Evidence Based Practice Guideline for Advance Directives in Primary Care

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Abstract

Advance Care Planning (ACP) is considered a standard component of primary care by multiple national health organizations. Primary care coordinates all aspects of care through the life span and longstanding provider-patient relationships develop, however; small offices may struggle with the realities of implementing ACP, which results in a lack of an ACP process and low percentage of completed advance directives (AD) in patient's charts. The Doctor of Nursing Practice project described in this paper details the design, implementation, and evaluation of an evidence-based guideline and a practical toolkit using the Ottawa model of research use theoretical framework as a foundation. The comprehension composite scores from pre to post questionnaires showed a statistically significant increase. The project also demonstrated an increase in AD documents in chart audits from 5.88% to 27.45%. Of the 51 ACP discussions, 11 resulted in completed AD documents, with a conversion rate of 22%. Wellness visits provided an important milieu for ACP discussions.

Keywords: Advance care planning, advance directives, primary care, wellness visits.

Evidence Based Practice Guideline for Advance Directives in Primary Care

When faced with a serious illness, patients and their loved ones need help to prepare for the coming challenges. Advance care planning (ACP) is the formation and documentation of medical choices for such illnesses. ACP improves patient care through fostering patient autonomy, alleviating unnecessary suffering, and emphasizing quality of life, yet a recent study found only 25% of respondents had advanced directives (AD) in place (Rao, Anderson, Lin, & Laux, 2014).

The essential need to improve end of life care was identified by the Institute of Medicine in the 2014 report, *Dying in America*. This report encouraged health care providers to engage in patient-centered ACP conversations and provide opportunities for the completion of AD to facilitate improved end of life care (IOM, 2014). Primary care is the logical choice for initiating these conversations because they coordinate all aspects of care through the life span and develop longstanding provider-patient relationships. The IOM, American Academy of Family Physicians (2013), and the American Association of Nurse Practitioners (2013), recognize ACP as a standard component of primary care.

In fact, several national health care organizations envision primary care as the pivotal key to improving our health care delivery model, including the National Committee for Quality Assurance (NCQA) and the Agency for Healthcare Research and Quality (AHRQ) through the Patient Centered Medical Home. Yet primary care providers struggle with the realities of implementing these recommendations. Small primary care offices have minimal staff and less resources; they are not accustom to quality improvement procedures done in large hospitals.

The Doctor of Nursing Practice (DNP) project described in this paper details the design, implementation, and evaluation of an evidence-based guideline for improving the rate of completed AD documents in a primary care setting.

Background

History of Advance Directives

The first advanced directives (AD) were proposed in 1967 and conceptualized to stand as legal consent for treatment of incapacitated patients who could not consent on their own (Glick 1991). The living will was designed to direct health care providers in life sustaining treatments. With advances in healthcare medical decision making has become more complex, and the limited scope of decisions covered in the living will was insufficient in some scenarios. The durable power of attorney was added so that a decision-maker could determine the best course of action that would endorse the tenor patient’s wishes. Although the durable power of attorney must abide by the provisions stated in the living will, it allowed for some flexibility on a broader range of circumstances.

The Do Not Resuscitate Order began in the early 1990s as an answer to increasing emergency medical services and their immediate need for a provider order to cease resuscitation efforts. Without this, emergency services are required to perform CPR, even with a living will and durable power of attorney (Aldrich, 2012). Collectively this triad of documents is called Advanced Directives and they are a core component of advanced care planning.

In 1990, congress passed the Patient Self Determination Act (PSDA) which required health care facilities to inform patients of their choices and right to advance care planning (Patient Self Determination Act, 1990). In part the goal of this legislation was to promote education of and improve access to ACP.

Recent Background

According to a 2011 Regence poll, 71% of Americans facing a serious illness would prefer a better quality of life and comfort, than extending the amount of life through every medical intervention possible (Regence Foundation, 2011). Nearly 30 years after the PSDA act, 3 out of 4 adults do not have any advance directives completed (Rao, Anderson, Lin, & Laux, 2014). Patients have numerous health care encounters throughout the course of their lives, providing plenty of opportunities to discuss the trajectory of illness, functional capacity, and the possibility of events that can happen. However, there is no specific point in the current health care system that provides an impetus or milieu for ACP.

Primary care providers encounter multiple barriers to effective ACP discussions including time constraints, emotionally difficult content, poor reimbursement, and lack of professional training (Balaban, 2000). Medical providers typically focus on curative interventions and are taught to save lives; therefore allowing death, or preparing for it, is not congruent with what they do (Aldrich, 2012). Existing medical and nursing education programs do not adequately prepare providers to initiate ACP conversations (Dube, McCarron, & Nannini, 2015). Small offices are limited in staff and resources to have lengthy ACP conversations.

Significance

A preference for dying at home and self-directed care at end of life is clear, but the significance of AD goes beyond quality of care. AD can potentially reduce unwanted medical treatments and decrease length of stay in acute care, especially intensive care settings; potentially resulting in a substantial financial savings. In a review of current studies, Klingler, In der Schmitten, & Marckmann (2016) found that savings could reach up to 65,000 US dollars per patient, though there was significant variation in the studies reviewed. The average 2.5 million deaths per year could translate to a large potential savings for the financially strained US healthcare system (National Center for Health Statistics, 2015). The older population demographic is also increasing in size due to the aging baby boomer generation, thus the financial impact could potentially be even greater in years to come.

Though the financial savings are great, it is not the reason ACP is so widely endorsed by health care organizations. The ethical implications of prolonging life against one's wishes and the reality of protracted suffering are the focus in improving patient care. Widely publicized cases have further underscored the moral complexity of withdrawing life support when family members cannot agree on health care decisions.

The impact and need for AD is clear, yet the barriers to completing them remain. The proposed project is an evidenced based guideline and practical toolkit to support practitioners' ability to provide AD in the primary care setting. The proposed setting is an outpatient primary care practice office within a Dayton, Ohio health system. The patient panel is approximately 9,000 patients and the population spans all ages, from birth to death. The office is located in a sub-urban city of Southwest Ohio, with a population of 23,915, predominantly Caucasian 84.7%, and estimated household income of $65,989 (City Data, 2017).

Problem Statement

Government agencies support and encourage providers to help their patients in advanced care planning, yet the continued lack of completed AD warrants further development of strategies and investigation of barriers. The project question is thus, does a guideline and practical toolkit lead to an increase of completed advance directives in the primary care setting?

The practice site did not consistently inquire about AD at wellness visits and physicals. A generic living will was printed only if requested by the patient. These documents are written for the legalities of end-of-life and staff did not know how to complete them. When AD documents are not scanned in the EHR, they are not easily accessible in emergencies. A guideline for completion and readily available supplies will enable the AD to be completed and scanned immediately. The financial cost of the supplies will be mitigated by the increased reimbursement through proper billing for these services.

Purpose Statement

The global aim of this project was to establish an ACP process and increase the number of patients who completed AD documents in the primary care setting. This project developed a practical, evidence based guideline and toolkit for AD and piloted them in a primary care office in Ohio. This included provider training on how to complete documents, how to record them in the EHR, and the required elements for billing. The AD documents and patient education materials were be provided in the office. The effectiveness of the interventions were to be evaluated through chart review of AD documents to determine how many were completed and in the chart. Pre and post staff questionnaires were be used to evaluate knowledge and attitude regarding AD (Appendix C and D).

Project Objectives

- Establish a process for ACP for the project site in 6 months
- Provide necessary supplies including State of Ohio Living will documents and patient education materials within 4 months
- Increase the number of completed AD documents scanned in patient’s medical record in 6 months
- Improve provider and staff knowledge and attitude of ACP in 6 months

Search Terms

Searches were performed in the following engines EBSCO/CINAHL Plus, EBSCO Academic Search Complete, and PubMed/MEDLINE. Research was limited to studies conducted within the last five years. No language or location restrictions were utilized. The inclusion criteria were as follows: (1) population: primary care providers, both nurse practitioners and physicians; (2) outcome measures: quantitative prevalence data pertaining to AD, factors associated with completion of an AD, factors associated with practices that implement ACP policy; (3) date: published January 2012 through August 2017. Through the database searches 201 articles were found. After removal of duplicates and exclusion due to irrelevance, 14 articles remained as eligible for review.

The organization's intranet was utilized to examine policies and procedures related to current practice at the practice site. Using the search function for the term advance directive, there were 57 policies identified. All policies and procedures were written for hospitalized in patients. No policy exists for ADs in the outpatient practice setting of the health system. The policies included definitions of terminal state, life sustaining treatments, order of next of kin in the event of no AD, procedure for withdrawal of care, and delineation of staff who are allowed to notarize AD documents in the hospital setting. After removal of duplications of policy across the multiple hospitals and outpatient practices within the parent organization, only 1 policy met inclusion criteria. Although this policy was specifically written for hospital based care of admitted patients, it is helpful in describing the organization's stance on AD. It specifies that implementation of AD require the patient to have complete documents scanned into the chart and that this is the patient's responsibility.

Review of Literature

Studies have shown the completion rates of AD and the percent recorded in the Electronic Health Record (EHR) are low. Mail in survey data from 7,946 respondents found only 26.3% had completed advance directives (Rao, Anderson, Lin, & Laux, 2014). In another study of 130 inpatients in a large northeastern urban hospital, only 21% had a living will and 35% had a health care power of attorney (Van Scoy, Howrylak, Nguyen, Chen, & Sherman, 2014). A three year observational study involving 2,216 patients in a large Illinois intensive care found that 42% had no AD and of those who had an AD, only 10% were documented in the chart (Shapiro, 2015). A similar investigation found only 33.5% of patients with AD had documents scanned into the EHR, and they were difficult to find as they were located in a variety of different places in the chart (Wilson et al., 2013). Though the percentages varied between studies, all demonstrated low completion rates of AD and documentation in EHR.

Analysis of Cause

In the primary care milieu, there are many barriers to ACP discussions which culminate in AD. In a study involving 36 general practitioners, providers cited reasons such as inadequate knowledge of treatment options, limited collaboration with specialists, unfamiliarity with the terminal phase, and a lack of opportunities to address ACP (De Vleminck et al., 2014). Providers also viewed patients not initiating the subject of ACP as a barrier. The most frequently reported reason patients gave for not completing AD was lack of awareness (Rao, Anderson, Lin, & Laux, 2014). Thus providers are waiting for patients to ask, and patients do not know to ask, which is reflected in the low completion rates.

Providers also acknowledge the negative connotations and emotional impact of ACP conversations. Of the 20 primary care physicians and 8 nurses surveyed, nearly all mentioned significant concern for impairing coping mechanisms and sabotaging hope (Boyd et al., 2010). Prognostic uncertainty and the desire to maintain normalcy were further indicated as compelling reasons to wait for discussions. In this study, respondents approached ACP as an urgent response to imminent decline in health status.

