#### Appendix H GRADE profiles and results for 'peripheral neuropathic pain'

Outcome	Profile ID	Follow-up (days)	Number of RCTs	Interventions	
Critical					
Patient-reported	1a (pg2)	28 +/- 7	1	pregabalin	
global improvement <sup>1</sup> (at	1b (pg3)	56 +/- 7	7	capsaicin patch, gabapentin, pregabalin, valproate	
least moderate improvement)	1c (pg7)	84 +/- 14	8	capsaicin patch, lacosamide, lamotrigine, pregabalin	
Sleep interference – normalised 10-	2a (pg11)	28 +/- 7	3	escitalopram, gabapentin, gabapentin+nortriptyline, nortriptyline	
point scale <sup>1</sup>	2b (pg14)	56 +/- 7	2	gabapentin	
	2c (pg15)	84 +/- 14	5	duloxetine, topiramate	
Withdrawal due to adverse effects	3 (pg19)	All time points	75	23 (see below)	
Specific adverse effects <sup>2</sup>	3a-t	All time points	See Appendix J		
Important					
30% pain relief	4a (pg31)	28 +/- 7	6	cannabis sativa extract, capsaicin cream, gabapentin, pregabalin, tramadol	
	4b (pg35)	56 +/- 7	4	capsaicin patch, pregabalin	
	4c (pg39)	84 +/- 14	16	cannabis sativa extract, capsaicin patch, duloxetine, lacosamide, lamotrigine, pregabalin, topiramate	
50% pain relief	5a (pg42)	28 +/- 7	6	amitriptyline, cannabis sativa extract, gabapentin, pregabalin, tramadol	
	5b (pg46)	56 +/- 7	7	gabapentin, lamotrigine, nortriptyline, pregabalin	
	5c (pg49)	84 +/- 14	14	capsaicin patch, duloxetine, pregabalin, topiramate	
Pain relief –	6a (pg53)	28 +/- 7	22	18 (see below)	
normalised 10-point scale	6b (pg62)	56 +/- 7	17	11 (see below)	
-	6c (pg68)	84 +/- 14	13	9 (see below)	

<sup>&</sup>lt;sup>1</sup> measured using the 7-point PGIC (patient-reported global impression of change) tool

(it was not possible to synthesise any results for the outcome 'use of rescue medication')

 $<sup>^2</sup>$  this is the only synthesis possible for the outcome 'patient reported improvement in daily physical and emotional functioning including sleep'

<sup>&</sup>lt;sup>3</sup> completed for 'all neuropathic pain' only.

#### **CRITICAL OUTCOMES (profiles 1 to 3)**

## Summary GRADE profile 1a: Patient-reported global improvement (at least moderate improvement) (28 +/-7 days) – pregabalin vs placebo

Outcome	Numb er of Studi es	Limitati ons	Inconsiste ncy	Indirectn ess	Imprecis ion	Effect/ outco me	Qualit y	Importa nce
Patient- reported global improvem ent – at least moderate improvem ent (28 +/-7 days)	1 RCT <sup>a</sup> n=252	serious <sup>1</sup>	not applicable <sup>2</sup>	not serious <sup>3</sup>	serious <sup>4</sup>	OR: 5.1997 (95% CI 2.94 to 9.19)	moder ate	Critical

it was unclear if groups were comparable at baseline in concomitant SSRI use; during the study, rescue analgesic usage permitted but not reported; inadequate length of follow-up (5 weeks)

Abbreviations: CI, confidence interval; OR, odds ratio; PICO, patient intervention comparator outcome; RCT, randomised controlled trial; SSRI, selective serotonin reuptake inhibitors.



Figure 1 Patient-reported global improvement (at least moderate improvement) - 28 +/- 7 days - evidence diagram

### Table 1 Patient-reported global improvement (at least moderate improvement) - 28 +/- 7 days - notes

none

<sup>&</sup>lt;sup>2</sup> only 1 trial so no possibility of inconsistency between studies for a pairwise comparison

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>4</sup> wide confidence intervals for effect estimate compared to placebo

<sup>&</sup>lt;sup>a</sup> pregabalin vs placebo (n=252): Lesser et al. (2004); only SSRIs permitted

### Summary GRADE profile 1b: Network meta-analysis for Patient-reported global improvement (at least moderate improvement) (56 +/-7 days)

Outcome	Numbe r of Studie s	Limitation s	Inconsisten cy	Indirectne ss	Imprecisio n	Qualit y	Importanc e
Patient- reported global improveme nt – at least moderate improveme nt (56 +/-7 days)	7 RCTs <sup>a</sup> n=1477	very serious <sup>1</sup>	not serious <sup>2</sup>	not serious <sup>3</sup>	very serious <sup>4</sup>	Very low	Critical

<sup>&</sup>lt;sup>1</sup> over half of studies do not report about allocation concealment; concomitant drug use between arms within each study appears to be similar but concomitant drugs permitted varies across the studies in the network

<sup>a</sup> Capsaicin Patch (n=416): Irving et al. (2011); concomitant drugs permitted if stable Gabapentin (n=778): Backonja et al. (1998), Rice & Maton (2001), Rowbotham et al. (1998), Simpson (2001); concomitant drugs not permitted in 1, but permitted in 3 (but anti-convulsants excluded in 1 and SSRIs excluded in another)

Pregabalin (n=238): Sabatowski et al. (2004); concomitant drugs permitted if stable Valproate (n=45): Kochar et al. (2005); no concomitant drugs permitted [all compared to placebo]

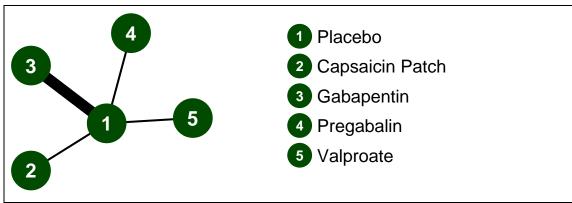


Figure 2 Patient-reported global improvement (at least moderate improvement) - 56 +/- 7 days - evidence network

<sup>&</sup>lt;sup>2</sup> I<sup>2</sup> was 17% for gabapentin vs placebo which may indicate that any inconsistency might not be important; no loops in networks so no possibility of inconsistency between direct and indirect estimates

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>4</sup> there are no head-to-head trials; most links in the network contain only one trial; wide confidence intervals for effect estimates compared to placebo for at least half of the interventions but particularly for valproate which is likely due to very small study sizes causing uncertainty of the ranking within the network

Table 2 Patient-reported global improvement (at least moderate improvement) - 56 +/- 7 days - trials included in analysis

	Placebo	Capsaicin Patch	Gabapentin	Pregabalin
	1 RCT <sup>2</sup> total n=416			
Gabapentin	4 RCTs <sup>1,4,5,7</sup> total n=778	-		
Pregabalin	1 RCT <sup>6</sup> total n=238	-	-	
Valproate	1 RCT <sup>3</sup> total n=45	-	-	-

<sup>(1)</sup> Backonja et al. (1998); (2) Irving et al. (2011); (3) Kochar et al. (2005); (4) Rice & Maton (2001); (5) Rowbotham et al. (1998); (6) Sabatowski et al. (2004); (7) Simpson (2001)

# Table 3 Patient-reported global improvement (at least moderate improvement) - 56 +/- 7 days - relative effectiveness of all pairwise combinations

	Placebo	Capsaicin Patch	Gabapentin	Pregabalin	Valproate
Placebo		1.59 (1.04, 2.45)	3.14 (2.16, 4.56)		8.23 (1.89, 35.83)
Capsaicin Patch	1.60 (0.66, 3.88)		-	-	-
Gabapentin	3.20 (1.95, 5.33)	2.00 (0.73, 5.58)		-	-
Pregabalin	3.44 (1.34, 9.35)	2.16 (0.59, 8.19)	1.08 (0.36, 3.30)		-
Valproate	9.25 (1.87, 61.09)	5.83 (0.93, 45.34)	2.89 (0.54, 20.22)	2.68 (0.41, 21.70)	

Values given are odds ratios.

The segment below and to the left of the shaded cells is derived from the network meta-analysis, reflecting direct and indirect evidence of treatment effects (row versus column). The point estimate reflects the mean of the posterior distribution, and numbers in parentheses are 95% credible intervals. The segment above and to the right of the shaded cells gives pooled direct evidence (random-effects pairwise meta-analysis), where available (column versus row). Numbers in parentheses are 95% confidence intervals.

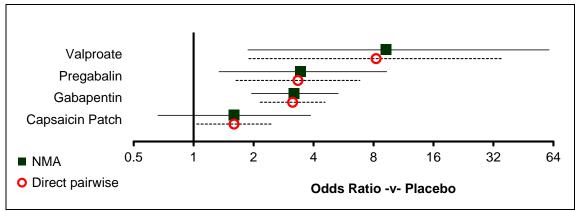


Figure 3 Patient-reported global improvement (at least moderate improvement) - 56 +/- 7 days - relative effect of all options compared with placebo

(values less than 1 favour placebo; values greater than 1 favour the treatment; solid error bars are 95% credible intervals while dashed error bars are 95% confidence intervals)

Table 4 Patient-reported global improvement (at least moderate improvement) - 56 +/- 7 days - rankings for each comparator

	Probability best	Median rank (95%CI)
Placebo	0.000	5 (4, 5)
Capsaicin Patch	0.008	4 (2, 5)
Gabapentin	0.053	3 (1, 4)
Pregabalin	0.119	2 (1, 4)
Valproate	0.821	1 (1, 3)

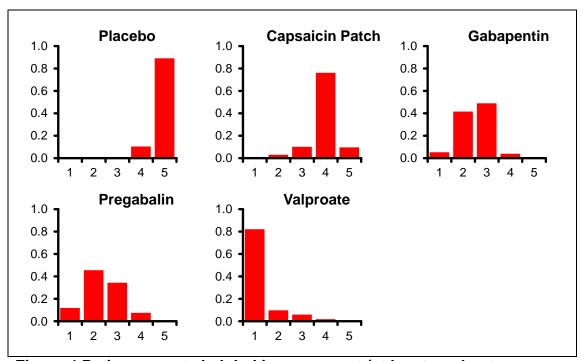


Figure 4 Patient-reported global improvement (at least moderate improvement) - 56 +/- 7 days - rank probability histograms

### Table 5 Patient-reported global improvement (at least moderate improvement) - 56 +/- 7 days - model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau-squared
15.05	87.575	74.474	12 101	100 676	0.000 (95%CI: 0.000, 0.942)
(compared to 16 datapoints)	67.575	74.474	13.101	100.070	0.000 (93 %C1. 0.000, 0.942)

### Table 6 Patient-reported global improvement (at least moderate improvement) - 56 +/- 7 days - notes

- Random-effects model was used.
- 30000 burn-ins and 50000 iterations.
- Model convergence: autocorrelation relatively poor for valproate because of small numbers of events in placebo arm.
- Valproate has a high median ranking but the study sizes are relatively small
  and there are large credible intervals around the estimate. The
  considerable uncertainty about the true effect for valproate and how it ranks
  overall in the network is reflected in the size of the confidence interval
  around the ranking.

### Summary GRADE profile 1c: Network meta-analysis for Patient-reported global improvement (at least moderate improvement) (84 +/- 14 days)

Outcome	Numbe r of Studie s	Limitation s	Inconsisten cy	Indirectne ss	Imprecisio n	Qualit y	Importanc e
Patient- reported global improveme nt – at least moderate improveme nt (follow up 84 days)	8 RCTs n=2337	very serious <sup>1</sup>	not serious <sup>2</sup>	not serious <sup>3</sup>	serious <sup>4</sup>	low	Critical

<sup>&</sup>lt;sup>1</sup> 6 studies do not report the method of randomisation and 5 were unclear about allocation concealment; there is uncertainty about comparability at baseline between groups in 5 studies (particularly for use of concomitant drugs); during the studies, concomitant drug and rescue medication use was unclear in 5 studies; concomitant drugs permitted varies across the studies in the network

lacosamide (n=119): Rauck et al. (2007); only SSRIs permitted but others were permitted during the trial if the investigator considered it necessary

lamotrigine (n=227): Simpson et al. (2003); concomitant drugs permitted if stable

Pregabalin (n=1268): Arezzo et al. (2008), Freynhagen et al. (2005), Tolle et al. (2008), van Seventer et al. (2006); concomitant drugs permitted if stable in one study but only SSRIs permitted in 3 studies [all compared to placebo]

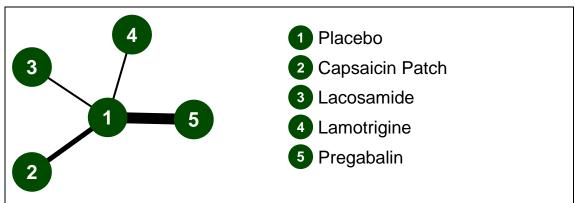


Figure 5 Patient-reported global improvement (at least moderate improvement) - 84 +/- 12 days - evidence network

<sup>&</sup>lt;sup>2</sup> I<sup>2</sup> was 0% for capsaicin patch or pregabalin vs placebo which may indicate that any inconsistency might not be important (heterogeneity not possible for comparisons with only one trial); no loops in networks so no possibility of inconsistency between direct and indirect estimates

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>4</sup> there are no head-to-head trials; half of the 'links' in network include only 1 trial; wide confidence intervals around rankings in the network

<sup>&</sup>lt;sup>a</sup> capsaicin patch (n=723): Irving et al. (2011); Simpson et al. (2008); concomitant drugs permitted if stable

# Table 7 Patient-reported global improvement (at least moderate improvement) - 84 +/- 12 days - trials included in analysis

	Placebo	Capsaicin Patch	Lacosamide	Lamotrigine
	2 RCTs <sup>3,6</sup> total n=723			
II acosamide	1 RCT <sup>4</sup> total n=119	-		
Lamotrigine	1 RCT <sup>5</sup> total n=227	-	-	
	4 RCTs <sup>1,2,7,8</sup> total n=1268	-	-	-

<sup>(1)</sup> Arezzo et al. (2008); (2) Freynhagen et al. (2005); (3) Irving et al. (2011); (4) Rauck et al. (2007); (5) Simpson et al. (2003); (6) Simpson et al. (2008); (7) Tolle et al. (2008); (8) van Seventer et al. (2006)

# Table 8 Patient-reported global improvement (at least moderate improvement) - 84 +/- 12 days - relative effectiveness of all pairwise combinations

	Placebo	Capsaicin Patch	Lacosamide	Lamotrigine	Pregabalin
Placebo		2.40 (1.28, 4.49)	-		2.07 (1.55, 2.77)
Capsaicin Patch	2.31 (1.48, 3.88)		-	-	-
Lacosamide	-	0.89 (0.33, 2.28)		-	-
Lamotrigine		0.39 (0.16, 0.92)	0.43 (0.14, 1.27)		-
Pregabalin	I — · · · •	0.91 (0.49, 1.58)	1.02	2.34 (1.05, 5.20)	

Values given are odds ratios.

The segment below and to the left of the shaded cells is derived from the network meta-analysis, reflecting direct and indirect evidence of treatment effects (row versus column). The point estimate reflects the mean of the posterior distribution, and numbers in parentheses are 95% credible intervals. The segment above and to the right of the shaded cells gives pooled direct evidence (random-effects pairwise meta-analysis), where available (column versus row). Numbers in parentheses are 95% confidence intervals.

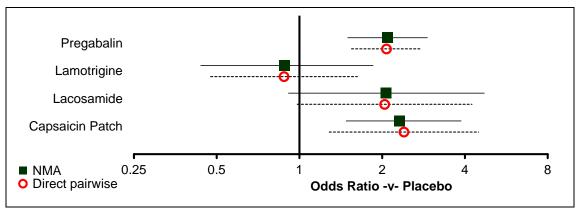


Figure 6 Patient-reported global improvement (at least moderate improvement) - 84 +/- 12 days - relative effect of all options compared with placebo

(values less than 1 favour placebo; values greater than 1 favour the treatment; solid error bars are 95% credible intervals while dashed error bars are 95% confidence intervals)

Table 9 Patient-reported global improvement (at least moderate improvement) - 84 +/- 12 days - rankings for each comparator

	Probability best	Median rank (95%CI)
Placebo	0.000	4 (3, 5)
Capsaicin Patch	0.440	2 (1, 3)
Lacosamide	0.339	2 (1, 4)
Lamotrigine	0.004	5 (3, 5)
Pregabalin	0.217	2 (1, 3)

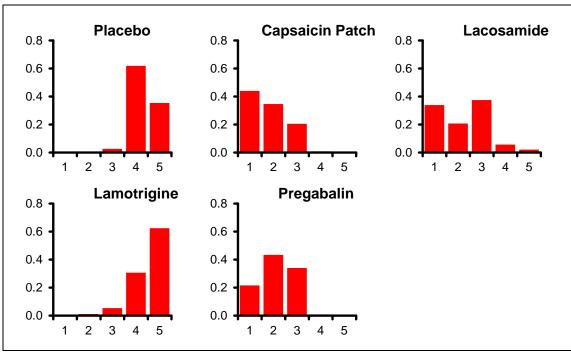


Figure 7 Patient-reported global improvement (at least moderate improvement) - 84 +/- 12 days - rank probability histograms

### Table 10 Patient-reported global improvement (at least moderate improvement) - 84 +/- 12 days - model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau-squared
19.59	127.909	113.842	14.067	1/1 077	0.000 (95%CI: 0.000, 0.178)
(compared to 23 datapoints)	127.303	113.042	14.007	141.311	0.000 (93 %C1. 0.000, 0.178)

# Table 11 Patient-reported global improvement (at least moderate improvement) - 84 +/- 12 days - notes

- Random-effects model was used.
- 30000 burn-ins and 50000 iterations.
- Includes Rauck (2007) which reported outcomes at 70 days allowing us to include lacosamide into this network (adding this into the network does not make any dramatic changes to the results, but it does make us less certain that pregabalin ranks in the top 2).

