# 1. Health Economics studies for alcohol dependence and harmful alcohol use

### 1.1. Pharmacology

Study, year and country	Intervention details	Study population Setting Study design – data source	Study Type	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Comments Internal validity (Yes/No/NA) Industry support
Annemans, 2000 Belgium	Comparators: Acamprosate  Versus  No pharmaceutical treatment	Population: weaned alcoholic patients  Setting: GP and specialist care  Source of clinical effectiveness data: Relapse rates: placebo-controlled prospective trial(n=448)Whitworth et al.1996;  Type of relapse & second line management: NEAT study unpublished data n=582 dependent patients,  Source of resource use estimates & costs: Belgian NEAT study[unpublished] and a cross-sectional study among GPs from the Belgian institute of Hygiene and	Cost-Analysis – based on Markov model	Costs: Direct medical costs including hospital and ambulatory costs i.e. GP, psychiatry and psychologist/psychotherapy consultations, biochemistry tests and drug costs.  Outcomes: % patients remaining abstinent, preventing relapse  After 360 days on acamprosate= 18.3%  After 360 days on placebo= 7.10%  After 720 days on acamprosate= 11.9%  After 720 days on placebo= 4.9%  Whitworth et al.1996	The total expected costs for the acamprosate strategy was equal to 211 986 BEF (5,255 Euros) over the period of 24 months, compared to 233 287 BEF (5783 Euro) for 'no acamprosate'. It also results in reduction in relapses or a higher percentage of patients who remain abstinent. Therefore acamprosate dominates as it is cheaper and more effective.  Simple sensitivity analysis showed that the results were robust.	Perspective: Institute for Health Insurance Currency: Belgian Francs and Euros Cost year: 1997 Time horizon: 24 months Discounting: No Funded by: Unclear
Zarkin, 2008	Comparators: 1) medical	Epidemiology (IHE) Population: patients with diagnosis of primary	Cost effectiveness	Costs: Direct medical costs	See attached table 2.	Perspective: service provider Currency: US dollar
USA	management(M M)+ placebo 2) MM+naltrexone 100mg/day for	alcohol dependence(DSM-IV)  Setting: 11 US study sites	analysis	Outcomes: Incremental cost per percentage point increase in percentage of days abstinent, incremental cost per patient of avoiding	On the basis of the mean values of cost and effectiveness, 3 interventions were shown to be cost-effective options relative to the other interventions for all 3	Cost year: 2007 Time horizon: 16 weeks Discounting: NA Funded by : NIAAA

Aiconol C		Health economic evide	The tables	Γ		
	16 weeks	Source of clinical		heavy drinking, incremental cost per	outcomes: medical	
	3) MM+	effectiveness data:		patient of achieving a good clinical	management (MM) with placebo	
	Acamprosate	COMBINE RCT n=1383		outcome	(\$409 per patient),	
	3g/day				MM plus naltrexone therapy (\$671	
	4)MM+ placebo	Source of resource use			per patient), and MM	
	+ combined	estimates: COMBINE			plus combined naltrexone and	
	behavioural	study data			acamprosate therapy	
	intervention				(\$1003 per patient).	
	(CBI)	Source of unit costs:			(\$1000 per padent).	
	5) MM+	Federal supply schedule,			Author's conclusion: MM-	
	,	co-ordinating centre data			naltrexone + acamprosate	
	Acamprosate+n					
	altrexone	management system,			therapy may be a better choice,	
	6) MM+	2005-Resource-Based			depending on	
	naltrexone+CBI	Relative Value scale			whether the cost of the	
	7) MM+				incremental increase in	
	acamprosate				effectiveness is justified by the	
	+CBI				decision maker.	
	8) MM+					
	naltrexone+aca					
	mprosate+CBI					
	9) CBI only					
Slattery, 2003	Comparators:	Population: 45 yr old men	Cost	Costs: drugs, GP, CPN and specialist	Total intervention costs: £ 385 337	Perspective: NHSScotland and
	-	and women who are	effectiveness	consultations. Service user travel time.		patient
Scotland	Acamprosate	alcohol dependent	analysis based			Currency: UK Pound
	(12 months)	1	on adapted	Costs of 7 disease endpoints also included:	Additional patients abstinent from	Cost year: 2002
	,	Setting: primary and	Schadlich and	stroke, cancer, cirrhosis, alcoholic	standard: 84	Time horizon: 20 years
	Compared to	secondary care (inpatient	Brecht model	psychosis, chronic pancreatitis, Epilepsy		Discounting: 6% per annum
		costs incl. in sensitivity	(1998)	and alcohol dependence syndrome	Cost per additional abstinent	Funded by : HTBS
	Placebo	analysis)	(1330)	and diconor dependence syndrome	patient: £-822	Tunica by TITES
	Tuccoo	ariary 515)			(negative costs are cost saving)	
		Source of clinical			(negative costs are cost saving)	
		effectiveness data:				
		reported RCTs				
		reported KC1s		Outcomes, number of nationts who have		
		Course of management us -		Outcomes: number of patients who have		
		Source of resource use		abstained or controlled drinking		
		estimates: estimated from				
		patient pathways				
		provided by Alcohol and				
		Drug Directorate South &				
		West				
		Source of unit costs:				
		Scottish health services				
		costs and BNF				
01						
Slattery, 2003	Comparators:	Population: 45 yr old men	Cost effectiveness	Costs: costs of drugs, laboratory tests, Medicals, key worker visits, GP	Total intervention costs: £ 380 526	Perspective: NHSScotland and

