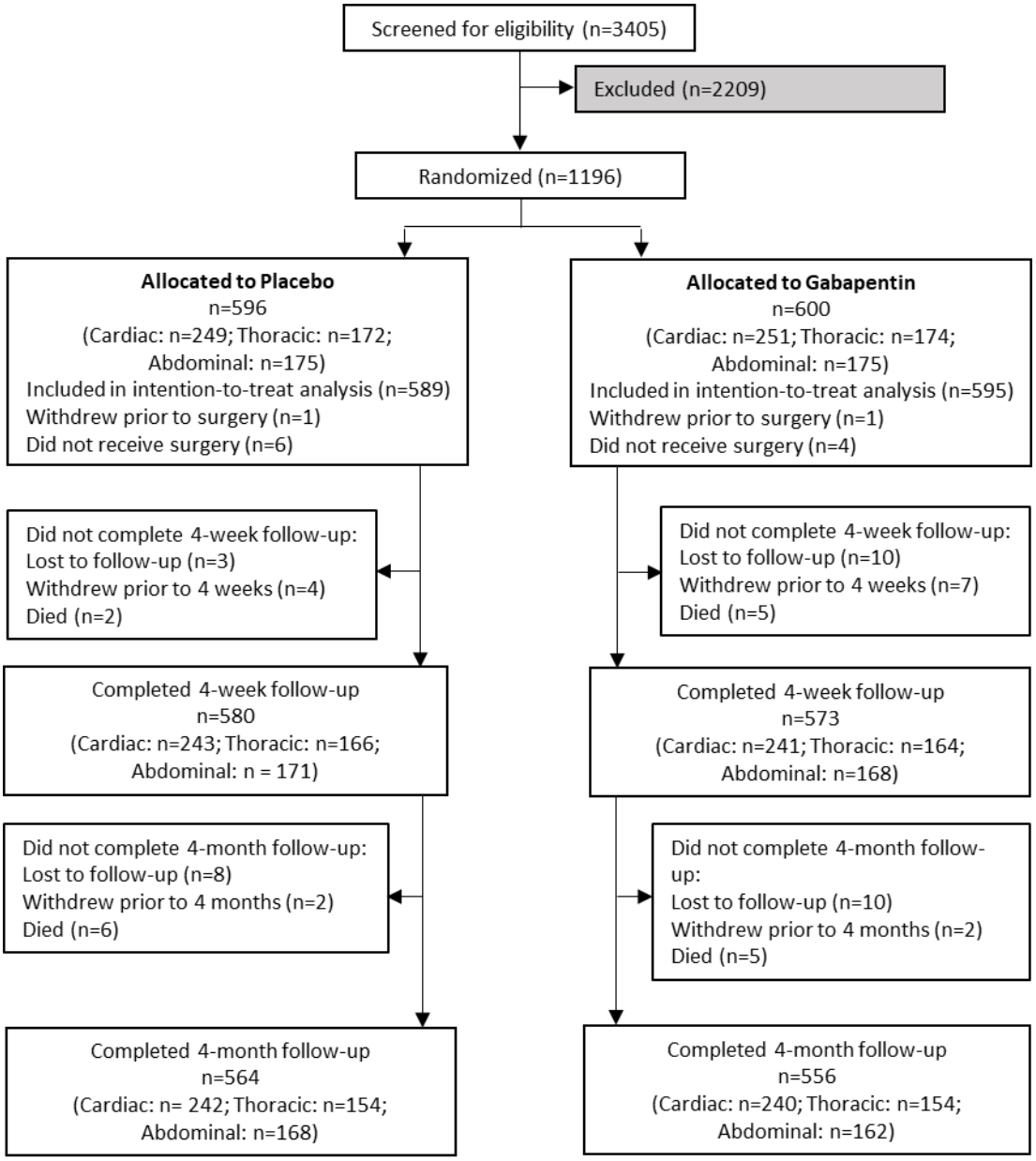


Figure 1 **Participant flow through the trial**

Table 1 Recipient characteristics

	Cardiac (n=499)		Thoracic (n=346)		Abdominal (n=350)		Overall (n=1195)	
Characteristic	**Randomized to Placebo (n=249)**	**Randomized to Gabapentin (n=250)**	**Randomized to Placebo (n=172)**	**Randomized to Gabapentin (n=174)**	**Randomized to Placebo (n=175)**	**Randomized to Gabapentin (n=175)**	**Randomized to Placebo (n=596)**	**Randomized to Gabapentin (n=599)**
Demographics								
Age (years)[+]	70.0 (62, 76)	69.0 (61, 74)	69.0 (60, 75)	67.0 (59, 74)	66 (57, 73)	66 (57, 72)	69 (60, 75)	68 (59, 74)
Male sex	190/249 (76.3%)	196/250 (78.4%)	95/172 (55.2%)	94/174 (54%)	103/175 (58.9%)	116/175 (66.3%)	388/596 (65.1%)	406/599 (67.8%)
White/Caucasian	242/248 (97.6%)	242/249 (97.2%)	171/172 (99.4%)	173/174 (99.4%)	172/175 (98.3%)	174/175 (99.4%)	585/595 (98.3%)	589/598 (98.5%)
Asian/Asian British	3/248 (1.2%)	2/249 (0.8%)	1/172 (0.6%)	0/174 (0.0%)	0/175 (0.0%)	0/175 (0.0%)	4/595 (0.7%)	2/598 (0.3%)
Black/Black British	1/248 (0.4%)	0/249 (0.0%)	0/172 (0.0%)	0/174 (0.0%)	2/175 (1.1%)	1/175 (0.6%)	3/595 (0.5%)	1/598 (0.2%)
Mixed/Multiple/Other ethnic group	2/248 (0.8%)	5/249 (2.0%)	0/172 (0.0%)	1/174 (0.6%)	1/175 (0.6%)	0/175 (0.0%)	3/595 (0.5%)	6/598 (1.0%)
Body mass index[^]	27.4 (24.3,31.3)	27.8 (25.3,30.8)	26.8 (24.1,30.8)	26.2 (23.1,29.7)	27.8 (24.9,31.5)	27.3 (24.6,30.7)	27.4 (24.4, 31.2)	27.1 (24.5, 30.5)
ASA grade								
I	5/245 (2.04%)	1/249 (0.4%)	5/171 (2.9%)	7/174 (4.0%)	8/174 (4.6%)	5/175 (2.9%)	18/590 (3.1%)	13/598 (2.2%)
II	22/245 (9.00%)	26/249 (10.4%)	106/171 (62.0%)	104/174 (59.8%)	125/174 (71.8%)	125/175 (71.4%)	253/590 (42.9%)	255/598 (42.6%)
III	203/245 (82.9%)	210/249 (84.3%)	60/171 (35.1%)	63/174 (36.2%)	40/174 (23.0%)	45/175 (25.7%)	303/590 (51.4%)	318/598 (53.2%)
IV	15/245 (6.1%)	12/249 (4.8%)	0/171	0/174	1/174 (0.6%)	0/175	16/590 (2.7%)	12/598 (2.0%)
Medical history								
Non-diabetic	203/248 (81.9%)	204/249 (81.9%)	147/172 (85.5%)	154/173 (89%)	151/175 (86.3%)	151/175 (86.3%)	501/595 (84.2%)	509/597 (85.3%)
DM - oral medication	26/248 (10.5%)	28/249 (11.2%)	15/172 (8.7%)	10/173 (5.8%)	9/175 (5.1%)	12/175 (6.9%)	50/595 (8.4%)	50/597 (8.4%)
DM - injected medication	9/248 (3.6%)	8/249 (3.2%)	6/172 (3.5%)	6/173 (3.5%)	5/175 (2.9%)	9/175 (5.1%)	20/595 (3.4%)	23/597 (3.9%)
DM - diet controlled	10/248 (4.0%)	9/249 (3.6%)	4/172 (2.3%)	3/173 (1.7%)	10/175 (5.7%)	3/175 (1.7%)	24/595 (4.0%)	15/597 (2.5%)