Providers who initiate ACP conversations have been shown to increase AD completion rates, and so have family and friend lead discussions. Patients were 10.8 times more likely to complete an AD when asked by medical staff, and 68.6 times more likely when asked by friends and family (Van Scoy, Howrylak, Nguyen, Chen, & Sherman, 2014). In a cross sectional health interview study of 9,651 Belgian participants, only 4.4% had spoken to their physician about their end of life wishes (De Vleminck et al., 2015). Of those with an AD, only 55.4% had discussed it with their physician, while in remaining cases the provider was not aware of their AD, nor were they scanned into the EHR. Thus, providers may find AD documents have already been completed, but the patient had not volunteered this information.

Impact of the problem. Patients' wishes for end of life treatment are more likely to be met when there are completed AD in the EHR. Hartog et al., (2014) found those with AD in their chart were less likely to have CPR in the ICU setting. In survey data of Medicare beneficiaries who died between 1998 and 2007, those with AD were associated with decreased Medicare costs at end of life and lower probability of in-hospital deaths (Halpern & Emanuel, 2012).

Addressing the Problem with Current Evidence

General practitioners conceptualize and utilize ACP in a variety of ways in practice. A study of five general practice provider focus groups noted four themes of ACP discussions (De Vleminck et al., 2016b). First, ACP helped to organize palliative care resources such as home care, oncologist, and pain management. Second, the ACP consultation was to convey a poor prognosis and palliative care options. Exploring goals of treatment such as hospitalizations and therapeutic options was another theme. Lastly, providers used ACP as a straightforward inquiry of AD documents. “While some GPs only started to plan care in response to patient's’ immediate or acute needs, others tried to prepare patients for future care decisions well in advance” (De Vleminck, et al., 2016b, p. 5).

Patient education. Provider initiated discussions may raise patient awareness, yet the complex nature of ACP requires significant information for patients. Educational materials, palliative care consultation, and other efforts have met with varied success (De Vleminck, et al., 2016a).

Education methods. In a study by Toraya (2014) an educational video was developed to address knowledge gaps while minimizing burden on staff. Pre and post intervention surveys were used to determine effectiveness and most respondents felt the video was helpful and informative. Prior to the video 66.7% had talked to their family about AD and 44.4% had at least one completed form. After the video, 78.6% reported they planned to complete AD.

As part of a multi-strategy approach, an educational booklet was developed for patients and their caregivers to be given out during routine visits (De Vleminck, Houttekier, Deliens, Vander Stichele, & Pardon, 2016a). This was not to supplant provider conversations, but to augment discussion, and allow time for contemplation with the goal of future dialogue.

Evangelista et al. (2012) conceptualized preparedness planning in heart failure patients by introducing them to palliative care early in the disease trajectory. The goal was to improve education, to provide more thorough ACP, and for better documentation of AD. This strategy demonstrated enhanced attitudes and knowledge of ACP, and increased completion rates from 28% to 47% post intervention.

Interventions to support practitioners. As previously noted, general practitioners indicated a preference for maintaining hope and allowing patients to initiate ACP conversations. De Vleminck et al., (2016b) found that many general practitioners felt inadequately prepared to conduct ACP discussions, and therefore developed a training program specifically for primary care providers. The education included communication strategies, methods to incorporate ACP into routine visits, and suggested topics to include in ACP. A conversation guide was also provided to improve retention of key components and as a future reference. The second phase of this study, which will determine the effectiveness of these interventions, is in process.

De Vleminck et al., (2016a) also found that a register of eligible patients was helpful in prompting providers to initiate ACP conversations. Research on EHR reminders for patients with specific diseases, such as COPD and cancer, found the reminders to be helpful in identifying appropriate patients and planning conversations (Hayek et al., 2014). A total of 76% of patients had completed AD after the EHR reminders; however only 11.5% were documented in the chart, but this was not the focus of the study.

To encourage and support practitioners, Medicare began paying for ACP and AD document counseling. Effective January 1, 2016, Medicare will reimburse $86 for 30 minutes of advance care planning and $75 for an additional 30 minutes of consultation (CMS, 2016).

Current management. According to hospital policy on ADs and the Patient Self Determination act, it is the responsibility of the patient to initiate, complete, and present their AD to their healthcare providers (Schneider, 2016). An AD must also be present in the medical record to be implemented and acted upon. It specifies that patients and family are given the opportunity to complete an AD in instances where a patient has one but it is not in the medical record. There are no policies specific to primary care or outpatient practices regarding AD.

Current recommendations. Multiple strategies are included in current recommendations. By discussing ACP early in the disease course, patients have more time to ask questions and consider the ramifications of the decisions they are making (De Vleminck et al., 2016a). By inquiring about AD at routine visits, providers are both incorporating discussions into standard practice and initiating conversations, which are both recommended. Education for providers has been shown to be effective in developing strategies for approaching ACP discussions. Supplemental patient education materials has also proven beneficial as the AD documents are not easy to understand (Toraya, 2014).

Benefits of current recommendations. Documentation of AD in the EHR has demonstrated positive effects on end of life care. Families of ICU patients with AD in hand were more likely to initiate end of life discussions and thus accelerate the speed at which decisions are made (Shapiro, 2015). This study also concluded that the majority of decisions were made by the chosen surrogate for patients with their power of attorney documented in their chart. This indicates the ICU providers supported and honored the AD when available.

Issues still under investigation. Shapiro (2015) noted that many of the patients in ICU without AD were under age 60 with no preexisting health problems. Selection criteria aimed at the elderly and those with progressive illnesses may not be as effective as strategies targeting all ages.

Issues not yet addressed. As previously noted, family and friends discussing AD, was even more effective than being asked by a medical provider (Van Scoy et al., 2014). A future consideration may be educational materials given to patients of all ages with the aim of younger patients instigating discussions with older family members. This would also meet the previously mentioned issue of targeting all ages. Shaprio (2015) further noted that ACP discussions should involve surrogate decision makers, as surrogates were often unsure of patient's wishes.

Controversies. The effectiveness of current AD documents and whether they provide sufficient end of life care planning is still being investigated. Shapiro (2015) found AD had no impact on the number of ICU days before patient's wishes and treatment preferences were considered. No significant differences were found in the probability of discontinuing aggressive treatment between those with and without AD. In this particular study, families responded that AD did not decrease the emotional burden (Shapiro, 2015).

Hartog et al., (2014) found no change in length of stay in the intensive care unit and notes this may be due to the language in AD documents, which is often vague and unhelpful in the ICU setting. More thorough ACP discussion may be more beneficial than dialogue strictly to complete AD documents. Additional, there have been recommendations to improve AD documents, which do not cover a many scenarios and do not focus on goals of care.

Theoretical Model

The Ottawa model of research use (OMRU) is described by the authors as a practical theoretical framework for the translation of research findings into evidence based practice. "The Ottawa model of research use (OMRU) has a comprehensive interdisciplinary focus and consists of six key elements: the practice environment, potential adopters of the evidence, the evidence-based innovation, research transfer strategies, the evidence adoption, and health-related and other outcomes" (Logan & Graham, 1998, p.1). The OMRU theory was chosen to help frame the project as it conceptualizes multidimensional evidence-based practice change within dynamic health care settings (Appendix A).

Historical Development and Relevance to the Profession of Nursing

The transfer of research findings into clinical practice requires a theoretical framework that is practical and concise, yet multifaceted and adaptive to the complex needs of health environments (Nilsen, 2015). Early knowledge to action models were empirically driven, using progressive steps and linear trajectories to translate research to practice. The OMRU is one of a pioneering group of action models developed to incorporate the dynamic and complex nature of practice change and the need for multiple phases of reevaluation.

Developed in 1998 by University of Ottawa nursing faculty Dr. Jo Logan and clinical researcher Dr. Ian Graham, the OMRU was created with the intention of developing the center of nursing excellence and increasing evidence based decision making (Logan & Graham, 1998). Three Ottawa health-care agencies collaboratively joined in a 3 year initiative to focus on pressure ulcer reduction, with an emphasis on current research and staff education. The OMRU was specifically designed for use by health care practitioners to integrate research, as well as for use by translational science researchers.

Major Tenets of OMRU Theory

Central to the concept of the OMRU theory is the systematic assessment, monitoring, and evaluation of the each of the six elements before, during, and after any interventions (Logan & Graham, 1998). The six elements are divided into three distinct phases. In the first phase practitioners assess barriers and supports through three of the elements which include evidence-based innovation, potential adopters, and practice environment. In the second phase you monitor intervention and degree of use through the elements of implementation intervention strategies and adoption (of the strategies). The last phase is to evaluate outcomes with the sixth element which is titled outcomes. This process guides change by identifying barriers and supports of change, provides direction for choosing implementation intervention strategies that overcome obstacles and augment facilitators. Outcomes are then evaluated at the patient, practitioner, and system level to determine the impact on the problem of interest (Logan & Graham, 1998).

Application and relevance of the OMRU theory to the project. Improved completion of AD in the primary practice setting will require acceptance from multiple stakeholders and the OMRU is well suited to adequately address the complexities of the problem. Multiple evaluation tools exist that can be used within the OMRU theoretical framework for assessment, monitoring, and evaluation to determine progress and tailor further interventions.

Assessment of barriers and supports. In the first phase, three key elements are assessed including the potential adopter, the practice environment, and the evidence-based innovation. Each is explored exhaustively from multiple perspectives. It should also be noted this phase is revisited if there is a need for modification after an innovation is implemented.

The first element is the potential adopter in which their awareness, attitudes, knowledge, concerns, and current practice must be thoroughly evaluated. The OMRU emphasizes the need to understand the proposed interventions from the potential adopter's perspective to adequately capture the myriad of considerations that influence acceptance of changes (Logan & Graham, 1998). As previously noted, providers have reported limited knowledge of disease trajectory and awareness of ACP discussion opportunities (De Vleminck et al., 2014). Assessing their experience and comfort level addressing these topics through the OMRU framework is imperative in developing strategies to overcome potential adopter barriers.

The second element is the practice environment, which must be assessed using the broad themes identified in the OMRU framework such as patients, culture, structure, and finances. Patient's current knowledge, understanding, acceptance and willingness to discuss AD, will have a significant positive or negative influence on potential adopters. The rules and policies of the practice environment are as significant as the organizational culture and individual personalities to successful change.

The third element is evidence-based innovation, which is the element that focuses on the potential adopter's perceptions of the innovations themselves. Innovations that are difficult and inconvenient are less likely to be adopted. It affords emphasis of different strategies at different times in the process (Logan & Graham, 1998).

Monitoring and evaluation. The second phase is monitoring interventions and degree of use through two of the elements, implementation intervention strategies and adoption (Logan & Graham, 1998). This phase includes the element of implementation of selected programs and interventions in which the interventions are monitored and reevaluated for follow up, feedback, and barrier management. The element of adoption should also be evaluated which assesses the adopter's intention and use of the innovation to determine if they are being used in the way they were designed.

Evaluate outcomes is the third phase, in which the element of outcomes is measured (Logan & Graham, 1998). The outcomes are assessed at the patient, practitioner, and systems level. It is important to evaluate any unintended or untoward effects of the change such as increased costs of interventions or adopter dissatisfaction.

