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Final Manuscript

**Improving Patient Self-Efficacy, Readiness, and Completion of Advance Care
Planning Documents Using PREPARE Documents and Advance Care Planning Group
Referral**

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Abstract

Advance Care Planning (ACP) is an ongoing discussion about medical decision making between a provider, patient, and support person. ACP can also include legal documentation in the form of an advance directive (AD). Nationally, only 36.7% of adults complete any form of AD for end-of-life care. Recently, ACP has become an important quality metric that many organizations are prioritizing. The purpose of this evidence-based project is to improve ACP readiness, self-efficacy, and documentation among patients at an internal medicine clinic using the PREPARE program and referral to an ACP group meeting. PREPARE for Your Care is an online program aimed at preparing diverse populations for medical decision making. Ten participants were recruited for this project and were given a validated preintervention survey assessing self-efficacy and readiness. Interventions included brief education using PREPARE documents and referral to an ACP group meeting. Post surveys were to be completed after ACP group meeting attendance; however, group meetings were abruptly discontinued during project implementation. Five participants responded to post surveys based on the intervention of PREPARE education alone. When comparing pre and post data, 40% of participants self-efficacy scores increased, 40% decreased, and one participant's scores were unchanged. Eighty percent had decreased readiness scores while one participant had increased readiness scores. A comprehensive chart review showed no increase in ADs on file postintervention. Overall, self-efficacy, readiness, and AD completion were not improved with PREPARE education alone. The project outcomes suggest that ACP group meetings be reinstated to improve ACP self-efficacy, readiness, and AD completion.

Keywords: Advance care planning, advance directive, self-efficacy, readiness

**Improving Patient Self-Efficacy, Readiness, and Completion of Advance Care
Planning Documents Using PREPARE Documents and Advance Care Planning Group
Referral**

Advance Care Planning (ACP) is an ongoing discussion about medical decision making between a provider, patient, and their family or support person if the patient should become ill or unable to speak for themselves. These discussions are aimed at evaluating a patient's current health status, prognosis, and evaluating specific medical approaches or lack thereof should the patient's health decline (Silveira, 2022). Ideally, these conversations should occur at routine medical visits with a trusted provider and the patient's medical wishes should be documented appropriately. ACP can also include legal documentation of the patient's medical wishes in the form of an advance directive (AD) which may include the naming of a surrogate decision maker and an outline of specific medical interventions or nonintervention. In addition to respecting patient autonomy, improving quality of care, establishing trusting relationships, and decreasing unnecessary treatment, the goal of ACP is to prepare patients and surrogate decision makers to be able to collaborate with providers to make "in the moment" medical decisions when necessary. As such, ACP can have an immense impact on a patient's end-of-life care, both qualitatively and fiscally.

Background and Significance

Although ACP is associated with increased patient satisfaction and goal concordant care, a majority of older adults in the United States, including seriously ill patients, have not participated in ACP and their medical preferences are often not documented (Sudore, 2018). Nationally, a systematic review and metanalysis of 150 studies showed that only 36.7% of U.S. adults complete any form of AD for end-of-life care during their lifetime (Yadav et al., 2017). In

addition to promoting quality care, ACP has fiscal implications for health care organizations. Since 2016, the Centers for Medicare and Medicaid Services (CMS) has made ACP reimbursable (CMS, 2020). In 2022, ACP became a quality metric for the National Committee for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS; National Committee for Quality Assurance, 2021). Consequently, failing to meet HEDIS metrics or taking advantage of a billable encounter can have negative consequences for an organization's fiscal and quality metrics.

With the newly released HEDIS ACP metrics, many health care organizations have made ACP a health maintenance priority. At a local internal medicine clinic, ACP recently became a health maintenance metric in the electronic health record (EHR) that was to be addressed annually among older adults. Many providers verbalized confusion on how to appropriately document and bill for ACP. Although, the education department was gradually releasing information on ACP documentation, including "SmartPhrases" in the EHR, many providers were unaware of existing organizational resources to promote ACP within the organization.

At a local internal medicine clinic, an opportunity to improve the ACP process for both patients and providers was discovered. Current ACP resources within the organization were evaluated and a literature review was conducted to determine if current resources were considered best practice. The literature review also sought to discover which ACP practices have been shown to improve ACP readiness, self-efficacy, and AD completion.

Purpose/Aims

The purpose of this project was to improve patient readiness and self-efficacy regarding ACP and to improve ACP/AD documentation. Although quality and fiscal metrics are important, a patient's readiness and self-efficacy regarding ACP conversations are essential to initiating

these conversations. If patients are unwilling to discuss ACP or do not have a trusted relationship with a provider, little quality or fiscal benefits will be gleaned when ACP conversations are initiated.

