**Appendices**

Appendix A: Search strategies

**For OVID**

1 exp Advance Care Planning/

2 (Advance Healthcare planning or advance health#care plan\*).mp.

3 (advance medical plan\* or (advance medical adj3plan\*).mp.

4 (Advance care plan\* or (advance care adj3plan\*)).mp.

5 (Advance care adj3 (directive\* or statement\* or decision\*).mp.

6 (Advance adj3 (directive\* or statement\* or decision\*)).mp.

7 (Advance medical adj3 (directive\* or statement\* or decision\*)).mp.

8 (Disease specific plan\* or (disease\* specific adj3 plan\*)).mp.

9 ((Chronic illness\* or progressive illness\*) adj3 plans).mp.

10 (Patient advance plan\* or (patient advance adj3 plan\*)).mp.

11 (Patient advance adj3 (directive\* or statement\* or decision\*)).mp.

12 exp Living Wills/

13 Living will\*.mp.

14 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13

15 metaanalysis.pt.

16 metaanalysis/ or systematic review/ or metaanalysis as topic/ or "meta analysis (topic)"/ or "systematic review (topic)"/

17 ((systematic\* adj3 (review\* or overview\*)) or (methodologic\* adj3 (review\* or overview\*))).ti,ab,kf,kw.

18 ((integrative adj3 (review\* or overview\*)) or (collaborative adj3 (review\* or overview\*)) or (pool\*adj3 analy\*)).ti,ab,kf,kw.

19 ((quantitative adj3 (review\* or overview\* or synthes\*)) or (research adj3 (integrati\* or overview\*))).ti,ab,kf,kw.

20 (data synthes\* or data extraction\* or data abstraction\*).ti,ab,kf,kw.

21 (handsearch\* or hand search\*).ti,ab,kf,kw.

22 (meta regression\* or metaregression\*).ti,ab,kf,kw.

23 (metaanaly\* or metaanaly\* or systematic review\*).mp,hw.

24 (medline or cochrane or pubmed or medlars or embase or cinahl).ti,ab,hw.

25 (comparative adj3 (efficacy or effectiveness)).ti,ab,kf,kw.

26 (outcomes research or relative effectiveness).ti,ab,kf,kw.

27 ((indirect or indirect treatment or mixedtreatment) adj comparison\*).ti,ab,kf,kw.

28 or/

29 14 and 28 154 Advanced

**For EBSCO**

S1 (MH "Advance Care Planning+")

S2 Advance Care Planning

S3 (advance healthcare planning or advance health#care plan\*)

S4 (advance medical plan\* or (advance medical N3 plan\*))

S5 (advance care plan\* or (advance care N3 plan\*))

S6 (advance care N3 (directive\* or statement\* or decision\*))

S7 (advance N3 (directive\* or statement\* or decision\*))

S8 (MH "Advance Directives+") or (DE "Advance Directives+")

S9 (disease-specific plan\* or (disease\* specific N3 plan\*))

S10 ((chronic illness\* or progressive illness\*) N3 plans)

S11 (patient advance plan\* or (patient advance N3 plan\*))

S12 (patient advance N3 (directive\* or statement\* or decision\*))

S13 (patient advance N3 (directive\* or statement\* or decision\*))

S14 (MH "Living Wills+")

S15 living N3 will\*

S16 S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15

S17 (TI (systematic\* n3 review\*)) or (AB (systematic\* n3 review\*)) or (TI (systematic\* n3 bibliographic\*)) or (AB (systematic\* n3 bibliographic\*)) or (TI (systematic\* n3 literature)) or (AB (systematic\* n3 literature)) or (TI (comprehensive\* n3 literature))

S18 (AB (comprehensive\* n3 literature)) or (TI (comprehensive\* n3 bibliographic\*)) or (AB (comprehensive\* n3 bibliographic\*))

S19 (TI (integrative n3 review)) or (AB (integrative n3 review)) or (JN “Cochrane Database of Systematic Reviews”) or (TI (information n2 synthesis)) or (TI (data n2 synthesis)) or (AB (information n2 synthesis)) or (AB (data n2 synthesis)) or (TI (data n2 extract\*)) or (AB (data n2 extract\*))

S20 (TI (medline or pubmed or psyclit or cinahl or (psycinfo not “psycinfo database”) or “web of science” or scopus or embase)) or (AB (medline or pubmed or psyclit or cinahl or (psycinfo not “psycinfo database”) or “web of science” or scopus or embase))

S21 MH “Systematic Review”) or (MH “Meta Analysis”) or (TI (meta-analy\* or metaanaly\*)) or (AB (meta- analy\* or metaanaly\*))

S22 S17 OR S18 OR S19 OR S20 OR S21

S23 S16 AND S22

S24 S23 Limiters – Exclude MEDLINE records

S25 S24 Limiters - Age Groups: All Adult; Age Groups: Adulthood (18 yrs & older)

**For EMBASE**

1 exp patient care/

2 advance care planning.mp.

3 (advance healthcare planning or advance health#care plan\*).mp.

4 (advance medical plan\* or (advance medical adj3 plan\*)).mp.

5 (advance care plan\* or (advance care adj3 plan\*)).mp.

6 (advance care adj3 (directive\* or statement\* or decision\*)).mp.

7 (advance adj3 (directive\* or statement\* or decision\*)).mp.

8 (advance medical adj3 (directive\* or statement\* or decision\*)).mp.

9 (disease-specific plan\* or (disease\* specific adj3 plan\*)).mp.

10 ((chronic illness\* or progressive illness\*) adj3 plans).mp. More

11 (patient advance plan\* or (patient advance adj3 plan\*)).mp.

12 (patient advance adj3 (directive\* or statement\* or decision\*)).mp.

13 exp Living Will/

14 living will\*.mp.

15 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 10314

16 1 and 15

17 meta-analysis.tw.

18 systematic review.tw.

