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Advance Care Planning in the Primary Care Setting: A Comparison of Attending Staff and Resident Barriers

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Advance directive completion rates remain poor in the ambulatory setting. The purpose of this study was to explore and contrast staff provider and resident physicians' experiences with advance care planning (ACP) and to identify barriers to this process in the primary care setting. A 17-item survey was administered to staff primary care providers and categorical internal medicine residents. Staff providers were more likely to discuss ACP after prompting from patients' family members ($P < .02$) or after a change in health status ($P < .02$) and were more likely to believe that non-physician members of the care team should counsel patients about ACP. The majority of respondents cited *system-based* barriers as major obstacles to ACP. Strategies aimed at systematizing the ACP process for both patients and providers are needed.

Keywords: advance care planning; primary care; resident physicians

Introduction

Advance care planning (ACP) allows patients to indicate their preferences for medical care should they ever lose the ability to make their wishes known. A written advance directive (AD) is an important mechanism by which these preferences can be communicated. Previous studies have established that those patients with AD documents are more likely to receive palliative measures at the end of life and are more likely to be satisfied with their medical care.[1] Additional benefits include increased patient autonomy and decreased resource utilization.[2] The importance of ACP has been highlighted by regulatory bodies, including Centers for Medicare and Medicaid Services (CMS), and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).[3,4]

Completion rates for ADs remain poor among older adults, despite the established benefits and emphasis from regulatory bodies. Completion rates range from 5% to 15% in the general population,[5] with marginally higher rates among sampled populations of older adults.[6] Even among those severely or terminally ill, rates of AD completion are less than 50%.[7,8] At our own institution, only 30% of outpatient primary care patients aged 65 and older had a completed AD on record.

Most adults would rather undertake ACP while they are still healthy and would prefer to make these decisions with advice from their primary care provider (PCP).[9,10] However, relatively little is known about how PCPs actually incorporate ACP into patient encounters. Even less is known about how internal medicine residents view their roles in the ACP process.[11,12] To increase the rates of ACP, it is important that barriers inhibiting this process are more fully understood.

The primary aim of this study was to identify important barriers among providers that would help guide the design of interventions aimed at improving rates of ACP. A secondary aim was to identify differences in approaches to ACP between staff PCPs

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(attending physicians and mid-level providers) and internal medicine residents.

Participants and Methods

A division-wide internal analysis revealed a low baseline AD completion rate. We subsequently initiated a multifaceted program to encourage ACP in the outpatient setting. The first step of this quality improvement initiative was a needs assessment of all PCPs in the practice. This web-based needs assessment survey was designed to identify provider preferences and barriers concerning ACP. At the time of the survey, patients' completed directive documents were accessible within each patient's electronic medical record. The 16 multiple choice and 1 free text items are shown in Appendix.

The practice setting of the study was the Division of Primary Care Internal Medicine (PCIM) at the Mayo Clinic, Rochester, MN. Among the 41 710 patients in the practice, 27.6% are aged 65 and older. The division had over 100 000 outpatient visits in 2008 when the study was conducted. Patients age 65 and older accounted for 40% of the visits. Resident physicians spend about 4 hours weekly in the outpatient practice, generally seeing their own panel of patients. Staff providers see patients in the ambulatory setting 5 days of the week.

All PCIM staff providers (attending internists [n = 37], mid-level providers [n = 5]), and categorical internal medicine residents (n = 102) at the central Mayo Clinic campus in Rochester, MN, were asked to complete the survey. Categorical residents were those physicians in year 1, 2, or 3 of their internal medicine residency training. After the initial invitation to participate in the survey, 2 reminder e-mails were sent to nonresponders. The Mayo Clinic Institutional Review Board deemed this quality improvement initiative exempt.

Our primary analysis involved descriptive summary statistics for analyzing the results of the survey for all providers. We identified provider preferences and barriers for the entire sample, and then used Fisher's exact test to determine differences in survey answers between the staff providers and the resident physicians. All analyses were done using JMP statistical software, version 7.01 (SAS Institute, Cary, NC).

Results

Of the 144 PCPs to whom the survey was sent, 94 (65%) responded. Response rates were 69% for resident physicians and 57% for staff providers. Among staff providers, the average length of time in practice was 17.25 years. Of the surveyed providers, the majority felt confident that they could find the advance care directive in the medical record.