Due to the limited scope and timeline of this project, utilization of existing evidence-based organizational resources including referral to ACP group meetings and educating patients on the PREPARE program were used to improve patient readiness, self-efficacy, and ACP/AD completion. The aforementioned resources were previously underused or unknown to many providers in the clinic. The aim of this project was to develop a pilot project using underused evidence-based interventions to improve patient self-efficacy, readiness, and AD completion among patients at an internal medicine clinic. The results of this project and practice recommendations will be disseminated to the internal medicine staff.

Review of Literature

When reviewing the most up-to-date literature comparing the efficacy of ACP group meetings and the PREPARE program to verbal counseling alone, the following search terms were used, and the subsequent number of articles selected for review are listed. PubMed search terms included: “primary care AND advance care planning AND self-efficacy” (3); “improving advance care planning AND primary care” (6); “advance directive AND primary care AND barriers” (5); advance care planning AND group sessions” (2). CINAHL database search terms included: “advance care planning AND primary care AND self-efficacy” (7) and Cochrane Library “advance care planning” (0). Search parameters included peer reviewed articles published within the last 5 years. Among the articles reviewed, eight were selected for the literature review based on their applicability to the clinical question and strength of evidence. The clinical question to be addressed was “In patients attending an appointment at an internal

medicine clinic who need advance care planning, does education utilizing PREPARE documents and referral to ACP group visit compared to verbal counseling alone result in improved document completion, patient self-efficacy, or readiness over a 4-month period?” Regarding the evidence ranking among the eight articles selected, there were two level one articles, three level two articles, one level five article, and two level six articles selected. When synthesizing the evidence, four themes were identified. These topics included low ACP completion rates in the United States, benefits of ACP training for health care providers, and improved patient engagement scores and ACP documentation among PREPARE trial participants and patients who attend ACP group meetings.

ACP Completion in the United States

In a systematic review and metaanalysis of 150 studies, researchers evaluated the prevalence of AD completion among Americans prior to the initiation of Medicare reimbursement in 2016 (Yadav et al., 2017). This study showed that only 38.2% of chronically ill patients and 32.7% of healthy adults had completed any form of an AD in the United States. Current data on ACP or AD completion since 2016 was not found during the literature search. Considering the most recent data, a majority of Americans have not completed any form of AD. These statistics are important as AD completion has been shown to decrease the likelihood of dying in the hospital, increase the likelihood of receiving end-of-life care consistent with patient preferences, decrease cost of care, and patients were more likely to have surrogate decision maker to communicate with providers about end-of-life care. Consequently, increasing AD completion may result in decreased end-of-life health care costs, provision of patient-centered care, and empowerment of surrogate decisions makers.

When examining the evidence on completion rates of ACP, it suggests that ACP rates are low in the United States; however, the available data were collected prior to the initiation of CMS reimbursement of ACP and release of the new ACP HEDIS metric (Yadav et al., 2017). The strength of the data are important as it is a systematic review and considered level one evidence. However, limitations of this study include possibly dated information as it does not account for the impact that Medicare reimbursement or HEDIS metrics may have on current ACP completion rates. To improve the accuracy of this data, newer studies are needed to assess the impact of Medicare reimbursement and HEDIS metrics on ACP completion rates in the United States.

ACP Provider Education

Although increasing ACP/AD completion is an important factor in meeting quality metrics, it is important to evaluate the system in which ACP or ADs are delivered. This task is often completed by medical providers or trained nonphysician facilitators (Chan et al., 2019). Although many providers are expected to discuss ACP, common barriers to ACP include lack of education, knowledge, time constraints, and communications barriers. To address a lack of provider education, a systematic review of 10 studies with 1081 participants was conducted to evaluate the effectiveness of ACP training programs for health care professionals. Training programs that used decision aids, advanced technology, instructional sessions with role play, communications skills, and a focus on the patient experience during ACP were shown to make ACP educational programs more effective.

A nonrandomized single descriptive study also evaluated the impact of provider education on ACP discussions, documentation, and billing (Henage et al., 2021). Researchers from this study cite that previous research indicates 30% of providers identified training as the

greatest barrier to ACP discussions and only 29% of providers surveyed nationwide reported receiving ACP training. This study examined the impacts of educational interventions, workflow redesigns, and quality improvement coaching for providers on the frequency of ACP conversations, documentation and billing among 9,962 patients 65 years and older in 13 clinics. Interventions included entire team lunch and learns, flyers, role playing, quality improvement coaching, and workflow modifications. Post intervention data for ACP conversations, ACP documentation, and billing were improved.

Eight clinics focused on increasing ACP conversations. ACP conversations increased from 24.6% to 52.1% among providers which means providers were twice as likely to have ACP discussions post intervention (OR = 2.2 (95% CI 1.1, 4.6), $p = 0.03$) when compared to preintervention data (Henage et al., 2021). Four clinics focused on improving ACP EHR documentation which increased from 9.9% to 12.6%; therefore, patients were 1.4 times more likely to have an ACP on file post intervention [OR = 1.4 (95% CI: 1.2, 1.6), $p < 0.0001$]. Two clinics focused on billing for ACP which increased from 3.3% to 5.2% post intervention; however, this increase was not statistically significant.