19 17 or 18

20 16 and 19

21 limit 20 to exclude medline journals

22 limit 21 to embase

Appendix B: Data extraction form

|  |  |  |
| --- | --- | --- |
| General Information | Authors |  |
| Year |  |
| Title |  |
| *Journal* |  |
| Reported research question(s) |  |
| Topic of paper | Communication/discussion strategies |  |
| Cost or resource use |  |
| Type of ACP |  |
| Effectiveness of ACP |  |
| Examination of EOL and/or palliative care |  |
| Experiences, perceptions & attitudes |  |
| Outcome measures for ACP |  |
| Factors influencing ACP |  |
| Decision making/Decision Aids |  |
| ACP research/implementation for specific disease/patient group/setting |  |
| Others: specify |  |
| Topic of interest within the paper (if any) |  |
| PICO | Population |  |
| Interest: Objectives/Details |  |
| Context (Settings) |  |
| Outcomes |  |
| Methodology | Search strategy (databases, hand search) |  |
| Timeframe |  |
| Language |  |
| Included research studies (Quantitative or Qualitative) |  |
| Type of quantitative studies |  |
| Quality appraisal tool |  |
| Type of ACP included |  |
| Data synthesis |  |
| Results | # studies reviewed |  |
| # studies by type of ACP |  |
| # countries included |  |
| Summary of results |  |
| Conclusions |  |
| Additional details |  |

Appendix C: Quality assessment details

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author** | **Q1** | **Q2** | **Q3** | **Q4** | **Q5** | **Q6** | **Q7** | **Q8** | **Q9** | **Q10** | **Score** |
| Aslakson, R. A., et al | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 7 |
| Auriemma, C. L., et al | 1 | 1 | 1 | 0 | 0 | 1 | CA | 1 | 1 | 0 | 6 |
| Austin, C. A., et al | CA | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 |
| Baidoobonso, S. et al | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 |
| Biondo, P. D., et al | 0 | 1 | 1 | 1 | 0 | 1 | CA | CA | 1 | 0 | 5 |
| Brinkman-Stoppelenburg, A., et al | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 5 |
| Chung, H. O., et al | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 7 |
| De Vleminck, A., et al | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 |
| Dening, K. H., et al | 0 | CA | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 5 |
| Dixon, J., Matosevic, T. and Knapp, M. | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 5 |
| Durbin, C. R., et al | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 |
| Fosse, A., et al | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 |
| Frost, D. W., et al | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 5 |
| Gilisen et al | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 |
| Gorman, T. E., et al | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 |
| Hall, S., et al | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 9 |
| Hanson, L. C., et al | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 3 |
| Hickman, S. E., et al | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| Houben, C. H. M., et al | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 7 |
| Jain, A., et al | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 5 |
| Jezewski, M. A., et al | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 |
| Johnson, K. S., at al (2005) | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 |
| Johnson, S., et al (2016) | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 5 |
| Kavalieratos, D., et al | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 |
| Ke, L. S., et al | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 |
| Kelly, B., et al | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 |
| Khandelwal, N., et al | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 5 |
| Kim, D., et al | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 |
| Kinley, et al | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 6 |
| Klingler, C., et al | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 7 |
| Layson, R. T., et al | 0 | CA | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| Lee et al, | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 |
| Lewis, E., et al | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 7 |
| Lim, C. E., et al | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 8 |
| LoPresti, M. A., et al | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| Lord, K., et al | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Lorenz, K. A., et al (2008) | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 |
| Lorenz, K., et al (2006) | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 |
| Lovell, A. and Yates, P. | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 4 |
| Luckett, T., et al | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 |
| Lund, S., et al | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 |
| Martin, R. S., et al | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 7 |
| Meeker, M. A. and Jezewski, M. A. | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| Mpinga, E. K., et al | 0 | CA | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 |
| Mularski, R. A., et al | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| Murray, L. and Butow, P. N. | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 5 |
| Oconnor et al | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| Oczkowski, S. J., et al | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 7 |
| Oliver, D. P., et al | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| Ostherr, K., et al | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 5 |
| Parry, R., et al | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 5 |
| Patel, R. V., et al | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 8 |
| Petriwskyj, A., et al | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 |
| Qaseem et al | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| Rahemi, Z. and Williams, C. L. | 0 | CA | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 |
| Ramsaroop, S. D., et al | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| Raymond et al | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| Robinson, L., et al | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 7 |
| Sanders, J. J., et al | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 6 |
| Schofield, P., et al | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 3 |
| Sessanna, L. and Jezewski, M. A. | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Sharp, T., et al | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 |
| Siouta, N., et al | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 6 |
| Sizoo, E. M., et al | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| Smith et al | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Song et al, (2004) | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| Song, K., et al (2016) | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 8 |
| Sumalinog, R., et al | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 7 |
| Tamayo et al | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 5 |
| Taylor, J. S., et al | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 |
| Tong, A., et al | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 |
| van der Steen, J. T., et al | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| Walczak, A., et al | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 |
| Walling, A., et al | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 4 |
| Wang, C. W. and Chan, C. L. | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 |
| Weathers, E., et al | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 5 |
| Wendler, D. and Rid, A. | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 |
| Wicher, C. P. and Meeker, M. A. | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| Wickson-Griffiths et al | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 4 |
| Zager and Yancy | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 5 |

Q1: Was an 'a priori' design provided?; Q2: Was there duplicate study selection and data extraction? Q3: Was a comprehensive literature search performed?; Q4: Was the status of publication (i.e. grey literature) used as an inclusion criterion?; Q5: Was a list of studies (included and excluded) provided?; Q6: Were the characteristics of the included studies provided?; Q7: Was the scientific quality of the included studies assessed and documented?; Q8: Was the scientific quality of the included studies used appropriately in formulating conclusions? Q9: Were the processes of data synthesis clear and transparent with reference to a specific and appropriate methodology? Q10: Was the conflict of interest stated?

CA: Cannot answer

Appendix D: Excluded studies

Original search (July, 2016):

* **Not systematic reviews:**

1. Barclay JS, Blackhall LJ, Tulsky JA. Communication strategies and cultural issues in the delivery of bad news. *J Palliat Med*. 2007;10(4):958-77.

2. Barnes S, Gardiner C, Gott M, Payne S, Chady B, Small N, et al. Enhancing patient-professional communication about end-of-life issues in life-limiting conditions: a critical review of the literature. *J Pain Symptom Manage*. 2012;44(6):866-79.

3. Beck ER, McIlfatrick S, Hasson F, Leavey G. Health care professionals' perspectives of advance care planning for people with dementia living in long-term care settings: A narrative review of the literature. *Dementia*. 2017;16(4):486-512.

4. Bernacki RE, Block SD, American College of Physicians High Value Care Task F. Communication about serious illness care goals: a review and synthesis of best practices. *JAMA Intern Med*. 2014;174(12):1994-2003.

5. Blasi ZV, Hurley AC, Volicer L. End-of-life care in dementia: a review of problems, prospects, and solutions in practice. *J Am Med Dir Assoc*. 2002;3(2):57-65.

6. Butler M, Ratner E, McCreedy E, Shippee N, Kane RL. Decision aids for advance care planning: an overview of the state of the science. *Ann Intern Med*. 2014;161(6):408-18.

7. Cartwright JC. Nursing homes and assisted living facilities as places for dying. *Annu Rev Nurs Res*. 2002;20:231-64.

8. Conelius J. A literature review: Advance directives and patients with implantable cardioverter defibrillators. *J Am Acad Nurse Pract*. 2010;22(5):250-5.