According to Logan & Graham (1998), re-assessment of any newly identified barriers and supports should generate further innovations. This would continue in a cyclical nature until the ultimate desired outcomes have been realized. At this point a decision should be made on the overall success and continuance of the innovations should be made in relation to their ability to produce the desired outcomes.

Project Design

The OMRU theory was used to guide the implementation of this evidence based DNP project. This project was broken down into three phases:

Phase One

The first phase of the project is assessment of barriers and supports. The three elements in this phase of the OMRU theory include evidence-based innovation, potential adopters, and practice environment. This phase commenced with an informal assessment to determine perceived need for change in AD practice and appropriateness of guideline. The providers were agreeable and willing to move forward with development and piloting of an AD guideline (Appendix I). The project and interventions were developed in collaboration with the providers.

The potential adopters, including providers, medical and non-medical staff completed a questionnaire to further determine awareness, attitudes, knowledge, skill, concerns, and current practice regarding ACP. The questionnaire is further discussed in the tools section. It was administered prior to the staff training of the project.

Barriers. An initial assessment of provider perceived barriers identified three concerns: time, workflow, and appropriateness of patient for ACP discussion. The physicians indicated a concern that ACP discussions far exceed the typical amount of time allotted for office visits. Although providers play a significant role in inviting and motivating patients to have AD discussions, it is not necessary for them to conduct the entire conversation. Other staff, including nurse practitioners, can participate in the conversations and incident to billing can be done, using the established framework for this type of billing.

Workflow concerns were also expressed by staff. Prolonged discussions in patient exam rooms will keep them occupied and unavailable for other patients which will reduce productivity. Providers also felt it would impede flow to try to initiate conversations immediately during an appointment and that patients may not be prepared for an extended visit. It was determined that patients would be scheduled to return if they have many questions or would like an in-depth conversation. Appropriateness of patients for invitation for ACP discussion was also identified as a concern by the providers. The physicians felt that 65 was the youngest age they would consider for ACP conversations.

Additional barriers were identified through the OMRU framework by the DNP candidate. These barriers included: a lack of supplies, a lack of awareness regarding billing, no consistent location in the EHR for completed AD documents, and no reminder to ask patients about AD during visits. An assessment of supplies necessary to complete AD documents was completed. The State of Ohio Living Will is the only document legally recognized, thus this specific form must be available (Appendix B). This is located on the organization's intranet site and can be preprinted and stored, or printed on demand. Pre-printing gives the opportunity to have the document printing on both sides which reduces paper consumption, but it requires a designated storage area.

The State of Ohio Living Will form states it can be made official in two ways. The form can be notarized, or signed by two witnesses who are not related to the patient or a provider actively caring for the patient. This means the living will does not have to be notarized, but due to the limited number office staff, it may be difficult to find two staff who can witness. There is a nominal cost of $15 to become a notary.

The knowledge gap regarding billing was addressed through staff training and reinforced with the quick reference guide. Guides for staff on how to complete the living will form and how to document it in the EHR were also communicated in this way. Instead of an EHR based reminder, the providers will cue themselves to inquire about AD on the target population. There is an AD module for the EHR which will be available to make reminders easier, but it was outside the timeline and scope of this DNP project and was not used to develop the guideline.

Supports. Internal supports were assessed. The facility has an appropriate space to conduct discussions that would ensure privacy and confidentiality without interrupting work flow. There is also space in this room for any printed patient education materials. The computers are encrypted and there is a lockable area for historic medical records to securely store any confidential information.

External supports were also assessed. The health system's organizational supports for the practice environment were evaluated. There is an established AD committee which includes an informatics team member, emergency department physicians, the ambulatory medical director, a palliative care physician, and other staff. Improving ACP and completion of AD documents is supported by the highest levels administration in the host organization including the CEO and CNO. The Decide to be Heard program is a city-wide initiative through the Greater Dayton Area Hospital Association, in which all local hospitals and many other healthcare agencies are supporting ACP in the community.

Phase Two

The second phase consists of implementation and adoption of intervention strategies. The interventions were aimed at addressing the perceived barriers and developing office work flow. A staff meeting was held to convey the specific plan to the office staff and providers. Providers were to ask patients who meet inclusion criteria if they have AD. Patients who indicated they do not have any AD were invited to complete forms, receive education materials, or schedule time to discuss further. When patients stated they had AD, the provider submitted an EHR request for staff to locate the AD in the chart. If no AD documents were found, staff followed up with patient by phone to see if they were interested in information or scheduling time to discuss AD further. Once AD documents were received, staff followed the documentation procedures to ensure they were correctly placed in the patients chart.

A physician in the office determined that AD can be added to patient records as a diagnosis with an ICD 10 code. Those patients with AD will have it listed as "living will on file" or "advance directives on file" in their active problems or medical history diagnosis list. This was a very visible location which cued providers to look for the scanned documents in less used areas of the chart and was used in addition to previous documentation strategies. A student in the office who normally works in the emergency department noted that the problem list is not visible in the in-patient setting and thus it was determined that the addition of living will on file must be placed in the medical history.

A training session was held for providers and staff to inform them of the new workflow and process for AD completion. Training explained how to document AD in the EHR and how to bill for these services. A quick reference guide was provided for the staff to refer to. Patient education handouts and the State of Ohio Living Will forms are located on the organization's intranet and were able to be printed during a patient visit.

During implementation, the OMRU theory focuses on monitoring the interventions and evaluating degree of use. Providers and staff were asked every two to three weeks to reflect on obstacles and difficulties that have arisen. Barrier management and follow up is essential for the next step, adoption. For example, potential patient education materials were reviewed and it was decided to begin with the resources provided in the EHR. This overcame several barriers in that it allowed easy access, consistency in educational materials, minimized costs, limited work for staff, and maximized portability in the event of organizational dissemination.

Time constraint during office visits has already been discussed as a potential barrier which can also be addressed with educational booklets for patients who require more time to decide. A sample of 25 *Five Wishes* booklets have been purchased for the office at $1 each (Aging with Dignity, 2011). These were specifically for patients who need more information and time to contemplate. Additional booklets were considered including: *End of Life: Helping with Comfort and Care* (National Institute on Aging, 2016), Ohio's Hospice's *Choices: Living well at the End of Life* (LeadingAge Ohio, 2015), *Caring Conversations* (Center for Practical Bioethics, 2013), and *Advance Care Planning- Selected Resources for the public* (CDC, n.d.). All of these materials are excellent resources, but many incur significantly more cost and effort to obtain and thus were not used as initial strategies.

Phase Three

In the final phase outcomes are evaluated at the patient, practitioner, and system level. According to the OMRU theory, phases are fluid and often many cycles of re-evaluation and changes to innovations happen before the final evaluation of outcomes occurs (Logan & Graham, 1998). Outcomes were evaluated on the number of completed AD documents in the EHR. Chart reviews were conducted to collect categorical data to determine if all necessary elements of the AD document were recorded in Epic. No patient identifiers were collected or recorded. A questionnaire was developed as a measure of outcome and process, which aligned with the intervention aims of increasing provider knowledge and attitude regarding AD (Appendix C). Reliability and validity were calculated prior to use. The questionnaires were examined using qualitative data analysis.

The qualitative data from the questionnaires provided lived experience context for the project. Paired t tests were used on knowledge related questions and a mean satisfaction score was determined. Paired t tests were also used to determine any change in the participant's scores on pre-intervention questionnaires and post-evaluation. The number of discussions were analyzed using frequency analysis. The conversion of discussions to completed AD documents were analyzed using percentages and paired t test.

Population of Interest, Stakeholders, and Setting

Population of Interest

The direct population of interest are the practitioners who discussed AD with patients. Per provider discussions the indirect population of interest are patients 65 years and older. The providers discussed the topic of AD during physicals and wellness exams. Patients seen for acute visits were not routinely included, unless the patient or family initiated the discussion, or the provider deemed it is necessary and appropriate for the visit. A patient who presented for a minor illness was not included, but one who presented for hospital follow up after a chronic illness exacerbation would be an example of an acute visit in which AD discussion is appropriate.

Stakeholders

Internal stakeholders included the office manager, office biller, medical assistants, and registration, all of whom have roles in AD document completion. Additional stakeholders include the quality innovation department, informatics specialist, and the AD committee members. The project was submitted to the organization's institutional review board and was approved.

Practice Setting

The setting is an outpatient primary care practice office in the Greater Dayton area. The office is comprised of two physicians, one nurse practitioner, three medical assistants, three receptionists, a biller, and an office manager who is shared amongst other practices. As a primary care, the office sees patients of all ages, from birth to death. The office is located in the sub-urban city of Centerville, Ohio. Centerville has a population of 23,915, predominantly Caucasian 84.7%, with an estimated household income of $65,989 (Centerville, Ohio, 2017).

Methods

The objectives of the quality improvement project were met through the three main strategies of staff education, staff pre and post implementation questionnaires, and chart reviews. The providers and staff were given training on ACP and AD documents. The pre and post questionnaires were used to determine a change in the quality indices of knowledge, skill, and attitude of AD in response to the training. To demonstrate efficacy of the training and interventions, chart reviews were performed specifically to look for AD documentation in Epic. Chart review data was obtained through Epic in basket; a function that allowed read-only access to specific areas of the chart as stipulated in the IRB approval. The methods included:

1. Provider and staff training (Appendix E): current literature and health care organization's support and recommendations for AD, the proposed office work flow and process for AD at the project site, patient education materials, and demonstration with quick reference guides for completing AD, Epic documentation, and billing
2. Pre and post questionnaires were given to providers and staff to collect outcome measures data which aligns with project aims of increasing staff knowledge and attitude regarding AD
3. Chart reviews were conducted to collect categorical data to determine outcome measures of completed AD documents recorded in Epic

Sample Selection

Staff. All providers and staff in the office were invited to participate in the project. The staff includes two physicians, a nurse practitioner, three medical assistants, three secretaries, a biller, and the office manager. Participation was voluntary and any staff member could choose not to participate or to withdraw from the project at any time. All participating staff members were given a questionnaire prior to the education session. The same questionnaire was given in the last week of the data collection phase of the project, approximately 8 weeks later.

Chart reviews. A convenience sample of all patients age 65 years and older, seen for a physical or wellness visit or otherwise deemed appropriate were asked about their AD. To demonstrate efficacy of the training and interventions, chart reviews were performed with the specific intention of locating AD documentation in Epic. An AD call back log wass part of the standard work flow in the office and an Epic data set request was be made from the office AD call back log. The chart reviews were conducted when they were available from the Epic data set request and continued throughout the data collection phase of the project from March 1 to May 31 of 2018. Patient charts that already had a copy of AD in the record were noted to have these documents pre- implementation. Charts that did not have any AD prior to the date they were added to the AD call back log were recorded as having AD as a result of the project interventions; also stated as post implementation.

