

Data supplement 2 (a) Overview of characteristics of included studies according to the coding form

Study	Treatment arms	Success rate		Treatment characteristics				Benzodiazepine prescription characteristics			
		n/N	%	Steps of taper	BZD transfer	In-patient	Setting	Dosage	BZD type	Duration of use (years)	Domain of use
Jones (1990)	Advisory consultation	21/112	19		No	No	Primary care	Low	NR	8.2	NR
	Usual care	11/115	10								
Cormack et al (1994)	Advisory letter	23/65	35		No	No	Primary care	Low	Various	15.0	Various
	Advisory letter+sheets	13/75	17								
Bashir et al (1994)	Personal advice+self-help book	9/46	20		No	No	Primary care	Low	Various	14.0	Various
	Usual care	3/44	7								
Oude Voshaar et al (2003a)	SD+group CBT	33/58	57	Fixed	Yes	No	Primary care	Low	Various	13.5	Various
	SD alone	37/60	62								
	Usual care	5/24	21								
Otto et al (1993)	SD+group CBT	4/16	25	Fixed	No	No	Psychiatric clinic	Low	Alprazolam, clonazepam	?	Panic disorder
	SD alone	13/17	76								
Vorma et al (2002)	SD+CBT	5/39	13	Fixed	No	No	Addiction clinic	High	Various	7.0	BZD dependence
	SD alone	10/37	27								
Baillargeon et al (2003)	SD+group CBT	26/34	76	Fixed	No	No	Psychiatric clinic	Low	Various	12.6	Insomnia
	SD alone	11/29	38								
Morin et al (2004)	SD+group CBT	23/27	85	Fixed	No	No	Psychiatric clinic	Low	Various	19.1	Insomnia
	SD alone	12/25	48								
Tyrer et al (1981)	SD+propranolol 60–120 mg	11/20	55	Abrupt	No	No	Psychiatric clinic	Low	Diazepam, lorazepam	3.6	Various
	SD+placebo	7/20	35								
Lader & Olajide (1987)	SD+buspirone 20–30 mg	5/13	38	Fixed	No	No	Psychiatric clinic	Medium	Various	8.4	Various
	SD+placebo	6/11	55								
Ashton et al (1990)	SD+buspirone 10 mg	4/11	36	Fixed	Yes	No	Psychiatric clinic	Low	Various	10.4	Various
	SD+placebo	11/12	92								
Cantopher et al (1990)	SD+propranolol 80 mg	4/15	27	Abrupt	Yes	No	Psychiatric clinic	Medium	Various	9.4	Anxiety disorder
	SD alone	11/16	69	Fixed							
Udelman & Udelman (1990)	SD+buspirone 15 mg	21/36	58	Fixed	No	No	Psychiatric clinic	Medium	Alprazolam	?	Anxiety disorder
	SD+placebo	17/36	47								
Garcia-Borreguero (1991)	SD+carbamazepine 300–600 mg	9/9	100	Fixed	Yes	Yes	Psychiatric clinic	High	Various	9.2	Various
	SD alone	9/9	100								
Schweizer et al (1991)	SD+carbamazepine 400–800 mg	18/19	95	Fixed	?	No	Psychiatric clinic	Medium	Various	5.3	Various
	SD+placebo	13/21	62								
Di Costanzo & Rovea (1992) ¹	SD+carbamazepine 6–8 µg/ml	15/18	83	Fixed	No	No	Psychiatric clinic	Medium	Various	?	Generalised anxiety disorder
	SD+placebo	14/18	78								

(continued)

