When We Know Better, We Do Better: Maintaining and Retrieving Advance Directive Documents in the Electronic Health Record

Linda Caurdy-Bess
Sara Damiano
Amy Fresch
Marilyn Begle
Srikala Yedavally-Yellayi

See next page for additional authors

Follow this and additional works at: https://scholarlyworks.beaumont.org/family_medicine_articles

Part of the Family Medicine Commons
Authors
Linda Caurdy-Bess, Sara Damiano, Amy Fresch, Marilyn Begle, Srikala Yedavally-Yellayi, Hany A. Eraqi, and Ali H. Mahmood
When We Know Better, We Do Better: Maintaining and Retrieving Advance Directive Documents in the Electronic Health Record

Linda Caurdy-Bess, LMSW, ACSW, ACM-SW; Sara Damiano, LMSW, MSG, CCM; Amy Fresch, BA; Marilyn Begle, MS, RN, CHPN, CCP; Srikala Yedavally-Yellayi, DO; Hany A. Eraqi, MD; Ali H. Mahmood, MD

LEARNING OBJECTIVES:

1. Define and understand the value of an advance care planning system approach at a large health system.
2. Learn how to evaluate the rate and quality of advance directive documents uploaded in the EHR.
3. Gain practical skills to leverage stakeholder engagement and resource development to enhance an advanced care planning system approach.

BACKGROUND

Advanced care planning (ACP) is defined as a person and family-centered process of communication that facilitates understanding, reflection and discussion of goals, values and preferences for future healthcare decisions. According to the U.S. Department of Health and Human Services Advance Directives and Advanced Care Planning Report to Congress in
2008: “Advances in medical care and technology during the latter half of the 20th century have prolonged life expectancy in the United States. However, these same advances have blurred the boundary between life and death, challenging our expectations about how Americans could experience the end of life...” (viii, 2018). Furthermore, in 1991 Congress enacted the Patient Self-Determination Act to encourage competent adults to complete advance directives (ADs), also called a durable power of attorney for health care (DPOA-H) form. An AD is a tool that allows people to choose a patient advocate or proxy decision-maker and express their treatment preferences when they lose the capacity to make healthcare decisions. The U.S. Department of Health and Human Services specifically notes the gap continues to persist despite the passage of the Patient Self-Determination Act, such as systematic issues surrounding lack of communication on advanced care plans, limited documentation of goals of care conversations and issues related to often unwanted aggressive treatment at the end of life. The theory remains that crucial conversations are not happening, and advance directives are underused.

Similarly, researchers have found that one of the top barriers to having an AD is a lack of awareness (Rao, Anderson, Lin, and Laux, 2014). While roughly 68% of people in the United States are concerned about end-of-life care, costs and pain, only 26% have completed an AD. Even when ADs are completed, they are often too vague to direct meaningful clinical decisions (Agency for Healthcare Research and Quality, 2003). Recent research published in 2019 shows the key components needed for a successful ACP model expansion include: the use of a site champion who can provide communication and coaching with providers, staff and patients in the model, integration with the electronic health records (EHR) and utilization of best practice alerts in the EHR (Rose, Leung, Gustin, Childers, 2019). Providing opportunities that encourage individuals to complete a valid document and appoint a patient advocate is vital but only part of the process. In order for each person's wishes to be followed at the time they are needed, a system must be in place whereby documents are vetted for validity, stored in the EHR in a known location, and retrieved at the time they are needed. Inefficiencies in the EHR, such as difficulty finding and retrieving a valid AD, can create a further reduction in efficacy among the healthcare staff to honor the larger ACP conversation. To address these issues, Beaumont Health has contracted with Respecting Choices® to improve the entire process of advance care planning.

Beaumont Health is Michigan's largest health care system (based on inpatient admissions and net patient revenue). It provides care to patients and families from diverse communities across the state of Michigan. With eight hospitals, 145 outpatient locations, nearly 5,000 physicians and more than 38,000 employees, Beaumont's commitment to patient and family-centered care contributes to the health and well-being of residents throughout the community and beyond. As part of a large and complex health system, Beaumont is a perfect candidate for an investigation on the status of advanced care planning documentation and outcomes in the EHR to understand the challenges, opportunities and areas for improvement.

