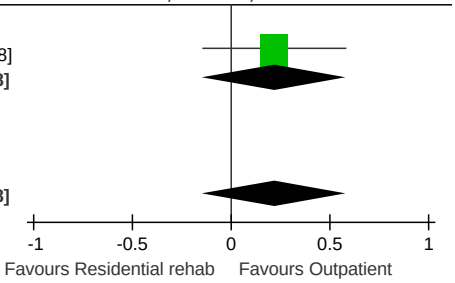
Appendix 17b: rehabilitation forest plots

Residential rehabilitation versus outpatient care 2
Abstinence 2
Alcohol consumption outcomes 2
Lapse (non-abstinence) 3
Drinking frequency 3
Residential rehabilitation versus day hospital 4
Abstinence 4
Alcohol consumption outcomes 4
Relapse 5
Lapse (non-abstinence) 5
Drinking frequency 6
Attrition (number not retained in treatment) 6
Day hospital versus outpatient 6
Percent days abstinent at 3-month follow-up 6
Drinks per drinking day at 3-month follow-up 6
Residential rehabilitation versus residential rehabilitation (two different treatment approaches) 7
Relapse 7
Short-duration versus longer-duration inpatient 8
Lapse (non-abstinence) 8
Number consuming alcohol 60 to 90% of the time at 3-month follow-up 8
Number consuming alcohol 60 to 90% of the time at 6-month follow-up 9
Number consuming alcohol less than 60% of the time at 3-month follow-up 9
Number consuming alcohol less than 60% of the time at 6-month follow-up 9

Residential rehabilitation versus outpatient care

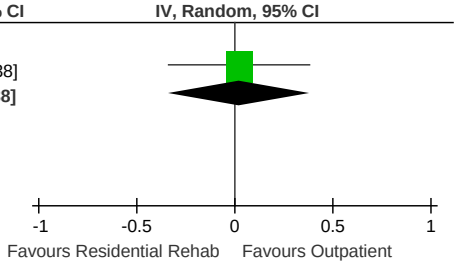
Abstinence

Study or Subgroup	Residential Rehab Mean	SD	Total	Outpatient Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
1.1.1 Percent Days Abstinent at 3 month follow-up								
RYCHTARIK(INPvsSO)	81	20	58	76	25	61	100.0%	0.22 [-0.14, 0.58]
Subtotal (95% CI)			**58**			**61**	**100.0%**	**0.22 [-0.14, 0.58]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 1.19 (P = 0.23)								
Total (95% CI)			**58**			**61**	**100.0%**	**0.22 [-0.14, 0.58]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 1.19 (P = 0.23)								
Test for subgroup differences: Not applicable								