Scotland	Oral Disulfiram (6 months) vs. Placebo	alcohol dependent  Setting: primary and secondary care (inpatient costs incl. in sensitivity analysis)  Source of clinical effectiveness data: reported RCTs of unsupervised treatment  Source of resource use estimates: estimated from patient pathways provided by Alcohol and Drug Directorate South & West Source of unit costs: Scottish health services costs and BNF	analysis based on adapted Schadlich and Brecht model	consultations and visits to Alcohol Problems treatment Unit. Service user travel time.  Costs of 7 disease endpoints also included: stroke, cancer, cirrhosis, alcoholic psychosis, chronic pancreatitis, Epilepsy and alcohol dependence syndrome  Outcomes: number of patients who have abstained or controlled drinking	Additional patients abstinent from standard: 55  Cost per additional abstinent patient: £1 521 (negative costs are cost saving) univariate sensitivity analysis revealed that effectiveness parameters had greatest impact on results. Higher disease costs increases the cost effectiveness per additional abstinent patient	Currency: UK Pound Cost year: 2002 Time horizon: 20 years Discounting: 6% per annum Funded by: HTBS
Slattery, 2003 Scotland	Comparators:  Naltrexone (6 months) Compared to Placebo	Population: 45 yr old men and women who are alcohol dependent  Setting: primary and secondary care (inpatient costs incl. in sensitivity analysis)  Source of clinical effectiveness data: reported RCTs  Source of resource use estimates: estimated from patient pathways provided by Alcohol and Drug Directorate South & West Source of unit costs: Scottish health services	Cost effectiveness analysis based on adapted Schadlich and Brecht model	Costs: costs of drugs, key worker visits, GP and specialist consultations. Service user travel time.  Costs of 7 disease endpoints also included: stroke, cancer, cirrhosis, alcoholic psychosis, chronic pancreatitis, Epilepsy and alcohol dependence syndrome  Total intervention costs: £ 357 709  Outcomes: number of patients who have abstained or controlled drinking	A Total intervention costs: £ 357 709  Additional patients abstinent from standard: 38  Cost per additional abstinent patient: £4056 (negative costs are cost saving) univariate sensitivity analysis revealed that effectiveness parameters had greatest impact on results. Higher disease costs increases the cost effectiveness per additional abstinent patient	Perspective: NHSScotland and patient Currency: UK Pound Cost year: 2002 Time horizon: 20 years Discounting: 6% per annum Funded by: HTBS