### Summary GRADE profile 2a: Network meta-analysis for sleep interference on normalised 10-point scale (28 +/- 7d)

Outcome	Numbe r of Studie s	Limitation s	Inconsisten cy	Indirectnes s	Imprecisio n	Qualit y	Importanc e
Sleep interferenc e on normalise d 10-point scale (follow up 28 days)	3 RCTs a n=326	very serious <sup>1</sup>	not serious <sup>2</sup>	not serious <sup>3</sup>	serious <sup>4</sup>	very low	Critical

<sup>1</sup> more than half of studies are crossover studies; it was unclear if groups were comparable in the others, particularly regarding concomitant drug use; during the study, there were differences in concomitant drug use between groups in one study (though the significance is unknown) and it was not clear if use was significantly different between groups in the other studies; concomitant drugs permitted varies across the studies in the network; inadequate length of follow-up (no more than 5 weeks for included studies)

#### <sup>a</sup> Placebo-controlled comparisons:

Escitalopram (n=82): Otto et al. (2008); no concomitant drugs permitted

Gabapentin (n=196): Gordh et al. (2008); no concomitant drugs permitted

#### **Head-to-head comparisons:**

Gabapentin vs gabapentin+nortriptyline (n=96): Gilron et al. (2012); concomitant opioids permitted in stable doses but tricyclics, gabapentin, pregabalin excluded

Nortriptyline vs gabapentin+nortriptyline (n=100): Gilron et al. (2012); concomitant opioids permitted in stable doses but tricyclics, gabapentin, pregabalin excluded

Nortriptyline vs gabapentin (n=96): Gilron et al. (2012); concomitant opioids permitted in stable doses but tricyclics, gabapentin, pregabalin excluded

Abbreviations: PICO, patient intervention comparator outcome; RCT, randomised controlled trial.

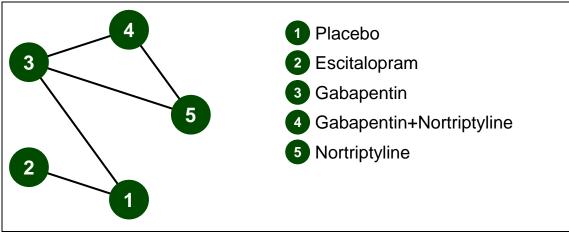


Figure 8 sleep interference - 28 +/- 7 days - evidence network

<sup>&</sup>lt;sup>2</sup> only 1 trial for each arm so no possibility of inconsistency between studies for a pairwise comparison; the network is not susceptible to inconsistency because the only loop is from a multi-armed trial

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>4</sup> most 'links' in network include only 1 trial, wide confidence around rankings in the network

Table 12 sleep interference - 28 +/- 7 days - trials included in analysis

<del>-</del>		_		-
	Placebo	Escitalopram	Gabapentin	Gabapentin +Nortriptyline
Escitalopram	1 RCT <sup>3</sup> total n=82			
Gabapentin	1 RCT <sup>2</sup> total n=98	-		
Gabapentin +Nortriptyline	-	-	1 RCT <sup>1</sup> total n=96	
Nortriptyline	-	-	1 RCT <sup>1</sup> total n=96	1 RCT <sup>1</sup> total n=100

<sup>(1)</sup> Gilron et al. (2012); (2) Gordh et al. (2008); (3) Otto et al. (2008)

Table 13 sleep interference - 28 +/- 7 days - relative effectiveness of all pairwise combinations

	Placebo	Escitalopram	Gabapentin	Gabapentin +Nortriptyline	Nortriptyline
Placebo		-1.00 (-1.57, -0.43)	-0.39 (-0.95, 0.17)	-	-
Escitalopram	-1.00 (-1.57, -0.43)		-	-	-
Gabapentin	-0.39 (-0.96, 0.17)	0.61 (-0.20, 1.41)		-	0.10 (-0.53, 0.73)
Gabapentin +Nortriptyline	-1.59 (-2.44, -0.75)	-0.60 (-1.61, 0.43)	-1.20 (-1.83, -0.58)		1.30 (0.69, 1.91)
Nortriptyline		0.70 (-0.31, 1.73)	0.10 (-0.53, 0.73)	1.30 (0.69, 1.91)	

Values given are mean differences.

The segment below and to the left of the shaded cells is derived from the network meta-analysis, reflecting direct and indirect evidence of treatment effects (row versus column). The point estimate reflects the mean of the posterior distribution, and numbers in parentheses are 95% credible intervals. The segment above and to the right of the shaded cells gives pooled direct evidence (random-effects pairwise meta-analysis), where available (column versus row). Numbers in parentheses are 95% confidence intervals.

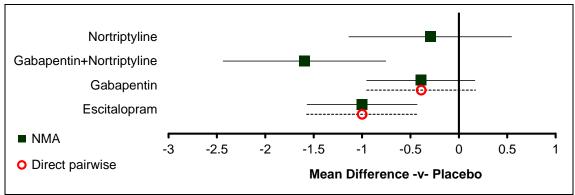


Figure 9 sleep interference - 28 +/- 7 days - relative effect of all options compared with placebo

(values less than 0 favour the treatment; values greater than 0 favour placebo; solid error bars are 95% credible intervals while dashed error bars are 95% confidence intervals)

### Table 14 peripheral - sleep interference - 28 +/- 7 days - rankings for each comparator

	Probability best	Median rank (95%CI)
Placebo	0.000	5 (3, 5)
Escitalopram	0.128	2 (1, 4)
Gabapentin	0.000	3 (2, 5)
Gabapentin+Nortriptyline	0.872	1 (1, 2)
Nortriptyline	0.000	4 (2, 5)

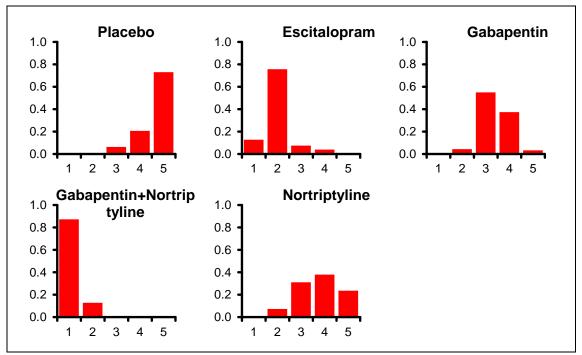


Figure 10 sleep interference - 28 +/- 7 days - rank probability histograms

Table 15 sleep interference - 28 +/- 7 days - model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC
6.998	-1 885	-8.883	6 008	5 11/
(compared to 7 data-points)	-1.000	-0.003	0.990	3.114

#### Table 16 sleep interference - 28 +/- 7 days - notes

- Fixed-effects model was used.
- 10000 burn-ins and 50000 iterations.

# Summary GRADE profile 2b: Meta-analysis for sleep interference on normalised 10-point scale (56 +/- 7d) – gabapentin vs placebo

Outcom e	Num ber of Studi es	Limitati ons	Inconsist ency	Indirectn ess	Imprecis ion	Effect/outc ome	Qualit y	Importa nce
Sleep interfere nce on normalis ed 10- point scale (follow up 56 days)	2 RCTs a n=36 0	serious <sup>1</sup>	not serious <sup>2</sup>	not serious <sup>3</sup>	not serious <sup>4</sup>	MD: -1.28 (95% CI: -1.69 to -0.88)	moder ate	Critical

<sup>&</sup>lt;sup>1</sup> 1 of the 2 studies does not report the method of randomisation and neither were clear about allocation concealment; there is uncertainty about SSRI usage at baseline between groups in 1 of the studies

Abbreviations: CI, confidence interval; MD, mean difference; PICO, patient intervention comparator outcome; RCT, randomised controlled trial; SSRI, selective serotonin reuptake inhibitors.

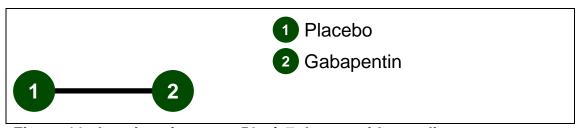


Figure 11 sleep interference - 56 +/- 7 days - evidence diagram

#### Table 17 sleep interference - 56 +/- 7 days - model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau-squared
3.793	-1.69	5.450	2 769	2.079	0.000 (95%Crl: 0.001, 21.137)
(compared to 4 data-points)	-1.09	-5.459	3.700	2.076	0.000 (93 %C11. 0.001, 21.137)

#### Table 18 sleep interference - 56 +/- 7 days - notes

- Random-effects model was used.
- 10000 burn-ins and 50000 iterations.

 $<sup>^{2}</sup>$   $I^{2}$  was 0% for the pairwise comparison which may indicate that any inconsistency might not be important

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>a</sup> Gabapentin vs placebo (n=1543): Irving et al. (2011); Irving et al. (2012); concomitant tricyclic antidepressants permitted in one but only SSRIs in the other

### Summary GRADE profile 2c: Network meta-analysis for sleep interference on normalised 10-point scale (84 +/- 14d)

Outcome	Numbe r of Studie s	Limitation s	Inconsisten cy	Indirectnes s	Imprecisio n	Qualit y	Importanc e
Sleep interferenc e on normalise d 10-point scale (follow up 84 days)	5 RCTs a n=1515	very serious <sup>1</sup>	not serious <sup>2</sup>	not serious <sup>3</sup>	serious <sup>4</sup>	Low	Critical

one study used inadequate allocation concealment and 2 were unclear about allocation concealment; treatment groups were not comparable at baseline in two studies and it was unclear if groups were comparable in 3 of the others, particularly regarding concomitant drug use; during the study, there were differences in rescue medication usage in one study and it was not clear if there were differences between groups for concomitant and rescue medication usages in 2 other studies; concomitant drugs permitted varies across the studies in the network

Topiramate (n=317): Raskin et al. (2004); only SSRIs permitted

[all compared to placebo]

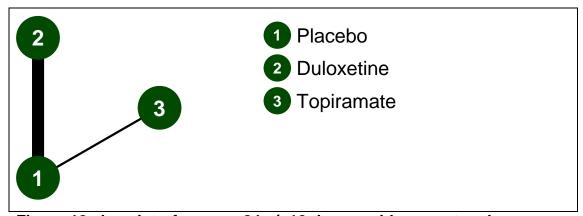


Figure 12 sleep interference - 84 +/- 12 days - evidence network

<sup>&</sup>lt;sup>2</sup> I<sup>2</sup> was 0% for duloxetine vs placebo which may indicate that any inconsistency might not be important (heterogeneity not possible for topiramate vs placebo since the comparisons contains only one trial); no loops in networks so no possibility of inconsistency between direct and indirect estimates

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>4</sup> there are no head-to-head trials; 1 of 2 'links' in network includes only 1 trial; confidence intervals for effect estimates against placebo appear small enough but confidence intervals around rankings are wide (both interventions could be ranked either 1 or 2)

<sup>&</sup>lt;sup>a</sup> Duloxetine (n=1198): Gao et al. (2010), Raskin et al. (2005), Wernicke et al. (2006), Yasuda et al. (2011); most did not permit concomitant pain medications but one was unclear

Table 19 sleep interference - 84 +/- 12 days - trials included in analysis

		Duloxetine
II JI IIOYATINA	4 RCTs <sup>1,3,4,5</sup> total n=1198	
Topiramate	1 RCT <sup>2</sup> total n=317	-

<sup>(1)</sup> Gao et al. (2010); (2) Raskin et al. (2004); (3) Raskin et al. (2005); (4) Wernicke et al. (2006); (5) Yasuda et al. (2011)

Table 20 sleep interference - 84 +/- 12 days - relative effectiveness of all pairwise combinations

	Placebo	Duloxetine	Topiramate
Placebo		-0.62 (-0.94, -0.31)	-1.00 (-1.64, -0.36)
Duloxetine	-0.62 (-1.02, -0.21)		-
Topiramate	-1.00 (-1.86, -0.14)	-0.38 (-1.34, 0.57)	

Values given are mean differences.

The segment below and to the left of the shaded cells is derived from the network meta-analysis, reflecting direct and indirect evidence of treatment effects (row versus column). The point estimate reflects the mean of the posterior distribution, and numbers in parentheses are 95% credible intervals. The segment above and to the right of the shaded cells gives pooled direct evidence (random-effects pairwise meta-analysis), where available (column versus row). Numbers in parentheses are 95% confidence intervals.

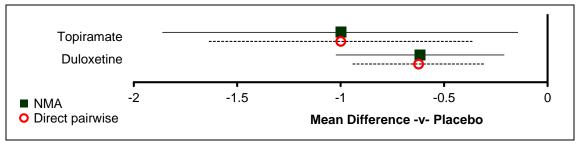


Figure 13 sleep interference - 84 +/- 12 days - relative effect of all options compared with placebo

(values less than 0 favour the treatment; values greater than 0 favour placebo; solid error bars are 95% credible intervals while dashed error bars are 95% confidence intervals)

Table 21 sleep interference - 84 +/- 12 days - rankings for each comparator

	Probability best	Median rank (95%CI)
Placebo	0.001	3 (3, 3)
Duloxetine	0.193	2 (1, 2)
Topiramate	0.806	1 (1, 2)

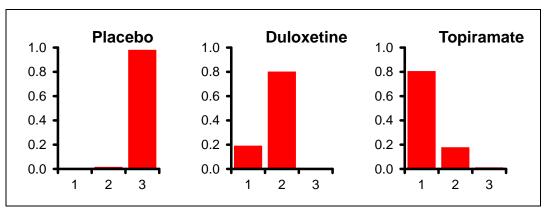


Figure 14 sleep interference - 84 +/- 12 days - rank probability histograms

Table 22 sleep interference - 84 +/- 12 days - model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau-squared
10.88	-0.903	0.652	9.75	7 9 4 7	0.000 (95%Crl: 0.000, 0.516)
(compared to 13 data-points)	-0.903	-9.003	0.75	7.047	0.000 (93 %C11. 0.000, 0.516)

#### Table 23 sleep interference - 84 +/- 12 days - notes

- Random-effects model was used.
- 10000 burn-ins and 50000 iterations.

### Summary GRADE profile 3: Network meta-analysis for withdrawal due to adverse effects at any time point

Outcome	Numbe r of Studie s	Limitation s	Inconsistenc y	Indirectnes s	Imprecisio n	Qualit y	Importanc e
Withdraw al due to adverse effects at any time	75 RCTs <sup>a</sup> n=1607 2	very serious <sup>2</sup>	not serious <sup>3</sup>	not serious <sup>4</sup>	very serious <sup>5</sup>	Very low	Critical

<sup>&</sup>lt;sup>1</sup> in just over half of the studies, groups were either not comparable or it was unclear if they were comparable at baseline; concomitant drugs permitted varies across the studies in the network

#### <sup>a</sup> placebo-controlled comparisons:

amitriptyline (n=250): Graff-Radford et al. (2000), Kautio et al. (2008), Max et al. (1988), Vrethem et al. (1997); concomitant drugs permitted in one but it was unclear if they were permitted in the others

cannabis sativa extract (n=125): Nurmikko et al. (2007); concomitant drugs permitted

capsaicin cream (n=547): Donofrio & Capsaicin study (1992), Paice et al. (2000), Scheffler et al. (1991), Tandan et al. (1992), Watson & Evans (1992), Watson et al. (1993); concomitant drugs permitted but topical medications excluded in most

capsaicin patch (n=1918): Backonja et al. (2008), Clifford et al. (2012), Irving et al. (2011), Simpson et al. (2008), Webster et al. (2010); concomitant drugs permitted but topical medications excluded in most duloxetine (n=1692): Gao et al. (2010), Goldstein et al. (2005), Raskin et al. (2005), Wernicke et al. (2006), Yasuda et al. (2011); concomitant drugs not permitted in most except one study that was unclear

escitalopram (n=96): Otto et al. (2008); concomitant drugs not permitted

gabapentin (n=1054): Backonja et al. (1998), Gordh et al. (2008), Hahn et al. (2004), Rice & Maton (2001), Simpson (2001); concomitant drugs not permitted in three, permitted in two (only SSRIs in one and oxycodone was used as a rescue medication in another which is in the scope of the guideline for the use in NP so considered a concomitant medication)

imipramine (n=80): Sindrup et al. (2003); unclear if concomitant drugs permitted

lacosamide (n=1314): Rauck et al. (2007), Shaibani et al. (2009), Wymer et al. (2009), Ziegler et al. (2010); concomitant drugs were permitted in all but one (but anti-convulsants excluded in these)

lamotrigine (n=1207): Eisenberg et al. (2001), Luria et al. (2000), Rao et al. (2008), Simpson et al. (2000), Simpson et al. (2003), Vinik et al. (2007), Vinik et al. (2007); two studies did not permit concomitant drugs, one was unclear and the rest permitted concomitant drugs

levetiracetam (n=74): Holbech et al. (2011); concomitant drugs not permitted

lidocaine (n=56): Cheville et al. (2009); concomitant drugs not permitted

morphine (n=110): Khoromi et al. (2007); opioids, SSRIs, and tricylic anti-depressants not permitted but it appears some other medication for sciatica was permitted

nortriptyline (n=110): Khoromi et al. (2007); (as above)

nortriptyline+morphine (n=110): Khoromi et al. (2007); (as above)

oxcarbamazepine (n=493): Beydoun et al. (2006), Dogra et al. (2005); SSRIs only

oxycodone (n=159): Gimbel et al. (2003); unclear if concomitant drugs permitted

pregabalin (n=3840): Arezzo et al. (2008), Dworkin et al. (2003), Freynhagen et al. (2005), Guan et al. (2011), Lesser et al. (2004), Moon et al. (2010), Richter et al. (2005), Rosenstock et al. (2004), Sabatowski et al. (2004), Satoh et al. (2011), Simpson et al. (2010); Stacey et al. (2008), Tolle et al. (2008), van Seventer et al. (2006); some concomitant drugs were permitted in all but one study which was unclear (however, SSRIs were the only drugs permitted in 7)

topiramate (n=1674): Khoromi et al. (2005), Raskin et al. (2004), Thienel et al. (2004); two studies permitted concomitant drugs but only SSRIs in one and anti-convulsants were excluded in the other (the other study did not permit concomitant drugs)

<sup>&</sup>lt;sup>2</sup> it was not possible to assess heterogeneity for pairwise comparisons; there appears to be consistency between direct and indirect estimates