Tools and Instruments

The toolkit was developed based on the specific needs identified in the pre-implementation discussions. Several tools were necessary for the staff education and training component. The State of Ohio Living Will is the required documentation by the state, and thus it was supplied in the office (Appendix B). The provider and staff training objectives and outline are attached as Appendix E. A flowsheet was created as a visual reference guide for the process and workflow in the office (Appendix F). This guideline explained the follow up process, highlighted key events that would trigger staff actions, and described what those actions are. All parties requested a very simple and quick reference guide to demonstrate how to complete the AD forms, documentation in the EHR, and required elements for billing with appropriate codes (Appendix G).

Pre and post evaluation questionnaires were created by the DNP student to collect outcome measures data which aligns with project aims of increasing staff knowledge and attitude regarding AD (Appendix C and D). These are identical assessment instruments which contain five content questions to measure knowledge, two skill questions, and three questions to measure attitude. The questionnaire was reviewed for content and validity by the DNP student's project committee and content experts. The CVR rating was 1.0 for each question and the mean total CVR was 1.0. A data collection tool was created to perform chart reviews (Appendix H).

Data Collection Procedures

Participant Data

Staff and provider questionnaires. To protect staff and provider participant confidentiality, a waiver of written consent was requested so that signatures cannot be linked with questionnaire written responses. Staff participants indicated a preference for printed versions rather than electronic. No identifiers were included on the staff questionnaires. Staff were asked to pick a random three digit number to use on both the pre and post questionnaire to compare changes in the quality indices of knowledge, skill, and attitude. The waiver of consent notice for staff and providers explained their rights to participate and to cease participation at any time without penalty (Appendix J). The pre-implementation questionnaires were given prior to the staff education session. The same questionnaire was given in the last week of the data collection phase of the project, approximately 8 weeks later.

Chart reviews. Every effort was made to maintain privacy and confidentiality while performing chart reviews, as is the standard of care. An AD call back log was part of the standard work flow in the office. An Epic data set request was made from the office AD call back log. The data was obtained through Epic in basket. The following variables were collected: age, gender, chief diagnosis category, AD documents. The following five chief diagnosis categories were used: cardiac, respiratory, cancer, wellness, other. No identifiers were collected. Outcomes reporting for this project were only done using aggregate data containing no identifiers.

A waiver of informed consent and/ or authorization for the use of protected health information (PHI) was requested because the project poses no more than minimal risk to individual participant's privacy as the DNP student handles medical information in a confidential manner on a routine basis. Additionally, no identifiers were collected, and any information recorded was either0 standard demographic data or de-identified. Data collected were used to evaluate outcomes related to education of health care providers.

The DNP student completed chart reviews for data analysis for this project using the office Advance Directives call back log to access appropriate patient charts from March 1 to May 31 of 2018. The DNP student has extensive experience in the protection of confidential patient information. Post staff education outcomes in patient care (related to education received) obtained from the medical record review includes:

1. Advance directives tab under demographics, has been marked as *reviewed*
2. Problem list contains *Living Will on file* or *Advance Directive on file*
3. Advance directive documents scanned in media

Interventions and Project Timeline

Initial assessment of provider perceived barriers began in November, 2017, which generated the first cycle of interventions. It was been determined that the State of Ohio AD document and patient education should be printed from Epic, the EMR system, on an as needed basis. All of the providers collectively determined that no notary was needed, as the AD document can be made official with two witnesses signatures.

The data collection phase commenced after DNP project committee and IRB approval. The pre-innovation staff questionnaires were administered prior to the start of the project. The project started March 1st, 2017 after approval was obtained. Staff training started on week one. Providers began inquiring about AD during appropriate office visits. Patients needing follow up were put in the normal follow up phone call queue. The patients were called and asked to bring in the AD documents they had or to schedule a meeting for AD discussion and possible document completion. Scheduling of patients who accepted the invitation began week two. Process evaluation occurred during week three, in which each provider and staff person was asked to identify any process problems or newly identified barriers. During week four, these barriers were evaluated using the OMRU theoretical framework with subsequent development and changes to the interventions. Dissemination of the new interventions to staff continued for the remainder of week four. The process began again on week five, in which the new and changed interventions were implemented. The following two weeks allowed time for the new interventions to be tested, after which the team would again identify any barriers. This cyclical process continued until 8 weeks or the goal of 20 conversations was reached.

The post-intervention staff questionnaires were administered at the end the data collection period. Outcome measures were compiled and analyzed to determine project outcomes.

Ethics and Protection of Human Subjects

This project is a quality improvement design with a focus on improving ACP processes and outcomes for the targeted population. The providers and staff engaged with patients within the course of normal and customary care. The benefit of participation is improving the quality of care planning and risks to patients are minimal. Risks of not implementing the project include: noncompliance with national recommendations, poor patient outcomes, and decreased patient satisfaction. Every effort was made to maintain privacy and confidentiality of participants and charts.

Protected health information (PHI) will not be reused or re-disclosed to any other person or entity, except as required by law for authorized oversight of the research project or for other research for which the use or disclosure of PHI would be permitted by HIPPA. This practice initiative cannot be practically conducted without access to and use of the PHI. The practice initiative cannot practicably be conducted without the waiver. Project participation involves no more than minimal risk. Waiver or alteration does not adversely affect the rights and welfare of the subjects. There are no conflicts of interest to disclose. This project was submitted for IRB consideration and was ultimately approved based on these conditions.

Data management plan. The following plan describes how information was protected from accidental disclosure. When the data was obtained, data was maintained in either a locked file cabinet in the investigator's office or in a password protected electronic file such as an Excel spread sheet on a PHP network file server. No identifiers were being collected. The information collected will not be reused or disclosed to any other persons except as required by law and for authorized oversight of the research by entities such as the Institutional Review Board or audits by the privacy officer.

Plan for Analysis and Evaluation

The number of completed AD documents were analyzed using frequency analysis. The conversion of discussions to completed AD documents were analyzed using percentages and paired t test. The pre and post questionnaires were evaluated through content analysis of comments and descriptive statistics. The qualitative data provided context for the program.

Paired t tests were used on rated questions and a mean satisfaction score was determined. The Wilcoxon signed rank test was used to determine any change in the participants scores on pre-intervention questionnaires and post-evaluation.

Significance and Implications for Nursing

Dissemination of the project findings will be shared with other primary care offices and relevant stakeholders throughout the host organization and city wide Decide to be Heard initiative. At the organizational level, this will occur through continuing education platforms on the intranet and established committee meetings such as the AD committee, practice transformation group. The findings will also be shared with stakeholders in the community at the Decide to be Heard meetings. The implications of the project include improved care planning and coordination across multiple sites within the health system in accordance with current best practice and recommendations. The project will also be submitted for consideration at the Ohio Association of Nurse Practitioners annual conference.

On a broader scale, this project will provide useful tools for enacting change in the primary care setting that supports nationally recommended changes in health care delivery. ACP are one part of the transformation initiatives, such as Patient Centered Medical Home, that are endorsed by the Agency for Healthcare Research and Quality and National Committee for Quality Assurance for patient centered, cost effective, high quality care. Although primary care is envisioned as the central point in improving our health care delivery model, providers struggle with the realities of implementing the recommendations. Gale et al. (2015) found that standard process improvement practices were infrequently used and little is known about what facilitates their implementation. Small primary care offices have minimal staff and less resources; they are not accustom to quality improvement procedures done in large hospitals.

The process of implementing strategies to improve the ACP process will provide experience with quality improvement.

Analysis of Results

Staff Questionnaire Results

Pre and post- intervention questionnaire scores were collected and compared to determine if the project objective of improved provider and staff knowledge, skill, and attitude of ACP was met. Two staff members, who were originally included in the staff member count, left the practice prior to project implementation, which decreased the potential sample size. Of the remaining potential respondents (n = 9), there were seven completed pre-questionnaires (n=7) and six post-questionnaires (n = 6). It was intended that each staff member would randomly choose a three digit number to remain anonymous on the questionnaire, yet still allow for direct comparison of their previous score; however, this did not occur. Since individual scores could not be directly compared, a composite percentage score was given for each questionnaire. The analysis presented is a comparison of these composite scores.

Quantitative findings. Improvement in knowledge and skill were determined by comparing the composite scores of the questions related to comprehension of the material. Paired *t* tests for comprehension questions pre and post intervention are shown in Table 1 (Appendix K). There were a statistically significant increase in composite scores from the pre-questionnaires (M = 36.67, SD = 8.17) to the post-questionnaires (M = 86.67, SD = 16.33), *t* (5) = -5.84. p = .002 (two-tailed). The mean increase in comprehension scores was -50.00 with a 95% confidence interval ranging from -72.01 to -27.99. The eta squared statistic (.87) indicated a large effect.

A paired *t* test were run for each question; however, data analysis revealed several problems with comparing the pre and post results. For example, the question regarding AD in dementia patients showed the largest increase in mean scores following the interventions with a mean difference in scores of (7.83). The results of the paired *t* test were not valid in this case because the question was worded as “select all that apply”, which skews numeric scores. The question “a patient must be suffering from a life limiting illness to be eligible for advance care planning”, showed no change because it was answered correctly by all staff on both the pre and post questionnaire.

The scores for staff opinions of their knowledge, comfort, and perception of AD were compared pre and post intervention to demonstrate improvement in staff attitude regarding ACP and can be seen in Table 2 (Appendix K). For those statements, the mean increase in post intervention scores was clinically significant, but not statistically significant (p = .289; p = .444; and p = .611)

Qualitative findings. An optional area for comments were included on the AD pre and post questionnaires, which yielded only two responses. The comments received were “discussion should always be done at every annual visit” and “informative”.

Chart Audit Results

Demographic and diagnosis code data. Demographic data were analyzed using descriptive statistics and frequency analysis. The total number of AD discussions resulting in patient charts eligible to review for the study was 51. There were significantly more females (n = 42) which represents 77.8%, compared to males (n = 9) at 16.7%. The youngest patient was 46 and the oldest was 97, with an average age of 75.37 years of age (SD = 10.63).

Please see Table 3 (Appendix K) for the analysis of the diagnosis codes used for the visit in which ACP took place. Over half of the visits (56.9%) were coded as wellness physicals (n = 29). The other diseases and disorders category were second most common (n = 15) at 29.4%.

Disorders of the circulatory system accounted for 9.8%, (n =5) and there were a single visit coded with pulmonary disease (n = 1, 3.9%).

AD discussions and documentation results. Chart audits were performed to demonstrate the project objective of an increase in AD documents scanned into the EHR. The scan date was used to determine if the AD documents were scanned into the medical record as a result of the project intervention. Of the 51 charts that were reviewed, there were three found to have pre-existing AD documents and 11 charts in which AD documents were scanned after project interventions. This represents a statistically significant increase (5.88% to 27.45%) which is demonstrated in Table 4 (Appendix K).

The conversion of ACP discussions to AD documents scanned into the EHR were evaluated using frequency analysis. The 51 discussions resulted in 11 new instances of documents being scanned into the chart, which indicated a conversion rate of 22%. It is worth noting that the last set of AD documents were scanned on the day of data collection and additional AD documents have been completed after the data collection period ended, indicating the percentage will likely continue to rise after completion of the project.