		costs and BNF				
Schadlich,	Comparators:	Population: Alcohol	Cost	Costs: Direct medical costs	Total and a state of the state	Perspective: German
1998	Acamprosate	dependent patients who were abstinent for a min of	effectiveness analysis	Treatment costs in Acamprosate arm= DM	Treatment costs were lower in the intervention arm compared to the	Healthcare system Currency: German
Germany	Placebo	14 days and max of 28	unarysis	7 333 131 and DM10 090 681 in the	placebo arm. 226 patients had	DeutschMarks
		days		standard care group	abstained form alcohol	Cost year: 1995
	+Standard care (routine	Setting: Psychiatric			consumption in the acamprosate arm. The cost effectiveness ratio of	Time horizon: 48 weeks and 48 weeks follow up
	counselling/	outpatient clinics		Outcomes: proportion of abstinent	acamprosate was DM -2602.	Discounting: 5% annually
	psychotherapy)			alcoholics at the end of the medication-free	Acamprosate was the dominant	Funded by : Lipha
	in both	Source of clinical		follow-up period: 39.9% in the	treatment.	Arzneimittel
		effectiveness data: PRAMA study, secondary		acamprosate group 17.3% in the placebo group	A compressed dominated standard	
		analysis of		17.5% In the placebo group	Acamprosate dominated standard care.	
		epidemiological data and		226 additional patients abstained form		
		official statistics, expert		alcohol consumption in acamprosate	Base case results were robust to	
		knowledge		group	sensitivity analysis.	
		Source of resource use				
		estimates: retrospective				
		analysis of hospital				
		records, expert knowledge				
		Source of unit costs:				
		statistics form National				
		Association of Local Sickness Funds, \federal				
		Statistical Office, Federal				
		Association of Pension				
D 1111 0000		Funds	6 .			D II III
Rychlik, 2003	Comparators: Acamprosate	Population: patients who contacted their physicians	Cost- effectiveness	Costs: Direct medical costs incl. all physician visits, emergency treatments,	Acamprosate shown to dominate standard care as it is cheaper and	Perspective: Health insurance/social perspective
Germany	Acampiosate	and fulfilled DSM-IV	analysis	diagnostic tests, lab tests, drugs, non-	more effective.	Currency: Euro
	Standard care	criteria for alcohol		medical treatments, nursing,		Cost year: not explicit,
		dependence-prescribed		hospitialisation, cures and treatment of		possibly 1998/1999
	All had some form of	detox and rehab		undesirable effects and side effects.		Time horizon: 12 months Discounting: NA
	psychosocial	Setting: primary care		Costs in standard care arm 26% higher		Funded by : Merck KGaA
	rehabilitation	centres that included GP		than Acamprosate arm		
	programme	and specialist care		E d DDA 1 d 1 d		
		Source of clinical		For the PPA population, abstinence rates after one year of treatment were		
		effectiveness data: open		significantly higher in the acamprosate		
		label non-randomised		cohort than in the standard care cohort		]
		cohort study n=814		(33.6 % and 21.1 % respectively, p < 0.001;		

		Source of resource use		Wilcoxon test).		
		estimates& unit costs:				
		collected alongside study		Outcomes: Abstinence rate over 12 month		
		&German outpatient standardised evaluation		period		
		scale, and sums		After 1 yr: 32.4% in Acamprosate		
		reimbursed by German		cohort;20.4% in usual care cohort		
		health insurance		The total direct costs in the intervention		
		nearth histiance		group were € 1225 (ITT) and €1254 (PPA).		
				The total direct comparator costs were €		
				1543 (ITT) and € 1592 (PPA).		
Palmer, 2000	Comparators:	Population: detoxified	Cost-	Costs: Direct medical costs incl.	Adjuvant acamprosate therapy	Perspective: Health insurance
	acamprosate as	alcoholic male patients	effectiveness	hospitalisations, rehabilitation costs, drug	was shown to be the dominant	perspective
Germany	adjuvant	(ave. age of 41). 80% with	analysis	acquisition costs and psychosocial support	strategy, as it was more effective	Currency: German
	therapy +	fatty liver, 15% with	Markov model		and cheaper than standard	DeutschMarks (DEM)
	standard	cirrhosis, 22% with		The cost of 48 weeks of acamprosate	therapy.	Cost year: 1996
	counselling	pancreatitis, and 1% with		therapy was DM 2,177.		Time horizon: Lifetime
	therapy	alcoholic cardiomyopathy.				Discounting: 5% per annum
		6.41		The discounted (and undiscounted)		Funded by : Lipha SA
	versus	Setting: not reported		lifetime costs were DM 48,245 (DM 75,081)		
	standard	Source of clinical		with adjuvant therapy and DM 49,907 (DM 76,942) with standard therapy.		
	counselling	effectiveness data:		(DM 76,942) with standard therapy.		
	therapy alone	Published literature +				
	therapy alone	assumptions		Outcomes: number of life-years gained		
		ussumptions		<u>outcomes.</u> number of the years gamed		
		Source of resource use		The life expectancy from age 41 years		
		estimates: published		increased from 14.60 to 15.90 years with		
		studies		adjuvant acamprosate over standard		
				therapy. The resulting incremental,		
		Source of unit costs:		discounted life-years gained of adjuvant		
		German sources		acamprosate over standard therapy were		
				0.52 (1.20 when undiscounted).		