	Cardiac (n=499)		Thoracic (n=346)		Abdominal (n=350)		Overall (n=1195)	
Characteristic	**Randomized to Placebo (n=249)**	**Randomized to Gabapentin (n=250)**	**Randomized to Placebo (n=172)**	**Randomized to Gabapentin (n=174)**	**Randomized to Placebo (n=175)**	**Randomized to Gabapentin (n=175)**	**Randomized to Placebo (n=596)**	**Randomized to Gabapentin (n=599)**
Non-smoker	124/248 (50%)	124/249 (49.8%)	54/172 (31.4%)	52/174 (29.9%)	98/175 (56%)	92/175 (52.6%)	276/595 (46.4%)	268/598 (44.8%)
Ex smoker > 1 month	105/248 (42.3%)	97/249 (39%)	91/172 (52.9%)	83/174 (47.7%)	62/175 (35.4%)	69/175 (39.4%)	258/595 (43.4%)	249/598 (41.6%)
Current smoker	19/248 (7.7%)	28/249 (11.2%)	27/172 (15.7%)	39/174 (22.4%)	15/175 (8.6%)	14/175 (8%)	61/595 (10.3%)	81/598 (13.5%)
Medication at baseline								
Any analgesia	120/248 (48.4%)	132/249 (53.0%)	65/172 (37.8%)	70/174 (40.2%)	65/175 (37.1%)	45/175 (25.7%)	250/595 (42.0%)	247/598 (41.3%)
Opioids*	12/120 (10.0%)	20/132 (15.2%)	34/65 (52.3%)	25/70 (35.7%)	21/65 (32.3%)	16/45 (35.6%)	67/250 (26.8%)	61/247 (24.7%)
Anti-depressants	29/248 (11.7%)	26/249 (10.4%)	20/172 (11.6%)	34/174 (19.5%)	19/175 (10.9%)	19/175 (10.9%)	68/595 (11.4%)	79/598 (13.2%)
Surgery received								
Lower GI surgery	-	-	-	-	137/175 (78.3%)	132/175 (75.4%)	137/596 (11.5%)	132/599 (11.0%)
Upper GI surgery	-	-	-	-	38/175 (21.7%)	43/175 (24.6%)	38/596 (3.2%)	43/599 (3.6%)
Open surgery	247/247 (100%)	248/248 (100%)	64/169 (37.9%)	60/173 (34.7%)	93/173 (53.8%)	101/174 (58.0%)	404/589 (68.6%)	409/595 (68.7%)
Minimal access surgery	-	-	105/169 (62.1%)	113/173 (65.3%)	80/173 (46.2%)	73/174 (42.0%)	185/589 (31.4%)	186/595 (31.3%)

Data are n/N (%) or median and interquartile range

+ Missing (placebo, gabapentin): cardiac (1, 0) ^ Missing (placebo, gabapentin): cardiac (1, 1)

* Codeine, tramadol, fentanyl, morphine (short acting or prolonged release), oxycodone (short acting or prolonged release), dihydrocodeine, or buprenorphine

ASA = American Society of Anesthesiologists, GI = gastrointestinal, DM = diabetes mellitus

Table 2: Time to hospital discharge after surgery

Time from surgery to hospital discharge (days)	Randomised to placebo	Randomised to gabapentin	Hazard Ratio (95% CI)	P value
All participants (N)	589	593		
Median (IQR)	6.15 (4.22 – 8.97)	5.94 (4.08 – 8.04)	1.07 (0.95 – 1.20)	0.26
Cardiac (N)	247	248		
Median (IQR)	7.04 (5.38 – 10.24)	6.97 (5.27 – 9.20)	1.07 (0.89 – 1.28)	
Discharged within 5 days[1]	26.3%	27.0%		
Thoracic (N)	169	171		
Median (IQR)	3.99 (2.31 – 6.21)	3.41 (2.93 – 5.25)	1.09 (0.88 – 1.36)	
Discharged within 3 days[1]	48.5%	50.9%		
Abdominal (N)	173	174		
Median (IQR)	6.15 (4.21 – 9.17)	5.35 (4.06 – 8.29)	1.03 (0.83 – 1.29)	
Discharged within 5 days[1]	44.2%	52.3%		
Treatment by specialty interaction				0.94

Hazard ratio for time to discharge from hospital after surgery

N = number, IQR = interquartile range, CI = confidence interval

[1] median length of stay assumed when the study was designed

Table 4 Secondary outcome: Opioid Use

Outcome	Randomized to placebo	Randomized to gabapentin	Geometric mean ratio (95% CI)	P value
Surgery to hospital discharge*				
All participants				
Day 0	7.6 (10.6, 4.9-20.9)	6.0 (9.0, 4.0-17.2)		
Day 1	13.0 (16.5, 8.1-33.0)	9.9 (13.2, 5.3-27.3)		
Day 2	4.5 (6.6, 2.0-17.0)	3.3 (6.6, 1.7-13.2)		
Day 3	1.4 (2.2, 0-9.9)	1.4 (3.0, 0-7.9)		
Day 4	1.0 (1.7, 0-6.6)	0.9 (1.4, 0-6.6)		
Day 5	0.8 (0, 0-6.6)	0.6 (0, 0-5.0)		
Cardiac				
Day 0	4.6 (7.0, 4.0-13.0)	5.0 (7.0, 2.6-12.0)	0.92 (0.71, 1.19)	
Day 1	12.3 (14.3, 7.3-27.7)	11.4 (13.7, 6-27.0)	0.88 (0.68, 1.14)	
Day 2	3.0 (5.0, 1.7-12.6)	2.3 (4.3, 0-9.9)	0.85 (0.65, 1.10)	
Day 3	0.8 (0, 0-5.3)	0.9 (1.0, 0-5.0)	1.14 (0.88, 1.49)	
Day 4	0.5 (0, 0-3.0)	0.6 (0, 0-3.6)	0.97 (0.74, 1.27)	
Day 5	0.4 (0, 0-2.0)	0.4 (0, 0-3.3)	0.91 (0.69, 1.21)	
Thoracic				
Day 0	12.1 (15.4, 8.3-24.3)	8.9 (13.2, 6.6-23.2)	0.76 (0.56, 1.02)	
Day 1	13.4 (16.5, 9.1-26.4)	9.4 (12.7, 5.3-21.5)	0.73 (0.54, 0.99)	
Day 2	4.8 (6.8, 3.0-17.2)	4.4 (6.6, 3.0-15.4)	0.70 (0.52, 0.95)	
Day 3	2.6 (4.0, 1.0-13.2)	2.0 (3.3, 0-9.9)	0.95 (0.69, 1.29)	
Day 4	2.9 (4.2, 1.7-10.7)	2.4 (3.6, 1.0-10.9)	0.80 (0.58, 1.11)	
Day 5	2.8 (4.0, 1.0-11.6)	2.9 (3.6, 1.7-9.9)	0.76 (0.54, 1.07)	
Abdominal				
Day 0	10.1 (16.2, 7.3-24.6)	5.4 (9.6, 3.3-18.5)	0.70 (0.52, 0.93)	
Day 1	13.8 (21.8, 9.9-40.3)	8.5 (14.5, 4.4-32.1)	0.67 (0.50, 0.90)	
Day 2	7.3 (11.8, 5.0-25.6)	3.9 (6.9, 1.7-19.8)	0.64 (0.48, 0.86)	
Day 3	2.4 (6.6, 0-13.2)	2.2 (3.3, 0-13.2)	0.87 (0.65, 1.17)	
Day 4	1.9 (4.0, 0-10.0)	1.2 (2.1, 0-10.0)	0.74 (0.54, 1.00)	
Day 5	1.6 (3.3, 0-12.8)	0.9 (0, 0-7.8)	0.69 (0.50, 0.96)	
Treatment by time by specialty interaction				0.80
Treatment by time interaction				0.010
Treatment by specialty interaction				0.001
Time by specialty interaction				<0.001
During follow-up[+]				

Outcome	Randomized to placebo	Randomized to gabapentin	Geometric mean ratio (95% CI)	P value
All participants	3.4 (4.0, 0-87.1)	2.8 (3.3, 0-72.6)	0.85 (0.60, 1.21)	
Cardiac	1.7 (0, 0-59.4)	2.0 (0, 0-55.4)	1.12 (0.94, 1.34)	
Thoracic	16.4 (53.5, 3.96-153.9)	10.2 (32.1, 0-178.2)	0.66 (0.27, 1.62)	
Abdominal[#]	2.1 (0, 0-79.2)	1.3 (0, 0-41.6)	0.72 (0.39, 1.35)	
Treatment by specialty interaction				0.22

Summary data are geometric mean and interquartile range

* Unable to calculate due to missing data (placebo, gabapentin): cardiac (2, 1), thoracic (4, 3), abdominal (2,1)

[+] Unable to calculate due to missing data (placebo, gabapentin): cardiac (3, 1), thoracic (4, 4), abdominal (3,1)