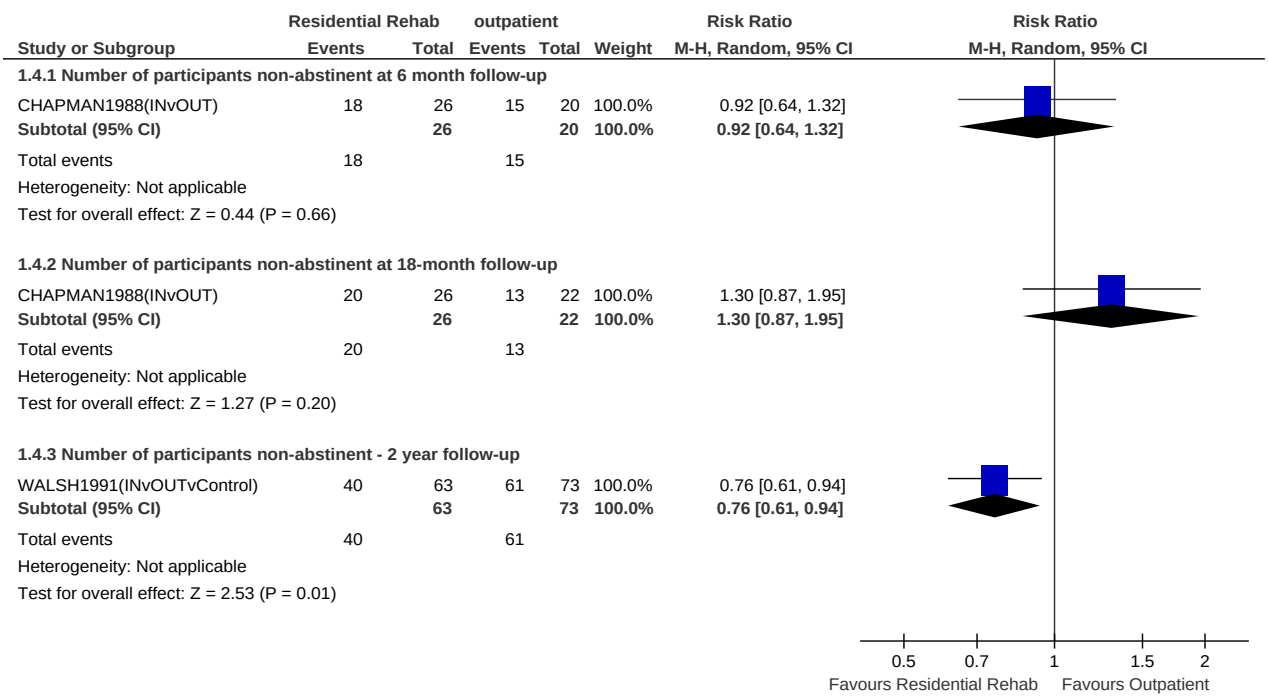


Alcohol consumption outcomes

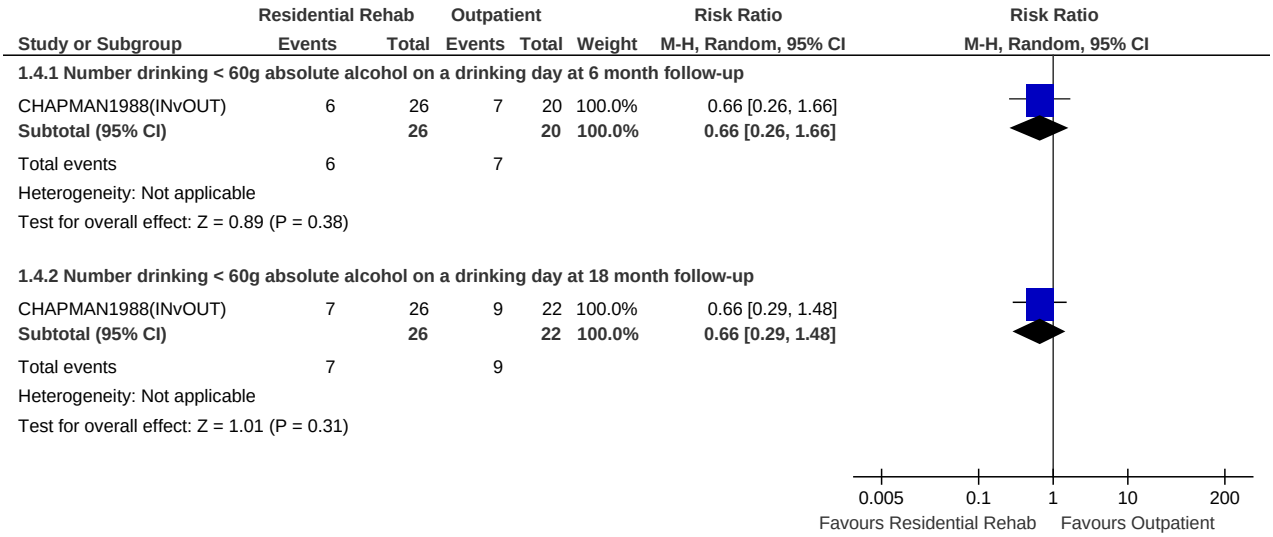
Study or Subgroup	Residential Rehab Mean	SD	Total	Outpatient Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
1.2.1 Drinks per drinking day at 3 month follow-up								
RYCHTARIK(INPvsSO)	5.12	4.76	58	5	6.16	61	100.0%	0.02 [-0.34, 0.38]
Subtotal (95% CI)			**58**			**61**	**100.0%**	**0.02 [-0.34, 0.38]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.12 (P = 0.91)								



Lapse (non-abstinence)



