

Literature Search Terms:

((insomnia OR "Sleep Initiation and Maintenance Disorders"[Mesh]) AND ((clinical trial) OR (randomized controlled trial)) NOT "Editorial"[Publication Type] NOT "Letter"[Publication Type] NOT "Comment"[Publication Type] NOT "Case Reports"[Publication Type] NOT "Biography"[Publication Type] NOT "Review"[Publication Type] NOT (transient[TI])) NOT (animals[mh] NOT humans[mh])

Suvorexant - Summary of Findings Tables

Table S1 – Summary of Findings table for suvorexant 10 mg for the treatment of chronic insomnia

References: Herring 2012(A)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 10 mg Suvorexant vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊕⊖⊖ low ^{1,2}	The mean sleep latency in the suvorexant group was 2.3 minutes lower (13.68 lower to 9.08 higher)	175 (1 study) ^A
Wake After Sleep Onset* (PSG)	⊕⊕⊖⊖ low ^{2,3}	The mean wake after sleep onset in the suvorexant group was 21.5 minutes lower (36.34 to 6.66 lower)	175 (1 study) ^A
Sleep Efficiency (PSG)	⊕⊕⊖⊖ low ^{2,4}	The mean sleep efficiency in the suvorexant group was 4.7 percent higher (0.97 to 8.43 higher)	175 (1 study) ^A

* Critical Outcome, used to determine Quality of Evidence

¹ 95% CI (-13.68 to 9.08) crosses the Clinical Significance Threshold (10 min)

² Study funded by industry

³ 95% CI (-36.34 to -6.66) crosses the Clinical Significance Threshold (20 min)

⁴ 95% CI (0.97 to 8.43) crosses the Clinical Significance Threshold (5%)

Table S2 – Summary of Findings table for suvorexant 15/20 mg for the treatment of chronic insomnia

References: Herring 2016(A)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 15/20 mg Suvorexant vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊕⊖⊖ low ^{1,2}	The mean sleep latency in the suvorexant group was 8.1 minutes lower (13.85 to 2.35 lower)	423 (1 study) ^A
Sleep Latency (Subjective)	⊕⊕⊕⊖ moderate ²	The mean sleep latency in the suvorexant group was 5.2 minutes lower (10.1 to 0.3 lower)	567 (1 study) ^A
Total Sleep Time* (Subjective)	⊕⊕⊕⊖ moderate ²	The mean total sleep time in the suvorexant group was 10.6 minutes higher (1.79 to 19.41 higher)	567 (1 study) ^A
Wake After Sleep Onset* (PSG)	⊕⊕⊖⊖ low ^{2,3}	The mean wake after sleep onset in the suvorexant group was 16.60 minutes lower (24.87 to 8.33 lower)	567 (1 study) ^A

* Critical Outcome, used to determine Quality of Evidence

¹ 95% CI (-13.85 to -2.35) crosses Clinical Significance Threshold (10 min)

² Study funded by industry

³ 95% CI (-24.87 to -8.33) crosses Clinical Significance Threshold (20 min)

Table S3 – Summary of Findings table for suvorexant 20 mg for the treatment of chronic insomnia

References: Herring 2012(A)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 20 mg Suvorexant vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊕⊕⊖ ² moderate ²	The mean sleep latency in the suvorexant group was 22.3 minutes lower (33.77 to 10.83 lower)	173 (1 study) ^A
Wake After Sleep Onset* (PSG)	⊕⊕⊖⊖ ^{1,2} low ^{1,2}	The mean wake after sleep onset in the suvorexant group was 28.1 minutes lower (43.07 to 13.13 lower)	173 (1 study) ^A
Sleep Efficiency (PSG)	⊕⊕⊕⊖ ² moderate ²	The mean sleep efficiency in the suvorexant group was 10.4 percent higher (6.65 to 14.15 higher)	173 (1 study) ^A

* Critical Outcome, used to determine Quality of Evidence

¹ 95% CI (-43.07 to -13.13) crosses Clinical Significance Threshold (20 min)

² Study funded by industry

Eszopiclone - Meta-Analyses and Summary of Findings Tables

Figure S1 – Meta-analysis of data for PSG-determined sleep latency in response to eszopiclone 2 mg

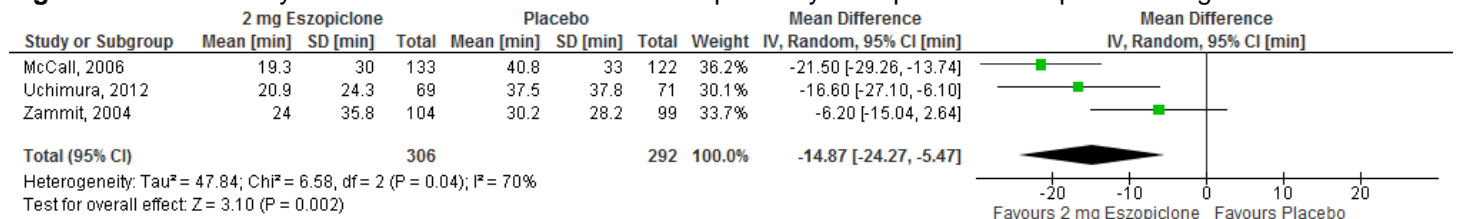


Figure S2 – Meta-analysis of data for subjectively-determined sleep latency in response to eszopiclone 2 mg

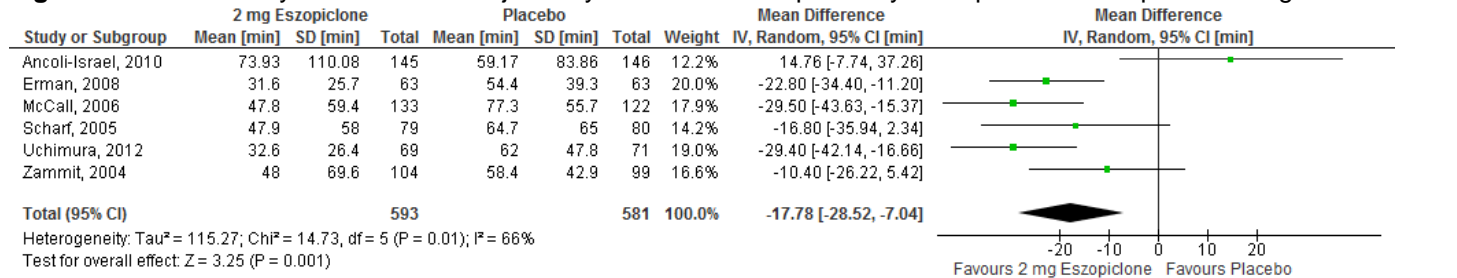


Figure S3 – Meta-analysis of data for subjectively-determined total sleep time in response to eszopiclone 2 mg

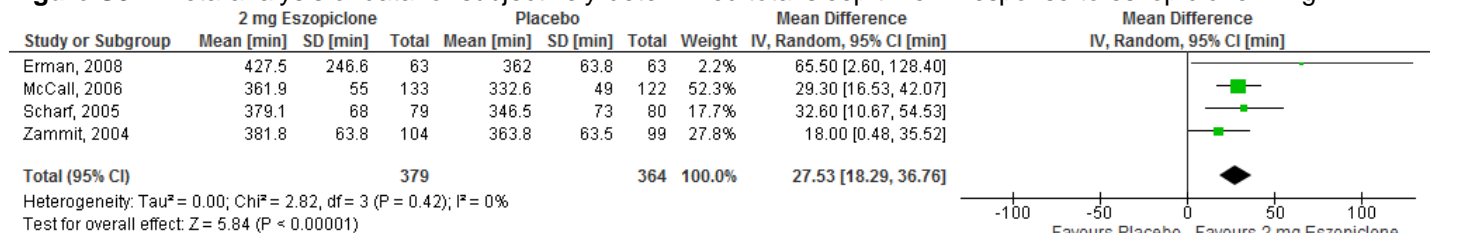


Figure S4 – Meta-analysis of data for PSG-determined wake after sleep onset in response to eszopiclone 2 mg

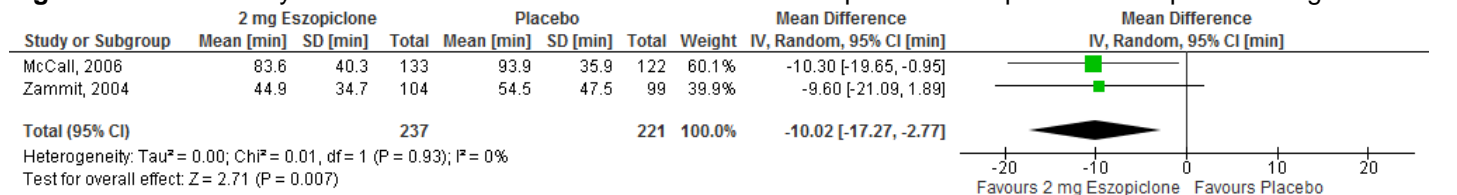


Figure S5 – Meta-analysis of data for subjectively-determined wake after sleep onset in response to eszopiclone 2 mg

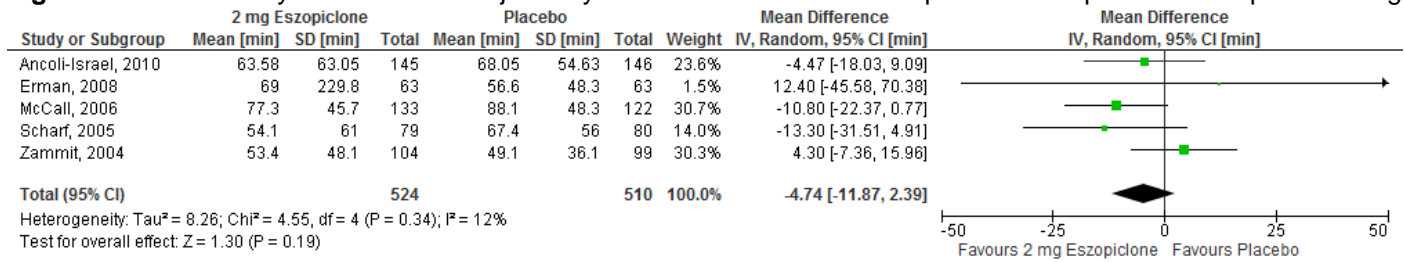


Figure S6 – Meta-analysis of data for subjectively-determined quality of sleep in response to eszopiclone 2 mg

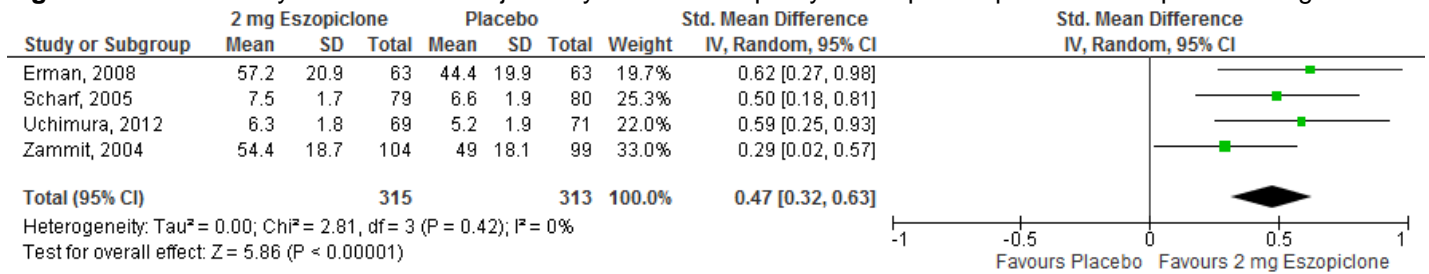


Figure S7 – Meta-analysis of data for PSG-determined sleep efficiency in response to eszopiclone 2 mg

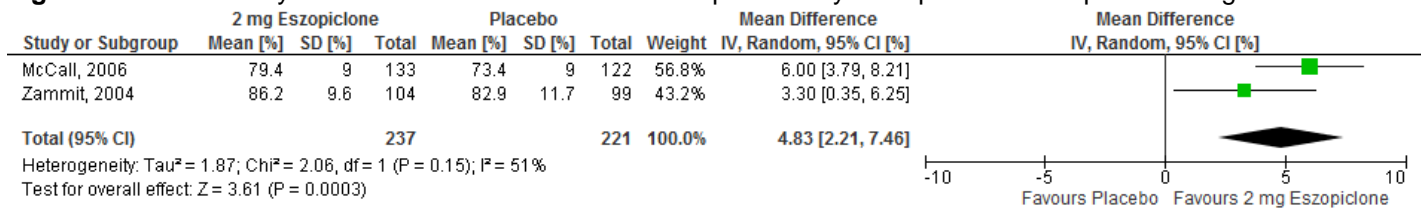


Figure S8 – Meta-analysis of data for PSG-determined number of awakenings in response to eszopiclone 2 mg

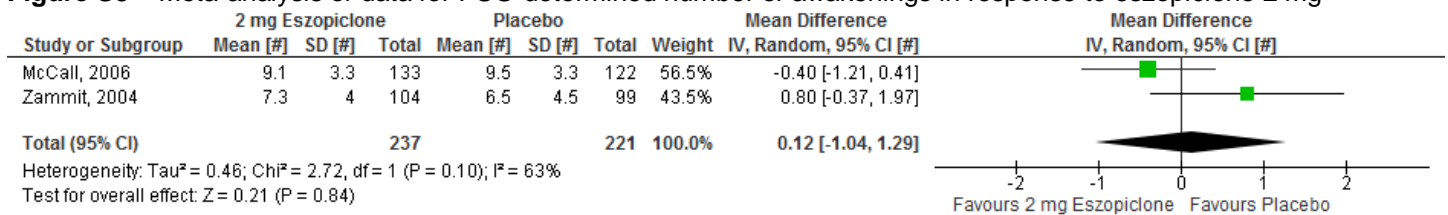


Figure S9 – Meta-analysis of data for subjectively-determined number of awakenings in response to eszopiclone 2 mg

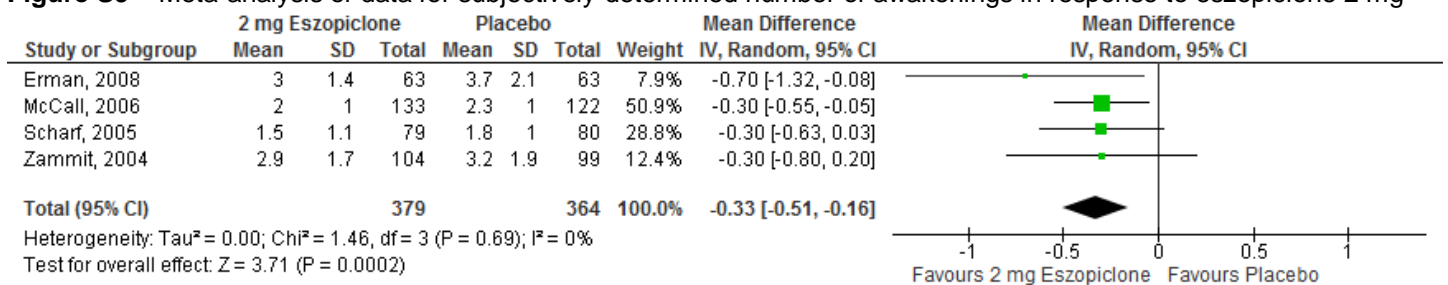


Figure S10– Meta-analysis of data for the occurrence of dizziness in response to eszopiclone 2 mg

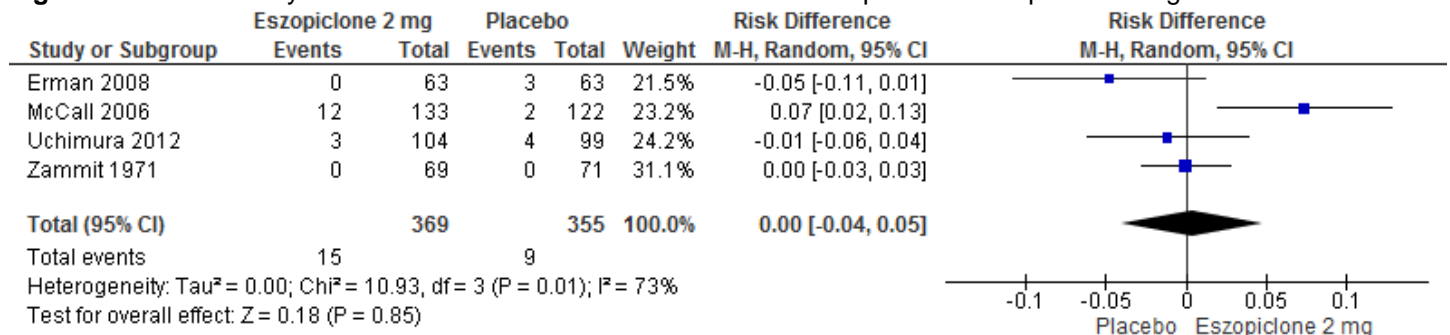


Figure S11– Meta-analysis of data for the occurrence of dry mouth in response to eszopiclone 2 mg

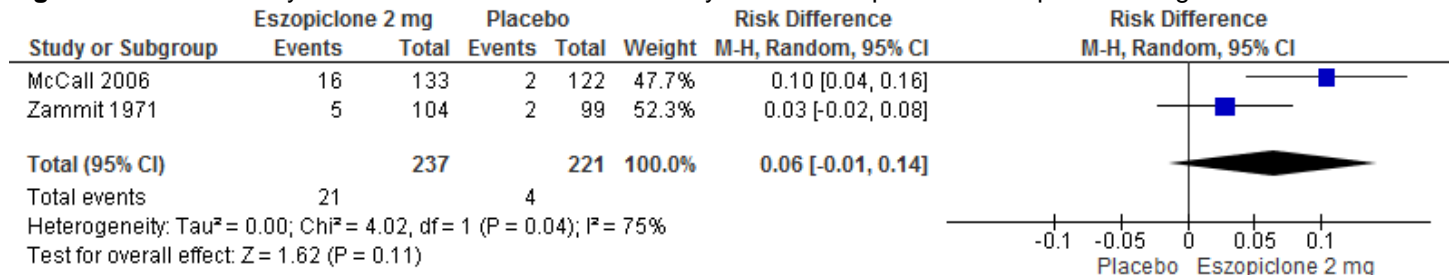


Figure S12– Meta-analysis of data for the occurrence of headache in response to eszopiclone 2 mg

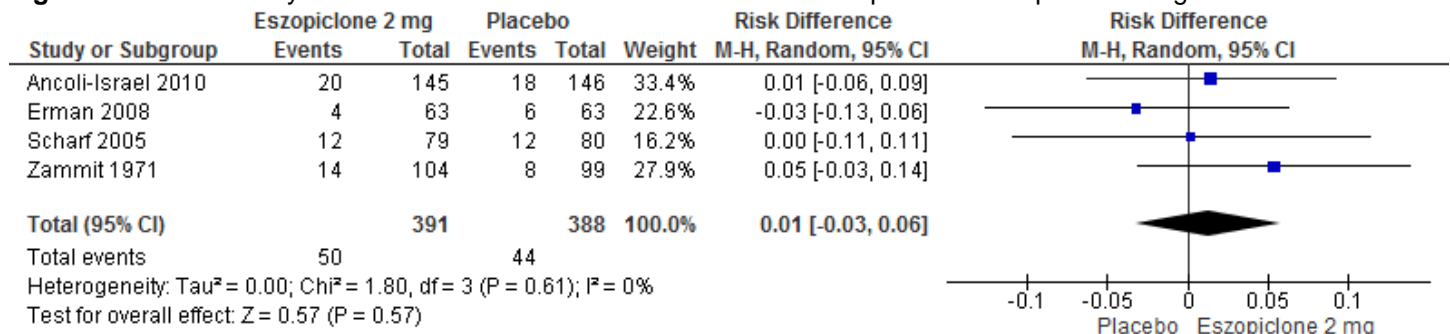


Figure S13– Meta-analysis of data for the occurrence of somnolence in response to eszopiclone 2 mg

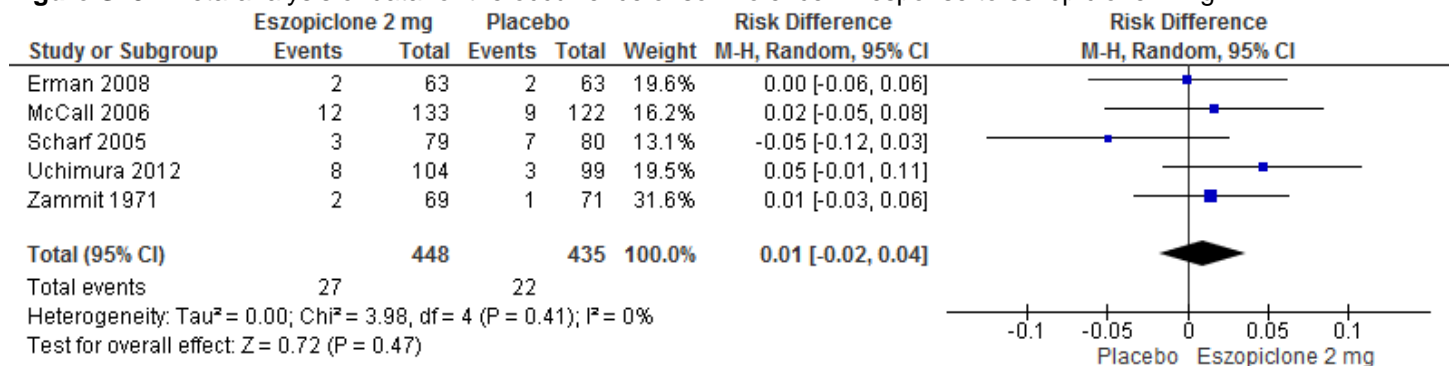


Figure S14– Meta-analysis of data for the occurrence of unpleasant taste in response to eszopiclone 2 mg