9. Cox CL, Cole E, Reynolds T, Wandrag M, Breckenridge S, Dingle M. Implications of cultural diversity in Do Not Attempt Resuscitation (DNAR) decision-making. *Journal of Multicultural Nursing & Health (JMCNH)*. 2006;12(1):20-8 9p.

10. Cruz-Oliver DM, Talamantes M, Sanchez-Reilly S. What evidence is available on end-of-life (EOL) care and Latino elders? A literature review. *Am J Hosp Palliat Care*. 2014;31(1):87-97.

11. De Vleminck A, Houttekier D, Deliens L, Vander Stichele R, Pardon K. Development of a complex intervention to support the initiation of advance care planning by general practitioners in patients at risk of deteriorating or dying: a phase 0-1 study. *BMC Palliat Care*. 2016;15:17.

12. Decker Ld, Annweiler C, Launay C, Fantino B, Beauchet O. Do not resuscitate orders and aging: impact of multimorbidity on the decision-making process. *J Nutr Health Aging*. 2014;18(3):330-5.

13. Ersek M, Kagawa-Singer M, Barnes D, Blackhall L, Koenig BA. Multicultural considerations in the use of advance directives. *Oncol Nurs Forum*. 1998;25(10):1683-90.

14. Evans N, Bausewein C, Menaca A, Andrew EV, Higginson IJ, Harding R, et al. A critical review of advance directives in Germany: attitudes, use and healthcare professionals' compliance. *Patient Educ Couns*. 2012;87(3):277-88.

15. Flo E, Husebo BS, Bruusgaard P, Gjerberg E, Thoresen L, Lillemoen L, et al. A review of the implementation and research strategies of advance care planning in nursing homes. *BMC geriatr*. 2016;16:24.

16. Gofton TE, Jog MS, Schulz V. A palliative approach to neurological care: a literature review. *Can J Neurol Sci*. 2009;36(3):296-302.

17. Hall S, Kolliakou A, Petkova H, Froggatt K, Higginson IJ. Interventions for improving palliative care for older people living in nursing care homes. *Cochrane Database of Systematic Reviews*. 2014(12).

18. Haras MS, Astroth KS, Woith WL, Kossman SP. Exploring Advance Care Planning from the Nephrology Nurse Perspective: A Literature Review. *Nephrol Nurs J*. 2015;42(1):23-35; quiz 6.

19. Jethwa KD, Onalaja O. Advance care planning and palliative medicine in advanced dementia: a literature review. *BJPsych Bull*. 2015;39(2):74-8.

20. Johns JL. Advance directives and opportunities for nurses. *Image J Nurs Sch*. 1996;28(2):149-53.

21. Kaldjian LC, Curtis AE, Shinkunas LA, Cannon KT. Goals of care toward the end of life: a structured literature review. *Am J Hosp Palliat Care*. 2008;25(6):501-11.

22. Keay TJ, Fredman L, Taler GA, Datta S, Levenson SA. Indicators of quality medical care for the terminally ill in nursing homes. *J Am Geriatr Soc*. 1994;42(8):853-60.

23. Khandelwal N, Curtis JR. Economic implications of end-of-life care in the ICU. *Curr Opin Crit Care*. 2014;20(6):656-61.

24. Kwak J, Haley WE. Current research findings on end-of-life decision making among racially or ethnically diverse groups. *Gerontologist*. 2005;45(5):634-41.

25. Lloyd L, White K, Sutton E. Researching the end-of-life in old age: cultural, ethical and methodological issues. *Ageing & Society*. 2011;31(3):386-407 22p.

26. Menaca A, Evans N, Andrew EV, Toscani F, Finetti S, Gomez-Batiste X, et al. End-of-life care across Southern Europe: a critical review of cultural similarities and differences between Italy, Spain and Portugal. *Crit Rev Oncol Hematol*. 2012;82(3):387-401.

27. Mitchell BL, Mitchell LC. Review of the literature on cultural competence and end-of-life treatment decisions: the role of the hospitalist. *J Natl Med Assoc*. 2009;101(9):920-6.

28. Mitsumoto H, Bromberg M, Johnston W, Tandan R, Byock I, Lyon M, et al. Promoting excellence in end-of-life care in ALS. *Amyotroph Lateral Scler Other Motor Neuron Disord*. 2005;6(3):145-54.

29. Naqvi F, Cervo F, Fields S. Evidence-based review of interventions to improve palliation of pain, dyspnea, depression. *Geriatrics*. 2009;64(8):8-10, 2-4.

30. Niebroj LT. Advance directives and the concept of competence: are they a moral barrier to resuscitation? *J Physiol Pharmacol*. 2007;58 Suppl 5(Pt 2):477-84.

31. Noble H, Meyer J, Bridges J, Kelly D, Johnson B. Patient experience of dialysis refusal or withdrawal--a review of the literature. *Journal of Renal Care*. 2008;34(2):94-100.

32. Ott BB. Advance directives: the emerging body of research. *Am J Crit Care*. 1999;8(1):514-9.

33. Potter JM, Fernando R, Humpel N. Development and evaluation of the REACH ( Recognise End of life And Care Holistically) out in Dementia toolkit. *Australasian Journal on Ageing*. 2013;32(4):241-6 6p.

34. Rietze L, Stajduhar K. Registered nurses' involvement in advance care planning: an integrative review. *Int J Palliat Nurs*. 2015;21(10):495-503.

35. Ryan D, Jezewski MA. Knowledge, attitudes, experiences, and confidence of nurses in completing advance directives: a systematic synthesis of three studies. *J Nurs Res*. 2012;20(2):131-41.

36. Sangarlangkarn A, Merlin JS, Tucker RO, Kelley AS. Advance Care Planning and HIV Infection in the Era of Antiretroviral Therapy: A Review. *Top Antivir Med*. 2016;23(5):174-80.

37. Séchaud L, Goulet C. Literature review on advance care planning of nursing home residents...Fourth European Nursing Congress. *J Clin Nurs*. 2010;19:17- 1p.

38. Séchaud L, Goulet C, Morin D, Mazzocato C. Advance care planning for institutionalised older people: An integrative review of the literature. *Int J Older People Nurs*. 2014;9(2):159-68.

39. Silverman HJ, Vinicky JK, Gasner MR. Advance directives: implications for critical care. *Crit Care Med*. 1992;20(7):1027-31.

40. Skinner I, Smith C, Jaffray L. Realist review to inform development of the electronic advance care plan for the personally controlled electronic health record in Australia. *Telemed J E Health*. 2014;20(11):1042-8.

41. Stromberg A, Luttik ML. Burden of caring: risks and consequences imposed on caregivers of those living and dying with advanced heart failure. *Curr*. 2015;9(1):26-30.