The most common diagnosis code used in the office visit that resulted in completed AD documents was the wellness category (n = 9) at 64.28%. The cardiac disease diagnosis category yielded the second largest return 21.43% (n = 3). Pulmonary disease and the other disease category each had one AD completed (7.14%).

Discussion of the Findings and Significance

Staff Questionnaire Results

Pre and post- intervention questionnaires were compared to determine project objective attainment. The results were divided into two sections ensuring the outcome of each objective could be determined independently. Results from the staff questionnaires were intended to demonstrate the project objectives of increased knowledge and improved attitude regarding ACP.

Quantitative findings. Improvement in comprehension question results indicated the increased knowledge project objectives were met. ACP education for health care providers is an effective strategy for increasing AD document completion by patients as demonstrated by the mean composite post intervention scores, which showed a statistically significant increase from the pre-intervention scores, and rose from 36.67% to 86.67% (De Vleminck et al., 2016a).

Qualitative findings. The project objective to improve staff attitude regarding ACP was more difficult to determine. The composite attitude related statements on the questionnaire did not demonstrate statistically significant changes (p = .289; p = .444; and p = .611). In a recent study, health providers identified attitude toward ACP as a significant barrier (De Vleminck et al., 2014). It was not possible to directly compare individual results to determine participant specific improvement. One question was intended to be knowledge related and asked in which type of visit are ACP conversations appropriate. The possible answers included wellness, acute, hospital follow ups, and "I don't routinely ask." The pre questionnaire noted high levels of the "I don't routinely ask" response, which decreased in the post questionnaire. The change in responses on this question supports improvement in attitude. The questionnaires did not otherwise demonstrate a change in staff attitude, so verbal statements and questionnaire comments were used to determine clinically significant improvement.

Questionnaire comments. There were only two comments written on the questionnaires, which limited this method of analysis. Qualitative data tended to be verbally conveyed. Providers indicated a willingness to address ACP, but cited lack of time to adequately address patient's concerns. The providers felt that completing AD forms was a relatively simple task and did not require advanced health education. Providers felt the secretarial staff was the logical choice for brief training on AD documents and ACP discussions. Medicare does allow for billing for these services when provided by other staff using a team-based approach to care (CMS, 2016).

Staff supported the provider's concerns regarding time constraints as a major barrier to ACP conversations. A medical assistant resigned just prior to this project which significantly altered the work flow in an office with only 8 non-provider staff and exacerbated the perceived lack of time. Days with additional staff call-offs meant the project could not be addressed.

In addition, staff indicated their patient interactions are generally straightforward questions about scheduling or billing and are not done in private. As such, staff did not feel they developed the rapport necessary for such intimate conversations and did not feel comfortable conducting ACP discussions regardless of training. According to De Vleminck et al (2016b) many practitioners feel uncomfortable and inadequately prepared to conduct ACP discussions, so they avoid asking the question or wait for patients to initiate the conversation.

Providers anecdotally noted an increase in the frequency of their AD inquiries in response to the awareness brought by the project. No formal data was collected prior to the start of the project with which to empirically validate these statements.

Chart Audit Results

Chart audits were performed to determine the number of AD documents in the patient's medical records pre and post intervention. Chart audits revealed 5.88% contained AD documents prior to pre-interventions, which is significantly lower than similar recent studies. Rao et al.(2014) found 26.3% of mail in survey respondents had completed

AD. Another study found 21% had a living will and 35% had a health care power of attorney (Van Scoy et al., 2014). One consideration is these studies verbally inquired about AD and did not look for scanned copies in the chart. Shapiro (2015) found 58% of intensive care patients had an AD, but only 10% were documented in the chart. This would indicate approximately 5.8% of charts in the study had AD documents scanned in the chart, which is more consistent with the 5.88% pre-intervention findings in this DNP project.

Chart audits were performed to determine attainment of the project objective to increase AD documents in the patient's medical record. This was successfully demonstrated with an increase from 5.88% to 27.45% post-intervention. Although the final percentage does not show improvement compared to the other previously mentioned studies, it still represents a statistically significant improvement in the sample population. The fifty-one ACP discussions resulted in eleven new AD documents in charts, which is a conversion rate of 22%. This may continue to improve as time constraints and inadequate staffing limited the data collection and AD documents were still being scanned into medical records on the last day of data collection.

Wellness physical (ICD 10 Z00.00) was the most common diagnosis used for office visits in which providers initiated an ACP discussion at 56.0%. Wellness physical was also the most common diagnosis that resulted in completed AD documents at 64.2%. The positive yield from inquiring about AD during these visits indicated the need to have ACP as part of wellness and holistic care. Asking about AD during routine visits supports the integration of ACP discussions as a standard of care and provides practice in initiating conversations, which are both recommended (De Vleminck et al., 2016a).

One participant was hospitalized at the time of the chart audit. As a result of this project, the patient's AD documents were scanned into the chart prior to hospitalization. The patient was noted to have a DNR status in the hospital; however, it cannot be known if the code status was a result of the discoverable AD document. Shapiro (2015) found that families of ICU patients with AD in hand were more likely to initiate end of life discussions and thus accelerate the speed at which decisions are made. The impact on patient care as a result of discoverable AD documents is outside the scope of this project.

Implications for Nursing

This project promotes ACP which is highly congruent with many of the provisions of the American Nurses Association (ANA, 2015) Code of Ethics for Nurses with Interpretive Statements. The Code specifically states that nurses "should promote advance care planning conversations and must be knowledgeable about the benefits and limitations of various advance directive documents" (ANA, 2015, p. 3). The IOM (2014), the American Academy of Family Physicians (2013), and the American Association of Nurse Practitioners (2013), recognize ACP as a standard component of primary care. These national organizations envision primary care as the pivotal key to improving our health care delivery model and the success of this project suggests that primary care staff may welcome opportunities to learn about ACP and AD documents.

This project was the first time the organization's institutional review board approved a quality improvement project for the outpatient setting, making it a unique contribution to the health system. The project has the potential to become a catalyst for evidence-based practice in primary care within the organization. However, a recent study found that health-system owned practices scored lower in change process capability than independent practices and may need external support to strengthen their ability (Balasubramanian et al., 2018).

The unique needs of primary care and outpatient settings must be addressed when developing future initiatives and experience with projects like this one will provide valuable insight. Balasubramanian et al. (2018) also found staff vacancies and turn-over had a significant impact on the success of quality studies, which was noted by the host site staff as well. The quality improvement design of this project demonstrates how education and targeted strategies can positively impact quality outcome measures. Dissemination of findings and suggestions for future initiatives are important for the success of future projects.

According to a recent study, patients are 10.8 times more likely to complete an AD when asked by medical staff (Van Scoy, Howrylak, Nguyen, Chen, & Sherman, 2014). The notion that the project itself provided a reminder and impetus to ask about AD suggest EHR reminders may be beneficial. Utilization of documentation templates that contain AD questions may be another consideration.

Limitations of the Project

Time

There were several limitations of this project. One limitation was project implementation delay due staffing factors including the prolonged absence of an IRB member and one host site staff's resignation and one illness. In an office of only 10, two staff member's absences significantly impacts work flow and was not ideal for initiating the project. However, further delay in starting the project would mean less time for data collection, so the decision was made to begin.

In addition the short staffing at the practice site may have been a limitation as the education intervention was done individually instead of in the desired group presentation. This logistical change may have resulted in a perceived lack of significance regarding the training as noted by staff comments. A medical assistant stated “I don’t think I devoted sufficient attention to the training because I was too busy.” However, the staff vacancy remained unfilled at the conclusion of data collection, and waiting may not have improved results. Staff vacancies and high turn-over are a considerable hindrance to quality improvement initiatives in small offices (Balasubramanian et al., 2018).

Project implementation delays diminished the timeframe for data collection, quantity of results, and hampered the utility of the OMRU theoretical model. According to the OMRU model, evaluations should occur before, during, and after any interventions, with frequent alterations to rapidly produce optimal outcomes (Logan & Graham, 1998). Only two adjustments to interventions were able to be completed in the limited amount of time.

One intervention suggested mailing AD documents, because patients were less responsive to calls after they left the office. The mailings were sent on the last week of the project and the response rate remained unknown. It was also noted that no patients returned for more thorough ACP discussions. To bill Medicare, ACP discussions must last 30 minutes and there were no opportunities to bill for these services (CMS, 2016). During the last week of the project it was suggested to change the process for inviting patients to have ACP discussions. This intervention modification may have improved patient responsiveness and culminated in office visits that met billing criteria.

Questionnaire Limitations

The small sample size of the project was a limitation. The project was implemented at a single office and may have decreased the strength of the results. To improve validity, the pre and post questionnaires were intended to have a three digit identification code selected by participants so that individual changes in knowledge and attitude could be compared, while maintaining confidentiality. The participants did not use a three digit code and it was not possible to pair pre and post-questionnaire by individual participant.

On the pre-questionnaire, items 7-10 were often incomplete, for which there are several possible explanations. Items 7-10 were located on the second side of the questionnaire, which participants may not have realized. Directions to turn the page were included on the post-questionnaire, which resulted in improved completion of items 7-10. The questionnaires were also completed during significant short staffing and perhaps were too lengthy or too burdensome.

Limitations of Project Objective to Improve Attitude Regarding ACP

Lastly and evaluation of a change in attitude regarding ACP was challenging to demonstrate and was a limitation of the project. It was intended that items on the pre and post questionnaire would demonstrate the change in attitude, but did not for numerous reasons. The results did not show a statistically significant change in attitude related items, which may have been due to time constraints, short staffing, and the limited number of participants. Poor wording choice reduced the value of the responses in measuring attitude. As noted, the second side of the questionnaire was inadvertently missed by several participants, which decreased the response rate of attitude questions. Verbal statements by the staff after the training indicated they did not feel comfortable with ACP discussions given their role with patient interactions.

Monitoring demonstrable actions may have improved the project design, as the questionnaire was an indirect and subjective measure of attitude. Attitudes and verbal responses have repeatedly shown to be poor predictors of actual behavior (Jerolmack &Khan, 2014). For example, evaluating a change in the frequency of provider's ACP discussions with patients would provide tangible numbers for comparison. The frequency of provider's pre-intervention ACP discussions were not known and could not be reliably tracked. It would have been possible to include a self-report item on the pre-questionnaire to measure previous individual ACP engagement, but obtaining pre and post-intervention data would not have been practical.

Insufficient staff also created a problem with the AD call back log and staff attitude towards this tool. Although the log proved a useful resource for tracking project data, it created an additional task that staff had to be responsible for. Staff felt monitoring the AD call back log generated a greater workload resulting in an additional obligation. The office staff suggested getting rid of the log and sending individual messages in the patient charts as is the norm for other patient communications.

