

End-of-Life Values and Value-Based Care

TRAVIS BROOME, MPH, MBA; ISABELLA RUBIN, BA; BRIAN CHIGLINSKY, MPP; AND JOSHUA ISRAEL, MD

In the December 2021 issue of The American Journal of Accountable Care® (AJAC), Editor in Chief Dennis P. Scanlon, PhD, authored a letter calling on health systems to innovate and learn in real time with the goal of delivering patient-centered care. He then invited organizational leaders to respond in editorials of their own, which will be published in AJAC throughout 2022.

The health of the human body and mind involves a series of trade-offs. There are rarely right or wrong answers—just personal decisions. Most of us, at some point in our lives, will have doctors and nurses ask us what choices we want to make. These clinicians, with their decades of education and experience, will advise us and then wait for us to tell them what to do. For the fortunate among us, we will make these choices with a mind clear of pain and on a comfortable timeline. For many of us, however, we will be in pain, we will be in a hurry, we will not understand our options, or we will be cognitively impaired. For some of us, we will not be conscious at all.

Advance care planning (ACP) is a process by which we get ahead of these choices. A person, their family, and medical professionals discuss the individual's goals and values in relation to their medical care, particularly in planning for potential life-threatening illness.^{1,2} The process may include legal documentation such as assigning a health care proxy and completing advance directives that outline health care preferences in the event that a person becomes too incapacitated to advocate for themselves. The goal for each person is to make

the best trade-offs for themselves at a time when they are best able to make those choices.

As physicians and as a health care system, however, we do not do a very good job of soliciting and respecting individuals' choices. The US health system often seems that it was not designed with patients in mind, and end-of-life care is a prime example of this.³ ACP discussions reveal that approximately 70% of US adults express preferences for less aggressive treatments near the end of life and 89% say that doctors should discuss end-of-life care preferences with their patients.⁴ Only 17%, however, say they have had such a discussion with their doctor or other health care provider.⁵

Acknowledging that paying for a service usually gets more of it in a fee-for-service health system, Medicare began paying clinicians for ACP conversations and documentation in 2016. This billing code has not been widely adopted and where it has been adopted, the usage of the billing code is not clearly associated with changes in the quality and cost of care.⁶⁻⁸ Despite this, even skeptics of ACP acknowledge that ACP is likely to be beneficial if it is conducted with several key elements. These elements include the following:

- Patients can articulate their values and goals and identify which treatments will align with those goals in future scenarios.
- Clinicians can elicit these values and preferences.
- Preferences are documented.
- Directives or surrogates are available to guide clinical decisions when patients lose decisional capacity.
- Health care systems commit resources to support goal-concordant care.⁹

Many of these elements can be found in a value-based care arrangement called an accountable care organization (ACO). ACOs are groups of clinicians who are incentivized to reduce

the cost of care through increased preventive services and improved health. Early evidence shows that ACP done well in an ACO can reduce inpatient hospital usage and result in a reduction of the total cost of care by nearly \$9500 per patient.¹⁰ The goal of this editorial is to confirm this evidence at scale through a pilot project run by Aledade.

Aledade is a company that creates and supports physician-led ACOs in the Medicare Shared Savings Program, as well as value-based contracts with payers in commercial insurance, Medicare Advantage, and Medicaid. Aledade empowers independent primary care practices, multispecialty practices, and community health centers to deliver high-quality care by supporting them with data analytics, preventive care workflows, and regulatory guidance. Together with more than 1000 participating providers in 37 states, Aledade is engaged with more than 140 value-based contracts representing more than 1.7 million patient lives under management.

To improve patient care at the end of life, Aledade set out to solve several challenges: the lack of publicly available tools to predict which patients would benefit most from ACP, the challenges that physicians experience with conducting comprehensive ACP in busy primary care practices, and the excess of unwanted and costly end-of-life treatment.