42. van der Steen JT. Dying with dementia: what we know after more than a decade of research. *J Alzheimers Dis*. 2010;22(1):37-55.

43. Waldrop DP, Meeker MA. Communication and advanced care planning in palliative and end-of-life care. *Nurs Outlook*. 2012;60(6):365-9.

44. Wild C, Patera N. Measuring quality in cancer care: overview of initiatives in selected countries. *Eur J Cancer Care (Engl)*. 2013;22(6):773-81.

45. Zimmermann C. Death denial: obstacle or instrument for palliative care? An analysis of clinical literature. *Sociol Health Illn*. 2007;29(2):297-314.

* **Not ACP related:**

46. Bastos Cogo S, Lerch Lunardi V. Anticipated directives and living will for terminal patients: an integrative review. Rev Bras Enferm. 2015;68(3):464-74 11p.

47. Bravo G, Dubois MF, Wagneur B. Assessing the effectiveness of interventions to promote advance directives among older adults: a systematic review and multi-level analysis. Soc Sci Med. 2008;67(7):1122-32.

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51. Ford DW, Koch KA, Ray DE, Selecky PA. Palliative and end-of-life care in lung cancer: Diagnosis and management of lung cancer, 3rd ed: American College of Chest Physicians evidence-based clinical practice guidelines. Chest. 2013;143(5 Suppl):e498S-512S.

52. Kirolos I, Tamariz L, Schultz EA, Diaz Y, Wood BA, Palacio A. Interventions to improve hospice and palliative care referral: a systematic review. J Palliat Med. 2014;17(8):957-64.

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* **Could not locate methods:**

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Search update (April, 2017)

* **Not systematic reviews:**

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Appendix E: Included studies’ characteristics