[#] Two extreme outliers were excluded from the analysis

CI = confidence interval

Table 5 Secondary outcome: Pain: Numerical Rating Scale

Outcome	Randomized to placebo	Randomized to gabapentin	Mean difference (95% CI)	P value
Pain at rest				
All participants				
Baseline[&]	0.66 (0, 0-0)	0.50 (0, 0-0)		
1 hour[+]	3.99 (4, 1-6)	3.48 (4, 1-5)	-0.81 (-1.12, -0.51)	
24 hours[$]	2.87 (3, 1-5)	2.51 (2, 0-4)	-0.25 (-0.42, -0.080)	
48 hours[**]	2.43 (2, 0-4)	2.22 (2, 0-3)	-0.12 (-0.28, 0.043)	
72 hours[++]	1.72 (1, 0-3)	1.66 (1, 0-3)	-0.065 (-0.22, 0.087)	
96 hours[$$]	1.33 (1, 0-2)	1.53 (1, 0-2)	-0.046 (-0.19, 0.10)	
120 hours[***]	1.32 (0, 0-2)	1.20 (0,0-2)	-0.040 (-0.19, 0.11)	
Cardiac				
Baseline				
1 hour[*]	0.22 (0, 0-0)	0.29 (0, 0-0)		
24 hours	2.51 (2, 0-4)	2.28 (2, 0-4)	-0.082 (-0.31, 0.14)	
48 hours	2.02 (2. 0-3)	1.94 (1, 0-3)	-0.031 (-0.25, 0.18)	
72 hours	1.48 (1, 0-2)	1.34 (0, 0-2)	-0.013 (-0.22, 1.94)	
96 hours	1.01 (0, 0-2)	1.39 (0, 0-2)	-0.0097 (-0.22, 0.20)	
120 hours	0.88 (0, 0-1)	1.02 (0, 0-2)	-0.21 (-0.45, 0.027)	
Thoracic				
Baseline	0.95 (0, 0-1)	0.65 (0, 0-0)		
1 hour	3.96 (4, 0-6)	3.25 (3, 1-5)	-0.88 (-1.26, -0.50)	
24 hours	3.37 (3.5, 2-5)	2.88 (2, 1-5)	-0.33 (-0.62, -0.035)	

Outcome	Randomized to placebo	Randomized to gabapentin	Mean difference (95% CI)	P value
48 hours	2.77 (2, 1-5)	2.49 (2, 0-4)	-0.20 (-0.49, 0.10)	
72 hours	2.02 (1, 0-4)	1.91 (2, 0-3)	-0.14 (-0.44, 0.15)	
96 hours	1.88 (1, 0-3)	1.55 (1, 0-2)	-0.13 (-0.42, 0.17)	
120 hours	2.17 (1.5, 0-4)	1.84 (2, 0-3)	-0.12 (-0.42, 0.17)	
Abdominal				
Baseline	1.00 (0, 0-1)	0.64 (0, 0-0)		
1 hour	4.04 (4, 1-7)	3.88 (4, 2-6)	-0.79 (-1.17, -0.42)	
24 hours	2.85 (2, 1-5)	2.45 (2, 0-4)	-0.23 (-0.51, 0.042)	
48 hours	2.73 (2, 1-4)	2.35 (2, 0-3)	-0.10 (-0.37, 0.17)	
72 hours	1.90 (1, 0-3)	1.95 (1, 0-3)	-0.05 (-0.31, 0.21)	
96 hours	1.53 (1, 0-2)	1.76 (1, 0-3)	-0.033 (-0.29, 0.23)	
120 hours	1.73 (1, 0-3)	1.30 (1, 0-2)	-0.030 (-0.29, 0.23)	
Treatment by time by specialty interaction				0.67
Treatment by time interaction				<0.001
Treatment by specialty interaction				0.81
Time by specialty interaction				<0.001
Pain on movement				
All participants				
Baseline[&&]	1.11 (0, 0-1)	0.94 (0, 0-1)		
1 hour[#]	4.76 (5, 3-7)	4.21 (5,2-6)	-0.82 (-1.20, -0.44)	
24 hours[~]	4.86 (5, 3-7)	4.46 (5, 2-6)	-0.25 (-0.44, -0.069)	
48 hours[^]	4.32 (4, 2-6)	4.08 (4, 2-6)	-0.13 (-0.30, 0.041)	
72 hours[##]	3.20 (3, 1-5)	3.22 (3, 1-5)	-0.059 (-0.23, 0.12)	
96 hours[~~]	2.67 (2, 0-4)	2.98 (3, 1-5)	-0.009 (-0.19, 0.17)	
120 hours[^^]	2.28 (2, 0-4)	2.40 (2, 0-4)	0.032 (-0.15, 0.22)	
Cardiac				
Baseline	0.47 (0, 0-0)	0.56 (0, 0-0)		
1 hour[*]				
24 hours	4.63 (5, 3-7)	4.40 (5. 2-6)	-0.26 (-0.54, 0.016)	
48 hours	4.20 (4, 2-6)	4.15 (4,2-6)	-0.14 (-0.40, 0.12)	
72 hours	3.17 (3, 1-5)	2.99 (3, 1-4)	-0.06 (-0.32, 0.19)	
96 hours	2.29 (2, 0-4)	2.92 (3, 1-5)	-0.013 (-0.27, 0.25)	
120 hours	1.82 (1, 0-3)	2.17 (2, 0-4)	0.029 (-0.23, 0.29)	
Thoracic				
Baseline	1.61 (0, 0-3)	1.23 (0, 0-1)		

Outcome	Randomized to placebo	Randomized to gabapentin	Mean difference (95% CI)	P value
1 hour	4.79 (5, 3-7)	3.97 (4, 1-6)	0.78 (-1.23, -0.33)	
24 hours	5.14 (5, 4-7)	4.71 (5, 3-7)	-0.21 (-0.55, 0.13)	
48 hours	4.27 (4, 2-7)	4.13 (4, 2-6)	-0.086 (-0.43, 0.26)	
72 hours	3.25 (3, 0-5)	3.70 (3.5, 2-5)	-0.012 (-0.36, 0.34)	
96 hours	3.69 (3, 0-6)	3.23 (3, 1-5)	0.038 (-0.32, 0.39)	
120 hours	3.46 (3, 1-5.5)	3.34 (3, 1-5.50)	0.080 (-0.28, 0.44)	
Abdominal				
Baseline	1.52 (0, 0-2)	1.17 (0, 0-1)		
1 hour	4.71 (5, 2-7)	4.63 (5, 3-7)	-0.86 (-1.32, -0.40)	
24 hours	4.89 (5, 3-7)	4.29 (4, 2-6)	-0.29 (-0.61, 0.035)	
48 hours	4.56 (4, 3-7)	3.93 (4, 2-6)	-0.16 (-0.48, 0.15)	
72 hours	3.22 (3, 1-5)	3.23 (3, 1-5)	-0.09 (-0.41, .023)	
96 hours	2.71 (2.5, 1-4)	2.95 (2.5, 0-5)	-0.040 (-0.36, 0.28)	
120 hours	2.55 (2, 0-4)	2.47 (2, 0-4)	0.0013 (-0.32, 0.33)	
Treatment by time by specialty interaction				0.79
Treatment by time interaction				<0.001
Treatment by specialty interaction				0.94
Time by specialty interaction				<0.001

Data are mean (median, IQR)

Differences are gabapentin minus placebo

SD = standard deviation, CI = confidence interval, NRS = numerical rating scale

* Not captured as participants were ventilated after surgery

Not recorded (placebo, gabapentin): [&] thoracic (3, 3), abdominal (1, 2), cardiac (2, 4), [+] thoracic (74, 69), abdominal (123, 116), [$] cardiac (31, 37), thoracic (13, 20), abdominal (14, 18), [**] cardiac (28,39), thoracic (39, 32), abdominal (21, 20), [++] cardiac (39,56), thoracic (84, 85), abdominal (31, 42), [$$] cardiac (62, 56), thoracic (107, 121), abdominal (53, 62), [***] cardiac (76, 86), thoracic (124, 142), abdominal (86, 87), [&&] thoracic (3, 3), abdominal (1, 2), cardiac (2, 4), [#] thoracic (78, 72), abdominal (124, 118), [~] cardiac (36, 38), thoracic (14, 22), abdominal (15, 17), [^] cardiac (30, 41), thoracic (40, 34), abdominal (24, 21), [##] cardiac (40, 57), thoracic (84, 86), abdominal (33, 43), [~~] cardiac (64, 58), thoracic (107, 121), abdominal (53, 65), [^^] cardiac (77, 87), thoracic (124, 142), abdominal (87, 90)

SD = standard deviation, CI = confidence interval, NRS = numerical rating scale

Note: statistical models used to obtain treatment estimates use all NRS assessments (median 14 assessments), not just those summarised here