PURPOSE

The purpose of our study was to examine the baseline rate and quality of AD documents uploaded in Beaumont Health's electronic health record (EHR), Epic, as well as evaluating the impact of AD documentation in the EHR at the end of life. As our health system focuses on a standardized approach to ACP through the investment in the Respecting Choices® model, it was essential that prior to implementing systematic change, the current state of ACP documentation in our EHR was reviewed.

During the early phases of assessment, a number of qualitative statements were reported across the health system from physicians, health
care providers, patients, clinical and administrative staff, noting issues finding valid advance directives in our EHR. Initial qualitative comments included statements such as, “It is frustrating to take the time to locate a document only to find it unhelpful or not valid.” These reports inspired the design and development of this study to learn how ADs are stored, maintained and retrieved within our EHR. While validity and storage of ACP documents were a primary focus as part of our larger process improvement plan, we also delved deeper to assess the outcome variables such as mortality rates and usage of AD at the end of life.

Our research questions focused on:

- What is the rate of unique adult patients 18 years and up with an AD uploaded annually?
- What is the quality and validity of these documents?
- What is the rate of patients who died with an AD document on file?

**METHODS**

This research was conducted through an institutional review board-approved retrospective chart review (RCR), also known as a medical record review or chart audit. To obtain baseline data, patient data from 2015 to 2019 was pulled to assess the volume of unique patient’s 18 years and older with an AD uploaded: 2015= 13,200, 2016= 19,878, 2017=23,374 and 2018=22,542.

For the study, data from January 1st, 2019-May 8th, 2019, was extracted to find 7,987 unique patients having a document identified as an AD on file in the EHR. At the time of the study, there were no standardized ACP protocols in place related to document quality or review. The data was randomized utilizing Excel’s RAND function to generate random numbers and re-sort the group. From the random patient list, the review team (one nurse, two social workers, one bachelor’s-level staff) and a group of physicians audited a random sample (n= 250) of the unique patients looking for the presence and validity of an advance directive document. Through the use of a sample size calculator, it was determined that the sample size had a statistical power of 80%, which is considered a high power to detect the effect. In addition, the data was cross reviewed with mortality data to understand the volume of the patients who died at the hospital (emergency department, observation, inpatient, and hospice) within the same time frame from January-May 2019 to assess the number of patients with an AD on file and when it was uploaded to the EHR.

Each auditor used the audit instrument tool to conduct an in-depth review of the patient’s health record to assess the validity of the uploaded AD. Validity was defined through the title and type of the document, completeness, accessibility and appropriate signatures. To be a valid AD in the State of Michigan, the patient must sign and date it, name at least one patient advocate (advocate may sign and date later) and have two witnesses sign and date on the same date as the patient’s signature. The analysis was completed by one person, who reviewed every patient to ensure a standard approach to each question. After the analysis was completed, the group came together to discuss the findings and provide recommendations to the overall health system.
RESULTS

We were able to garner quantitative-level data based on this chart review. Of the 250-patient charts that were reviewed, we found 51% were misidentified as having an AD uploaded in Epic, 40% had a valid and readily accessible advance directive in Epic, 9% had an invalid advance directive, and 1% had a valid advance directive that was not readily accessible. Documents misidentified as an AD fell into categories such as: Do Not Resuscitate orders, letters to patients, guardianship papers, code status checkbox forms from skilled nursing facilities, and educational worksheets.

The second step in our research process was to assess the number of adult patients who died at a Beaumont Health hospital from January-May 2019, which was 2,149 people—keeping in mind that this number includes all patient classes—emergency, observation, inpatient and hospice patients who have died at the hospital. Of those patients, 32% (700) patients had an AD on file, with 366 ADs on file from hospice inpatient patients. It was found that 76% of the patients who had an “Advance Directive Document Type” uploaded

A List of 7,987 unique patients from Jan 1 – May 8, 2019 were identified as having an Advance Directive on file in Epic. A sample size of 250 charts were audited.
(535) of these ADs were uploaded in the last year of life from 2018-2019. Our research was limited because we could not assess whether this was an AD that was newly uploaded or perhaps an updated version of a prior AD uploaded years prior.

**INTERPRETATION**

A surprising finding for our research team was that the issue is not that the advance directives are invalid, rather that many documents were being scanned and uploaded into Epic under the "Advance Directive and Living Will" document type folder that were not ADs.