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Authors et al.** | **Year** | **Main Topic** | **Specific Objective** | **No. of incl. studies** | **Countries of included studies a** | **Systematic review analysis and result presentation** | **Methodologies of included studies (if available)c** | **Explicit risk of bias (RoB) assessment?** | **Quality score (out of 10)b** |
| Aslakson et al. | 2015 | Decision making/  Decision Aids | Identify possible decision aids to promote perioperative ACP and summarize findings | 39 | USA, Canada, Spain, Japan | Meta-analysis (for 25 articles); narrative synthesis | Quantitative (22 RCTs, 17 observational) | Yes (22 RCTs and 13 pre-post, low RoB; 10 RCTs and 3 pre-post, medium or high RoB) | 7 |
| Auriemma et al. | 2014 | Examination of EOL and/or palliative care | Addressing the stability of patients’ EOL preferences, and identification of patient characteristics associated with preference changes | 59 | At least USA, England, Netherlands, Canada, Israel, New Zealand, Australia (only from quantitative studies; no country info from qualitative ones) | Narrative synthesis; graphic depiction of preference stability across studies for quantitative studies | Quantitative (25) and qualitative (31) | No | 6 |
| Austin et al. | 2015 | Decision making/  Decision Aids | Identify tools relevant to treatment decisions of seriously ill patients and caregivers; evaluate the quality of evidence for these tools, and summarise their effect on outcomes and accessibility for clinicians | 38 | At least USA, Canada, Australia and Korea | Category development to describe the degree of change in patient-centred outcomes | Quantitative (17 RCTs, 21 observational) | Yes (11 RCTs, low RoB; 5 RCTs, medium RoB; 1 RCT, high RoB) | 6 |
| Baidoobonso et al. | 2014 | Communication/  Discussion strategies | Study patient care planning discussions (PCPDs) that optimize the quality of EOL care for patients with advanced disease, informal caregivers, and providers | 54 | USA, UK, Australia, France, Canada | Studies divided into 2 subgroups (single-provider or team-based planning discussions); within subgroups, studies were pooled if same design and used (or did not use) a tool to facilitate discussions | Quantitative (13 RCTs, 31 observational) and systematic reviews (10) | Yes (RoB assessed for topic, not available for each study) | 6 |
| Biondo et al. | 2016 | Outcome measures for ACP | Investigate measurements that healthcare systems have used to evaluate implementation of ACP initiatives | 46 | USA, Australia, UK, Canada, Germany and Hong Kong | Outcomes themed into categories which were then mapped onto a conceptual framework | Quantitative (5 RCTs, 41 observational) | No | 5 |
| Brinkman-Stoppelenburg et al. | 2014 | Effectiveness of ACP | Study the effects of ACP on EOL care | 113 | Most from USA and Canada | Not reported | Quantitative (6 RCTs, 107 observational) | No | 5 |
| Chung et al. | 2016 | Others | Evaluate the effectiveness of educational interventions to train healthcare professionals in EOL communication skills compared to usual teachings. | 20 | USA, UK, Australia, Switzerland | Meta-analysis for outcomes of interests after assessment of statistical heterogeneity using I2 statistic | Quantitative (6 RCTs, 14 observational) | Yes (3 RCTs, high RoB; 3 RCTs, uncertain RoB | 7 |
| De Vlemuinck et al. | 2013 | Factors influencing ACP | Identify the perceived factors that hinder or facilitate GPs engaging in ACP | 16 | USA, UK, Netherlands, Australia, Belgium, Canada, Singapore and Israel | Not reported | Quantitative (7) qualitative (9) | No | 6 |
| Dixon et al. | 2015 | Cost or resource use | Systematically review the literature for empirical studies reporting on economic outcomes potentially associated with ACP | 18 | USA, UK, Canada and Singapore | Not reported | Quantitative (4 RCTs, 1 cluster-RCT, 13 observational) | No | 5 |
| Durbin et al. | 2010 | Others | Systematically analyse evidence about one outcome (percent of newly completed ADs), focusing on the effectiveness of (a) types of educational interventions versus controls and (b) combined educational interventions over single educational interventions. | 16 | USA and Canada | RCTs and non-RCTs were analysed separately. RCTs used to draw conclusions about nature of evidence on effectiveness of types of educational interventions; non-RCTs used to report whether an intervention resulted in harm | Quantitative (12 RCTs, 4 non-RCTS) | No | 6 |
| Fosse et al. | 2014 | Experiences, perceptions & attitudes | Identify and synthesize qualitative research findings about nursing home patients’ and relatives’ expectations and experiences on how doctors can contribute to quality EOL care | 14 | USA, Canada, Sweden, Norway | Meta-ethnography | Qualitative (14) | No | 4 |
| Frost et al. | 2011 | Factors influencing ACP | Determine which factors relevant to the provision of critical care are known to influence EOL decision-making among healthcare providers and patients | 102 | At least Canada, Austria, Belgium, USA, Eastern Europe, Brazil, Australia, Scotland. | Tabulation of frequency of significant factors in each category (no meta-analysis); summary of findings, present detailed qualitative description | Quantitative (1 RCT, 101 observational) | No | 5 |
| Gilisen et al. | 2017 | Factors influencing ACP | Identify the preconditions for implementing and organizing ACP in the nursing home setting | 38 | Studies described as from Australia, Europe, USA and Asia | Inductive thematic analysis and narrative synthesis | Quantitative (6, 1 RCT), qualitative (14), systematic reviews (11) and other reviews (7) | No | 6 |
| Gorman et al. | 2005 | Decision making/  Decision Aids | Critically evaluate medical literature regarding residents' experiences with EOL decision making process, identify elements that contribute to organizational framework of residents' EOL decision-making process and suggest areas for future empiric research to help achieve educational goals | 26 | USA, Canada, Netherlands, Australia and France and 2 multi-country | Narrative synthesis (identification of emerging factors, key findings, key flaws and themes were summarized) | Quantitative (20 observational) and qualitative (6) | No | 6 |
| Hall et al. | 2014 | Examination of EOL and/or palliative care | Determine effectiveness of multi-component palliative care service delivery interventions for residents of care homes for older people, to describe range and quality of outcome measures reported | 3 | USA | Narrative synthesis | Quantitative (2 RCTs, 1 observational) | Yes (all 3 studies, poor quality and at some RoB) | 9 |
| Hanson et al. | 1997 | Examination of EOL and/or palliative care | Describe characteristics of successful clinical interventions et EOL | 16 | USA | Grouping of studies by target population; narrative description of whether an intervention led to changes in the four desirable clinical outcomes (no meta-analysis) | Quantitative (7 RCTs, 9 observational) | No | 3 |
| Harrison Dening et al. | 2011 | ACP research  /implementation for specific patient group or setting | Study what are the facilitators and inhibitors of ACP with people with dementia, and the key themes that emerge from the literature | 17 | USA, Australia, UK, Netherlands | Identification of key themes and narrative review synthesis | Quantitative (11 observational), quantitative (1) and mixed methods (5) | No | 5 |
| Hickman et al. | 2015 | Others | Describe and evaluate available evidence regarding use of the POLST, and identify directions for future research on the POLST | 23 | USA (Oregon, Wisconsin, New York , California, North Carolina, Washington, and multistate) | Not reported | Unclear if quantitative or qualitative studies (10 used chart review, 3 chart review and interview, 2 survey and chart review, 6 survey alone, 2 survey and interview) | No | 2 |
| Houben et al. | 2014 | Effectiveness of ACP | Study the efficacy of ACP interventions | 56 | Not reported | Interventions classified in: 1. advance directives (focused in completion of ADs) and 2. communication (focused on communication about ACP). Meta-analysis and ORs were calculated when possible (12 articles) | Quantitative (all RCTs) | No | 7 |