Appendix 19 5

Study, year and country	Intervention details	Study population Setting Study design – data source	Study Type	Costs: description and values Outcomes: description and values	Results: Cost- effectiveness	Comments Internal validity (Yes/No/NA) Industry support
Parrot, 2006 UK	Comparators: A detoxification service carried out at the Smithfield Centre in Manchester: open 24 hours a day*365 days. The 10-day detoxification service comprised a 22-bed facility staffed by mental health nurses with 24-hour support from a local GP. Versus No treatment	Population: people dependent on alcohol requiring detoxification  Setting: inpatient and outpatient clinics in NHS  Source of clinical effectiveness data: single study  Source of resource use estimates: costing was carried out on a sub-group of patients included in the effectiveness study  Source of unit costs: Personal Social Service Research Unit, Home Office, HM Treasury and some published studies	Cost-utility analysis and cost- effectiveness analysis.	Costs: Direct medical costs (also costs to criminal justice system and public/social services)  Outcomes: QALYs in the cost-utility analysis, QALYs were calculated using the EQ-5D scores obtained by questionnaires given to the individuals who participated in the study.  Unit of drink reduction per day or reduction in percentage of drinking days in the cost-effectiveness analysis.	In the cost-effectiveness analysis, the cost per unit reduction in alcohol was 1.87 in the Smithfield sample.  The cost for a reduction of one drink per day was 92.75 at the Smithfield Centre.  The cost per percentage point reduction in drinking was 30.71 at the Smithfield Centre.  The cost per QALY gained was 65,454 (33,727 when considering only treatment costs) at the Smithfield Centre.  No sensitivity analysis.	Perspective: Societal perspective Currency: UK pounds Cost year: 2003-04 Time horizon: 6 months Discounting: NA Funded by: None stated
Pettinati et al. 1999 USA	Comparators: Inpatients vs. outpatient addiction treatment services – both services followed multimodal clinical approach based on 12-step programme of AA	Population: People with a DSM-III-R diagnosis of alcohol dependence and not dependent on any other substance  Setting: Single US private, non-profit psychiatric hospital  Source of clinical effectiveness data: Single study  Source of resource use and unit cost estimates: Single study- weighted, cost-to-charge corrections applied	Cost- effectiveness analysis	Costs: Direct treatment costs – educational and therapy sessions, AA support group attendances, family educational programmes  Outcomes: Probability of returning to significant drinking (3 or more alcoholic drinks in a sitting)	Average costs of successfully completing treatment: Inpatient: \$9,014 (SD \$2,986) Outpatient: \$1,420 (SD \$619)  Cost-effectiveness ratio was calculated by dividing treatment costs by the probability of returning to significant drinking. For treatment responders, the inpatient:outpatient cost-effectiveness ratio was calculated for the 3-	Perspective: US health care provider Current: US \$ Cost year: Not reported Tim horizon: 12 months Discounting: NA Funded by: National Institute on Alcohol Abuse and Alcoholism (US)

	to insurance billing		month follow-up at 4.5:1,	
	charges		at the 6-month follow-up	
			at 5.3:1, and at the 12-	
			month follow-up at 5.6:1.	
			No synthesis with clinical	
			outcomes performed by	
			authors.	
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### 2.1. Assessment & Service Delivery