Table 6 Analgesia and adjuvants received during trial participation

	Cardiac (n=499)		Thoracic (n=346)		Abdominal (n=350)		Overall (n=1195)	
	Placebo (n=249)	**Gabapentin (n=250)**	**Placebo (n=172)**	**Gabapentin (n=174)**	**Placebo (n=175)**	**Gabapentin (n=175)**	**Placebo (n=596)**	**Gabapentin (n=599)**
Per day in hospital								
Paracetamol (mg)								
n/N (%)	246/247 (>99%)	249/249 (100%)	167/168 (99%)	171/171 (100%)	173/173 (100%)	173/174 (99%)	586/588 (>99%)	593/594 (>99%)
Mean (median, IQR)	4553 (4655, 4000-5159)	4713 (4733, 4167-5250)	3858 (3750, 3333-4333)	3808 (3833, 3333-4300)	4240 (4300, 3600-4917)	4177 (4300, 3500-4909)	4263 (4286, 3611-4900)	4296 (4321, 3625-5000)
Aspirin (mg)								
n/N (%)	191/247 (77%)	203/249 (82%)	23/168 (14%)	29/171 (17%)	17/173 (10%)	14/174 (8%)	231/588 (39%)	246/594 (41%)
Mean (median, IQR)	99 (75, 75-107)	97 (75, 75-107)	127 (75, 75-75)	83.1 (75, 75-75)	89 (75, 75-75)	102 (75, 75-75)	101 (75, 75-107)	96 (75, 75-107)
Ibuprofen (mg)								
n/N (%)	6/247 (2%)	5/249 (2%)	41/168 (24%)	54/171 (32%)	17/173 (10%)	12/174 (7%)	64/588 (11%)	71/594 (12%)
Mean (median, IQR)	714 (767, 400-933)	573 (600, 400-933)	728 (800, 400-914)	806 (900, 600-1000)	781 (946, 400-1000)	734 (800, 400-920)	741 (800, 400-966)	777 (800, 600-1000)
Codeine (mg)								
n/N (%)	45/247 (18%)	46/249 (18%)	29/168 (17%)	26/171 (15%)	22/173 (13%)	20/174 (11%)	96/588 (16%)	92/594 (15%)
Mean (median, IQR)	90 (77, 60-120)	86 (90, 60-108)	113 (100, 60-165)	95 (100, 60-120)	111 (94, 60-173)	95 (79, 56-120)	102 (90, 60-150)	90 (90, 60-120)
Dihydrocodeine (mg)								
n/N (%)	53/247 (21%)	48/249 (19%)	53/168 (32%)	51/171 (30%)	9/173 (5%)	8/174 (5%)	115/588 (20%)	107/594 (18%)
Mean (median, IQR)	59 (60, 47-70)	61 (59, 40-76)	72 (75, 60-90)	69 (70, 45-90)	65 (70, 51-75)	56 (60, 40-65)	65 (60, 50-80)	64 (60, 45-84)
Alfentanil (mg)								
n/N (%)	40/247 (16%)	54/249 (22%)	3/168 (2%)	1/171 (1%)	7/173 (4%)	9/174 (5%)	50/588 (9%)	64/594 (11%)
Mean (median, IQR)	9 (5, 3-14)	8 (7, 3-11)					9 (5, 2-14)	8 (7, 3-12)

	Cardiac (n=499)		Thoracic (n=346)		Abdominal (n=350)		Overall (n=1195)	
	Placebo (n=249)	Gabapentin (n=250)	Placebo (n=172)	Gabapentin (n=174)	Placebo (n=175)	Gabapentin (n=175)	Placebo (n=596)	Gabapentin (n=599)
Tramadol (oral and IV) (mg)								
n/N (%)	98/247 (40%)	112/249 (45%)	97/168 (58%)	99/171 (58%)	108/173 (62%)	100/174 (57%)	303/588 (52%)	311/594 (52%)
Mean (median, IQR)	134 (100, 59-183)	128 (100, 75-175)	265 (250, 150-338)	239 (200, 125-350)	262 (243, 150-379)	253 (250, 150-339)	221 (200, 100-310)	203 (175, 100-288)
Fentanyl (IV, intrathecal and epidural) (mg)								
n/N (%)	229/247 (93%)	217/249 (87%)	126/168 (75%)	134/171 (78%)	126/173 (73%)	132/174 (76%)	481/588 (82%)	483/594 (81%)
Mean (median, IQR)	1.3 (1.0, 0.8-1.5)	1.3 (1.3, 0.8-1.5)	0.4 (0.4, 0.3-0.5)	0.4 (0.4, 0.3-0.4)	1.1 (0.3, 0.2-0.5)	0.3 (0.3, 0.2-0.4)	1.0 (0.5, 0.3-1.0)	0.7 (0.5, 0.3-1.0)
Diamorphine (IV and intrathecal) (mg)								
n/N (%)	3/247 (1%)	3/249 (1%)	0/168 (0%)	1/171 (1%)	12/173 (7%)	13/174 (7%)	15/588 (3%)	17/594 (3%)
Mean (median, IQR)					0.5 (0.5, 0.5-0.5)	1.0 (0.5, 0.4-0.5)	3.9 (0.5, 0.5-0.7)	1.9 (0.5, 0.5-2.5)
Morphine (oral and IV) (mg)								
n/N (%)	234/247 (95%)	239/249 (96%)	144/168 (86%)	136/171 (80%)	134/173 (77%)	127/174 (73%)	512/588 (87%)	502/594 (85%)
Mean (median, IQR)	23 (18, 10-31)	21 (17, 10-30)	34 (30, 16-45)	30 (23, 15-40)	32 (23, 13-43)	26 (23, 11-34)	29 (22, 11-38)	25 (20, 11-33)
Oxycodone (oral and IV) (mg)								
n/N (%)	40/247 (16%)	36/249 (14.5%)	69/168 (41%)	69/171 (40%)	66/173 (38%)	66/174 (38%)	175/588 (30%)	171/594 (29%)
Mean (median, IQR)	20 (15, 7-24)	14 (10, 5-20)	17 (10, 6-15)	17 (10, 7-16)	25 (17, 10-33)	21 (17, 10-27)	21 (12, 7-26)	18 (10, 8-21)
Buprenorphine (sublingual and patch)^ (mg)								
n/N (%)	1/247 (<1%)	1/249 (<1%)	0/168 (0%)	0/171 (0%)	3/173 (2%)	0/174 (0%)	4/588 (1%)	1/594 (<1%)
Pethidine# (mg)								
n/N (%)	4/247 (2%)	1/249 (<1%)	0/168 (0%)	0/171 (0%)	0/173 (0%)	1/174 (1%)	4/588 (1%)	2/594 (<1%)
Per day during follow-up								
Paracetamol (mg)								

	Cardiac (n=499)		Thoracic (n=346)		Abdominal (n=350)		Overall (n=1195)	
	Placebo (n=249)	**Gabapentin (n=250)**	**Placebo (n=172)**	**Gabapentin (n=174)**	**Placebo (n=175)**	**Gabapentin (n=175)**	**Placebo (n=596)**	**Gabapentin (n=599)**
n/N (%)	239/246 (97%)	236/246 (96%)	166/169 (98%)	161/169 (95%)	153/172 (89%)	154/174 (89%)	558/587 (95%)	551/589 (94%)
Mean (median, IQR)	2678 (2027, 2000-4000)	2570 (2000, 2000-4000)	3085 (3603, 2027-4000)	3316 (4000, 2373-4000)	3122 (4000, 2000-4000)	3083 (4000, 2000-4000)	2919 (2618, 2000-4000)	2923 (2560, 2000-4000)
Aspirin (mg)								
n/N (%)	180/246 (73%)	190/246 (77%)	21/169 (12%)	32/169 (19%)	15/172 (9%)	14/174 (8%)	216/587 (37%)	236/589 (40%)
Mean (median, IQR)	80 (75, 75-75)	82 (75, 75-75)	75 (75, 75-75)	75 (75, 75-75)	75 (75, 75-75)	87 (75, 75-75)	79 (75, 75-75)	81 (75, 75-75)
Ibuprofen (mg)								
n/N (%)	5/246 (2%)	7/246 (3%)	35/169 (21%)	47/169 (28%)	21/172 (12%)	13/174 (7%)	61/587 (10%)	67/589 (11%)
Mean (median, IQR)			943 (1200, 600-1200)	1029 (1200, 848-1200)	720 (600, 600-1200)	1008 (1200, 600-1200)	872 (800, 600-1200)	1005 (1200, 604-1200)
Codeine (mg)								
n/N (%)	71/246 (29%)	76/246 (31%)	45/169 (27%)	49/169 (29%)	29/172 (17%)	31/174 (18%)	145/587 (25%)	156/589 (26%)
Mean (median, IQR)	119 (120, 60-120)	106 (120, 60-120)	93 (70, 50-120)	77 (60, 32-120)	79 (60, 60-113)	88 (60, 30-120)	103 (98, 60-120)	94 (101, 60-120)
Dihydrocodeine (mg)								
n/N (%)	39/246 (16%)	39/246 (16%)	57/169 (34%)	49/169 (29%)	7/172 (4%)	8/174 (5%)	103/587 (18%)	96/589 (16%)
Mean (median, IQR)	89 (60, 60-120)	86 (60, 60-120)	112 (120, 120-120)	113 (120, 120-120)			103 (120, 60-120)	104 (120, 60-120)
Alfentanil								
n/N (%)	1/246 (<1%)	0/246 (0%)	0/169 (0%)	0/169 (0%)	0/172 (0%)	0/174 (0%)	1/587 (<1%)	0/589 (0%)
Tramadol (mg)								
n/N (%)	26/246 (11%)	23/246 (9%)	59/169 (35%)	51/169 (30%)	47/172 (27%)	48/174 (28%)	132/587 (22%)	122/589 (21%)
Mean (median, IQR)	180 (200, 100-200)	154 (200, 100-200)	173 (199, 100-200)	203 (200, 109-200)	160 (100, 100-200)	162 (100, 100-200)	170 (150, 100-200)	178 (200, 100-200)