Advance Care Planning Counseling Preferences

Providers were asked "*When do you discuss advance care planning with your patients*?" (Appendix, question 1). Among all respondents, the most frequently provided answers were "at the prompt of a patients' family member" (40.4%), "after a change in the patient's health status" (39.4%), and "rarely ever" (27.7%). Resident physicians were significantly more likely to indicate that they "rarely" discuss ACP ($P < .02$). Twelve percent of resident physicians "never" discuss ACP in the ambulatory setting. While no staff providers indicated this answer, statistical significance could not be achieved with given sample sizes (Figure 1).

Providers were also asked "*Who should counsel patients about advance care planning*?" (Appendix, question 3). The two most common responses were "primary care providers" (86.2%) and "hospital-based physicians" (43.6%). Compared to residents, staff providers were more likely to suggest that "mid-level providers" (odds ratio [OR] 2.7; confidence interval [CI] 1.1-7.1; $P < .05$) or "nurses" (OR 4.4; CI, 1.3-14.8; $P < .05$) should counsel patients about ACP. Resident physicians were 3.2 times more likely than staff providers to identify "family members" (CI, 1.1-9.5; $P = .05$) and 8.3 times more likely to identify "hospital-based physicians" as more suitable for this counseling (CI, 2.3-30.4; $P < .0003$).

Provider and System Barriers

Surveyed providers were asked "*What are the largest barriers to discussing advance care planning during the clinical encounter*?" (Appendix, question 5). These results are reported in Table 1. "Lack of time" (91.5%), lack of a systematic reminder process (39.3%), and "not appropriate to discuss during an

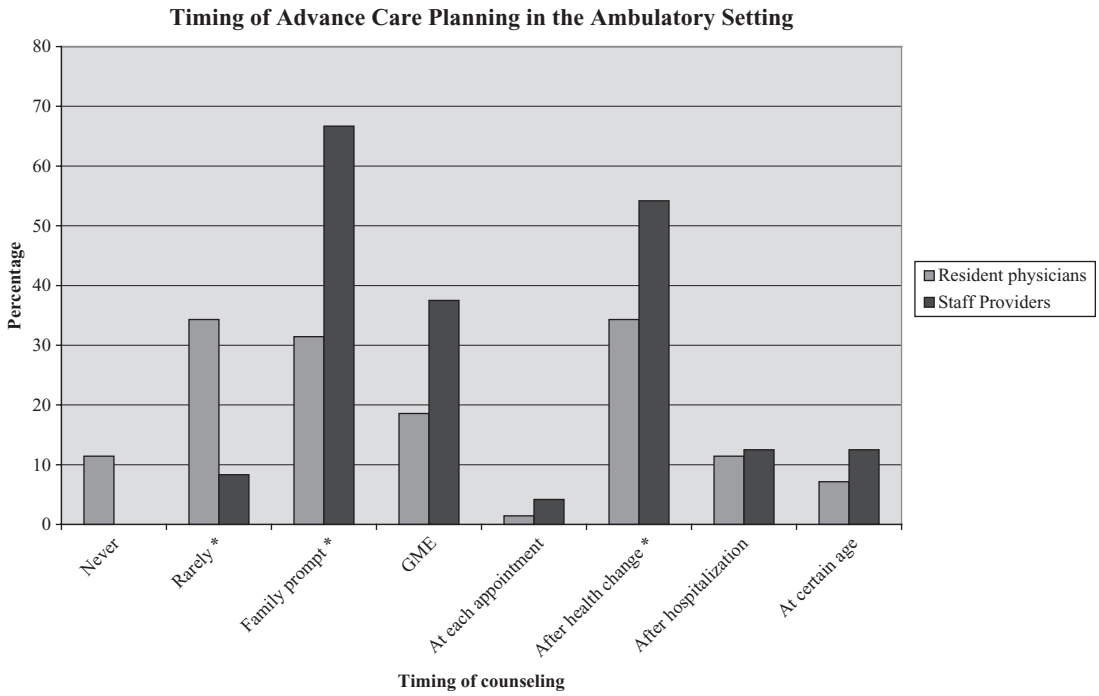

Figure 1. Provider responses to "When do you discuss Advance Care Planning with your older patients?" *$P < .05$. GME indicates general health maintenance examination.