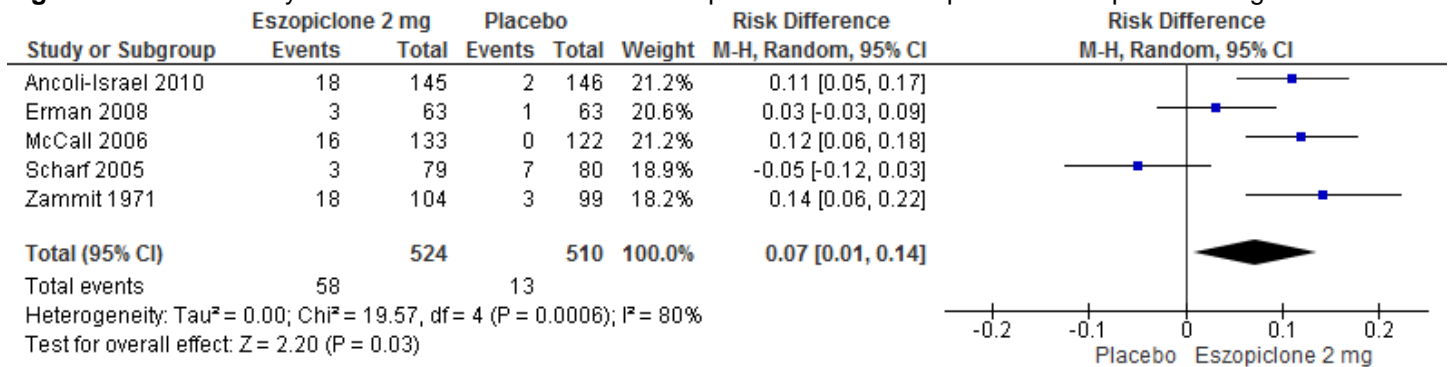


Table S4 – Summary of Findings table for eszopiclone 2 mg for the treatment of chronic insomnia

References: Ancoli-Israel 2010(A); Erman 2008(B); McCall 2006(C); Scharf 2005(D); Uchimura 2012(E); Zammit 2004(F)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 2 mg Eszopiclone vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊕⊕⊖ low ^{1,2}	The mean sleep latency in the eszopiclone groups was 14.87 minutes lower (24.27 to 5.47 lower)	598 (3 studies) ^{C,E,F}
Sleep Latency (Subjective)	⊕⊕⊕⊖ low ^{2,3}	The mean sleep latency in the eszopiclone groups was 17.78 minutes lower (28.52 to 7.04 lower)	1174 (6 studies) ^{A,B,C,D,E,F}
Total Sleep Time* (Subjective)	⊕⊕⊕⊖ low ^{2,4}	The mean total sleep time in the eszopiclone groups was 27.53 minutes higher (18.29 to 36.76 higher)	743 (4 studies) ^{B,C,D,F}
Wake After Sleep Onset* (PSG)	⊕⊕⊕⊖ moderate ²	The mean wake after sleep onset in the eszopiclone groups was 10.02 minutes lower (17.27 to 2.77 lower)	458 (2 studies) ^{C,F}
Wake After Sleep Onset (Subjective)	⊕⊕⊕⊖ moderate ²	The mean wake after sleep onset in the eszopiclone groups was 4.74 minutes lower (11.87 lower to 2.39 higher)	1034 (5 studies) ^{A,B,C,D,F}
Quality of Sleep* (Subjective)	⊕⊕⊕⊖ moderate ^{2,6}	The mean quality of sleep in the eszopiclone groups was 0.47 standard deviations higher (0.32 to 0.63 higher)	628 (4 studies) ^{B,D,E,F}
Sleep Efficiency (PSG)	⊕⊕⊕⊖ low ^{2,5}	The mean sleep efficiency in the eszopiclone groups was 4.83 percent higher (2.21 to 7.46 higher)	458 (2 studies) ^{C,F}
Sleep Efficiency (Subjective)	⊕⊕⊕⊖ moderate ²	The mean sleep efficiency in the eszopiclone groups was 0.30 percent lower (0.79 lower to 0.19 higher)	203 (1 study) ^F
Number of Awakening (PSG)	⊕⊕⊕⊖ moderate ²	The mean number awakening in the eszopiclone groups was 0.12 awakenings higher (1.04 lower to 1.29 higher)	458 (2 studies) ^{C,F}
Number of Awakenings (Subjective)	⊕⊕⊕⊖ moderate ²	The mean number of awakenings in the eszopiclone groups was 0.33 awakenings lower (0.51 to 0.16 lower)	743 (4 studies) ^{B,C,D,F}

* Critical Outcome, used to determine Quality of Evidence

¹ 95% CI (-24.27, -5.47) crosses Clinical Significance (10 min)

² All studies funded by industry

³ 95% CI (-33.81, -6.35) crosses Clinical Significance (20 min)

⁴ 95% CI (18.29, 36.76) crosses Clinical Significance (20 min)

⁵ 95% CI (2.21, 7.46) crosses Clinical Significance (5%)

⁶ 95% CI (0.37, 0.76) crosses Clinical Significance (SMD 0.5)

Figure S15 – Meta-analysis of data for PSG-determined sleep latency in response to eszopiclone 3 mg

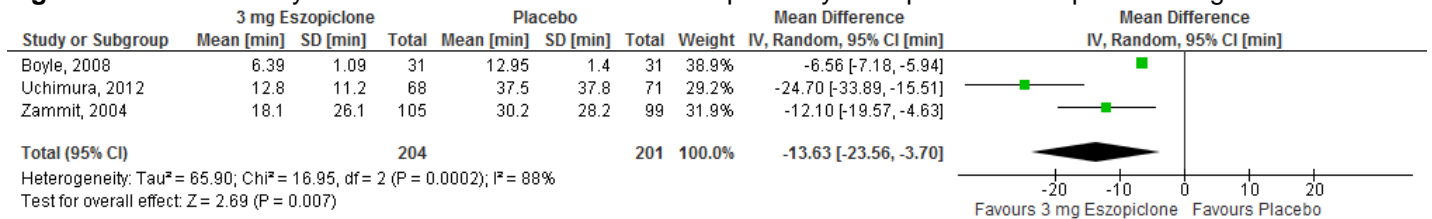


Figure S16 – Meta-analysis of data for subjectively-determined sleep latency in response to eszopiclone 3 mg

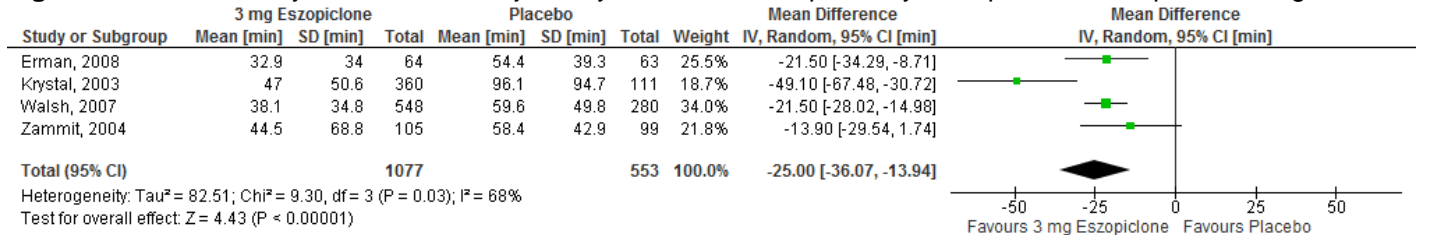


Figure S17 – Meta-analysis of data for subjectively-determined total sleep time in response to eszopiclone 3 mg

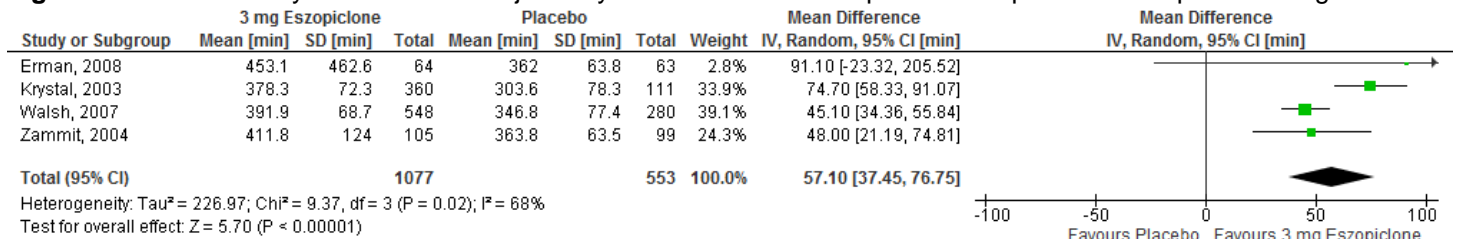


Figure S18 – Meta-analysis of data for PSG-determined wake after sleep onset in response to eszopiclone 3 mg

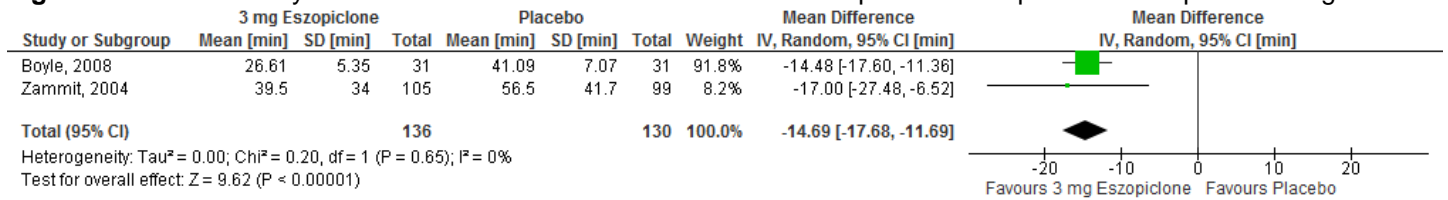


Figure S19 – Meta-analysis of data for subjectively-determined wake after sleep onset in response to eszopiclone 3 mg

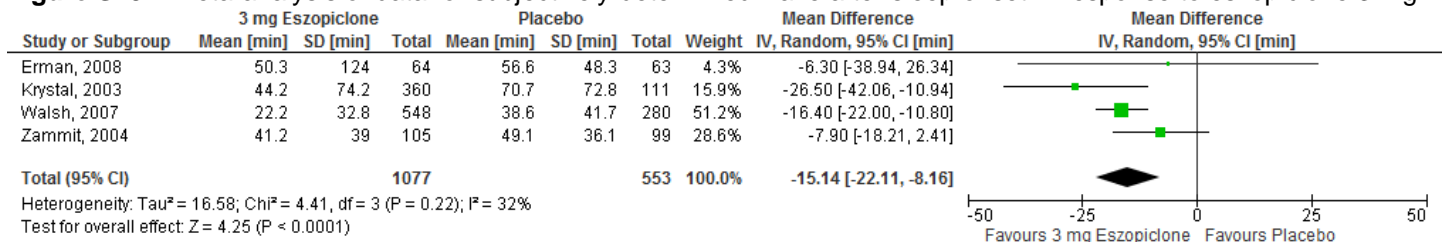


Figure S20 – Meta-analysis of data for subjectively-determined quality of sleep in response to eszopiclone 3 mg

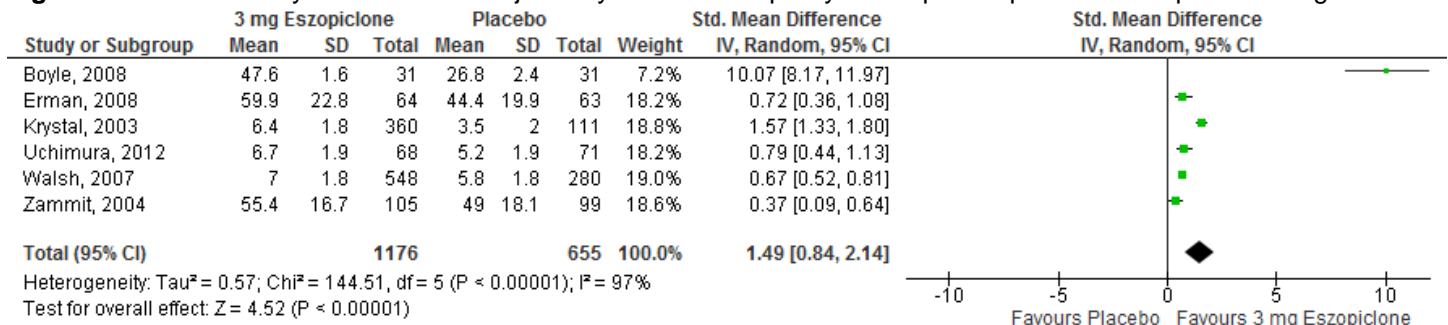


Figure S21 – Meta-analysis of data for PSG-determined sleep efficiency in response to eszopiclone 3 mg

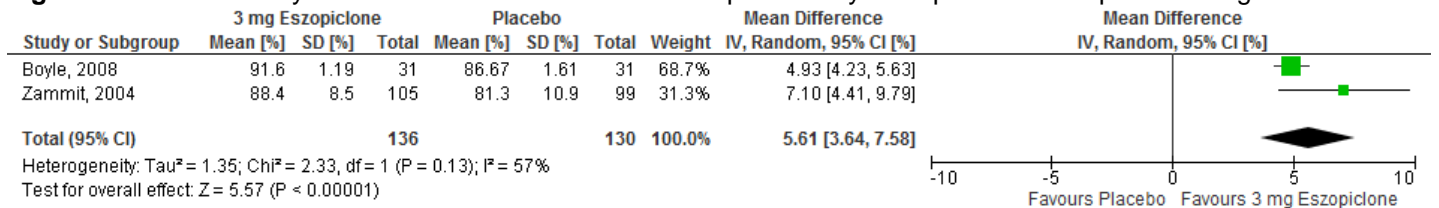


Figure S22 – Meta-analysis of data for subjectively-determined number of awakenings in response to eszopiclone 3 mg

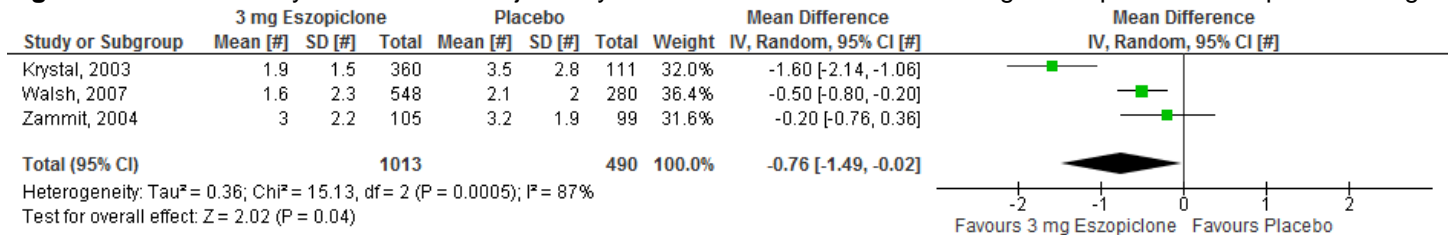


Table S5 – Summary of Findings table for eszopiclone 3 mg for the treatment of chronic insomnia

References: Boyle 2008(A); Erman 2008(B); Krystal 2003(C); Uchimura 2012(D); Walsh 2007(E); Zammit 2004(F)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 3 mg Eszopiclone vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊕⊕⊖ very low ^{1,2,3}	The mean sleep latency in the eszopiclone groups was 13.63 minutes lower (23.56 to 3.7 lower)	405 (3 studies) ^{A,D,F}
Sleep Latency (Subjective)	⊕⊕⊕⊖ low ^{3,4}	The mean sleep latency in the eszopiclone groups was 25.00 minutes lower (36.07 to 13.94 lower)	1630 (4 studies) ^{B,C,E,F}
Total Sleep Time* (Subjective)	⊕⊕⊕⊖ moderate ³	The mean total sleep time in the eszopiclone groups was 57.10 minutes higher (37.45 to 76.75 higher)	1630 (4 studies) ^{B,C,E,F}
Wake After Sleep Onset* (PSG)	⊕⊕⊕⊖ moderate ³	The mean wake after sleep onset in the eszopiclone groups was 14.69 minutes lower (17.68 to 11.69 lower)	266 (2 studies) ^{A,F}
Wake After Sleep Onset (Subjective)	⊕⊕⊕⊖ low ^{3,5}	The mean wake after sleep onset in the eszopiclone groups was 15.14 minutes lower (22.11 to 8.16 lower)	1630 (4 studies) ^{B,C,E,F}
Quality of Sleep* (Subjective)	⊕⊕⊕⊖ low ^{3,9}	The mean quality of sleep in the eszopiclone groups was 1.49 standard deviations higher (0.84 to 2.14 higher)	1769 (6 studies) ^{A,B,C,D,E,F}
Sleep Efficiency (PSG)	⊕⊕⊕⊖ low ^{3,6}	The mean sleep efficiency in the eszopiclone groups was 5.61 percent higher (3.64 to 7.58 higher)	266 (2 studies) ^{A,F}
Number of Awakenings (Subjective)	⊕⊕⊕⊖ very low ^{3,6,7}	The mean number awakenings in the eszopiclone groups was 0.76 awakenings lower (1.49 to 0.02 lower)	1503 (3 studies) ^{C,E,F}

* Critical Outcome, used to determine Quality of Evidence

¹ Heterogeneity (I² = 88%) greater than allowance (75%)

² 95% CI (-23.56, -3.70) crosses Clinical Significance (10 min)

³ All studies funded by industry

⁴ 95% CI (-36.07, -13.94) crosses Clinical Significance (20 min)

⁵ 95% CI (-22.11, -8.16) crosses Clinical Significance (20 min)

⁶ Heterogeneity (I² = 87%) greater than allowance (75%)

⁷ 95% CI (-1.49, -0.02) crosses Clinical Significance (0.5 awakenings)

⁸ 95% CI (3.64, 7.58) crosses Clinical Significance

⁹ Heterogeneity (I² = 93%) greater than allowance (75%)

Zaleplon - Summary of Findings Tables

Table S6 – Summary of Findings table for zaleplon 5 mg for the treatment of chronic insomnia

References: Hedner 2000(A)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 5 mg Zaleplon vs Placebo	No of Participants (studies)
Quality of Sleep* (Subjective)	⊕⊕⊕⊖ moderate ¹	The mean quality of sleep in the zaleplon group was 0.10 points² lower (0.27 lower to 0.07 higher)	277 (1 study) ^A

* Critical Outcome, used to determine Quality of Evidence

¹ Study funded by Industry

² 7-point scale (1=excellent, 7=extremely poor)

Table S7 – Summary of Findings table for zaleplon 10 mg for the treatment of chronic insomnia

References: Hedner 2000(A); Walsh 2000(B)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 10 mg Zaleplon vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊕⊖⊖ low ^{1,3}	The mean sleep latency in the zaleplon group was 9.50 minutes lower (18.80 to 0.19 lower)	94 (1 study) ^B
Sleep Latency (Subjective)	⊕⊕⊖⊖ low ^{2,3}	The mean sleep latency in the zaleplon group was 11.40 minutes lower (27.36 lower to 4.56 higher)	92 (1 study) ^B
Total Sleep Time* (Subjective)	⊕⊕⊖⊖ low ^{3,4}	The mean total sleep time in the zaleplon group was 21.50 minutes higher (5.60 lower to 48.6 higher)	93 (1 study) ^B
Wake After Sleep Onset (PSG)	⊕⊕⊕⊖ moderate ³	The mean wake after sleep onset in the zaleplon group was 2.10 minutes lower (10.23 lower to 6.03 higher)	92 (1 study) ^B
Quality of Sleep* (Subjective)	⊕⊕⊕⊖ moderate ³	The mean quality of sleep in the zaleplon group was 0.10 points⁵ lower (0.27 lower to 0.07 higher)	283 (1 study) ^A

* Critical Outcome, used to determine Quality of Evidence

¹ 95% CI (-18.8, -0.19) crosses Clinical Significance (10 min)

² 95% CI (-27.36, 4.56) crosses Clinical Significance (20 min)

³ Study funded by Industry

⁴ 95% CI (-5.60, 48.60) crosses Clinical Significance (30 min)

⁵ 7-point scale (1=excellent, 7=extremely poor)

Zolpidem - Meta-Analyses and Summary of Findings Tables

Table S8 – Summary of Findings table for zolpidem 6.25 mg for the treatment of chronic insomnia

References: Walsh 2008

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 6.25 mg Zolpidem vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊕⊖⊖ low ^{1,2}	The mean sleep latency in the zolpidem group was 5.27 minutes lower (11.47 lower to 0.93 higher)	199 (1 study)
Wake After Sleep Onset* (PSG)	⊕⊕⊖⊖ low ^{1,3}	The mean wake after sleep onset in the zolpidem group was 13.03 minutes lower (22.5 to 3.55 lower)	199 (1 study)
Sleep Efficiency (PSG)	⊕⊕⊕⊖ moderate ¹	The mean sleep efficiency in the zolpidem group was 1.60 percent higher (1.4 lower to 4.6 higher)	199 (1 study)

* Critical Outcome, used to determine Quality of Evidence

¹ Funding source not specified, author disclosures not specified.

