Increasing Advance Care Planning in Primary Care Practices: a Multi-site Quality Improvement Initiative

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INTRODUCTION

Problem Description

Advance care planning (ACP) is the process by which a patient, in consultation with their health care provider and loved ones, makes decisions about how to direct possible future health care in times of incapacity.[1, 2] Primary care providers (PCPs) frequently offer longitudinal care to patients across years and are well positioned to discuss ACP with their patients.[2–4] However, ACP has not been integrated into most primary care practices, and ACP rates among patients in many primary care practices remain suboptimal.[5, 6]

Specific Aims

We sought to develop and implement standardized processes to address common barriers and integrate ACP into daily practice across nine primary care clinics. Our specific aim was to increase the percentage of our adult primary care patients who had an ACP form in their electronic health record (EHR).

METHODS

Context

This project was performed in the four outpatient General Internal Medicine (GIM) and five Family Medicine (FM) clinics affiliated with the University of Vermont Medical Center (UVMMC), a non-profit academic medical center. The clinic sites serve patients across urban, suburban, and rural areas and conduct approximately 150,000 patient visits annually. All sites use a single electronic health record (Epic). Daily care team huddles and pre-visit planning had been introduced prior to 2015. A community health team offered social work services to patients on a referral basis at no out-of-pocket expense.

Interventions

After seeking input from clinicians across practices, the FM and GIM quality committees identified ACP as a key priority for fiscal year 2016 (October 1, 2015, to September 30, 2016). An inter-professional work group of primary care providers, staff, and administrators developed interventions targeting specific barriers to obtaining ACP forms in our clinic sites. Identified barriers to ACP completion and related interventions are described in Table 1.

Measures

The primary measure was the percentage of patients' age ≥ 18 years who had a completed ACP form in the EHR.

Study of the Interventions

An interrupted time series analysis was used to compare the rate of ACP form completion at the clinic site level before (October 2014–December 2015) and after (January 2016–September 2016) program implementation. A Poisson regression model was used to model the count of ACP forms completed on a monthly basis, and the patient panel number was used as an offset variable to convert the outcome into a rate.

Ethical Considerations

Ethics Approval. The project received a "not research" determination from the University of Vermont Institutional Review Board.

RESULTS

In aggregate, the rate of ACP form completion was 4.16 (95% CI 2.32, 7.46) times higher in the post-implementation period than in the pre-implementation period (Fig. 1). The number of health care agent forms printed in the clinics served as a measure of site-level protocol adoption and increased concurrently with the rollout of the protocols in January 2016 (Fig. 1).

Table 1 Interventions to Increase Completion of Advance Care Plans

Category	Barrier addressed	Intervention	Details
Leadership	Clinical and quality priorities did not include ACP	Establish ACP as a priority across primary care practices	Collaborative primary care inter-professional leadership team identified ACP as priority area and allocated resources to project
Education and engagement	Staff and clinician reticence to begin ACP conversations	Offer site-level educational sessions to clinicians and staff	Educational sessions offered at each clinic site addressing the value of ACP, types of forms, and approaches to engage patients
	Patient reluctance to begin ACP conversations	Normalize ACP discussion and educate patients about ACP	Introduce ACP to patients as standard clinic workflow for all adult patients. Initiate discussion with identification of a health care agent
Electronic health record	Unreliable workflow for capturing ACP in EHR	Standardize workflows for scanning ACP forms into EHR	Clinic staff scanned forms into EHR as specific, searchable form types with common location in EHR
	Difficulty identifying ACP forms in EHR	Develop highly visible indicator of ACP in EHR	Created flag in the banner of the electronic chart to identify ACP form presence and directly link to ACP form
	Difficulty remembering to assess for ACP completion	Create electronic reminder if ACP forms absent	Used Health Maintenance functionality in EHR to trigger alert once every 5 years if patient had no ACP form in EHR
Clinic operations	Non-standard ACP forms	Identify standard, preferred ACP forms	Coordinated with Vermont Ethics Network to select standardized ACP forms: Health Care Agent, Advance Care Plan, and COLST
	ACP forms not readily available on site	Ensure standardized ACP forms readily available	Standardized ACP forms and educational materials placed in all patient areas
	Difficulty identifying patients in need of ACP completion at time of visit	Identify appropriate patients for ACP discussion prior to visit	During pre-visit planning, rooming staff identified patients without ACP forms and reviewed with providers during daily huddle
	Potential impingement of ACP completion on visit time	Provide patients with relevant materials at time of rooming	Rooming staff gave appropriate patients ACP form and educational brochure. Providers reviewed with patient during visit, if needed
	Potential impingement of ACP on visit time	Refer patients to community resources when needed	Patients could be scheduled for a future visit with PCP or a Community Health Team social worker for ACP facilitation
Audit and feedback	Inconsistent adoption of protocols at clinic sites	Perform adoption audits at site level	Site administrative directors conducted periodic audits of huddles and protocol adoption
	Baseline and ongoing performance data lacking	Create a monthly, automated electronic report	An automated report captured ACP form completion in the EHR at the individual, site, and roll-up level
	Clinicians unaware of performance	Create an easily accessible dashboard within EHR	An automated monthly performance report was uploaded to a dashboard in the EHR that could be viewed by all clinicians
	Clinicians unaware of performance	Review performance regularly with stakeholders	Performance was discussed at quality committee and faculty meetings
Incentives	Financial incentives not aligned with ACP completion	Provide financial incentive to physicians	ACP form completion was used as one measure for variable compensation to physicians