The most common mortality-prediction tools are the Charlson and the Elixhauser comorbidity indices.^{11,12} Both of these indices, however, predict mortality in the hospitalized inpatient population and are less relevant for outpatient primary care practices. To identify patients who might benefit the most from ACP, Aledade and Curia.ai—a health care-focused artificial intelligence company—used medical claims data to codevelop a machine learning algorithm that could identify patients at highest risk of mortality within the next 12 months. Aledade then engaged Iris Healthcare, a national provider of ACP solutions, to implement a comprehensive ACP program for these high-risk patients. Patients at high risk of mortality were divided into a treatment group that would receive comprehensive ACP and a control group that received treatment as usual. Physicians were given the choice to opt any patient out of receiving the Iris Healthcare intervention. Common reasons for physicians removing patients from the intervention group included that the patient had advanced dementia, was no longer under their care, or was already enrolled in hospice.

Iris Healthcare's comprehensive ACP includes 5 steps.

- Conduct outreach to the patient and family to explain the service and schedule their first session.
- Virtual sessions (phone or video) take place with patients and their families. These sessions are facilitated by nurses or social workers at convenient times for the patient and family, including evenings and weekends to increase participation. All sessions are recorded—with

the patient's permission—and made available to patients, families, and clinicians for future reference.

- Generate state-sanctioned advance directives, including the directive to physician, medical power of attorney, and out-of-hospital “do not resuscitate” orders, along with Iris' proprietary forms that augment the state forms.
- Distribute the fully executed advance directives to relevant parties, including the patient, family, primary care physician, specialists, and the patient's hospital of choice.
- When necessary, update and redistribute advance directives, as this is a longitudinal process with ongoing patient contact to assess whether a patient's treatment preferences have changed based on their evolving disease states.

The period of evaluation ran from 2018 through 2021. Curia.ai's mortality algorithm targeted patients who were enrolled from 2019 onward, so the results focus on this cohort.

Forty-five primary care practices across 14 states participated, with a total of 335 patients receiving the service. According to a survey, 92% of responding physicians reported that they considered it a beneficial service, and 58% reported that it reduced their own workload. Surveyed patients reported a Net Promoter Score of +92 (the Net Promoter Score is a commonly used measure of customer satisfaction, with scores ranging from -100 through +100).¹³ Overall, the treatment led to a \$994 per-member per-month lower cost compared with the control group. With a mean time receiving the service of 14 months, this meant a total of \$13,916 in reduced costs per patient. Much of the savings occurred at the highest range, indicating that the service may be best at reducing costs for patients at risk for the highest costs. At the ACO level, accounting for a financial stop-loss built into the Medicare Shared Savings Program, savings were \$292 per patient per month for a mean of 14 months, for a total savings of \$4088 per patient. This confirmed that we had created financial value by putting patient values at the center of a clinical service offering. The results of this collaboration were so successful that Aledade acquired Iris Healthcare in January 2022.¹⁴

Much of the success in an ACO is not about whether physicians should give their patients more care or less. Instead, it's about having the right conversation with the right person at the right time and being able to act on that person's wishes for their health. As our health care system explores the elements of success for ACOs, beyond having more and stronger primary care relationships, we must be willing to look closely at all elements of care that could affect health outcomes. We also have to hold ourselves accountable to the evidence of whether our innovations work. Just as the key elements of ACP are necessary for it to make a difference in individuals' lives, all the elements of an innovation must be present: right time, right person, right conversation, and right action.

It took Aledade 3 years to confirm all the elements of this innovation in partnership with Iris and primary care practices in Aledade ACOs. The ACO community is large. Working collectively, we can test many care delivery innovations at once and learn how to do so faster. If the ACO community can both innovate and hold ourselves to high standards of success, we will succeed and improve the health of the US population.

Author Affiliations: Aledade (TB, IR, BC,JI), Bethesda, MD.

Source of Funding: The authors are employed by Aledade and performed this work as part of their ongoing employment.

Author Disclosures: Mr Broome, Ms Rubin, Mr Chiglinsky, and Dr Israel are full-time employees of Aledade and own stock and/or stock options as part of that employment. Some of the shared savings that Aledade receives in its accountable care organization models are a result of the services described in this manuscript.