	Cardiac (n=499)		Thoracic (n=346)		Abdominal (n=350)		Overall (n=1195)	
	Placebo (n=249)	Gabapentin (n=250)	Placebo (n=172)	Gabapentin (n=174)	Placebo (n=175)	Gabapentin (n=175)	Placebo (n=596)	Gabapentin (n=599)
Fentanyl (mg)								
n/N (%)	1/246 (<1%)	1/246 (<1%)	0/169 (0%)	1/169 (1%)	2/172 (1%)	0/174 (0%)	3/587 (1%)	2/589 (<1%)
Morphine (short acting) (mg)								
n/N (%)	10/246 (4%)	3/246 (1%)	34/169 (20%)	27/169 (16%)	11/172 (6%)	12/174 (7%)	55/587 (9%)	42/589 (7%)
Mean (median, IQR)	15 (13, 5-20)	30 (30, 20-40)	29 (20, 20-40)	34 (20, 20-40)	17 (10, 10-20)	18 (20, 20-20)	24 (20, 10-40)	31 (20, 20-40)
Morphine (prolonged release) (mg) -								
n/N (%)	0/246 (0%)	1/246 (0.4%)	2/169 (1.2%)	0/169 (0%)	3/172 (1.7%)	0/174 (0%)	5/587 (0.9%)	1/589 (0.2%)
Oxycodone (Short acting) (mg)								
n/N (%)	2/246 (1%)	1/246 (<1%)	6/169 (4%)	9/169 (5%)	6/172 (3%)	3/174 (2%)	14/587 (2%)	13/589 (2%)
Mean (median, IQR)							31 (19, 15-30)	21 (15, 9-30)
Oxycodone (Prolonged release) (mg)								
n/N (%)	1/246 (<1%)	0/246 (0%)	3/169 (2%)	4/169 (2%)	1/172 (1%)	1/174 (1%)	5/587 (1%)	5/589 (1%)
Buprenorphine (mg)								
n/N (%)	1/246 (<1%)	1/246 (<1%)	1/169 (1%)	0/169 (0%)	3/172 (2%)	0/174 (0%)	5/587 (1%)	1/589 (<1%)
Pregabalin (mg)								
n/N (%)	1/246 (<1%)	1/246 (<1%)	5/169 (3%)	2/169 (1%)	1/172 (1%)	1/174 (1%)	7/587 (1%)	4/589 (1%)
Gabapentin (mg)								
n/N (%)	6/246 (2%)	1/246 (<1%)	7/169 (4%)	9/169 (5%)	3/172 (2%)	1/174 (1%)	16/587 (3%)	11/589 (2%)
Mean (median, IQR)							976 (525, 300-628)	811 (721, 300-900)

IV = intravenous

Doses are given where at least 10 participants were taking the medication

Table 7 Secondary outcome: Pain: Brief Pain Inventory

Outcome	Randomized to placebo		Randomized to gabapentin		Odds ratio for pain present (95% CI)	Geometric mean ratio where present (95% CI)	P value
	Present	Score if present	Present	Score if present			
Pain severity index							
All participants							
Baseline	216/571 (37.8%)	12 (7-19)	205/585 (35.0%)	10 (6-16)			
4 weeks[+]	295/506 (53.3%)	11 (7-18)	319/503 (63.4%)	11 (7-18)	1.42 (1.15 – 1.75)	0.99 (0.90 – 1.08)	
4 months[$]	182/505 (33.2%)	12.5 (7–20)	211/485 (40.6%)	11 (6-19)			
Cardiac							
Baseline	82/233 (35.2%)	10 (6-16)	87/243 (35.8%)	10 (6-14)			
4 weeks	131/215 (60.9%)	11 (7-16)	148/222 (66.7%)	11 (7-16)	1.35 (0.98 – 1.86)	0.98 (0.86 – 1.12)	
4 months	74/223 (33.2%)	12 (7-19)	88/217 (40.6%)	10 (6-15)			
Thoracic							
Baseline	57/166 (34.3%)	14 (9-20)	53/173 (30.6%)	10 (6-19)			
4 weeks	94/150 (62.7%)	14 (8-19)	90/132 (68.2%)	15 (9-20)	1.63 (1.10 – 2.42)	1.08 (0.93 – 1.26)	
4 months	50/133 (37.6%)	14 (7-20)	66/128 (51.6%)	13 (7-21)			
Abdominal							
Baseline	77/172 (44.8%)	12 (8-20)	65/169 (38.5%)	12 (5-17)			
4 weeks	70/141 (49.6%)	10.5 (7-19)	81/149 (54.4%)	9 (5-16)	1.34 (0.91 – 1.97)	0.90 (0.73 – 1.10)	
4 months	58/149 (38.9%)	12 (8-20)	57/140 (40.7%)	11 (4-20)			
Treatment by time by specialty interaction							0.34
Treatment by time interaction							0.77
Treatment by specialty interaction							0.24
Time by specialty interaction							0.003

Outcome	Randomized to placebo		Randomized to gabapentin		Odds ratio for pain present (95% CI)	Geometric mean ratio where present (95% CI)	P value
	Present	Score if present	Present	Score if present			
Pain interference index							
All participants							
Baseline	214/584 (36.6%)	19.5 (9-34)	185/592 (31.3%)	19 (8-33)			
4 weeks[++]	299/525 (57.0%)	23 (10-37)	320/516 (62.0%)	22 (11-36)	1.38 (1.12 – 1.70)	1.07 (0.94 – 1.22)	
4 months[$$]	186/331 (36.0%)	21.5 (7-36)	206/390 (41.5%)	21 (8-35)			
Cardiac							
Baseline	86/242 (35.5%)	16.5 (9-33)	86/247 (34.8%)	17 (8-34)			
4 weeks	135/227 (59.5%)	21 (9 -36)	148/228 (64.9%)	22.5 (12-36)	1.31 (0.94 – 1.82)	1.14 (0.93 – 1.39)	
4 months	77/229 (33.6%)	19 (5-35)	87/223 (39.0%)	18 (7-30)			
Thoracic							
Baseline	56/169 (33.1%)	25 (8.5-34)	45/174 (25.9%)	19 (7-34)			
4 weeks	93/152 (61.2%)	25 (11-38)	92/136 (67.6%)	23.5 (14.5-37)	1.70 (1.15 – 2.51)	1.14 (0.93 – 1.40)	
4 months	51/138 (37.0%)	26 (9-39)	65/130 (50.0%)	23 (12-36)			
Abdominal							
Baseline	72/173 (41.6%)	18.5 (9-35)	54/171 (31.6%)	18 (8-28)			
4 weeks	71/146 (48.6%)	22 (11-39)	80/152 (52.6%)	16 (9-33.5)	1.22 (0.84 – 1.76)	0.90 (0.69 – 1.16)	
4 months	58/150 (38.7%)	22.5 (8-36)	54/143 (37.8%)	18 (7-35)			
Treatment by time by specialty interaction							0.44
Treatment by time interaction							0.92
Treatment by specialty interaction							0.28
Time by specialty interaction							0.002

Data are n/N (%) and median (interquartile range)