Study, year and country	Intervention details	Study population Setting Study design – data source	Study Type	Costs: description and values Outcomes: description and values	Results: Cost-effectiveness	Comments Internal validity (Yes/No/NA) Industry support
Drummond et al., 2009 UK	Comparators: Stepped care – sequential series of interventions according to need and response after each successive step. Minimal intervention - 5-min directive advice session	Population: Males aged 18+ with ICD-10 diagnosis of alcohol use disorder  Setting: Primary care  Source of clinical effectiveness data: single study  Source of resource use estimates: Study participants with 6-month follow-up data only  Source of unit costs: Personal Social Service Research Unit, Home Office and other published studies	Cost-utility analysis	Costs: interventions and training, other health care, social care, criminal justice services  Outcomes: QALYs - calculated using EQ-5D utility scores obtained from questionnaires completed by study participants	Intervention: Mean total costs were £5,692 at baseline and £2,534 at 6 months Mean QALY gain of 0.3849  Control: Mean total costs were £6,851 at baseline and £12,637 at 6 months Mean QALY gain of 0.3876  Probability of intervention being cost-effective at UK £20-30,000 threshold: 98%	Perspective: Societal perspective Currency: UK pounds Cost year: 2001 Time horizon: 6 months Discounting: NA Funded by: Wales Office for Research and Development
Parrott, 2006 UK	Comparators: A partial hospitalisation programme that was performed at Plummer Court, a NHS facility. Patients underwent 3-day inpatient detoxification, if required, followed by attendance at a day programme at the Newcastle	Population: people dependent on alcohol requiring detoxification  Setting: inpatient and outpatient clinics in NHS  Source of clinical effectiveness data: single study  Source of resource use estimates: costing was carried out on a sub-group of patients included in the	Cost-utility analysis and cost- effectiveness analysis.	Costs: Direct medical costs (also costs to criminal justice system and public/social services)  Outcomes: QALYs in the cost-utility analysis, QALYs were calculated using the EQ-5D scores obtained by questionnaires given to the individuals who participated in the study.  Unit of drink reduction per day or reduction in percentage of drinking days in the cost-effectiveness analysis.	In the cost-effectiveness analysis, the cost per unit reduction in alcohol was 1.66 among patients admitted to Plummer Court.  The cost for a reduction of one drink per day was 22.56 at Plummer Court.  The cost per percentage point reduction in drinking was 45.06 at Plummer Court.  The cost per QALY gained	Perspective: Societal perspective Currency: UK pounds Cost year: 2003-04 Time horizon: 6 months Discounting: NA Funded by: none stated

5	service.	effectiveness study	was and 131,750 (90,375	
			when considering only	
,	versus	Source of unit costs:	treatment costs) at Plummer	
		Personal Social Service	Court.	
	No treatment	Research Unit, Home		
		Office, HM Treasury and		
		some published studies		

### 3.1. Psychology

Study, year and country	Intervention details	Study population Setting Study design – data source	Study Type	Costs: description and values Outcomes: description and values	Results: Cost- effectiveness	Comments Internal validity (Yes/No/NA) Industry support
Slattery, 2003 Scotland	Comparators: Coping/Social skills training Versus Control intervention	Population: 45 yr old men and women who are alcohol dependent  Setting: primary and secondary care  Source of clinical effectiveness data: reported RCTs  Source of resource use estimates: Expert opinion, Annis et al. 19996  Source of unit costs: Scottish health services costs 2000/01	Cost effectiveness analysis based on adapted Schadlich and Brecht model	Costs: A cost per attendee was calculated based on the staff requirements, accommodation (nonresidential i.e. hiring a hall), administration costs and manual. It also included patient travel costs and the costs of a consultation with a clinical psychologist. Total cost per person: £385.  Costs of 7 disease endpoints also included: stroke, cancer, cirrhosis, alcoholic psychosis, chronic pancreatitis, Epilepsy and alcohol dependence syndrome  Total intervention costs= 385 000/1000 people  Outcomes:: number of patients who have abstained or controlled drinking	Net health care savings over 20 years = -274 008 (negative costs are a cost saving)  The no. of additional patients abstinent = 122  The costs per additional abstinent patient = -2252  Sensitivity analysis range = -4441 to 54923	Perspective: NHSScotland and patient Currency: UK Pounds Cost year: 2002 Time horizon: 20 years Discounting: 6% per annum Funded by: HTBS
Slattery, 2003 Scotland	Comparators:  BSCT  vs.  Control intervention	Population: 45 yr old men and women who are alcohol dependent  Setting: primary and secondary care  Source of clinical	Cost effectiveness analysis based on adapted Schadlich and Brecht model	Costs: A cost per attendee was calculated based on the staff requirements, accommodation (non-residential i.e. hiring a hall), administration costs and manual. It also included patient travel costs and the costs of a consultation with a clinical psychologist. Total cost per person: £385.	Net health care savings over 20 years = -80 452 (negative costs are a cost saving)  The no. of additional patients abstinent = 86	Perspective: NHSScotland and patient Currency: UK Pounds Cost year: 2002 Time horizon: 20 years Discounting: 6% per annum Funded by: HTBS

