Appendix K: Evidence Summary

Typical antipsychotics - prevention; hospital setting review; typical antipsychotics vs placebo

Outcome	*Meta-analysis details*	*Summary Statistics*	*Comments:*	*GRADE details:*	*GRADE Comments*	*GRADE Evidence Rating*
Incidence of delirium	1trial; 78 patients; from RCT	RR=0.32 (95%CI 0.12, 0.91)	There is no significant difference between the haloperidol and placebo gorups	• Study quality: Poor - method of assessment of delirium • Directness: Direct • Imprecision: CI crosses appreciable harm/benefit • Inconsistency: consistent • Reporting bias: Adequate		Low
Incidence of delirium	1trial; 430 patients; from RCT	RR=0.91 (95%CI 0.59, 1.42)	No significant difference between the haloperidol and placebo groups.	• Study quality: Good • Directness: Direct • Imprecision: CI crosses appreciable harm/benefit • Inconsistency: consistent • Reporting bias: Adequate	all pts received proactive geriatric consultation; downgraded by 2 for imprecision	Low
Duration of delirium	1trial; 430 patients; from RCT	MD=-6.4 (95%CI -9.38, -3.42)	Statistically significant fewer days of delirium in the haloperidol group	• Study quality: Poor - some confounding • Directness: Direct • Imprecision: Number of patients < 400 • Inconsistency: consistent • Reporting bias: Adequate	MID=1 day; Use of rescue meds may have confounded this outcome; Pts also received proactive geriatric consultation;	Low
Severity of delirium	1trial; 430 patients; from RCT	MD=-4.01 (95%CI -5.87, -2.15)	Statistically significant in favour of the haloperidol group on the DRS-R-98(0-39)	• Study quality: Poor - some confounding • Directness: Direct • Imprecision: Number of patients < 400 • Inconsistency: consistent • Reporting bias: Adequate	MID=7.8;Severity of delirium (of those who had delirium) may have been confounded by the use of rescue medication. Pts also received proactive geriatric consultation; Results reported for those who had delirium (n=68); a-priori sample size calc=208	Low
Length of stay in hospital	1trial; 430 patients; from RCT	MD=-5.5 (95%CI -8.17, -2.83)	Statistically significantly shorter length of stay in patients who received haloperidol	• Study quality: Poor - some confounding • Directness: Direct • Imprecision: Number of patients < 400 • Inconsistency: consistent • Reporting bias: Adequate	MID=1; Use of rescue meds may have confounded this outcome; Patients received proactive geriatric consultation	Low

Adverse events (tachycardia)	1trial; 78 patients; from RCT	RR=3.15 (95%CI 0.13, 75.12)	No significant difference	• Study quality: Poor - method of assessment of delirium • Directness: Direct • Imprecision: CI crosses appreciable harm/benefit • Inconsistency: consistent • Reporting bias: Adequate		very low

Atypical antipsychotics - prevention; hospital setting review; atypical antipsychotics vs placebo

Outcome	*Meta-analysis details*	*Summary Statistics*	*Comments:*	*GRADE details:*	*GRADE Comments*	*GRADE Evidence Rating*
Incidence of delirium	1trial; 126 patients; from RCT	RR=0.35 (95%CI 0.16, 0.77)	Significantly fewer patients with delirium in the risperidone group	• Study quality: Good • Directness: Direct • Imprecision: CI crosses appreciable harm/benefit • Inconsistency: consistent • Reporting bias: Adequate		Moderate
Length of stay in hospital	1trial; 126 patients; from RCT	MD=0.2 (95%CI -1.66, 2.06)	No significant difference in length of hospital stay	• Study quality: Good • Directness: Direct • Imprecision: CI crosses MID • Inconsistency: consistent • Reporting bias: Adequate	MID=1; CI crosses both threshold so downgraded by 2 for imprecision	Low
Length of stay in ICU	1trial; 126 patients; from RCT	MD=0.1 (95%CI -0.64, 0.84)	No significant difference in number of days spent in the ICU	• Study quality: Good • Directness: Direct • Imprecision: CI crosses MID • Inconsistency: consistent • Reporting bias: Adequate	MID=0.5 days	Low