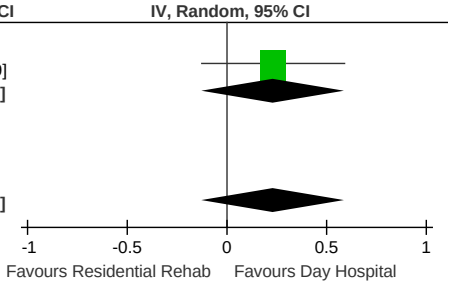
Drinking frequency



Residential rehabilitation versus day hospital

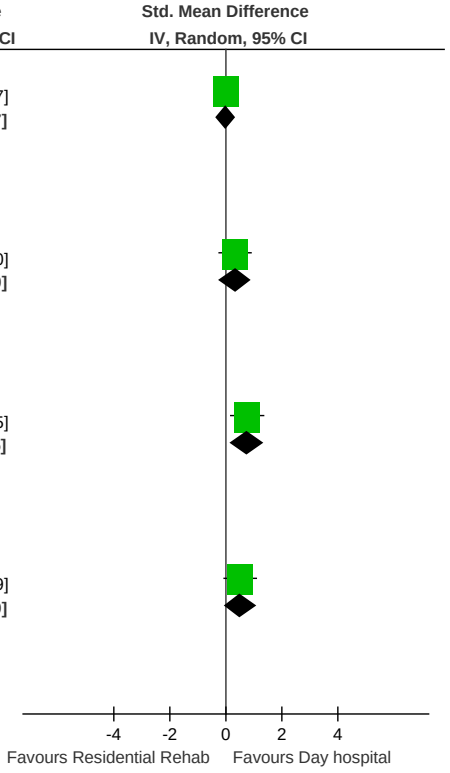
Abstinence

Study or Subgroup	Residential Rehab Mean	SD	Total	Day hospital Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
2.1.1 Percent Days Abstinent at 3-month follow-up								
RYCHTARIK2000(INPvIO)	81	20	58	75	30	63	100.0%	0.23 [-0.13, 0.59]
Subtotal (95% CI)			**58**			**63**	**100.0%**	**0.23 [-0.13, 0.59]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 1.27 (P = 0.20)								
Total (95% CI)			**58**			**63**	**100.0%**	**0.23 [-0.13, 0.59]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 1.27 (P = 0.20)								
Test for subgroup differences: Not applicable								



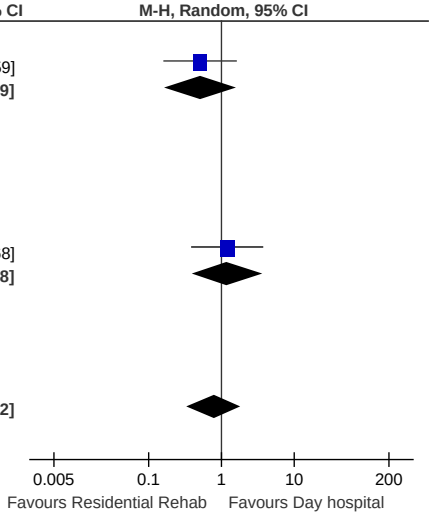
Alcohol consumption outcomes

Study or Subgroup	Residential Rehab Mean	SD	Total	Day hospital Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
2.2.1 Drinks per drinking day at 3 month follow-up								
RYCHTARIK2000(INPvIO)	5.12	4.76	58	5.05	6.33	63	100.0%	0.01 [-0.34, 0.37]
Subtotal (95% CI)			**58**			**63**	**100.0%**	**0.01 [-0.34, 0.37]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.07 (P = 0.95)								
2.2.2 Mean number of drinking days at 3 month follow-up								
MCKAY1995(INvDAY)	3.4	7.23	24	1.37	4.59	24	100.0%	0.33 [-0.24, 0.90]
Subtotal (95% CI)			**24**			**24**	**100.0%**	**0.33 [-0.24, 0.90]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 1.13 (P = 0.26)								
2.2.3 Mean number of drinking days at 6 month follow-up								
MCKAY1995(INvDAY)	7.38	10.19	24	1.55	3.14	24	100.0%	0.76 [0.17, 1.35]
Subtotal (95% CI)			**24**			**24**	**100.0%**	**0.76 [0.17, 1.35]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 2.54 (P = 0.01)								
2.2.4 Mean number of drinking days at 12 month follow-up								
MCKAY1995(INvDAY)	6.7	9.05	24	2.85	5.19	24	100.0%	0.51 [-0.06, 1.09]
Subtotal (95% CI)			**24**			**24**	**100.0%**	**0.51 [-0.06, 1.09]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 1.75 (P = 0.08)								