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		effectiveness data: reported RCTs  Source of resource use estimates: Expert opinion, Annis et al. 19996  Source of unit costs: Scottish health services costs 2000/01		Costs of 7 disease endpoints also included: stroke, cancer, cirrhosis, alcoholic psychosis, chronic pancreatitis, Epilepsy and alcohol dependence syndrome  Total intervention costs= 385 000/1000 people  Outcomes:: number of patients who have abstained or controlled drinking	The costs per additional abstinent patient =-936  Sensitivity analysis range = -3467 to 146 018	
Slattery,	Comporators	Population: 45 yr old men	Cost	Costs:	Net health care savings	Perspective: NHSScotland and
2003	Comparators:	and women who are	effectiveness	A cost per attendee was calculated based on	over 20 years = -151 723	*
2003	MET					patient
Scotland	MET	alcohol dependent	analysis based on adapted	the staff requirements, accommodation (non-residential i.e. hiring a hall), administration	(negative costs are a cost saving)	Currency: UK Pounds Cost year: 2002
Scotiand	Versus	Setting: primary and	Schadlich and	costs and manual. It also included patient	saving)	Time horizon: 20 years
	Versus	secondary care	Brecht model	travel costs and the costs of a consultation	The no. of additional	Discounting: 6% per annum
	Control Intervention	secondary care	Diccit model	with a clinical psychologist. Total cost per	patients abstinent =99	Funded by : HTBS
	Control Intervention	Source of clinical		person: £385.	patients abstinent 99	Tunded by . 111b3
		effectiveness data:		person. 2000.	The costs per additional	
		reported RCTs		Costs of 7 disease endpoints also included:	abstinent patient = -1531	
				stroke, cancer, cirrhosis, alcoholic psychosis,		
		Source of resource use		chronic pancreatitis, Epilepsy and alcohol	Sensitivity analysis range =	
		estimates: Expert opinion,		dependence syndrome	-3256 to 68 964	
		Annis et al. 19996				
				Total intervention costs= 385 000/1000		
		Source of unit costs:		people		
		Scottish health services				
		costs 2000/01		Outcomes: number of patients who have		
				abstained or controlled drinking		
Clatter	Commonatorio	Donulation, 4514	Coat	Conto	Not boolth gave	Domonostivos NILICC 11 1 1
Slattery, 2003	Comparators:	Population: 45 yr old men and women who are	Cost effectiveness	Costs: A cost per attendee was calculated based on	Net health care savings over 20 years = -183 795	Perspective: NHSScotland and patient
2003	Marital/Family	alcohol dependent	analysis based	the staff requirements, accommodation (non-	(negative costs are a cost	Currency: UK Pounds
Scotland	Therapy	aconor dependent	on adapted	residential i.e. hiring a hall), administration	saving)	Cost year: 2002
Scottand	тистару	Setting: primary and	Schadlich and	costs and manual. It also included patient	Saving)	Time horizon: 20 years
	Versus	secondary care	Brecht model	travel costs and the costs of a consultation	The no. of additional	Discounting: 6% per annum
		l sees and sees a see a sees a see a sees a see		with a clinical psychologist. Total cost per	patients abstinent = 105	Funded by : HTBS
	Control Intervention	Source of clinical		person: £385.		J
		effectiveness data:		<u> </u>	The costs per additional	
		reported RCTs		Costs of 7 disease endpoints also included:	abstinent patient = -1 759	
		_		stroke, cancer, cirrhosis, alcoholic psychosis,	_	
		Source of resource use		chronic pancreatitis, Epilepsy and alcohol	Sensitivity analysis range =	
		estimates: Expert opinion,		dependence syndrome	-3217 to 16 577	

