

**Table 1. Randomized Controlled Studies With One or More Treatment Arms With Granisetron 0.1 mg or 1.0 mg Available for Analysis**

Study	Surgery	Administration	Treatment			
			Granisetron	Comparator(s)	N <sub>e</sub>	N <sub>c</sub>
<b>Studies with Granisetron 0.1 mg</b>						
Gan et al, 2005	Abdominal hysterectomy	End of surgery	G 0.1 mg + D 8 mg	O 4 mg + D 8 mg	87	89
D' Angelo et al, 2005	Abdominal hysterectomy	15 minutes before end of surgery	G 0.1 mg	G 0.3 mg	31	33
				Placebo	31	30
Taylor et al, 1997	PONV ≤ 4 hours postop	Post PONV	G 0.1 mg	G 3.0 mg	128	125
				G 1.0 mg		
				Placebo	133	
				G 3.0 mg	133	125
Placebo	133					
Wilson et al, 1996	Hysterectomy	5 minutes before induction	G 0.1 mg	G 3.0 mg	132	128
				G 1.0 mg		
				Placebo	133	
				G 3.0 mg	134	128
Placebo	133					
<b>Studies With Granisetron 1.0 mg</b>						
Dua et al, 2004	Modified radical mastectomy	Before induction	G 1.0 mg	O 4 mg	20	20
				Placebo		
Hanaoka et al, 2004	Gynecologic surgery	Before end of anesthesia	G 1.0 mg	G 3.0 mg	104	104
				Placebo		
Fujii et al, 2001a	Breast surgery	1 hour preop	G 1.0 mg PO	G 4.0 mg PO G 2.0 mg PO Placebo	25	25 25 25
Fujii et al, 2001b	Laparoscopic cholecystectomy	1 hour preop	G 1.0 mg PO	G 4.0 mg PO	30	30
				G 2.0 mg PO		
				Placebo	30	

Study	Surgery	Administration	Treatment			
			Granisetron	Comparator(s)	N <sub>e</sub>	N <sub>c</sub>
Janknegt et al, 1999	Abdominal, gynecologic, breast, or otolaryngologic	Before induction	G 1.0 mg	G 1.0 mg + D 5mg	130	130
				Droperidol 1.25 mg		137
			G 1.0 mg + D 5mg	Droperidol 1.25 mg	130	137
Fujii et al, 1998	Gynecologic surgery	1 hour preop	G 1.0 mg PO	G 4.0 mg PO	30	30
				G 2.0 mg PO Placebo		30 30
Taylor et al, 1997	PONV ≤ 4 hours postop	Post PONV	G 1.0 mg	G 3.0 mg	133	125
				Placebo		133
Wilson et al, 1996	Hysterectomy	5 minutes before induction	G 1.0 mg	G 3.0 mg	134	128
				Placebo		133

N<sub>e</sub> = number of patients in experimental group (granisetron 0.1 or 1.0 mg); N<sub>c</sub> = number of patients in control group; G = granisetron; D = dexamethasone; PO = oral; O = ondansetron.