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>4</sup> only a very small proportion of links in the network are connected with head-to-head trials; wide confidence intervals for effect estimates for the majority of interventions against placebo and around rankings in the network

tramadol (n=257): Arbaiza & Vidal (2007), Harati et al. (1998), Sindrup et al. (1999); concomitant drugs were permitted in one, not permitted in one and unclear in the other

valproate (n=145): Kochar et al. (2002), Kochar et al. (2004), Kochar et al. (2005); concomitant drugs not permitted in one, permitted in one and it was unclear if they were permitted in the other venlafaxine (n=355): Rowbotham et al. (2004), Sindrup et al. (2003), Tasmuth et al. (2002); concomitant drugs were not permitted in most but opioids were permitted in one

#### **Head-to-head comparisons:**

amitriptyline vs gabapentin (n=50): Morello et al. (1999); concomitant drugs not permitted amitriptyline vs nortriptyline (n=66): Watson et al. (1998); unclear if concomitant drugs permitted amitriptyline vs pregabalin (n=102): Bansal et al. (2009); concomitant drugs not permitted gabapentin vs gabapentin+oxycodone (n=338): Hanna et al. (2008); concomitant drugs permitted imipramine vs venlafaxine (n=80): Sindrup et al. (2003); unclear if concomitant drugs permitted nortriptyline+morphine vs nortriptyline, morphine vs nortriptyline+morphine vs nortriptyline vs morphine (n=110): Khoromi et al. (2007); opioids, SSRIs, and tricylic anti-depressants not permitted but it appears some other medication for sciatica was permitted

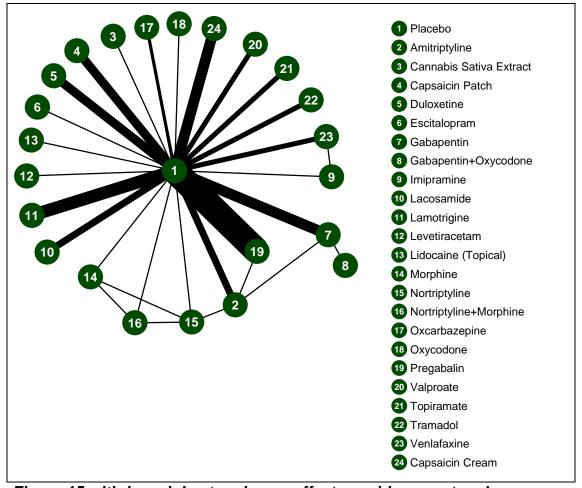


Figure 15 withdrawal due to adverse effects - evidence network

Table 24 withdrawal due to adverse effects - trials included in analysis

	Placebo	Amitriptyline	Cannabis Sativa Extract	Capsaicin Patch	Duloxetine	Escitalopram	Gabapentin	Gabapentin +Oxycodone	Imipramine	Lacosamide	Lamotrigine	Levetiracetam	Lidocaine (Topical)	Morphine	Nortriptyline	Nortriptyline +Morphine	Oxcarbazepine	Oxycodone	Pregabalin	Valproate	Topiramate	Tramadol	Venlafaxine
Amitriptyline	4 RCTs <sup>18,25,33,67</sup> total n=250																						
Cannabis Sativa Extract	1 RCT <sup>36</sup> total n=125	-																					
Capsaicin Patch	5 RCTs <sup>4,8,24,55,71</sup> total n=1918	-	-																				
Duloxetine	5 RCTs <sup>14,16,41,72,74</sup> total n=1692	-	-	-																			
Escitalopram	1 RCT <sup>37</sup> total n=96	-	-	-	-																		
Gabapentin	total n=1054	1 RCT <sup>35</sup> total n=50	-	-	-	-																	
Gabapentin +Oxycodone	-	-	-	-	-	-	1 RCT <sup>21</sup> total n=338																
Imipramine	1 RCT <sup>58</sup> total n=80	-	-	-	-	-	-	-															
Lacosamide	4 RCTs <sup>42,51,73,75</sup> total n=1314	-	-	-	-	-	-	-	-														
Lamotrigine	7 RCTs <sup>12,32,39,53,54,65,66</sup> total n=1207	-	-	-	-	-	-	-	-	-													
Levetiracetam	1 RCT <sup>23</sup> total n=74	-	-	-	-	-	-	-	-	-	-												

	Placebo	Amitriptyline	Cannabis Sativa Extract	Capsaicin Patch	Duloxetine	Escitalopram	Gabapentin	Gabapentin +Oxycodone	Imipramine	Lacosamide	Lamotrigine	Levetiracetam	Lidocaine (Topical)	Morphine	Nortriptyline	Nortriptyline +Morphine	Oxcarbazepine	Oxycodone	Pregabalin	Valproate	Topiramate	Tramadol	Venlafaxine
Lidocaine (Topical)	1 RCT <sup>7</sup> total n=56	-	-	-	-	-	-	-	-	-	-	-											
Morphine	1 RCT <sup>27</sup> total n=110	-	-	-	-	-	-	-	-	ı	-	-	-										
Nortriptyline	total n=110	1 RCT <sup>70</sup> total n=66	-	-	-	-	-	-	-	i		-	-	1 RCT <sup>27</sup> total n=110									
+Morphine	1 RCT <sup>27</sup> total n=110	-	-	-	-	-	-	-	-	-	-	-	-	total	1 RCT <sup>27</sup> total n=110								
Oxcarbazepine	2 RCTs <sup>6,9</sup> total n=493	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
Oxycodone	1 RCT <sup>15</sup> total n=159	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
	total n=3840	1 RCT <sup>5</sup> total n=102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
vaiproate	3 RCTs <sup>28,29,30</sup> total n=145	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-				
ropiramate	3 RCTs <sup>26,40,62</sup> total n=1674	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	3 RCTs <sup>1,22,57</sup> total n=257	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Venlafaxine	3 RCTs <sup>47,58,61</sup> total n=355	-	-	-	-	-	-		1 RCT <sup>58</sup> total	ı	1	-	-	-	-	-	-	-	-	-	-	-	

	Placebo	Amitriptyline	Cannabis Sativa Extract	Capsaicin Patch	Duloxetine	Escitalopram	Gabapentin	Gabapentin +Oxycodone	Imipramine	Lacosamide	Lamotrigine	Levetiracetam	Lidocaine (Topical)	Morphine	Nortriptyline	Nortriptyline +Morphine	Oxcarbazepine	Oxycodone	Pregabalin	Valproate	Topiramate	Tramadol	Venlafaxine
									n=80														
Capsaicin Cream	6 RCTs <sup>10,38,50,60,68,69</sup> total n=547	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(1) Arbaiza & Vidal (2007); (2) Arezzo et al. (2008); (3) Backonja et al. (1998); (4) Backonja et al. (2008); (5) Bansal et al. (2009); (6) Beydoun et al. (2006); (7) Cheville et al. (2009); (8) Clifford et al. (2012); (9) Dogra et al. (2005); (10) Donofrio & Capsaicin study (1992); (11) Dworkin et al. (2003); (12) Eisenberg et al. (2001); (13) Freynhagen et al. (2005); (14) Gao et al. (2010); (15) Gimbel et al. (2003); (16) Goldstein et al. (2005); (17) Gordh et al. (2008); (18) Graff-Radford et al. (2000); (19) Guan et al. (2011); (20) Hahn et al. (2004); (21) Hanna et al. (2008); (22) Harati et al. (1998); (23) Holbech et al. (2011); (24) Irving et al. (2011); (25) Kautio et al. (2008); (26) Khoromi et al. (2005); (27) Khoromi et al. (2007); (28) Kochar et al. (2002); (29) Kochar et al. (2004); (30) Kochar et al. (2005); (31) Lesser et al. (2004); (32) Luria et al. (2000); (33) Max et al. (1988); (34) Moon et al. (2010); (35) Morello et al. (1999); (36) Nurmikko et al. (2007); (37) Otto et al. (2008); (38) Paice et al. (2000); (39) Rao et al. (2008); (40) Raskin et al. (2004); (41) Raskin et al. (2004); (42) Rauck et al. (2007); (43) Rice & Maton (2001); (44) Richter et al. (2005); (45) Rosenstock et al. (2004); (46) Rowbotham et al. (2004); (48) Sabatowski et al. (2004); (49) Satoh et al. (2011); (50) Scheffler et al. (1991); (51) Shaibani et al. (2009); (52) Simpson (2001); (53) Simpson et al. (2000); (54) Simpson et al. (2003); (55) Simpson et al. (2008); (56) Simpson et al. (2008); (66) Van Seventer et al. (2006); (65) Vinik et al. (2007); (66) Vinik et al. (2007); (67) Vrethem et al. (1997); (68) Watson & Evans (1992); (69) Watson et al. (1993); (70) Watson et al. (1998); (71) Webster et al. (2010); (72) Wernicke et al. (2006); (73) Wymer et al. (2009); (74) Yasuda et al. (2011); (75) Ziegler et al. (2010)

Table 25 withdrawal due to adverse effects - relative effectiveness of all pairwise combinations

	Placebo	Amitriptyline	Cannabis Sativa Extract	Capsaicin Patch	Duloxetine	Escitalopram	Gabapentin	Gabapentin +Oxycodone	Imipramine	Lacosamide	Lamotrigine	Levetiracetam	Lidocaine (Topical)	Morphine	Nortriptyline	Nortriptyline +Morphine	Oxcarbazepine	Oxycodone	Pregabalin	Valproate	Topiramate	Tramadol	Venlafaxine	Cream
Placebo		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A
Amitriptylin	2.71 (1.14, 6.53)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A
Cannabis Sativa Extract	6.92 (1.07, 68.15)	2.56 (0.32, 29.89)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A
Capsaicin Patch	1.00 (0.33, 3.31)	0.37 (0.09, 1.58)	0.14 (0.01, 1.33)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A
Duloxetine	2.73 (1.47, 5.15)	1.01 (0.34, 2.94)	0.39 (0.04, 2.87)	2.73 (0.71, 9.88)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A
Escitalopra m	7.07 (0.67, 237.00	2.64 (0.21, 96.04)	1.04 (0.04, 52.50)	7.20 (0.50, 278.50 )	2.60 (0.23, 92.19)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A
Gabapentin	1.78 (0.92, 3.49)	0.66 (0.24, 1.84)	0.26 (0.02, 1.90)	1.79 (0.45, 6.58)	0.65 (0.26, 1.63)	0.25 (0.01, 2.93)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A
Gabapentin +Oxycodon e		2.18 (0.38, 12.73)	0.84 (0.05, 10.04)	5.89 (0.84, 41.12)	2.17 (0.40, 11.78)	(0.02, 14.68)	3.31 (0.81, 13.96)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A
Imipramine	0.38 (0.01, 4.12)	0.14 (0.00, 1.78)	0.05 (0.00, 1.19)	0.37 (0.01, 5.30)	0.14 (0.00, 1.64)	(0.00,	0.21 (0.01, 2.51)	0.06 (0.00, 1.11)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A

	Placebo	Amitriptyline	Cannabis Sativa Extract	Capsaicin Patch	Duloxetine	Escitalopram	Gabapentin	Gabapentin +Oxycodone	Imipramine	Lacosamide	Lamotrigine	Levetiracetam	Lidocaine (Topical)	Morphine	Nortriptyline	Nortriptyline +Morphine	Oxcarbazepine	Oxycodone	Pregabalin	Valproate	Topiramate	Tramadol	Venlafaxine	Capsaicin
Lacosamide	(1.25,	0.91 (0.30, 2.76)	(0.03,	2.46 (0.62, 9.13)	0.90 (0.35, 2.29)	0.34 (0.01, 4.05)	1.38 (0.53, 3.60)	0.42 (0.07, 2.27)	6.57 (0.54, 236.60)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A
Lamotrigine	(1.07,	0.77 (0.26, 2.35)	0.30 (0.03, 2.24)	2.10 (0.53, 7.79)						0.85 (0.32, 2.28)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A
	(0.63, 5580.0				(0.21,		(0.33,		45.43 (0.68, 37600.0 0)	5.71 (0.23, 2339.0 0)	6.66 (0.28, 2773.0 0)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A
Lidocaine	(0.41,										'	0.74 (0.00, 686.5 0)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A
Morphine		2.56 (0.26, 38.39)		6.90 (0.56, 125.90	(0.26,			1.19 (0.08, 25.36)	19.98 (0.68, 1472.00	2.81 (0.28, 44.25)	3.31 (0.33, 52.05)	0.48 (0.00, 29.66 )	0.66 (0.00 , 43.1 5)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A
Nortriptyline	(0.28,	0.92 (0.10, 10.56)	(0.02,	2.48 (0.21, 36.46)	(0.09,	(0.01,	1.40 (0.14, 17.07)	0.42 (0.03, 7.30)	7.09 (0.25, 451.30)	1.01 (0.10, 12.62)		0.17 (0.00, 9.15)	0.23 (0.00 , 13.3 5)	0.36 (0.04 , 2.49)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A
Nortriptyline +Morphine	(0.55,	(0.19,		5.39 (0.40, 101.00	(0.18,	(0.01,		0.92 (0.06, 20.36)	15.59 (0.50, 1177.00	2.20 (0.20, 35.33)	2.57 (0.24, 41.99)	0.37 (0.00, 24.40	0.51 (0.00 , 34.3 7)	0.78 (0.12 , 4.80)	2.17 (0.29 , 19.0 8)		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/ A

	Placebo	Amitriptyline	Cannabis Sativa Extract	Capsaicin Patch	Duloxetine	Escitalopram	Gabapentin	Gabapentin +Oxycodone	Imipramine	Lacosamide	Lamotrigine	Levetiracetam	Lidocaine (Topical)	Morphine	Nortriptyline	Nortriptyline +Morphine	Oxcarbazepine	Oxycodone	Pregabalin	Valproate	Topiramate	Tramadol	Venlafaxine	Cream
Oxcarbazep ine	•	(0.41,	0.59 (0.05, 4.97)	(0.89,	1.50 (0.47, 4.86)	(0.02,		0.69 (0.11, 4.44)		1.66 (0.50, 5.59)	1.95 (0.59, 6.52)	0.29 (0.00, 7.86)	,	(0.03	,			N/A	N/A	N/A	N/A	N/A	N/A	N/ A
Oxycodone		(0.09,	0.25 (0.01, 3.42)		0.64 (0.10, 4.30)	(0.00,		0.30 (0.03, 3.20)		0.72 (0.11, 4.83)	0.84 (0.13, 5.70)	0.12 (0.00, 4.54)		0.25 (0.01 , 4.40)	,				N/A	N/A	N/A	N/A	N/A	N/ A
Pregabalin		(0.32,	0.31 (0.03, 2.12)	(0.62,	0.79 (0.38, 1.65)			0.36 (0.07, 1.81)		0.88 (0.40, 1.93)	1.03 (0.46, 2.26)	0.16 (0.00, 3.51)	(0.00	0.31 (0.02 , 2.92)	(0.07	(0.03	(0.18 ,	(0.20		N/A	N/A	N/A	N/A	N/ A
Valproate	3.74 (0.53, 51.31)	(0.16,		3.78 (0.38, 62.93)	1.37 (0.17, 20.12)	(0.01,		0.65 (0.05, 12.79)	11.03 (0.43, 753.60)	1.53 (0.19, 22.66)	1.80 (0.22, 25.91)	0.27 (0.00, 15.76	(0.00 , 22.0 2)	0.55 (0.02 , 16.0 0)	(0.07 , 43.9 9)	(0.03 , 22.0 6)	(0.10 , 14.6 5)	(0.15 , 47.8 1)	(0.23 , 24.3 2)		N/A	N/A	N/A	N/ A
Topiramate		(0.44,	0.54 (0.05, 4.19)	(0.92,	1.39 (0.51, 3.77)	(0.02,		0.64 (0.11, 3.65)	10.13 (0.82, 374.30)	1.54 (0.55, 4.38)	1.81 (0.65, 5.07)	(0.00,	0.37 (0.00 , 10.2 3)	0.55 (0.03 , 5.64)	1.53 (0.12 , 15.4 4)	0.70 (0.04 , 7.86)	0.92 (0.26 , 3.28)	2.15 (0.31 , 14.2 7)	1.75 (0.74 , 4.23)	(0.07		N/A	N/A	N/ A
	(1.90, 33.44)			(1.20,	2.59 (0.60, 13.61)		3.97 (0.90, 21.31)	1.20 (0.15, 10.71)	19.55 (1.18, 893.40)	2.87 (0.65, 15.59)	3.38 (0.76, 18.09)	0.50 (0.00, 16.63 )	(0.00 , 25.0 9)	1.04 (0.05 , 15.3 7)	(0.17 , 40.4 1)	(0.06 , 20.8 9)	(0.33 , 10.6 2)	(0.43 , 40.7 6)	(0.83 , 16.1 0)	(0.11 , 22.4 7)	(0.40 , 10.4 1)		N/A	N/ A
Venlafaxine	2.73	1.01	0.39	2.75	1.00	0.38	1.53	0.46	7.24	1.11	1.30	0.19	0.27	0.39	1.10	0.51	0.67	1.57	1.26	0.72	0.72	0.38		N/

	Placebo	Amitriptyline	Cannabis Sativa Extract	Capsaicin Patch	Duloxetine	Escitalopram	Gabapentin	Gabapentin +Oxycodone	Imipramine	Lacosamide	Lamotrigine	Levetiracetam	Lidocaine (Topical)	Morphine	Nortriptyline	Nortriptyline +Morphine	Oxcarbazepine	Oxycodone	Pregabalin	Valproate	Topiramate	Tramadol	Venlafaxine	Cream Cream
		(0.23, 4.68)	(0.03, 3.85)					(0.06, 3.49)	(0.76, 240.70)			(0.00, 5.79)	,	,	,	,	,	,	(0.37 , 4.85)	,	,	6,		Α
Capsaicin Cream	(2.43,	2.27 (0.62, 8.77)	(0.08,			(0.02,	(1.09,			2.49 (0.78, 8.65)	2.93 (0.91, 10.05)	0.44 (0.00, 11.90 )	(0.00	(0.05 , 10.2	, 27.2	(0.07	(0.38	,	2.83 (1.03 , 8.63)	,	1.62 (0.48 , 5.81)	4,	(0.47 ,	

Values given are hazard ratios.

