

EMRs AID ADVANCE DIRECTIVE DOCUMENTATION

Patient Preferences A Mandatory Admissions Question

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Electronic medical records (EMRs) may not be the first thing that comes to mind when considering how to improve documentation of advance directives for nursing facility residents, but a recent study in the *Journal of the American Geriatrics Society* demonstrates the valuable role that this technology can play in accomplishing such a mission.

Concerned about insufficient implementation, specificity, and accessibility surrounding the documentation of patient preferences in advance directive forms, researchers with the San Francisco Veterans Administration Medical Center hypothesized that by developing an EMR intervention in a nursing facility, they could improve clinicians' rate of documenting patient preferences about life-sustaining care and the details of resuscitation and treatment-limiting orders.

In order to complete the study, the researchers modified the EMR system in a Veterans Administration (VA)

nursing facility so that an admission order would require the specification of resuscitation status and related details.

Participants included all 224 admissions to the facility during a six-month period.

Interventions Instituted

Changes to the EMR consisted of two interventions. First, to write an admission order, the clinician was required to choose between four orders about resuscitation in the event of a cardiopulmonary arrest: full resuscitation; do not resuscitate and do not intubate; intubate, if necessary, but do not cardiovert; and cardiovert, if necessary, but do not intubate. These options represented the resuscitation orders that were in use at the medical center and conformed with California advance directive guidelines.

The clinician completing the notes chose from a drop-down menu of further treatment-limiting orders regarding patient preferences for transfer

from nursing facility to emergency or acute hospital care, intravenous fluid or antibiotic use, and enteral feeding. While the intervention did not actively target clinician to patient discussion regarding the goals of care, it was assumed that the clinician was following standard VA policy and that any orders to withhold types of care would reflect the wishes of the patient or the patient's legal surrogate.

The second change to the EMR entailed the addition of an alert that would prompt the primary clinician to complete a templated advance directive discussion note 24 hours after a resident's admission.

Clinicians would receive the alert each time they signed into the EMR until the note had been completed.

Notes Not Buried In Record

Resuscitation and other treatment-limiting orders are typically referred to only when a patient is in severe distress, such as in a "code blue" situation, the authors noted.

“These orders provide highly useful and specific guidance to clinical staff during an emergency, but more subtle questions about general preferences for treatment are better addressed in a clinician’s advance directive discussion note and are most useful when referred to during consideration of treatment options.”

In addition, while treatment-limiting orders are typically buried in a chronological list of other treatment orders and often written in non-standardized free text, the EMR intervention included a new section at the top of the patient orders list.

“The intervention encouraged documentation of patient preferences in these uniformly placed and easily accessible notes, rather than the general progress notes that were routinely used before the intervention,” the authors observed.

Consultations, Results

“Multiple design cycles were performed to arrive at the most effective and streamlined design feasible with the EMR’s technology,” they said. Clinical staff met with the researchers to collaborate on any further changes, while local nursing facility and medical center committees discussed the implications of the proposed intervention and approved its use.

“Overall, discussion, design, and coordination with [clinical staff] consumed the majority of our efforts,” the authors noted, “whereas implementation of the intervention itself required the brief assistance of a programmer.”

Results of the study revealed a marked improvement in completion of advance directive discussion notes during the intervention period. The rate of notes completed by patients’ primary clinicians rose from five out of 117 admissions (4 percent) before the

intervention, to 67 of 107 admissions (63 percent) during the intervention.

During the first month of the intervention, advance directive discussion notes were completed on 49 percent of admissions, while in the second month

Compared to similar studies—many of which are time-consuming and complicated—the researchers believe that their intervention was simple, engaged clinicians directly, and used available technologies for widespread



documentation jumped to 68 percent. By the third month of the intervention, the documentation of advance directive discussions had risen 71 percent.

Moreover, the intervention led to a 98 percent concordance between clinician orders and patient preferences not to be resuscitated.

Controlled Conditions Help Validate Results

The effectiveness of the study may be due to several factors, the authors said, including the use of information technology in a specific site with a limited number of clinicians, engagement of the participating clinicians rather than ancillary staff, and implementation of the process among a receptive group of clinicians.

and uniform implementation.

In addition, the authors noted that while most studies of clinical reminders show “alert fatigue,” or decreased effectiveness over time, the results of the current study demonstrated improved intervention adherence over the three-month study period.

The authors concluded that EMR and quality improvement methods can together improve communication about end-of-life care.

“The intervention evaluated in this study may be one of many important processes for improving end-of-life care in settings with EMRs,” they wrote. “Future research should examine clinical outcomes such as concordance between care received and care preferred.” ■