**Table 2. Relative Risk and Number Needed to Treat by Outcome for Each Study During the Early Postoperative Period**

Efficacy Data for Early Postoperative Period								
Study	Intervention (n)	Control (n)	No Vomiting		No Nausea		Need Rescue Meds	
			RR (95% CI)	NNT (95% CI)	RR (95% CI)	NNT (95% CI)	RR (95% CI)	NNT (95% CI)
<b>Granisetron 0.1 mg</b>								
Gan et al, 2005	G 0.1 mg + D (87)	O + D (89)	0.94 (0.85, 1.03)	-17 (-7, 33)	0.92 (0.73, 1.15)	-20 (-5, 12)	1.33 (0.88, 1.99)	10 (-25, 5)
D'Angelo et al, 2005	G 0.1 mg (31)	Placebo (30)	1.22 (0.98, 1.52)	6 (-100, 3)	<b>1.64</b> <b>(1.03, 2.61)</b>	<b>4</b> <b>(2, 25)</b>	<b>0.48</b> <b>(0.26, 0.90)</b>	<b>-3</b> <b>(-2, -14)</b>
		G 0.3 mg (33)	1.03 (0.89, 1.19)	34 (-10, 7)	1.02 (0.74, 1.40)	100 (-5, 5)	0.96 (0.45, 2.04)	-100 (-5, 5)
Taylor et al, 1997	G 0.1 mg (128)	Placebo (133)	<b>2.02</b> <b>(1.45, 2.80)</b>	<b>4</b> <b>(3, 7)</b>	<b>2.41</b> <b>(1.56, 3.73)</b>	<b>5</b> <b>(3, 8)</b>	<b>0.76</b> <b>(0.63, 0.91)</b>	<b>-6</b> <b>(-4, -14)</b>
		G 1.0 mg (133)	0.92 (0.74, 1.14)	-20 (-6, 14)	0.98 (0.73, 1.32)	-100 (-8, 10)	<b>0.76</b> <b>(0.63, 0.91)</b>	<b>-6</b> <b>(-4, -14)</b>
		G 3.0 mg (125)	0.89 (0.71, 1.10)	-15 (-6, 20)	0.94 (0.70, 1.26)	-34 (-7, 10)	1.13 (0.90, 1.42)	15 (-17, 5)
Wilson et al, 1996	G 0.1 mg (132)	Placebo (133)	1.18 (0.94, 1.47)	12 (-34, 5)	1.12 (0.81, 1.53)	25 (-13, 7)	nr	nr
		G 1.0 mg (134)	<b>0.74</b> <b>(0.63, 0.88)</b>	<b>-5</b> <b>(-11, -4)</b>	<b>0.61</b> <b>(0.47, 0.78)</b>	<b>-4</b> <b>(-3, -8)</b>	nr	nr
		G 3.0 mg (128)	0.76 (0.64, 0.91)	-6 (-4, 15)	<b>0.68</b> <b>(0.52, 0.88)</b>	<b>-6</b> <b>(-3, -16)</b>	nr	nr
<b>Granisetron 1.0 mg</b>								
Hanaoka et al, 2004	G 1.0 mg (104)	Placebo (107)	<b>0.43</b> <b>(0.23, 0.79)</b>	<b>-7</b> <b>(-4, -20)</b>	nr	nr	nr	nr
		G 3.0 mg (104)	0.92 (0.44, 1.93)	34 (-8, 5)	nr	nr	nr	nr
Fujii et al, 1998	G 1.0 mg (30)	Placebo (30)	1.04 (0.89, 1.21)	34 (-9, 6)	1.04 (0.86, 1.25)	34 (-8, 5)	nr	nr
		G 2.0 mg (30)	0.97 (0.86, 1.08)	-34 (-7, 13)	0.90 (0.80, 1.01)	-10 (-5, 50)	nr	nr
		G 4.0 mg (30)	<b>0.72</b> <b>(0.59, 0.87)</b>	<b>-4</b> <b>(-8, -2)</b>	0.93 (0.81, 1.07)	-15 (-6, 17)	nr	nr
Taylor et al, 1997	G 1.0 mg (133)	Placebo (133)	<b>2.20</b> <b>(1.60, 3.03)</b>	<b>4</b> <b>(3, 5)</b>	<b>2.45</b> <b>(1.59, 3.79)</b>	<b>5</b> <b>(3, 8)</b>	1.00 (0.87, 1.15)	∞ (-10, 10)
		G 3.0 mg (125)	0.96 (0.79, 1.18)	-50 (-7, 10)	0.96 (0.79, 1.18)	-50 (-8, 10)	<b>1.49</b> <b>(1.22, 1.82)</b>	<b>4</b> <b>(3, 8)</b>
Wilson et al, 1996	G 1.0 mg	Placebo	<b>1.58</b>	<b>4</b>	<b>1.83</b>	<b>4</b>	nr	nr

<b>Efficacy Data for Early Postoperative Period</b>								
<b>Study</b>	<b>Intervention (n)</b>	<b>Control (n)</b>	<b>No Vomiting</b>		<b>No Nausea</b>		<b>Need Rescue Meds</b>	
			<b>RR (95% CI)</b>	<b>NNT (95% CI)</b>	<b>RR (95% CI)</b>	<b>NNT (95% CI)</b>	<b>RR (95% CI)</b>	<b>NNT (95% CI)</b>
	(134)	(133)	<b>(1.30, 1.92)</b>	<b>(3, 7)</b>	<b>(1.40, 2.39)</b>	<b>(3, 6)</b>		
		G 3.0 mg (128)	1.02 (0.90, 1.17)	50 (-13, 9)	1.11 (0.91, 1.36)	17 (-20, 6)	nr	nr

95% CI = 95% confidence interval; D = dexamethasone; G = granisetron; NNT = number needed to treat; nr = not reported; O = ondansetron; RR = relative risk.