² 95% CI (-11.47, 0.93) crosses Clinical Significance

³ 95% CI (-22.5, -3.55) crosses Clinical Significance (20 min)

Figure S23 – Meta-analysis of data for PSG-determined sleep latency in response to zolpidem 10 mg

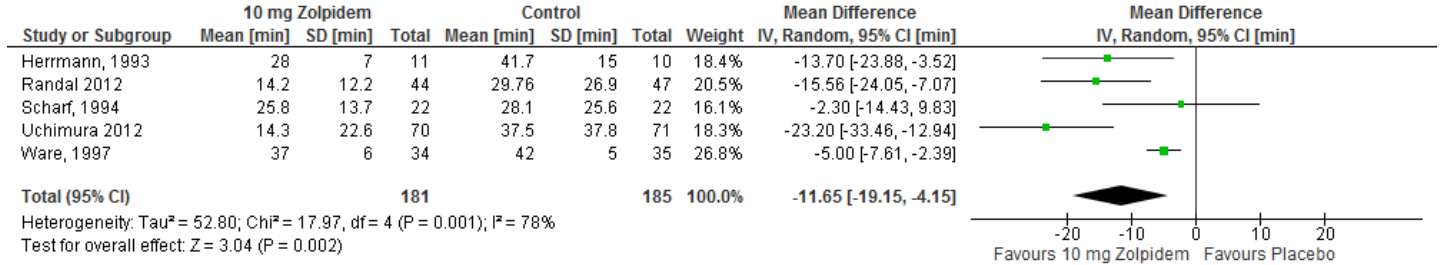


Figure S24 – Meta-analysis of data for subjectively-determined sleep latency in response to zolpidem 10 mg

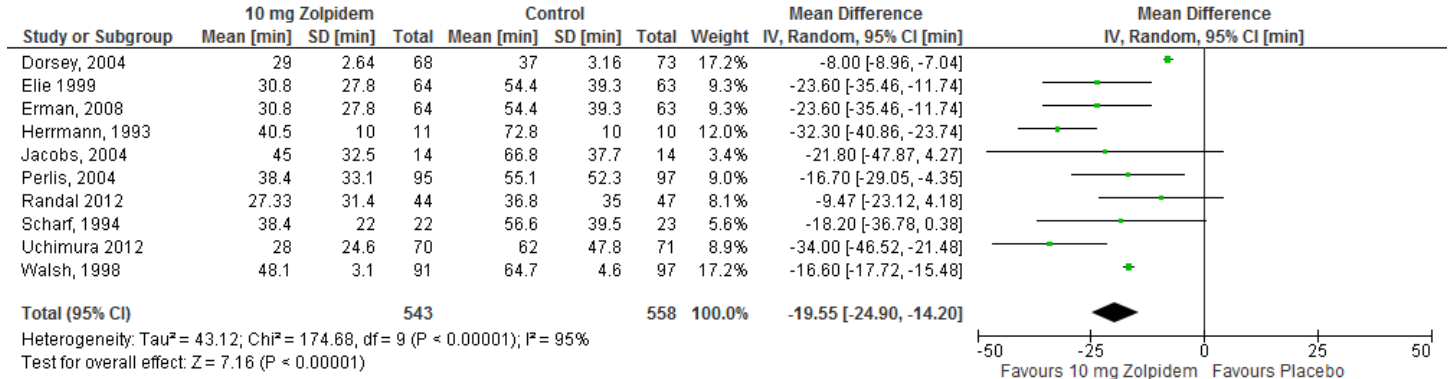


Figure S25 – Meta-analysis of data for PSG-determined total sleep time in response to zolpidem 10 mg

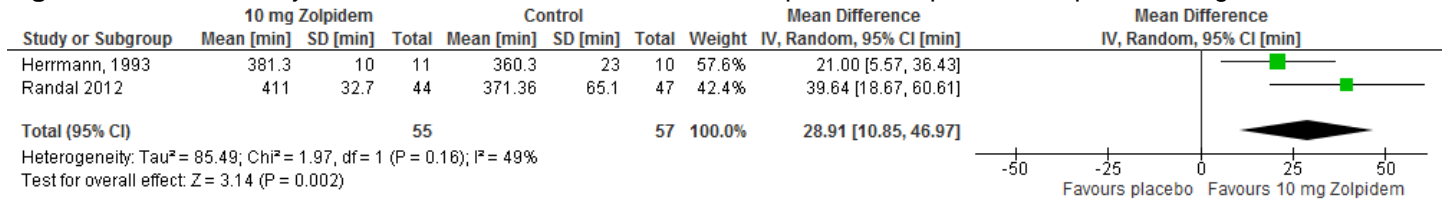


Figure S26 – Meta-analysis of data for subjectively-determined total sleep time in response to zolpidem 10 mg

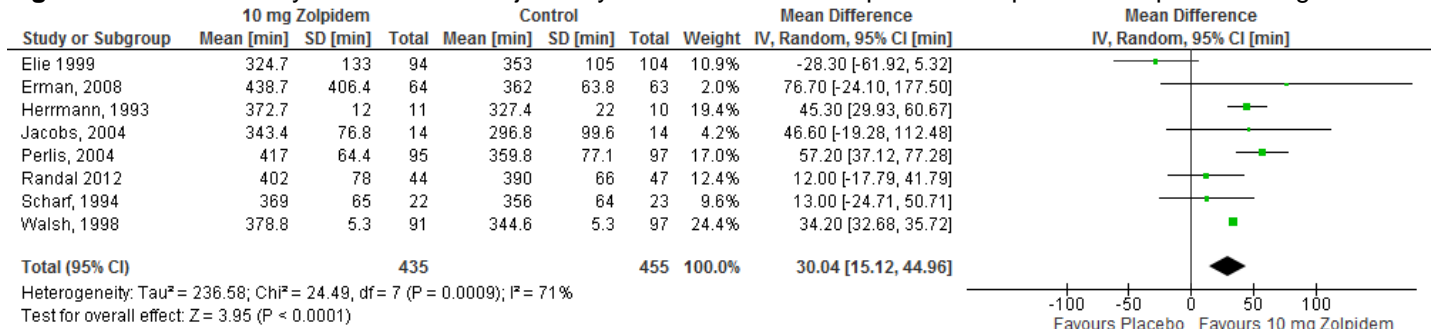


Figure S27 – Meta-analysis of data for PSG-determined wake after sleep onset in response to zolpidem 10 mg

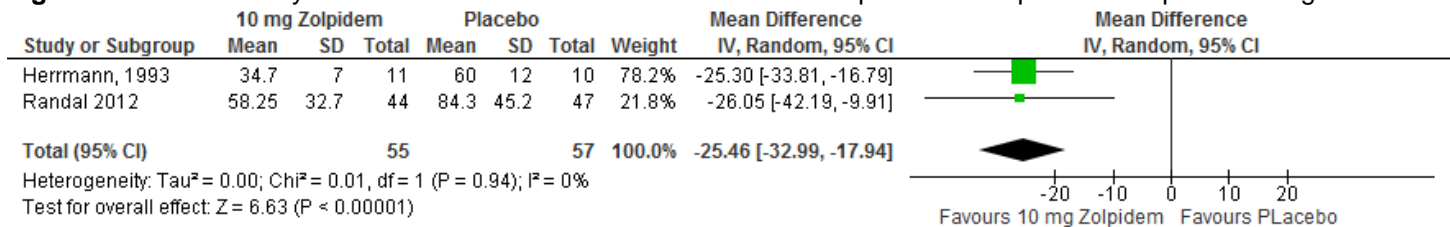


Figure S28 – Meta-analysis of data for subjectively-determined wake after sleep onset in response to zolpidem 10 mg

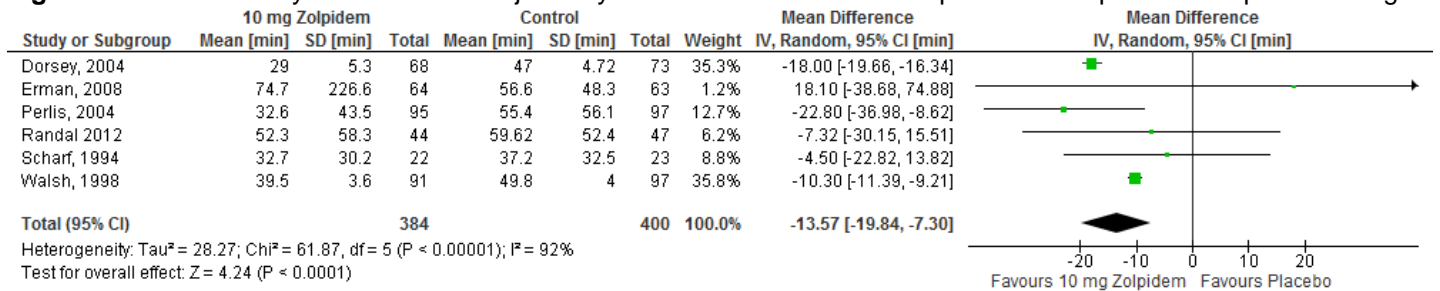


Figure S29 – Meta-analysis of data for subjectively-determined quality of sleep in response to zolpidem 10 mg

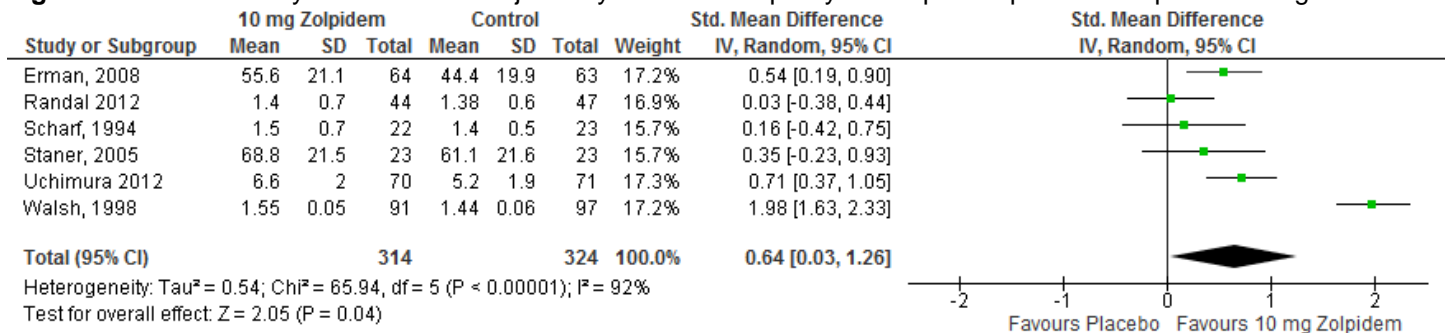


Figure S30 – Meta-analysis of data for PSG-determined sleep efficiency in response to zolpidem 10 mg

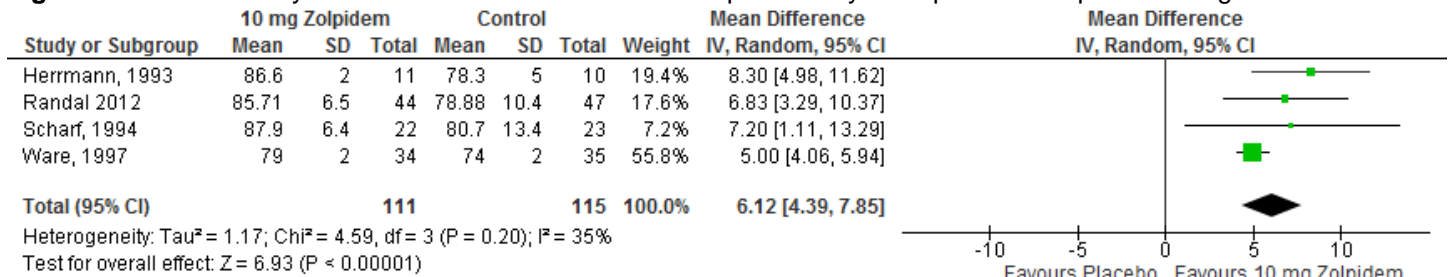


Figure S31 – Meta-analysis of data for PSG-determined number of awakenings in response to zolpidem 10 mg

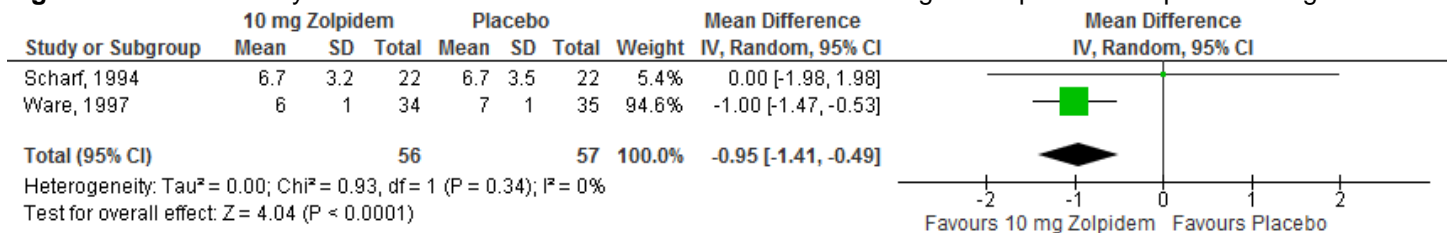


Figure S32 – Meta-analysis of data for subjectively-determined number of awakenings in response to zolpidem 10 mg

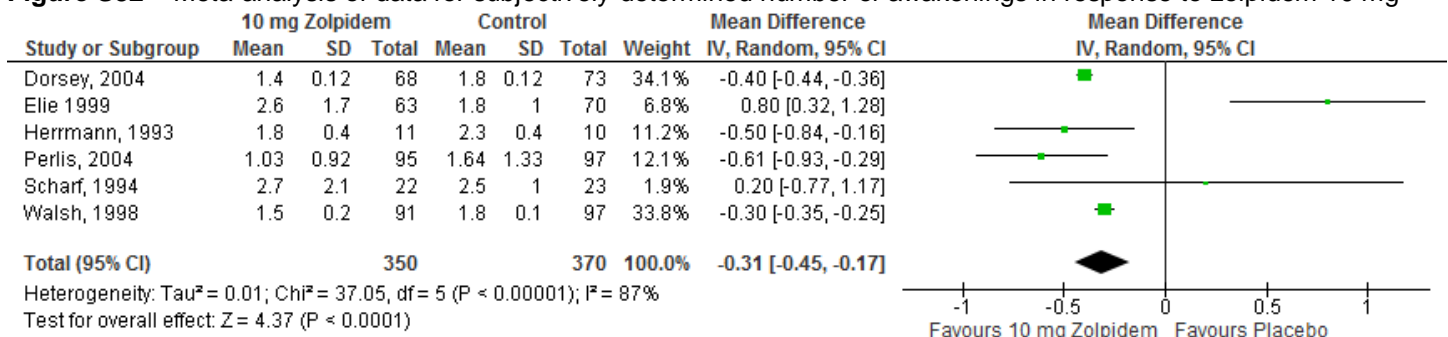


Figure S33 – Meta-analysis of data for the occurrence of amnesia in response to zolpidem 10 mg

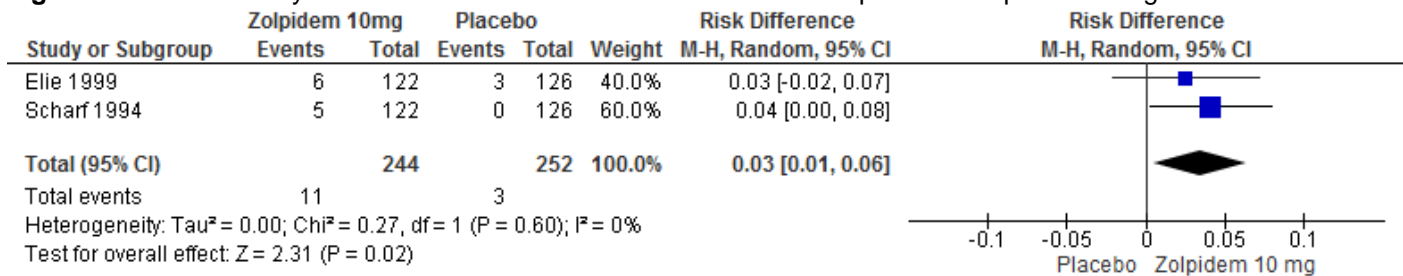


Figure S34 – Meta-analysis of data for the occurrence of dizziness in response to zolpidem 10 mg

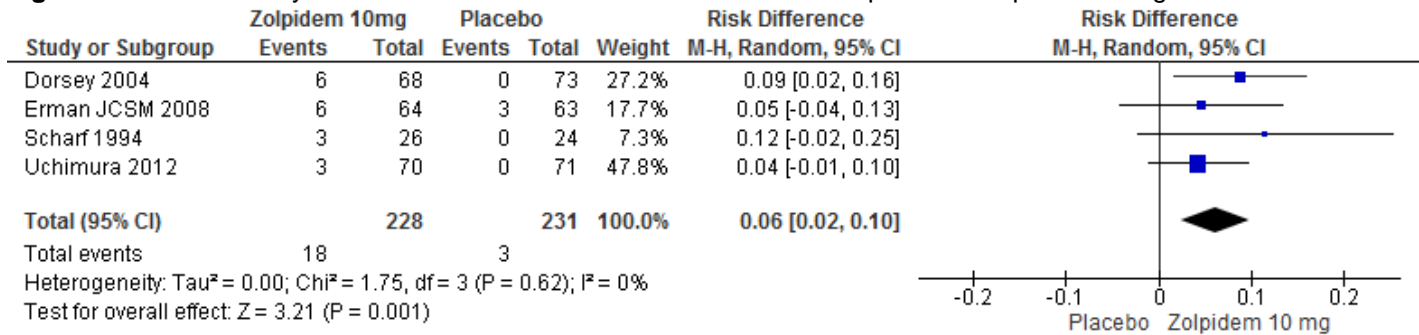


Figure S35 – Meta-analysis of data for the occurrence of headache in response to zolpidem 10 mg

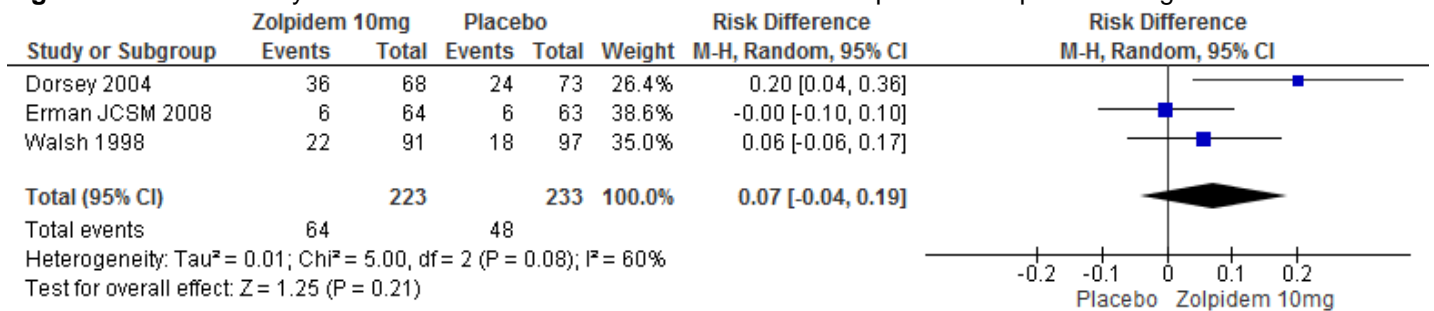


Figure S36 – Meta-analysis of data for the occurrence of nausea in response to zolpidem 10 mg

