Supplementary Data

Appendix 1

Quality Criteria

We only included studies if they met certain quality criteria adapted from Evidence-Based Mental Health 'Guidelines for evaluating prevalence studies'[179] and the American Medical Association 'Users Guide to Evidence-based Medicine'[180, 181]:

For occurrence studies: sample representative of the target population, reliable and valid measurement tools for delirium and appropriate statistical analyses.

For prognosis studies: appropriate sample of the target population (with at least 20 subjects), blind and objective assessments, consideration of appropriate confounding factors and use of appropriate statistical analyses (e.g. multivariate or survival analysis). We calculated a quality score for outcome studies as follows:

Criteria	**Quality- low/ moderate/ high (1-3)**
Sampling bias- number in cohort	
Selection bias- exclusions	
Selection bias- delirium diagnosis	
Inception cohorts- similar at baseline	
Attrition bias	
Measurement quality- outcomes preset, objective and blind	
Appropriate statistical analysis of outcomes	

Search strategy for identification of studies

We searched the following electronic medical databases from 1980 up to Week 1 July 2005: Medline(R), EMBASE, PsycINFO, CINAHL, Cochrane Database of Systematic Reviews (CDSR), The ACP Journal Club, and Cochrane Controlled Trials Register (CCTR). We used an extensive search strategy which incorporated both commonly used and less frequently used terms for delirium. We also examined reference lists of retrieved articles and bibliographies of relevant chapters in major texts and review articles. This was supplemented by hand searching of the Consultation-Liaison Literature Database (2003 Update), relevant journals and conference

proceedings, and contacting colleagues in the field. Titles and abstracts were screened by a single reviewer and clearly ineligible studies were discarded. A second reviewer re-examined a sample of 10% of excluded studies to confirm ineligibility. Full text articles were then obtained to determine eligibility for inclusion

Appendix 2

Table 5 Mortality

Index Study	No of Cases	Cases	Controls	
Death at Discharge				
Villapando-Berumen J 2003	80	6.1%	2.3%	All incident cases
Francis J 1990	50	8%	1%	Difference independently NS; large number of exclusions
Inouye S 1998	33	9%	3%	Difference NS after adjustment, but small number of outcome events, insufficient power to detect difference
Lundstrom M 2005	62	14.5%		
Rockwood K 1989	20	15%	1.3%	Small number of cases and outcome events
O' Keefe ST 1997	94	16%	5%	Difference NS after adjustment
Rockwood K 1993	48	19%	12%	
McCusker J 2001	220	19%		Independent increase in mortality
Gaudet M 1993	52	23%		
Zanocchi M 1998	130	25%	10%	Significant difference but not adjusted for potential confounders
Kolbeinsson H 1993	37	32%		Significantly increased compared with dementia
Jitapunkul S 1992	40	35%	16%	Significant difference but not adjusted for potential confounders
Cole MG 1994	46	37%		
Ramsay R 1991	22	62%	14%	Delirium had independent effect on mortality, adjusting for potential confounders; small number of cases
Thomas R 1988	20	65%	4.4%	Significant difference but not adjusted for potential confounders; small number of cases
Death at 6 months				
Francis J 1990	50	14.3%	10%	Difference NS adjusting for potential confounders
O'Keefe ST 1997	94	31%	15%	Difference NS adjusting for potential confounders
Death at 12 months				
McCusker J 2001	220	42%	14%	Mortality 63%; twofold increase in mortality adjusting for confounders
Rahnoken T 2000	51	10%		
Ramsay R 1991	22	77%		
Death at 24 months				
Francis J 1990	50	39%	23%	Delirium had no independent effect on mortality
Other				
Rockwood K 1999	38	21%	57%	Survival at 3 yrs; adjusted Hazard Ratio for death =1.71

Villapando-Berumen J 2003	80	55%	70%	Survival at 5 yrs

Appendix 3

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