**Table 3. Pooled RR and NNT for Early Postoperative Period**

Efficacy Measure During Early Postoperative Period	Granisetron (mg)	N <sub>pair</sub>	Proportion of Patients with Event		RR <sub>pool</sub> (95% CI) <sup>a</sup>	NNT <sub>pool</sub> (95% CI)
			N <sub>i</sub> (n <sub>e</sub> /n <sub>t</sub> )	N <sub>c</sub> (n <sub>e</sub> /n <sub>t</sub> )		
<b>No Vomiting</b> Granisetron vs placebo	0.1 (D'Angelo et al, 2005; Taylor et al, 1997; Wilson et al, 1996)	3	174/291	124/296	<b>1.39 (1.02, 1.90)</b>	<b>6 (4, 17)</b>
	1.0 (Fujii et al, 1998; Hanaoka et al, 2004; Taylor et al, 1997; Wilson et al, 1996)	4	222/401	157/403	1.11 (0.72, 1.69)	15 (-8, 4)
	Excluding Fujii et al (Hanaoka et al, 2004; Taylor et al, 1997; Wilson et al, 1996)	3	194/371	130/373	1.09 (0.54, 2.18)	13 (-5, 3)
	All granisetron vs placebo 0.1 or 1.0 (D'Angelo et al, 2005; Fujii et al, 1998; Hanaoka et al, 2004; Taylor et al, 1997; Wilson et al, 1996)	7	396/692	281/699	<b>1.30 (1.00, 1.70)</b>	<b>8 (3, ∞)</b>
	Excluding Fujii et al (D'Angelo et al, 2005; Hanaoka et al, 2004; Taylor et al, 1997; Wilson et al, 1996)	6	368/662	254/669	<b>1.36 (1.03, 1.81)</b>	<b>7 (4, ∞)</b>
Granisetron vs granisetron >1.0 mg	0.1	nc	---	---	---	---
	1.0 (Hanaoka et al, 2004; Taylor et al, 1997; Wilson et al, 1996)	3	194/371	186/357	1.00 (0.90, 1.12)	∞ (-17, 17)
	All granisetron vs granisetron >1.0 mg 0.1 or 1.0 (Fujii et al, 1998; Hanaoka et al, 2004; Taylor et al, 1997; Wilson et al, 1996)	7	395/691	418/670	0.93 (0.87, 1.00)	-20 (-10, ∞)
	Excluding Fujii et al (Hanaoka et al, 2004; Taylor et al, 1997; Wilson et al, 1996)	5	339/631	359/610	0.91 (0.80, 1.03)	-20 (-9, 50)
<b>No Nausea</b> Granisetron vs placebo	0.1 (D'Angelo et al, 2005; Taylor et al, 1997; Wilson et	3	124/291	81/296	<b>1.61 (1.01, 2.57)</b>	<b>6 (4, 50)</b>

Efficacy Measure During Early Postoperative Period	Granisetron (mg)	N <sub>pair</sub>	Proportion of Patients with Event		RR <sub>pool</sub> (95% CI) <sup>a</sup>	NNT <sub>pool</sub> (95% CI)
			N <sub>i</sub> (n <sub>e</sub> /n <sub>t</sub> )	N <sub>c</sub> (n <sub>e</sub> /n <sub>t</sub> )		
All granisetron vs placebo	al, 1996) 1.0 (Fujii et al, 1998; Taylor et al, 1997; Wilson et al, 1996)	3	359/624	279/609	<b>1.65 (0.85, 3.18)</b>	<b>5 (3, 17)</b>
	0.1 or 1.0 (D'Angelo et al, 2005; Fujii et al, 1998; Taylor et al, 1997; Wilson et al, 1996)	5	205/504	129/459	<b>1.59 (1.02, 2.46)</b>	<b>7 (4, 17)</b>
	Excluding Fujii et al (D'Angelo et al, 2005; Taylor et al, 1997; Wilson et al, 1996)	4	178/424	103/429	<b>1.78 (1.18, 2.69)</b>	<b>6 (4, 13)</b>
Granisetron vs granisetron >1.0 mg	0.1	nc	---	---	---	---
All granisetron vs granisetron > 1.0 mg	1.0 (Fujii et al, 1998; Taylor et al, 1997; Wilson et al, 1996)	3	193/327	185/313	0.95 (0.84, 1.08)	-25 (-8, 20)
	0.1 or 1.0 (Fujii et al, 1998; Taylor et al, 1997; Wilson et al, 1996)	6	295/587	311/566	0.91 (0.82, 1.01)	-17 (-8, 100)
<b>Rescue Medication<sup>b</sup></b>						
All 0.1 mg N <sub>pair</sub>	0.1 (D'Angelo et al, 2005; Gan et al, 2005; Taylor et al, 1997)	6	272/533	318/543	0.88 (0.70, 1.10)	-13 (-5, 25)
All 1.0 mg N <sub>pair</sub>	1.0	nc	---	---	---	---

<sup>a</sup>RR<sub>pool</sub> determined using random effects model.

<sup>b</sup>Insufficient data for calculating granisetron 0.1 mg, 1.0 mg, or 0.1 or 1.0 mg versus placebo or > granisetron 1.0 mg.

95% CI = 95% confidence interval; nc = not calculable due to N < 3 and/or N<sub>pair</sub> < 3; N<sub>c</sub> = proportion of patients in control group exhibiting event; N<sub>e</sub> = number of patients in group exhibiting event; NNT<sub>pool</sub> = pooled number needed to treat; N<sub>i</sub> = proportion of patients in investigational group exhibiting event; N<sub>t</sub> = total number of patients in group; RR<sub>pool</sub> = pooled relative risk.