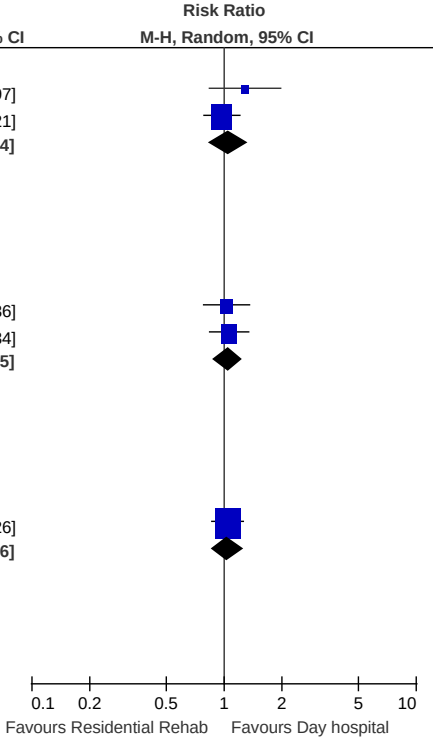
Relapse

Study or Subgroup	Residential Rehab Events	Total	Day hospital Events	Total	Weight	Risk Ratio M-H, Random, 95% CI
2.3.1 Posttreatment						
WEITHMANN2005(INvDAY)	4	54	8	55	49.2%	0.51 [0.16, 1.59]
Subtotal (95% CI)		**54**		**55**	**49.2%**	**0.51 [0.16, 1.59]**
Total events	4		8			
Heterogeneity: Not applicable						
Test for overall effect: Z = 1.16 (P = 0.25)						
2.3.2 12-month follow-up						
MCLACHLAN1982(RESvNONres)	6	50	5	50	50.8%	1.20 [0.39, 3.68]
Subtotal (95% CI)		**50**		**50**	**50.8%**	**1.20 [0.39, 3.68]**
Total events	6		5			
Heterogeneity: Not applicable						
Test for overall effect: Z = 0.32 (P = 0.75)						
Total (95% CI)		**104**		**105**	**100.0%**	**0.79 [0.34, 1.82]**
Total events	10		13			
Heterogeneity: Tau² = 0.04; Chi² = 1.11, df = 1 (P = 0.29); I² = 10%						
Test for overall effect: Z = 0.56 (P = 0.58)						
Test for subgroup differences: Not applicable						



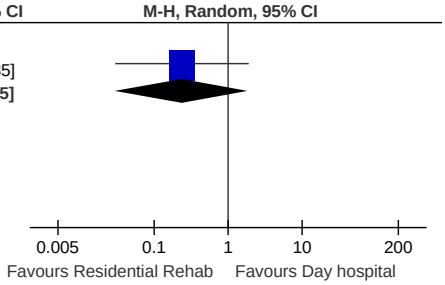
Lapse (non-abstinence)

Study or Subgroup	Residential Rehab Events	Total	Day hospital Events	Total	Weight	Risk Ratio M-H, Random, 95% CI
2.4.1 Number of participants non-abstinent at 6 month follow-up						
LONGABAUGH1983(ExINvPHos)	23	60	34	114	20.3%	1.29 [0.84, 1.97]
WITBRODT2007(COMMRESvDAY)	73	139	83	154	79.7%	0.97 [0.79, 1.21]
Subtotal (95% CI)		**199**		**268**	**100.0%**	**1.05 [0.82, 1.34]**
Total events	96		117			
Heterogeneity: Tau² = 0.01; Chi² = 1.31, df = 1 (P = 0.25); I² = 24%						
Test for overall effect: Z = 0.40 (P = 0.69)						
2.4.2 Number of participants non-abstinent at 12 months						
MCLACHLAN1982(RESvNONres)	34	50	33	50	42.0%	1.03 [0.78, 1.36]
WITBRODT2007(COMMRESvDAY)	70	139	73	154	58.0%	1.06 [0.84, 1.34]
Subtotal (95% CI)		**189**		**204**	**100.0%**	**1.05 [0.88, 1.25]**
Total events	104		106			
Heterogeneity: Tau² = 0.00; Chi² = 0.03, df = 1 (P = 0.87); I² = 0%						
Test for overall effect: Z = 0.52 (P = 0.60)						
2.4.5 Number of participants non-abstinent throughout 12 month follow-up period						
WEITHMANN2005(INvDAY)	44	54	43	55	100.0%	1.04 [0.86, 1.26]
Subtotal (95% CI)		**54**		**55**	**100.0%**	**1.04 [0.86, 1.26]**
Total events	44		43			
Heterogeneity: Not applicable						
Test for overall effect: Z = 0.43 (P = 0.67)						