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Lader <i>et al</i> (1993)	SD+alpidem 100–150 mg	4/13	31	Fixed	No	No	Psychiatric clinic	Medium	Various	3.9	Anxiety disorder
	SD+placebo	9/12	75								
Schweizer <i>et al</i> (1995)	SD+progesterone 900–3600 mg	12/23	52	Fixed	No	No	Psychiatric clinic	Low	Diazepam, alprazolam, lorazepam	12.7	Various
	SD+placebo	7/12	58								
Tyrer <i>et al</i> (1996)	SD+dothiepin 150 mg	11/36	31	Fixed	No	No	Psychiatric clinic	Low	Various	10.0	Various
	SD+placebo	17/41	41								
Lemoine <i>et al</i> (1997) ¹	SD+hydroxyzine 25–50 mg	79/94	84	Abrupt and fixed	No	No	Primary care	Low	Various	5.3	Various
	SD+placebo	37/45	82								
Garfinkel <i>et al</i> (1999)	SD+melatonin 2 mg	14/18	78	Fixed	No	No	Psychiatric clinic	Low	Various	?	Insomnia
	SD+placebo	4/16	25								
Hantouche <i>et al</i> (1998) ¹	SD+Asp Mg 300 mg	61/75	81	Fixed	No	No	Primary care	Low	Bromazepam, alprazolam, lorazepam	7.5	Anxiety disorder
	SD+placebo	55/69	80								
Petrovic <i>et al</i> (1999)	SD+trazodone 50 mg	20/25	80	Abrupt	No	Yes	Homes for the elderly	Low	Various	?	Various
	SD alone	18/24	75	Fixed							
Rickels <i>et al</i> (1999)	SD+trazodone 100–500 mg	23/36	64	Fixed	No	No	Psychiatric clinic	Medium	Diazepam, alprazolam, lorazepam	6.9	Various
	SD+valproate 500–2500 mg	11/14	79								
	SD+placebo	4/13	31								
Rickels <i>et al</i> (2000)	SD+imipramine 150 mg	19/23	83	Fixed	No	No	Psychiatric clinic	Medium	Various	8.5	Generalised anxiety disorder
	SD+buspirone 30 mg	19/28	68								
	SD+placebo	9/24	38								
Cialdella <i>et al</i> (2001)	SD+homeogene 46	10/15	67	Fixed	No	No	Primary care	Low	Various	?	Various
	SD+Sedatif PC	12/20	60								
	SD+placebo	13/26	50								
Zitman & Couvée (2001)	SD+paroxetine 20 mg	32/48	67	Fixed	Yes	No	Primary care	Low	Various	6.3	Depressive disorder
	SD+placebo	47/74	64								
Gerra <i>et al</i> (2002)	SD+flumazenil 2 mg	15/20	75	Fixed	No	Yes	Addiction clinic	High	Various	3.5	BZD dependence
	SD+placebo	9/20	45								
Rynn <i>et al</i> (2003)	SD+buspirone 30 mg	4/12	33	Fixed	No	Yes	Psychiatric clinic	Low	Diazepam, alprazolam, lorazepam	6.3	Panic disorder
	SD+imipramine 150 mg	10/18	56								
	SD+placebo	6/10	60								

BZD, benzodiazepine; CBT, cognitive–behavioural therapy; NR, not reported; SD, systematic discontinuation; Asp Mg, α - β L-aspartate magnesium.

1. Paper not in English.

Data supplement 2 (b) Individual and pooled odds ratios of benzodiazepine discontinuation success rates