**Table 4. Relative Risk and Number Needed to Treat by Outcome for Each Study During the Overall Postoperative Period**

Efficacy Data for Overall Postoperative Period								
Study	Intervention (n)	Control (n)	No Vomiting		No Nausea		Need Rescue Meds	
			RR (95% CI)	NNT (95% CI)	RR (95% CI)	NNT (95% CI)	RR (95% CI)	NNT (95% CI)
<b>Granisetron 0.1 mg</b>								
Gan et al, 2005	G 0.1 mg + D (87)	O + D (89)	0.96 (0.84, 1.09)	-25 (-8, 15)	0.95 (0.71, 1.29)	-50 (-6, 9)	1.20 (0.89, 1.61)	12 (-17, 5)
D'Angelo et al, 2005	G 0.1 mg (31)	Placebo (30)	1.01 (0.75, 1.36)	100 (-5, 5)	1.32 (0.73, 2.39)	9 (-8, 3)	0.78 (0.53, 1.61)	-7 (-3, 11)
		G 0.3 mg (33)	0.86 (0.67, 1.10)	-9 (-4, 15)	0.89 (0.55, 1.43)	-17 (-4, 6)	1.13 (0.70, 1.82)	17 (-6, 4)
Taylor et al, 1997	G 0.1 mg (128)	Placebo (133)	<b>1.96 (1.30, 2.95)</b>	<b>6 (4, 14)</b>	<b>2.08 (1.22, 3.53)</b>	<b>8 (5, 25)</b>	<b>0.74 (0.59, 0.91)</b>	<b>-6 (-16, -4)</b>
		G 1.0 mg (133)	0.83 (0.63, 1.11)	-13 (-5, 25)	0.88 (0.60, 1.30)	-25 (-8, 15)	1.26 (0.96, 1.66)	10 (-50, 5)
		G 3.0 mg (125)	0.78 (0.59, 1.04)	-10 (-4, 50)	0.72 (0.50, 1.04)	-10 (-5, 100)	1.26 (0.95, 1.26)	10 (-50, 5)
Wilson et al, 1996	G 0.1 mg (132)	Placebo (133)	<b>1.39 (1.03, 1.87)</b>	<b>8 (4, 100)</b>	1.29 (0.84, 1.96)	17 (-25, 6)	nr	nr
		G 1.0 mg (134)	<b>0.74 (0.59, 0.92)</b>	<b>-7 (-4, -20)</b>	<b>0.56 (0.41, 0.77)</b>	<b>-5 (-3, -9)</b>	nr	nr
		G 3.0 mg (128)	<b>0.76 (0.61, 0.95)</b>	<b>-7 (-4, -34)</b>	<b>0.66 (0.47, 0.93)</b>	<b>-8 (-9, -34)</b>	nr	nr
<b>Granisetron 1.0 mg</b>								
Dua et al, 2004	G 1.0 mg (20)	Placebo (20)	1.18 (0.98, 1.41)	7 (-50, 3)	1.12 (0.91, 1.38)	10 (-13, 4)	0.38 (0.12, 1.21)	-4 (-2, 50)
		O (20)	1.05 (0.95, 1.16)	20 (-13, 6)	1.06 (0.88, 1.26)	20 (-10, 5)	0.75 (0.19, 2.93)	-20 (-4, 6)
Hanaoka et al, 2004	G 1.0 mg (104)	Placebo (107)	<b>1.44 (1.20, 1.73)</b>	<b>4 (3, 8)</b>	nr	nr	<b>0.51 (0.29, 0.90)</b>	<b>-8 (-33, -5)</b>
		G 3.0 mg (104)	1.06 (0.93, 1.21)	20 (-17, 7)	nr	nr	0.88 (0.47, 1.67)	-50 (-9, 13)
Fujii et al, 2001a	G 1.0 mg (25)	Placebo (25)	1.00 (0.73, 1.37)	∞ (-5, 5)	1.05 (0.81, 1.36)	25 (-6, 4)	0.88 (0.37, 2.05)	-25 (-4, 5)
		G 2.0 mg (25)	0.83 (0.64, 1.06)	-7 (-3, 25)	0.91 (0.74, 1.12)	-13 (-4, 10)	<b>15.00 (0.90, 249.30)</b>	<b>4 (3, 10)</b>
		G 4.0 mg (25)	0.83 (0.64, 1.06)	-7 (-3, 25)	0.88 (0.72, 1.06)	-9 (-4, 25)	<b>15.00 (0.90, 249.30)</b>	<b>4 (3, 10)</b>
Fujii et al, 2001b	G 1.0 mg	Placebo	1.13	15	1.04	34	nr	nr