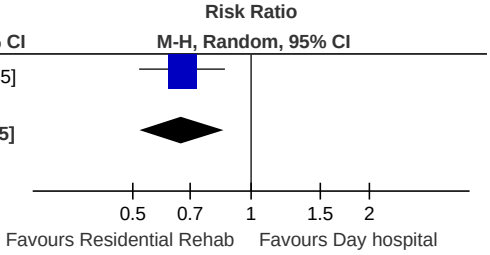
Drinking frequency

Study or Subgroup	Residential Rehab Events	Total	Day hospital Events	Total	Weight	Risk Ratio M-H, Random, 95% CI
2.5.1 Number of participants drinking daily at 6-month follow-up						
LONGABAUGH1983(ExINvPHos)	1	60	8	114	100.0%	0.24 [0.03, 1.85]
Subtotal (95% CI)		**60**		**114**	**100.0%**	**0.24 [0.03, 1.85]**
Total events	1		8			
Heterogeneity: Not applicable						
Test for overall effect: Z = 1.37 (P = 0.17)						



Attrition (number not retained in treatment)

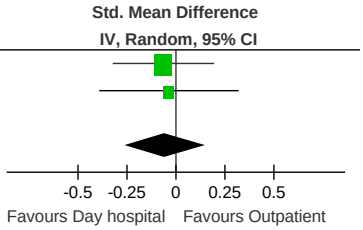
Study or Subgroup	Residential Rehab Events	Total	Day hospital Events	Total	Weight	Risk Ratio M-H, Random, 95% CI
BELL1994(INvDAY)	70	291	128	355	100.0%	0.67 [0.52, 0.85]
Total (95% CI)		**291**		**355**	**100.0%**	**0.67 [0.52, 0.85]**
Total events	70		128			
Heterogeneity: Not applicable						
Test for overall effect: Z = 3.22 (P = 0.001)						



Day hospital versus outpatient

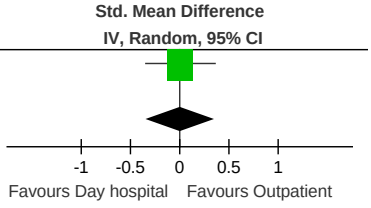
Percent days abstinent at 3-month follow-up

Study or Subgroup	Day hospital Mean	SD	Total	Outpatient Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
MORGENSTERN2003(SOvIOvPH)	83.7	29.6	94	85.4	24.65	158	65.5%	-0.06 [-0.32, 0.19]
RYCHTARIK2000(IOvSO)	75	30	63	76	25	61	34.5%	-0.04 [-0.39, 0.32]
Total (95% CI)		**157**				**219**	**100.0%**	**-0.05 [-0.26, 0.15]**
Heterogeneity: Tau² = 0.00; Chi² = 0.02, df = 1 (P = 0.90); I² = 0%								
Test for overall effect: Z = 0.51 (P = 0.61)								