Comparisons	n	OR	(95% CI)	P
Minimal interventions				
Jones (1990)	227	2.2	(0.9–5.3)	0.07
Cormack <i>et al</i> (1994)	209	3.6	(1.4–11.1)	0.005
Bashir <i>et al</i> (1994)	90	3.3	(0.7–20.3)	0.14
Pooled analysis (heterogeneity, $P=0.76$)	526	2.8	(1.6–5.1)	0.01
Systematic discontinuation alone				
Oude Voshaar <i>et al</i> (2003a)	84	6.1	(2.0–18.6)	0.001
Systematic discontinuation+psychotherapy				
Otto <i>et al</i> (1993)	33	9.0	(1.6–65.0)	0.008
Vorma <i>et al</i> (2002)	76	0.4	(0.1–1.5)	0.20
Oude Voshaar <i>et al</i> (2003a)	118	0.8	(0.4–1.8)	0.73
Baillargeon <i>et al</i> (2003)	63	5.2	(1.6–18.4)	0.004
Morin <i>et al</i> (2004)	52	6.0	(1.4–31.0)	0.01
Pooled insomnia (heterogeneity, $P=1.00$)		5.5	(2.3–14.2)	<0.001
Pooled analysis (heterogeneity, $P<0.001$)	342	1.8	(1.1–2.9)	0.02
Systematic discontinuation+propranolol				
Tyrer <i>et al</i> (1981)	40	2.2	(0.5–9.8)	0.34
Cantopher <i>et al</i> (1990)	31	0.2	(0.0–1.0)	0.05
Pooled analysis (heterogeneity, $P=0.02$)	71	0.8	(0.3–2.1)	0.72
Systematic discontinuation+buspirone				
Lader & Olajide (1987)	24	0.5	(0.1–3.5)	0.71
Ashton <i>et al</i> (1990)	23	0.1	(0.0–0.7)	0.02
Udelman & Udelman (1990)	72	1.6	(0.6–4.4)	0.48
Rickels <i>et al</i> (2000)	52	3.4	(1.0–13.0)	0.06
Rynn <i>et al</i> (2003)	22	0.4	(0.0–1.9)	0.41
Pooled analysis (heterogeneity, $P=0.004$)	193	1.0	(0.6–1.9)	1.00
Systematic discontinuation+carbamazepine				
Garcia-Borreguero <i>et al</i> (1991)	18	1.00		1.00
Schweizer <i>et al</i> (1991)	40	10.5	(1.2–518.1)	0.03
Di Costanzo & Rovea (1992)	36	1.4	(0.2–11.4)	1.00
Pooled analysis (heterogeneity, $P=0.22$)	94	3.5	(0.9–16.7)	0.06
Systematic discontinuation+trazodone				
Petrovic <i>et al</i> (1999)	49	1.3	(0.3–6.5)	0.94
Rickels <i>et al</i> (1999)	49	3.9	(0.9–20.7)	0.08
Pooled analysis (heterogeneity, $P=0.35$)	98	2.3	(0.8–6.8)	0.12
Systematic discontinuation+imipramine				
Rickels <i>et al</i> (2000)	47	7.5	(1.7–40.6)	0.004
Rynn <i>et al</i> (2003)	28	0.8	(0.1–5.1)	1.00
Pooled analysis (heterogeneity, $P=0.051$)	75	3.1	(1.1–9.4)	0.03
Systematic discontinuation+alpidem				
Lader <i>et al</i> (1993)	25	0.2	(0.0–0.9)	0.03
Systematic discontinuation+progesterone				
Schweizer <i>et al</i> (1995)	35	0.8	(0.2–3.2)	0.73
Systematic discontinuation+dothiepin				
Tyrer <i>et al</i> (1996)	77	0.6	(0.2–1.6)	0.32
Systematic discontinuation+hydroxyzine				
Lemoine <i>et al</i> (1997)	139	1.1	(0.4–2.9)	0.79
Systematic discontinuation+melatonin				
Garfinkel <i>et al</i> (1999)	34	10.5	(2.2–51.3)	0.002

(continued)

Data supplement 2 (continued) (b) Individual and pooled odds ratios of benzodiazepine discontinuation success rates

Comparisons	<i>n</i>	OR	(95% CI)	<i>P</i>
Systematic discontinuation+Asp Mg Hantouche <i>et al</i> (1998)	144	1.1	(0.4–2.8)	0.83
Systematic discontinuation+valproate Rickels <i>et al</i> (1999)	27	8.3	(1.5–46.9)	0.01
Systematic discontinuation+homeogene 46 Cialdella <i>et al</i> (2001)	41	2.0	(0.5–7.5)	0.35
Systematic discontinuation+sedatif PC Cialdella <i>et al</i> (2001)	46	1.5	(0.5–4.9)	0.56
Systematic discontinuation+paroxetine Zitman & Couvée (2001)	122	1.1	(0.5–2.5)	0.72
Systematic discontinuation+flumazenil Gerra <i>et al</i> (2002)	40	3.7	(1.0–14.0)	0.05