Cholinesterase inhibitors - prevention; hospital setting review; acetylcholinesterase inhibitor vs placebo						
Outcome	***Meta-analysis details***	***Summary Statistics***	***Comments:***	***GRADE details:***	***GRADE Comments***	***GRADE Evidence Rating***
Incidence of delirium	2 trials; 193 patients; from Meta analysis of RCTs	RR=1.11 (95%CI 0.69, 1.79); p=0.84; I2 =0%	No significant difference between the acetylcholinesterase and placebo groups	• Study quality: Poor - incomplete follow up • Directness: Direct • Imprecision: CI crosses appreciable harm/benefit • Inconsistency: consistent • Reporting bias: Adequate	downgraded by 2 points for imprecision because the CI crosses over both the acceptable benefits/harms threshold	very low
Duration of delirium	1trial; 90 patients; from RCT	MD=0.3 (95%CI -0.67, 0.07)	No significant difference in duration of delirium (end point 28 days)	• Study quality: Poor - incomplete follow up • Directness: Direct • Imprecision: Number of patients < 400 • Inconsistency: consistent • Reporting bias: Adequate	MID= 1 day; OIS=260	Low
Length of stay in hospital	1trial; 90 patients; from RCT	MD=0.2 (95%CI -0.1, 0.5)	No significant difference in length of hospital stay (endpoint 28 days)	• Study quality: Poor - incomplete follow up • Directness: Direct • Imprecision: Number of patients < 400 • Inconsistency: consistent • Reporting bias: Adequate	MID: 1 day; More than 20% missing data;	Low
Number of patients discharged to rehab facility	1trial; 90 patients; from RCT	RR=0.87 (95%CI 0.68, 1.1)	No significant difference between the donepezil and placebo groups at endpoint 28 days	• Study quality: Poor - incomplete follow up • Directness: Direct • Imprecision: CI crosses appreciable harm/benefit • Inconsistency: consistent • Reporting bias: Adequate	More than 20% missing data	Low

Cholinesterase inhibitors - prevention; long-term care review; acetylcholinesterase inhibitor vs usual care

Outcome	*Meta-analysis details*	*Summary Statistics*	*Comments:*	*GRADE details:*	*GRADE Comments*	*GRADE Evidence Rating*
Incidence of delirium	1trial; 230 patients; from RCT-indirect [Community]	RR=0.65 (95%CI 0.5, 0.85)	Significantly lower incidence of delirium in the rivastigmine group compared with usual care at endpoint 2 years	• Study quality: Poor - allocation conceal • Directness: Indirect Setting- Minor, community • Imprecision: CI crosses appreciable harm/benefit • Inconsistency: consistent • Reporting bias: Adequate	Allocation concealment and blinding unclear	very low
Duration of delirium	1trial; 230 patients; from RCT-indirect [Community]	MD=-3.86 (95%CI -4.45, -3.27)	Duration of delirium was significantly shorter in the rivastigmine group compared with usual care	• Study quality: Poor - some confounding • Directness: Indirect Setting- Minor, community • Imprecision: Number of patients < 400 • Inconsistency: consistent • Reporting bias: Adequate	MID:1 day;Differential use of rescue medication may have led to some confounding; Duration of delirium (unclear if patients with delirium or a mean across all patients). Results for mean across all patients presented here. Alloc conceal & blinding uncle	very low

Cholinesterase inhibitors - prevention; long-term care review; acetylcholinesterase inhibitor vs placebo

Outcome	*Meta-analysis details*	*Summary Statistics*	*Comments:*	*GRADE details:*	*GRADE Comments*	*GRADE Evidence Rating*
Cognitive impairment	1trial; 230 patients; from RCT-indirect [Community]	MD=-0.21 (95%CI -0.98, 0.56)	No significant difference in global performance on Clinical Dementia Rating Scale (0-3)	• Study quality: Poor - some confounding • Directness: Indirect Setting- Minor, community • Imprecision: CI crosses MID • Inconsistency: consistent • Reporting bias: Adequate	MID: 0.6; Allocation concealment & blinding unclear; Differential use of rescue medication may have led to some confounding;	very low