Ratios are gabapentin/placebo

CI = confidence interval

Missing (placebo, gabapentin): [+] cardiac (24, 21), thoracic (23, 35), abdominal (27, 22), [$] cardiac (20, 26), thoracic (35, 43), abdominal (31, 35), [++] cardiac (23, 21), thoracic (22, 36), abdominal (27, 22), [$$] cardiac (20, 29), thoracic (41, 49), abdominal (30, 38)

Table 8 Secondary outcome: Quality of Life -EQ-5D-5L and SF-12

Outcome	Randomized to placebo	Randomized to gabapentin	Mean difference (95% CI)	P value
EQ-5D-5L utility score				
All participants				
Baseline	0.77 (0.20)	0.77 (0.19)		
4 weeks[+]	0.71 (0.20)	0.69 (0.20)	-0.014 (-0.033 –+0.005)	
4 months[$]	0.78 (0.22)	0.77 (0.22)		
Cardiac				
Baseline	0.74 (0.21)	0.73 (0.19)		
4 weeks	0.68 (0.21)	0.66 (0.21)	-0.015 (-0.043 – +0.014)	
4 months	0.81 (0.20)	0.79 (0.21)		
Thoracic				
Baseline	0.80 (0.19)	0.82 (0.16)		
4 weeks	0.71 (0.18)	0.67 (0.20)	-0.024 (-0.060 - +0.012)	
4 months	0.71 (0.25)	0.72 (0.23)		
Abdominal				
Baseline	0.79 (0.19)	0.79 (0.20)		
4 weeks	0.75 (0.18)	0.74 (0.19)	-0.009 (-0.044 - +0.026)	
4 months	0.79 (0.21)	0.79 (0.22)		
Treatment by time by specialty interaction				0.35
Treatment by time interaction				0.39
Treatment by specialty interaction				0.83
Time by specialty interaction				<0.001
SF-12 physical component score				

Outcome	Randomized to placebo	Randomized to gabapentin	Mean difference (95% CI)	P value
All participants				
Baseline	46.0 (10.2)	46.3 (10.6)		
4 weeks[++]	39.1 (8.83)	38.5 (9.63)	-0.87 (-1.71 – -0.04)	
4 months[$$]	47.3 (9.54)	46.3 (9.98)		
Cardiac				
Baseline	42.9 (9.66)	42.0 (9.73)		
4 weeks	37.2 (7.97)	36.6 (8.94)	-0.63 (-1.89 – +0.63)	
4 months	48.3 (8.82)	47.0 (10.1)		
Thoracic				
Baseline	48.0 (10.0)	48.0 (10.7)		
4 weeks	39.7 (8.59)	37.8 (9.45)	-1.73 (-3.33 – -0.12)	
4 months	45.2 (9.24)	43.1 (9.99)		
Abdominal				
Baseline	48.4 (10.1)	50.8 (9.17)		
4 weeks	41.4 (9.71)	42.0 (9.92)	-0.45 (-2.00 – +1.10)	
4 months	47.6 (10.6)	47.9 (9.21)		
Treatment by time by specialty interaction				0.98
Treatment by time interaction				0.53
Treatment by specialty interaction				0.47
Time by specialty interaction				<0.001
SF-12 mental component score				
All participants				
Baseline	50.5 (9.45)	50.1 (9.74)		

Outcome	Randomized to placebo	Randomized to gabapentin	Mean difference (95% CI)	P value
4 weeks[++]	48.7 (10.3)	49.2 (10.4)	0.74 (-0.39, 1.87)	
4 months[$$]	51.9 (9.61)	51.2 (9.75)	-0.55 (-1.61, 0.51)	
Cardiac				
Baseline	50.1 (9.44)	49.0 (9.84)		
4 weeks	48.7 (10.5)	49.0 (10.7)	-0.0006 (-1.51, 1.51)	
4 months	53.3 (8.58)	51.2 (10.1)	-1.28 (-2.72, 0.16)	
Thoracic				
Baseline	50.8 (10.2)	51.5 (8.79)		
4 weeks	47.7 (10.7)	48.2 (10.3)	1.45 (-0.37, 3.28)	
4 months	49.8 (11.3)	50.9 (9.79)	0.17 (-1.61, 1.96)	
Abdominal				
Baseline	50.6 (8.68)	50.4 (10.3)		
4 weeks	49.7 (9.49)	50.4 (9.87)	1.18 (-0.60, 2.95)	
4 months	51.7 (9.10)	51.5 (9.21)	-0.10 (-1.83, 1.62)	
Treatment by time by specialty interaction				0.20
Treatment by time interaction				0.056
Treatment by specialty interaction				0.35
Time by specialty interaction				0.070

Data are mean (standard deviation)

Differences are gabapentin minus placebo

+ Missing (placebo, gabapentin): [+] cardiac (24, 21), thoracic (23, 35), abdominal (27, 22), [$] cardiac (20, 26), thoracic (35, 43), abdominal (31, 35), [++] cardiac (24, 23), thoracic (25, 40), abdominal (29, 23), [$$] cardiac (20, 26), thoracic (34, 43), abdominal (26, 33)

CI = confidence interval, SF-12 = short-form 12

Table 9 Adverse events experienced during trial participation

	Cardiac (n=499)				Thoracic (n=346)				Abdominal (n=350)				Overall (n=1195)			
Event (MedDRA system organ class)	**Randomized to Placebo (n=249)**		**Randomized to Gabapentin (n=250)**		**Randomized to Placebo (n=172)**		**Randomized to Gabapentin (n=174)**		**Randomized to Placebo (n=175)**		**Randomized to Gabapentin (n=175)**		**Randomized to Placebo (n=596)**		**Randomized to Gabapentin (n=599)**	
	AE	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**
1 or more event	243/249 (97.6%)	78/249 (31.3%)	245/250 (97.7%)	82/250 (32.7%)	91/172 (53.0%)	44/172 (25.6%)	75/346 (43.2%)	55/174 (31.6%)	99/175 (56.6%)	67/175 (38.3%)	100 (57.2%)	58/175 (33.1%)	433/596 (72.2%)	189/599 (31.7%)	420/599 (70.0%)	195/599 (32.5%)
Number of events	1082	187	1335	216	164	83	133	111	207	144	220	178	1453	414	1488	505
	Events/participants (% of participants)		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**	
Blood & lymphatic system disorders	14/14 (5.6%)	2/1 (0.4%)	6/6 (2.4%)	1/1 (0.4%)	1/1 (0.6%)		1/1 (0.6%)	1/1 (0.6%)	4/4 (2.3%)	1/1 (0.6%)	3/3 (1.7%)	2/1 (0.6%)	19/19 (3.2%)	3/2 (0.3%)	10/10 (1.7%)	4/3 (0.5%)
Cardiac disorders	149/131 (52.6%)	43/33 (13.3%)	139/116 (46.2%)	40/30 (12.0%)	19/19 (11.0%)	2/2 (1.2%)	2/2 (1.1%)	2/2 (1.1%)	3/3 (1.7%)	2/2 (1.1%)	6/6 (3.4%)	7/6 (3.4%)	171/153 (25.7%)	47/37 (6.2%)	147/124 (20.7%)	49/38 (6.3%)
Arrhythmia	17/16 (6.4%)	6/5 (2.0%)	19/19 (7.6%)	4/3 (1.2%)	8/8 (4.7%)	1/1 (0.6%)							26/25 (4.2%)	7/6 (1.0%)	23/23 (3.8%)	7/6 (1.0%)
Atrial fibrillation	80/80 (32.1%)	10/10 (4.0%)	74/74 (29.5%)	12/11 (4.4%)	10/10 (5.8%)								92/92 (15.4%)	10/10 (1.7%)	76/76 (12.7%)	15/14 (2.3%)
Pericardial effusion	20/20 (8.0%)	16/15 (6.0%)	14/14 (5.6%)	10/8 (3.2%)									20/20 (3.4%)	17/16 (2.7%)	14/14 (2.3%)	10/8 (1.3%)
Gastrointestinal disorders	82/59 (23.7%)	11/8 (3.2%)	90/64 (25.5%)	12/11 (4.4%)	28/22 (12.8%)	3/3 (1.7%)	27/22 (12.6%)	6/6 (3.4%)	98/62 (35.4%)	43/30 (17.1%)	102/62 (35.4%)	79/42 (24.0%)	208/143 (24.0%)	57/41 (6.9%)	219/148 (24.7%)	97/59 (9.8%)