Efficacy Data for Overall Postoperative Period								
Study	Intervention (n)	Control (n)	No Vomiting		No Nausea		Need Rescue Meds	
			RR (95% CI)	NNT (95% CI)	RR (95% CI)	NNT (95% CI)	RR (95% CI)	NNT (95% CI)
	(30)	(30)	(0.72, 1.75)	(-6, 4)	(0.80, 1.36)	(-6, 5)		
		G 2.0 mg (30)	0.72 (0.52, 1.00)	-5 (-3, -100)	0.89 (0.72, 1.10)	-10 (-4, 13)	nr	nr
		G 4.0 mg (30)	0.72 (0.52, 1.00)	-5 (-3, -100)	0.89 (0.72, 1.10)	-10 (-4, 13)	nr	nr
Janknegt et al, 1999	G 1.0 mg (130)	G 1.0 mg + D (130)	0.92 (0.82, 1.05)	-17 (-7, 25)	<b>0.79 (0.64, 0.97)</b>	<b>-8 (-4, -50)</b>	0.96 (0.60, 1.56)	-100 (-10, 11)
		Droperidol (137)	<b>1.36 (1.14, 1.64)</b>	<b>5 (4, 12)</b>	1.09 (0.85, 1.38)	25 (-13, 7)	<b>0.61 (0.40, 0.93)</b>	<b>-8 (-5, -50)</b>
	G 1.0 mg + D (130)	Droperidol (137)	<b>1.48 (1.24, 1.76)</b>	<b>4 (3, 7)</b>	<b>1.38 (1.11, 1.71)</b>	<b>6 (4, 17)</b>	<b>0.63 (0.42, 0.96)</b>	<b>-9 (-5, -50)</b>
Fujii et al, 1998	G 1.0 mg (30)	Placebo (30)	1.04 (0.80, 1.36)	34 (-6, 5)	1.04 (-0.84, 1.29)	34 (-7, 5)	1.09 (0.84, 1.40)	15 (-7, 4)
		G 2.0 mg (30)	0.83 (0.68, 1.00)	-6 (-4, -100)	0.90 (0.77, 1.05)	-10 (-5, 25)	<b>51 (3.25, 801.15)</b>	<b>2 (1, 2)</b>
		G 4.0 mg (30)	0.83 (0.68, 1.00)	<b>-6 (-4, -100)</b>	0.93 (0.78, 1.10)	-15 (-5, 13)	<b>51 (3.25, 801.15)</b>	<b>2 (1, 2)</b>
Taylor et al, 1997	G 1.0 mg (133)	Placebo (133)	<b>2.35 (1.59, 3.47)</b>	<b>4 (3, 7)</b>	<b>2.35 (1.41, 3.93)</b>	<b>6 (4, 13)</b>	<b>0.58 (0.46, 0.75)</b>	<b>-4 (-3, -7)</b>
		G 3.0 mg (125)	0.94 (0.73, 1.22)	-34 (-7, 12)	0.82 (0.58, 1.16)	-15 (-6, 20)	1.00 (0.74, 1.35)	∞ (-9, 9)
Wilson et al, 1996	G 1.0 mg (134)	Placebo (133)	<b>1.87 (1.43, 2.46)</b>	<b>4 (3, 5)</b>	<b>2.29 (1.59, 3.30)</b>	<b>4 (3, 6)</b>	nr	nr
		G 3.0 mg (128)	1.03 (0.85, 1.24)	50 (-10, 8)	1.19 (0.91, 1.54)	13 (-25, 5)	nr	nr

95% CI = 95% confidence interval; D = dexamethasone; G = granisetron; NNT = number needed to treat; nr = not reported; O = ondansetron; RR = relative risk.



**Table 5. Pooled RR and NNT for Overall Postoperative Period**

Efficacy Measure During Overall Postoperative Period	Granisetron (mg)	N <sub>pair</sub>	Proportion of Patients with Event		RR <sub>pool</sub> (95% CI) <sup>a</sup>	NNT <sub>pool</sub> (95% CI)
			N <sub>i</sub> (n <sub>e</sub> /n <sub>t</sub> )	N <sub>c</sub> (n <sub>e</sub> /n <sub>t</sub> )		
<b>No Vomiting</b> Granisetron vs placebo	0.1 (D'Angelo et al, 2005; Taylor et al, 1997; Wilson et al, 1996)	3	134/291	93/296	<b>1.37 (0.94, 2.01)</b>	<b>8 (5, 14)</b>
	1.0 (Dua et al, 2004; Fujii et al, 1998; Fujii et al, 2001a; Fujii et al, 2001b; Hanaoka et al, 2004; Taylor et al, 1997; Wilson et al, 1996)	7	294/476	194/478	<b>1.36 (1.08, 1.71)</b>	<b>6 (4, 10)</b>
	Excluding Fujii et al (Dua et al, 2004; Hanaoka et al, 2004; Taylor et al, 1997; Wilson et al, 1996)	4	233/391	136/393	<b>1.61 (1.17, 2.22)</b>	<b>5 (3, 10)</b>
	All granisetron vs placebo	10	428/767	287/774	<b>1.36 (1.13, 1.63)</b>	<b>6 (5, 10)</b>
	Excluding Fujii et al (D'Angelo et al, 2005; Dua et al, 2004; Hanaoka et al, 2004; Taylor et al, 1997; Wilson et al, 1996)	7	367/682	229/689	<b>1.50 (1.21, 1.88)</b>	<b>5 (4, 7)</b>
Granisetron vs granisetron > 1.0 mg	0.1	nc	---	---	---	---
	1.0 (Fujii et al, 1998; Fujii et al, 2001a; Fujii et al, 2001b; Hanaoka et al, 2004; Janknegt et al, 1999; Taylor et al, 1997; Wilson et al, 1996)	10	452/671	451/664	0.92 (0.81, 1.04)	-15 (-7, 50)
	Excluding Fujii et al (Hanaoka et al, 2004; Janknegt et al, 1999; Taylor et al, 1997; Wilson et al, 1996)	4	330/501	297/494	1.10 (0.95, 1.27)	17 (-25, 7)
	All granisetron vs granisetron > 1.0 mg	11	466/801	516/780	<b>0.87 (0.79, 0.95)</b>	<b>-10 (-7, -25)</b>