Table 1. Comparison of Resident Physician and Staff Provider Perceived Barriers to Advance Care Planning (ACP)

	Overall, N = 94 (%)	Resident Physician, N = 70 (%)	Staff Provider, N = 24 (%)	*P* Value
Provider/system barriers				
Lack of time during encounter	86 (91.5)	64 (91.4)	22 (91.7)	1.0
Lack of reimbursement for time spent	9 (9.6)	7 (10)	2 (8.3)	1.0
Lack of standardized process to cue patient	37 (39.3)	24 (34.29)	13 (54.17)	.1
I am reluctant to discuss death when the patient is healthy	14 (14.9)	14 (20)	0 (0)	.018
Lack of previous ACP training	21 (22.3)	18 (25.7)	3 (12.5)	.26
Lack of appropriate patient education materials	13 (13.8)	9 (12.9)	4 (16.7)	.73
Lack of system identifying which patients need ACP counseling	17 (18.1)	14 (20)	3 (12.5)	.55
Not appropriate to discuss during acute care visit	29 (30.9)	24 (34.3)	5 (20.8)	.3
ACP is not helpful	3 (3.2)	1 (1.4)	2 (8.3)	.16
Perceived patient barriers				
Lack of patient willingness to discuss	22 (23.4)	14 (20)	8 (33.3)	.26
Patients' lack of knowledge	52 (55.3)	40 (57.1)	12 (50)	.363
Patients' lack of interest	23 (24.3)	18 (25.7)	5 (20.8)	.78
Patients are reluctant to think about while healthy	48 (51.1)	36 (51.4)	12 (50)	1.0
Lack of physician recommendation	26 (27.7)	24 (34.3)	2 (8.3)	<.02
Low health literacy	12 (12.8)	8 (11.43)	4 (16.7)	.42
Cultural belief	5 (5.3)	5 (7.14)	0 (0)	.32
Patient's lack of time	33 (35)	29 (41.4)	4 (16.6)	<.05

acute visit" (30.9%), were the most frequently disclosed barriers. Residents were more likely ($P < .02$) to identify their own reluctance to discuss death while their patients are healthy as a key barrier to counseling patients about ACP. Otherwise, barriers cited by both groups were similar.

On a 1 to 7 Likert scale (1 = *strongly disagree*, 7 = *strongly agree*), the mean response to the statement "*I have enough time to counsel patients about ACP during a usual outpatient encounter*" was 2.36 (95% CI = 2.07−2.64). Overall, providers were more willing to initiate a discussion about ACP after a major change in health status than they were when the patient was seeking routine health maintenance.

Perceived Patient Barriers

Similarly, respondents were also asked to identify which barriers they felt prevented their own patients from completing ADs (Table 1). "Lack of knowledge" about ACP (55.3%) and "reluctance to think about advance care planning" (51.1%) were cited most commonly as patient-level barriers. Resident physicians were significantly more likely to suggest "lack of time" ($P < .05$) and "lack of recommendation from their physician" ($P < .02$) as the most common barriers.

Discussion

Our survey of staff providers and categorical internal medicine residents identifies several *system-based barriers* to ACP in the primary care setting. Key system barriers such as lack of time during the clinical encounter and lack of a formalized process to educate patients about ADs were widely cited. We found that the majority of surveyed PCPs were prompted by informal cues such as family members' suggestions or major changes in the patient's health status to initiate a discussion of ACP. System-based barriers such as these likely contribute to low overall AD completion rates, both at our institution and at other outpatient practice sites.[5,13] Knowledge of these barriers is useful for designing new practice-based systems aimed at improving the rates of ACP in the outpatient setting.

To our knowledge, no previous study has examined the differences in ACP perceptions between primary care staff providers and resident physicians. When examining similarities and differences between these 2 groups, residents were more likely to "never" or "rarely" counsel patients about ACP. Twenty percent of surveyed residents admitted that they felt reluctant to discuss death with their patients and 25% cited that they had not been trained to provide end-of-life counseling. The Accreditation Council for Graduate Medical Education (ACGME) does not specifically require internal medicine training programs to teach residents about ACP and end-of-life counseling.[14] Accordingly, many young physicians lack formal training in this process.[15] Not surprisingly, survey-based studies have found that residents rate the quality and quantity of end-of-life teaching as lower than the rest of their medical education.[16,17] Based on these findings and our results, educators should consider methods to enhance residents' comfort levels in discussing ACP and expand palliative care training opportunities for residents.

Our survey revealed that most providers feel that primary care physicians should be paramount in leading discussions of ACP with their patients. However, staff and residents disagree about which other members of the health care team are best suited to counsel patients about ACP. Staff providers were much more likely to cite non-physician members of the health care team, whereas resident physicians were more likely to feel that hospital-based physicians or family members should be leading these discussions. This difference may stem from the traditionally dissimilar experiences of the 2 sampled populations. At our institution, staff providers more often work within the context of a multidisciplinary ambulatory care team, while residents more often work within the context of a physician-based inpatient care team.