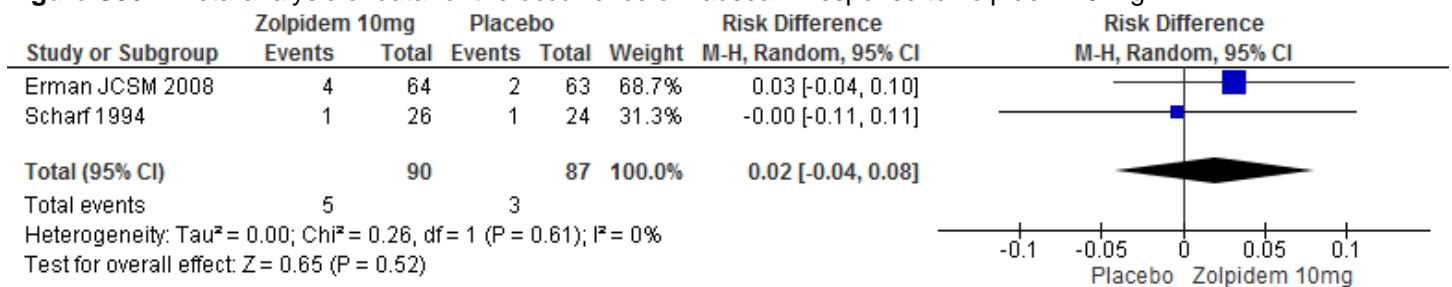


Figure S37 – Meta-analysis of data for the occurrence of somnolence in response to zolpidem 10 mg

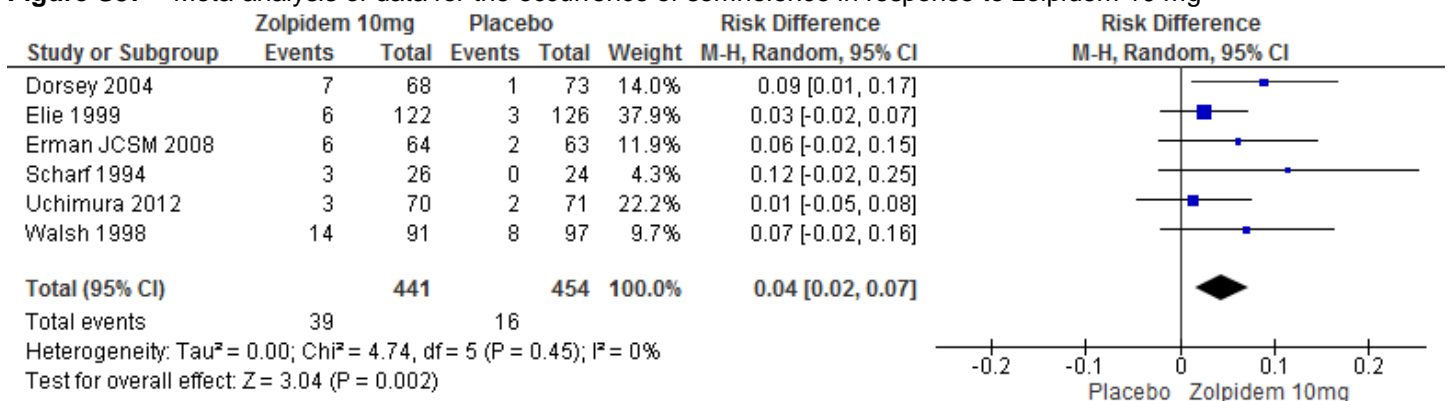


Figure S38 – Meta-analysis of data for the occurrence of taste perversion in response to zolpidem 10 mg

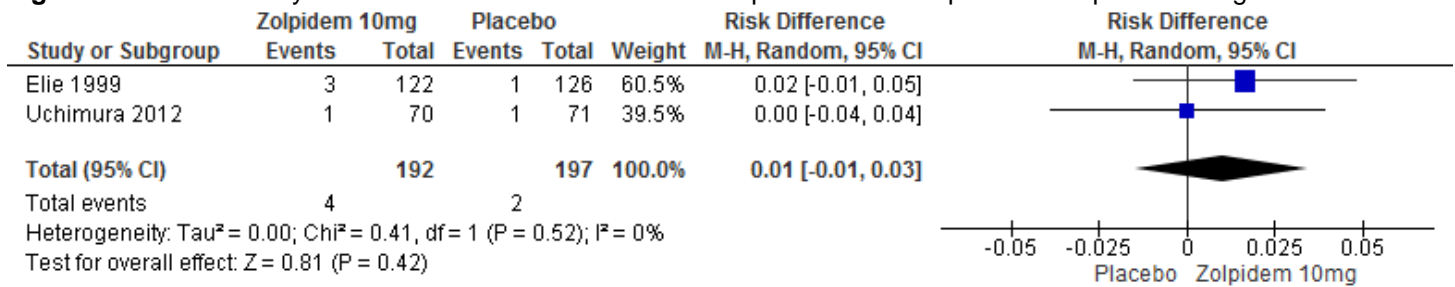


Table S9 – Summary of Findings table for zolpidem 10 mg for the treatment of chronic insomnia

References: Dorsey 2004(A); Elie 1999(B); Erman 2008(C); Herrmann 1993(D); Jacobs 2004(E); Perlis 2004(F); Randal 2012(G); Scharf 1994(H); Staner 2005(I); Uchimura 2012(J); Walsh 1998(K); Ware 1997(L)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 10 mg Zolpidem vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊕⊕⊕ very low ^{1,2,3}	The mean sleep latency in the zolpidem groups was 11.65 minutes lower (19.15 to 4.15 lower)	366 (5 studies) ^{D,G,H,J,L}
Sleep Latency (Subjective)	⊕⊕⊕⊕ very low ^{3,4,5}	The mean sleep latency in the zolpidem groups was 19.55 minutes lower (24.90 to 14.20 lower)	1101 (10 studies) ^{A,B,C,D,E,FG,H,J,K}
Total Sleep Time* (PSG)	⊕⊕⊕⊕ low ^{3,12}	The mean total sleep time in the zolpidem groups was 28.91 minutes higher (10.85 to 46.97 higher)	112 (2 studies) ^{D,G}
Total Sleep Time* (Subjective)	⊕⊕⊕⊕ low ^{3,7}	The mean total sleep time in the zolpidem groups was 30.04 minutes higher (15.12 to 44.96 higher)	890 (8 studies) ^{B,C,D,E,F,G,H,K}
Wake After Sleep Onset* (PSG)	⊕⊕⊕⊕ low ^{3,13}	The mean wake after sleep onset in the zolpidem groups was 25.46 minutes lower (32.99 to 17.94 lower)	112 (2 studies) ^{D,G}
Wake After Sleep Onset (Subjective)	⊕⊕⊕⊕ low ^{3,6}	The mean wake after sleep onset in the zolpidem groups was 13.57 minutes lower (19.84 to 7.30 lower)	784 (6 studies) ^{A,C,F,G,H,K}
Quality of Sleep* (Subjective)	⊕⊕⊕⊕ very low ^{3,10,11}	The mean quality of sleep in the zolpidem groups was 0.64 standard deviations higher (0.03 to 1.26 higher)	638 (6 studies) ^{C,G,H,I,J,K}
Sleep Efficiency (PSG)	⊕⊕⊕⊕ low ^{3,9}	The mean sleep efficiency in the zolpidem groups was 6.12 percent higher (4.39 to 7.85 higher)	226 (4 studies) ^{D,G,H,L}
Number of Awakenings (PSG)	⊕⊕⊕⊕ moderate ³	The mean number of awakenings in the zolpidem groups was 0.95 awakenings lower (1.41 to 0.49 lower)	113 (2 studies) ^{H,L}
Number of Awakenings (Subjective)	⊕⊕⊕⊕ low ^{3,8}	The mean number of awakenings in the zolpidem groups was 0.31 awakenings lower (0.45 to 0.17 lower)	720 (6 studies) ^{A,B,D,F,H,K}

* Critical Outcome, used to determine Quality of Evidence
¹ Heterogeneity (I² = 78%) greater than allowance (75%)
² 95% CI (-19.15, -4.15) crosses Clinical Significance (10 min)
³ Studies funded by industry
⁴ Heterogeneity (I² = 95%) greater than allowance (75%)
⁵ 95% CI (-24.90, -14.20) crosses Clinical Significance (20 min)
⁶ Heterogeneity (I² = 92%) greater than allowance (75%)
⁷ 95% CI (15.12, 44.96) crosses Clinical Significance (30 min)
⁸ Heterogeneity (I² = 87%) greater than allowance (75%)
⁹ 95% CI (4.39, 7.85) crosses Clinical Significance (5%)
¹⁰ Heterogeneity (I² = 92%) greater than allowance (75%)
¹¹ 95% CI (0.3, 1.26) crosses Clinical Significance (SMD 0.5)
¹² 95% CI (10.85, 46.97) crosses Clinical Significance (20 min)
¹³ 95% CI (-32.99, -17.4) crosses Clinical Significance (20 min)

Table S10 – Summary of Findings table for zolpidem 12.5 mg for the treatment of chronic insomnia

References: Roth 2006

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 12.5 Zolpidem vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊕⊖⊖ low ^{1,2}	The mean sleep latency in the zolpidem group was 8.19 minutes lower (15.22 to 1.15 lower)	212 (1 study)
Wake After Sleep Onset* (PSG)	⊕⊕⊖⊖ low ^{1,3}	The mean wake after sleep onset in the zolpidem group was 19.99 minutes lower (27.33 to 12.64 lower)	212 (1 study)
Sleep Efficiency (PSG)	⊕⊕⊕⊕ moderate ¹	The mean sleep efficiency in the zolpidem group was 3.9 percent higher (1.38 to 6.41 higher)	212 (1 study)

* Critical Outcome, used to determine Quality of Evidence

¹ Funding source not specified, author disclosures not specified.

² 95% CI (-15.22, 1.15) crosses Clinical Significance (10 min)

³ 95% CI (-27.33, -12.64) crosses Clinical Significance (20 min)

Triazolam - Summary of Findings Table

Table S11 – Summary of Findings table for triazolam 0.25 mg for the treatment of chronic insomnia

References: Roehrs 2001

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 0.25 mg Triazolam vs Placebo	No of Participants (studies)
Sleep Latency* (Subjective)	⊕⊕⊕⊕ high	The mean sleep latency in the triazolam group was 9.20 minutes lower (22.3 lower to 3.9 higher)	64 (1 study)
Total Sleep Time (Subjective)	⊕⊕⊕⊖ moderate ¹	The mean total sleep time in the triazolam group was 25.20 minutes higher (9.12 lower to 59.52 higher)	64 (1 study)
Quality of Sleep* (Subjective)	⊕⊕⊕⊕ high	The mean quality of sleep in the triazolam group was 0.37 points³ lower (0.66 to 0.07 lower)	64 (1 study)
Number of Awakenings (Subjective)	⊕⊕⊖⊖ low ²	The mean number of awakenings in the triazolam group was 0.37 awakenings lower (1.7 lower to 0.96 higher)	64 (1 study)

* Critical Outcome, used to determine Quality of Evidence

¹ 95% CI (-9.12, 59.52) crosses Clinical Significance (30 min)

² 95% CI (-1.7, 0.96) crosses Clinical Significance (0.5 awakenings)

³ 4-point scale (1=good, 4=poor)

Temazepam - Meta-Analyses and Summary of Findings Tables

Figure S39 – Meta-analysis of data for subjectively-determined sleep latency in response to temazepam 15 mg

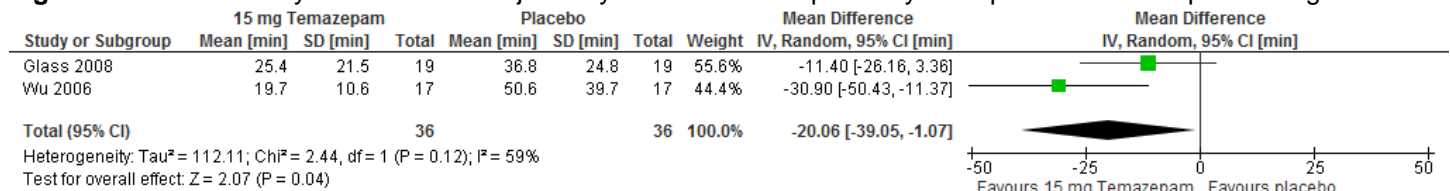


Figure S40 – Meta-analysis of data for subjectively-determined total sleep time in response to temazepam 15 mg

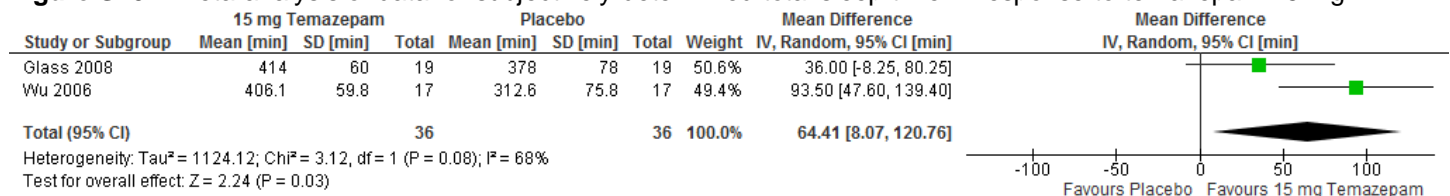


Figure S41 – Meta-analysis of data for subjectively-determined quality of sleep in response to temazepam 15 mg

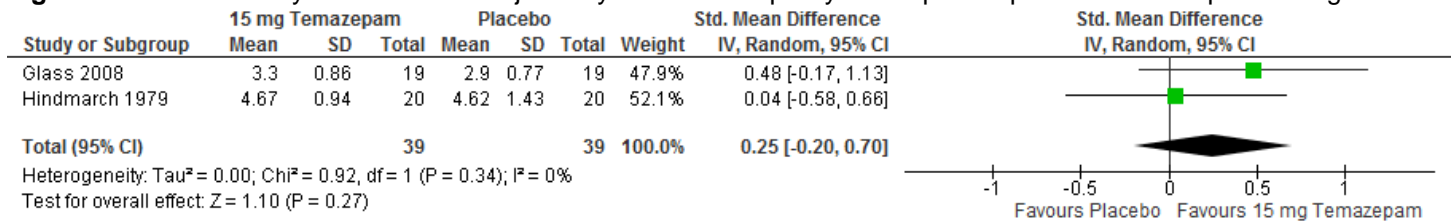


Table S12 – Summary of Findings table for temazepam 15 mg for the treatment of chronic insomnia

Reference: Glass 2008(A); Hindmarch 1979(B); Wu 2006 (C)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 15 mg Temazepam vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊕⊕⊕ high	The mean sleep latency in the temazepam group was 37.1 minutes lower (52.8 to 21.31 lower)	34 (1 study) ^C
Sleep Latency (Subjective)	⊕⊕⊕⊖ moderate ²	The mean sleep latency in the temazepam group was 20.06 minutes lower (39.05 to 1.07 lower)	72 (2 studies) ^{A,C}
Total Sleep Time* (PSG)	⊕⊕⊕⊕ high	The mean total sleep time in the temazepam group was 99.1 minutes higher (63.4 to 134.7 lower)	34 (1 study) ^C
Total Sleep Time (Subjective)	⊕⊕⊕⊖ moderate ³	The mean total sleep time in the temazepam groups was 64.41 minutes higher (8.07 to 120.76 higher)	72 (2 studies) ^{A,C}
Quality of Sleep* (Subjective)	⊕⊕⊕⊖ moderate ¹	The mean quality of sleep in the temazepam group was 0.25 standard deviations higher (0.2 lower to 0.7 higher)	39 (2 studies) ^{A,B}
Sleep Efficiency (PSG)	⊕⊕⊕⊖ moderate ⁵	The mean sleep efficiency in the temazepam group was 13.3 percent higher (3.9 to 22.6 higher)	34 (1 study) ^C
Sleep Efficiency (Subjective)	⊕⊕⊕⊖ moderate ⁶	The mean sleep efficiency in the temazepam group was 14.1 percent higher (5.8 to 22.3 higher)	34 (1 study) ^C
Number of Awakenings (Subjective)	⊕⊕⊕⊖ moderate ⁴	The mean number of awakenings in the temazepam group was 0.5 awakenings lower (1.29 lower to 0.29 higher)	38 (1 study) ^A

* Critical Outcome, used to determine Quality of Evidence

¹ 95% CI (-0.2, 0.7) crosses Clinical Significance (0.5 SMD)

² 95% CI (-39.05, -1.07) crosses Clinical Significance (20 min)

³ 95% CI (8.07, 120.76) crosses Clinical Significance (30 min)

⁴ 95% CI (-1.29, 0.29) crosses Clinical Significance (0.5 awakenings)

⁵ 95% CI (3.9, 22.6) crosses Clinical Significance (5%)

⁶ 95% CI (5.8, 22.3) crosses Clinical Significance (10%)

Table S13 – Summary of Findings table for temazepam 30 mg for the treatment of chronic insomnia

References: Hindmarch 1979

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 30 mg Temazepam vs Placebo	No of Participants (studies)
Quality of Sleep* (Subjective)	⊕⊕⊕⊖ moderate ¹	The mean quality of sleep in the temazepam group was 0.69 cm² higher (0.28 lower to 1.66 higher)	40 (1 study)

* Critical Outcome, used to determine Quality of Evidence

¹ 95% CI (-0.28, 1.66) crosses Clinical Significance (1.0 cm)

² 10 cm line analogue rating scale

Ramelteon - Meta-Analyses and Summary of Findings Table

Figure S42 – Meta-analysis of data for PSG-determined sleep latency in response to ramelteon 8 mg

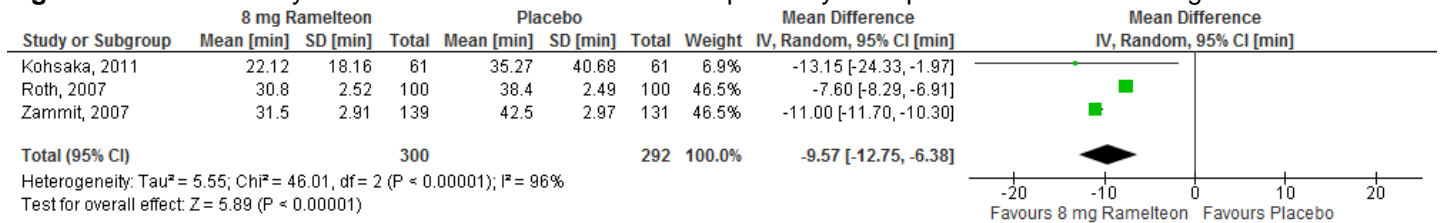


Figure S43 – Meta-analysis of data for subjectively-determined sleep latency in response to ramelteon 8 mg

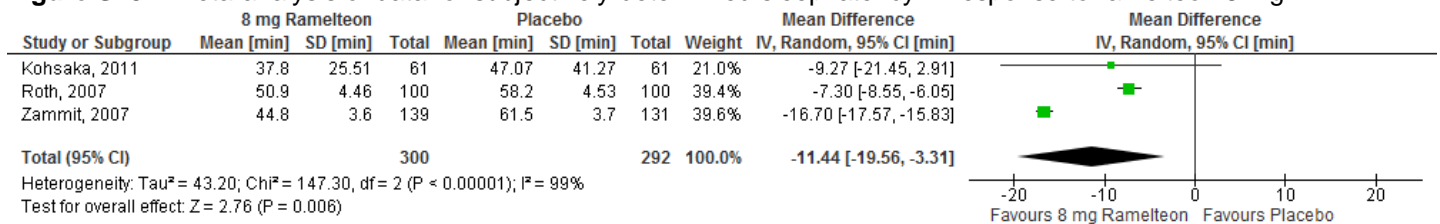


Figure S44 – Meta-analysis of data for PSG-determined total sleep time in response to ramelteon 8 mg

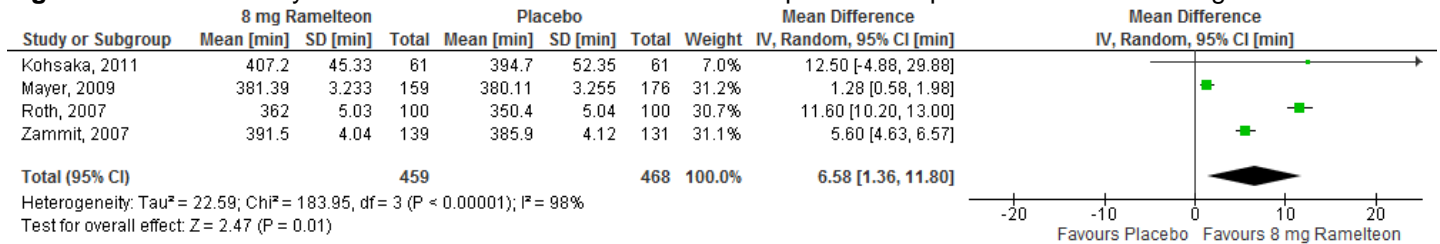


Figure S45 – Meta-analysis of data for subjectively-determined total sleep time in response to ramelteon 8 mg