The segment below and to the left of the shaded cells is derived from the network meta-analysis, reflecting direct and indirect evidence of treatment effects (row versus column). The point estimate reflects the mean of the posterior distribution, and numbers in parentheses are 95% credible intervals. Because it is not easily possible to derive analogous estimates of hazard ratios from a frequentist analysis of direct data only, the segment above and to the right of the shaded cells is left blank.

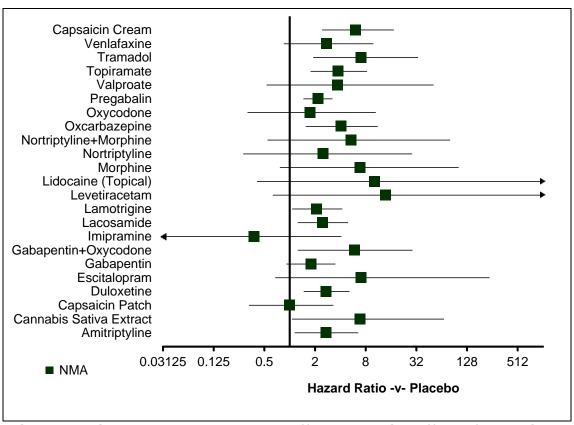


Figure 16 withdrawal due to adverse effects - relative effect of all options compared with placebo

(values less than 1 favour the treatment; values greater than 1 favour placebo; solid error bars are 95% credible intervals)

# Table 26 withdrawal due to adverse effects - rankings for each comparator

	Probability best	Median rank (95%CI)
Placebo	0.041	3 (1, 6)
Amitriptyline	0.001	11 (4, 19)
Cannabis Sativa Extract	0.003	19 (4, 24)
Capsaicin Patch	0.116	3 (1, 14)
Duloxetine	0.000	12 (5, 18)
Escitalopram	0.010	19 (2, 24)
Gabapentin	0.003	7 (3, 15)
Gabapentin+Oxycodone	0.002	18 (5, 24)
Imipramine	0.629	1 (1, 15)
Lacosamide	0.000	10 (4, 18)
Lamotrigine	0.001	9 (3, 16)
Levetiracetam	0.012	22 (2, 24)
Lidocaine (Topical)	0.026	21 (1, 24)
Morphine	0.005	19 (3, 24)
Nortriptyline	0.054	10 (1, 22)
Nortriptyline+Morphine	0.012	18 (2, 24)
Oxcarbazepine	0.000	15 (6, 22)
Oxycodone	0.064	7 (1, 21)
Pregabalin	0.000	9 (5, 15)
Valproate	0.019	15 (2, 24)
Topiramate	0.000	15 (7, 21)
Tramadol	0.000	19 (7, 24)
Venlafaxine	0.002	12 (3, 21)
Capsaicin Cream	0.000	18 (10, 23)

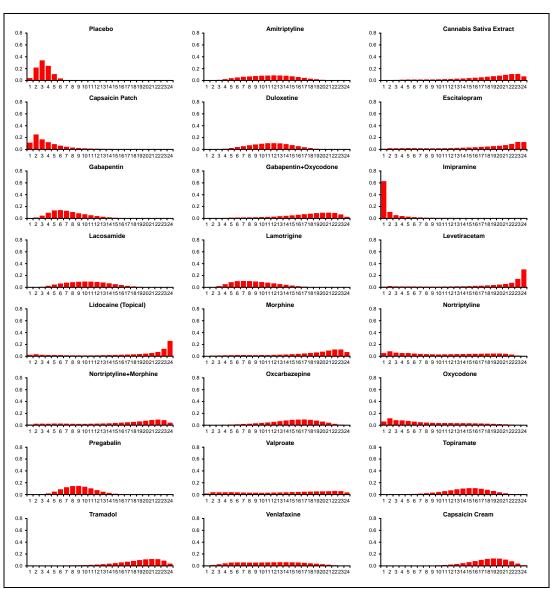


Figure 17 withdrawal due to adverse effects - rank probability histograms

Table 27 withdrawal due to adverse effects - model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau-squared
175.5 (compared to 186 datapoints)	791.054	654.788	136.266	927.32	0.339 (95%CI: 0.202, 0.599)

#### Table 28 withdrawal due to adverse effects - notes

- Random-effects model was used, with 0.5 added to cells of trials with 1 or more zero cell-count.
- 10000 burn-ins and 50000 iterations.
- Model convergence: there was poor autocorrelation for lidocaine and levetiracetam since there were few studies and small events in the studies for these interventions.

One of the Webster et al. (2010) studies was not included in this network	7
as it had zero events in all study arms.	
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#### IMPORTANT OUTCOMES (profiles 4 to 6)

# Summary GRADE profile 4a: Network meta-analysis for at least 30% pain relief (28 days +/-7 days)

Outcom e	Numbe r of Studie s	Limitation s	Inconsistenc y	Indirectnes s	Imprecisio n	Qualit y	Importanc e
≥ 30% pain relief on any scale (follow up 28 days)	6 RCTs <sup>a</sup> n=1015	very serious <sup>1</sup>	not serious <sup>2</sup>	not serious <sup>3</sup>	very serious <sup>4</sup>	Very low	Important

<sup>1</sup> unclear if groups were comparable in 5 studies, particularly regarding concomitant drug use; during the study, most studies allowed concomitant drug use but it was not clear if use was different between groups in a number of studies; concomitant drugs permitted varies across the studies in the network; insufficient follow-up in 5 of the 6 studies

<sup>a</sup> cannabis sativa extract (n=125): Nurmikko et al. (2007); concomitant drugs permitted gabapentin (n=240): Gordh et al. (2008); no concomitant drugs permitted

pregabalin (n=528): Lesser et al. (2004), Stacey et al. (2008); concomitant drugs apart from gabapentin and oxycodone permitted in one and only SSRIs permitted in the other

tramadol (n=90): Sindrup et al. (1999); unclear if any concomitant drugs permitted (study says a number of drugs tapered before study start but no details given)

capsaicin cream (n=32): Bernstein et al. (1989); concomitant drugs permitted [all compared to placebo]

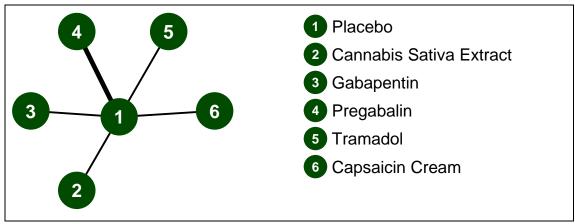


Figure 18 30% pain relief - 28 +/- 7 days - evidence network

<sup>&</sup>lt;sup>2</sup> I<sup>2</sup> was 0% for pregabalin vs placebo which may indicate that any inconsistency might not be important (heterogeneity not possible for comparisons with only one trial); no loops in networks so no possibility of inconsistency between direct and indirect estimates

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>4</sup> all but one 'link' in network include only 1 trial; no head-to-head trials; wide confidence intervals for the effect estimates of all interventions compared to placebo and for overall rankings within the network

Table 29 30% pain relief - 28 +/- 7 days - trials included in analysis

	Placebo	Cannabis Sativa Extract	Gabapentin	Pregabalin	Tramadol
Cannabis Sativa Extract	1 RCT <sup>4</sup> total n=125				
Gabapentin	1 RCT <sup>2</sup> total n=240	-			
Pregabalin	2 RCTs <sup>3,6</sup> total n=528	-	-		
Tramadol	1 RCT <sup>5</sup> total n=90	-	-	-	
Capsaicin Cream	1 RCT <sup>1</sup> total n=32	-	-	-	-

<sup>(1)</sup> Bernstein et al. (1989); (2) Gordh et al. (2008); (3) Lesser et al. (2004); (4) Nurmikko et al. (2007); (5) Sindrup et al. (1999); (6) Stacey et al. (2008)

Table 30 30% pain relief - 28 +/- 7 days 28 +/- 7 days - relative effectiveness of all pairwise combinations

	Placebo	Cannabis Sativa Extract		Pregabalin	Tramadol	Capsaicin cream
Placebo		2.00 (0.81, 4.96)	2.64 (1.32, 5.26)	3.75 (2.57, 5.48)	3.59 (1.25, 10.29)	5.57 (1.13, 27.52)
Cannabis Sativa Extract	2.02 (0.41, 10.39)		-	-	-	-
Gabapentin	2.70 (0.60, 12.57)	1.34 (0.15, 12.05)		-	-	-
Pregabalin	3.80 (1.52, 9.44)	1.88 (0.29, 11.79)	1.41 (0.24, 8.16)		-	-
Tramadol	3.80 (0.71, 21.64)	1.87 (0.18, 19.64)	1.41 (0.14, 13.96)	1.01 (0.15, 7.14)		-
Capsaicin Cream	6.47 (0.82, 59.65)	100 23	2.40 (0.18, 33.50)	1.71 (0.18, 18.67)	1.71 (0.12, 28.72)	

Values given are odds ratios.

The segment below and to the left of the shaded cells is derived from the network meta-analysis, reflecting direct and indirect evidence of treatment effects (row versus column). The point estimate reflects the mean of the posterior distribution, and numbers in parentheses are 95% credible intervals. The segment above and to the right of the shaded cells gives pooled direct evidence (random-effects pairwise meta-analysis), where available (column versus row). Numbers in parentheses are 95% confidence intervals.

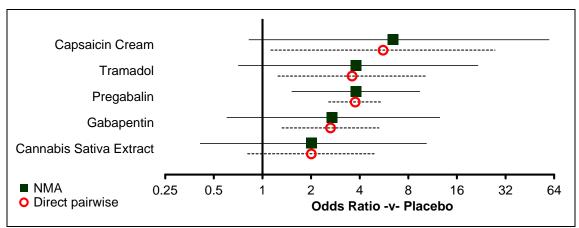


Figure 19 30% pain relief - 28 +/- 7 days - relative effect of all options compared with placebo

(values less than 1 favour placebo; values greater than 1 favour the treatment; solid error bars are 95% credible intervals while dashed error bars are 95% confidence intervals)

Table 31 30% pain relief - 28 +/- 7 days - rankings for each comparator

	Probability best	Median rank (95%CI)
Placebo	0.000	6 (4, 6)
Cannabis Sativa Extract	0.047	5 (1, 6)
Gabapentin	0.073	4 (1, 6)
Pregabalin	0.121	3 (1, 5)
Tramadol	0.215	3 (1, 6)
Capsaicin Cream	0.544	1 (1, 6)

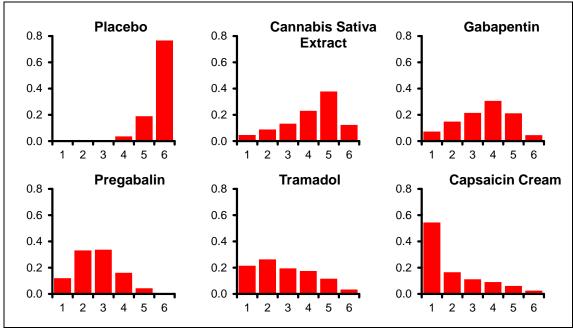


Figure 20 30% pain relief - 28 +/- 7 days - rank probability histograms

#### Table 32 30% pain relief - 28 +/- 7 days - model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau-squared
13.83	74.089	61 207	12 882	86 071	0.000 (95%CI: 0.000, 4.016)
(compared to 14 datapoints)	74.003	01.207	12.002	00.971	0.000 (93 %Ci. 0.000, 4.010)

#### Table 33 30% pain relief - 28 +/- 7 days - notes

- Random-effects model was used
- 10000 burn-ins and 50000 iterations.

#### Summary GRADE profile 4b: Network meta-analysis for at least 30% pain relief (56 days +/-7 days)

Outcom e	Numbe r of Studie s	Limitation s	Inconsistenc y	Indirectnes s	Imprecisio n	Qualit y	Importanc e
≥ 30% pain relief on any scale (follow up 56 days)	4 RCTs <sup>a</sup> n=1120	very serious <sup>1</sup>	serious <sup>2</sup>	not serious <sup>3</sup>	very serious <sup>4</sup>	Very low	Important

<sup>&</sup>lt;sup>1</sup> half of studies do not report the method of randomisation; treatment groups were not comparable at baseline in two studies and it was unclear if groups were comparable in one other; concomitant drugs permitted varies across the studies in the network

pregabalin (n=718): Dworkin et al. (2003), Guan et al. (2011), Moon et al. (2010); concomitant anti-depressants permitted in two (with the exception of anti-convulsants) but only SSRIs permitted in the other

[all compared to placebo]

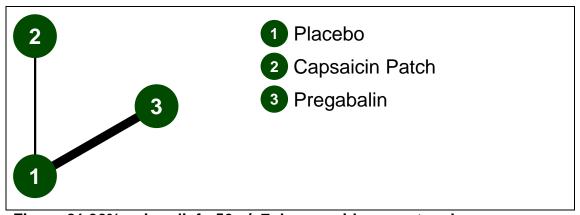


Figure 21 30% pain relief - 56 +/- 7 days - evidence network

<sup>&</sup>lt;sup>2</sup> I<sup>2</sup> was 0% for capsaicin patch vs placebo which may indicate that any inconsistency might not be important; however, I<sup>2</sup> was 80% for pregabalin vs placebo which may indicate considerable heterogeneity between the studies that make this comparison; appears to be consistency between direct and indirect estimates

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>4</sup> no head-to-head comparisons; wide confidence intervals for the effect estimates of both interventions compared to placebo and for overall rankings within the network (most interventions could have any ranking)

<sup>&</sup>lt;sup>a</sup> capsaicin patch (n=402): Backonja et al. (2008); concomitant drugs were permitted apart from topical medications

Table 34 30% pain relief - 56 +/- 7 days - trials included in analysis

	Placebo	Capsaicin Patch
Capsaicin Patch	1 RCT <sup>1</sup> total n=402	
Pregabalin	3 RCTs <sup>2,3,4</sup> total n=718	-

<sup>(1)</sup> Backonja et al. (2008); (2) Dworkin et al. (2003); (3) Guan et al. (2011); (4) Moon et al. (2010)

Table 35 30% pain relief - 56 +/- 7 days - relative effectiveness of all pairwise combinations

	Placebo	Capsaicin Patch	Pregabalin
Placebo		-	2.20 (1.06, 4.59)
Capsaicin Patch	1.57 (0.03, 84.52)		-
Pregabalin	2.23 (0.22, 23.85)	1.42 (0.01, 148.00)	

Values given are odds ratios.

The segment below and to the left of the shaded cells is derived from the network meta-analysis, reflecting direct and indirect evidence of treatment effects (row versus column). The point estimate reflects the mean of the posterior distribution, and numbers in parentheses are 95% credible intervals. The segment above and to the right of the shaded cells gives pooled direct evidence (random-effects pairwise meta-analysis), where available (column versus row). Numbers in parentheses are 95% confidence intervals.

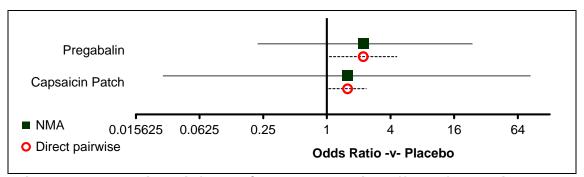


Figure 22 30% pain relief - 56 +/- 7 days - relative effect of all options compared with placebo

(values less than 1 favour placebo; values greater than 1 favour the treatment; solid error bars are 95% credible intervals while dashed error bars are 95% confidence intervals)

Table 36 30% pain relief - 56 +/- 7 days - rankings for each comparator

	Probability best	Median rank (95%CI)
Placebo	0.058	3 (1, 3)
Capsaicin Patch	0.362	2 (1, 3)
Pregabalin	0.580	1 (1, 3)

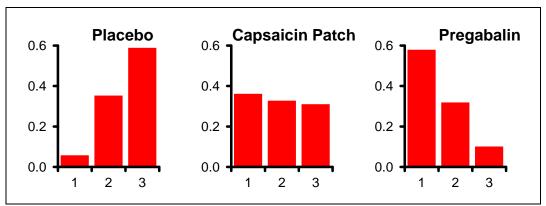


Figure 23 30% pain relief - 56 +/- 7 days - rank probability histograms

Table 37 30% pain relief - 56 +/- 7 days - model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau-squared
8.24	50.071	41.982	8.089	58 150	0.023 (95%CI: 0.059, 19.198)
(compared to 8 datapoints)	30.071	41.302	0.009	30.139	0.023 (93/801. 0.039, 19.190)

## Table 38 30% pain relief - 56 +/- 7 days - notes

- Random-effects model was used.
- 10000 burn-ins and 50000 iterations.