Efficacy Measure During Overall Postoperative Period	Granisetron (mg)	N <sub>pair</sub>	Proportion of Patients with Event		RR <sub>pool</sub> (95% CI) <sup>a</sup>	NNT <sub>pool</sub> (95% CI)
			N <sub>i</sub> (n <sub>e</sub> /n <sub>t</sub> )	N <sub>c</sub> (n <sub>e</sub> /n <sub>t</sub> )		
	al, 2004; Taylor et al, 1997; Wilson et al, 1996) Excluding Fujii et al (D'Angelo et al, 2005; Dua et al, 2004; Hanaoka et al, 2004; Taylor et al, 1997; Wilson et al, 1996)	5	344/631	362/610	0.93 (0.80, 1.07)	-25 (-10, 34)
<b>No Nausea</b>						
Granisetron vs placebo	0.1 (D'Angelo et al, 2005; Taylor et al, 1997; Wilson et al, 1996)	3	86/291	57/296	<b>1.50 (1.11, 2.02)</b>	<b>10 (6, 25)</b>
	1.0 (Dua et al, 2004; Fujii et al, 1998; Fujii et al, 2001a; Fujii et al, 2001b; Taylor et al, 1997; Wilson et al, 1996)	6	179/372	117/371	1.33 (0.96, 1.85)	<b>8 (5, 20)</b>
	Excluding Fujii et al (Dua et al, 2004; Taylor et al, 1997; Wilson et al, 1996)	3	108/287	49/286	1.79 (0.82, 3.91)	<b>5 (4, 10)</b>
All granisetron vs placebo	0.1 or 1.0 (D'Angelo et al, 2005; Dua et al, 2004; Fujii et al, 1998; Fujii et al, 2001a; Fujii et al, 2001b; Taylor et al, 1997; Wilson et al, 1996)	9	265/663	174/667	<b>1.38 (1.06, 1.78)</b>	<b>8 (6, 15)</b>
	Excluding Fujii et al (D'Angelo et al, 2005; Dua et al, 2004; Taylor et al, 1997; Wilson et al, 1996)	6	194/578	106/582	<b>1.64 (1.13, 2.38)</b>	<b>7 (5, 12)</b>
Granisetron vs granisetron >1.0 mg	0.1	nc	---	---	---	---
	1.0 (Fujii et al, 1998; Fujii et al, 2001a; Fujii et al, 2001b; Janknegt et al, 1999; Taylor et al, 1997; Wilson et al, 1996)	10	401/697	408/690	0.94 (0.85, 1.04)	-25 (-9, 34)
	Excluding Fujii et al (Janknegt et al, 1999; Taylor et al, 1997; Wilson et al, 1996)	4	259/527	250/520	1.02 (0.76, 1.36)	100 (-8, 7)
All granisetron vs granisetron >1.0 mg	0.1 or 1.0 (Fujii et al, 1998; Fujii et al, 2001a; Fujii et al, 2001b; Taylor et al, 1997; Wilson et al, 1996)	10	320/697	358/676	<b>0.89 (0.83, 0.96)</b>	<b>-13 (-34, -9)</b>