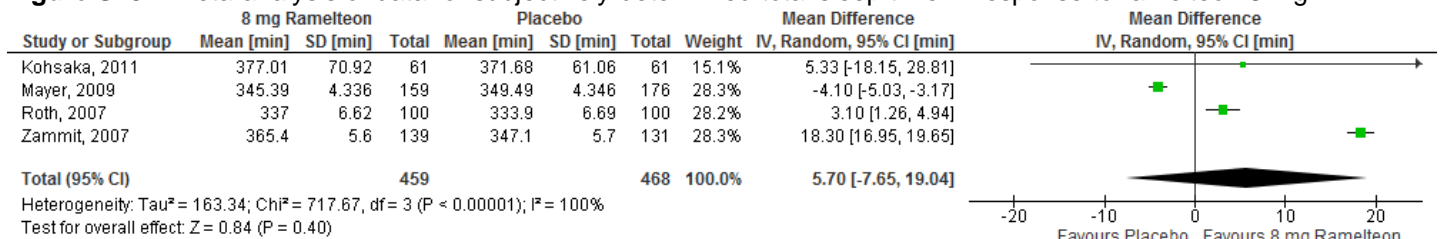


Figure S46 – Meta-analysis of data for PSG-determined wake after sleep onset in response to ramelteon 8 mg

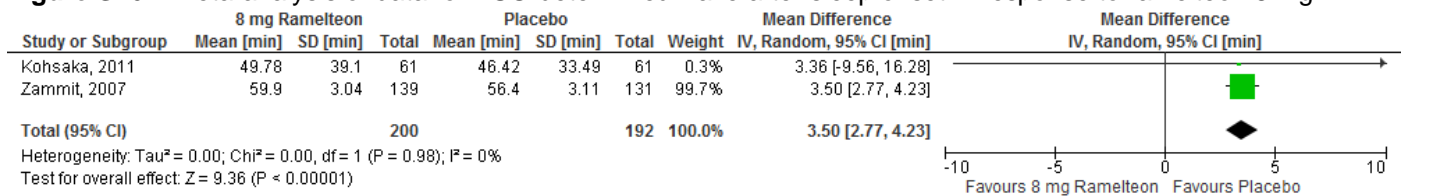


Figure S47 – Meta-analysis of data for subjectively-determined wake after sleep onset in response to ramelteon 8 mg

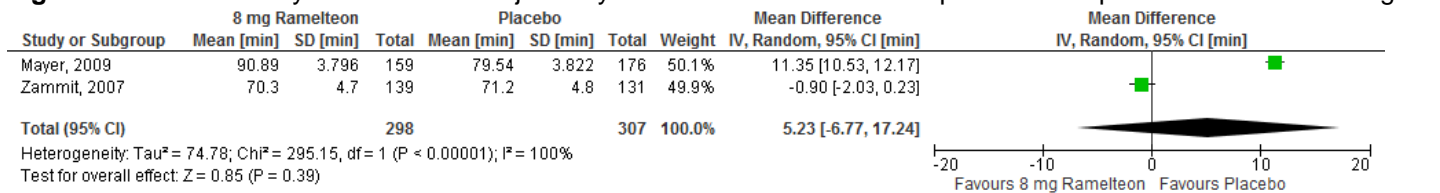


Figure S48 – Meta-analysis of data for PSG-determined quality of sleep in response to ramelteon 8 mg

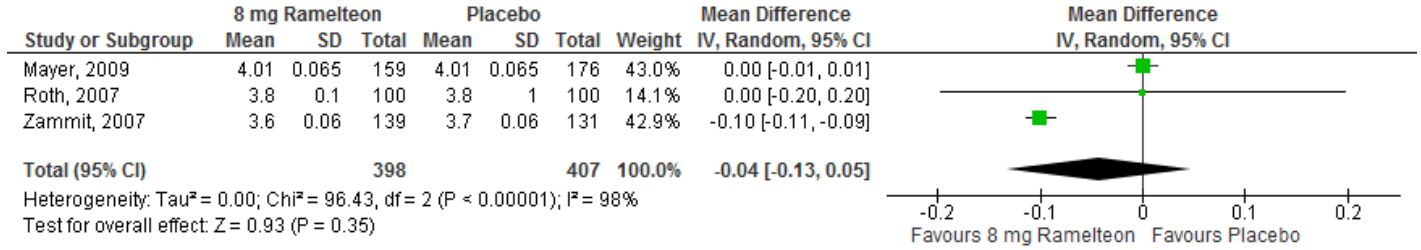


Figure S49 – Meta-analysis of data for PSG-determined sleep efficiency in response to ramelteon 8 mg

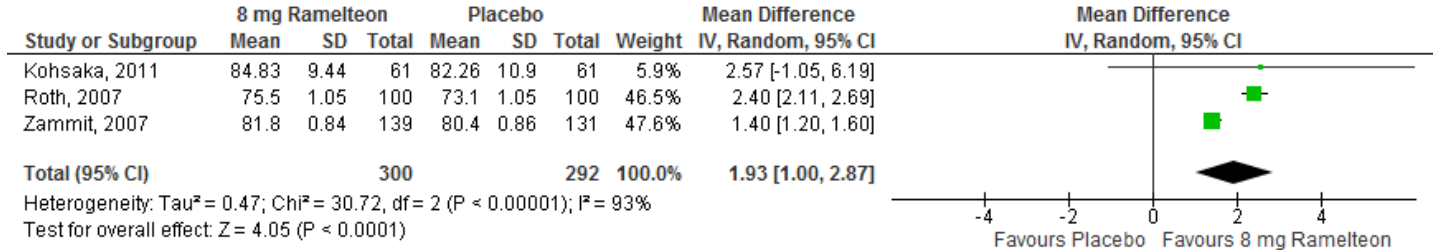


Figure S50 – Meta-analysis of data for the occurrence of headache in response to ramelteon 8 mg

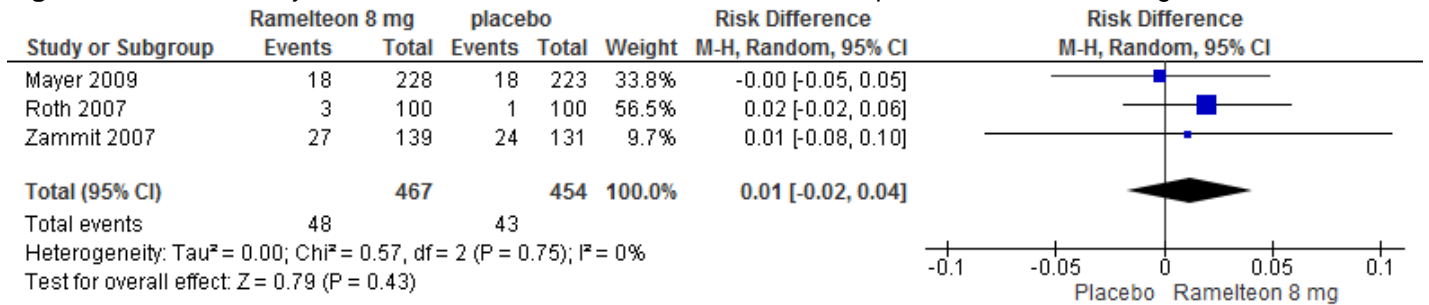


Figure S51 – Meta-analysis of data for the occurrence of upper respiratory tract infection in response to ramelteon 8 mg

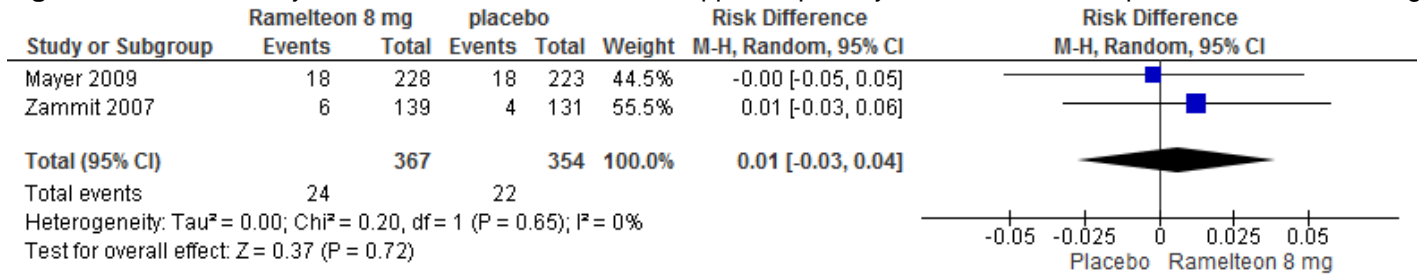


Table S14 – Summary of Findings table for ramelteon 8 mg for the treatment of chronic insomnia

References: Kohsaka 2011 (A); Mayer 2009(B); Roth 2007(C); Zammit 2007(D)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 8 mg Ramelteon vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊖⊖⊖ very low ^{1,2,3}	The mean sleep latency in the ramelteon groups was 9.57 minutes lower (12.75 to 6.38 lower)	592 (3 studies) ^{A,C,D}
Sleep Latency (Subjective)	⊕⊕⊖⊖ low ^{3,7,8}	The mean sleep latency in the ramelteon groups was 11.44 minutes lower (19.56 to 3.31 lower)	592 (3 studies) ^{A,C,D}
Total Sleep Time (PSG)	⊕⊕⊖⊖ low ^{1,3}	The mean total sleep time in the ramelteon groups was 6.58 minutes higher (1.36 to 11.80 higher)	927 (4 studies) ^{A,B,C,D}
Total Sleep Time (Subjective)	⊕⊕⊖⊖ low ^{3,6}	The mean total sleep time in the ramelteon groups was 5.70 minutes higher (7.65 lower to 19.04 higher)	927 (4 studies) ^{A,B,C,D}
Wake After Sleep Onset (PSG)	⊕⊕⊕⊖ moderate ³	The mean wake after sleep onset in the ramelteon groups was 3.50 minutes higher (2.77 to 4.23 higher)	392 (2 study) ^{A,D}
Wake After Sleep Onset (Subjective)	⊕⊕⊖⊖ low ^{3,6}	The mean wake after sleep onset in the ramelteon groups was 5.23 minutes higher (6.77 lower to 17.24 higher)	605 (2 studies) ^{B,D}
Quality of Sleep* (Subjective)	⊕⊕⊖⊖ low ^{1,3}	The mean quality of sleep in the ramelteon groups was 0.04 points lower ⁵ (0.13 lower to 0.05 higher)	805 (3 studies) ^{B,C,D}
Sleep Efficiency (PSG)	⊕⊕⊖⊖ low ^{3,4}	The mean sleep efficiency in the ramelteon groups was 1.93 percent higher (1.00 to 2.87 higher)	592 (3 studies) ^{A,C,D}
Number of Awakenings (Subjective)	⊕⊕⊕⊖ moderate ³	The mean number of awakenings in the ramelteon group was 0.12 awakenings higher (0.08 to 0.15 higher)	335 (1 study) ^B

* Critical Outcome, used to determine Quality of Evidence

¹ Heterogeneity (I² = 98%) is greater than allowance (75%)

² 95% CI (-12.75, -6.38) crosses Clinical Significance (10 min)

³ All studies funded by industry

⁴ Heterogeneity (I² = 93%) greater than allowance (75%)

⁵ 7-point Likert scale (1=excellent, 7=very poor)

⁶ Heterogeneity (I² =100%) greater than allowance (75%)

⁷ Heterogeneity (I² =99%) greater than allowance (75%)

⁸ 95% CI (-21.45, 2.90) crosses Clinical Significance (20 min)

Doxepin - Meta-Analyses and Summary of Findings Tables

Figure S4952 – Meta-analysis of data for PSG-determined sleep latency in response to doxepin 3 mg

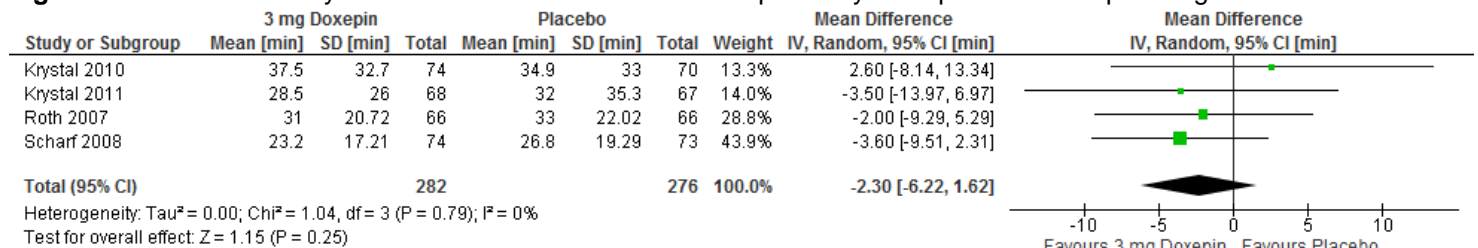


Figure S53 – Meta-analysis of data for subjectively-determined sleep latency in response to doxepin 3 mg

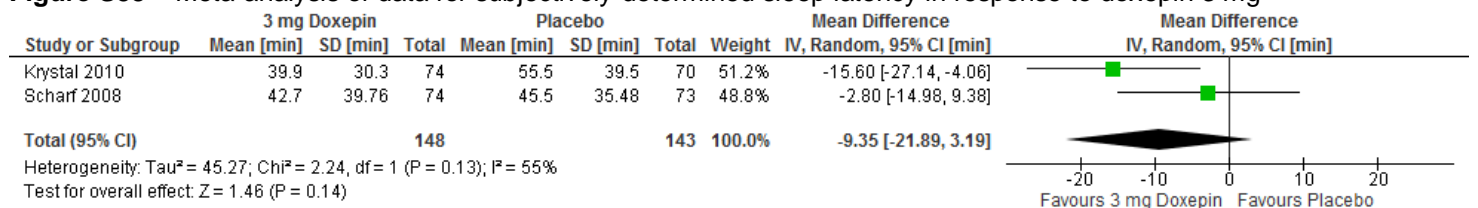


Figure S54 – Meta-analysis of data for PSG-determined total sleep time in response to doxepin 3 mg

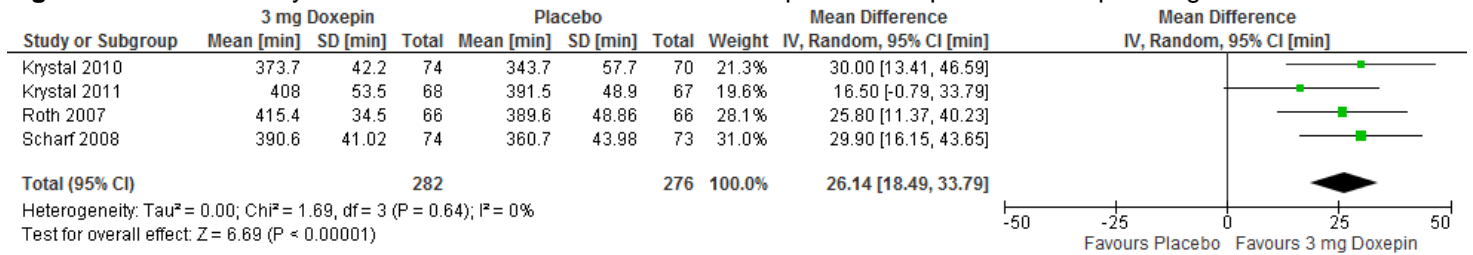


Figure S55 – Meta-analysis of data for subjectively-determined total sleep time in response to doxepin 3 mg

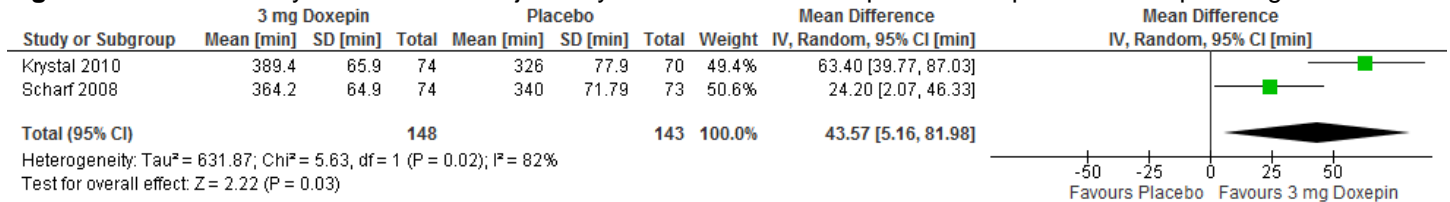


Figure S56 – Meta-analysis of data for PSG-determined wake after sleep onset in response to doxepin 3 mg

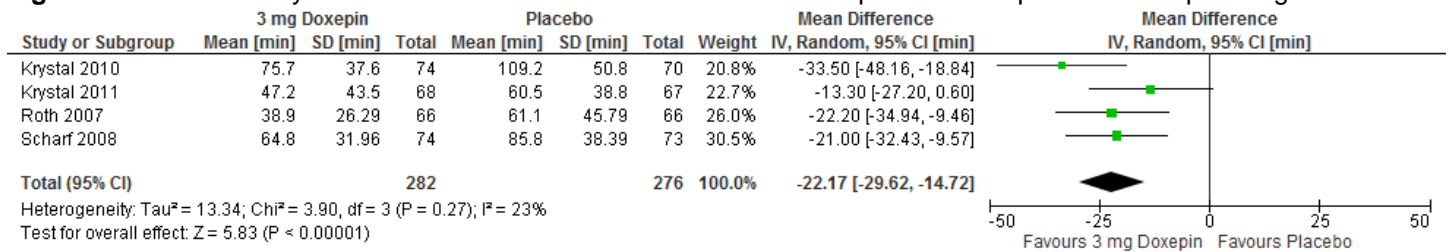


Figure S57 – Meta-analysis of data for subjectively-determined quality of sleep in response to doxepin 3 mg

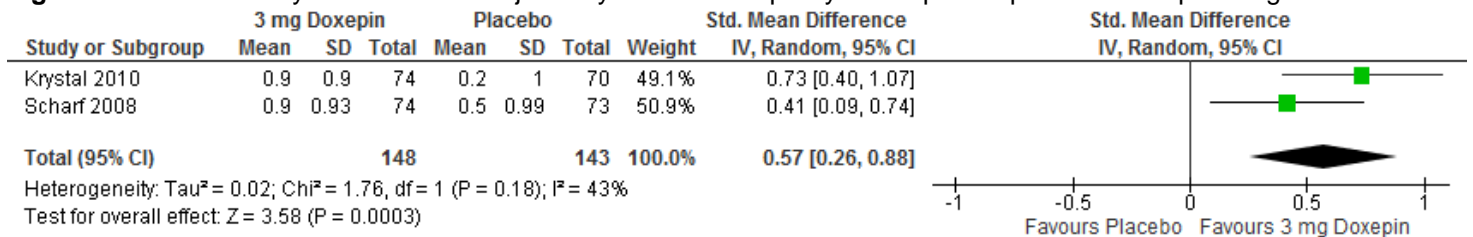


Figure S58 – Meta-analysis of data for PSG-determined sleep efficiency in response to doxepin 3 mg

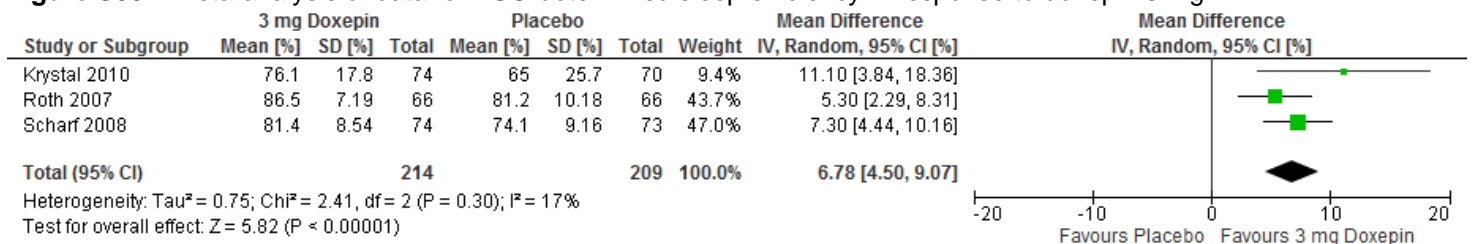


Figure S59 – Meta-analysis of data for PSG-determined number of awakenings in response to doxepin 3 mg

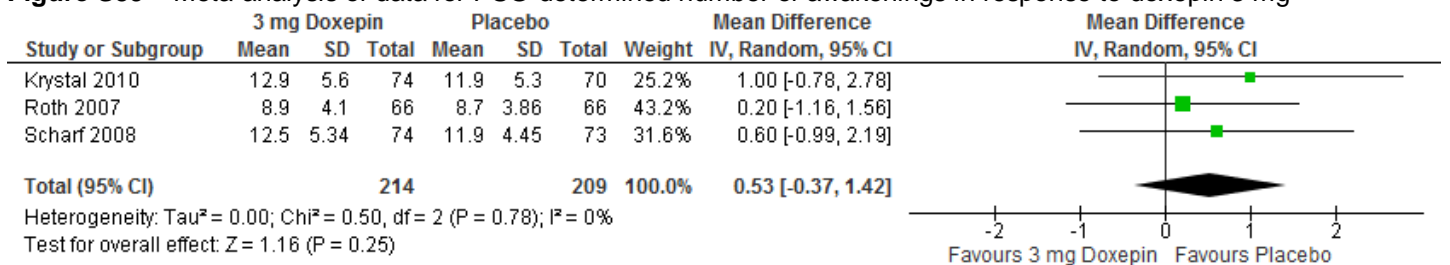


Figure S60 – Meta-analysis of data for the occurrence of headache in response to doxepin 3 mg

