	%		
Test for overall effect:	Z = 2.64	(P = 0.	008)						
1.7.2 Laparoscopic s	urgery:	pain so	ores a	t rest at	t 8h				
Ortiz 2012 <sup>23</sup>	3.09	3.02	39	3.54	2.86	35	11.8%	-0.45 [-1.79, 0.89]	
Sandeman 20112	2.01	1.46	42	1.93	2.2	45	15.0%	0.08 [-0.70, 0.86]	-
Tolchard 2012	1.61	1.76	21	2.9	2.12	22	12.8%	-1.29 [-2.45, -0.13]	
Subtotal (95% CI)			102			102	39.5%	-0.47 [-1.31, 0.37]	
Heterogeneity: Tau <sup>2</sup> = Test for overall effect:				2 (P = 0	.16); l² =	46%			
	2 - 1.05	(i – 0.	21)						
Total (95% CI)			207			209	100.0%	-1.08 [-1.89, -0.26]	-
Heterogeneity: Tau <sup>2</sup> =				= 6 (P <	0.00001	); l <sup>2</sup> = 84	4%	-	-4 -2 0 2 4
Test for overall effect: Test for subaroup diffe		•	'	- 1 (D -	- 0.16) 1	2 - 10 1	0/_		TAP block Wound infiltraion
C							76		
		P block			d infiltra		Maight	Mean Difference	Mean Difference IV, Random, 95% CI
Study or Subgroup 1.8.1 Non-Laparosco				Mean			weight	IV, Random, 95% CI	IV, Random, 95% CI
Atim 2011 <sup>19</sup>		0.92					14 50/	-0.78[-1.41 -0.45]	
Aydogmus 2014 <sup>18</sup>		1.48	18 35	1.06 4	1.03 0.74	19 35		-0.78 [-1.41, -0.15] -2.00 [-2.55, -1.45]	
Sahin 2013 <sup>17</sup>		0.75	29	3.01	0.74	28	14.8%	-0.01 [-0.40, 0.38]	+
Sivapurapu 2013 <sup>21</sup>	3	0.75	26	5.01	0.74	26	15.5%	-2.00 [-2.35, -1.65]	-
Skjelsager 2013 <sup>20</sup>	0.6	1	23	0.9	0.8	25	14.9%	-0.30 [-0.82, 0.22]	
Subtotal (95% CI)	5.0		131		0.0	133	75.1%	-1.02 [-1.93, -0.11]	
Heterogeneity: Tau <sup>2</sup> =	1.01; Cł	ni² = 76	.98, df	= 4 (P <	0.00001	); l² = 9			
Test for overall effect:									
1.8.3 Laparoscopic s	urgerv:	pain se	cores a	at rest a	t 24h				
Ortiz 2012 <sup>23</sup>	1.51	2.2	39	2.09	2.66	35	11.9%	-0.58 [-1.70, 0.54]	
Sandeman 2011 <sup>2</sup>	2.05	2.2	42	2.01	2.26	45		0.04 [-0.90, 0.98]	
Subtotal (95% CI)			81			80	24.9%	-0.22 [-0.93, 0.50]	+
Heterogeneity: Tau <sup>2</sup> =				1 (P = 0	0.41); l² =	= 0%			
Test for overall effect:	Z = 0.59	(P = 0	.56)						
Total (95% CI)			212			213	100.0%	-0.83 [-1.60, -0.06]	•
Heterogeneity: Tau <sup>2</sup> =	0.95; Ch	ni² = 82		= 6 (P <	0.00001				
Test for overall effect:				,					-4 -2 0 2 4 TAP block Wound infiltraion
Test for subaroup diffe	erences:	Chi <sup>2</sup> =	1.84. d	f=1(P:	= 0.17). I	<sup>2</sup> = 45.8	3%		TAF DIOCK WOUND INIIITRION

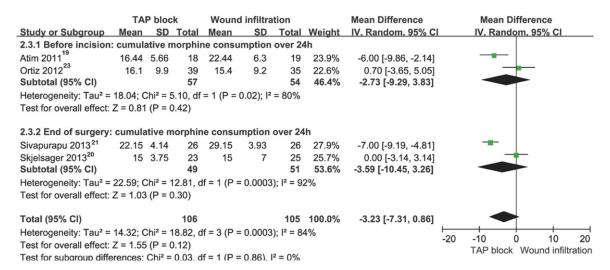
**Supplementary Figure 2.** Subgroup analysis of different types of surgery (non-laparoscopic vs laparoscopic) in rest pain scores at 1 hour (A), 8 hour (B) and 24 hour (C) postoperatively.



Supplementary Figure 3. Subgroup analysis of different time TAP block performed (before incision vs end of surgery) in rest pain scores at 1 hour (A), 8 hour (B) and 24 hour (C) postoperatively.

	TA	TAP block			d infiltra	tion		Mean Difference	Mean Difference		
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% C	IV. Random, 95% Cl		
2.2.1 Non-Laparosco	pic surg	jery: c	umula	tive mor	phine co	onsump	tion over	24h			
Atim 2011 <sup>19</sup>	16.44	5.66	18	22.44	6.3	19	20.4%	-6.00 [-9.86, -2.14]			
Sivapurapu 2013 <sup>21</sup>	22.15	4.14	26	29.15	3.93	26	24.2%	-7.00 [-9.19, -4.81]	i —		
Skjelsager 2013 <sup>20</sup>	15	3.75	23	15	7	25	22.1%	0.00 [-3.14, 3.14]	i _+-		
Subtotal (95% CI)			67			70	66.7%	-4.37 [-8.84, 0.09]	-		
Heterogeneity: Tau <sup>2</sup> =	13.08; 0	chi² = 1	3.17, d	f = 2 (P =	= 0.001);	l <sup>2</sup> = 85	%				
Test for overall effect:	Z = 1.92	(P=0	0.05)								
2.2.2 Laparoscopic s	urgery:	cumu	lative n	norphine	consu	mption	over 24h				
Ortiz 2012 <sup>23</sup>	16.1	9.9	39	15.4	9.2	35	19.2%	0.70 [-3.65, 5.05]			
Tolchard 2012 <sup>22</sup>	12.99	7.84	21	20.52	13.61	22	14.1%	-7.53 [-14.13, -0.93]			
Subtotal (95% CI)			60			57	33.3%	-3.03 [-11.05, 5.00]			
Heterogeneity: Tau <sup>2</sup> =	25.73; 0	chi² = 4	1.16, df	= 1 (P =	0.04); l <sup>2</sup>	= 76%					
Test for overall effect:	Z = 0.74	(P = 0	).46)								
Total (95% CI)			127			127	100.0%	-3.85 [-7.47, -0.22]	•		
Heterogeneity: Tau <sup>2</sup> =	12.93; 0	chi² = 1	9.72, d	f = 4 (P =	= 0.0006	); l <sup>2</sup> = 80	0%		-20 -10 0 10 20		
Test for overall effect:	Test for overall effect: $Z = 2.08$ (P = 0.04)										
Test for subaroup diffe	rences:	Chi <sup>2</sup> =	0.08. d	f = 1 (P =	= 0.77). I	<sup>2</sup> = 0%			TAP block Wound infiltration		

Supplementary Figure 4. Subgroup analysis of different types of surgery (non-laparoscopic vs laparoscopic) in cumulative morphine consumption over 24 hour.



**Supplementary Figure 5.** Subgroup analysis of different time TAP block performed (before incision vs end of surgery) in cumulative morphine consumption over 24 hour.