Overall, the data indicate that educational interventions utilizing both face-face education and EHR workflow have been shown to be an effective method of delivery of ACP education for providers and provider education has been shown to increase ACP conversations (Chan et al., 2019; Henage et al., 2021). Chan et al. (2019) was the first systematic review to evaluate the effectiveness of ACP facilitator programs and authors noted there were limited controlled trials on this topic. However, this study showed improved provider knowledge, attitudes, and skills about ACP post intervention in all studies reviewed. Strengths of Henage et al. (2021) include the number of clinics and providers involved in the study while limitations include use of a

convenience sample, isolated geographic location, and increased provider interest in quality improvement work regarding ACP. More controlled trials and more diverse populations should be included in future studies to produce data with less bias and more generalizability. Although educating health care professionals on ACP has been shown to increase ACP conversations, research suggests many providers attribute lack of formal education as a barrier to completing ACP (Chan et al., 2019; Henage et al., 2021). Many organizations have prioritized technological interventions, such as EHR reminders, to assist providers with completing ACP; however, it may be beneficial to consider supplementing these interventions with provider education on ACP.

PREPARE Trial

When researching programs that increased ACP readiness and documentation, the PREPARE trial and program was referenced in much of the literature. The PREPARE trial was a randomized clinical trial (RCT) conducted at multiple primary care sites within the Veteran's Administration near San Francisco, California with a sample size of 414 Veterans (Sudore et al., 2017). The goal of the trial was to compare the efficacy of an interactive ACP website (PREPARE) plus an easy-to-read AD versus AD alone to increase ACP documentation among participants. PREPARE is an interactive evidence-based online program that helps prepare patients for medical decision making through behavior change techniques and videos (Lum et al., 2018). Outcomes of this study included ACP documentation, patient reported ACP engagement scores including action measures regarding surrogate medical decision makers (Sudore et al., 2017). Information about the PREPARE website was given to participants and was viewed at home. ACP documentation was assessed at 9 months and engagement scores were assessed at 1 week, 3 months, and 6 months using a validated survey that measured ACP self-efficacy, readiness, and action measures. Six months after trial enrollment, ACP documentation was

increased in the PREPARE plus AD arm compared to the AD-alone arm (35% vs. 25%; odds ratio, 1.61 {95% CI, 1.03-2.51}; $p = 0.04$). Patient engagement scores were also higher in the PREPARE plus AD arm versus the AD-alone at every follow up ($p < 0.001$). This trial showed that an interactive web-based ACP program with minimal provider intervention could increase ACP documentation and engagement scores when compared to giving a patient an easy-to-read AD alone.

Given that the PREPARE trial was conducted within the Veterans Administration where patients were predominately male veterans, it was important that another trial utilizing the PREPARE program was conducted among a more diverse population. As such, another trial was conducted among diverse English and Spanish-speaking patients in the San Francisco area (Sudore et al., 2018). Similar to the PREPARE trial, this study randomized participants into a PREPARE plus AD group versus AD-alone where outcomes were patient engagement scores and ACP documentation. The PREPARE plus group had higher rates of ACP documentation (43% vs. 32%; $p < 0.001$) and increased engagement scores (98.1% vs. 89.5%; $p < 0.001$) among both English and Spanish speaking participants. This study is important as it validated previous findings in the PREPARE trial and increased generalizability of results to more diverse populations.

Another study used data from the PREPARE trial to further analyze a range of behavior changes and actions among the intervention (PREPARE plus AD) and the control arm AD-alone; Lum et al., 2018). The data analyzed was from an 82-item ACP engagement survey with a wide range of behavior and action measures after the patient viewed the PREPARE website versus the AD-alone. The behaviors measured included knowledge, contemplation, self-efficacy, and readiness and actions measured were discussion and documentation of surrogate decision

makers, quality of life preferences, flexibility of decision makers, and asking the clinician questions. Both arms of the study showed improved overall engagement and ACP documentation; however, improvement among the intervention group (PREPARE +AD) was significantly higher (99.5% vs. 92.9%, $p < 0.001$). This data suggests that AD alone is beneficial for patient engagement but utilization of PREPARE + AD significantly improves ACP engagement including documentation specific action scores (94.6% vs. 68.9%, $p < 0.001$). As such, researchers of this study suggest that PREPARE plus an easy-to-read AD are likely to be synergistic with other ACP interventions and suggest future studies examine their incorporation into ACP group medical visits.

Another study, a prospective before-and-after study, conducted in Canada analyzed the effect of PREPARE on patient engagement scores among 136 patients at primary care and oncology clinics (Howard et al., 2020). Implementation of the PREPARE program improved engagement scores among patients in both clinics. On a 5-point scale, behavior change process scores improved by 0.5, a value congruent with findings in the PREPARE trial and Lum et al., 2018. Although this study had a convenience sample and did not have a control group, it is important to note that engagement scores were improved with home viewing of the PREPARE website. Compared to the PREPARE trial and Sudore et al. (2018), where PREPARE was viewed in its entirety in a research office, this study showed improved engagement scores with home viewing of the PREPARE website.