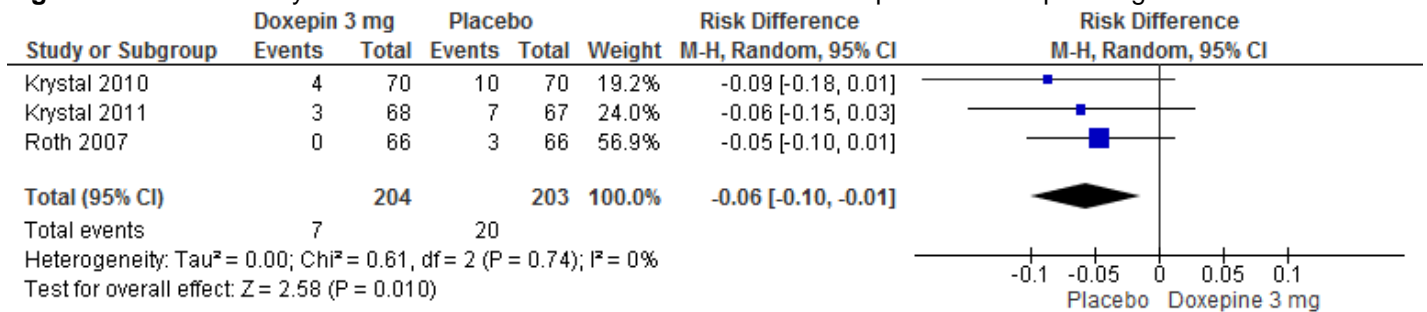


Figure S61 – Meta-analysis of data for the occurrence of somnolence in response to doxepin 3 mg

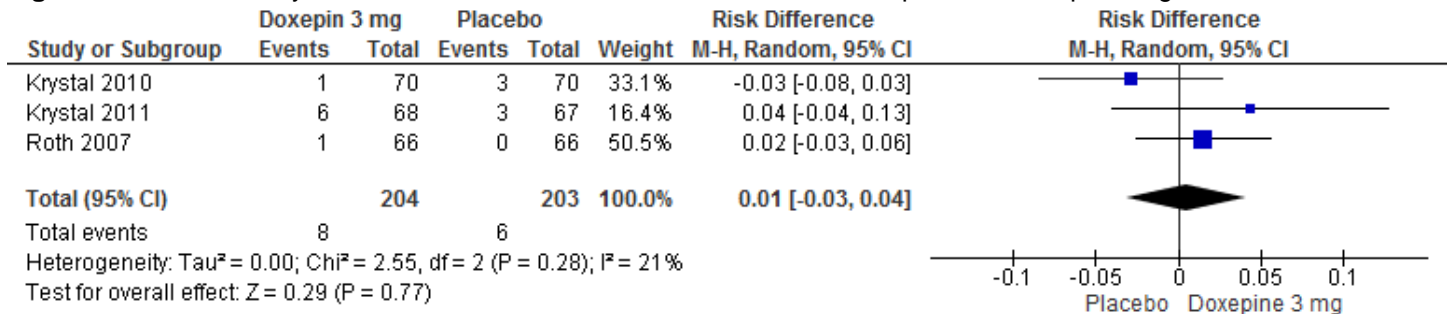


Figure S62 – Meta-analysis of data for the occurrence of diarrhea in response to doxepin 3 mg

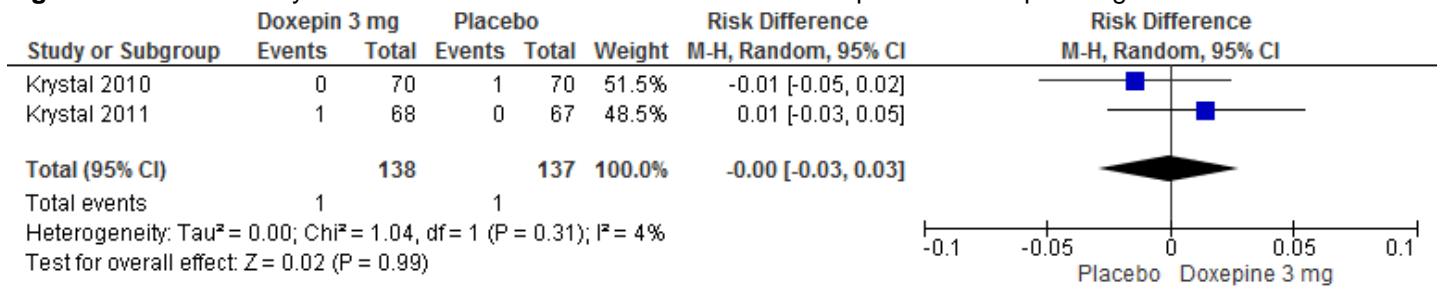


Figure S63 – Meta-analysis of data for the occurrence of upper respiratory tract infection in response to doxepin 3 mg

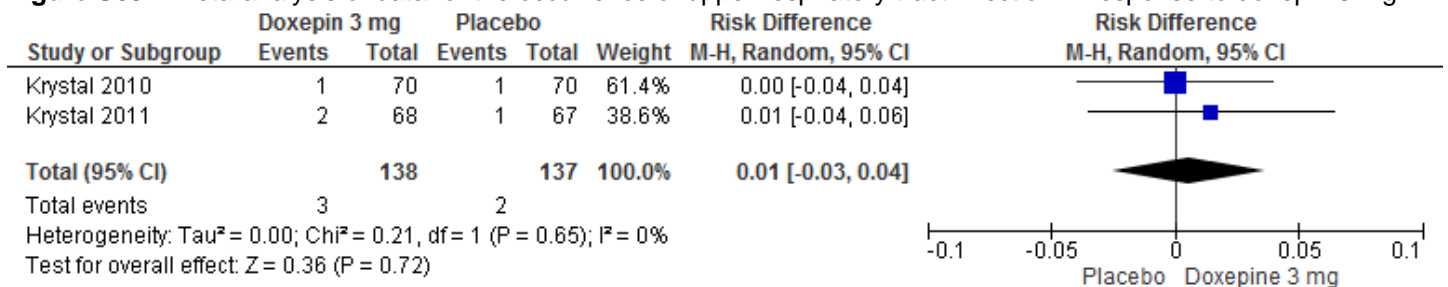


Table S15 – Summary of Findings table for doxepin 3 mg for the treatment of chronic insomnia

References: Krystal 2010(A); Krystal 2011(B); Roth 2007(C); Scharf 2008(D)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 3 mg Doxepin vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊕⊕⊖ moderate ¹	The mean sleep latency in the doxepin groups was 2.3 minutes lower (6.22 lower to 1.62 higher)	558 (4 studies) ^{A,B,C,D}
Sleep Latency (Subjective)	⊕⊕⊕⊖ low ^{1,6}	The mean sleep latency in the doxepin groups was 9.35 minutes lower (21.89 lower to 3.19 higher)	291 (2 studies) ^{A,D}
Total Sleep Time* (PSG)	⊕⊕⊕⊖ low ^{1,3}	The mean total sleep time in the doxepin groups was 26.14 minutes higher (18.49 to 33.79 higher)	558 (4 studies) ^{A,B,C,D}
Total Sleep Time (Subjective)	⊕⊖⊖⊖ very low ^{1,7,8}	The mean total sleep time in the doxepin groups was 43.57 minutes higher (5.16 to 81.98 higher)	291 (2 studies) ^{A,D}
Wake After Sleep Onset* (PSG)	⊕⊕⊕⊖ low ^{1,2}	The mean wake after sleep onset in the doxepin groups was 22.17 minutes lower (29.62 to 14.72 lower)	558 (4 studies) ^{A,B,C,D}
Wake After Sleep Onset (Subjective)	⊕⊕⊕⊖ low ^{1,9}	The mean wake after sleep onset in the doxepin group was 20.0 minutes lower (39.07 to 0.92 lower)	147 (1 study) ^D
Quality of Sleep* (Subjective)	⊕⊕⊕⊖ low ^{1,5}	The mean quality of sleep in the doxepin groups was 0.57 standard deviations higher (0.26 to 0.88 higher)	291 (2 studies) ^{A,D}
Sleep Efficiency (PSG)	⊕⊕⊕⊖ low ^{1,4}	The mean sleep efficiency in the doxepin groups was 6.78 percent higher (4.5 to 9.07 higher)	423 (3 studies) ^{A,C,D}
Number of Awakenings (PSG)	⊕⊕⊕⊖ moderate ¹	The mean number of awakenings in the doxepin groups was 0.53 awakenings higher (0.37 lower to 1.42 higher)	423 (3 studies) ^{A,C,D}

* Critical Outcome, used to determine Quality of Evidence

¹ All studies funded by Industry

² 95% CI (-29.62, -14.72) crosses Clinical Significance (20 min)

³ 95% CI (18.49, 33.79) crosses Clinical Significance (20 min)

⁴ 95% CI (4.50, 9.07) crosses Clinical Significance (5%)

⁵ 95% CI (0.26, 0.88) crosses Clinical Significance (SMD 0.5)

⁶ 95% CI (-21.89, 3.19) crosses Clinical Significance (20 min)

⁷ Heterogeneity (I² = 82%) greater than allowance (75%)

⁸ 95% CI (5.16, 81.98) crosses Clinical Significance (30 min)

⁹ 95% CI (-39.07, -0.92) crosses Clinical Significance (30 min)

Figure S64 – Meta-analysis of data for PSG-determined sleep latency in response to doxepin 6 mg

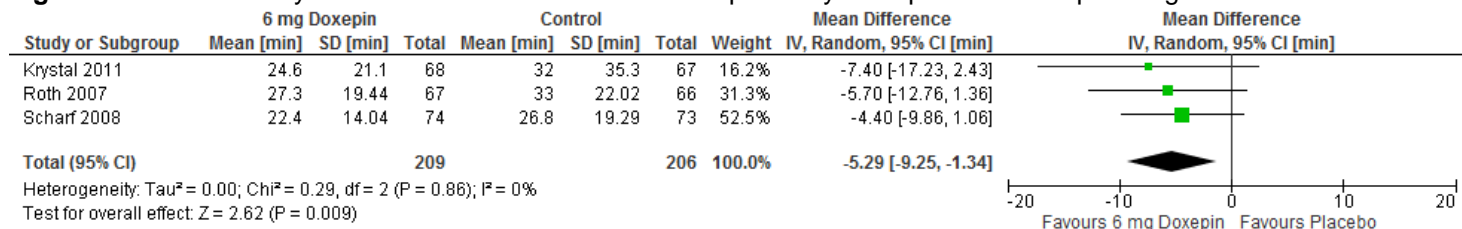


Figure S65 – Meta-analysis of data for PSG-determined total sleep time in response to doxepin 6 mg

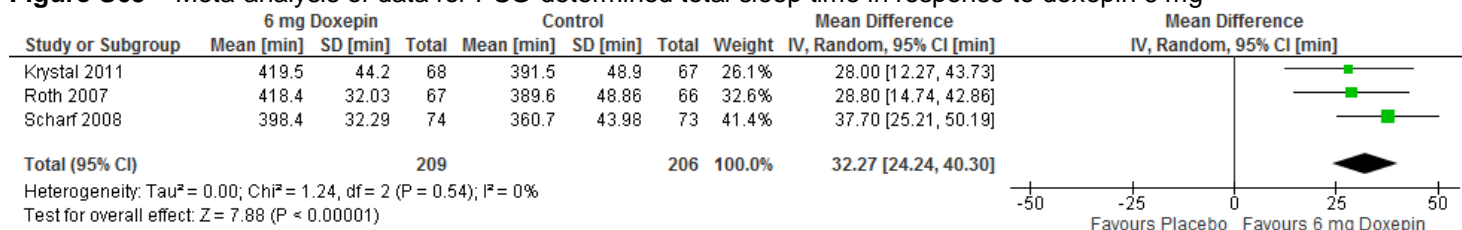


Figure S66 – Meta-analysis of data for subjectively-determined total sleep time in response to doxepin 6 mg

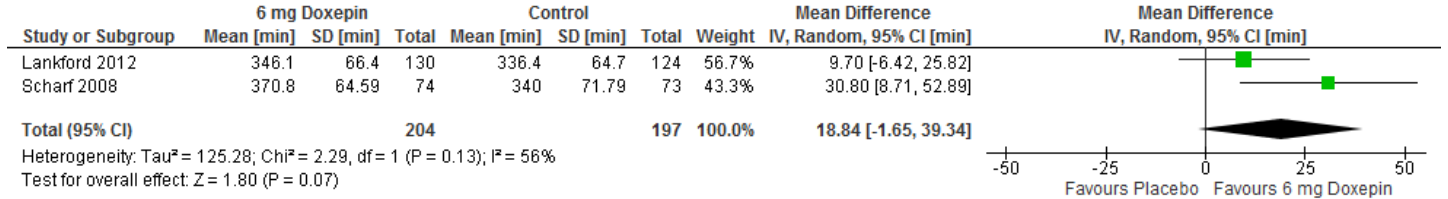


Figure S67 – Meta-analysis of data for PSG-determined wake after sleep onset in response to doxepin 6 mg

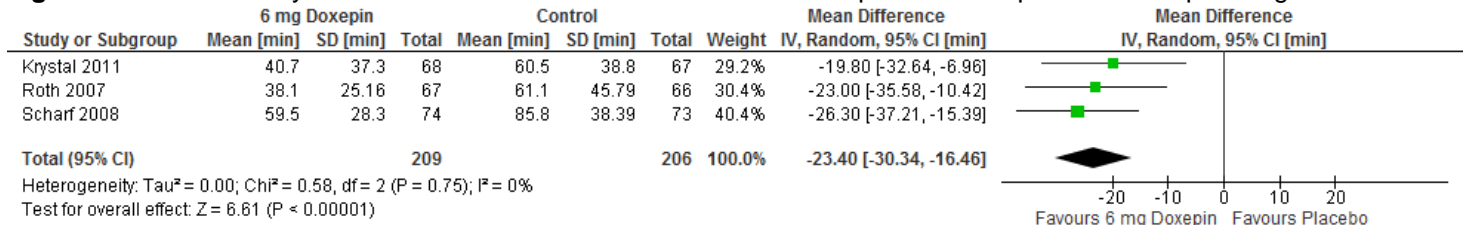


Figure S68 – Meta-analysis of data for subjectively-determined wake after sleep onset in response to doxepin 6 mg

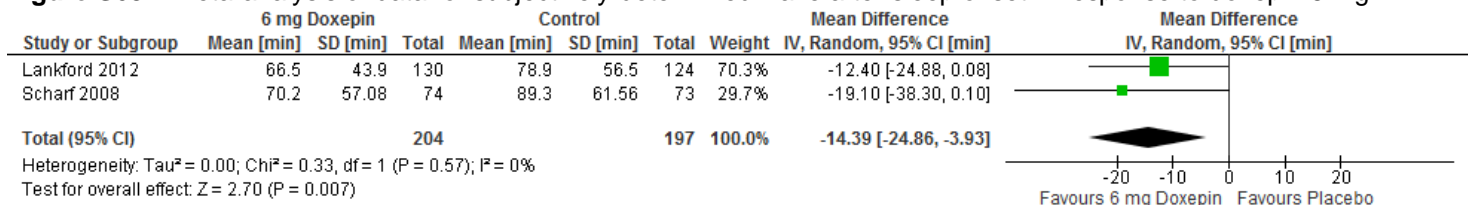


Figure S69 – Meta-analysis of data for subjectively-determined quality of sleep in response to doxepin 6 mg

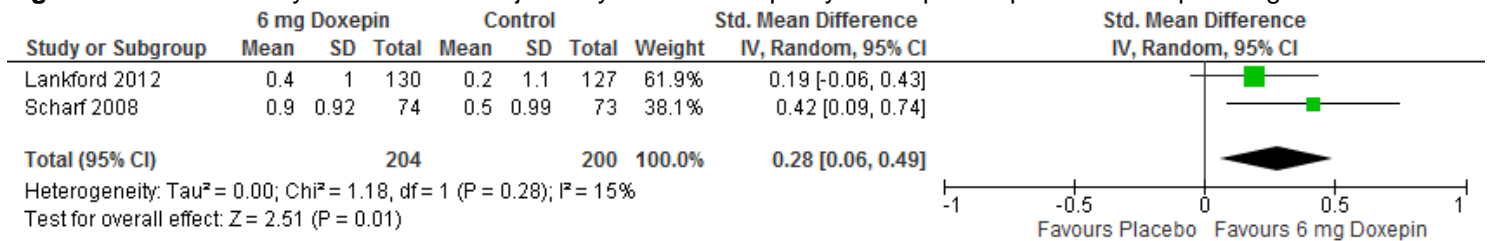


Figure S70 – Meta-analysis of data for PSG-determined sleep efficiency in response to doxepin 6 mg

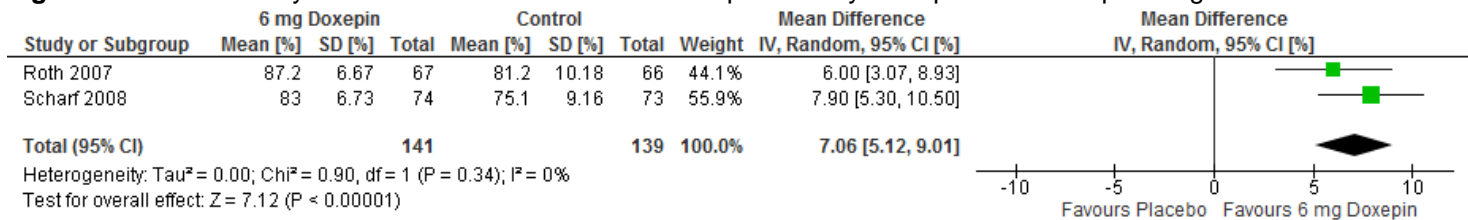


Figure S71 – Meta-analysis of data for PSG-determined number of awakenings in response to doxepin 6 mg

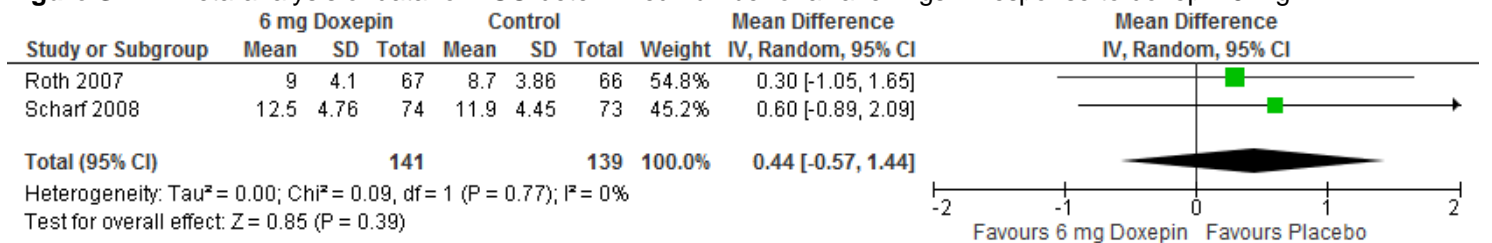


Figure S72 – Meta-analysis of data for the occurrence of headache in response to doxepin 6 mg

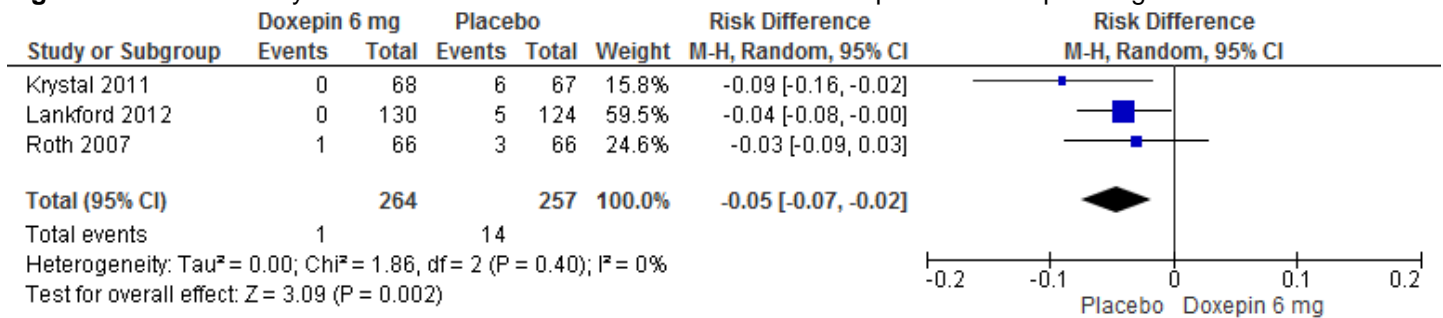


Figure S73 – Meta-analysis of data for the occurrence of somnolence in response to doxepin 6 mg