# Summary GRADE profile 4c: Network meta-analysis for at least 30% pain relief (84 days +/-14 days)

Outcom e	Numbe r of Studie s	Limitation s	Inconsistenc y	Indirectnes s	Imprecisio n	Qualit y	Importanc e
≥ 30% pain relief on any scale (follow up 84 days)	16 RCTs <sup>a</sup> n=4667	very serious <sup>1</sup>	serious <sup>2</sup>	not serious <sup>3</sup>	very serious <sup>4</sup>	Very low	Important

over half of studies do not report the method of randomisation; one study had inadequate allocation concealment while over half do not report about allocation concealment; treatment groups were not comparable at baseline in three studies and it was unclear if groups were comparable in eight; concomitant drugs permitted varies across the studies in the network

<sup>a</sup> cannabis sativa extract (n=30): Selvarajah et al. (2010); concomitant drugs permitted capsaicin patch (n=2073): Backonja et al. (2008), Clifford et al. (2012), Irving et al. (2011), Simpson et al. (2008), Webster et al. (2010), Webster et al. (2010); concomitant drugs except topical medications permitted (and no opioids in one study)

duloxetine (n=887): Gao et al. (2010), Wernicke et al. (2006), Yasuda et al. (2011); concomitant drugs not permitted in two and unclear in the other (the study only said that MAO inhibitors were permitted)

lacosamide (n=119): Rauck et al. (2007); SSRI only, however, excluded concomitant medications were permitted if the investigator considered them necessary

lamotrigine (n=227): Simpson et al. (2003); concomitant drugs permitted

pregabalin (n=1008): Freynhagen et al. (2005), Simpson et al. (2010), van Seventer et al. (2006); concomitant drugs permitted in all – two with the exception of anti-convulsants, two with the exception of gabapentin and SSRIs only in the fourth

topiramate (n=323): Raskin et al. (2004); SSRIs only

[all compared to placebo]

<sup>&</sup>lt;sup>2</sup> I<sup>2</sup> was 79% for pregabalin vs placebo which may indicate considerable heterogeneity between the studies that make this comparison, I<sup>2</sup> was 36% for duloxetine vs placebo which may suggest moderate heterogeneity in the studies;; no loops in networks so no possibility of inconsistency between direct and indirect estimates

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>4</sup> there are no head-to-head trials; over half of links have only one trial; wide confidence intervals for the effect estimates of more than half of interventions compared to placebo and for overall rankings within the network

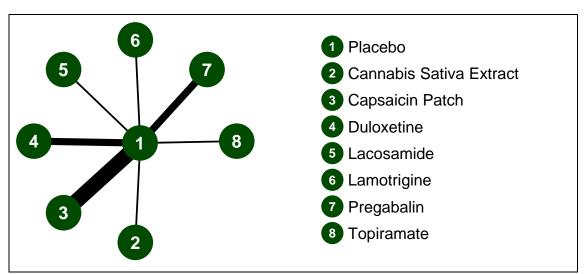


Figure 24 30% pain relief - 84 +/- 12 days - evidence network

Table 39 30% pain relief - 84 +/- 12 days - trials included in analysis

	Placebo	Cannabis Sativa Extract	Capsaicin Patch	Duloxetine	Lacosamide	Lamotrigine	Pregabalin
Cannabis Sativa Extract	1 RCT <sup>8</sup> total n=30						
Capsaicin Patch	6 RCTs <sup>1,2,5,10,13,14</sup> total n=2073	-					
Duloxetine	3 RCTs <sup>4,15,16</sup> total n=887	-	-				
Lacosamide	1 RCT <sup>7</sup> total n=119	-	-	-			
Lamotrigine	1 RCT <sup>9</sup> total n=227	-	-	-	-		
Pregabalin	3 RCTs <sup>3,11,12</sup> total n=1008	-	-	-	-	-	
Topiramate	1 RCT <sup>6</sup> total n=323	-	-	-	-	-	-

<sup>(1)</sup> Backonja et al. (2008); (2) Clifford et al. (2012); (3) Freynhagen et al. (2005); (4) Gao et al. (2010); (5) Irving et al. (2011); (6) Raskin et al. (2004); (7) Rauck et al. (2007); (8) Selvarajah et al. (2010); (9) Simpson et al. (2003); (10) Simpson et al. (2008); (11) Simpson et al. (2010); (12) van Seventer et al. (2006); (13) Webster et al. (2010); (14) Webster et al. (2010); (15) Wernicke et al. (2006); (16) Yasuda et al. (2011)

Table 40 30% pain relief - 84 +/- 12 days - relative effectiveness of all pairwise combinations

	Placebo	Cannabis Sativa Extract	Capsaicin Patch	Duloxetine	Lacosamide	Lamotrigine	Pregabalin	Topiramate
Placebo		0.76 (0.18, 3.24)	1.50 (1.24, 1.82)	2.17 (1.56, 3.01)	1.45 (0.70, 3.00)	2.06 (1.13, 3.77)	2.09 (0.95, 4.60)	1.81 (1.12, 2.91)
Cannabis Sativa Extract	0.74 (0.15, 3.67)		-	-	-	-	-	-
Capsaicin Patch	1.52 (1.12, 2.06)	2.05 (0.40, 10.78)		-	-	-	-	-
Duloxetine	2.19 (1.42, 3.38)	2.97 (0.56, 16.02)	1.44 (0.85, 2.44)		-	-	-	-
Lacosamide	1.46 (0.55, 3.85)	1.97 (0.30, 13.11)	0.96 (0.35, 2.66)	0.66 (0.23, 1.92)		-	-	-
Lamotrigine	2.10 (0.88, 5.12)	2.83 (0.46, 18.27)	1.39 (0.55, 3.54)	0.96 (0.36, 2.58)	1.44 (0.39, 5.39)		-	-
Pregabalin	2.07 (1.34, 3.37)	2.81 (0.54, 15.55)	1.36 (0.81, 2.43)	0.94 (0.52, 1.83)	1.42 (0.50, 4.24)	0.98 (0.37, 2.71)		-
Topiramate	1.82 (0.82, 4.05)	2.45 (0.41, 15.15)	1.20 (0.51, 2.82)	0.83 (0.34, 2.07)	1.25 (0.36, 4.36)	0.87 (0.26, 2.83)	0.88 (0.34, 2.15)	

Values given are odds ratios.

The segment below and to the left of the shaded cells is derived from the network meta-analysis, reflecting direct and indirect evidence of treatment effects (row versus column). The point estimate reflects the mean of the posterior distribution, and numbers in parentheses are 95% credible intervals. The segment above and to the right of the shaded cells gives pooled direct evidence (random-effects pairwise meta-analysis), where available (column versus row). Numbers in parentheses are 95% confidence intervals.

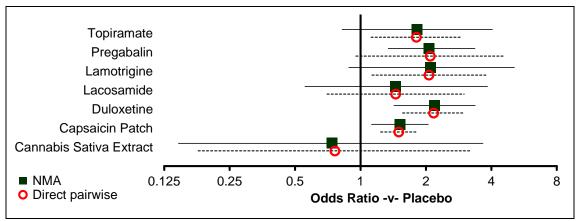


Figure 25 30% pain relief - 84 +/- 12 days - relative effect of all options compared with placebo

(values less than 1 favour placebo; values greater than 1 favour the treatment; solid error bars are 95% credible intervals while dashed error bars are 95% confidence intervals)

Table 41 30% pain relief - 84 +/- 12 days - rankings for each comparator

	Probability best	Median rank (95%CI)
Placebo	0.000	7 (6, 8)
Cannabis Sativa Extract	0.053	8 (1, 8)
Capsaicin Patch	0.004	5 (2, 7)
Duloxetine	0.226	2 (1, 6)
Lacosamide	0.097	5 (1, 8)
Lamotrigine	0.300	3 (1, 7)
Pregabalin	0.163	3 (1, 6)
Topiramate	0.156	4 (1, 7)

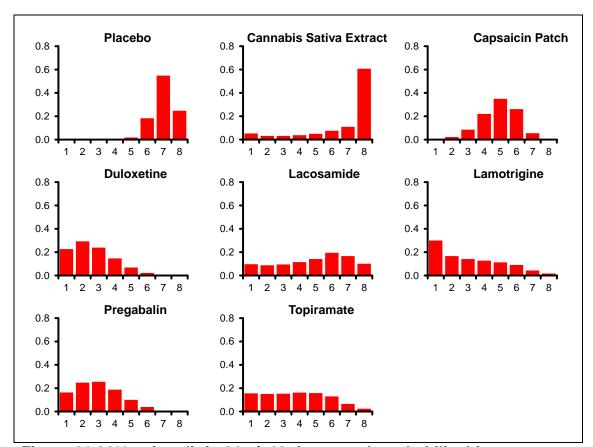


Figure 26 30% pain relief - 84 +/- 12 days - rank probability histograms

Table 42 30% pain relief - 84 +/- 12 days - model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau-squared
44.48 (compared to 43 datapoints)	255.598	221.919	33.679	289.278	0.001 (95%CI: 0.007, 0.280)
(compared to 45 datapoints)					

## Table 43 30% pain relief - 84 +/- 12 days - notes

- Random-effects model was used.
- 10000 burn-ins and 50000 iterations.
- Includes Rauck (2007) which reported outcomes at 70 days.

# Summary GRADE profile 5a: Network meta-analysis for at least 50% pain relief (28 days +/-7 days)

Outcom e	Numbe r of Studie s	Limitation s	Inconsistenc y	Indirectnes s	Imprecisio n	Qualit y	Importanc e
≥ 50% pain relief on any scale (follow up 28 days)	6 RCTs <sup>a</sup> n=1085	very serious <sup>1</sup>	not serious <sup>2</sup>	not serious <sup>3</sup>	very serious <sup>4</sup>	very low	Important

<sup>&</sup>lt;sup>1</sup> it was unclear if treatment groups were comparable at baseline in all studies, particularly for concomitant drug use; concomitant drugs permitted varies across the studies in the network; insufficient follow-up in all studies

### <sup>a</sup> placebo-controlled comparisons:

cannabis sativa extract (n=125): Nurmikko et al. (2007); concomitant drugs permitted gabapentin (n=240): Gordh et al. (2008); no concomitant drugs permitted pregabalin (n=528): Lesser et al. (2004); Stacey et al. (2008); concomitant drugs permitted in one except gabapentin, oxycodone, local or topical anaesthetic, but SSRIs only in another studies

tramadol (n=90): Sindrup et al (1999); unclear if concomitant drugs permitted

### **Head-to-head comparisons:**

amitriptyline vs pregabalin (n=102): Bansal et al. (2009); concomitant drugs not permitted

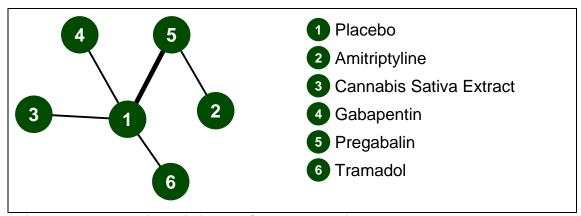


Figure 27 50% pain relief - 28 +/- 7 days - evidence network

<sup>&</sup>lt;sup>2</sup> I<sup>2</sup> was 0% for pregabalin vs placebo which may indicate that any inconsistency might not be important (heterogeneity not possible for comparisons with only one trial); no loops in networks so no possibility of inconsistency between direct and indirect estimates

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>4</sup> there is only one head-to-head trial; all but one 'link' in network includes only 1 trial; wide confidence intervals for the effect estimates of most interventions compared to placebo and for overall rankings within the network

Table 44 50% pain relief - 28 +/- 7 days - trials included in analysis

	Placebo	Amitriptyline	Cannabis Sativa Extract	Gabapentin	Pregabalin
Amitriptyline	-				
Cannabis Sativa Extract	1 RCT <sup>4</sup> total n=125	-			
Gabapentin	1 RCT <sup>2</sup> total n=240	-	-		
Pregabalin	2 RCTs <sup>3,6</sup> total n=528	1 RCT <sup>1</sup> total n=102	-	-	
Tramadol	1 RCT <sup>5</sup> total n=90	-	-	-	-

<sup>(1)</sup> Bansal et al. (2009); (2) Gordh et al. (2008); (3) Lesser et al. (2004); (4) Nurmikko et al. (2007); (5) Sindrup et al. (1999); (6) Stacey et al. (2008)

Table 45 50% pain relief - 28 +/- 7 days - relative effectiveness of all pairwise combinations

	Placebo	Amitriptylin e	Cannabis Sativa Extract	Gabapentin	Pregabalin	Tramadol
Placebo		-	2.96 (0.99, 8.90)	3.14 (1.34, 7.38)	3.67 (2.39, 5.63)	4.53 (1.17, 17.55)
Amitriptyline	2.17 (0.46, 10.10)		-	-	1.68 (0.74, 3.82)	-
Cannabis Sativa Extract	3.13 (0.71, 16.16)	1.45 (0.17, 13.41)		-	-	-
Gabapentin	3.23 (0.84, 13.50)	1.48 (0.20, 12.26)	1.03 (0.13, 8.06)		-	-
Pregabalin	3.70 (1.72, 8.09)	1.70 (0.45, 6.52)	1.18 (0.20, 6.35)	1.15 (0.22, 5.31)		
Tramadol	5.00 (0.95, 35.41)	2.33 (0.23, 27.76)	1.60 (0.16, 18.30)	1.55 (0.17, 16.95)	1.35 (0.22, 11.28)	

Values given are odds ratios.

The segment below and to the left of the shaded cells is derived from the network meta-analysis, reflecting direct and indirect evidence of treatment effects (row versus column). The point estimate reflects the mean of the posterior distribution, and numbers in parentheses are 95% credible intervals. The segment above and to the right of the shaded cells gives pooled direct evidence (random-effects pairwise meta-analysis), where available (column versus row). Numbers in parentheses are 95% confidence intervals.

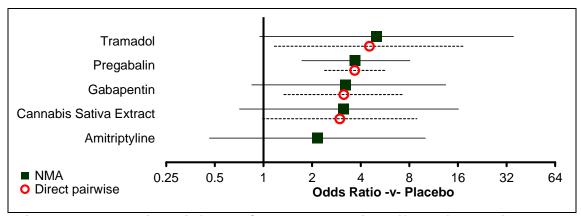


Figure 28 50% pain relief - 28 +/- 7 days - relative effect of all options compared with placebo

(values less than 1 favour placebo; values greater than 1 favour the treatment; solid error bars are 95% credible intervals while dashed error bars are 95% confidence intervals)

Table 46 50% pain relief - 28 +/- 7 days - rankings for each comparator

	Probability best	Median rank (95%CI)
Placebo	0.000	6 (4, 6)
Amitriptyline	0.056	4 (1, 6)
Cannabis Sativa Extract	0.184	3 (1, 6)
Gabapentin	0.165	3 (1, 6)
Pregabalin	0.133	3 (1, 5)
Tramadol	0.463	2 (1, 5)

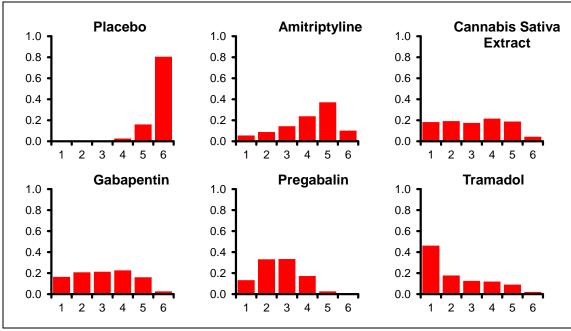


Figure 29 50% pain relief - 28 +/- 7 days - rank probability histograms

### Table 47 50% pain relief - 28 +/- 7 days - model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau-squared
12.9 (compared to 14 datapoints)	73.06	60.751	12.309	85.37	0.000 (95%CI: 0.000, 2.709)

### Table 48 50% pain relief - 28 +/- 7 days - notes

- Random-effects model was used.
- 10000 burn-ins and 50000 iterations.

# Summary GRADE profile 5b: Network meta-analysis for at least 50% pain relief (56 days +/-7 days)

Outcom e	Numbe r of Studie s	Limitation s	Inconsistenc y	Indirectnes s	Imprecisio n	Qualit y	Importanc e
≥ 50% pain relief on any scale (follow up 56 days)	7 RCTs <sup>a</sup> n=1235	serious <sup>1</sup>	not serious <sup>2</sup>	not serious <sup>3</sup>	very serious <sup>4</sup>	Very low	Important

groups were not comparable at baseline in one and it was unclear if treatment groups were comparable at baseline in 3; concomitant drugs permitted varies across the studies in the network

### <sup>a</sup> placebo-controlled comparisons:

gabapentin (n=334): Rice & Maton (2001); concomitant drugs except anti-convulsants, opioids, and capsaicin permitted

lamotrigine (n=34): Luria et al. (2000); concomitant drugs not permitted

pregabalin (n=797): Dworkin et al. (2003); Moon et al. (2010); Rosenstock et al. (2004); Sabatowski et al. (2004); only SSRIs permitted in one but concomitant drugs permitted in the others with the exception of anti-convulsants two

### Head-to-head comparisons:

nortriptyline vs gabapentin (n=70): Chandra et al. (2006); most concomitant drugs not permitted but unclear about anti-depressants

<sup>&</sup>lt;sup>2</sup> I<sup>2</sup> was 0% for pregabalin vs placebo which may indicate that any inconsistency might not be important (heterogeneity not possible for comparisons with only one trial); no loops in networks so no possibility of inconsistency between direct and indirect estimates

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>4</sup> there is only one head-to-head trial; most 'links' in network include only 1 trial; wide confidence intervals for the effect estimates of most interventions compared to placebo (particularly for lamotrigine and nortriptyline which is likely due to small studies) and for overall rankings within the network

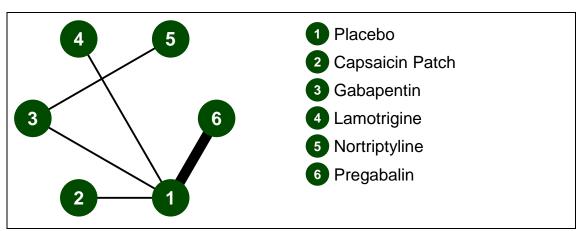


Figure 30 50% pain relief - 8 weeks - evidence network

Table 49 50% pain relief - 8 weeks - trials included in analysis

	Placebo	Capsaicin Patch	Gabapentin	Lamotrigine	Nortriptyline
Capsaicin Patch	1 RCT <sup>3</sup> total n=1127				
Gabapentin	1 RCT <sup>6</sup> total n=334	-			
Lamotrigine	1 RCT <sup>4</sup> total n=34	-	-		
Nortriptyline	-	-	1 RCT <sup>1</sup> total n=70	-	
Pregabalin	4 RCTs <sup>2,5,7,8</sup> total n=797	-	-	-	-

<sup>(1)</sup> Chandra et al. (2006); (2) Dworkin et al. (2003); (3) Irving et al. (2012); (4) Luria et al. (2000); (5) Moon et al. (2010); (6) Rice & Maton (2001); (7) Rosenstock et al. (2004); (8) Sabatowski et al. (2004)

Table 50 50% pain relief - 56 +/- 7 days - relative effectiveness of all pairwise combinations

	Placebo	Gabapentin	Lamotrigine	Nortriptyline	Pregabalin
Placebo			4.33 (0.91, 20.60)	-	3.13 (2.14, 4.56)
Gabapentin	2.78 (1.26, 6.44)		-	1.29 (0.42, 3.95)	-
Lamotrigine	1111 85	1.41 (0.25, 8.67)		-	-
Nortriptyline	100 80		0.92 (0.10, 8.41)		-
Pregabalin	ロン ハイ	-		0.89 (0.17, 4.30)	

Values given are odds ratios.