ACP, advance care planning; COLST, Clinical Orders of Life Sustaining Treatment; EHR, electronic health record
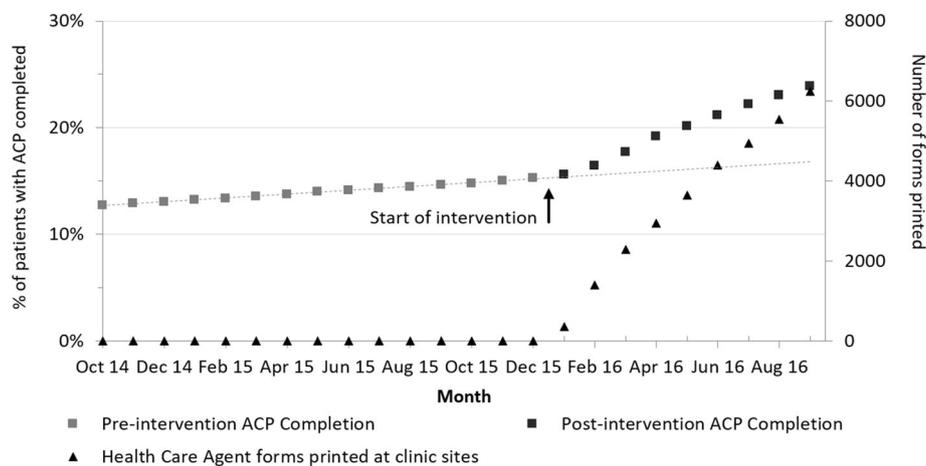

Figure 1 Advance care planning form (ACP) completion and number of health care agent forms printed during pre-intervention and post-intervention periods.

DISCUSSION

Summary

A quality initiative targeting common barriers to ACP in primary care was associated with sustained increases in the rate of ACP form completion across nine primary care clinic sites.

Relevance

Our initiative shifted ACP from a non-standard activity focused on a few patients nearing the end-of-life to a routine preventive health practice performed for all competent adult patients. In doing so, we were able to address specific perceived and actual barriers to ACP encountered by patients and health care providers and to reduce the burden of ACP on primary care providers. We speculate that the normalization of ACP as a routine part of preventive care also promoted provider and patient comfort in addressing the topic.

Limitations

We did not formally assess the adoption of our protocols at the individual level and did not distinguish between the types of ACP documents completed. Lack of infrastructure or resources might limit some clinics from replicating this work.

Conclusions

By embedding ACP into routine practice, we significantly increased the percentage of our adult primary care patients who had an ACP form in their EHR across multiple primary care sites. Long-term studies will be required to evaluate the impact of increased ACP form completion in a broad primary care population on health care utilization, patient experience, and patient and physician perceptions of goal-congruent care.

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