In their large cross-sectional survey of patients and physicians, Johnston and colleagues found that 84% of patients believed that ACP should occur when the patient is healthy, with the majority preferring that ACP discussions should occur longitudinally over the course of several visits.[11] Despite this finding, our survey found that approximately 50% of primary care staff providers and residents felt that their patients were reluctant to think about ACP while in a healthy state. It will be important to educate all providers, regardless of level of experience, that healthy patients appreciate ACP guidance from their primary care team. Primary care team members are uniquely positioned to guide patients through the ACP process.

Our study has some limitations. Our survey was administered at a single institution; however, data from other institutions support our findings about

provider-level, practice-level, and patient-level barriers.[5,13] Additionally, the multiple choice items of the survey may have limited providers' abilities to communicate their unique preferences and perceived barriers. By offering the opportunity to provide narrative responses to almost every item, we believe that we have minimized this limitation.

In summary, both resident and staff providers identify system-based barriers that prevent them from adequately counseling their patients about ACP in the outpatient setting. Strategies aimed at mitigating practice-level barriers such as utilization of non-physician members of the health care team, automatic reminder prompts, and development of more appropriate patient education materials may serve as practice-based solutions to this ubiquitous problem. Additionally, our study shows that a sizable proportion of resident physicians remain uncomfortable conducting ACP discussions in the context of an office visit. Efforts to educate residents on ways to incorporate ACP into office visit discussions are needed. This study provides information about the direction that practice-based and educational interventions should take not only to promote ACP but also to achieve the overarching goal of improved end-of-life care.

Appendix

Advance care planning Survey

Advance care planning: the process of discussing end-of-life care with a patient and developing a valid expression of the patient's wishes regarding future medical care.

1. When do you discuss advance care planning (ie discussion of advance directives, code status) with your older patients?
(Mark all that apply)

- ☐ Never
- ☐ When prompted by the patient or the patient's family
- ☐ At each appointment
- ☐ After a change in health status
- ☐ Other (please describe other below)
- ☐ Rarely
- ☐ At the patient's general medical examination (GME) appointment
- ☐ After hospitalization
- ☐ At a certain age (eg when the patient turns 65)

2. How confident are you that you can find your patients' completed advance directive in the Mayo medical record?

	1	2	3	4	5	6	7	
No confidence at all	○	○	○	○	○	○	○	100% confidence

3. Who should counsel patients about advance care planning?
You may mark up to 3 responses

- ☐ Family members
- ☐ Social workers
- ☐ Mid-level providers (eg nurse practitioners, physician assistants)
- ☐ Hospital-based physicians
- ☐ Other (please put in comment box)
- ☐ Patient educators
- ☐ Nurses
- ☐ Primary care physicians
- ☐ Lawyers or paralegals

4. Please rate your agreement with the following:

	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree
I have sufficient time to check whether my patient has a completed advance directive on file during a clinical encounter	O	O	O	O	O	O	O
I am able to effectively counsel my patients about advance care planning during a clinical encounter	O	O	O	O	O	O	O
I have enough time to counsel patients about advance care planning during a usual clinical encounter	O	O	O	O	O	O	O
I am willing to initiate a discussion about advance care planning during a routine general examination (when the patient is in good health)	O	O	O	O	O	O	O
I am willing to initiate a discussion about advance care planning after a change in a patient's health status	O	O	O	O	O	O	O
My patients are willing to discuss advance care planning when they are in good health	O	O	O	O	O	O	O
My patients are willing to discuss advance care planning after a change in their health status	O	O	O	O	O	O	O
It should be the primary care provider's responsibility to recommend advance care planning to his/her patients	O	O	O	O	O	O	O

5. What are the largest barriers to discussing advance care planning during the clinical encounter? (Please mark up to 3 responses)

- ☐ Lack of time during encounter
- ☐ Lack of patient willingness to discuss this topic
- ☐ Lack of previous training in advance care counseling
- ☐ Lack of appropriate patient education resources
- ☐ Not appropriate to discuss during an acute care visit
- ☐ Other (please list in comments below)
- ☐ Lack of reimbursement for time spent doing this
- ☐ Reluctance to discuss death and dying while the patient is healthy
- ☐ Patients' lack of previous understanding or health literacy regarding this topic
- ☐ Lack of a current system that identifies who needs advance care planning
- ☐ Advance care planning is not often helpful

6. In your opinion, what prevents your patients from completing their advance directives? (Please mark up to 3 responses)