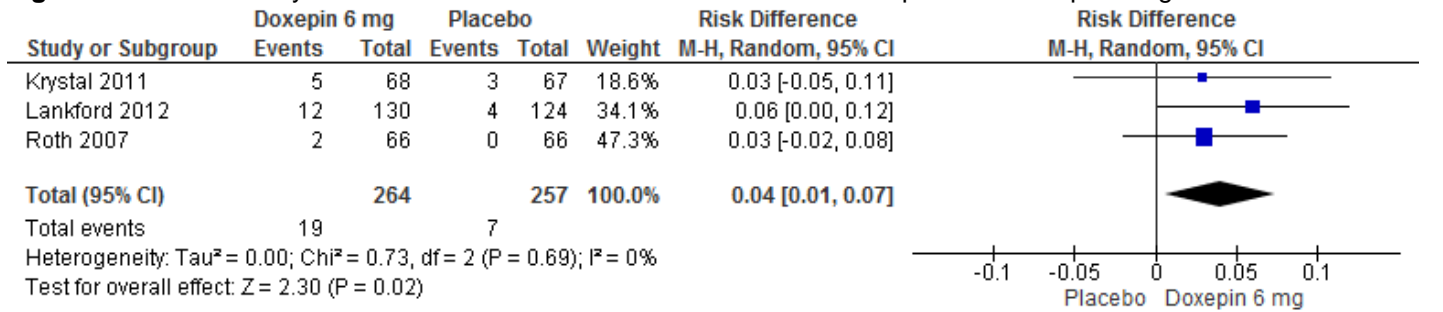


Table S16 – Summary of Findings table for doxepin 6 mg for the treatment of chronic insomnia

References: Krystal 2011(A); Roth 2007(B); Lankford 2012(C); Scharf 2008(D)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 6 mg Doxepin vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊕⊕⊖ moderate ¹	The mean sleep latency in the doxepin groups was 5.29 minutes lower (9.25 to 1.34 lower)	415 (3 studies) ^{A,B,D}
Total Sleep Time* (PSG)	⊕⊕⊕⊖ moderate ¹	The mean total sleep time in the doxepin groups was 32.27 minutes higher (24.24 to 40.3 higher)	415 (3 studies) ^{A,B,D}
Total Sleep Time (Subjective)	⊕⊕⊖⊖ low ^{1,3}	The mean total sleep time in the doxepin groups was 18.84 minutes higher (1.65 lower to 39.34 higher)	401 (2 studies) ^{C,D}
Wake After Sleep Onset* (PSG)	⊕⊕⊖⊖ low ^{1,2}	The mean wake after sleep onset in the doxepin groups was 23.4 minutes lower (30.34 to 16.46 lower)	415 (3 studies) ^{A,B,D}
Wake After Sleep Onset (Subjective)	⊕⊕⊕⊖ moderate ¹	The mean wake after sleep onset in the doxepin groups was 14.39 minutes lower (24.86 to 3.93 lower)	401 (2 studies) ^{C,D}
Quality of Sleep* (Subjective)	⊕⊕⊕⊖ moderate ¹	The mean quality of sleep in the doxepin groups was 0.28 standard deviations higher (0.06 to 0.49 higher)	404 (2 studies) ^{C,D}
Sleep Efficiency (PSG)	⊕⊕⊕⊖ moderate ¹	The mean sleep efficiency in the doxepin groups was 7.06 percent higher (5.12 to 9.01 higher)	280 (2 studies) ^{B,D}
Number of Awakenings (PSG)	⊕⊕⊕⊖ moderate ¹	The mean number of awakenings in the doxepin groups was 0.44 awakenings higher (0.57 lower to 1.44 higher)	280 (2 studies) ^{B,D}

* Critical Outcome, used to determine Quality of Evidence

¹ All studies funded by industry

² 95% CI (-30.34, -16.46) crosses Clinical Significance (20 min)

³ 95% CI (-1.65, 39.34) crosses Clinical Significance (30 min)

Trazadone - Summary of Findings Table

Table S17 – Summary of Findings table for trazadone 50 mg for the treatment of chronic insomnia

References: Walsh 1998(A)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 50 mg Trazadone vs Placebo	No of Participants (studies)
Sleep Latency* (Subjective)	⊕⊕⊕⊖ moderate ¹	The mean sleep latency in the trazadone group was 10.20 minutes lower (11.44 to 8.95 lower)	187 (1 study) ^A
Total Sleep Time* (Subjective)	⊕⊕⊕⊖ moderate ¹	The mean total sleep time in the trazadone group was 21.80 minutes higher (20.10 to 23.49 higher)	187 (1 study) ^A
Wake After Sleep Onset* (Subjective)	⊕⊕⊕⊖ moderate ¹	The mean wake after sleep onset in the trazadone group was 7.70 minutes lower (8.89 to 6.5 lower)	187 (1 study) ^A
Quality of Sleep* (Subjective)	⊕⊕⊕⊖ moderate ¹	The mean quality of sleep in the trazadone group was 0.13 points² lower (0.14 to 0.11 lower)	187 (1 study) ^A
Number of Awakenings (Subjective)	⊕⊕⊕⊖ moderate ¹	The mean number of awakenings in the trazadone group was 0.40 awakenings lower (0.42 to 0.37 lower)	187 (1 study) ^A

* Critical Outcome, used to determine Quality of Evidence

¹ Study funded by industry

² 4-point scale (1=Excellent, 4=Poor)

Tiagabine - Meta-Analyses and Summary of Findings Tables

Figure S74 – Meta-analysis of data for PSG-determined sleep latency in response to tiagabine 4 mg

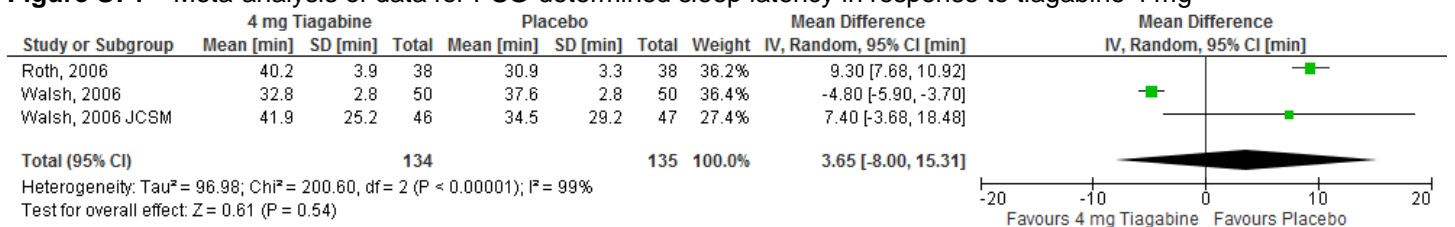


Figure S75 – Meta-analysis of data for subjectively-determined sleep latency in response to tiagabine 4 mg

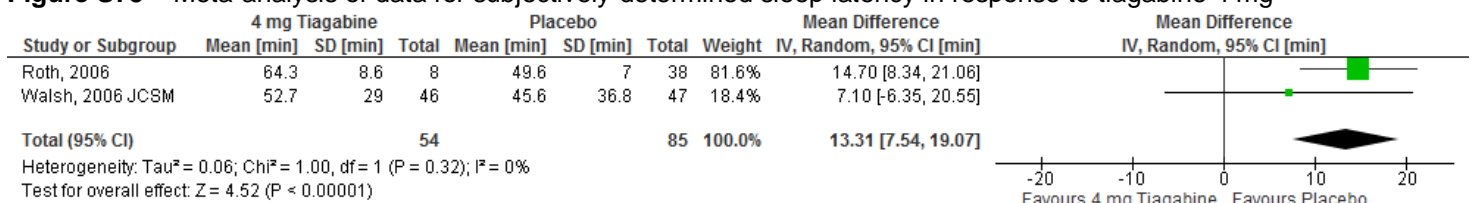


Figure S76 – Meta-analysis of data for PSG-determined total sleep time in response to tiagabine 4 mg

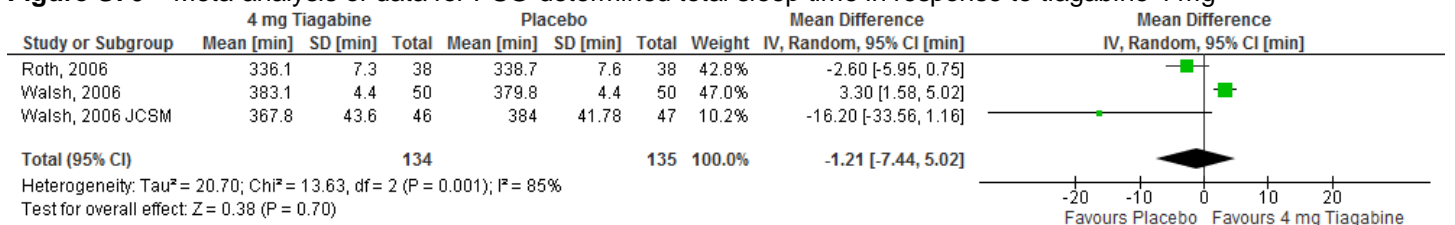


Figure S77 – Meta-analysis of data for subjectively-determined total sleep time in response to tiagabine 4 mg

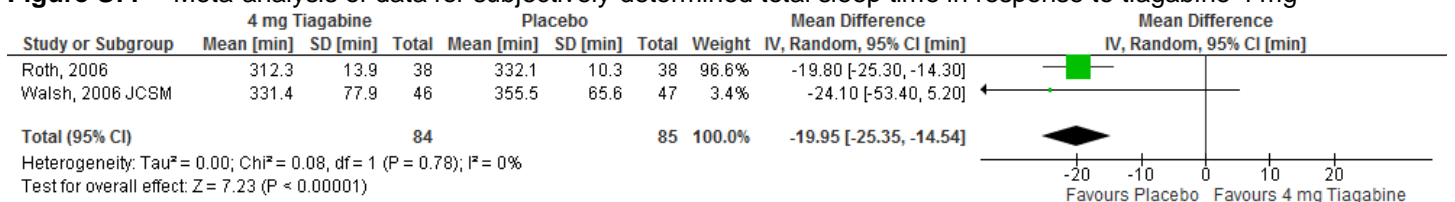


Figure S78 – Meta-analysis of data for PSG-determined wake after sleep onset in response to tiagabine 4 mg

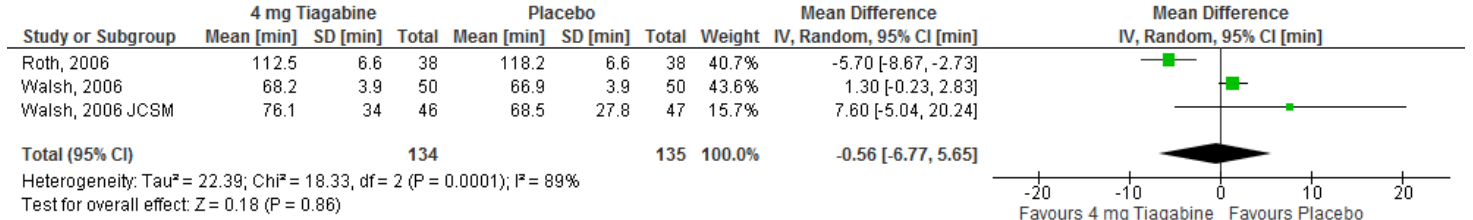


Figure S79 – Meta-analysis of data for subjectively-determined wake after sleep onset in response to tiagabine 4 mg

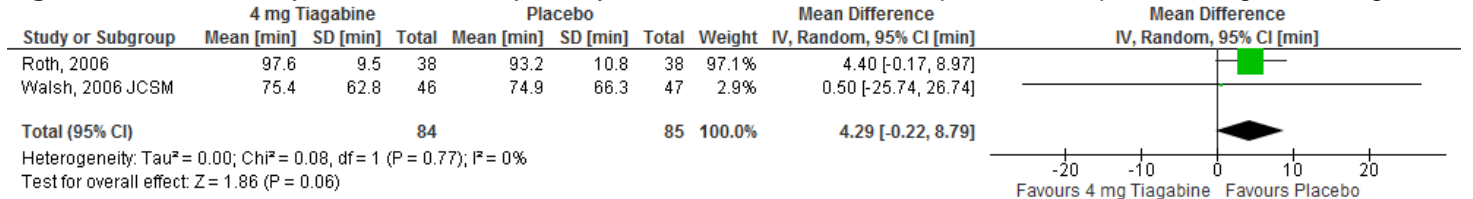


Figure S80 – Meta-analysis of data for subjectively-determined quality of sleep in response to tiagabine 4 mg

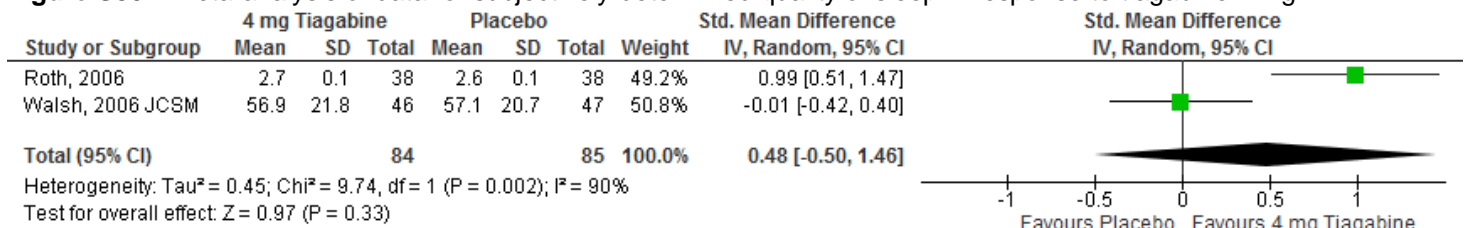


Figure S81 – Meta-analysis of data for PSG-determined sleep efficiency in response to tiagabine 4 mg

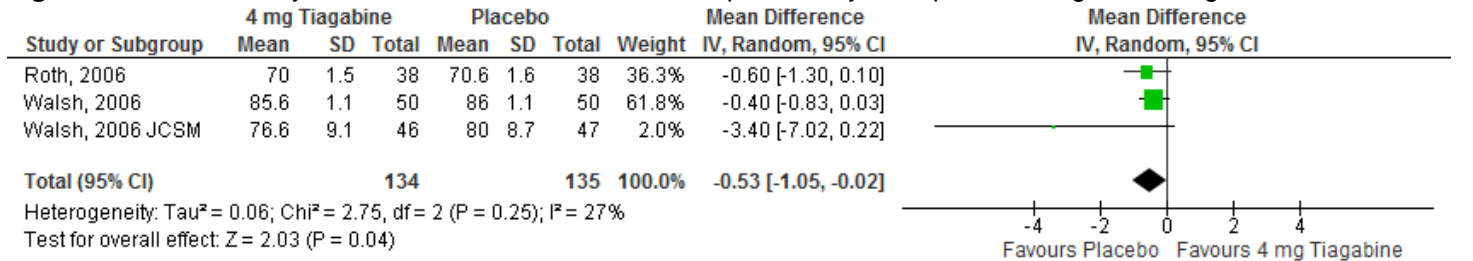


Figure S82 – Meta-analysis of data for PSG-determined number of awakenings in response to tiagabine 4 mg

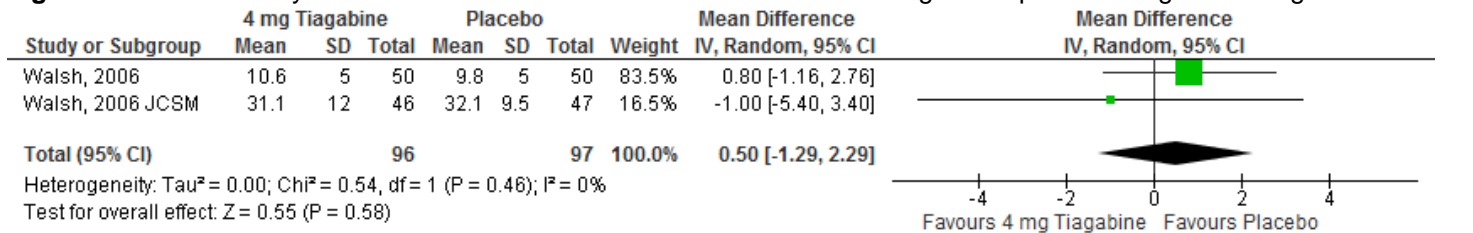


Figure S83 – Meta-analysis of data for subjectively-determined number of awakenings in response to tiagabine 4 mg

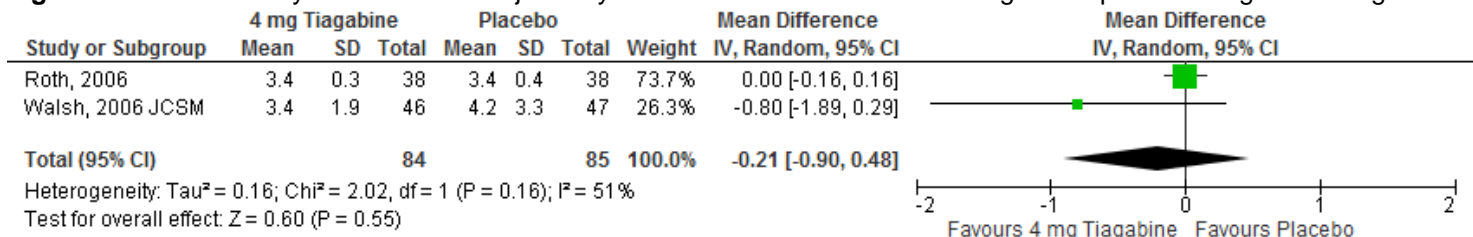


Figure S84 – Meta-analysis of data for the occurrence of headache in response to tiagabine 4 mg

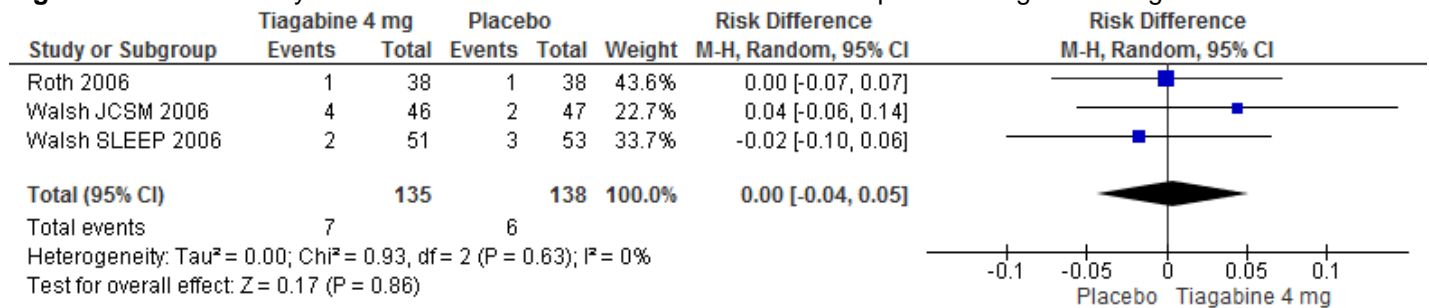


Figure S85 – Meta-analysis of data for the occurrence of nausea in response to tiagabine 4 mg

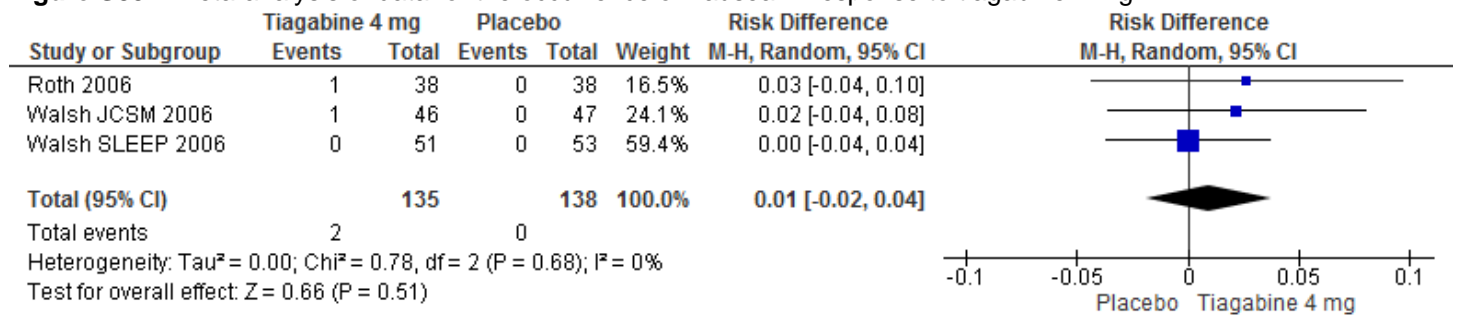


Table S18 – Summary of Findings table for tiagabine 4 mg for the treatment of chronic insomnia

