APPENDIX – Medline search strategy

|  |  |
| --- | --- |
|  |  |
| 1. | acute care.mp. |
| 2. | (sub-acute care or subacute care).mp.  |
| 3. | (post-acute care or postacute care).mp.  |
| 4. | (acute adj3 (bed or beds)).mp. |
| 5. | (inpatient care or "in patient care").mp. |
| 6. | acute medical unit$1.mp.  |
| 7. | acute assessment unit$1.mp. |
| 8. | acute medical assessment unit$1.mp.  |
| 9. | Acute Disease/ |
| 10. | (emergency adj (department\* or room$1 or ward$1)).mp.  |
| 11. | exp Emergency Service, Hospital/ |
| 12. | Emergencies/ |
| 13. | "accident and emergency".mp.  |
| 14. | (emergenc$ adj4 (admit$ or admission$)).mp. |
| 15. | intermediate care.mp. |
| 16. | integrated care.mp. |
| 17. | (care adj2 continuum).mp.  |
| 18. | progressive care.mp.  |
| 19. | or/1-18 |
| 20. | Frail Elderly/ or frail.mp. |
| 21. | geriatric assessment.mp. or Geriatric Assessment/ |
| 22. | Health Services for the Aged/ |
| 23. | (geriatric unit\* or specialist geriatric or acute geriatric).mp.  |
| 24. | ((elder\* or older or geriatric\* or aged) adj3 (unit\* or specialist\* or ward\*)).mp.  |
| 25. | (acute care adj3 elderly).mp.  |
| 26. | geriatric\* acute care.mp. |
| 27. | (comprehensive geriatric assessment or CGA).mp.  |
| 28. | ("geriatric evaluation and management" or gem).mp.  |
| 29. | ((self care or selfcare) adj (ward\* or unit\*)).mp.  |
| 30. | intensive home care.mp.  |
| 31. | (rehabilitation adj (ward\* or unit\*)).mp.  |
| 32. | (special adj (ward\* or unit\*)).mp.  |
| 33. | or/20-32 |
| 34. | Needs assessment/ |
| 35. | Risk assessment/ |
| 36. | exp Diagnostic services/ |
| 37. | \*"Health services needs and demands"/ |
| 38. | exp Health services/ |
| 39. | exp "Delivery of health care"/ |
| 40. | exp "Outcome and process assessment (health care)"/ |
| 41. | single assessment process.mp. |
| 42. | (function\* adj2 assess\*).mp. |
| 43. | exp Rehabilitation/ |
| 44. | rehabilitat\*.mp. |
| 45. | exp Physical Therapy Modalities/ |
| 46. | physiotherap\*.mp. |
| 47. | physical therap\*.mp. |
| 48. | occupational therap\*.mp. |
| 49. | OT.mp. |
| 50. | or/34-49 |
| 51. | geriatrics/ |
| 52. | 50 and 51 |
| 53. | (geriatric adj2 consultation).mp.  |
| 54. | (geriatric adj2 evaluation).mp.  |
| 55. | 33 or 52 or 53 or 54 |
| 56. | activities of daily living.mp. or "Activities of Daily Living"/ |
| 57. | cost$1.mp. or exp "Costs and Cost Analysis"/ |
| 58. | cost benefit.mp. or exp Cost-Benefit Analysis/ |
| 59. | cost effectiveness.mp. |
| 60. | mortality.mp. or exp Mortality/ |
| 61. | health status.mp. or exp Health Status/ |
| 62. | length of stay.mp. or "Length of Stay"/ |
| 63. | LOS.mp. |
| 64. | discharge.mp. or Patient Discharge/ |
| 65. | Patient Readmission/ or readmission$.mp. |
| 66. | (admission$ adj3 hospital$).mp.  |
| 67. | ((Readmission$ or Re admission$) adj3 hospital$).mp.  |
| 68. | ((Readmit$ adj3 hospital$) or (Re admit$ adj3 hospital$)).mp.  |
| 69. | ((avoid$ adj3 admission$) or (avoid$ adj3 readmission$)).mp.  |
| 70. | (bed block$ or bedblock$).mp.  |
| 71. | ("use" adj3 (bed or beds)).mp.  |
| 72. | (bed adj3 occupancy).mp.  |
| 73. | quality of life.mp. or exp "Quality of Life"/ |
| 74. | satisfaction.mp. or Personal Satisfaction/ |
| 75. | carer strain.mp. |
| 76. | carer burden.mp. |
| 77. | Caregivers/px [Psychology] |
| 78. | fall$1.mp. |
| 79. | Accidental Falls/ |
| 80. | (delirium or delirious).mp.  |
| 81. | (confusion or confused).mp.  |
| 82. | exp Confusion/ |
| 83. | decubitus ulcer\*.mp.  |
| 84. | (pressure sore\* or pressure ulcer\*).mp.  |
| 85. | (bedsore\* or bed sore\*).mp.  |
| 86. | Pressure Ulcer/ |
| 87. | functional status.mp.  |
| 88. | function\*.mp.  |
| 89. | (cognit\* or affect\*).mp.  |
| 90. | exp Cognition/ |
| 91. | exp Affect/ |
| 92. | exp Cognition Disorders/ |
| 93. | (reduct\* adj2 (medication\* or drug\* or medicine\*)).mp.  |
| 94. | ((reduc\* or difficulty\*) adj2 (mobility or ambulat$)).mp.  |
| 95. | Mobility Limitation/ |
| 96. | exp Urination Disorder/ |
| 97. | exp Urinary Tract Infections/ |
| 98. | (urinary tract\* adj3 (catheter\* or infect\* or complicat\*)).mp.  |
| 99. | exp Urinary Catheterization/ |
| 100. | UTI.mp. |
| 101. | LUTS.mp. |
| 102. | ((reduc\* or decreas\*) adj2 (nurs\* or hospital\*)).mp.  |
| 103. | "hospital at home".mp.  |
| 104. | "hospital in the home".mp.  |
| 105. | or/56-104 |
| 106. | 19 and 55 and 105 |
| 107. | limit 106 to (english language and yr="2010 - 2015") |
| 108. | limit 107 to (meta analysis or systematic reviews) |