The segment below and to the left of the shaded cells is derived from the network meta-analysis, reflecting direct and indirect evidence of treatment effects (row versus column). The point estimate reflects the mean of the posterior distribution, and numbers in parentheses are 95% credible intervals. The segment above and to the right of the shaded cells gives pooled direct evidence (random-effects pairwise meta-analysis), where available (column versus row). Numbers in parentheses are 95% confidence intervals.

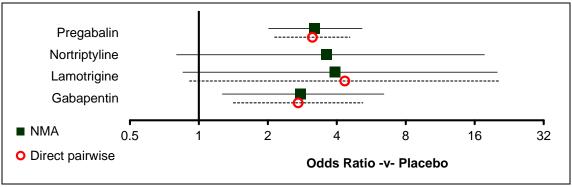


Figure 31 50% pain relief - 56 +/- 7 days - relative effect of all options compared with placebo

(values less than 1 favour placebo; values greater than 1 favour the treatment; solid error bars are 95% credible intervals while dashed error bars are 95% confidence intervals)

Table 51 50% pain relief - 56 +/- 7 days - rankings for each comparator

	Probability best	Median rank (95%CI)
Placebo	0.000	5 (4, 5)
Gabapentin	0.066	3 (1, 4)
Lamotrigine	0.424	2 (1, 5)
Nortriptyline	0.348	2 (1, 5)
Pregabalin	0.163	3 (1, 4)

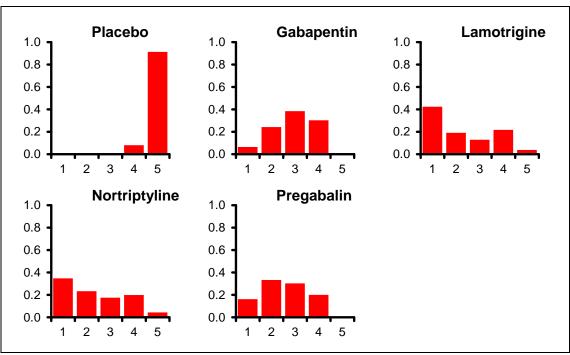


Figure 32 50% pain relief - 56 +/- 7 days - rank probability histograms

Table 52 50% pain relief - 56 +/- 7 days - model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau-squared
14.88	85.773	72 656	12 116	00 000	0.000 (95%CI: 0.000, 0.550)
(compared to 16 datapoints)	00.773	72.000	13.110	90.009	0.000 (95%C1. 0.000, 0.550)

## Table 53 50% pain relief - 56 +/- 7 days - notes

- Random-effects model was used.
- 10000 burn-ins and 50000 iterations.
- McCleane (1999) was removed from the synthesis because both arms were zero.
- Model convergence: autocorrelation relatively poor for lamotrigine because of low event rates.

# Summary GRADE profile 5c: Network meta-analysis for at least 50% pain relief (84 days +/-14 days)

Outcom e	Numbe r of Studie s	Limitation s	Inconsistenc y	Indirectnes s	Imprecisio n	Qualit y	Importanc e
≥ 50% pain relief on any scale (follow up 84 days)	14 RCTs <sup>a</sup> n=4602	serious <sup>1</sup>	serious <sup>2</sup>	not serious <sup>3</sup>	serious <sup>4</sup>	Very low	Important

<sup>&</sup>lt;sup>1</sup> group were not comparable at baseline in 2 studies and it was unclear if they were comparable in 7; concomitant drugs permitted varies across the studies in the network

duloxetine (n= 1692): Gao et al. (2010), Goldstein et al. (2005), Raskin et al. (2005); Wernicke et al. (2006), Yasuda et al. (2011); concomitant drugs not permitted in four, but one of these is unclear about anti-depressant usage; unclear about concomitants in the other (the study only said that MAO inhibitors were permitted)

pregabalin (n=1717): Freynhagen et al. (2005), Satoh et al. (2011), Tolle et al. (2008), Simpson et al. (2010), van Seventer et al. (2006); unclear about concomitant drugs permitted in one but permitted in the remaining – two with the exception of anti-convulsants, two with the exception of gabapentin and SSRIs only in the two

topiramate (n=323): Raskin et al. (2004); SSRIs only

[all compared to placebo]

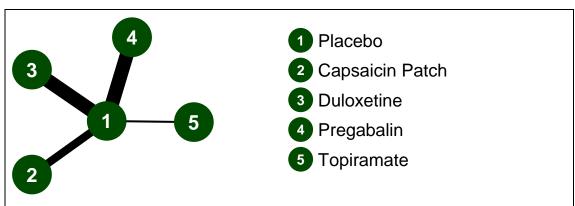


Figure 33 50% pain relief - 84 +/- 12 days - evidence network

<sup>&</sup>lt;sup>2</sup> I<sup>2</sup> was 74%, 53%, and 30% for pregabalin, duloxetine, and capsaicin patch vs placebo, respectively which may indicate considerable, substantial, and moderate heterogeneity, respectively; no loops in networks so no possibility of inconsistency between direct and indirect estimates

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>4</sup> there are no head-to-head trials; wide confidence intervals for the overall ranking within the network

<sup>&</sup>lt;sup>a</sup> capsaicin patch (n=870): Irving et al. (2011), Webster et al. (2010), Webster et al. (2010); concomitant drugs except topical medications permitted

Table 54 50% pain relief - 84 +/- 12 days - trials included in analysis

	Placebo	Capsaicin Patch	Duloxetine	Pregabalin
Capsaicin Patch	3 RCTs <sup>4,11,12</sup> total n=870			
Duloxetine	5 RCTs <sup>2,3,6,13,14</sup> total n=1692	-		
Pregabalin	5 RCTs <sup>1,7,8,9,10</sup> total n=1717	-	-	
Topiramate	1 RCT <sup>5</sup> total n=323	-	-	-

<sup>(1)</sup> Freynhagen et al. (2005); (2) Gao et al. (2010); (3) Goldstein et al. (2005); (4) Irving et al. (2011); (5) Raskin et al. (2004); (6) Raskin et al. (2005); (7) Satoh et al. (2011); (8) Simpson et al. (2010); (9) Tolle et al. (2008); (10) van Seventer et al. (2006); (11) Webster et al. (2010); (12) Webster et al. (2010); (13) Wernicke et al. (2006); (14) Yasuda et al. (2011)

Table 55 50% pain relief - 84 +/- 12 days - relative effectiveness of all pairwise combinations

	Placebo	Capsaicin Patch	Duloxetine	Pregabalin	Topiramate
Placebo		1.65 (1.08, 2.54)	2.27 (1.65, 3.13)	1.80 (1.05, 3.09)	1.98 (1.15, 3.39)
Capsaicin Patch	1.72 (1.06, 2.86)		-	-	-
Duloxetine	2.33 (1.68, 3.25)	1.35 (0.74, 2.44)		-	-
Pregabalin	1.76 (1.25, 2.58)	1.02 (0.56, 1.90)	0.76 (0.47, 1.26)		-
Topiramate	2.00 (0.88, 4.62)	1.16 (0.44, 3.04)	0.86 (0.35, 2.12)	1.14 (0.45, 2.76)	

Values given are odds ratios.

The segment below and to the left of the shaded cells is derived from the network meta-analysis, reflecting direct and indirect evidence of treatment effects (row versus column). The point estimate reflects the mean of the posterior distribution, and numbers in parentheses are 95% credible intervals. The segment above and to the right of the shaded cells gives pooled direct evidence (random-effects pairwise meta-analysis), where available (column versus row). Numbers in parentheses are 95% confidence intervals.

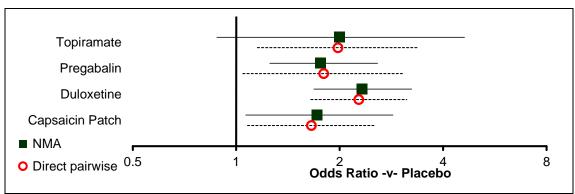


Figure 34 50% pain relief - 84 +/- 12 days - relative effect of all options compared with placebo

(values less than 1 favour placebo; values greater than 1 favour the treatment; solid error bars are 95% credible intervals while dashed error bars are 95% confidence intervals)

Table 56 50% pain relief - 84 +/- 12 days - rankings for each comparator

	Probability best	Median rank (95%CI)
Placebo	0.000	5 (4, 5)
Capsaicin Patch	0.090	3 (1, 4)
Duloxetine	0.521	1 (1, 4)
Pregabalin	0.061	3 (1, 4)
Topiramate	0.328	2 (1, 5)

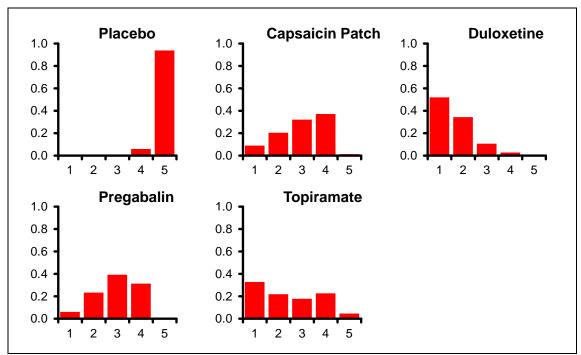


Figure 35 50% pain relief - 84 +/- 12 days - rank probability histograms

Table 57 50% pain relief - 84 +/- 12 days - model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau-squared
43.08	243.534	214 024	20.51	273 044	0.000 (95%CI: 0.007, 0.269)
(compared to 41 datapoints)	240.004	214.024	29.51	213.044	0.000 (33/001. 0.007, 0.209)

## Table 58 50% pain relief - 84 +/- 12 days - notes

- Random-effects model was used, with 0.5 added to cells of trials with 1 or more zero cell-count.
- 10000 burn-ins and 50000 iterations.

# Summary GRADE profile 6a: Network meta-analysis for pain relief on normalised 10-point scale (28 +/- 7 days)

Outcome	Numbe r of Studie s	Limitation s	Inconsistenc y	Indirectnes s	Imprecisio n	Qualit y	Importanc e
Pain relief on normalise d 10-point scale (follow up 28 days)	22 RCTs <sup>a</sup> n=3152	very serious <sup>1</sup>	serious <sup>2</sup>	not serious <sup>3</sup>	very serious <sup>4</sup>	Very low	Important

<sup>1</sup> over half of the studies were unclear about allocation concealment; groups were not comparable at baseline in 2 studies and it was unclear if they were comparable in 17 others; over half of the studies had inadequate follow-up; concomitant drugs permitted varies across the studies in the network

#### a Placebo-controlled trials

amitriptyline (n=88): Kalso et al. (1995), Vrethem et al. (1997) (both with and without diabetes); concomitant drugs allowed in one and unclear in one

cannabis sativa extract (n=125): Nurmikko et al. (2007); concomitant drugs permitted escitalopram (n=82): Otto et al. (2008); concomitant drugs not permitted

gabapentin (n=620): Backonja et al. (1998), Gordh et al. (2008), Mishra et al. (2012), Rao et al. (2007), Rice & Maton (2001); concomitant drug not permitted in one and permitted in four (only tricyclics in one, SSRIs in another, most excluded from one but permitted if investigator considered necessary)

imipramine (n=64): Sindrup et al. (2003); unclear if concomitant drugs permitted

lamotrigine (n=125): Rao et al. (2008); concomitant drugs not permitted

lidocaine (n=28): Cheville et al. (2009); concomitant drugs not permitted

oxcarbazepine (n=146): Dogra et al. (2005); SSRIs only

oxycodone (n=159): Gimbel et al. (2003); unclear if concomitant drugs permitted

pregabalin (n=625): Guan et al. (2011), Lesser et al. (2004); SSRIs only

valproate (n=91): Kochar et al. (2002), Kochar et al. (2004); unclear if concomitant drugs permitted topiramate (n=317): Raskin et al. (2004); SSRIs only

tramadol (n=176): Boureau et al. (2003), Sindrup et al. (1999); unclear if concomitant drugs permitted in one and not permitted in the other

venlafaxine (n=64): Sindrup et al. (2003); unclear if concomitant drugs permitted

#### Head-to-head trials

gabapentin+nortriptyline vs gabapentin vs nortriptyline (n=96): Gilron et al. (2012); concomitant opioids permitted in stable doses but tricyclics, gabapentin, pregabalin excluded

gabapentin+oxycodone vs gabapentin (n=328): Hanna et al. (2008); concomitant drugs permitted venlafaxine vs imipramine (n=64): Sindrup et al. (2003); unclear if concomitant drugs permitted

<sup>&</sup>lt;sup>2</sup> I<sup>2</sup> was 83, 74, 76 and 29% for amitriptyline, gabapentin, pregabalin, tramadol vs placebo, respectively which may indicate substantial heterogeneity in the first 3 comparisons but might not be important in the last; the network is not susceptible to inconsistency because the only loops are from multi-armed trials

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>4</sup> the majority of links in the network are connected by only one study; wide confidence intervals in the overall rankings in the network

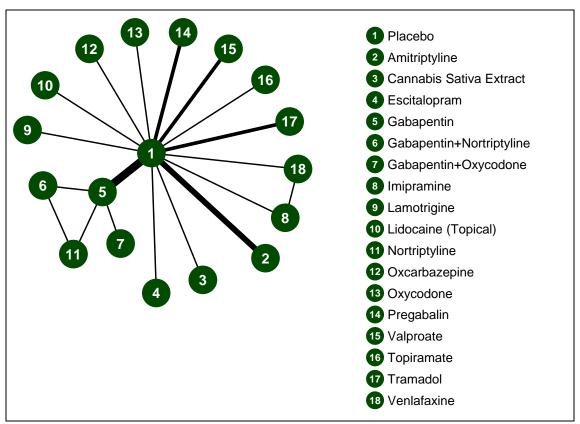


Figure 36 pain (continuous) - 28 +/- 7 days - evidence network

Table 59 pain (continuous) - 28 +/- 7 days - trials included in analysis

	Placebo	Amitriptyline	Cannabis Sativa Extract	Escitalopram	Gabapentin	Gabapentin +Nortriptyline	Gabapentin +Oxycodone	Imipramine	Lamotrigine	Lidocaine (Topical)	Nortriptyline	Oxcarbazepine	Oxycodone	Pregabalin	Valproate	Topiramate	Tramadol
Amitriptyline	3 RCTs <sup>10,22,22</sup> total n=88																
Cannabis Sativa Extract	1 RCT <sup>14</sup> total n=125	-															
Escitalopram	1 RCT <sup>15</sup> total n=82	-	-														
Gabapentin	4 RCTs <sup>1,7,16,19</sup> total n=620	-	-	-													
Gabapentin +Nortriptyline	-	-	-	-	1 RCT <sup>5</sup> total n=96												
Gabapentin +Oxycodone	-	-	-	-	1 RCT <sup>9</sup> total n=328	-											
Imipramine	1 RCT <sup>21</sup> total n=64	-	-	-	-	-	-										
Lamotrigine	1 RCT <sup>17</sup> total n=125	-	-	-	-	-	-	-									
Lidocaine (Topical)	1 RCT <sup>3</sup> total n=28	-	-	-	-	-	-	-	-								
Nortriptyline	-	-	-	-	total	1 RCT <sup>5</sup> total n=100	-	-	-	-							
Oxcarbazepine	1 RCT <sup>4</sup> total n=146	-	-	-	-	-	-	-	-	-	-						

	Placebo	Amitriptyline	Cannabis Sativa Extract	Escitalopram	Gabapentin	Gabapentin +Nortriptyline	Gabapentin +Oxycodone	Imipramine	Lamotrigine	Lidocaine (Topical)	Nortriptyline	Oxcarbazepine	Oxycodone	Pregabalin	Valproate	Topiramate	Tramadol
Oxycodone	1 RCT <sup>6</sup> total n=159	-	-	-	-	-	-	-	-	-	-	-					
Pregabalin	2 RCTs <sup>8,13</sup> total n=625	-	-	-	-	-	-	-	-	-	-	-	-				
Valproate	2 RCTs <sup>11,12</sup> total n=91	-	-	-	-	-	-	-	-	-	-	-	-	-			
Topiramate	1 RCT <sup>18</sup> total n=317	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Tramadol	2 RCTs <sup>2,20</sup> total n=176	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Venlafaxine	1 RCT <sup>21</sup> total n=64	-	-	-	-	-		1 RCT <sup>21</sup> total n=64	-	-	-	-	-	-	-	-	-

<sup>(1)</sup> Backonja et al. (1998); (2) Boureau et al. (2003); (3) Cheville et al. (2009); (4) Dogra et al. (2005); (5) Gilron et al. (2012); (6) Gimbel et al. (2003); (7) Gordh et al. (2008); (8) Guan et al. (2011); (9) Hanna et al. (2008); (10) Kalso et al. (1995); (11) Kochar et al. (2002); (12) Kochar et al. (2004); (13) Lesser et al. (2004); (14) Nurmikko et al. (2007); (15) Otto et al. (2008); (16) Rao et al. (2007); (17) Rao et al. (2008); (18) Raskin et al. (2004); (19) Rice & Maton (2001); (20) Sindrup et al. (1999); (21) Sindrup et al. (2003); (22) Vrethem et al. (1997)

Table 60 pain (continuous) - 28 +/- 7 days - relative effectiveness of all pairwise combinations