| Jain et al. | 2015 | Decision making/  Decision Aids | Determine the impact of ACP video decision aids on patients’ preferences for life-sustaining treatments and other ACP-related outcomes, compared with non-video-based interventions | 10 | USA | For each outcome, meta-analysis performed for summary estimate effect, when possible. If not, a complete case analysis was used | Quantitative (all RCTs) | Yes (3 RCTs, low RoB (5 or 4 out 5), 5 RCTs moderate RoB (3 out of 5), 2 RCTs high RoB (1 out of 5) | 5 |
| Jezewski et al. | 2007 | Effectiveness of ACP | Explore the state of the science regarding the effectiveness of interventions designed to increase AD completion rates among various populations | 25 | USA, Canada | Matrix method to organize data and synthesize findings | Quantitative (14 RCTs, 11 observational) | No | 3 |
| Johnson et al. | 2005 | Factors influencing ACP | Identify spiritual beliefs that may influence treatment preferences throughout the course of illness, identify spiritual beliefs that may specifically guide treatment decisions at EOL for African Americans; discuss implications for clinical practice | 40 | USA | Studies divided into two: 1. those examining treatment decisions throughout the course of illness and; 2. those specifically examining treatment decisions at EOL, including attitudes about ACP, life-sustaining treatments, physician-assisted dying, hospice care. Results divided into categories based on shared themes | Quantitative (25), qualitative (11), and mixed methods (4) | No | 3 |
| Johnson et al. | 2015 | Experiences, perceptions & attitudes | Report on the views or experiences of stakeholders regarding ACP and synthesize ACP literature focusing on cancer patients | 40 | USA, UK, Germany, Belgium, Italy, Australia, Taiwan and Canada | Thematic analysis | Quantitative (19), qualitative (17), and mixed methods (4) | No | 5 |
| Kavalieratos, et al. | 2016 | Examination of EOL and/or palliative care | Conduct a systematic review of palliative care RCTs to provide an up-to-date summary of palliative care outcomes and perform meta-analyses to estimate the association of palliative care with patient QOL, symptom burden, and survival | 58 | Not reported | Narrative synthesis; meta-analysis (for patient QOL, symptom burden, and survival outcomes studies) | Quantitative (15 RCTs, rest observational) | Yes (6 interventions at low RoB, 26 at high RoB, 11 at unclear RoB) | 6 |
| Ke et al. | 2015 | Experiences, perceptions & attitudes | To explore nurses’ experiences and perspectives regarding implementation of ACP for older people | 18 | Australia, Canada, New Zealand, South Africa, Switzerland, UK and USA | Thematic synthesis of qualitative research to perform a meta-synthesis | Qualitative (18) | No | 4 |
| Kelly et al. | 2012 | Decision making/  Decision Aids | Explore how individuals want treatment decisions to be made for them, in the absence of an AD; evaluate whether the current practice of relying on the next of kin, and instructing them to use substituted judgment standard, promote individuals’ goals | 40 | USA, Canada, France, Japan, Sweden, Australia, Singapore | Narrative synthesis | Quantitative (26, no RCTs) and qualitative (14) | No | 6 |
| Khandelwal et al. | 2015 | Cost or resource use | Study whether ACP interventions lead to a reduction in ICU admissions for adult patients with life limiting illnesses; whether ACP planning and palliative care interventions reduce ICU LOS; and whether it possible to provide estimates of the magnitude of these effects | 22 | Not reported | Studies grouped by outcomes: ICU admissions and ICU LOS. Aggregated mean relative risk reduction of ICU admissions and LOS when applicable (no meta-analysis possible) | Quantitative (9 RCTs, 13 observational) | No | 5 |
| Kim et al. | 2017 | Experiences, perceptions & attitudes | Identify the types of ethical frameworks used to address surrogates’ experiences in EOL care planning for incapacitated adults and the most common themes or patterns found in surrogate decision-making research | 30 | USA, Canada, Norway, Germany | Content analysis | Qualitative | No | 4 |
| Kinley et al. | 2011 | Examination of EOL and/or palliative care | Identify the impact of implementing EOL care policy with regard to the use of the GSFCH, the LCP (or an Integrated Care Pathway (ICP) for the last days of life) and educational/training interventions to support the provision of EOL care within a UK nursing care home context | 8 | UK | Not reported | Quantitative | No | 6 |
| Klingler et al. | 2015 | Cost or resource use | Describe the cost implications of ACP programmes and discuss ethical conflicts arising in this context | 7 | USA and Canada | Narrative synthesis | Quantitative (4 RCTs, 3 observational) | No | 7 |
| Layson et al. | 1994 | Communication/  Discussion strategies | Investigate whether patients and physicians discuss life-sustaining treatments (LST) and if they want to discuss the use of LST; investigate when they want to discuss LST, and what are the reasons they do not discuss LST; investigate how well physicians understand patients' preferences for LST after discussion, and what are the best ways to discuss the elective use of LST to insure that patients clearly communicate their preferences | 44 | Not reported | Qualitative summary | Not reported | No | 2 |
| Lee et al. | 2014 | Experiences, perceptions & attitudes | Explore the attitudes, knowledge, and willingness to discuss or complete AD and ACP in Chinese people residing in Western countries compared with Chinese populations in Eastern countries | 15 | China, Hong Kong and Singapore, Canada and USA | Theme extraction using narrative systematic review approach | Quantitative (7), qualitative (6), and mixed methods (2) | No | 6 |
| Lewis et al. | 2016 | Communication/  Discussion strategies | Investigate whether the presence of an Advance Care Document or equivalent would enhance clinicians’ involvement in initiating EOL discussions and whether that engagement was perceived or measured as effective | 24 | UK, USA, other European countries, Australia, Japan and Israel | Textual narrative and thematic analysis | Quantitative (6, no RCTs), qualitative (10) and mixed methods (8) | No | 7 |
| Lim, et al. | 2016 | ACP research  /implementation for specific patient group or setting | Determine if ACP in haemodialysis patients can result in fewer hospital admissions or less use of treatments with life-prolonging or curative intent, and if patient’s wishes were followed at EOL | 2 | USA | Planned meta-analysis, but unable to perform it. Narrative description. | Quantitative (2 RCTs) | Yes (unclear RoB for both studies) | 8 |
| LoPresti et al. | 2016 | Examination of EOL and/or palliative care | Identify and summarize what inequities exist in EOL care by ethnic/racial groups and examine possible reasons why these disparities or preferences exist in EOL care, for identifying interventions and improving care | 25 | USA | Not reported | Quantitative (20 observational) and qualitative (5) | No | 2 |
| Lord et al. | 2015 | Decision making/  Decision Aids | Identify barriers and facilitators to carer proxy decision-making, and interventions designed to help carers make proxy decisions and their effectiveness | 30 | At least, from USA, Canada and UK | Not reported | Quantitative (2 RCTs, 8 observational) and qualitative (20) | No | 2 |
| Lorenz et al. | 2006 | Outcome measures for ACP | Explore the availability of quality-of-care measures and the evidence supporting those measures to assess pain, depression, dyspnoea, and ACP for patients with cancer. Identify gaps in knowledge about quality measurement from the currently available literature, including absence of measures or measures lacking evidence of their scientiﬁc soundness for the population of cancer patients as a whole or for speciﬁc subpopulations | 25 (ACP related) | Not reported | Not reported | Not applicable (Measures and Indicators) | No | 4 |
| Lorenz et al. | 2008 | Examination of EOL and/or palliative care | Identify the critical elements for clinicians to address when caring for persons coming to the EOL, investigate what do deﬁnitions of the EOL suggest about identifying patients who could beneﬁt from palliative approaches, identify what treatment strategies work well for pain, dyspnea, and depression, and what elements are important in ACP for patients coming to the EOL. Identify what elements of collaboration and consultation are effective in promoting improved EOL care, and what elements of assessment and support are effective for serving caregivers, including family, when patients are coming to the EOL | 41 (ACP related) | At least USA, Canada, Western Europe, Australia and New Zealand | Qualitative synthesis | Systematic reviews (9) and intervention studies (32) | No | 6 |