Authorship Information: Concept and design (TB); analysis and interpretation of data (JI); drafting of the manuscript (TB, IR, JI); critical revision of the manuscript for important intellectual content (TB, IR, BC,JI); administrative, technical, or logistic support (IR, BC); and supervision (BC).

Send Correspondence to: Travis Broome, MPH, MBA, Aledade Inc, 4550 Montgomery Ave, Ste 950N, Bethesda, MD 20814. Email: travis@aledade.com.

REFERENCES

1. Sudore RL, Lum HD, You JJ, et al. Defining advance care planning for adults: a consensus definition from a multidisciplinary Delphi panel. *J Pain Symptom Manage*. 2017;53(5):821-832.e1. doi:10.1016/j.jpainsymman.2016.12.331
2. Jimenez G, Tan WS, Virk AK, Low CK, Car J, Ho AHY. State of advance care planning research: a descriptive overview of systematic reviews. *Palliat Support Care*. 2019;17(2):234-244. doi:10.1017/S1478951518000500
3. Scanlon DP. Redesigning health care: keeping the patient connected and at the center of a system that learns in real time. *Am J Accountable Care*. 2021;9(4):9. Accessed March 29, 2022. <https://www.ajmc.com/view/redesigning-health-care-keeping-the-patient-connected-and-at-the-center-of-a-system-that-learns-in-real-time>
4. Brenner AB, Skolarus LE, Perumalswami CR, Burke JF. Understanding end-of-life preferences: predicting life-prolonging treatment preferences among community-dwelling older Americans. *J Pain Symptom Manage*. 2020;60(3):595-601.e3. doi:10/gpx85v
5. DiJulio B, Firth J, Brodie M. Kaiser Health Tracking Poll: September 2015. Kaiser Family Foundation. September 30, 2015. Accessed February 25, 2022. <https://www.kff.org/health-costs/poll-finding/kaiser-health-tracking-poll-september-2015/>
6. Barnato AE, O'Malley AJ, Skinner JS, Birkmeyer JD. Use of advance care planning billing codes for hospitalized older adults at high risk of dying: a national observational study. *J Hosp Med*. 2019;14(4):229-231. doi:10.12788/jhm.3150
7. Palmer MK, Jacobson M, Enguidanos S. Advance care planning for Medicare beneficiaries increased substantially, but prevalence remained low. *Health Aff (Millwood)*. 2021;40(4):613-621. doi:10.1377/hlthaff.2020.01895
8. Ashana DC, Chen X, Agiro A, et al. Advance care planning claims and health care utilization among seriously ill patients near the end of life. *JAMA Netw Open*. 2019;2(11):e1914471. doi:10.1001/jamanetworkopen.2019.14471
9. Morrison RS, Meier DE, Arnold RM. What's wrong with advance care planning? *JAMA*. 2021;326(16):1575-1576. doi:10.1001/jama.2021.16430
10. Bond WF, Kim M, Franciskovich CM, et al. Advance care planning in an accountable care organization is associated with increased advanced directive documentation and decreased costs. *J Palliat Med*. 2018;21(4):489-502. doi:10.1089/jpm.2017.0566
11. Charlson M, Szatrowski TP, Peterson J, Gold J. Validation of a combined comorbidity index. *J Clin Epidemiol*. 1994;47(11):1245-1251. doi:10.1016/0895-4356(94)90129-5
12. Sharma N, Schwendimann R, Endrich O, Ausserhofer D, Simon M. Comparing Charlson and Elixhauser comorbidity indices with different weightings to predict in-hospital mortality: an analysis of national inpatient data. *BMC Health Serv Res*. 2021;21(1):13. doi:10.1186/s12913-020-05999-5
13. Reichheld FF. The one number you need to grow. *Harvard Business Review*. December 2003. Accessed February 25, 2022. <https://hbr.org/2003/12/the-one-number-you-need-to-grow>
14. Aledade acquires advance care planning company Iris Healthcare as part of new health services arm. News release. Aledade; January 11, 2022. Accessed February 25, 2022. <https://resources.aledade.com/press-releases/aledade-acquires-advance-care-planning-company-iris-healthcare-as-part-of-new-health-services-arm>