	Placebo	Amitriptyline	Cannabis Sativa Extract	Escitalopram	Gabapentin	Gabapentin +Nortriptyline	Gabapentin +Oxycodone	Imipramine	Lamotrigine	Lidocaine (Topical)	Nortriptyline	Oxcarbazepine	Oxycodone	Pregabalin	Valproate	Topiramate	Tramadol	Venlafaxine
Placebo		-1.51 (-2.64, - 0.38)	-1.10 (-1.72, - 0.48)	-1.00 (-1.59, - 0.41)	-0.70 (-1.17, - 0.22)	-	-	-1.30 (-2.06, - 0.54)	0.35 (-0.34, 1.04)	0.10 (-0.81, 1.01)	-	-0.72 (-1.20, - 0.24)	-0.70 (-1.16, - 0.24)	-0.51 (-0.93, - 0.09)	-1.34 (-2.01, - 0.66)	-0.18 (-0.51, 0.16)	-1.18 (-1.83, - 0.53)	-1.00 (-1.76, - 0.24)
Amitriptyline	-1.53 (-2.37, - 0.67)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cannabis Sativa Extract	(-2.47,	0.42 (-1.20, 2.03)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Escitalopram	(-2.37,		0.10 (-1.84, 2.04)		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gabapentin	-0.73 (-1.35, - 0.06)	0.80 (-0.25, 1.87)	0.38 (-1.13, 1.92)	0.28 (-1.21, 1.82)			-0.80 (-1.22, - 0.38)	-	-	-	-0.30 (-0.84, 0.24)	-	-	-	-	-	-	-
Gabapentin +Nortriptyline	-1.62 (-3.12, - 0.11)	-0.10 (-1.82, 1.64)	-0.52 (-2.54, 1.53)	-0.62 (-2.64, 1.43)	-0.90 (-2.25, 0.45)		-	-	-	-	0.60 (0.17, 1.03)	-	-	-	-	-	-	-
Gabapentin +Oxycodone	-1.53 (-2.97, - 0.05)	0.00 (-1.67, 1.70)	-0.43 (-2.41, 1.61)	-0.53 (-2.48, 1.49)	-0.80 (-2.11, 0.51)	0.10 (-1.80, 1.99)		-	-	-	-	-	-	-	-	-	-	-
Imipramine	-1.30 (-2.74, 0.14)	0.23 (-1.45, 1.89)	-0.20 (-2.19, 1.80)	-0.29 (-2.28, 1.69)	-0.57 (-2.17, 0.98)	(-1.78,	0.23 (-1.85, 2.26)		-	-	-	-	-	-	-	-	-	0.30 (-0.56, 1.16)
Lamotrigine	0.35 (-1.08, 1.76)	1.88 (0.21, 3.52)	1.46 (-0.53, 3.41)	1.36 (-0.62, 3.32)	1.08 (-0.51, 2.61)		1.88 (-0.18, 3.89)	1.65 (-0.39, 3.67)		-	-	-	-	-	-	-	-	-

	Placebo	Amitriptyline	Cannabis Sativa Extract	Escitalopram	Gabapentin	Gabapentin +Nortriptyline	Gabapentin +Oxycodone	Imipramine	Lamotrigine	Lidocaine (Topical)	Nortriptyline	Oxcarbazepine	Oxycodone	Pregabalin	Valproate	Topiramate	Tramadol	Venlafaxine
Lidocaine (Topical)	0.10 (-1.42, 1.62)	1.63 (-0.12, 3.36)	1.20 (-0.85, 3.26)	1.10 (-0.93, 3.13)	0.82 (-0.85, 2.46)	1.72 (-0.43, 3.84)	1.62 (-0.49, 3.72)	1.40 (-0.70, 3.50)	-0.25 (-2.33, 1.84)		-	-	-	-	-	-	-	-
Nortriptyline		0.51 (-1.22, 2.24)	0.08 (-1.93, 2.14)	-0.02 (-2.03, 2.03)	-0.29 (-1.66, 1.05)	0.60 (-0.71, 1.92)	0.51 (-1.38, 2.39)	0.27 (-1.79, 2.37)	-1.37 (-3.41, 0.71)	-1.12 (-3.24, 1.04)		-	-	-	-	-	-	-
Oxcarbazepine		0.81 (-0.77, 2.38)	0.39 (-1.52, 2.29)	0.28 (-1.61, 2.19)	0.01 (-1.49, 1.46)	0.91 (-1.11, 2.90)	0.81 (-1.18, 2.76)	0.58 (-1.37, 2.55)	-1.07 (-3.01, 0.89)	-0.81 (-2.83, 1.21)	0.30 (-1.72, 2.30)		-	-	-	-	-	-
Oxycodone	-0.70 (-2.02, 0.62)	0.82 (-0.74, 2.39)	0.40 (-1.51, 2.31)	0.30 (-1.60, 2.20)	0.02 (-1.47, 1.47)	0.92 (-1.09, 2.91)	0.82 (-1.17, 2.78)	0.59 (-1.36, 2.55)	-1.06 (-2.98, 0.89)	-0.80 (-2.81, 1.22)	0.32 (-1.69, 2.30)	0.02 (-1.86, 1.89)		-	-	-	-	-
Pregabalin	(-1.37,	0.98 (-0.21, 2.14)	0.55 (-1.05, 2.15)	0.46 (-1.14, 2.04)	0.18 (-0.89, 1.19)	1.07 (-0.64, 2.76)	0.98 (-0.72, 2.62)	0.75 (-0.90, 2.40)	-0.90 (-2.54, 0.74)	-0.65 (-2.38, 1.08)	0.47 (-1.25, 2.16)	0.17 (-1.39, 1.74)	0.15 (-1.40, 1.70)		-	-	-	-
Valproate	-1.42 (-2.76, - 0.15)	0.11 (-1.48, 1.61)	-0.32 (-2.25, 1.53)	-0.41 (-2.32, 1.42)	-0.69 (-2.20, 0.70)	0.21 (-1.84, 2.14)	0.11 (-1.90, 2.00)	-0.12 (-2.10, 1.78)	-1.77 (-3.71, 0.12)	-1.52 (-3.54, 0.44)	-0.40 (-2.43, 1.53)	-0.70 (-2.60, 1.10)	-0.71 (-2.61, 1.10)	-0.87 (-2.44, 0.62)		-	-	-
Topiramate	-0.18 (-1.48, 1.12)	1.35 (-0.21, 2.88)	0.92 (-0.97, 2.81)	0.82 (-1.06, 2.70)	0.55 (-0.92, 1.97)	1.45 (-0.55, 3.40)	1.35 (-0.62, 3.27)	1.12 (-0.82, 3.06)	-0.53 (-2.44, 1.39)	-0.28 (-2.27, 1.72)	0.84 (-1.16, 2.80)	0.54 (-1.32, 2.39)	0.53 (-1.33, 2.37)		1.24 (-0.54, 3.12)		-	-
Tramadol	-1.24 (-2.31, - 0.24)	0.28 (-1.10, 1.59)	-0.14 (-1.89, 1.55)	-0.24 (-1.98, 1.43)	-0.51 (-1.80, 0.66)	0.38 (-1.49, 2.16)	0.29 (-1.56, 2.01)	0.05 (-1.75, 1.80)	-1.60 (-3.37, 0.14)	-1.35 (-3.21, 0.49)	-0.22 (-2.10, 1.55)	-0.52 (-2.25, 1.13)	-0.54 (-2.25, 1.10)	-0.69 (-2.04, 0.59)	0.17 (-1.47, 1.83)	-1.06 (-2.76, 0.56)		-
Venlafaxine		0.53 (-1.14, 2.19)	0.10 (-1.89, 2.09)	0.00 (-1.99, 1.99)		0.62 (-1.48, 2.69)	0.53 (-1.55, 2.56)	0.30 (-1.20, 1.79)	-1.35 (-3.37, 0.69)	-1.10 (-3.19, 1.00)	0.02 (-2.07, 2.09)	-0.28 (-2.25, 1.68)	-0.30 (-2.26, 1.66)	(-2.10,	0.42 (-1.48, 2.40)	-0.82 (-2.76, 1.12)	0.24 (-1.49, 2.05)	

Values given are mean differences.

The segment below and to the left of the shaded cells is derived from the network meta-analysis, reflecting direct and indirect evidence of treatment effects (row versus

Topiramate Tramadol	Valproate	Oxycodone	Oxcarbazepine	Nortriptyline	Lidocaine (Topical)	Lamotrigine	Imipramine	Gabapentin +Oxycodone	Gabapentin +Nortriptyline	Gabapentin	Escitalopram	Cannabis Sativa Extract	Amitriptyline	Placebo		
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column). The point estimate reflects the mean of the posterior distribution, and numbers in parentheses are 95% credible intervals. The segment above and to the right of the shaded cells gives pooled direct evidence (random-effects pairwise meta-analysis), where available (column versus row). Numbers in parentheses are 95% confidence intervals.

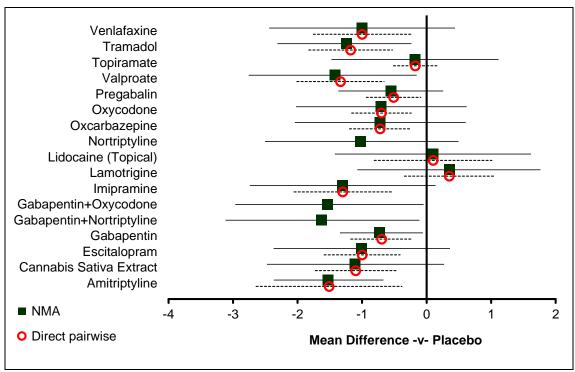


Figure 37 pain (continuous) - 28 +/- 7 days - relative effect of all options compared with placebo

(values less than 0 favour the treatment; values greater than 0 favour placebo; solid error bars are 95% credible intervals while dashed error bars are 95% confidence intervals)

Table 61 pain (continuous) - 28 +/- 7 days - rankings for each comparator

	Probability best	Median rank (95%CI)
Placebo	0.000	16 (13, 18)
Amitriptyline	0.101	4 (1, 11)
Cannabis Sativa Extract	0.058	7 (1, 17)
Escitalopram	0.043	8 (1, 17)
Gabapentin	0.000	11 (6, 15)
Gabapentin+Nortriptyline	0.228	4 (1, 14)
Gabapentin+Oxycodone	0.178	4 (1, 15)
Imipramine	0.107	6 (1, 16)
Lamotrigine	0.001	17 (8, 18)
Lidocaine (Topical)	0.002	16 (5, 18)
Nortriptyline	0.026	8 (1, 17)
Oxcarbazepine	0.016	11 (2, 18)
Oxycodone	0.015	11 (2, 18)
Pregabalin	0.001	12 (5, 17)
Valproate	0.132	5 (1, 15)
Topiramate	0.003	15 (5, 18)
Tramadol	0.048	6 (1, 14)
Venlafaxine	0.041	8 (1, 17)

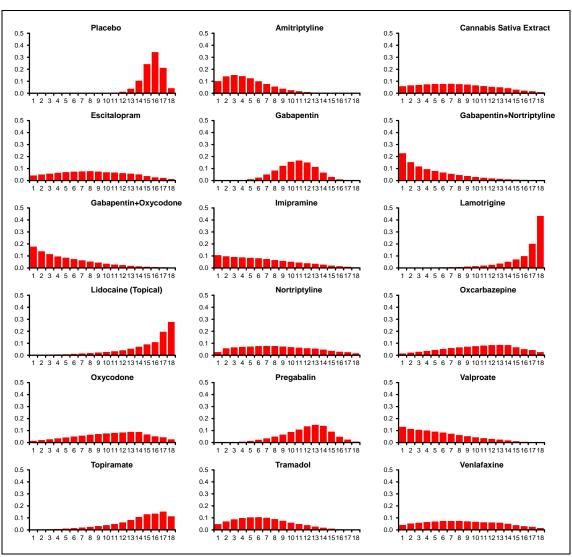


Figure 38 pain (continuous) - 28 +/- 7 days - rank probability histograms

Table 62 pain (continuous) - 28 +/- 7 days - model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau-squared
51.72	-12.51	61 005	19 106	25.096	0.240 (95%Crl: 0.081, 1.138)
(compared to 51 data-points)	-12.51	-01.003	40.490	33.900	0.240 (93 %CH. 0.081, 1.138)

## Table 63 pain (continuous) - 28 +/- 7 days - notes

- Random-effects model was used.
- 10000 burn-ins and 50000 iterations.
- Vrethem (1997) reported this outcome separately in those with and without diabetes – both arms are included here since the study did not report this outcome for both of these groups separately.

# Summary GRADE profile 6b: Network meta-analysis for pain relief on normalised 10-point scale (56 +/- 7d)

Outcome	Numbe r of Studie s	Limitation s	Inconsistenc y	Indirectnes s	Imprecisio n	Qualit y	Importanc e
Pain relief on normalise d 10-point scale (follow up 56 days)	17 RCTs <sup>a</sup> n=2750	very serious <sup>1</sup>	serious <sup>2</sup>	not serious <sup>3</sup>	serious <sup>4</sup>	very low	Important

<sup>1</sup> over half of the studies were unclear about allocation concealment; groups were not comparable at baseline in 4 studies and it was unclear if they were comparable in 7 others; concomitant drugs permitted varies across the studies in the network

#### <sup>a</sup> Placebo-controlled trials

amitriptyline (n=24): Graff-Radford et al. (2000), unclear if concomitant drugs were permitted in one gabapentin (n=632): Backonja et al. (1998), Rice & Maton (2001), Rowbotham et al. (1998); concomitant drugs permitted (but only SSRIs in one)

lamotrigine (n=212): Eisenberg et al. (2001), Luria et al. (2000), Rao et al. (2008); concomitant drugs not permitted

oxcarbazepine (n=146): Dogra et al. (2005); SSRIs only

pregabalin (n=749): Guan et al. (2011), Moon et al. (2010), Sabatowski et al. (2004); concomitant drugs permitted (but only SSRIs in one)

valproate (n=40): Kochar et al. (2005); no concomitant drugs permitted

topiramate (n=317): Raskin et al. (2004); SSRIs only

capsaicin cream (n=20): Tandan et al. (1992); concomitant drugs other than topical medications permitted

#### Head-to-head trials

gabapentin+oxycodone vs gabapentin (n=328): Hanna et al. (2008); concomitant drugs permitted nortriptyline vs gabapentin (n=70): Chandra et al. (2006); unclear if concomitant drugs permitted capsaicin cream vs amitriptyline (n=212); Biesbroeck et al. (1995); concomitant drugs permitted except tricyclics and topical medications

amitriptyline vs gabapentin (n=44): Rintala et al. (2007); concomitant drugs were not permitted but oxycodone was used as a rescue medication (this is in the scope of the guideline for the use in NP so considered a concomitant medication)

<sup>&</sup>lt;sup>2</sup> I<sup>2</sup> was 90 for pregabalin vs placebo which may indicate considerable heterogeneity; I<sup>2</sup> was 41% for gabapentin vs placebo which may indicate moderate inconsistency; there did not appear to be differences between indirect and direct comparisons

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>4</sup> the majority of links in the network are connected by only one study; only one head-to-head trial; wide confidence intervals in the overall ranking in the network

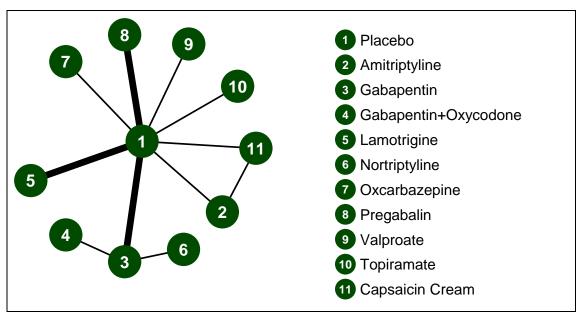


Figure 39 pain (continuous) - 56 +/- 7 days - evidence network

Table 64 pain (continuous) - 56 +/- 7 days - trials included in analysis

Table 04 pain (c	,									
	Placebo	Amitriptyline	Gabapentin	Gabapentin +Oxycodone	Lamotrigine	Nortriptyline	Oxcarbazepine	Pregabalin	Valproate	Topiramate
Amitriptyline	1 RCT <sup>6</sup> total n=24									
Gabapentin	3 RCTs <sup>1,14,15</sup> total n=632	-								
Gabapentin +Oxycodone	-	-	1 RCT <sup>8</sup> total n=328							
Lamotrigine	3 RCTs <sup>5,10,12</sup> total n=212	-	-	-						
Nortriptyline	-	-	1 RCT <sup>3</sup> total n=70	-	-					
Oxcarbazepine	1 RCT <sup>4</sup> total n=146	-	-	-	-	-				
Pregabalin	3 RCTs <sup>7,11,16</sup> total n=749	-	-	-	-	-	-			
Valproate	1 RCT <sup>9</sup> total n=40	-	-	-	-	-	-	-		
Topiramate	1 RCT <sup>13</sup> total n=317	-	-	-	-	-	-	-	-	
Capsaicin Cream	1 RCT <sup>17</sup> total n=20	1 RCT <sup>2</sup> total n=212	-	-	-	-	-	-	-	-

<sup>(1)</sup> Backonja et al. (1998); (2) Biesbroeck et al. (1995); (3) Chandra et al. (2006); (4) Dogra et al. (2005); (5) Eisenberg et al. (2001); (6) Graff-Radford et al. (2000); (7) Guan et al. (2011); (8) Hanna et al. (2008); (9) Kochar et al. (2005); (10) Luria et al. (2000); (11) Moon et al. (2010); (12) Rao et al. (2008); (13) Raskin et al. (2004); (14) Rice & Maton (2001); (15) Rowbotham et al. (1998); (16) Sabatowski et al. (2004); (17) Tandan et al. (1992)

Table 65 pain (continuous) - 56 +/- 7 days - relative effectiveness of all pairwise combinations

		=								
Placebo	Amitriptyline	Gabapentin	Gabapentin +Oxycodone	Lamotrigine	Nortriptyline	Oxcarbazepine	Pregabalin	Valproate	Topiramate	Capsaicin Cream
	-2.39 (-3.82, -0.96)	-1.29 (-1.68, -0.89)	-	-0.97 (-1.20, -0.74)	-	-0.92 (-1.60, -0.24)	-0.92 (-1.70, -0.13)	-2.54 (-3.57, -1.51)	-0.66 (-1.14, -0.18)	-1.19 (-2.59, 0.21)
-2.00 (-3.37, -0.65)		-	-	-	-	-	-	-		0.30 (0.22, 0.38)
			-0.80 (-1.31, -0.29)	-	-0.21 (-1.05, 0.63)	-	-	-	-	-
		-0.80 (-2.02, 0.42)		-	-	-	-	-	-	-
		0.38 (-0.67, 1.42)	1.19 (-0.44, 2.79)		-	-	-	-	-	-
				-0.58 (-2.32, 1.14)		-	-	-	-	-
		0.35 (-1.12, 1.82)	1.16 (-0.76, 3.04)	-0.03 (-1.55, 1.49)	0.56 (-1.45, 2.57)		-	-	-	-
	-	0.30 (-0.68, 1.23)	1.10 (-0.48, 2.62)	-0.08 (-1.13, 0.93)	0.50 (-1.19, 2.16)	-0.06 (-1.53, 1.40)		-	-	-
-2.54 (-4.04, -1.04)	-0.54 (-2.57, 1.49)	-1.27 (-2.92, 0.37)	-0.46 (-2.53, 1.58)	-1.65 (-3.36, 0.05)	-1.06 (-3.23, 1.09)	-1.62 (-3.61, 0.36)	-1.57 (-3.21, 0.08)		-	-
-0.66 (-1.87, 0.56)	1.34 (-0.46, 3.17)	0.61 (-0.79, 1.99)	1.42 (-0.46, 3.24)	0.23 (-1.22, 1.68)			0.31 (-1.05, 1.71)	1.88 (-0.05, 3.82)		-
				-0.68 (-2.26, 0.88)	-0.10 (-2.15, 1.97)	-0.66 (-2.52, 1.23)	-0.60 (-2.09, 0.93)	0.96 (-1.06, 3.02)	-0.92 (-2.72, 0.91)	
	-2.00 (-3.37, -0.65) -1.28 (-1.95, -0.59) -2.08 (-3.45, -0.66) -0.89 (-1.68, -0.10) -1.48 (-3.01, 0.06) -0.92 (-2.23, 0.38) -0.98 (-1.65, -0.33) -2.54 (-4.04, -1.04) -0.66 (-1.87, 0.56)	-2.39 (-3.82, -0.96)  -2.00 (-3.37, -0.65)  -1.28	-2.39	-2.39	-2.39	-2.39	-2.39	-2.39	-2.39	-2.39

Values given are mean differences.