	Cardiac (n=499)				Thoracic (n=346)				Abdominal (n=350)				Overall (n=1195)			
Event (MedDRA system organ class)	**Randomized to Placebo (n=249)**		**Randomized to Gabapentin (n=250)**		**Randomized to Placebo (n=172)**		**Randomized to Gabapentin (n=174)**		**Randomized to Placebo (n=175)**		**Randomized to Gabapentin (n=175)**		**Randomized to Placebo (n=596)**		**Randomized to Gabapentin (n=599)**	
	AE	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**
	Events/participants (% of participants)		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**	
Abdominal pain									8/8 (4.6%)	1/1 (0.6%)			12/12 (2.0%)	4/4 (0.7%)	7/7 (1.2%)	8/8 (1.3%)
Constipation	16/16 (6.4%)	2/2 (0.8%)	26/26 (10.4%)	-	8/8 (4.7%)	2/2 (1.1%)	10/10 (5.7%)	1/1 (0.6%)					28/28 (4.7%)	4/4 (0.7%)	39/39 (6.5%)	1/1 (0.2%)
Diarrhea			9/9 (3.6%)	5/5 (2.0%)			1/1 (0.6%)	12/10 (5.7%)					10/10 (1.7%)	8/7 (1.2%)	14/14 (2.3%)	18/16 (2.7%)
Ileus					-	11/10 (5.7%)	-	20/20 (11.4%)	15/15 (8.6%)	2/2 (1.2%)	13/13 (7.4%)	-	16/16 (2.7%)	14/13 (2.2%)	16/16 (2.7%)	20/20 (3.3%)
Nausea	27/26 (10.4%)	1/1 (0.4%)	20/20 (8.0%)	-	12/12 (7.0%)	2/2 (1.1%)	13/13 (7.5%)	8/8 (4.6%)	35/35 (20.0%)	-	36/36 (20.6%)	-	74/73 (12.2%)	3/3 (0.5%)	69/69 (11.5%)	8/8 (1.3%)
Vomiting	20/20 (8.0%)	1/1 (0.4%)	21/21 (8.4%)	-	6/6 (3.5%)	4/4 (2.3%)	3/3 (1.7%)	12/12 (6.9%)	29/29 (16.6%)	-	39/38 (21.7%)	1/1 (0.6%)	55/55 (9.2%)	5/5 (0.8%)	63/62 (10.3%)	13/13 (2.2%)
General disorders & administration site conditions	69/59 (23.7%)	7/7 (2.8%)	85/72 (28.7%)	8/6 (2.4%)	10/10 (5.8%)	2/1 (0.6%)	10/9 (5.2%)	5/5 (2.9%)	15/15 (8.6%)	14/13 (7.4%)	15/14 (8.0%)	4/4 (2.3%)	94/84 (14.1%)	23/21 (3.5%)	110/95 (15.8%)	17/15 (2.5%)
Oedema peripheral	12/12 (4.8%)	1/1 (0.4%)	13/13 (5.2%)	1/1 (0.4%)									14/14 (2.3%)	10/9 (1.5%)	15/15 (2.5%)	5/5 (0.8%)

	Cardiac (n=499)				Thoracic (n=346)				Abdominal (n=350)				Overall (n=1195)			
Event (MedDRA system organ class)	**Randomized to Placebo (n=249)**		**Randomized to Gabapentin (n=250)**		**Randomized to Placebo (n=172)**		**Randomized to Gabapentin (n=174)**		**Randomized to Placebo (n=175)**		**Randomized to Gabapentin (n=175)**		**Randomized to Placebo (n=596)**		**Randomized to Gabapentin (n=599)**	
	AE	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**
	Events/participants (% of participants)		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**	
Pain	14/14 (5.6%)	2/2 (0.8%)	14/14 (5.6%)	-	6/6 (3.5%)	8/7 (4.0%)			10/10 (5.7%)		7/7 (4.0%)	4/4 (2.3%)	30/30 (5.0%)	10/9 (1.5%)	27/27 (4.5%)	5/5 (0.8%)
Post procedural fever	34/31 (12.4%)	1/1 (0.4%)	46/46 (18.3%)	5/3 (1.2%)									37/34 (5.7%)	5/5 (0.8%)	51/51 (8.5%)	5/3 (0.5%)
Infections & infestations	47/41 (16.5%)	36/25 (10.0%)	58/52 (20.7%)	35/27 (10.8%)	9/8 (4.7%)	27/18 (10.5%)	10/9 (5.2%)	15/14 (8.0%)	10/9 (5.1%)	24/21 (12.0%)	19/15 (8.6%)	22/20 (11.4%)	66/58 (9.7%)	87/64 (10.7%)	87/76 (12.7%)	72/61 (10.2%)
Infection					1/1 (0.6%)	10/10 (5.7%)							6/6 (1.0%)	19/17 (2.9%)	14/14 (2.3%)	13/13 (2.2%)
Pneumonia			15/15 (6.0%)	5/5 (2.0%)			5/5 (2.9%)	6/6 (3.4%)	1/1 (0.6%)	11/11 (6.4%)			9/9 (1.5%)	18/17 (2.9%)	24/24 (4.0%)	16/16 (2.7%)
Respiratory tract infection	28/28 (11.2%)	14/13 (5.2%)	24/24 (9.6%)	16/14 (5.6%)					4/4 (2.3%)	8/6 (3.5%)			36/36 (6.0%)	24/21 (3.5%)	33/33 (5.5%)	20/17 (2.8%)
Injury, poisoning & procedural complications	82/67 (26.9%)	10/7 (2.8%)	73/60 (23.9%)	20/13 (5.2%)	14/14 (8.1%)	18/14 (8.1%)	7/7 (4.0%)	16/13 (7.5%)	12/11 (6.3%)	40/30 (17.1%)	12/12 (6.9%)	34/21 (12.0%)	108/92 (15.4%)	68/51 (8.6%)	92/79 (13.2%)	70/47 (7.8%)
Post procedural hemorrhage	69/62 (24.9%)	1/1 (0.4%)	55/47 (18.7%)	3/2 (0.8%)									71/64 (10.7%)	8/8 (1.3%)	56/48 (8.0%)	5/4 (0.7%)

	Cardiac (n=499)				Thoracic (n=346)				Abdominal (n=350)				Overall (n=1195)			
Event (MedDRA system organ class)	**Randomized to Placebo (n=249)**		**Randomized to Gabapentin (n=250)**		**Randomized to Placebo (n=172)**		**Randomized to Gabapentin (n=174)**		**Randomized to Placebo (n=175)**		**Randomized to Gabapentin (n=175)**		**Randomized to Placebo (n=596)**		**Randomized to Gabapentin (n=599)**	
	AE	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**
	Events/participants (% of participants)		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**	
Surgical procedure repeated					2/2 (1.2%)	11/11 (6.3%)	-	22/14 (8.0%)	1/1 (0.6%)	9/9 (5.2%)			5/5 (0.8%)	22/22 (3.7%)	3/3 (0.5%)	34/25 (4.2%)
Wound infection					-	11/10 (5.7%)							10/10 (1.7%)	16/14 (2.3%)	9/9 (1.5%)	15/13 (2.2%)
Investigations	48/46 (18.5%)	4/3 (1.2%)	46/44 (17.5%)	4/4 (1.6%)	2/2 (1.2%)		1/1 (0.6%)	2/2 (1.1%)	2/2 (1.1%)	1/1 (0.6%)	6/6 (3.4%)	2/1 (0.6%)	52/50 (8.4%)	5/4 (0.7%)	53/51 (8.5%)	8/7 (1.2%)
Weight increased	39/39 (15.7%)	1/1 (0.4%)	32/32 (12.7%)	-									39/39 (6.5%)	1/1 (0.4%)	32/32 (5.3%)	-
Liver function test increased			14/13 (5.2%)	4/4 (1.6%)									9/7 (1.2%)	4/3 (0.5%)	20/19 (3.2%)	5/5 (0.8%)
Metabolism & nutrition disorders	37/35 (14.1%)	3/3 (1.2%)	31/31 (12.4%)	5/4 (1.6%)	3/3 (1.7%)		5/5 (2.9%)	1/1 (0.6%)	4/4 (2.3%)	1/1 (0.6%)	1/1 (0.6%)		44/42 (7.0%)	4/4 (0.7%)	37/37 (6.2%)	6/5 (0.8%)
Hyperglycemia	22/22 (8.8%)	-	24/24 (9.6%)	-									24/24 (4.0%)	1/1 (0.2%)	24/24 (4.0%)	-

