

Appendix E: Quality appraisal – Epidemiology review

General Medicine					
Study	Sample Size	Age (Mean, SD)	All participants assessed for delirium within 24 hours of admission	Frequency of assessment	Study Quality (P=prevalent data, I = incident data, O = occurrence rate)
Pitkala (64)	230	Not given	Yes	At admission	Moderate (P)
Edund (21)	400	Not given	Yes	At admission	Moderate (P)
Holden (34)	216	Not given	Yes	Every 2 days	Moderate (P) Moderate (O)
McCusker (51)	1552	83.6 (7.4)	Yes	At admission & once again during first week	High (P) Low (O)
Rockwood (69)	247	79	Yes	At admission	Moderate (P)
Cole (16)	484	Not given	Yes	At admission	Moderate (P)
Martin (49)	156	76.4 (6.5)	Yes	Daily until d14, discharge or death	Moderate (I)
Leslie (45)	919	80 (6.5)	Yes	Daily until discharge	High (I)
O'Keefe (58)	225	Not given	No	At least every 24 hours	Moderate (O)
Naughton (57)	374	81 (6.2)	No	Once on day 4 of admission	Low (O)
Adamis (7)	94	82.1 (6.2)	No	Every 3+/-1 day until d18 & again 10d later	Low (O)
Faezah (25)	400	Not given	Yes	Daily until discharge	High (O)
Inouye (36)	107	Not given	Yes	Daily until discharge	Moderate (O)
Jones (39)	491	79 (6)	Yes	Alternate days & at discharge	Moderate (O)
Inouye (37)	196	Not given	Yes	Daily until discharge	High (O)

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Inouye (38)	727	78.9 (6.9)	No	Within 48 hours of admission & at discharge	Low (O)
Inouye (36)	174	Not given	Yes	Daily until discharge	Moderate (O)

Stroke Medicine					
Study	Sample Size	Age (Mean, SD)	All participants assessed for delirium within 24 hours of admission	Frequency of assessment	Study quality
Caeiro (15)	190	63.6 (12.8)	No	Once at admission	Moderate (P)
Henon (33)	202	75	Yes	Daily until discharge/death	Moderate (O)

HIV/AIDS Medicine					
Study	Sample Size	Age (Mean, SD)	All participants assessed for delirium within 24 hours of admission	Frequency of assessment	Study quality
Uldall (78)	110	42	No	Examined ever 24-48 hours until discharge	Low (O)
Breitbart (14)	244	39.2 (8.8)	Yes	Daily until discharge	Moderate (O)

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Medical ICU					
Study	Sample Size	Age (Mean, SD)	All participants assessed for delirium within 24 hours of admission	Frequency of assessment	Study quality
Ely (24)	111	55.3 (17.4)	Yes	Daily until discharge	Moderate (O)
Milbrandt (53)	224	56 (17)	Yes	Daily until discharge	Moderate (O)
Pisani (63)	178	74.2 (8.3)	No	Daily Monday to Friday until discharge	Moderate (O)
McNicoll (52)	118	76	No	Daily for 6 days of the week until discharge	Moderate (O)
Peterson (62)	614	52.5 (17.5)	Yes	At least once daily until discharge	High (P) High (I)
Thomason (77)	261	56 (18)	Yes	At least twice daily until discharge	Moderate (O)
Lin (47)	102	73.9 (3.5)	Yes	Daily for the first 5 days of admission	Low (O)
Surgical ICU					
Pandharipande (60)	100	Not given	Yes	Daily, maximum 10 days or discharge	Moderate (O)
Robinson (68)	144	64 (9)	Yes	Daily until discharge	Moderate (O)
Robinson (67)	49	64 (7)	Yes	Daily until discharge	Low (O)
Balas (10)	114	75	Yes	Daily until discharge	Moderate (O)
Trauma ICU					
Angles (9)	69	44 (2)	Yes	Daily until discharge	Low (O)
General ICU					
Roberts (66)	185	61	Yes	Twice daily until discharge	Moderate (O)
Ouimet (59)	820	Not given	Yes	Daily until discharge	High (O)
Van Rompaey (80)	523	64	Unclear	Unclear	Potential for bias (O)
Dubois (18)	216	Not given	Yes	Daily until d5	Moderate (O)

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Emergency Department					
Study	Sample Size	Age (Mean, SD)	All participants assessed for delirium within 24 hours of admission	Frequency of assessment	Study quality
Han (32)	341	Not given	Yes	At admission	Moderate (P)
Lewis (46)	385	Not given	Yes	At admission	Moderate (P)
Naughton (56)	188	79.7 (6.5)	Yes	At admission	Moderate (P)
Elie (23)	447	Not given	Yes	At admission	Moderate (P)