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		Annis et al. 1996  Source of unit costs: Scottish health services costs 2000/01		Total intervention costs= 385 000/1000 people  Outcomes:: number of patients who have abstained or controlled drinking		
UKATT Research team, 2005. UK	Comparators: Motivational enhancement therapy  Versus  Social behaviour and network therapy	Population: People who would normally seek treatment for alcohol problems at a British treatment site.  Setting: outpatient: treatment sites around Birmingham, Cardiff and Leeds  Source of clinical effectiveness data: UKATT RCT  Source of resource use estimates & Source of unit costs:: national, government sources, UKATT trial and another UK trial	Cost-effective analysis	Costs: treatment costs; costs of hospitalisation, a hospital day visit, a hospital outpatient visit, a general practitioner for home visit and in-surgery consultation, a prescription, a home visit by a community psychiatric nurse, a detoxification episode in primary care, rehabilitation and consultation in an alcohol agency, social service contact and court attendance  Outcomes: Quality-adjusted life-years (QALYs).  These were assessed using the EQ-5D questionnaire that was completed by clients at baseline and at 3 and 12 months. The QALYs were calculated using UK population norms for the evaluation of health states and linear interpolation to identify the areas under the QALY curve.	Incremental QALYs were reported. After adjusting for baseline differences in the analysis, the social network therapy group achieved 0.0113 QALYs less than the motivational group, but the difference was not statistically significant (bias corrected 95% CI: 0.0532 fewer to 0.0235 more).  An incremental analysis was performed. Motivational enhancement therapy had an incremental costeffectiveness ratio of 18,230 in comparison with social therapy.	Perspective: Unclear, but healthcare costs and costs to criminal justice system included Currency: UK Pounds Cost year: 2000/01 Time horizon: 12 months Discounting: NA Funded by:
Mortimer, 2005 Australia	Comparators:  Moderation- oriented cue exposure (MOCE)  vs.  Behavioural self- control training (BSCT) Emphasis on controlled drinking	Population: Patients with mild to moderate dependence seeking help for alcohol problems with a preference for moderation rather than abstinence  Setting: outpatient  Source of clinical effectiveness data: Heather et al., 2000	Cost- effectiveness analysis and cost utility analysis – based on Markov model	Costs: Research costs were not mentioned in the effectiveness study. The cost that is estimated is the cost to run this program in Australia currently. Costs incurred purely as a result of research activity, rather than in the administration of the intervention, were excluded. The following was included: Clinical psychologist and psychiatric nurse training and trainee (Clinical psychologist), consumables, lab investigations, phone calls, treatment sessions.	BSCT dominated MOCE (cheaper but more effective).  The cost per QALY gained was estimated at 2145 AUD in a predominantly male population with moderate dependence.	Perspective: department of health and Ageing Currency: Australian Dollars Cost year: 2003 Time horizon: life time Discounting: 5% Funded by : Australian Government and Monash University

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		Source of resource use estimates: estimated prospectively from study  Source of unit costs: Australian health care costs sources, MBS		Mean drinks per drinking day (DDD); Mean percent days abstinent (PDA)  Measures of benefit: Cost per changer And cost per QALY  Utility data sourced from: Stouthard et al. (1997)		
Mortimer, 2005 Australia	Comparators:  Motivational enhancement therapy (MET).  vs.  No further counselling after initial assessment	Population: Mild to moderately dependent drinkers Aged 15–59 years  Setting: outpatient  Source of clinical effectiveness data: Sellman et al., 2001  Source of resource use estimates: Costs have been taken from the intervention undertaken by Sellman et al, from the methods described in the published paper  Source of unit costs: Australian health care costs sources	Cost- effectiveness analysis and cost-utility analysis	Costs: direct costs which included the cost of clinical psychologist training including trainer (clinical psychologist) fees, session fees, consumables, assessment, feedback sessions, lab investigations and information booklets.  Outcomes: For the CEA between-group comparison the key outcome: percentage drinking within national guidelines for the duration of the trial  QALYs  Utility data sourced from Stouthard et al. (1997)	The incremental cost per changer = -26.5 \$/changer , MET dominates NFC  In the CUA: MET is estimated to deliver 0.116 QALYs gained per completer as compared to NFC.  The incremental cost per completer of MET as compared to NFC was estimated at 389  AUD and was assumed to reflect the incremental cost over the entire evaluation period. The cost per QALY gained is estimated at 3,366 AUD	Perspective: department of health and Ageing Currency: Australian Dollars Cost year: 2003 Time horizon: life time Discounting: 5% Funded by : Australian Government and Monash University
Mortimer, 2005 Australia	Comparators:  Non-directive reflective listening (NDRL).  NDRL subjects talked about anything they wanted, with no attempt to steer towards alcohol problem  Four sessions over 6 weeks	Population: Mild to moderately dependent drinkers Aged 15–59 years  Setting: outpatient  Source of clinical effectiveness data: Sellman et al., 2001  Source of resource use estimates: estimated prospectively from the	Cost-utility analysis based on a Markov model	Costs: direct costs which included the cost of clinical psychologist training including trainer (clinical psychologist) fees, session fees, consumables, assessment, feedback sessions, lab investigations and information booklets  Outcomes: QALYs  Utility data sourced from: Stouthard et al. (1997)  Returning problem drinkers to safe	The Markov model was also used to estimate QALYs gained per person for NRDL compared to NFC. The NDRL was inferior to the NFC based on the proportion remaining within national guidelines at 6-months follow-up. Given that the NDRL is also more costly than the NFC; the modelled costutility analysis has the	Perspective: department of health and Ageing Currency: Australian Dollars Cost year: 2003 Time horizon: life time Discounting: 5% Funded by : Australian Government and Monash University