APPENDIX. Umbrella Review Flow Diagram

Abstracts excluded
(n = 276)

Abstracts screened
(n =419)

Titles excluded
(n = 591)

Titles screened
(n =1010)

Records after duplicates removed
(n =1010 )

Additional records identified through other sources
(n =1)

Records identified through database searching
(n = 1132)

Identification

Screening

Full-text articles excluded
(n = 119)

Full-text articles assessed for eligibility
(n = 143­­)

**Eligibility**

Articles included in final quality and relevance screen
(n = 24)

Articles excluded
(n = 12)

Articles included in final data extraction
(n =15)

Included

***PRISMA flowchart detailing identification and selection of research syntheses***

***for inclusion in the JBI Umbrella Review.***

APPENDIX : Results of critical appraisal tool for included reviews:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Questions (Answer Y = yes, U = unclear) | Bazta’n 2009 | Conroy 2011 | Deschodt 2013 | Ellis 2011aEllis 2011b | Fealy et al 2009 | Fox et a 2012 | Fox et al 2013 | Kammerlander 2010 | Linertova 2011 | Tremblay et al 2012 | Van Craen et al 2010 | Hickman et al 2015 | Ekdahl et al 2015 | Pilotto et al 2017 |
| 1 | Is the review question clearly and explicitly stated? | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** |
| 2 |  Were the inclusion criteria appropriate for the review question? | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **N Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** |
| 3 |  Was the search strategy appropriate? | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **U U** | **Y U** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** |
| 4 | Were the sources and resources used to search for studies adequate? | **Y Y**  | **Y Y** | **N Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y U** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y U** |
| 5 | Were the criteria for appraising studies appropriate? | **Y Y** | **Y Y** | **Y Y** | **U Y** | **Y Y** | **Y Y** | **U U** | **N U** | **U Y** | **Y Y** | **Y Y** | **U U** | **Y Y** | **U U** |
| 6 | Was critical appraisal conducted by two or more reviewers independently? | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **U U** | **Y Y** | **Y Y** | **Y Y** | **Y U** | **Y Y** | **U U** |
| 7 | Were there methods to minimize errors in data extraction? | **U U** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **U N** | **Y Y** | **Y Y** | **Y U** | **Y Y** | **U U** |
| 8 | Were the methods used to combine studies appropriate? | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **U U** | **Y Y** | **Y Y** | **Y Y** | **U U** |
| 9 | Was the likelihood of publication bias assessed? | **N Y** | **Y Y** | **Y Y** | **Y Y** | **N Y** | **U U** | **Y Y** | **U U** | **U N** | **U U** | **U N** | **U U** | **Y Y** | **U U** |
| 10 | Were recommendations for policy and/or practice supported by the reported data? | **Y U** | **Y Y** | **U Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y U** | **Y Y** | **N U** | **Y NA** | **Y Y** | **U Y** | **Y Y** |
| 11 | Were the specific directives for new research appropriate? | **Y Y** | **Y Y** | **Y Y** | **NA Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **U Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** | **Y Y** |
| 12 | Final Relevance Check: Is the main focus of this systematic review: - CGA(C)/Inpatient hospital care (I) both (B)? | **I I** | **B B** | **B B** | **B B** | **B B** | **I I** | **B B** | **B B** | **I I** | **B B** | **B B** | **B B** | **B B** | **B B** |
| Numerical scores (Number of Yes answers out of 11 – average of the 2 reviewers scores) |  **9** |  **11** |  **10** |  **10** | **10.5** |  **10** |  **9** |  **6** |  **8** |  **8** |  **9.5** | **8** | **10.5** | **5.5** |
|  |