Areas for Further Dissemination

The host office site is part of a large health system in which there are many avenues for dissemination. The results of the project will be shared at the next palliative care team meeting. This team includes emergency department staff who need to access AD documents quickly. One of Medicare's overarching goals for ACP is the discoverability of AD documents by emergency staff and others was outside the scope of this project (CMS, 2016). Further investigation of AD document discoverability in different healthcare delivery settings is warranted in the organization and will demonstrate a closed loop quality improvement process.

The project findings will be shared with the outpatient advance practice nurse committee, many of whom participate in the Patient Centered Medical Home model, which incorporates ACP. The project will also be shared with the quality innovation department who oversees and communicates quality improvement projects throughout the organization. As this is the first quality related project in the outpatient setting, the findings can be used to guide future endeavours.

There are also opportunities for dissemination beyond the host site's health care system. The Greater Dayton Area Hospital Association has begun an Advance Care Planning Initiative using the Decide to Be Heard campaign to increase public awareness of ACP (Greater Dayton Area Hospital Association, 2018). One of the project's aims is to encourage ACP discussions for all residents, including healthy adults, which culminate in AD documents. The DNP project aligns with this goal and the findings may be useful in the Decide to Be Heard campaign.

A poster presentation of the results can be displayed at professional conferences for further dissemination. The annual Ohio Association of Advance Practice Nurses conference is held every October and the project findings will be submitted to the call for abstracts. Participation in other professional conferences and publication are also considerations.

Project Sustainability

The minimal cost of the project suggests financial sustainability. However, there were no ACP discussions that met the criteria to bill for this service. The changes to the project interventions in the last week may increase future opportunities for billing and thereby improve financial sustainability.

Staff indicated the AD call back log created additional work. This external system was helpful for data collection, but becomes another task burden on a short staffed office. Incorporating new interventions within established office practices may improve sustainability.

One physician indicated the project itself served as a reminder to have ACP discussion and felt that EHR prompts would be helpful for continued awareness. The palliative care committee has previously indicated updates to the EHR will include ACP discussion reminder prompts. Once active, the EHR prompts will contribute to project sustainability.

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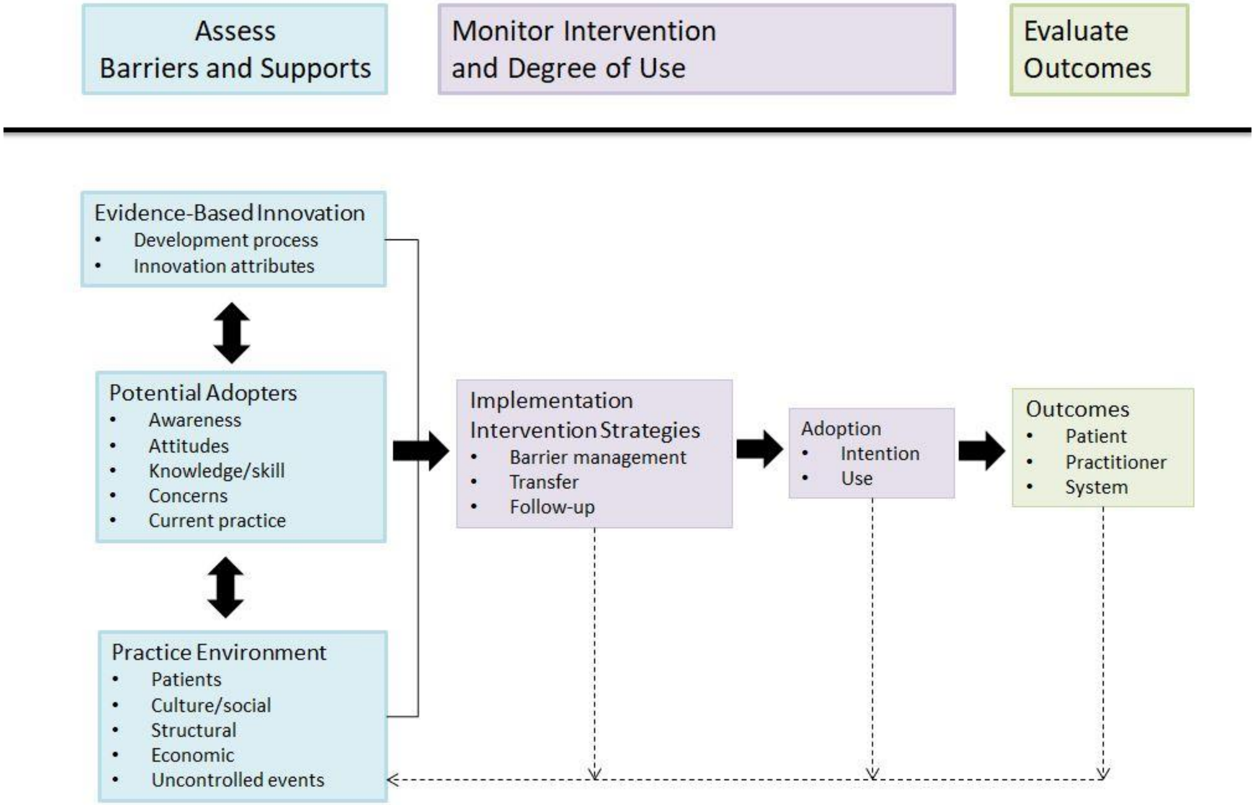
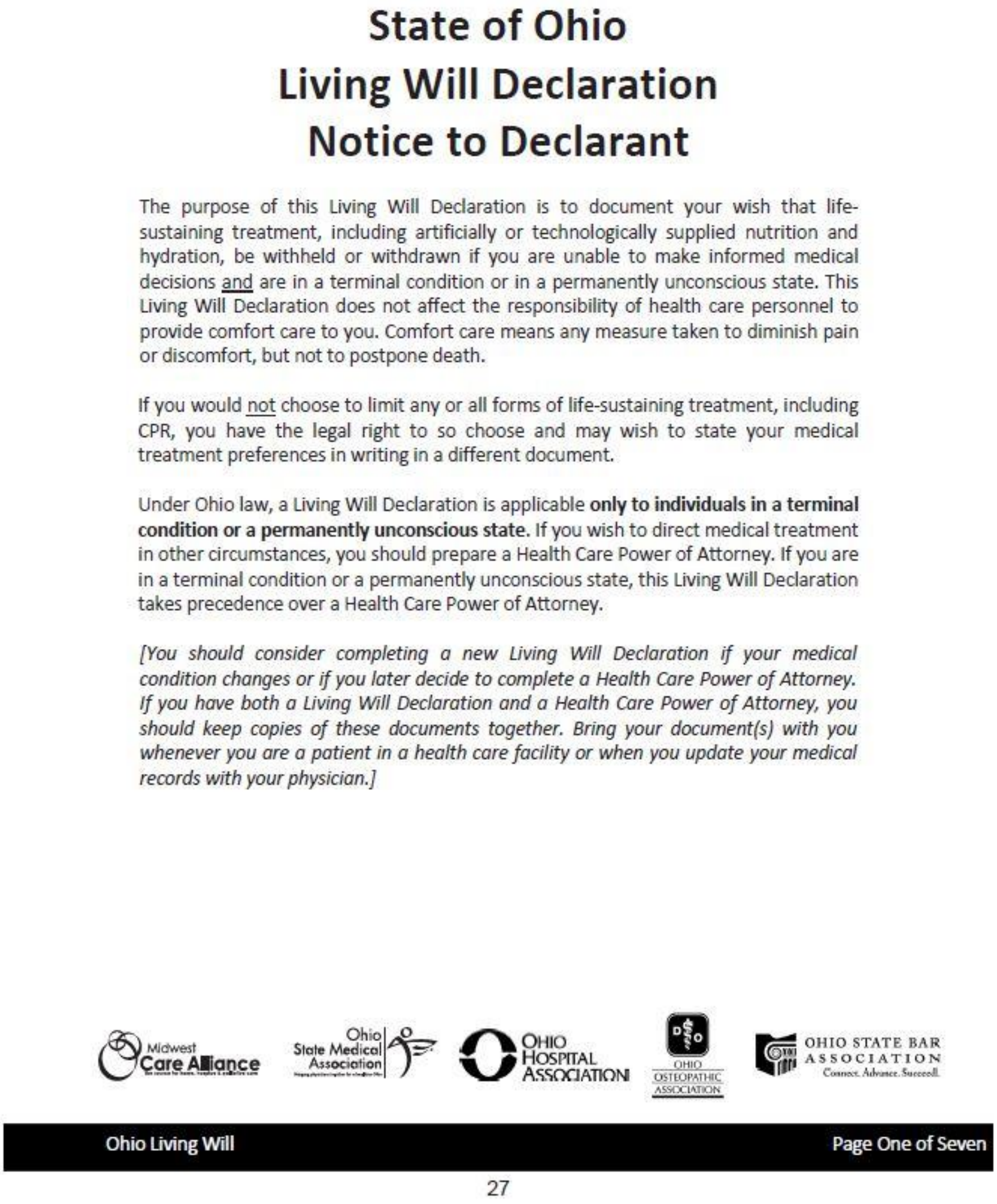
Appendix A



(Logan & Graham, 1998)

Appendix B



State of Ohio
Living Will Declaration
Notice to Declarant

The purpose of this Living Will Declaration is to document your wish that life-sustaining treatment, including artificially or technologically supplied nutrition and hydration, be withheld or withdrawn if you are unable to make informed medical decisions and are in a terminal condition or in a permanently unconscious state. This Living Will Declaration does not affect the responsibility of health care personnel to provide comfort care to you. Comfort care means any measure taken to diminish pain or discomfort, but not to postpone death.

If you would not choose to limit any or all forms of life-sustaining treatment, including CPR, you have the legal right to so choose and may wish to state your medical treatment preferences in writing in a different document.

Under Ohio law, a Living Will Declaration is applicable **only to individuals in a terminal condition or a permanently unconscious state.** If you wish to direct medical treatment in other circumstances, you should prepare a Health Care Power of Attorney. If you are in a terminal condition or a permanently unconscious state, this Living Will Declaration takes precedence over a Health Care Power of Attorney.

[You should consider completing a new Living Will Declaration if your medical condition changes or if you later decide to complete a Health Care Power of Attorney. If you have both a Living Will Declaration and a Health Care Power of Attorney, you should keep copies of these documents together. Bring your document(s) with you whenever you are a patient in a health care facility or when you update your medical records with your physician.]

Midwest Care Alliance
Ohio State Medical Association
Ohio Hospital Association
Ohio Osteopathic Association
Ohio State Bar Association
Connect. Advance. Succeed.