General Surgery					
Study	Sample Size	Age (Mean, SD)	All participants assessed for delirium preop (post admission)	Frequency of assessment	Study quality
Koebrugge (43)	73	Not given	No	3 x Daily until discharge	Low (O)
Greene (30)	100	64.7 (7.7)	No	Daily post op until d3/discharge	Low (O)
Franco (26)	500	Not given	No	Daily post op until d4	Moderate (O)
Rudolph (73)	1161	68.9 (5.9)	Yes	Daily until d7 or discharge	Moderate (O)
Marcantonio (48)	1341	68 (9)	Yes	Daily from d2 post op to d5 post op	Moderate (O)

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Orthopaedic surgery					
Study	Sample Size	Age (Mean, SD)	All participants assessed for delirium preop (post admission)	Frequency of assessment	Study quality
Orthopaedics (Acute Hip Fracture)					
Edlund (20)	101	79.5 (7.7)	Yes	d1, d3 & d7 postoperatively	Moderate (P) Low (O)
Furlaneto (27)	103	Not given	Yes	Daily until discharge	Moderate (P) Moderate (I)
Goldenberg (29)	77	81.9 (7.5)	Yes	Daily until discharge	Low (P) Low (I)
Santana (75)	34	Not given	Yes	Twice daily until d5 post op	Potential for bias (O)
Bickel (12)	200	73.8 (9)	Yes	Daily post op (duration not stated)	Moderate (O)
Galanakis (28)	105	74.9	Yes	Daily post-op d1 to d7	Moderate (O)
Edlund (22)	54	77	Yes	Post op d1 and d7 only	Potential for bias (O)
Milisen (54)	60	80	No	d1, d3, d5, d8 & d12 post op	Low (O)
Morrison (55)	541	Not given	yes	daily post op, 5 days per week	Moderate (O)
Holmes (35)	731	82.1	No	Once between d2 & d5 post op	Low (O)
Kagansky (40)	137	82.5 (5.3)	Yes	At admission & d7 post op	Low (O)
Brauer (13)	571	Not given	No	Daily for 5 days of the week	Moderate (O)
Orthopaedics (Elective)					
Contin (17)	236	Not given	Yes	d2 and d7 post op	Low (O)
Galanakis (28)	105	74.9	No	daily d1 to d7 post op	Moderate (O)
Bickel (12)	200	73.8 (9)	Yes	Daily pre-op & post op	Moderate (O)
Orthopaedics (Spinal Surgery)					
Kawaguchi (42)	341	59.2	No	Daily assessment & CAM if change in mental status	Moderate (O)

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Study	Sample Size	Age (Mean, SD)	All participants assessed for delirium preop (post admission)	Frequency of assessment	Study quality
Cardiac Surgery					
Rudolph (72)	80	Not given	Yes	Daily to discharge	Low (O)
Rudolph (71)	36	68.9	Yes	Preop & postop d2 & d5	Potential for bias (O)
Santana (74)	220	Not given	No	Daily evaluation post op until d5	Moderate (O)
Rolfson (70)	71	Not given	Yes	Twice daily post op until d4	Low (O)
Koster (44)	112	70 (7.3)	Yes	Daily d1-d5 post op	Moderate (O)
Van der Mast (79)	296	63 (11)	No	Daily from d2-d5 post op	Moderate (O)
Vascular Surgery					
Benoit (11)	102	Not given	No	Postop until d6 (frequency unclear)	Low (O)
Sasajima (76)	110	71.6 (6.6)	No	Daily postop d2-d7	Moderate (O)
Neurosurgery					
Ramirez (65)	202	Not given	Yes	Daily until discharge	High (O)
Hepatobiliary Surgery					
Yoshimura (81)	100	Not given	Yes	Daily for 2 weeks	Moderate (O)
Urology					
Hamann (31)	100	71.9	Yes	daily post op until d7	Moderate (O)
Gynaecology					
McAlpine (50)	103	Not given	No	Post op d1 & subsequently if confusion noted	Low (O)

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Psychiatry					
Study	Sample Size	Age (Mean, SD)	All participants assessed for delirium within 24 hours of admission	Frequency of assessment	Study quality
Patten (61)	401	35.5	Yes	Daily chart review & DSI/CAM repeated if change noted	Moderate (O)

Long term care					
Study	Sample Size	Age (Mean, SD)	All participants assessed for delirium within 24 hours of admission	Frequency of assessment	Study quality
ala (64)	195	Not given	No	Once (point prevalence)	Low