Efficacy Measure During Overall Postoperative Period	Granisetron (mg)	N <sub>pair</sub>	Proportion of Patients with Event		RR <sub>pool</sub> (95% CI) <sup>a</sup>	NNT <sub>pool</sub> (95% CI)
			N <sub>i</sub> (n <sub>e</sub> /n <sub>t</sub> )	N <sub>c</sub> (n <sub>e</sub> /n <sub>t</sub> )		
<b>Rescue Medication</b> Granisetron vs placebo	0.1	nc	---	---	---	---
	1.0 (Dua et al, 2004; Fujii et al, 1998; Fujii et al, 2001a; Hanaoka et al, 2004; Taylor et al, 1997)	5	102/312	158/315	0.69 (0.44, 1.06)	<b>-8 (-50, -4)</b>
	Excluding Fujii et al (Dua et al, 2004; Hanaoka et al, 2004; Taylor et al, 1997)	3	70/257	127/260	<b>0.56 (0.45, 0.70)</b>	<b>-5 (-9, -4)</b>
All granisetron vs placebo	0.1 or 1.0 (D'Angelo et al, 2005; Dua et al, 2004; Fujii et al, 1998; Fujii et al, 2001a; Hanaoka et al, 2004; Taylor et al, 1997)	7	182/471	268/478	<b>0.73 (0.57, 0.93)</b>	<b>-5 (-7, -15)</b>
	Excluding Fujii et al (D'Angelo et al, 2005; Dua et al, 2004; Hanaoka et al, 2004; Taylor et al, 1997)	5	150/416	237/423	<b>0.66 (0.56, 0.77)</b>	<b>-5 (-8, -4)</b>
Granisetron vs granisetron > 1.0 mg	0.1	nc	---	---	---	---
	1.0 (Fujii et al, 1998; Fujii et al, 2001a; Hanaoka et al, 2004; Taylor et al, 1997)	6	131/347	66/339	<b>4.95 (1.31, 18.75)</b>	<b>3 (2, 50)</b>
All granisetron vs granisetron > 1.0 mg	0.1 or 1.0 (Fujii et al, 1998; Fujii et al, 2001a; Hanaoka et al, 2004; Taylor et al, 1997)	7	194/475	115/464	<b>2.10 (1.03, 4.28)</b>	<b>4 (2, 25)</b>

<sup>a</sup>RR<sub>pool</sub> determined using random effects model.

95% CI = 95% confidence interval; nc = not calculable due to N < 3 and/or N<sub>pair</sub> < 3 ; N<sub>c</sub> = proportion of patients in control group exhibiting event; N<sub>e</sub> = number of patients in group exhibiting event; NNT<sub>pool</sub> = pooled number needed to treat; N<sub>i</sub> = proportion of patients in investigational group exhibiting event; N<sub>t</sub> = total number of patients in group; RR<sub>pool</sub> = pooled relative risk.

**Table 6. Pooled RR and NNH for Any Adverse Event, Headaches, Pruritis, and Dizziness**

Safety Measure	Granisetron (mg)	N <sub>pair</sub>	Proportion of Patients with Event		RR <sub>pool</sub> (95% CI)	NNH <sub>pool</sub> (95% CI) <sup>a</sup>
			N <sub>i</sub> (n <sub>e</sub> /n <sub>t</sub> )	N <sub>c</sub> (n <sub>e</sub> /n <sub>t</sub> )		
<b>Any AE</b>						
Granisetron vs placebo	0.1 1.0 (Dua et al, 2004; Fujii et al, 1998; Taylor et al, 1997)	nc 3	--- 93/183	--- 101/183	--- 0.93 (0.78, 1.10)	--- -25 (-8, 20)
All granisetron vs placebo	0.1 or 1.0 (D'Angelo et al, 2005; Dua et al, 2004; Fujii et al, 1998; Taylor et al, 1997)	5	193/342	221/346	<b>0.88 (0.80, 0.98)</b>	<b>-13 (-8, -100)</b>
	Excluding Fujii et al (D'Angelo et al, 2005; Dua et al, 2004; Taylor et al, 1997)	4	189/312	216/316	<b>0.88 (0.80, 0.98)</b>	<b>-13 (-7, -50)</b>
Granisetron vs granisetron > 1.0 mg	0.1 1.0	nc nc	--- ---	--- ---	--- ---	--- ---
All granisetron vs granisetron >1.0 mg	0.1 or 1.0 (Dua et al, 2004; Fujii et al, 1998; Taylor et al, 1997)	5	171/341	179/330	0.89 (0.80, 1.00)	-17 (-10, ∞)
Granisetron vs active comparators	0.1 (D'Angelo et al, 2005; Gan et al, 2005; Taylor et al, 1997)	4 <sup>b</sup>	236/382	236/390	0.92 (0.82, 1.03)	-20 (-9, 100)
	1.0 (Dua et al, 2004; Fujii et al, 1998; Taylor et al, 1997)	4 <sup>c</sup>	97/213	96/205	0.96 (0.81, 1.14)	-50 (-10, 17)
All granisetron vs active comparators	0.1 or 1.0 (D'Angelo et al, 2005; Dua et al, 2004; Fujii et al, 1998; Gan et al, 2005; Taylor et al, 1997)	8	306/595	332/595	0.93 (0.85, 1.02)	-25 (-12, 100)
	Excluding Fujii et al (D'Angelo et al, 2005; Dua et al, 2004; Gan et al, 2005; Taylor et al, 1997)	6	298/535	323/535	0.93 (0.85, 1.02)	-25 (-10, 100)
<b>Headaches</b>						
Granisetron vs placebo	0.1 1.0 (Dua et al, 2004; Fujii et al, 1998; Hanaoka et al, 2004; Taylor et al, 1997)	Nc 4	--- 20/293	--- 30/290	--- 0.67 (0.39, 1.18)	--- -34 (-13, 10)