When analyzing the strengths of the PREPARE trial, its large sample size ($n = 414$) and design (RCT) are of great value. However, the sample size was isolated to the veteran population and was largely male (Sudore et al., 2017). A subsequent trial utilizing PREPARE was conducted and included members of the general population who were both English and Spanish

speaking (Sudore et al., 2018). Each of these trials showed that PREPARE plus an easy-to-read AD improved patient engagement scores and ACP documentation compared to giving a participant an AD alone (Sudore et al., 2017; Sudore et al., 2018). Additional data analysis of the PREPARE trial confirmed that PREPARE also improved additional ACP readiness behaviors and actions including designation of medical Power of Attorney (POA; Lum et al., 2018). Although the PREPARE trial was initially conducted among veterans, subsequent studies have shown that it is a valuable educational program that can be used to improve ACP documentation and readiness with minimal expenditure of provider resources.

ACP Group Medical Visits

Consequently, a randomized clinical trial was conducted by Lum et al., 2020, which aimed to determine if Engaging in Advanced Care Planning Talks (ENACT) medical group visits improved ACP documentation and readiness among older participants. The ENACT group visits consisted of two 2-hour group visits in which participants discussed ACP topics and were given ACP tools such as the Conversation Starter Kit, forms for medical POA, and PREPARE videos (Lum et al., 2020). In the control arm, participants were only given the Conversation Starter Kit and Medical POA forms in the mail. ENACT group visits are usually made up of 8-12 participants where a structured guide is followed by the instructor which allows for interactive peer-peer conversations related to ACP topics. The two visits are reimbursable by Medicare; however, copays may apply for some participants with certain private insurance. Additionally, the course instructor was a provider (i.e., physician, nurse practitioner, physician assistant) who could bill for an outpatient encounter.

The main outcomes of this study were measured at 6 months and included ACP completion or designation of a medical POA in the EHR and ACP readiness using a 4-item

validated ACP engagement survey (Lum et al., 2020). At 6 months, 71% of the ENACT participants had an AD in their EHR compared to 45% of the control group ($p < 0.001$). Additionally, ENACT participants had higher engagement scores when compared to the control group (4.56 vs. 4.13; $p = 0.16$). This study indicates that ACP group visits can have a substantial impact on ACP readiness and AD completion as patients are given up to 4 hours of provider and peer-peer interaction to discuss ACP issues and learn how to complete ACP documents. In busy primary care settings, this model is sustainable as it does not place the burden on the primary care provider to complete ACP in a 20- or 40-minute visit. Instead, the primary care provider can offer a referral to the patient to discuss ACP topics in more depth at an ACP group visit which increases the likelihood of ACP readiness and AD completion.

Limitations of Lum et al. (2020) include a higher rate of baseline ACP documentation which could be attributed to a sample with that was predominately White, female, and had higher levels of education. The study was originally intended to be a pilot project and was not initially powered to be a RCT. Its results, however, showed a clinically significant effect (Lum et al., 2020). Additionally, 20% of those referred to the ACP group medical visits did not attend. Further studies with larger recruitment and more diverse samples are needed to increase generalizability; however, this study reinforces that the ACP group medical visit model showed increased ACP readiness and documentation when compared to receiving ACP paperwork via mail.

Evidence Based Practice Model

The Iowa model was used as the Evidence Based Practice (EBP) model for this project as it guides clinicians in making decisions about both clinical and administrative practices through the utilization of sensible steps paired with multiple feedback loops that assist clinicians with

clinical decision-making (Melnik & Fineout-Overholt, 2019). The model mimics flowcharts which have decision points that can aid the clinician in knowing if they should proceed or return to a previous step in the model (Iowa Model Collaborative, 2017). The Iowa model focuses on what the evidence is, how evidence impacts practice, sustainability of EBP projects, enhancing outcomes, and including patient and family preferences within the model's algorithm.

For this project, the Iowa model was useful as it begins with a clinical trigger, which was the need for improved ACP education and documentation. This clinical trigger was also an organizational priority which allowed for the formation of a clinical team, a literature review, and determining if the evidence gathered was sufficient to pilot an EBP project. After implementation of the pilot project, the model was used as a guide in determining whether the intervention was appropriate for adoption in clinical practice and results of the project were disseminated.

Materials and Methods

The EBP project was designed as a pilot project and conducted at one internal medicine clinic within a larger hospital organization. Resources needed to complete the project included approximately 15 minutes of provider time and printing 15 pieces of paper for ACP documents. To recruit participants, EHR's were reviewed prior to a patient's visit to ascertain if ACP was flagged as delinquent in the EHR. The recruitment goal for this project was 12 participants. After identifying potential participants, patients were approached during outpatient visits and asked if they would like to participate in a pilot project on ACP. If amiable, patients were given the 9-item Advance Care Planning Engagement survey to assess their readiness and self-efficacy regarding ACP. This survey is a validated tool with appropriate internal consistency as evidenced by a Cronbach's alpha of 0.89 (Sudore et al., 2017b).

