Intervention in brief	
High risk:	Advance care planning is the process of assisting patients to determine details of the end-of- life care they would like to receive if they are unable to advocate for themselves. The goal is to increase awareness of patient end-of-life preferences and avoid costly life saving procedures if unwanted.
Strength of evidence	Recent research shows inconsistent rates of success. Medium
Impact	 Decreased cost (wide range): \$0-\$64,827 decreased costs per patient; 36% decreased costs per patient Decreased utilization: 0.37 less inpatient admissions; 3.66 fewer inpatient days; unchanged 30- and 60-day readmissions and utilization of hospice, ED, ICU, and chemotherapy Improved quality, clinical outcomes (wide range): Unchanged to increased knowledge of advance care planning; unchanged to increased likelihood of completing an advance directive (94.3% vs. 24.8%); unchanged-72% increased chance of end of life preferences respected; 56% increased awareness of patients' end of life preferences; 13-22% decreased chance of dying in a hospital; increased likelihood of having a Healthcare Power of Attorney document (98.5% vs. 74.8%) and POLST document (52.9% vs. 44.6%) Increased access: Not demonstrated Improved stakeholder satisfaction: Unchanged to decreased family and caregiver stress and anxiety; 90% patient satisfaction with POLST document
How to succeed	 To build an effective end-of-life care program: Incorporate advance care planning into robust palliative care programs Educate patients about the range of treatment options and discuss patient preferences for end-of-life care Complete detailed advance directives, including a living will or durable power of attorney Facilitate communication with patients' family, caregivers, and providers regarding end-of-life preferences To learn more about developing an evidence-based approach, check out our Innovations in Cross-Continuum Palliative Care webconference <u>here</u>.

Demonstrated impact

Literature review summary

Title: Does Facilitated Advance Care Planning Reduce the Costs of Care Near the End of Life?
Publication: European Association for Palliative Care
Date: 2015
Type: Systematic review
Study population: Patients across the seven studies analyzed were from hospitals, nursing homes, and home care settings. Patients had advanced cancer, COPD, CHF, diabetes, and/or other life threatening diseases.
Major findings: Reduced health care costs (\$1,041-\$64,827 per patient) in six of seven studies
Source: Full article here.

Title: Advance Care Planning in an Accountable Care Organization Is Associated with Increased Advanced Directive Documentation and Decreased Costs

Publication: Journal of Palliative Medicine

Date: 2018

Type: Case-control study

Study population: 325 Medicare beneficiaries (51.1% female, on average 81 years old) attributed to an accountable care organization between January 2013 and April 2016 with advance directives in their chart were matched with 325 controls

Major findings:

- Decreased costs (\$9,500 lower for patients with advance directives)
- Decreased inpatient utilization (0.37 less inpatient admissions and 3.66 fewer inpatient days)
- Unchanged non-inpatient utilization (hospice, hospice days, SNF yes, home health use, ED use, and 30-day readmissions)
- Increased likelihood of having a Healthcare Power of Attorney document (98.5% vs. 74.8%)
- Increased likelihood of having Practitioner Orders for Life Sustaining Treatment document (52.9% vs. 44.6%)
- Source: Full article here.

Title: Health Care Costs in the Last Week of Life: Associations With End-of-Life Conversations Publication: Journal of the American Medical Association Internal Medicine Date: 2009 Type: Case study Study population: 603 patients with advanced cancer receiving treatment across multiple institution

Study population: 603 patients with advanced cancer receiving treatment across multiple institutions and followed up with until death

Major findings: Reduced total costs of care (36%)

Source: Full article here.

Title: Respecting Choices and Related Models of Advance Care Planning: A Systematic Review of Published Evidence

Publication: American Journal of Hospice & Palliative Medicine

Date: 2017

Type: Systematic review

Study population: Patients across 16 studies (9 randomized controlled trials, 6 observational, and 1 pre/post study), primarily in the Wisconsin/Minnesota region

Major findings: The Respecting Choices advance care planning model and other similar models produced a wide range of outcomes:

- Utilization
 - Decreased hospitalization rates
 - Unchanged to longer lengths of stay for hospice
 - Unchanged 30- and 60-day readmissions, ED, ICU, and chemotherapy utilization
- Quality, clinical outcomes
 - Unchanged to increased knowledge of advance care planning
 - Unchanged to increased likelihood of completing an advance directive (94.3% vs. 24.8%)
 - Unchanged to increased likelihood of receiving care congruent to patient wishes
 - · Unchanged to decreased likelihood of patient or caregiver anxiety
 - Decreased likelihood of depression for families of patients
- Stakeholder satisfaction
 - Greater patient satisfaction overall and 90% patient satisfaction with POLST

Source: Full article <u>here</u>.

Title: Efficacy of Advance Care Planning: A Systematic Review and Meta-Analysis
Publication: Journal of the American Medical Directors Association
Date: 2014
Type: Systematic review and meta-analysis
Study population: Patients (and their proxies) across 55 trials received advance care planning including advance directives and discussions around end of life care
Major findings:

Increased chances of preferences respected with a living will: 19-72%
Decreased chances of dying in a hospital: 13-22%

Title: The Impact of Advance Care Planning on End of Life Care in Elderly Patients
Publication: British Medical Journal
Date: 2010
Type: Randomized controlled trial
Study population: 309 patients at least 80 years old and admitted to a university hospital in Australia and followed for 6 months or until death
Major findings:
Improved emotional states for family members including decreased stress, decreased anxiety, and decreased depression measured with three different validated tools
Increased awareness of patients' end of life preferences: 56% more awareness

Source: Full article <u>here</u>.

Appendix

- Klingler, "Does Facilitated Advance Care Planning Reduce the Costs of Care Near the End of Life? Systematic Review and Ethical Considerations," SAGE Journals, 30, no. 5 (2016), <u>https://www.ncbi.nlm.nih.gov/pubmed/26294218</u>.
- Bond W, et al., "Advance Care Planning in an Accountable Care Organization Is Associated with Increased Advanced Directive Documentation and Decreased Costs," *Journal of Palliative Care Medicine*, 21, no. 4 (2018), https://www.liebertpub.com/doi/full/10.1089/jpm.2017.0566.
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