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	vs.  No further counselling after initial assessment and feedback/ education	Source of unit costs: Australian health care costs sources, MBS		consumption pattern = 0.110 annual QALY gain Returning dependent drinkers to safe consumption pattern = 0.330 annual QALY gain	NFC dominating the NDRL.	
Holder, 2000 USA	Comparators:  12-session CBT vs. 4-session MET vs. 12-session twelve- Step facilitation (TSF)	Population: Adult patients with alcohol dependency symptoms  Setting: Inpatient, Outpatient and Aftercare settings  Source of clinical effectiveness data: Project MATCH RCT (Project MATCH Research Group, 1997; 1998)  Source of resource use and cost estimates: taken from 279 of 430 Project MATCH participants	Cost-analysis	Costs: Direct health care costs – treatments, inpatient care and outpatient care  Total Monthly Mean Costs (Post-treatment): CBT: \$186 MET: \$176 TSF: \$225	No formal incremental analysis presented by authors.  Authors concluded that MET had potential for health-care cost savings after matching patients in each group for clinical prognosis	Perspective: Health care payer (US) Currency: US \$ Cost year: 1982-84 Time horizon: 3 years Discounting: Not reported Funded by: National Institute on Alcohol and Alcoholism (US)
Fals- Stewart, 2005 USA	Comparators:  Brief relationship therapy (BRT) – 18 scheduled sessions over 12 weeks vs. Standard behavioural couples therapy (S-BCT) – 24 sessions over 12 weeks vs. Individual-based treatment (IBT) – 18 scheduled sessions over 12 weeks vs.	Population: Male partner (within couple) met DSM-IV criteria for alcohol dependence and have alcohol as their primary substance of abuse  Setting: Outpatient  Source of clinical effectiveness data: Single RCT  Source of resource use and cost estimates: 100 couples	Cost- effectiveness analysis	Costs: Treatment programme expenditures (e.g. counsellor time, equipment); patient travel time  Total Mean Treatment Costs: BRT: \$897 (SD \$312) S-BCT: \$1,294 (SD \$321) IBT: \$840 (SD \$200) PACT: \$884 (SD \$297)  Outcomes: Percentage of Days of Heavy Drinking (PDHD) – change from baseline to 12 months	Authors calculated mean change in PDHD over 12 months divided by mean cost of treatment delivery (in \$100 units) – higher ratios indicate greater costeffectiveness  Mean ratios: BRT: 4.61 (SD 1.54) S-BCT: 3.30 (SD 1.61) IBT: 3.68 (SD 1.59) PACT: 3.48 (SD 1.70)	Perspective: Societal Currency: US \$ Cost year: Not reported Time horizon: 12 months Discounting: N/A Funded by: National Institute on Alcohol Abuse and Alcoholism

Psychoeducational				
attention control				
treatment (PACT) -				
18 scheduled				
sessions over 12				
weeks				

### 4.1. Combination (Psychology and Pharmacology)

Study, year and country	Intervention details	Study population Setting Study design – data	Study Type	Costs: description and values Outcomes: description and values	Results: Cost- effectiveness	Comments Internal validity (Yes/No/NA) Industry support
,		source				J 11
Walters	Comparators:	Population with alcohol	Costing analysis	Costs: Personnel costs, supplies and	Adjunctive	Perspective: Not stated
2009.		dependence (DSM-IV)		materials, equipment, contracted services,	pharmacotherapy (CBT	Currency: Australian Dollars
Australia	CBT 12 week			buildings and facilities and misc, resources	+naltrexone) was 54%	Cost year: not stated
	manual based	Setting: outpatient		and treatment failure.	more expensive than CBT	Time horizon: not specifically
	outpatient program	hospital based			alone. There were no	stated:12 weeks
					differences between	Discounting: not stated
	Vs.	Source of clinical		Outcomes:	groups on a preference-	Funded by : non-industry
		effectiveness data:			based health measure (SF-	
	CBT + naltrexone			Costs per 100 successful treatment	6D). The dominant choice	
		Source of resource use		completions	was CBT	
		estimates: Drug Abuse			+naltrexone based on	
		Treatment Cost Analysis		Successful treatment = alcohol abstinence	modest economic	
		Program		over 12 week program and attending all 8	advantages and significant	
				sessions	efficiencies in the numbers	
		Source of unit costs:			needed to treat.	
		DATCAP		SF-6D utility scores estimated from SF-36		
				questionnaire		