The segment below and to the left of the shaded cells is derived from the network meta-analysis, reflecting direct and indirect evidence of treatment effects (row versus column). The point estimate reflects the mean of the posterior distribution, and numbers in parentheses are 95% credible intervals. The segment above and to the right of the shaded cells gives pooled direct evidence (random-effects pairwise meta-analysis), where available (column versus row). Numbers in parentheses are 95% confidence intervals.

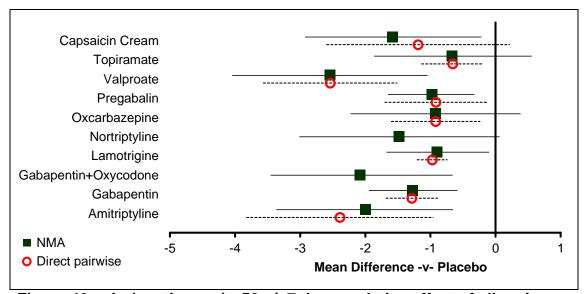


Figure 40 pain (continuous) - 56 +/- 7 days - relative effect of all options compared with placebo

(values less than 0 favour the treatment; values greater than 0 favour placebo; solid error bars are 95% credible intervals while dashed error bars are 95% confidence intervals)

Table 66 pain (continuous) - 56 +/- 7 days - rankings for each comparator

	Probability best	Median rank (95%CI)
Placebo	0.000	11 (9, 11)
Amitriptyline	0.170	3 (1, 8)
Gabapentin	0.000	6 (3, 9)
Gabapentin+Oxycodone	0.205	3 (1, 8)
Lamotrigine	0.001	8 (4, 10)
Nortriptyline	0.058	5 (1, 10)
Oxcarbazepine	0.009	8 (2, 11)
Pregabalin	0.001	7 (4, 10)
Valproate	0.526	1 (1, 7)
Topiramate	0.003	9 (3, 11)
Capsaicin Cream	0.028	4 (1, 10)

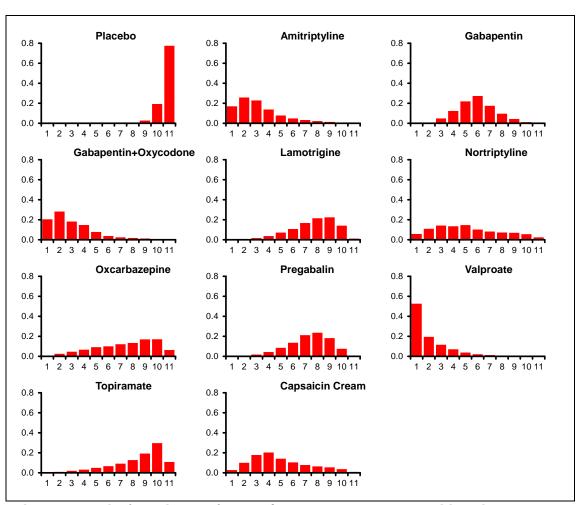


Figure 41 pain (continuous) - 56 +/- 7 days - rank probability histograms

Table 67 pain (continuous) - 56 +/- 7 days - model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau-squared
35.76					
(compared to 36 data-points)	-12.141	-45.695	33.554	21.413	0.170 (95%Crl: 0.051, 1.005)

## Table 68 pain (continuous) - 56 +/- 7 days - notes

- · Random-effects model was used.
- 10000 burn-ins and 50000 iterations.

# Summary GRADE profile 6c: Network meta-analysis for pain relief on normalised 10-point scale (84 +/- 14days)

Outcome	Numbe r of Studie s	Limitation s	Inconsistenc y	Indirectnes s	Imprecisio n	Qualit y	Importanc e
Pain relief on normalise d 10-point scale (follow up 84 days)	13 RCTs <sup>a</sup> n=2833	very serious <sup>1</sup>	serious <sup>2</sup>	not serious <sup>3</sup>	very serious <sup>4</sup>	Very low	Important

<sup>&</sup>lt;sup>1</sup> over half of the studies were unclear about allocation concealment; groups were not comparable at baseline in 2 studies and it was unclear if they were comparable in 7 others; baseline severity and concomitant drugs permitted varies across the studies in the network

<sup>a</sup> cannabis sativa extract (n=30): Selvarajah et al. (2010); concomitant drugs permitted duloxetine (n=1352): Goldstein et al. (2005), Raskin et al. (2005), Wernicke et al. (2006), Yasuda et al. (2011); concomitant drugs not permitted in 3 and unclear if permitted in the other

lacosamide (n=119): Rauck et al. (2007); only SSRIs permitted but others were permitted during the trial if the investigator considered it necessary

lamotrigine (n=125): Rao et al. (2008); concomitant drugs not permitted

oxcarbazepine (n=146): Dogra et al. (2005); SSRIs only

pregabalin (n=665): Simpson et al. (2010), van Seventer et al. (2006); concomitant drugs permitted in both but anti-convulsants excluded in one

valproate (n=79): Agrawal et al. (2009), Kochar et al. (2004); concomitant drugs not permitted and unclear in the other

topiramate (n=317): Raskin et al. (2004); SSRIs only

[all compared to placebo]

<sup>&</sup>lt;sup>2</sup> I<sup>2</sup> was 89% for pregabalin vs placebo which may indicate considerable heterogeneity and 27% for valproate vs placebo which may indicate that any inconsistency might not be important; no loops in networks so no possibility of inconsistency between direct and indirect estimates

<sup>&</sup>lt;sup>3</sup> all aspects of PICO conform to review protocol

<sup>&</sup>lt;sup>4</sup> there are no head-to-head trials; the majority of links in the network are connected by only one study; wide confidence intervals for the overall ranking in the network

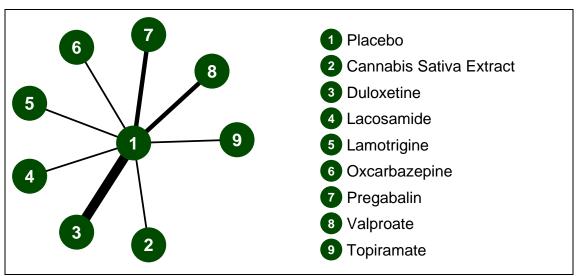


Figure 42 pain (continuous) - 84 +/- 12 days - evidence network

Table 69 pain (continuous) - 84 +/- 12 days - trials included in analysis

Placebo	Cannabis Sativa Extract	Duloxetine	Lacosamide	Lamotrigine	Oxcarbazepine	Pregabalin	Valproate
1 RCT <sup>9</sup> total n=30							
4 RCTs <sup>3,7,12,13</sup> total n=1352	-						
1 RCT <sup>8</sup> total n=119	-	-					
1 RCT <sup>5</sup> total n=125	-	-	-				
1 RCT <sup>2</sup> total n=146	-	-	-	-			
2 RCTs <sup>10,11</sup> total n=665	-	-	-	-	-		
2 RCTs <sup>1,4</sup> total n=79	-	-	-	-	-	-	
1 RCT <sup>6</sup> total n=317	-	-	-	-	-	-	-
	1 RCT <sup>9</sup> total n=30 4 RCTs <sup>3,7,12,13</sup> total n=1352 1 RCT <sup>8</sup> total n=119 1 RCT <sup>5</sup> total n=125 1 RCT <sup>2</sup> total n=146 2 RCTs <sup>10,11</sup> total n=665 2 RCTs <sup>1,4</sup> total n=79 1 RCT <sup>6</sup>	1 RCT <sup>9</sup> total n=30  4 RCTs <sup>3,7,12,13</sup> total n=1352  1 RCT <sup>8</sup> total n=119  1 RCT <sup>5</sup> total n=125  1 RCT <sup>2</sup> total n=146  2 RCTs <sup>10,11</sup> total n=665  2 RCTs <sup>1,4</sup> total n=79  1 RCT <sup>6</sup>	1 RCT <sup>9</sup> total n=30  4 RCTs <sup>3,7,12,13</sup> total n=1352  1 RCT <sup>8</sup> total n=119  1 RCT <sup>5</sup> total n=125  1 RCT <sup>2</sup> total n=146  2 RCTs <sup>10,11</sup> total n=665  2 RCTs <sup>1,4</sup> total n=79  1 RCT <sup>6</sup>	1 RCT <sup>9</sup> total n=30  4 RCTs <sup>3,7,12,13</sup> total n=1352  1 RCT <sup>8</sup> total n=119  1 RCT <sup>5</sup> total n=125  1 RCT <sup>2</sup> total n=146  2 RCTs <sup>10,11</sup> total n=665  2 RCTs <sup>1,4</sup> total n=79  1 RCT <sup>6</sup>	1 RCT <sup>9</sup> total n=30  4 RCTs <sup>3,7,12,13</sup> total n=1352  1 RCT <sup>8</sup> total n=119  1 RCT <sup>5</sup> total n=125  1 RCT <sup>2</sup> total n=146  2 RCTs <sup>10,11</sup> total n=665  2 RCTs <sup>1,4</sup> total n=79  1 RCT <sup>6</sup>	1 RCT <sup>9</sup> total n=30  4 RCTs <sup>3,7,12,13</sup> total n=1352  1 RCT <sup>8</sup> total n=119  1 RCT <sup>5</sup> total n=125  1 RCT <sup>2</sup> total n=146  2 RCTs <sup>10,11</sup> total n=665  2 RCTs <sup>1,4</sup> total n=79  1 RCT <sup>6</sup>	1 RCT <sup>9</sup> total n=30  4 RCTs <sup>3,7,12,13</sup> total n=1352  1 RCT <sup>8</sup> total n=119  1 RCT <sup>5</sup> total n=125  1 RCT <sup>2</sup> total n=146  2 RCTs <sup>10,11</sup> total n=665  2 RCTs <sup>1,4</sup> total n=79  1 RCT <sup>6</sup>

<sup>(1)</sup> Agrawal et al. (2009); (2) Dogra et al. (2005); (3) Goldstein et al. (2005); (4) Kochar et al. (2004); (5) Rao et al. (2008); (6) Raskin et al. (2004); (7) Raskin et al. (2005); (8) Rauck et al. (2007); (9) Selvarajah et al. (2010); (10) Simpson et al. (2010); (11) van Seventer et al. (2006); (12) Wernicke et al. (2006); (13) Yasuda et al. (2011)

Table 70 pain (continuous) - 84 +/- 12 days - relative effectiveness of all pairwise combinations

<b>P</b>									
	Placebo	Cannabis Sativa Extract	Duloxetine	Lacosamide	Lamotrigine	Oxcarbazepine	Pregabalin	Valproate	Topiramate
Placebo		0.40 (-1.52, 2.32)	-0.99 (-1.23, - 0.75)	-0.90 (-1.72, - 0.08)	-0.15 (-1.32, 1.02)	-0.82 (-1.61, - 0.03)	-0.59 (-1.32, 0.14)	-0.56 (-2.77, 1.64)	-0.67 (-1.23, - 0.11)
Cannabis Sativa Extract	0.40 (-1.77, 2.55)		-	-	-	-	-	-	-
Duloxetine	-1.01 (-1.49, - 0.54)	-1.41 (-3.62, 0.81)		-	-	-	-	-	-
Lacosamide	-0.90 (-2.17, 0.36)	-1.31 (-3.78, 1.21)	0.11 (-1.24, 1.46)		-	-	-	-	-
Lamotrigine	-0.15 (-1.67, 1.36)	-0.55 (-3.18, 2.08)	0.86 (-0.73, 2.45)	0.75 (-1.21, 2.72)		-	-	-	-
Oxcarbazepine	-0.82 (-2.07, 0.42)	-1.22 (-3.70, 1.29)	0.19 (-1.14, 1.52)	0.08 (-1.70, 1.85)	-0.67 (-2.64, 1.28)		-	-	-
Pregabalin	-0.62 (-1.33, 0.02)	-1.03 (-3.30, 1.24)	0.39 (-0.46, 1.18)	0.28 (-1.17, 1.68)	-0.48 (-2.15, 1.16)	0.19 (-1.25, 1.58)		-	-
Valproate	-0.22 (-1.37, 0.84)	-0.63 (-3.08, 1.79)	0.79 (-0.46, 1.96)	0.68 (-1.04, 2.32)	-0.07 (-1.98, 1.77)	0.60 (-1.11, 2.22)	0.41 (-0.90, 1.68)		-
Topiramate	-0.67 (-1.79, 0.44)	-1.07 (-3.49, 1.37)	0.34 (-0.88, 1.55)	0.23 (-1.46, 1.91)	-0.52 (-2.39, 1.37)	0.15 (-1.51, 1.82)	-0.05 (-1.32, 1.29)	-0.45 (-1.97, 1.17)	

Values given are mean differences.

The segment below and to the left of the shaded cells is derived from the network meta-analysis, reflecting direct and indirect evidence of treatment effects (row versus column). The point estimate reflects the mean of the posterior distribution, and numbers in parentheses are 95% credible intervals. The segment above and to the right of the shaded cells gives pooled direct evidence (random-effects pairwise meta-analysis), where available (column versus row). Numbers in parentheses are 95% confidence intervals.

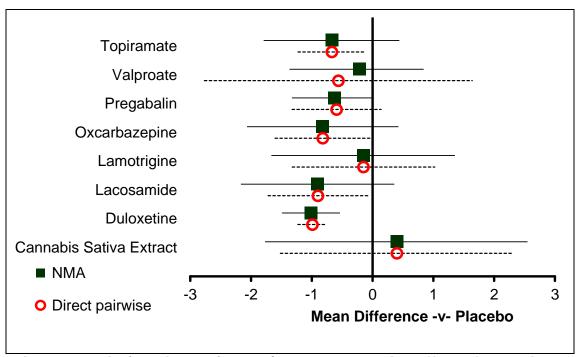


Figure 43 pain (continuous) - 84 +/- 12 days - relative effect of all options compared with placebo

(values less than 0 favour the treatment; values greater than 0 favour placebo; solid error bars are 95% credible intervals while dashed error bars are 95% confidence intervals)

Table 71 pain (continuous) - 84 +/- 12 days - rankings for each comparator

	Probability best	Median rank (95%CI)	
Placebo	0.000	7 (5, 9)	
Cannabis Sativa Extract	0.056	9 (1, 9)	
Duloxetine	0.211	2 (1, 5)	
Lacosamide	0.272	3 (1, 8)	
Lamotrigine	0.061	7 (1, 9)	
Oxcarbazepine	0.217	3 (1, 8)	
Pregabalin	0.037	4 (1, 7)	
Valproate	0.028	6 (1, 9)	
Topiramate	0.120	4 (1, 9)	

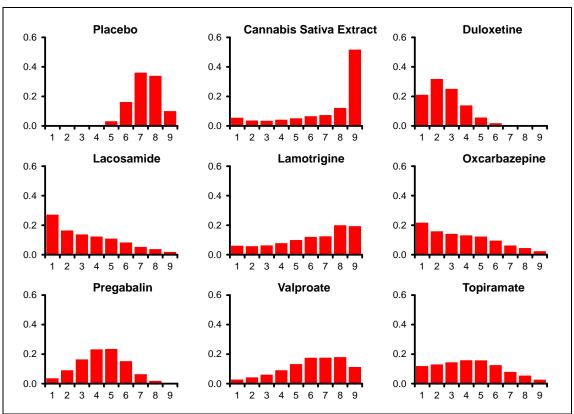


Figure 44 pain (continuous) - 84 +/- 12 days - rank probability histograms

Table 72 pain (continuous) - 84 +/- 12 days - model fit statistics

Residual deviance	Dbar	Dhat	pD	DIC	tau-squared	
33.78	4.445	24 741	20.196	22 621	0.137 (95%Crl: 0.042, 0.698)	
(compared to 33 data-points)	4.445	-24.741	29.100	33.031	0.137 (93%CH. 0.042, 0.098)	

## Table 73 pain (continuous) - 84 +/- 12 days - notes

- Random-effects model was used.
- 10000 burn-ins and 50000 iterations.
- The differences between direct and indirect comparisons (and the confidence interval around that estimate) for valproate are likely to be due to conflicting evidence from the 2 studies that formed the direct evidence. As a result, there is a larger random effects term for the pairwise random-effect meta-analysis. The random-effect term for the NMA is for the whole network. However, the differences in effect size are small and the results are qualitatively similar (ie. both suggest it is better than placebo but may not reach clinical significance [ie. a reduction of at least 2]).