After the preintervention survey, participants were given education including a PREPARE information trifold as well as the PREPARE packet which included information about the website and an easy-to-read AD. Participants were also referred to the ACP group medical meeting and an organizationally approved “SmartPhrase” was used in the EHR to meet the yearly ACP documentation requirement. Two months postintervention, and after patients attended the ACP group meeting, the engagement survey would be administered again to gather postintervention data via telephone call. At the conclusion of the project, a comprehensive chart review was conducted to ascertain if ADs were on file for any of the participants.

Project Timeline and Approval

The project timeline was organized into three categories including preimplementation, implementation, and postimplementation. Preimplementation occurred between April 2022 and August 2022. During this time, the project was reviewed and approved by the clinical mentor, clinical advisor, faculty advisor, UCSD IRB, and USD IRB. Project implementation occurred between September 2022 and January 2023. Preintervention data were collected for 2 months during September and October 2022 and postintervention data were collected from November 2022 to January 2023. Pre and postintervention data included patient engagement survey scores on self-efficacy and readiness. At the conclusion of implementation, a comprehensive chart review was conducted to ascertain if any new AD’s were on file in the EHR. Postimplementation occurred from January 2023 to April 2023 and included data interpretation and dissemination of results.

Results

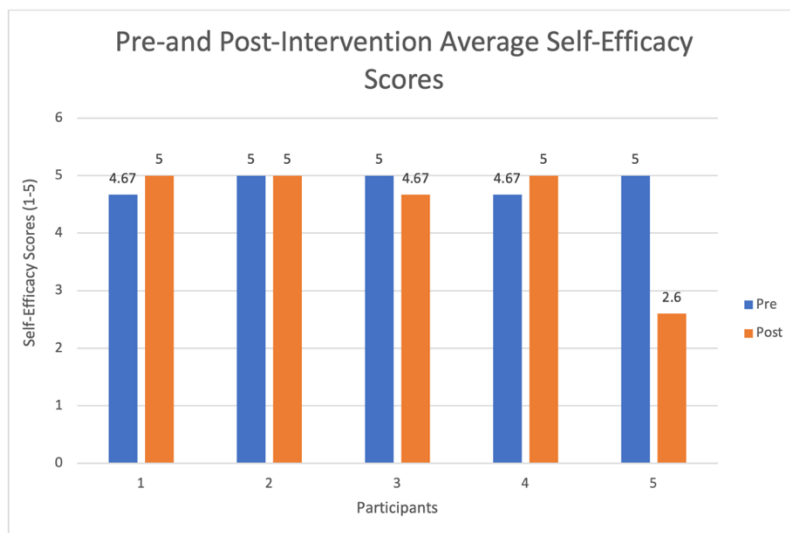
Ten participants agreed to participate in the pilot project. Of the 10 participants, five participants completed both the pre and postintervention surveys. Nine were included in the

implementation phase of the intervention and referred to ACP group meetings. No participants, however, were able to attend ACP group meetings. All ACP group meetings were unexpectedly suspended near the end of the implementation phase as the sole provider operating the ACP group meetings left her position at the organization. Consequently, the primary intervention for the pilot project was modified to include only brief in-person education utilizing PREPARE documents and an easy-to-ready AD.

The pre and postintervention survey used was a 9-item questionnaire assessing self-efficacy and readiness regarding ACP among participants. Self-efficacy and readiness scores were calculated and compared total mean averages of pre and post intervention scores. As seen in Figure 1, 40% of participants self-efficacy scores increased, 40% of participants scores decreased, and one participant's scores were unchanged. Among participants with increased self-efficacy scores, there was an average increase of 6.8%. Among participants with decreased self-efficacy scores, there was an average decrease of 33.7%.

Figure 1

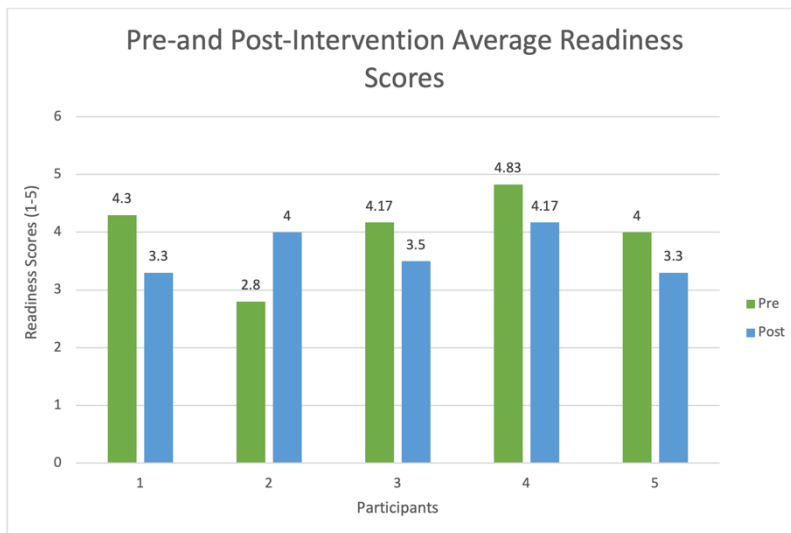
Pre and Postintervention Self-Efficacy Scores