| Lovell and Yates | 2014 | Factors influencing ACP | Identify the contextual factors that have influenced the uptake of ACP in 'real-world' palliative care settings | 27 | USA, UK, Australia, Belgium, Netherlands, China and Taiwan | Thematic synthesis, grouping common results under main headings, then subheadings added as themes emerged | Quantitative (7), qualitative (17) and mixed methods (3) | Yes (no details given per study) | 4 |
| Luckett et al. | 2014 | ACP research  /implementation for specific patient group or setting | Inform future ACP practice and research in chronic kidney disease | 55 | USA and others (no more details) | Narrative approach using tabulation, textual descriptions, grouping and clustering, thematic and content analysis. | Quantitative (48, 40 descriptive, 8 intervention), and Qualitative (6) | Yes (only for intervention studies; 6 high RoB, 2 moderate RoB) | 4 |
| Lund et al. | 2015 | Factors influencing ACP | Investigate the factors that promote or inhibit the routine incorporation of ACPs in clinical practice | 13 | UK, Canada, USA, Australia | Directed content analysis, using an analytic framework informed by Normalization Process Theory | Qualitative | No | 4 |
| Martin et al. | 2016 | ACP research  /implementation for specific patient group or setting | Identify the effects of ACP interventions on nursing home residents | 18 | USA, Australia, Hong Kong, Canada, UK, Singapore and The Netherlands | Narrative synthesis | Quantitative (1 RCT, 12 observational), and systematic reviews (5) | Yes (1 study low RoB, 2 moderate RoB, 8 high RoB, 2 very high RoB) | 7 |
| Meeker and Jezewski | 2005 | Decision making/  Decision Aids | Enhance understanding of the phenomenon of family surrogate decision-making at the end of life | 55 | Not reported | Not reported | Qualitative and quantitative | No | 2 |
| Mpinga et al. | 2006 | Examination of EOL and/or palliative care | Evaluate the extent and the quality of the research related to EOL conflicts in palliative care | 102 | USA, UK, Switzerland, Canada, France, Australia, Netherlands, Japan, Singapore, Chile, Israel, Denmark, Germany and New Zealand | Narrative synthesis | Quantitative (87) and qualitative (15) | No | 3 |
| Mularski et al. | 2007 | Outcome measures for ACP | Identify psychometrically sound measures of outcomes in EOL care and characterize their use in intervention studies | 153 | Not reported | Characterization of measures and organization by domains of interest | Not applicable (measures and indicators) | No | 3 |
| Murray and Butow | 2016 | ACP research  /implementation for specific patient group or setting | Summarize what is known about the prevalence, content, patient/ caregiver benefits, healthcare professional awareness/support, and healthcare outcomes associated with ACP in the motor neuron disease setting | 16 | USA, Germany, Denmark, UK, Australia, and multi-centred (USA + Canada, UK + Australia) | Narrative synthesis and thematic analysis | Quantitative (12) and qualitative (4) | No | 5 |
| O'Connor et al. | 1999 | Decision making/  Decision Aids | Determine whether decision aids improve decision making and outcomes for patients facing treatment or screening decisions | 17 | Not reported | Meta-analysis for specific decision (14 studies); descriptive synthesis for each study | Quantitative (all RCTs) | No | 3 |
| Oczkowski et al. | 2016 | Decision making/  Decision Aids | Determine, amongst adults in ambulatory care settings, the effect of structured communication tools for EOL decision-making on completion of ACP | 67 | North America, Asia, Europe, Australia | Meta-analysis (for 18 studies); similar studies pooled using random-effects model for each outcome | Quantitative (46 RCTs, 21 observational) | Yes (12 RCTs low RoB, 15 RCTs high RoB, 20 RCTs uncertain RoB) | 7 |
| Oliver et al. | 2004 | Examination of EOL and/or palliative care | Explore the state of research evidence in EOL care in U.S. nursing homes | 43 | USA | Descriptive analysis, categorization and interpretation. Content categories developed | Quantitative (23) and qualitative (20) | No | 2 |
| Ostherr et al. | 2016 | Communication/  Discussion strategies | Identify information and communication technologies (ICTs) being used in EOL communication, and compare the effectiveness of different ICTs in EOL communication | 38 | USA, Canada, UK, Netherlands, Spain, Australia, Japan, Korea, India | Not reported | Quantitative (17 RCTs, 21 observational) | Yes (5 studies had moderate RoB (4/7), remaining 33 studies had high RoB (3/7 or lower) | 5 |
| Parry et al. | 2014 | Communication/  Discussion strategies | Gather and synthesise evidence from conversation and discourse analytic studies of how people address difficult and uncertain future matters in their healthcare-related conversations | 19 | Not reported | Aggregative approach, drawing together findings through structured summaries and comparing and connecting findings with one another | Qualitative | No | 5 |
| Patel et al. | 2004 | Effectiveness of ACP | Systematically evaluate whether advance health care planning interventions directed at adult patients without terminal illness influence the completion rate of advance directives | 9 | USA | Meta-analysis; calculated odds ratio for completion rate of AD, and random effects model to generate pooled odds ratios and 95% intervals | Quantitative (all RCTs) | No | 8 |
| Petriwskyj et al. | 2014 | Decision making/  Decision Aids | Identify the decision makers for people with dementia living in residential care; explore their experience when making the decision. Identify barriers or facilitators to decision making by families and the impact of decision-making processes on family members. Explore the impact of collaborative decision making with family on the person with dementia and identify the processes or strategies family decision makers use | 11 (Quantitative papers) | USA, Netherlands, China | Narrative synthesis | Quantitative (1 RCT, 10 observational) | No | 4 |
| Qaseem et al. | 2008 | Examination of EOL and/or palliative care | Identify the critical elements for clinicians to address when caring for persons coming to the EOL, investigate what do deﬁnitions of the EOL suggest about identifying patients who could beneﬁt from palliative approaches, identify what treatment strategies work well for pain, dyspnea, and depression, and what elements are important in ACP for patients coming to the EOL. Identify what elements of collaboration and consultation are effective in promoting improved EOL care, and what elements of assessment and support are effective for serving caregivers, including family, when patients are coming to the EOL | 41 (ACP related) | At least USA, Canada, Western Europe, Australia and New Zealand | Qaualitative synthesis of evidence | Systematic reviews (9) and intervention studies (32) | No | 3 |
| Rahemi et al. | 2016 | Examination of EOL and/or palliative care | Critically analyse the research concerning EOL preferences among older adults of underrepresented groups | 21 | USA, Australia, UK | Thematic analysis | Quantitative (15), qualitative (4) and mixed (2) | No | 3 |
| Ramsaroop et al. | 2007 | Factors influencing ACP | Critically review investigations designed to increase advance directive completion in the primary care setting and use meta-analytic techniques to quantify their effects | 18 | USA | Meta-analysis (for 15 of the included studies); reported difference in completion rates between arms, effect sizes were computed and pooled effect sizes were calculated | Quantitative (12 RCTs, 6 observational) | No | 2 |
| Raymond et al. | 2014 | Examination of EOL and/or palliative care | Synthesize information about management of EOL care in people with dementia using review papers | 8 | USA, UK and Canada | Critical interpretive synthesis | Systematic reviews | No | 2 |
| Robinson et al. | 2012 | Effectiveness of ACP | Review systematically the effectiveness of ACP interventions in people with cognitive impairment and dementia | 4 | USA, Canada and Australia | Narrative summary | Quantitative (1 RCT, 3 observational) | Yes (no detail scores per study, “all studies had some RoB”) | 7 |