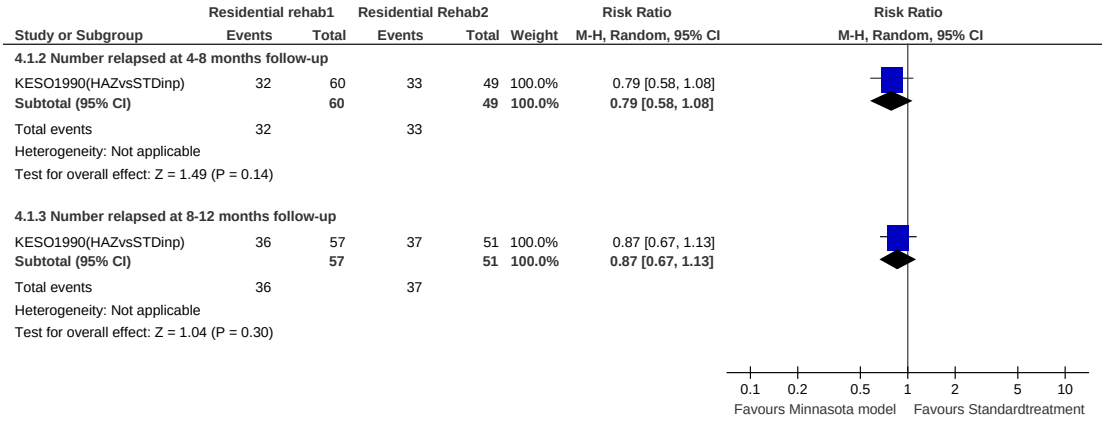
Drinks per drinking day at 3-month follow-up

Study or Subgroup	Day hospital Mean	SD	Total	Outpatient Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95% CI
RYCHTARIK(INPvsSO)	5.05	6.33	63	5	6.16	61	100.0%	0.01 [-0.34, 0.36]
Total (95% CI)			**63**			**61**	**100.0%**	**0.01 [-0.34, 0.36]**
Heterogeneity: Not applicable								
Test for overall effect: Z = 0.04 (P = 0.96)								



Residential rehabilitation versus residential rehabilitation (two different treatment approaches)

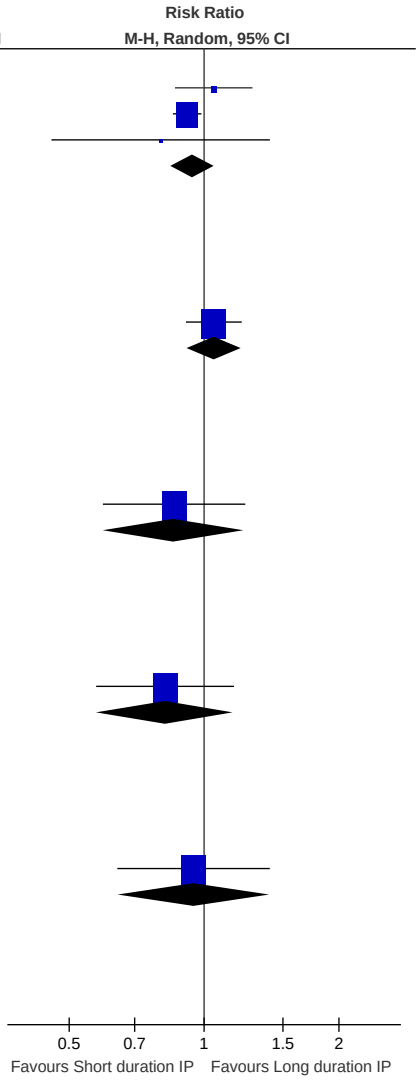
Relapse



Short-duration versus longer-duration inpatient

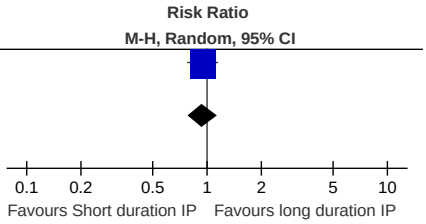
Lapse (non-abstinence)