	Cardiac (n=499)				Thoracic (n=346)				Abdominal (n=350)				Overall (n=1195)			
Event (MedDRA system organ class)	**Randomized to Placebo (n=249)**		**Randomized to Gabapentin (n=250)**		**Randomized to Placebo (n=172)**		**Randomized to Gabapentin (n=174)**		**Randomized to Placebo (n=175)**		**Randomized to Gabapentin (n=175)**		**Randomized to Placebo (n=596)**		**Randomized to Gabapentin (n=599)**	
	AE	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**
	Events/participants (% of participants)															
Nervous system disorders	30/25 (10.0%)	6/6 (2.4%)	32/27 (10.8%)	5/5 (2.0%)	8/7 (4.1%)	1/1 (0.6%)	10/10 (5.7%)	5/5 (2.9%)	12/12 (6.9%)		16/14 (8.0%)	5/5 (2.9%)	50/44 (7.4%)	7/7 (1.2%)	58/51 (8.5%)	15/15 (2.5%)
Somnolence	3/3 (1.2%)		7/7 (2.8%)		1/1 (0.6%)		2/2 (1.1%)		-		2/2 (1.1%)		4/4 (0.7%)		11/11 (1.8%)	
Psychiatric disorders	29/26 (10.4%)	4/4 (1.6%)	27/25 (10.0%)	9/7 (2.8%)	8/6 (3.5%)	3/1 (0.6%)	9/8 (4.6%)	3/2 (1.1%)	12/10 (5.7%)		9/9 (5.1%)	1/1 (0.6%)	49/42 (7.0%)	7/5 (0.8%)	45/42 (7.0%)	13/10 (1.7%)
Delirium	13/13 (5.2%)	-	7/7 (1.4%)	6/5 (2.0%)	1/1 (2.9%)	-	-	2/2 (1.1%)	3/3 (1.7%)	-	1/1 (0.6)	1/1 (0.6)	17/17 (2.9%)	-	8/8 (1.3%)	9/8 (1.3%)
Renal & urinary disorders	22/22 (8.8%)	8/6 (2.4%)	35/31 (12.4%)	5/5 (2.0%)	17/15 (8.7%)	1/1 (0.6%)	22/21 (12.1%)		12/12 (6.9%)	6/6 (3.4%)	9/9 (5.1%)	6/6 (3.4%)	51/49 (8.2%)	15/13 (2.2%)	66/61 (10.2%)	11/11 (1.8%)
Urinary retention					14/13 (7.6%)	6/6 (3.4%)	21/21 (12.1%)	3/3 (1.7%)					27/26 (4.4%)	8/8 (1.3%)	37/37 (6.2%)	4/4 (0.7%)
Acute kidney injury	17/17 (6.8%)	6/4 (1.6%)	25/25 (10.0%)	4/4 (1.6%)									22/22 (3.7%)	7/5 (0.8%)	29/29 (4.8%)	7/7 (1.2%)
Respiratory, thoracic & mediastinal disorders	106/85 (34.1%)	24/15 (6.0%)	105/89 (35.5%)	31/22 (8.8%)	38/35 (20.3%)	11/10 (5.8%)	22/20 (11.5%)	33/23 (13.2%)	8/7 (4.0%)	7/5 (2.9%)	12/12 (6.9%)	7/5 (2.9%)	152/127 (21.3%)	42/30 (5.0%)	139/121 (20.2%)	71/50 (8.3%)

	Cardiac (n=499)				Thoracic (n=346)				Abdominal (n=350)				Overall (n=1195)			
Event (MedDRA system organ class)	**Randomized to Placebo (n=249)**		**Randomized to Gabapentin (n=250)**		**Randomized to Placebo (n=172)**		**Randomized to Gabapentin (n=174)**		**Randomized to Placebo (n=175)**		**Randomized to Gabapentin (n=175)**		**Randomized to Placebo (n=596)**		**Randomized to Gabapentin (n=599)**	
	AE	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**
	Events/participants (% of participants)		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**	
Atelectasis	34/34 (13.7%)	3/3 (1.2%)	33/33 (13.1%)	4/4 (1.6%)									40/40 (6.7%)	5/5 (0.8%)	38/38 (6.3%)	4/4 (0.7%)
Respiratory depression	-		1/1 (0.4%)		1/1 (0.6%)		-		-		1/1 (0.6%)		1/1 (0.2%)		2/2 (0.3%)	
Pleural effusion	50/50 (20.1%)	17/12 (4.8%)	63/62 (24.7%)	18/16 (6.4%)									55/55 (9.2%)	21/15 (2.5%)	68/67 (11.2%)	24/22 (3.7%)
Pneumothorax	15/14 (5.6%)	-			13/13 (7.6%)	1/1 (0.6%)							28/27 (4.5%)	5/5 (0.8%)	11/11 (1.8%)	8/7 (1.2%)
Bronchopleural fistula					15/15 (8.7%)	-	9/9 (5.2%)	-			-	10/9 (5.2%)	18/18 (3.0%)	2/2 (0.3%)	10/10 (1.7%)	10/9 (1.5%)
Surgical & medical procedures	126/117 (47.0%)	18/11 (4.4%)	126/112 (44.6%)	24/18 (7.2%)	3/3 (1.7%)	1/1 (0.6%)		9/5 (2.9%)	2/2 (1.1%)	1/1 (0.6%)		5/5 (2.9%)	131/122 (20.5%)	20/13 (2.2%)	126/112 (18.7%)	38/28 (4.7%)
Continuous positive airway pressure	20/17 (6.8%)	2/2 (0.8%)	18/18 (7.2%)	1/1 (0.4%)									21/18 (3.0%)	2/2 (0.3%)	18/18 (3.0%)	3/3 (0.5%)

	Cardiac (n=499)				Thoracic (n=346)				Abdominal (n=350)				Overall (n=1195)			
Event (MedDRA system organ class)	**Randomized to Placebo (n=249)**		**Randomized to Gabapentin (n=250)**		**Randomized to Placebo (n=172)**		**Randomized to Gabapentin (n=174)**		**Randomized to Placebo (n=175)**		**Randomized to Gabapentin (n=175)**		**Randomized to Placebo (n=596)**		**Randomized to Gabapentin (n=599)**	
	AE	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**	**AE**	**SAE**
	Events/participants (% of participants)		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**		**Events/participants (% of participants)**	
Pacemaker generated rhythm	104/103 (41.4%)	8/8 (3.2%)	100/99 (39.4%)	10/10 (4.0%)									104/103 (17.3%)	8/8 (1.3%)	100/99 (16.5%)	10/10 (1.7%)
Vascular disorders	224/186 (74.7%)	9/7 (2.8%)	264/201 (80.1%)	13/10 (4.0%)	3/3 (1.7%)	4/4 (2.3%)	3/3 (1.7%)	7/5 (2.9%)	6/4 (2.3%)	4/4 (2.3%)	3/3 (1.7%)	2/1 (0.6%)	233/193 (32.4%)	17/15 (2.5%)	270/207 (34.5%)	22/16 (2.7%)
Hypertension	64/61 (24.5%)	-	59/56 (22.3%)	-									64/61 (10.2%)	-	59/56 (9.3%)	-
Vasodilatation	155/141 (56.6%)	4/4 (1.6%)	201/178 (70.9%)	5/4 (1.6%)									158/144 (24.2%)	4/4 (0.7%)	205/182 (30.3%)	7/6 (1.0%)
Death		1/249		3/250		7/172		5/174		0/175		2/175		8/596		10/599

System organ classes with fewer than 30 events in total across all groups are omitted

Within each system organ class data are given (shaded rows) where at least 5% of participants experienced the event in the surgical specialty (i.e. AE or SAE) along with the totals for the study as a whole. Details of clinicial important events with lower frequency, i.e. somnolence and respiratory depression, are also given.

Data are number of events in number of participants (% of participants), for example 233 adverse events classified as vascular disorders occurred in 193 participants in the placebo group, 32.4% of all participants in that group, in addition 17 serious adverse events occurred in 15 participants, 2.5% of participants in the placebo group

AE = adverse event, SAE = serious adverse event

Table 10 Secondary outcome: one or more serious adverse events

Serious adverse events (SAE)	Randomized to placebo		Randomized to gabapentin		Risk difference (95% CI)	P value	Risk ratio (95% CI)	P value
All participants								
One or more SAE	189/596	31.7%	195/599	32.6%				
Cardiac								
One or more SAE	78/249	31.3%	82/250	32.8%	+0.015 (-0.021 – +0.050)		1.05 (0.92 – 1.20)	
Thoracic								
One or more SAE	44/172	25.6%	55/174	31.6%	+0.060 (+-0.013 – +0.107)		1.23 (1.04 – 1.47)	
Abdominal								
One or more SAE	67/175	38.3%	58/175	33.2%	-0.051 (-0.095 – -0.008)		0.86 (0.76 – 0.98)	
Treatment by specialty interaction						0.0006		0.0027

Data are n/N (%)

Differences are gabapentin minus placebo