As seen in Figure 2, 80% of participants had decreased readiness scores postintervention and one participant had increased readiness scores postintervention. Among the participants with decreased readiness scores, the average decrease in readiness was 19.4%. For one participant, the average increase in readiness was 35.2%. Additionally, when conducting a comprehensive chart review for all participants, there was no increase in AD's on file in the EHR when comparing pre and postintervention data.

Figure 2

Pre and Postintervention Readiness Scores



Cost Benefit Analysis

The cost of implementing this project by a DNP student within the internal medicine department was \$21.00. Costs included the price of printing PREPARE materials, preintervention surveys, and postintervention surveys. The PREPARE packet was printed double sided in black and white ink while the PREPARE trifold and surveys were printed in color ink.

There were no staffing costs associated with the project and the DNP student's time and services were volunteered.

Benefits of this project include improvement in ACP HEDIS quality metrics in the Internal Medicine department. Among the 10 participants recruited for the project, six received an ACP SmartPhrase in their EHR which resulted in improved quality metrics for ACP documentation. Among the four participants for whom the SmartPhrase was not used, this can be attributed to data entry errors by the DNP student, or participants were not yet due for ACP documentation but did not have an AD on file. Although this quality metric cannot be quantified monetarily, the SmartPhrase used does qualify as a Current Procedural Terminology (CPT) tracking code and meets the HEDIS metric for annual ACP documentation (CMS, 2019). Due to the suspension of ACP group meetings, a key intervention in this project, no monetary benefits were gained from this project. Intangible benefits such as self-efficacy and readiness were measured but not fully realized as indicated by the pre and postintervention survey results, and likely a result of the suspension of ACP group meetings.

Alternatively, if ACP group meetings had not been suspended and participants were able to attend the meetings, monetary benefits could be calculated. Although the DNP student's time was not considered a cost for this project, it is important to consider real world scenarios when calculating the costs and benefits of this pilot project. In addition to the cost of materials, 15 minutes of Nurse Practitioner pay and 90 minutes of provider pay for the ACP meeting was added to the potential cost of implementation. The average cost per patient would be \$205.96. The average revenue per participant would be \$236.00 and originates from Medicare reimbursement for 90 minutes of ACP discussion at group meetings (Kim et al., 2019). For every

dollar spent there would be a cost avoidance of \$1.14 and for an anticipated program size of five participants there would be a 0.72% return on investment.

Although more studies with standardized ACP interventions and validated outcomes are needed to ascertain more precise cost benefit ratios of ACP, studies have shown that ACP can decrease the cost of end-of-life care (Silveira, 2022). A recent study showed that AD completion was associated with \$673.00 lower hospital out-of-pocket costs for patients and their families (Zhu & Enguidanos, 2022). Another study by Bond et al. (2018), showed a cost savings of \$9500.00 among patients who had AD's in their last year of life compared to patients who had a health care POA or Physician Order for Life Sustaining Treatment (POLST). Most of the cost savings were attributed to fewer inpatient admissions and inpatient days (Bond et al., 2018).

When considering the average cost of hospital adjusted expenses per inpatient day in California (\$4181.00) and the cost of engaging in ACP or completing ADs, a fiscal benefit exists for health organizations who prioritize ACP and ADs (Kaiser Family Foundation, 2021). If just one of the five patients in this pilot project completed an AD after attending an ACP meeting and avoided 1 day of hospitalization, there would be a theoretical cost avoidance of \$20.30 for every one dollar spent on ACP/AD implementation resulting in a 96% return on investment. Per Bond et al., 2018, the costs of hospitalization far outweigh the costs of facilitating ACP and AD completion.

Although the cost to implement the pilot project was \$21.00 total and did not render any significant tangible or intangible benefits, the potential for a return on investment exists as outlined above. The literature supports the use of ACP group meetings to improve intangible benefits such as self-efficacy and readiness, while CMS reimburses ACP conversations conducted, including those held at group meetings. If ACP group meetings were to be reinstated,

more accurate survey data on self-efficacy and readiness could be gleaned and likely rendering a positive return on investment as most eligible patients have Medicare.

Barriers in Project Completion

Multiple barriers were encountered throughout project implementation and completion. Cancellation of ACP group meetings was a major barrier as it was one of two primary interventions in this project. As such, the intervention implemented was limited to administering brief patient education on the PREPARE program utilizing PREPARE documents and an easy-to-read AD. Pre and post data were gathered, but because half of the intervention (ACP group meetings) could not be implemented, the post data were less impactful than anticipated.