Study or Subgroup	Short duration Events	Total	Long duration Events	Total	Weight	Risk Ratio M-H, Random, 95% CI
5.1.1 Posttreatment						
MOSHER1975(INshvINlong)	72	105	62	95	11.2%	1.05 [0.86, 1.28]
PITTMAN1972(INOUTvIN)	156	177	75	78	87.5%	0.92 [0.85, 0.98]
STEIN1975(INshvINlong)	12	29	15	29	1.4%	0.80 [0.46, 1.40]
Subtotal (95% CI)		**311**		**202**	**100.0%**	**0.94 [0.84, 1.05]**
Total events	240		152			
Heterogeneity: Tau² = 0.00; Chi² = 2.60, df = 2 (P = 0.27); I² = 23%						
Test for overall effect: Z = 1.07 (P = 0.28)						
5.1.2 6 month follow-up						
MOSHER1975(INshvINlong)	86	105	74	95	100.0%	1.05 [0.91, 1.21]
Subtotal (95% CI)		**105**		**95**	**100.0%**	**1.05 [0.91, 1.21]**
Total events	86		74			
Heterogeneity: Not applicable						
Test for overall effect: Z = 0.70 (P = 0.48)						
5.1.3 7 month follow-up						
STEIN1975(INshvINlong)	18	29	21	29	100.0%	0.86 [0.60, 1.23]
Subtotal (95% CI)		**29**		**29**	**100.0%**	**0.86 [0.60, 1.23]**
Total events	18		21			
Heterogeneity: Not applicable						
Test for overall effect: Z = 0.83 (P = 0.40)						
5.1.4 10 month follow-up						
STEIN1975(INshvINlong)	18	29	22	29	100.0%	0.82 [0.58, 1.16]
Subtotal (95% CI)		**29**		**29**	**100.0%**	**0.82 [0.58, 1.16]**
Total events	18		22			
Heterogeneity: Not applicable						
Test for overall effect: Z = 1.12 (P = 0.26)						
5.1.5 13 month follow-up						
STEIN1975(INshvINlong)	18	29	19	29	100.0%	0.95 [0.64, 1.40]
Subtotal (95% CI)		**29**		**29**	**100.0%**	**0.95 [0.64, 1.40]**
Total events	18		19			
Heterogeneity: Not applicable						
Test for overall effect: Z = 0.27 (P = 0.78)						



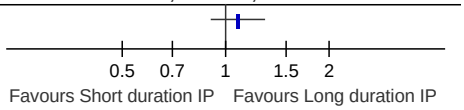
Number consuming alcohol 60 to 90% of the time at 3-month follow-up

Study or Subgroup	Short duration Events	Total	Long duration Events	Total	Weight	Risk Ratio M-H, Random, 95% CI
MOSHER1975(INshvINlong)	70	105	67	95	100.0%	0.95 [0.78, 1.14]
Total (95% CI)		**105**		**95**	**100.0%**	**0.95 [0.78, 1.14]**
Total events	70		67			
Heterogeneity: Not applicable						
Test for overall effect: Z = 0.59 (P = 0.56)						



Number consuming alcohol 60 to 90% of the time at 6-month follow-up

Study or Subgroup	Short duration Events	Total	Long duration Events	Total	Weight	Risk Ratio M-H, Random, 95% CI
MOSHER1975(INshvINlong)	78	105	65	95		1.09 [0.91, 1.30]

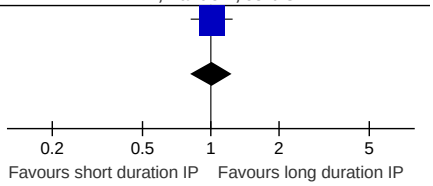


Number consuming alcohol less than 60% of the time at 3-month follow-up

Study or Subgroup	Short duration Events	Total	Long duration Events	Total	Weight	Risk Ratio M-H, Random, 95% CI
MOSHER1975(INshvINlong)	68	105	61	95	100.0%	1.01 [0.82, 1.24]
Total (95% CI)		**105**		**95**	**100.0%**	**1.01 [0.82, 1.24]**
Total events	68		61			

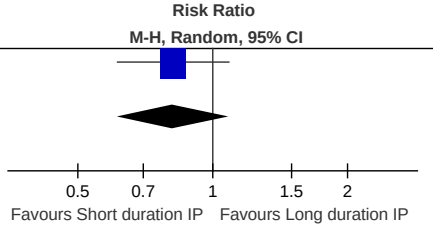
Heterogeneity: Not applicable

Test for overall effect: Z = 0.08 (P = 0.94)



Number consuming alcohol less than 60% of the time at 6-month follow-up

Study or Subgroup	Short duration IP Events	Total	Long duration IP Events	Total	Weight	Risk Ratio M-H, Random, 95% CI
MOSHER1975(INshvINlong)	46	105	51	95	100.0%	0.82 [0.61, 1.09]
Total (95% CI)		**105**		**95**	**100.0%**	**0.82 [0.61, 1.09]**
Total events	46		51			

Heterogeneity: Not applicable

Test for overall effect: Z = 1.39 (P = 0.16)