- ☐ Lack of time
- ☐ Lack of standardized process to cue patient to complete advance directive
- ☐ Reluctance to think about end of life treatment preference while he/she is healthy
- ☐ Lack of appropriate patient education materials
- ☐ Cultural or religious beliefs
- ☐ Lack of knowledge about this topic
- ☐ Lack of patient interest in this topic
- ☐ Lack of physician recommendation
- ☐ Low health-literacy
- ☐ Other (please put in the comments)

7. Please select your level of satisfaction about current Mayo practice concerning advance directives

	Strongly dissatisfied	Moderately dissatisfied	Mildly dissatisfied	Neutral	Mildly satisfied	Moderately satisfied	Strongly satisfied
Mayo patient education resources (about advance directives) that are currently available	O	O	O	O	O	O	O
PCIM's current system of educating patients about advance care planning	O	O	O	O	O	O	O
PCIM's current system of identifying patients who have not yet completed an advance directive	O	O	O	O	O	O	O

8. In your opinion, what can we do to encourage our patients to complete their advance directive?

References

1. Teno J, Gruneir A, Schwartz Z, Nanda A, Wetle T. Association between advance directives and quality of end-of-life care: a national study. *J Am Geriatr Soc*. 2007;55(2):189-194.
2. Tierney WM, Dexter PR, Gramelspacher GP, Perkins AJ, Zhou XH, Wolinsky FD. The effect of discussions about advance directives on patients' satisfaction with primary care. *J Gen Intern Med*. 2001;16(1):32-40.
3. Patel RV, Sinuff T, Cook DJ. Influencing advance directive completion rates in non-terminally ill patients: a systematic review. *J Crit Care*. 2004;19(1):1-9.
4. Joint Commission for Accreditation of Health Care Organizations. *The Joint Commission 2008 Requirements Related to the Provision of Culturally and Linguistically Appropriate Health Care*; 2008. http://www.jointcommission.org/NR/rdonlyres/6941959E-D4BE-48D7-A2F8-A4834E84B263/0/JC_Standards_Document_2008.pdf. Accessed June 4, 2009.
5. Ramsaroop SD, Reid MC, Adelman RD. Completing advance directive in the primary care setting: what do we need for success. *J Am Geriatr Soc*. 2007;55(2):277-283.
6. Wu P, Lorenz KA, Chodosh J. Advance care planning among the oldest old. *J Palliat Med*. 2008;11(2):152-157.
7. Teno JM, Licks S, Lynn J, et al. Do advance directives provide instructions that direct care. *J Am Geriatr Soc*. 1997;45(4):508-512.
8. Teno JM, Licks S, Lynn J, et al. Advance directives for seriously-ill patients: effectiveness with the patient

self-determination act and the SUPPORT Investigators. Study to understand prognoses and preferences for outcomes and risks of treatment. *J Am Geriatr Soc*. 1997;45(4):500-507.
9. Cugliari AM, Miller T, Sobal J. Factors promoting completion of advance directives in the hospital. *Arch Intern Med*. 1995;155(17):1893-1898.
10. Kohn M, Menon G. Life prolongation: views of elderly outpatients and health care professionals. *J Am Geriatr Soc*. 1988;36(9):840-844.
11. Johnston SC, Pfeifer MP, McNutt R. The discussion about advance directives. Patient and physician opinions regarding when and how it should be conducted. End of Life Study Group. *Arch Intern Med*. 1995;155(10): 1025-1030.
12. Sulmsasy DP, Song KY, Marx ES, Mitchell JM. Strategies to promote the use of advance directives in a residency outpatient practice. *J Gen Intern Med*. 1996;11(11):657-663.
13. Wissow LS, Belote A, Kramer W, Compton-Phillips A, Kritzler R, Weiner JP. Promoting advance directives among elderly primary care patients. *J Gen Intern Med*. 2004;19(9):944-951.
14. Weissman DE, Block SD. ACGME requirements for end-of-life training in selected residency and fellowship programs: a status report. *Acad Med*. 2002;77(4):299-304.
15. Mullan P, Weissman DE, Ambuel B, von Gunten C. End of live care education in internal medicine residency programs: an interinstitutional study. *J Palliat Med*. 2002;5(4):487-496.
16. Ury WA, Berkman CS, Weber CM, Pignotti MG, Leipzig RM. Assessing medical students' training in end-of-life communication: a survey of interns at one urban teaching hospital. *Acad Med*. 2003;78(5): 530-537.
17. Schwartz C, Goulet JL, Gorski V, Selwyn PA. Medical residents perception of end-of-life care training in a large urban teaching hospital. *J Palliat Med*. 2003;6(1):37-44.