APPENDIX. Source trials/evaluations which were cited twice or more.

|  |  |  |
| --- | --- | --- |
| **Cited articles** | **First author and publication year** | **Citation****Count** |
| Conroy 2011 | Fealy 2009 | Pilotto 2017 | Ekdahl 2015 | Ellis 2011a , 2011b | Linertova 2011 | Van Craen 2010 | Fox 2012, 2013 | Bazta’n 2009 | Deschodt 2013 | Tremblay 2012 | Kammerlander 2010 | Hickman 2015 |
| Landefield 1995 |   |   | ⚫ |  |  |  |  |  |  |  |  |  |   | 7 |
| Asplund 2000 |   |   |  |  |  |  |  |  |  |  |  |  |   | 7 |
| Counsell 2000 |   |   |  |  |  |  |  |  |  |  |  |  |   | 6 |
| Collard 1985 |   |   |  |  |  |  |  |  |  |  |  |  |   | 4 |
| Cohen 2002 |   |   |  |  |  |  |  |  |  |  |  |  |  | 4 |
| Harris 1991 |   |   |  |  |  |  |  |  |  |  |  |  |   | 4 |
| Thomas 1993 |   |  |  |  |  |  |  |  |  |  |  |  |  | 4 |
| Reuben 1995 |   |   |  |  |  |  |  |  |  |  |  |  |  | 4 |
| Fretwell 1990 |   |  |  |  |  |  |  |  |  |  |  |  |  | 3 |
| Applegate 1990 |   |   |  |  |  |  |  |  |  |  |  |  |  | 3 |
| Rubentein 1984 |   |   |  |  |  |  |  |  |  |  |  |  |  | 3 |
| Saltvedt 2002 |   |   |  |  |  |  |  |  |  |  |  |  |  | 3 |
| McVey 1989 |   |   |  |  |  |  |  |  |  |  |  |  |  | 3 |
| Naughton 1994 |   |   |  |  |  |  |  |  |  |  |  |  |  | 3 |
| Kircher 2007 |   |  |  |  |  |  |  |  |  |  |  |  |  | 3 |
| Winograd 1993 |   |  |  |  |  |  |  |  |  |  |  |  |  | 3 |
| Barnes 2012 |   |   |  |  |  |  |  |  |  |  |  |  |  | 3 |
| Stenvall 2007 |   |   |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Nicholaus 1999 ESD |   |   |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Powell 1990 |   |   |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Hogan 1987 |   |   |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Nicholaus 1999 Ward |   |   |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Trappes Lomax 2006 |   |   |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Shyu 2008 |   |   |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Vidan 2005 |   |   |  |  |  |  |  |  |  |  |  |  |  | 2 |
| Shyu 2005 |   |   |  |  |  |  |  |  |  |  |  |  |  | 2 |

\* Articles citing literature outside of this highly cited core included a review of interface care [Conroy 2011](Close 1999, Close 1999, McCusker 2003, Mion 2003, Caplan 2004, Davison 2005), gerontologically informed nursing assessment and referral [Fealy 2009] (McCusker 2003, Mion 2003, Caplan 2004, Miller 1996, Gagnon 1999, McCusker 2001, Guttman 2004, Basic 2005., Hegney 2006), and multidisciplinary team interventions [Hickman 2015]( Huang 2005, Vidan 2005, Pitkälä 2006, Legrain 2011, Couirntey 2012b, Courtney 2012a, Dalleur 2014).