Ohio Living Will — Page One of Seven

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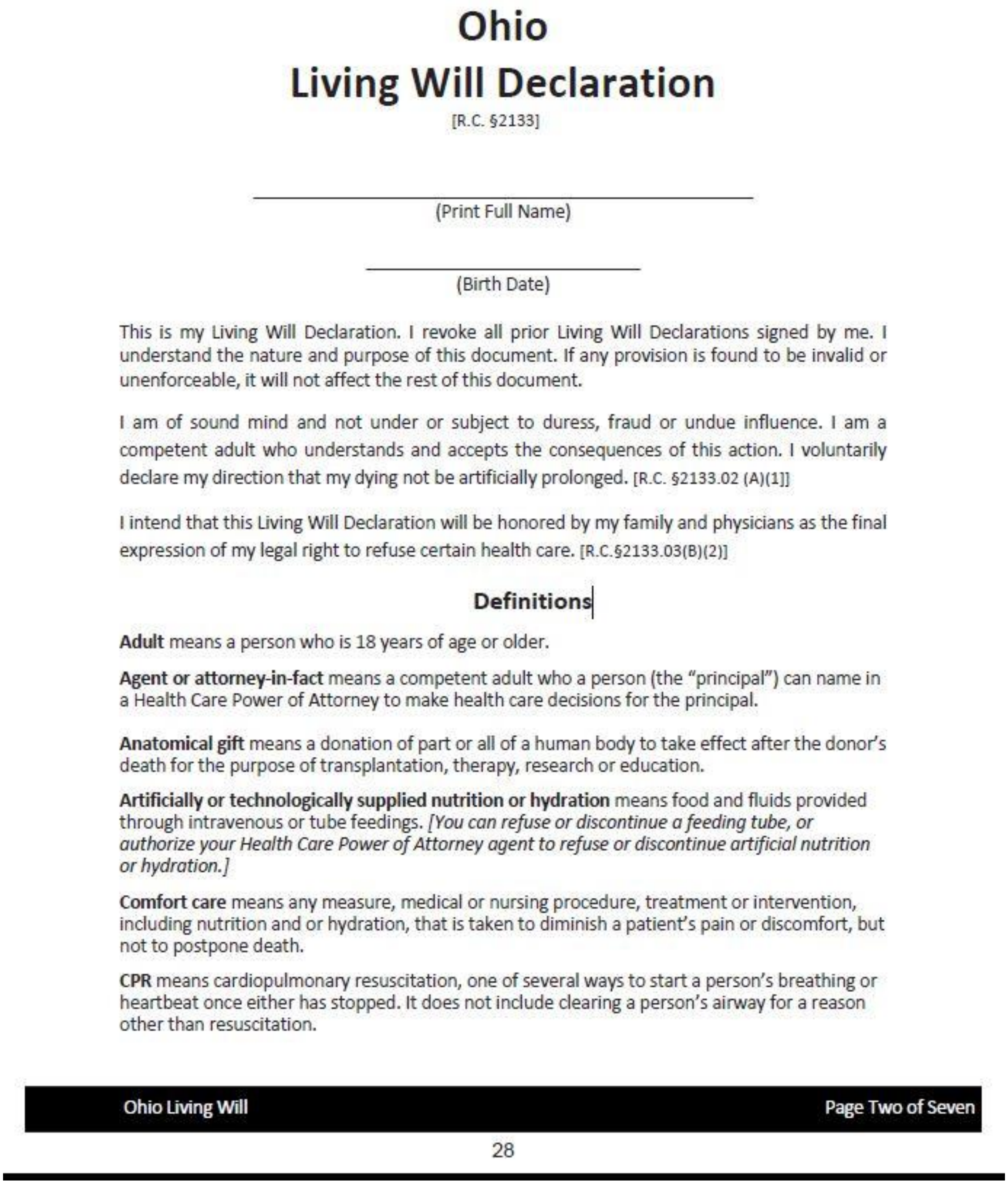
Appendix B



Ohio
Living Will Declaration

[R.C. §2133]

____
(Print Full Name)

____
(Birth Date)

This is my Living Will Declaration. I revoke all prior Living Will Declarations signed by me. I understand the nature and purpose of this document. If any provision is found to be invalid or unenforceable, it will not affect the rest of this document.

I am of sound mind and not under or subject to duress, fraud or undue influence. I am a competent adult who understands and accepts the consequences of this action. I voluntarily declare my direction that my dying not be artificially prolonged. [R.C. §2133.02 (A)(1)]

I intend that this Living Will Declaration will be honored by my family and physicians as the final expression of my legal right to refuse certain health care. [R.C.§2133.03(B)(2)]

Definitions

Adult means a person who is 18 years of age or older.

Agent or attorney-in-fact means a competent adult who a person (the "principal") can name in a Health Care Power of Attorney to make health care decisions for the principal.

Anatomical gift means a donation of part or all of a human body to take effect after the donor's death for the purpose of transplantation, therapy, research or education.

Artificially or technologically supplied nutrition or hydration means food and fluids provided through intravenous or tube feedings. *[You can refuse or discontinue a feeding tube, or authorize your Health Care Power of Attorney agent to refuse or discontinue artificial nutrition or hydration.]*

Comfort care means any measure, medical or nursing procedure, treatment or intervention, including nutrition and or hydration, that is taken to diminish a patient's pain or discomfort, but not to postpone death.

CPR means cardiopulmonary resuscitation, one of several ways to start a person's breathing or heartbeat once either has stopped. It does not include clearing a person's airway for a reason other than resuscitation.

Appendix B

Declarant means the person signing the Living Will Declaration.

Do Not Resuscitate or DNR Order means a physician's medical order that is written into a patient's record to indicate that the patient should not receive cardiopulmonary resuscitation.

Health care means any care, treatment, service or procedure to maintain, diagnose or treat an individual's physical or mental health.

Health care decision means giving informed consent, refusing to give informed consent, or withdrawing informed consent to health care.

Health Care Power of Attorney means a legal document that lets the principal authorize an agent to make health care decisions for the principal in most health care situations when the principal can no longer make such decisions. Also, the principal can authorize the agent to gather protected health information for and on behalf of the principal immediately or at any other time. A Health Care Power of Attorney is NOT a financial power of attorney.

The Health Care Power of Attorney document also can be used to nominate person(s) to act as guardian of the principal's person or estate. Even if a court appoints a guardian for the principal, the Health Care Power of Attorney remains in effect unless the court rules otherwise.

Life-sustaining treatment means any medical procedure, treatment, intervention or other measure that, when administered to a patient, mainly prolongs the process of dying.

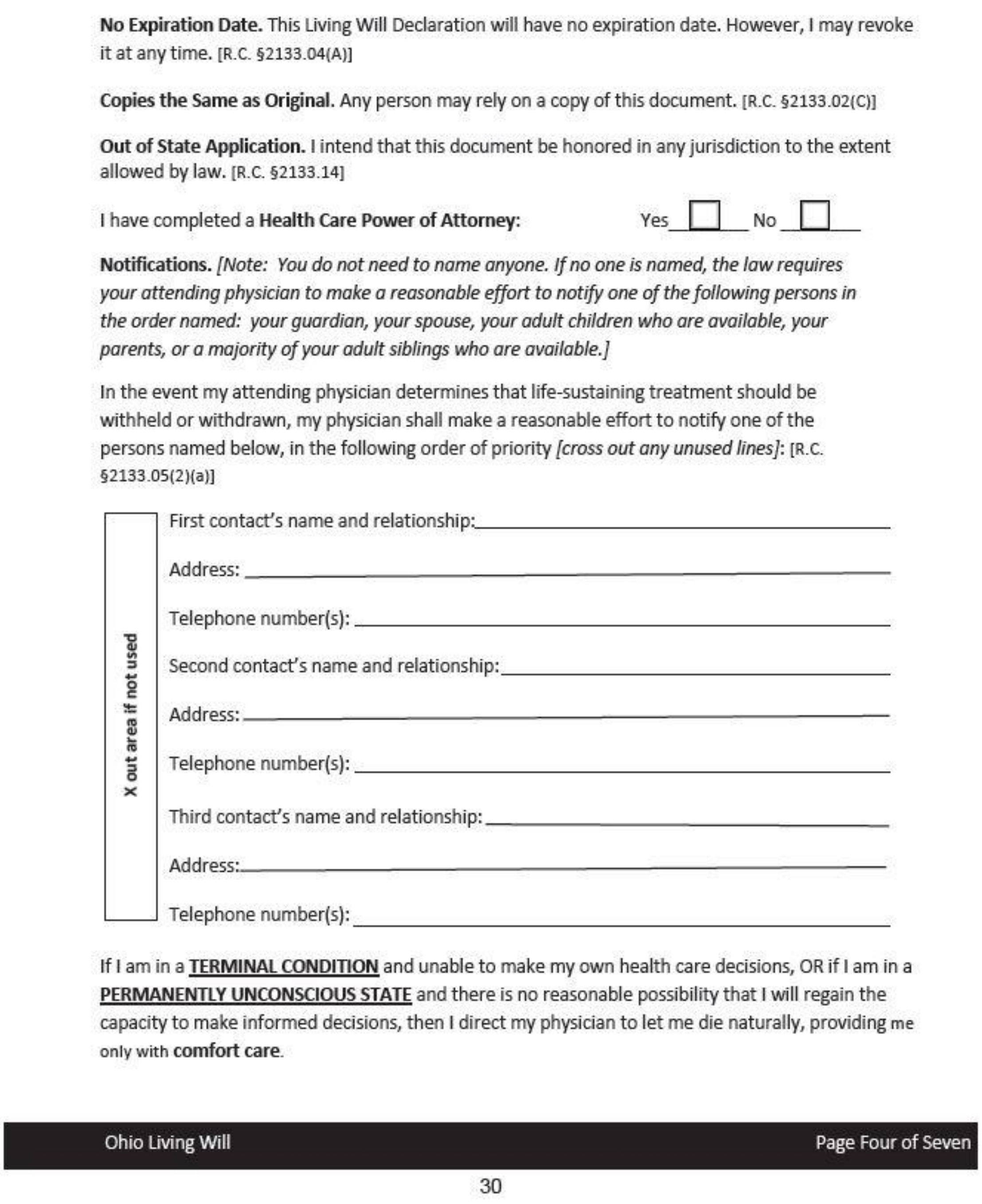
Living Will Declaration means a legal document that lets a competent adult ("declarant") specify what health care the declarant wants or does not want when he or she becomes terminally ill or permanently unconscious and can no longer make his or her wishes known. It is NOT and does not replace a will, which is used to appoint an executor to manage a person's estate after death.

Permanently unconscious state means an irreversible condition in which the patient is permanently unaware of himself or herself and surroundings. At least two physicians must examine the patient and agree that the patient has totally lost higher brain function and is unable to suffer or feel pain.

Principal means a competent adult who signs a Health Care Power of Attorney.

Terminal condition means an irreversible, incurable, and untreatable condition caused by disease, illness, or injury from which, to a reasonable degree of medical certainty as determined in accordance with reasonable medical standards by a declarant's attending physician and one other physician who has examined the declarant, both of the following apply: (1) there can be no recovery and (2) death is likely to occur within a relatively short time if life-sustaining treatment is not administered.