References: Roth 2006(A); Walsh 2006(B); Walsh 2006 JCSCM(C)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 4 mg Tiagabine vs Placebo	No of Participants (studies)
Sleep Latency (PSG)	⊕⊖⊖⊖ very low ^{1,2,3}	The mean sleep latency in the tiagabine groups was 3.65 minutes higher (8 lower to 15.31 higher)	269 (3 studies) ^{A,B,C}
Sleep Latency (Subjective)	⊕⊕⊕⊖ moderate ³	The mean sleep latency in the tiagabine groups was 13.31 minutes higher (7.54 to 19.07 higher)	139 (2 studies) ^{A,C}
Total Sleep Time* (PSG)	⊕⊕⊖⊖ low ^{3,5}	The mean total sleep time in the tiagabine groups was 1.21 minutes lower (7.44 lower to 5.02 higher)	269 (3 studies) ^{A,B,C}
Total Sleep Time (Subjective)	⊕⊕⊕⊖ moderate ³	The mean total sleep time in the tiagabine groups was 19.95 minutes lower (25.35 to 14.54 lower)	169 (2 studies) ^{A,C}
Wake After Sleep Onset* (PSG)	⊕⊕⊖⊖ low ^{3,4}	The mean wake after sleep onset in the tiagabine groups was 0.56 minutes lower (6.77 lower to 5.65 higher)	269 (3 studies) ^{A,B,C}
Wake After Sleep Onset (Subjective)	⊕⊕⊕⊖ moderate ³	The mean wake after sleep onset in the tiagabine groups was 4.29 minutes higher (0.22 lower to 8.79 higher)	169 (2 studies) ^{A,C}
Quality of Sleep* (Subjective)	⊕⊖⊖⊖ very low ^{3,7,8}	The mean quality of sleep in the tiagabine groups was 0.48 standard deviations higher (0.5 lower to 1.46 higher)	169 (2 studies) ^{A,C}
Sleep Efficiency (PSG)	⊕⊕⊕⊖ moderate ³	The mean sleep efficiency in the tiagabine groups was 0.53 percent lower (1.05 to 0.02 lower)	269 (3 studies) ^{A,B,C}
Number of Awakenings (PSG)	⊕⊕⊖⊖ low ^{3,6}	The mean number of awakenings in the tiagabine groups was 0.5 awakenings higher (1.29 lower to 2.29 higher)	193 (2 studies) ^{B,C}
Number of Awakenings (Subjective)	⊕⊕⊖⊖ low ^{3,9}	The mean number of awakenings in the tiagabine groups was 0.21 awakenings lower (0.9 lower to 0.48 higher)	169 (2 studies) ^{A,C}

* Critical Outcome, used to determine Quality of Evidence

¹ Heterogeneity (I² = 99%) greater than allowance (75%)

² 95% CI (-8.0, 15.31) crosses Clinical Significance (10 min)

³ All studies funded by industry

⁴ Heterogeneity (I² = 89%) greater than allowance (75%)

⁵ Heterogeneity (I² = 85%) greater than allowance (75%)

⁶ 95% CI (-1.29, 2.29) crosses Clinical Significance (2 awakenings)

⁷ Heterogeneity (I² = 90%) greater than allowance (75%)

⁸ 95% CI (-0.50, 1.46) crosses zero standard mean difference

⁹ 95% CI (-0.90, 0.48) crosses Clinical Significance (0.5 awakenings)

Table S19 – Summary of Findings table for tiagabine 6 mg for the treatment of chronic insomnia

References: Roth 2006(A); Walsh 2006 JCSM(B)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 6 mg Tiagabine vs Placebo	No of Participants (studies)
Sleep Latency (PSG)	⊕⊕⊖⊖ low ^{3,7}	The mean sleep latency in the tiagabine groups was 6.9 minutes higher (2.22 to 11.58 higher)	175 (2 studies) ^{A,B}
Sleep Latency (Subjective)	⊕⊕⊕⊖ moderate ³	The mean sleep latency in the tiagabine groups was 5.68 minutes higher (3.05 to 8.3 higher)	175 (2 studies) ^{A,B}
Total Sleep Time* (PSG)	⊕⊕⊕⊖ moderate ³	The mean total sleep time in the tiagabine groups was 7.17 minutes higher (0.26 lower to 14.59 higher)	175 (2 studies) ^{A,B}
Total Sleep Time (Subjective)	⊕⊕⊕⊖ moderate ³	The mean total sleep time in the tiagabine groups was 9.65 minutes lower (14.05 to 5.25 lower)	175 (2 studies) ^{A,B}
Wake After Sleep Onset* (PSG)	⊕⊖⊖⊖ very low ^{1,2,3}	The mean wake after sleep onset in the tiagabine groups was 9.24 minutes lower (24.78 lower to 6.3 higher)	175 (2 studies) ^{A,B}
Wake After Sleep Onset (Subjective)	⊕⊕⊕⊖ moderate ³	The mean wake after sleep onset in the tiagabine groups was 5.68 minutes higher (3.05 to 8.3 higher)	175 (2 studies) ^{A,B}
Quality of Sleep* (Subjective)	⊕⊕⊖⊖ low ^{3,4}	The mean quality of sleep in the tiagabine groups was 0.01 standard deviations higher (0.28 lower to 0.31 higher)	175 (2 studies) ^{A,B}
Sleep Efficiency (PSG)	⊕⊕⊕⊖ moderate ³	The mean sleep efficiency in the tiagabine groups was 1.46 percent higher (0.15 lower to 3.06 higher)	175 (2 studies) ^{A,B}
Number of Awakenings (Subjective)	⊕⊖⊖⊖ very low ^{3,5,6}	The mean number of awakenings in the tiagabine groups was 0.49 awakenings lower (1.84 lower to 0.87 higher)	175 (2 studies) ^{A,B}

* Critical Outcome, used to determine Quality of Evidence

¹ Heterogeneity (I² = 81%) crosses threshold (75%)

² 95% CI (-24.78, 6.30) crosses Clinical Significance (20 min)

³ All studies funded by industry

⁴ 95% CI (-0.28, 0.31) crosses zero standard mean difference

⁵ Heterogeneity (I² = 83%) crosses threshold (75%)

⁶ 95% CI (-1.84, 0.87) crosses Clinical Significance (0.5 awakenings)

⁷ 95% CI (2.22, 11.58) crosses Clinical Significance (10 min)

Table S20 – Summary of Findings table for tiagabine 8 mg for the treatment of chronic insomnia

References: Roth 2006(A); Walsh 2006(B); Walsh 2006 JCSM(C)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 6 mg Tiagabine vs Placebo	No of Participants (studies)
Sleep Latency (PSG)	⊕⊕⊕⊖ moderate ¹	The mean sleep latency in the tiagabine groups was 1.22 minutes lower (2.66 lower to 0.22 higher)	271 (3 studies) ^{A,B,C}
Sleep Latency (Subjective)	⊕⊕⊕⊖ moderate ¹	The mean sleep latency in the tiagabine groups was 2.12 minutes lower (3.48 to 0.76 lower)	171 (2 studies) ^{A,C}
Total Sleep Time* (PSG)	⊕⊕⊖⊖ low ^{1,3}	The mean total sleep time in the tiagabine groups was 3.49 minutes higher (6.43 lower to 13.42 higher)	271 (3 studies) ^{A,B,C}
Total Sleep Time (Subjective)	⊕⊖⊖⊖ very low ^{1,7,8}	The mean total sleep time in the tiagabine groups was 16.09 minutes lower (44.97 lower to 12.79 higher)	171 (2 studies) ^{A,C}
Wake After Sleep Onset* (PSG)	⊕⊕⊖⊖ low ^{1,2}	The mean wake after sleep onset in the tiagabine groups was 2.42 minutes lower (10.35 lower to 5.51 higher)	271 (3 studies) ^{A,B,C}
Wake After Sleep Onset (Subjective)	⊕⊕⊕⊖ moderate ¹	The mean wake after sleep onset in the tiagabine groups was 9.71 minutes higher (5.7 to 13.72 higher)	171 (2 studies) ^{A,C}
Quality of Sleep* (Subjective)	⊕⊖⊖⊖ very low ^{1,5,6}	The mean quality of sleep in the tiagabine groups was 0.37 standard deviations higher (0.65 lower to 1.39 higher)	171 (2 studies) ^{A,C}
Sleep Efficiency (PSG)	⊕⊕⊖⊖ low ^{1,3}	The mean sleep efficiency in the tiagabine groups was 0.68 percent higher (1.41 lower to 2.76 higher)	271 (3 studies) ^{A,B,C}
Number of Awakenings (PSG)	⊕⊕⊖⊖ low ^{1,4}	The mean number of awakenings in the tiagabine groups was 0.88 awakenings lower (3.7 lower to 1.95 higher)	192 (2 studies) ^{B,C}
Number of Awakenings (Subjective)	⊕⊕⊖⊖ low ^{1,9}	The mean number of awakenings in the tiagabine groups was 0.3 awakenings higher (0.38 lower to 0.98 higher)	171 (2 studies) ^{A,C}

* Critical Outcome, used to determine Quality of Evidence

¹ All studies funded by industry

² Heterogeneity (I² = 93%) greater than allowance (75%)

³ Heterogeneity (I² = 94%) greater than allowance (75%)

⁴ 95% CI (-3.70, 1.95) crosses Clinical Significance (2 awakenings)

⁵ Heterogeneity (I² = 91%) greater than allowance (75%)

⁶ 95% CI (-0.65, 1.39) crosses zero standard mean difference

⁷ Heterogeneity (I² = 89%) greater than allowance (75%)

⁸ 95% CI (-44.97, 12.79) crosses Clinical Significance

⁹ 95% CI (-0.38, 0.98) crosses Clinical Significance (0.5 awakenings)

Diphenhydramine - Meta-Analyses and Summary of Findings Table

Figure S86 – Meta-analysis of data for subjectively-determined sleep latency in response to diphenhydramine 50 mg

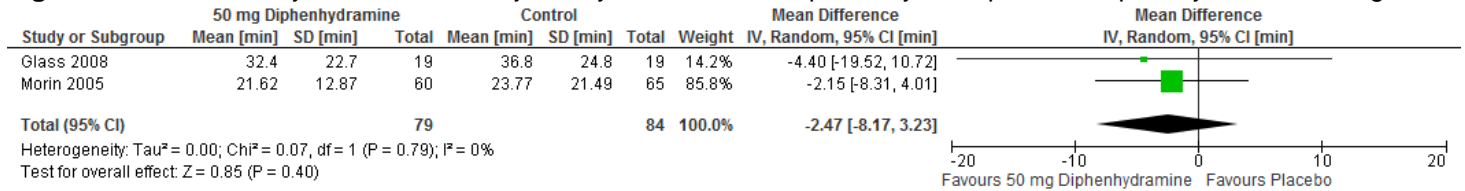


Figure S87 – Meta-analysis of data for subjectively-determined total sleep time in response to diphenhydramine 50 mg

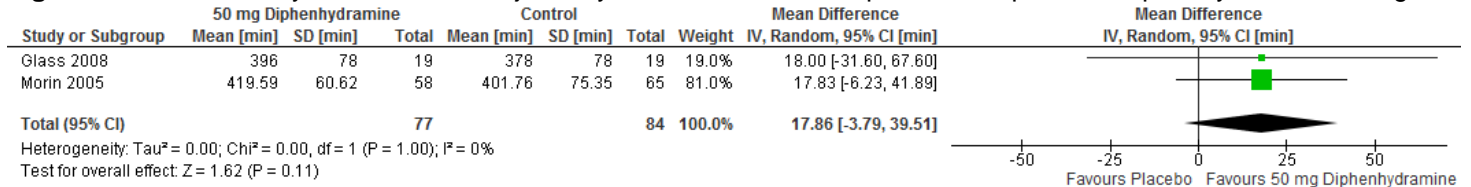


Table S21 – Summary of Findings table for diphenhydramine 50 mg for the treatment of chronic insomnia

References: Glass 2008(A); Morin 2005(B)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 50 mg Diphenhydramine vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊕⊖⊖ low ^{5,7}	The mean sleep latency in the diphenhydramine group was 7.89 minutes lower (17.40 lower to 1.62 higher)	52 (1 study) ^A
Sleep Latency (Subjective)	⊕⊕⊖⊖ low ^{1,2}	The mean sleep latency in the diphenhydramine groups was 2.47 minutes lower (8.17 lower to 3.23 higher)	163 (2 studies) ^{A,B}
Total Sleep Time* (PSG)	⊕⊕⊖⊖ low ^{5,8}	The mean total sleep time in the diphenhydramine group was 12.37 minutes higher (13.38 lower to 38.12 higher)	52 (1 study) ^A
Total Sleep Time (Subjective)	⊕⊕⊖⊖ low ^{1,2}	The mean total sleep time in the diphenhydramine groups was 17.86 minutes higher (3.79 lower to 39.51 higher)	161 (2 studies) ^{A,B}
Quality of Sleep* (Subjective)	⊕⊕⊕⊖ moderate ⁵	The mean quality of sleep in the diphenhydramine group was 0.1 points⁹ higher (0.45 lower to 0.65 higher)	38 (1 study) ^A
Sleep Efficiency (PSG)	⊕⊕⊖⊖ low ^{4,5}	The mean sleep efficiency in the diphenhydramine group was 2.59 percent higher (3.25 lower to 8.43 higher)	52 (1 study) ^B
Sleep Efficiency (Subjective)	⊕⊕⊕⊖ moderate ⁵	The mean sleep efficiency in the diphenhydramine group was 4.61 percent higher (1.33 to 7.88 higher)	123 (1 study) ^A
Number of Awakenings (Subjective)	⊕⊕⊕⊖ moderate ³	The mean number of awakenings in the diphenhydramine group was 0.3 awakenings lower (1.03 lower to 0.43 higher)	38 (1 study) ^A

* Critical Outcome, used to determine Quality of Evidence

¹ SL and TST 95% CI cross Clinical Significance

² 1 of 2 studies funded by industry

³ 95% CI (-1.03, 0.43) crosses Clinical Significance (0.5 awakenings)

⁴ 95% CI (-3.25, 8.43) crosses Clinical Significance (5%)

⁵ Study funded by industry

⁶ 95% CI (-0.45, 0.65) crosses zero standard mean difference

⁷ 95% CI (-17.4, 1.62) crosses Clinical Significance (10 minutes)

⁸ 95% CI (-13.38, 38.12) crosses Clinical Significance (20 minutes)

⁹ 5-point scale (higher score indicates better sleep quality)

Melatonin - Meta-Analyses and Summary of Findings Tables

Figure S88 – Meta-analysis of data for subjectively-determined quality of sleep in response to melatonin 2 mg

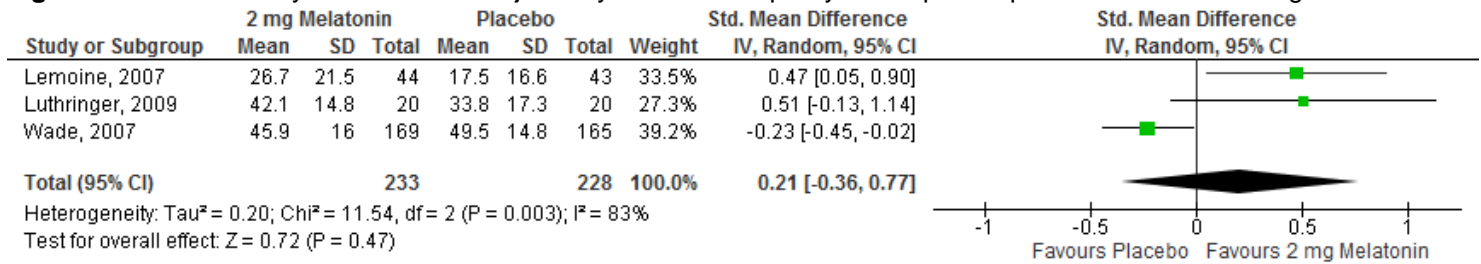


Table S22 – Summary of Findings table for melatonin 2 mg for the treatment of chronic insomnia

References: Lemoine 2007(A); Luthringer 2009(B); Wade 2007(C)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 2 mg Melatonin vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊕⊖⊖ low ^{3,4}	The mean sleep latency in the melatonin group was 8.9 minutes lower (15.45 to 2.35 lower)	40 (1 study) ^B
Total Sleep Time (PSG)	⊕⊖⊖⊖ very low ^{3,6}	The mean total sleep time in the melatonin group was 2.2 minutes higher (19.13 lower to 23.53 higher)	40 (1 study) ^B
Wake After Sleep Onset (PSG)	⊕⊕⊖⊖ low ^{3,5}	The mean wake after sleep onset in the melatonin group was 8.5 minutes higher (11.75 lower to 28.75 higher)	40 (1 study) ^B
Quality of Sleep* (Subjective)	⊕⊖⊖⊖ very low ^{1,2,3}	The mean quality of sleep in the melatonin group was 0.21 standard deviations higher (0.36 lower to 0.77 higher)	461 (3 studies) ^{A,B,C}
Number of Awakenings (PSG)	⊕⊖⊖⊖ very low ^{3,7}	The mean number of awakenings in the melatonin group was 1.4 awakenings higher (4.59 lower to 7.39 higher)	40 (1 study) ^B

* Critical Outcome, used to determine Quality of Evidence

¹ Heterogeneity (I² = 83%) greater than allowance (75%)

² 95% CI (-0.36, 0.77) crosses zero standard mean difference

³ All studies funded by industry

⁴ 95% CI (-15.45, -2.35) crosses Clinical Significance (10 min)

⁵ 95% CI (-11.75, 28.75) crosses Clinical Significance (20 min)

⁶ 95% CI (-19.13, 23.53) crosses Clinical Significance (20 min)

⁷ 95% CI (-4.59, 7.39) crosses Clinical Significance

L-tryptophan - Summary of Findings Table

Table S23 – Summary of Findings table for L-tryptophan 250 mg for the treatment of chronic insomnia

Reference: Hudson 2005

Outcomes	Quality of the evidence (GRADE)	Absolute Difference 250 mg Tryptophan vs Placebo	No of Participants (studies)
Wake After Sleep Onset* (Subjective)	⊕⊕⊕⊕ high	The mean wake after sleep onset in the Tryptophan groups was 9.70 minutes lower (15.21 to 4.18 lower)	31 (1 study)
Total Sleep Time (Subjective)	⊕⊕⊕⊖ ¹ moderate	The mean total sleep time in the Tryptophan groups was 20.00 minutes lower (31.29 to 8.7 lower)	32 (1 study)
Quality of Sleep* (Subjective)	⊕⊕⊕⊕ high	The mean quality of sleep in the Tryptophan groups was 0.30 points² higher (0.22 to 0.37 higher)	32 (1 study)
Sleep Efficiency (Subjective)	⊕⊕⊕⊕ high	The mean sleep efficiency in the Tryptophan groups was 2.20 percent lower (4.27 to 0.12 lower)	32 (1 study)

* Critical Outcome, used to determine Quality of Evidence

¹ 95% CI (8.7, 31.29) crosses Clinical Significance (30 min)

² 3-point scale (Sleep Quality index: 1=low, 3=high)

Valerian - Summary of Findings Table

Table S24 – Summary of Findings table for valerian for the treatment of chronic insomnia

References: Morin 2005(A)

Outcomes	Quality of the evidence (GRADE)	Absolute Difference Valerian-hops vs Placebo	No of Participants (studies)
Sleep Latency* (PSG)	⊕⊕⊖⊖ low ^{1,2}	The mean sleep latency in the Valerian-hops groups was 9.29 minutes lower (18.3 to 0.27 lower)	48 (1 study) ^A
Sleep Latency (Subjective)	⊕⊕⊕⊖ moderate ²	The mean sleep latency in the Valerian-hops groups was 3.77 minutes higher (4.47 lower to 12.01 higher)	124 (1 study) ^A
Total Sleep Time (PSG)	⊕⊖⊖⊖ very low ^{2,3}	The mean total sleep time in the Valerian-hops groups was 10.96 minutes higher (21.67 lower to 43.59 higher)	48 (1 study) ^A
Total Sleep Time (Subjective)	⊕⊕⊕⊖ moderate ²	The mean total sleep time in the Valerian-hops groups was 3.12 minutes higher (22.08 lower to 28.32 higher)	123 (1 study) ^A
Sleep Efficiency (PSG)	⊕⊖⊖⊖ very low ^{2,4}	The mean sleep efficiency in the Valerian-hops groups was 0.96 percent higher (5.02 lower to 6.94 higher)	48 (1 study) ^A
Sleep Efficiency (Subjective)	⊕⊕⊕⊖ moderate ²	The mean sleep efficiency in the Valerian-hops groups was 1.85 percent higher (1.9 lower to 5.6 higher)	123 (1 study) ^A

* Critical Outcome, used to determine Quality of Evidence

¹ 95% CI (-18.3, -0.27) crosses Clinical Significance (10 min)

² Study funded by industry

³ 95% CI (-21.67, 43.59) crosses Clinical Significance (20 min)

⁴ 95% CI (-5.02, 6.94) crosses Clinical Significance (5%)