Additional barriers included patient-related factors. When recruiting patients for the pilot project, many were hesitant to discuss ACP and enroll in the project. This could be due to patient discomfort with conversations related to death and dying. Additionally, as a DNP student, the time to build rapport was limited which can be a key in successfully discussing ACP.

Additionally, a 50% attrition rate occurred when conducting postintervention surveys. Of the 10 participants, five did not respond to multiple telephone calls aimed at gathering postintervention surveys. Although loss-to-follow up can be expected, this level of attrition could be attributed to the sensitivity of the topic being discussed and or to cancellation of ACP group meetings.

Although patients were notified that the program was suspended, many patients may have not seen the value in completing a postsurvey when they were unable to attend the ACP group meeting.

Barriers related to the ACP and AD process were also encountered. For ACP group meetings, it was discovered that meetings could only be held in Spanish or English. Participants who spoke languages other than English or Spanish could not be referred to group meetings.

Additionally, many patients verbalized difficulty in procuring two eligible witnesses or a notary to sign their AD once completed, a crucial step in making the AD a legal document.

Conclusions and Implications for Clinical Practice

Although the pilot project did not yield significant benefits regarding self-efficacy, readiness, or AD completion, valuable recommendations can be made for both clinical practice and future DNP projects. The organization could consider reinstating ACP group meetings to support primary care providers and patients in completing and understanding ACP. Although primary care providers can have ACP discussions in their offices, many visits are limited to 20-40 minutes total. To bill for these discussions, providers must verify they have discussed ACP for 16 minutes minimum and this may not be feasible for many visits. Utilization of referrals to ACP group meetings allow primary care providers to refer eligible patients to a group meeting where patients can discuss ACP in two 90-minute sessions that are reimbursed by Medicare. The second session is optional for patients based on their comfort with ACP and completing their AD. In addition to the positive fiscal impact, studies show that ACP group meetings can enhance ACP readiness and self-efficacy which may improve overall AD completion rates. Group meetings may also allow for more time to build rapport with patients which may increase patient comfortability in discussing ACP.

From an organizational perspective, the organization could consider recruiting more providers interested in hosting ACP group meetings, including residents, physician assistants, nurses, and nurse practitioners. Nurses and nurse practitioners working in population health may be interested in hosting these meetings, as many of these practitioners complete Medicare Annual Wellness Visits where ACP is a mandated topic to be addressed. Additionally, recruiting providers who speak diverse languages would be valuable for patients who speak languages

other than English and Spanish. Acquiring multiple providers to administer ACP meetings could prevent complete dissolution of the program should one or multiple providers decide to leave the organization. Additionally, acquiring more notaries should be considered. Front desk staff, who do not participate in direct patient care, would be a feasible option to assist with witnessing and completing ADs in the clinic setting.

Future sustainability of this pilot project would rely largely on the reinstatement of ACP group meetings, as education alone did not improve patient readiness, self-efficacy, or AD completion rates. Future projects aimed at increasing ACP readiness, self-efficacy, and documentation could explore incorporating utilization of the PREPARE website into the primary care setting or the effects of reinstating ACP group meetings. Additionally, future projects could determine the feasibility of notaries in the primary care setting, methods to recruit more providers to host ACP group meetings, and ways to effectively discuss ACP with greater language diversity. Lastly, if providers in Internal Medicine wish to document and bill ACP discussions within the primary care setting, it would be prudent to offer ACP training to providers as lack of training is cited as a major barrier to ACP completion. Each of the proposed interventions could increase ACP awareness leading to the overarching goal of discussing and documenting a patient's medical preferences for end-of-life care.

References

- Bond, W. F., Kim, M., Franciskovich, C. M., Weinberg, J. E., Svendsen, J. D., Fehr, L. S., Funk, A., Sawicki, R., & Asche, C. V. (2018). Advance care planning in an accountable care organization is associated with increased advanced directive documentation and decreased costs. *Journal of Palliative Medicine, 21*(4), 489–502.
<https://doi.org/10.1089/jpm.2017.0566>
- Centers for Medicare and Medicaid Services [CMS]. (2019). *Quality measure fact sheet advance care plan national quality strategy domain: Communication and coordination*.
<https://innovation.cms.gov/files/fact-sheet/bpciadvanced-fs-nqf0326.pdf>
- Centers for Medicare and Medicaid Services [CMS]. (2020). *Medicare learning network fact sheet: Advance care planning*. <https://www.cms.gov/outreach-and-education/medicare-learning-network-mln/mlnproducts/downloads/advancecareplanning.pdf>
- Chan, C., Ng, N., Chan, H., Wong, M., & Chow, K. M. (2019). A systematic review of the effects of advance care planning facilitators training programs. *BMC Health Services Research, 19*(1), 362. <https://doi.org/10.1186/s12913-019-4192-0>
- Henage, C. B., McBride, J. M., Pino, J., Williams, J., Vedovi, J., Cannady, N., Buno, L. R., Chatman, T., Busby-Whitehead, J., & Roberts, E. (2021). Educational interventions to improve advance care planning discussions, documentation and billing. *The American Journal of Hospice & Palliative Care, 38*(4), 355–360.
<https://doi.org/10.1177/1049909120951088>
- Howard, M., Robinson, C. A., McKenzie, M., Fyles, G., Sudore, R. L., Andersen, E., Arora, N., Barwich, D., Bernard, C., Elston, D., Heyland, R., Klein, D., McFee, E., Mroz, L., Slaven, M., Tan, A., & Heyland, D. K. (2020). Effect of an interactive website to engage