Safety Measure	Granisetron (mg)	N <sub>pair</sub>	Proportion of Patients with Event		RR <sub>pool</sub> (95% CI)	NNH <sub>pool</sub> (95% CI) <sup>a</sup>
			N <sub>i</sub> (n <sub>e</sub> /n <sub>t</sub> )	N <sub>c</sub> (n <sub>e</sub> /n <sub>t</sub> )		
All granisetron vs placebo	Excluding Fujii et al (Dua et al, 2004; Hanaoka et al, 2004; Taylor et al, 1997)	3	18/263	28/260	0.64 (0.33, 1.24)	-25 (-10, 50)
	0.1 or 1.0 (D'Angelo et al, 2005; Dua et al, 2004; Fujii et al, 1998; Hanaoka et al, 2004; Taylor et al, 1997)	6	34/452	51/453	0.67 (0.44, 1.03)	-34 (-13, 100)
	Excluding Fujii et al (D'Angelo et al, 2005; Dua et al, 2004; Hanaoka et al, 2004; Taylor et al, 1997)	5	32/422	49/423	0.66 (0.42, 1.02)	-25 (-11, 100)
Granisetron vs granisetron >1.0 mg	0.1	Nc	---	---	---	---
All granisetron vs granisetron > 1.0 mg	1.0 (Fujii et al, 1998; Hanaoka et al, 2004; Taylor et al, 1997)	4	21/303	21/289	0.80 (0.50, 1.28)	∞ (-25, 33)
	0.1 or 1.0 (Fujii et al, 1998; Hanaoka et al, 2004; Taylor et al, 1997)	5	31/431	36/414	0.80 (0.50, 1.28)	∞ (-25, 33)
Granisetron vs active comparators	0.1 (D'Angelo et al, 2005; Gan et al, 2005; Taylor et al, 1997)	4 <sup>b</sup>	26/382	37/390	0.74 (0.45, 1.23)	-34 (-15, 100)
All granisetron vs active comparators	1.0 (Dua et al, 2004; Fujii et al, 1998; Hanaoka et al, 2004; Janknegt et al, 1999; Taylor et al, 1997)	8 <sup>d</sup>	112/713	112/713	1.24 (0.97, 1.59)	50 (-34, 15)
	Excluding Fujii et al (Dua et al, 2004; Hanaoka et al, 2004; Janknegt et al, 1999; Taylor et al, 1997)	6	139/653	108/653	1.22 (0.87, 1.73)	50 (-25, 13)
	0.1 or 1.0 (D'Angelo et al, 2005; Dua et al, 2004; Fujii et al, 1998; Gan et al, 2005; Hanaoka et al, 2004; Janknegt et al, 1999; Taylor et al, 1997)	12	169/1095	149/1103	0.93 (0.67, 1.30)	∞ (-34, 50)
	Excluding Fujii et al (D'Angelo et al, 2005; Dua et al, 2004; Gan et al, 2005; Hanaoka et al, 2004; Janknegt et al, 1999; Taylor et al, 1997)	10	165/1035	145/1043	0.91 (0.63, 1.32)	∞ (-25, 33)

Safety Measure	Granisetron (mg)	N <sub>pair</sub>	Proportion of Patients with Event		RR <sub>pool</sub> (95% CI)	NNH <sub>pool</sub> (95% CI) <sup>a</sup>
			N <sub>i</sub> (n <sub>e</sub> /n <sub>t</sub> )	N <sub>c</sub> (n <sub>e</sub> /n <sub>t</sub> )		
	et al, 1997)					
<b>Pruritis<sup>e</sup></b>						
All 0.1 mg N <sub>pair</sub>	0.1	nc	---	---	---	---
All 1.0 mg N <sub>pair</sub>	1.0	nc	---	---	---	---
Granisetron vs active comparators	0.1 or 1.0 (D'Angelo et al, 2005; Gan et al, 2005; Hanaoka et al, 2004)	3	8/236	15/236	0.55 (0.24, 1.28)	-50 (-17, 33)
<b>Dizziness<sup>f</sup></b>						
All 0.1 mg N <sub>pair</sub>	None reported	nc	---	---	---	---

<sup>a</sup>Values < 0 for NNH favor the experimental treatment over control, i.e., NNH < 0 and 95% CI limits < 0 implies patients will benefit from experimental therapy.

<sup>b</sup>Active comparators include ondansetron with dexamethasone, and granisetron 0.3, 1.0, and 3.0 mg.

<sup>c</sup>Active comparators include ondansetron and granisetron 2.0, 3.0, and 4.0 mg.

<sup>d</sup>Active comparators include ondansetron, droperidol, and granisetron 2.0, 3.0, and 4.0 mg.

<sup>e</sup>Insufficient data for subanalyses versus placebo or > 1.0 mg granisetron.

<sup>f</sup>Not reported in studies of granisetron 0.1 mg.

95% CI = 95% confidence interval; nc = not calculable due to N < 3 and/or N<sub>pair</sub> < 3; NNH<sub>pool</sub> = pooled number needed to harm; RR<sub>pool</sub> = pooled relative risk.