Based on these findings, a series of enhancements were made to improve the ACP delivery system. We worked closely with the Information Technology (IT) team to develop the infrastructure within our EHR that allowed for improved storage, documentation, retrieval, and assessment of a patient’s ACP wishes and preferences.

If the quality chart review findings reported above were generalized to the end-of-life population

<table>
<thead>
<tr>
<th>DOCUMENT INTEGRITY</th>
<th>CRITERIA</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advance Directive Location</td>
<td>Was the document readily accessible in Epic?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Where was the document found in the chart? (e.g. Summary tab, Media tab)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advance Directive Type</td>
<td>Did the patient complete an AD?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>What is the title or type of the AD? (e.g. Living Will, Advance Directive, Code Status)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advance Directive Signature</td>
<td>Did the patient sign the document?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Did the patient date the document?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Did the patient advocate sign the document?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Did the patient advocate date the document?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Is the document witnessed by person #1?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Is the document witnessed by person #2?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Do the witnesses have different names from the patient?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Do the dates of the witness match the date the patient signed the document?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advance Directive Completeness</td>
<td>Did the patient sign the document?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
investigated, we could assume that less than half of these ADs were valid at the time of the end-of-life decision-making.

We hypothesize that systematically, the idea that ACP is for all healthy adults 18 and up as part of routine patient care has been a missed opportunity. Instead, in our current state, the focus for ACP conversations remains centered on care at the end of life. It can be theorized that completion of ACP is still seen as an end of life issue, that is often a hurried conversation in the last year of life related to who is your decision-maker and what is your code status—not necessarily a guide to shape health decisions over the life course related to the quality of life and goals of care.

Once improvements were made to the EHR, the issue remained with user error in scanning wrong documents to the AD document-type folder. Furthermore, the situation is complicated by the fact that multiple people scan documents into the EHR, including staff from Health Information Management (HIM), registration/patient access, medical assistants, unit secretaries and front desk staff. Invalid AD documents not only cause frustration among staff and patients but also pose a risk when trying to make urgent decisions in a healthcare crisis. It is important to note that in the middle of the chart review, research was interrupted to report the findings to the Registration, HIM and Beaumont Medical Group (BMG) practice managers to educate and inform them of the systemic issues found.

Based on the results of this study, programmatic changes were first made in educating and training staff in the inpatient and ambulatory settings. The training involved presentations tailored to the discipline for both operational and clinical staff. In addition, new incoming employees were educated to
ensure a widespread basic skill set in ACP document validity assessment standards. A visual reminder document checklist desk-aid was developed to provide additional support to staff in the validation process. Secondly, policies and procedures were also developed to ensure a seamless mechanism for HIM and registration to send questionable documents to the ACP team for review and follow-up with patients and families. As noted in the Patient Self-Determination Act of 1990, this step is particularly important to improve the patient and family experience as self-determination, autonomy and choice are paramount to our work. Third, improvements were made in the creation of separate document types in the EHR to offer customization, such as dividing a medical order (Do Not Resuscitate or Physical Order for Life-Sustaining Treatment POST/POLST), from an AD (DPOA-H), or other ACP treatment or care preference documents like Living Wills.

CONCLUSION

In closing, the chart review demonstrated that 51% of labeled ADs were misidentified in the EHR in user error. This error is a serious concern given that the rate of unique adult patients 18 years and up with an AD uploaded annually was over 22,000 in 2018. To improve the integrity of AD in the EHR, patients and staff need to have a reliable process to access that when the EHR indicates that the patient has an AD on file, the document retrieved will be easily accessible, valid, and easy to interpret. Furthermore, this topic is particularly important for care management, nursing, social work and registration staff who consistently ask patients whether they have an AD on file to comply with federal laws and state regulations. In accessing the quality of our end-of-life care experience, we discovered that 32% of patients had an AD on file at the time of death.

Given this information, Beaumont Health made the most important investment of all to engage in a system-wide re-design utilizing the Resecting Choices® model for meaningful conversations on what matters most for future healthcare decision-making. The systematic approach included comprehensive ACP facilitator training for nurse and social work care managers in our ambulatory settings. The skillset and scope of practice of care managers are crucial in the ACP work to align patient and provider goals in a seamless manner.

REFERENCES

Agency for Healthcare Research and Quality. Decision Aids for Advance Care Planning. 2003
Care Planning in Primary Care: A Model for Success: Journal of Palliative Medicine, 22 (4).