| Sanders et al. | 2016 | Factors influencing ACP | Explore how factors that impact ACP for African Americans relate to each other | 52 | USA | Model development using qualitative research synthesis | Quantitative (38, 3 RCTs) and qualitative (14) | Yes (no scoring provided) | 6 |
| Schofield et al. | 2006 | Communication/  Discussion strategies | Explore how to facilitate discussions for a sensitive transition from curative to palliative care | 57 | Not reported | Not reported | Quantitative (5 RCTs), qualitative and systematic reviews (3) | No | 3 |
| Sessana and Jezewski | 2008 | Decision making/  Decision Aids | Explore the current state of science in nursing and health science literature regarding Advance Directive Decision Making among independent community-dwelling older adults | 17 | USA (assumed) | Garrard's matrix method to organize data and synthesize findings | Quantitative (5 RCTs, 9 observational) and qualitative (3) | No | 1 |
| Sharp et al. | 2013 | Communication/  Discussion strategies | Identify whether ACP discussions are being held, what are individuals’ and healthcare professionals (HCP)’s attitudes and preferences to timing of discussions, and what are the barriers and facilitators of discussions | 26 | USA and UK | Narrative synthesis | Quantitative (no RCTs) and qualitative | Yes (attempt to assess risk of bias; 16 studies high RoB, 10 moderate RoB) | 6 |
| Siouta et al. | 2016 | Examination of EOL and/or palliative care | Systematically review guidelines and pathways of integrated Palliative Care for people with advanced Chronic Heart Failure and Chronic Obstructive Pulmonary Disease in Europe | 19 | Guidelines from UK, Netherlands, multi-country; pathways from Spain and UK | Narrative synthesis | Not applicable (Guidelines and Pathways) | No | 6 |
| Sizoo, et al. | 2014 | Examination of EOL and/or palliative care | Outline the current knowledge on the EOL phase of High Grade Gioma (HGG) patients and identify interventions that improve quality of life and dying, and/or quality of care for HGG patients in the EOL phase | 17 | UK, Germany, USA, Austria, Italy, Sweden, The Netherlands | Narrative synthesis | Quantitative (10), qualitative (5), and intervention studies (2) | No | 2 |
| Smith et al. | 2013 | ACP research  /implementation for specific patient group or setting | Identify the role of nurses and/or nursing in the evidence-based models for electronic ACP for community dwelling older adults | 2 | USA and Japan | Not reported | Quantitative (1 RCT, 1 observational) | No | 2 |
| Song et al. | 2016 | ACP research  /implementation for specific patient group or setting | Present an evidence-based overview of ACP in patients with primary malignant brain tumors (pmBT) | 19 | USA, Italy, Australia, Germany, Austria, Netherlands, UK, multi-centered | Thematic analysis, narrative synthesis | Quantitative (1 RCT, 17 observational) and qualitative (1) | Yes (high RoB for all studies) | 8 |
| Song | 2004 | Communication/  Discussion strategies | Explore the effect of discussions about EOL care on patients’ affective outcomes and examine the characteristics of the discussions, including individuals involved in and the context of the discussions in the current literature | 7 | Not reported | Not reported | Quantitative (5 RCTs, 2 observational) | No | 2 |
| Sumalinog et al. | 2016 | ACP research  /implementation for specific patient group or setting | To summarize and evaluate the evidence surrounding advance care planning, palliative care, and end-of-life care interventions for homeless persons. | 6 | Canada, USA, Sweden | Meta-analysis (for 2 RCTs); narrative evaluation with major themes identified | Quantitative (2 RCTs, 2 observational) and qualitative (2) | Yes (3 studies, high RoB, 1 study moderate RoB, 2 N/A) | 7 |
| Tamayo-Velazquez et al. | 2010 | Effectiveness of ACP | To identify, appraise and synthesise the results of systematic reviews of the literature that examines the effectiveness of interventions to increase advance directive completion rate | 7 | Not applicable | Narrative synthesis | Systematic reviews (7) | No | 5 |
| Taylor et al. | 1999 | Cost or resource use | To assess whether advance directives influence resource use by hospitalized patients | 6 | USA | Not reported | Quantitative (2 RCTs, 4 observational) | No | 4 |
| Tong et al. | 2014 | Experiences, perceptions & attitudes | To describe patients’ and caregivers’ perspectives on conservative treatment and end-of-life care in chronic kidney disease | 26 | Thailand, Australia, Sweden, USA, Canada, Ireland UK, Netherlands | Thematic synthesis | Qualitative | No | 4 |
| Van der Steen et al. | 2014 | Factors influencing ACP | To identify factors associated with initiation of advance care planning (ACP) regarding end-of-life issues in dementia | 33 | USA, UK, Netherlands, Belgium, Canada and Australia | Category development of factors | Quantitative (11), qualitative (21) and mixed methods (1) | No | 2 |
| Walczak et al. | 2016 | Communication/  Discussion strategies | To identify and synthesise evidence for interventions targeting end-of-life communication | 45 | UK, USA, Hong Kong, the Netherlands, France, Japan, Australia, Germany, Canada, Italy | Narrative synthesis and categorization | Quantitative (18 RCTs, 27 observational) | No | 4 |
| Walling et al. | 2008 | Communication/  Discussion strategies | Identify evidence supporting high-quality clinical practices for information and care planning in the context of cancer care as part of the RAND Cancer Quality–Assessing Symptoms, Side Effects, and Indicators of Supportive Treatment Project | NR | Not reported | Not reported | Not reported | No | 4 |
| Wang and Chan | 2015 | Examination of EOL and/or palliative care | Examine EOL care research undertaken in an Eastern cultural context—Hong Kong—with the hope of better informing EOL care professionals and policy makers and providing lessons for other countries or areas that share similar EOL care challenges | 107 | Hong Kong | Thematic analysis | Quantitative (72, no RCTs), qualitative (30), and mixed methods (5) | No | 3 |
| Weathers et al. | 2016 | ACP research  /implementation for specific patient group or setting | Examine the impact of ACP on several outcomes (including symptom management, quality of care and healthcare utilisation) in older across all healthcare settings. | 9 | USA, Australia, Canada, UK | Not reported | Quantitative (all RCTs) | Yes (overall high RoB for all studies) | 5 |
| Wendler and Rid | 2011 | Decision making/  Decision Aids | Assess the effect on surrogates of making treatment decisions for adults who cannot make their own decisions | 40 | USA, Canada, France, and Norway | Thematic analysis | Quantitative (10), qualitative (29) and mixed methods (1) | No | 6 |
| Wicher and Meeker | 2012 | Factors influencing ACP | Examine and synthesize the state of science from published research focused on end-of-life preferences and the influences on those preferences among African Americans | 46 | USA | Garrard's matrix methods to organize studies and determine major concepts | Quantitative (16, 2 RCTs), qualitative (14) and mixed methods or data analysis studies (16) | No | 2 |
| Wickson-Griffiths et al. | 2014 | ACP research  /implementation for specific patient group or setting | Identify the impacts of programs used to promote ACP in long-term care homes and whether they include a consideration of the values that are important to persons with dementia and their family members | 6 | USA, Hong Kong, Canada | Not reported | Quantitative (2 RCTs, 4 observational) | No | 4 |
| Zager et al. | 2011 | Others | Identify whether an AD that uses culturally sensitive descriptive terms compared to the standard AD affect utilization of ADs, in a rural community extended care facility | 10 | USA | Narrative synthesis | Quantitative (5, 2 RCTs), qualitative (3) and systematic reviews (2) | No | 5 |

a Countries either explicitly reported or derived from the text as presented in the systematic review

b For qualitative research articles, information divided into RCTs or observational (when available), as described in National Council for Osteopathic Research, 2014, Quantitative research methods (available at: <http://www.ncor.org.uk/wp-content/uploads/2014/03/Quantitative_research_methods.pdf>)

c Quality assessment based on a modified AMSTAR checklist as described by Lou S, Carstensen K, Jorgensen CR, Nielsen CP. Stroke patients' and informal carers' experiences with life after stroke: an overview of qualitative systematic reviews. Disability and rehabilitation. 2017;39(3):301-13.