- patients in advance care planning in outpatient settings. *Annals of Family Medicine*, 18(2), 110–117. <https://doi.org/10.1370/afm.2471>
- Iowa Model Collaborative. (2017). Iowa model of evidence-based practice: Revisions and validation. *Worldviews on Evidence-Based Nursing*, 14(3), 175–182. <https://doi.org/10.1111/wvn.12223>
- Kaiser Family Foundation. (2021). *State health facts: Hospital adjusted expenses per inpatient day by ownership*. <https://www.kff.org/health-costs/state-indicator/expenses-per-inpatient-day-by-ownership/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Non-Profit%20Hospitals%22,%22sort%22:%22desc%22%7D>
- Kim, P., Daly, J. M., Berry-Stoelzle, M., Schmidt, M., & Levy, B. T. (2019). Use of advance care planning billing codes in a tertiary care center setting. *Journal of the American Board of Family Medicine :JABFM*, 32(6), 827–834. <https://doi.org/10.3122/jabfm.2019.06.190121>
- Lum, H. D., Barnes, D. E., Katen, M. T., Shi, Y., Boscardin, J., & Sudore, R. L. (2018). Improving a full range of advance care planning behavior change and action domains: The PREPARE randomized trial. *Journal of Pain and Symptom Management*, 56(4), 575–581.e7. <https://doi.org/10.1016/j.jpainsymman.2018.06.007>
- Lum, H. D., Dukes, J., Daddato, A. E., Juarez-Colunga, E., Shanbhag, P., Kutner, J. S., Levy, C. R., & Sudore, R. L. (2020). Effectiveness of advance care planning group visits among older adults in primary care. *Journal of the American Geriatrics Society*, 68(10), 2382–2389. <https://doi.org/10.1111/jgs.16694>

Melnyk, B. M., & Fineout-Overholt, E. (2019). *Evidence-based practice in nursing and healthcare* (4th ed.). Wolters Kluwer.

National Committee for Quality Assurance [NCQA]. (2021). HEDIS 2022: See what's new , what's changed, and what's retired. <https://www.ncqa.org/blog/hedis-2022-see-whats-new-whats-changed-and-whats-retired/>

Silveira, M. J. (2022, May 27). *Advance care planning and advance directives*. UpToDate. <https://www.uptodate.com/contents/advance-care-planning-and-advance-directives#H758417115>

Sudore, R. L., Boscardin, J., Feuz, M. A., McMahan, R. D., Katen, M. T., & Barnes, D. E. (2017). Effect of the PREPARE website vs an easy-to-read advance directive on advance care planning documentation and engagement among veterans: A randomized clinical trial. *JAMA Internal Medicine*, *177*(8), 1102–1109. <https://doi.org/10.1001/jamainternmed.2017.1607>

Sudore, R. L., Heyland, D. K., Barnes, D. E., Howard, M., Fassbender, K., Robinson, C. A., Boscardin, J., & You, J. J. (2017b). Measuring advance care planning: Optimizing the advance care planning engagement survey. *Journal of Pain and Symptom Management*, *53*(4), 669–681.e8. <https://doi.org/10.1016/j.jpainsymman.2016.10.367>

Sudore, R. L., Schillinger, D., Katen, M. T., Shi, Y., Boscardin, W. J., Osua, S., & Barnes, D. E. (2018). Engaging diverse English- and Spanish-speaking older adults in advance care planning: The PREPARE randomized clinical trial. *JAMA Internal Medicine*, *178*(12), 1616–1625.

Yadav, K. N., Gabler, N. B., Cooney, E., Kent, S., Kim, J., Herbst, N., Mante, A., Halpern, S. D., & Courtright, K. R. (2017). Approximately one in three U.S. adults completes any type of

advance directive for end-of-life care. *Health Affairs (Project Hope)*, 36(7), 1244–1251.

<https://doi.org/10.1377/hlthaff.2017.0175>

Zhu, Y., & Enguidanos, S. (2022). Advance directives completion and hospital out-of-pocket expenditures. *Journal of Hospital Medicine*, 17(6), 437–444.

<https://doi.org/10.1002/jhm.12839>