Appendix B



No Expiration Date. This Living Will Declaration will have no expiration date. However, I may revoke it at any time. [R.C. §2133.04(A)]

Copies the Same as Original. Any person may rely on a copy of this document. [R.C. §2133.02(C)]

Out of State Application. I intend that this document be honored in any jurisdiction to the extent allowed by law. [R.C. §2133.14]

I have completed a **Health Care Power of Attorney:** Yes ☐ No ☐

Notifications. *[Note: You do not need to name anyone. If no one is named, the law requires your attending physician to make a reasonable effort to notify one of the following persons in the order named: your guardian, your spouse, your adult children who are available, your parents, or a majority of your adult siblings who are available.]*

In the event my attending physician determines that life-sustaining treatment should be withheld or withdrawn, my physician shall make a reasonable effort to notify one of the persons named below, in the following order of priority *[cross out any unused lines]*: [R.C. §2133.05(2)(a)]

X out area if not used

First contact's name and relationship:______________________________

Address: ____

Telephone number(s): __________________________________

Second contact's name and relationship:____________________________

Address:____

Telephone number(s): __________________________________

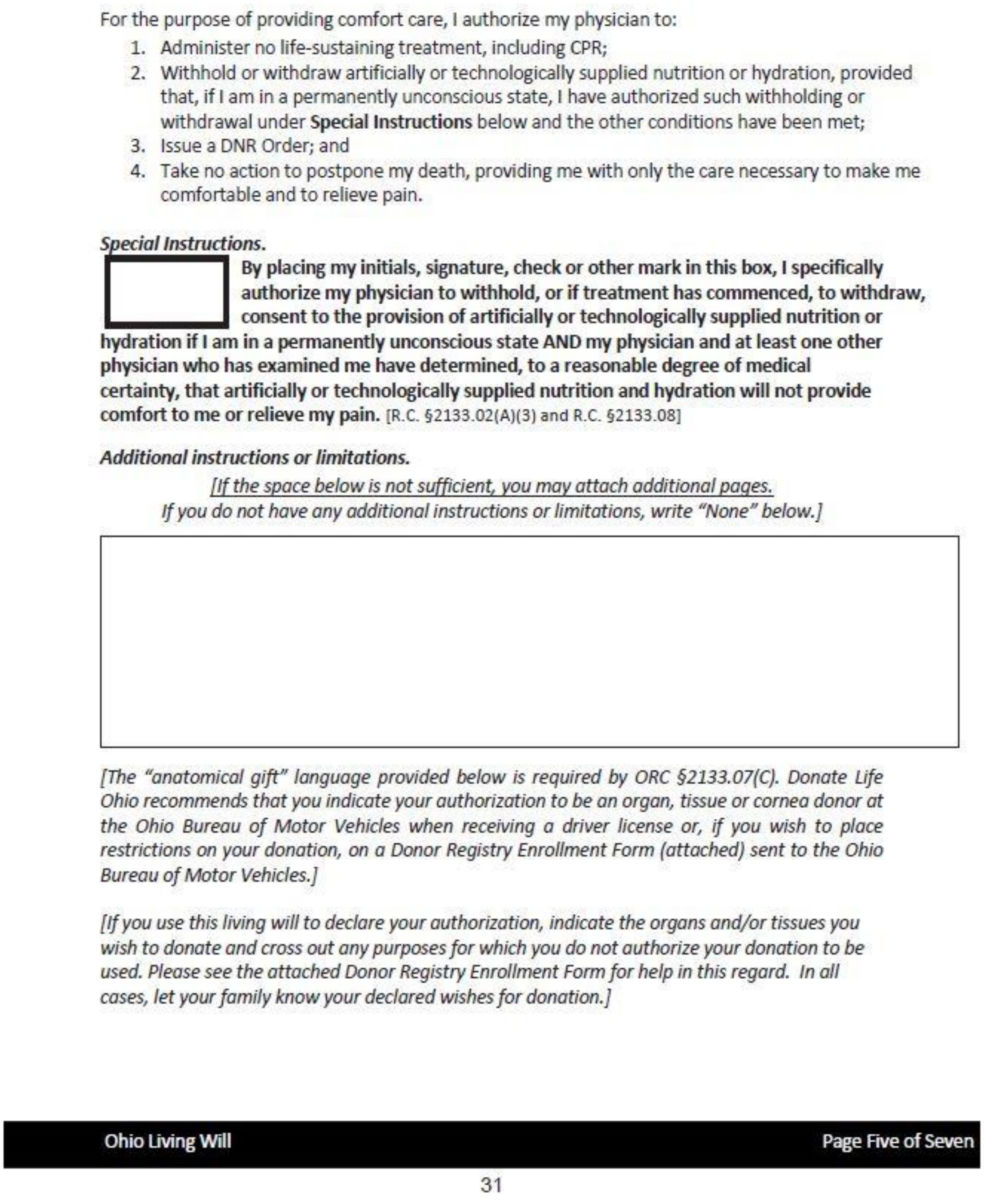
Third contact's name and relationship: ____________________________

Address:____

Telephone number(s): __________________________________

If I am in a **TERMINAL CONDITION** and unable to make my own health care decisions, OR if I am in a **PERMANENTLY UNCONSCIOUS STATE** and there is no reasonable possibility that I will regain the capacity to make informed decisions, then I direct my physician to let me die naturally, providing me only with **comfort care**.

Appendix B



For the purpose of providing comfort care, I authorize my physician to:

1. Administer no life-sustaining treatment, including CPR;
2. Withhold or withdraw artificially or technologically supplied nutrition or hydration, provided that, if I am in a permanently unconscious state, I have authorized such withholding or withdrawal under **Special Instructions** below and the other conditions have been met;
3. Issue a DNR Order; and
4. Take no action to postpone my death, providing me with only the care necessary to make me comfortable and to relieve pain.

Special Instructions.

☐ **By placing my initials, signature, check or other mark in this box, I specifically authorize my physician to withhold, or if treatment has commenced, to withdraw, consent to the provision of artificially or technologically supplied nutrition or hydration if I am in a permanently unconscious state AND my physician and at least one other physician who has examined me have determined, to a reasonable degree of medical certainty, that artificially or technologically supplied nutrition and hydration will not provide comfort to me or relieve my pain.** [R.C. §2133.02(A)(3) and R.C. §2133.08]

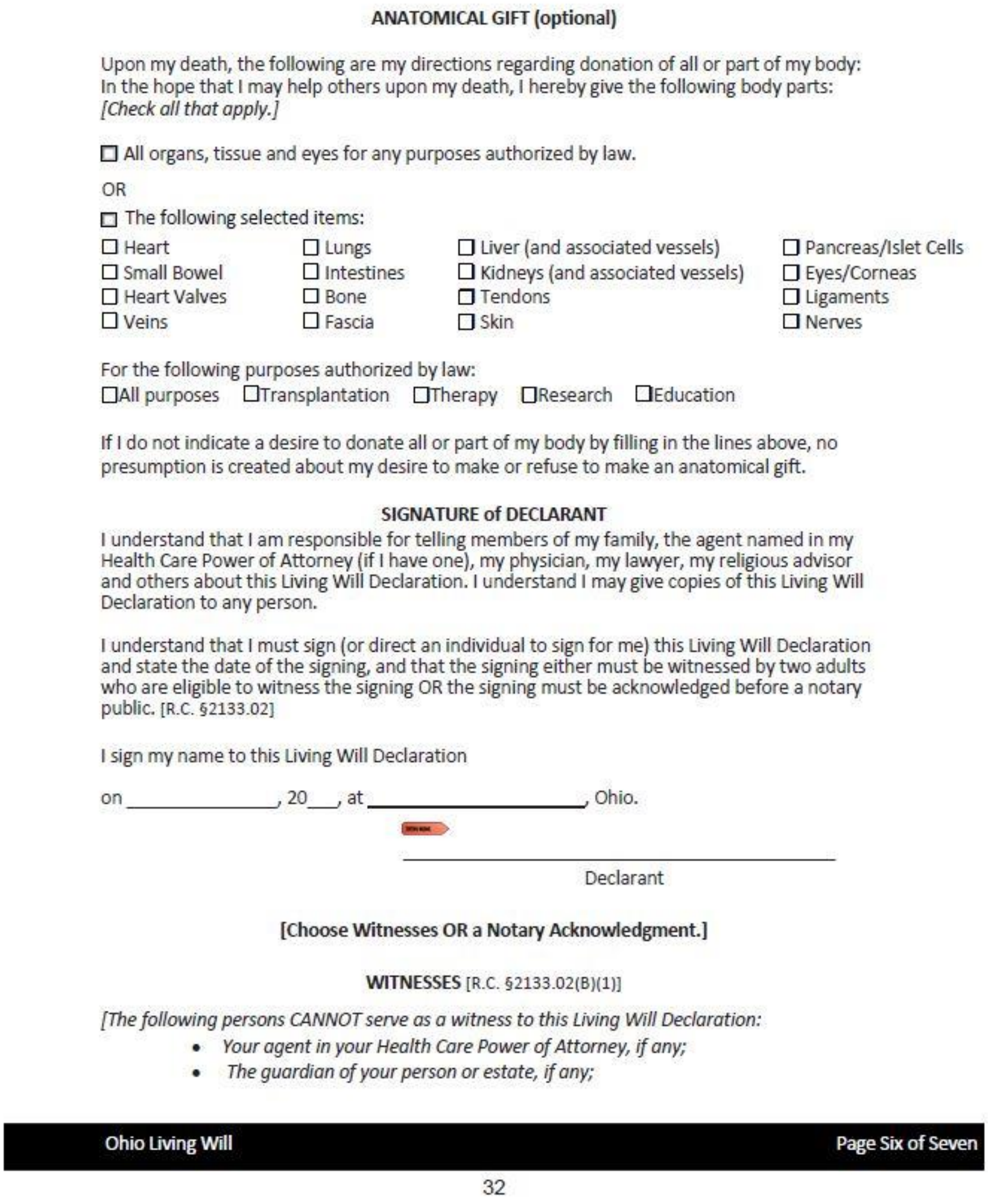
Additional instructions or limitations.

[If the space below is not sufficient, you may attach additional pages.
If you do not have any additional instructions or limitations, write "None" below.]

[The "anatomical gift" language provided below is required by ORC §2133.07(C). Donate Life Ohio recommends that you indicate your authorization to be an organ, tissue or cornea donor at the Ohio Bureau of Motor Vehicles when receiving a driver license or, if you wish to place restrictions on your donation, on a Donor Registry Enrollment Form (attached) sent to the Ohio Bureau of Motor Vehicles.]

[If you use this living will to declare your authorization, indicate the organs and/or tissues you wish to donate and cross out any purposes for which you do not authorize your donation to be used. Please see the attached Donor Registry Enrollment Form for help in this regard. In all cases, let your family know your declared wishes for donation.]

Appendix B



ANATOMICAL GIFT (optional)

Upon my death, the following are my directions regarding donation of all or part of my body: In the hope that I may help others upon my death, I hereby give the following body parts: *[Check all that apply.]*

☐ All organs, tissue and eyes for any purposes authorized by law.

OR

☐ The following selected items:

☐ Heart
☐ Small Bowel
☐ Heart Valves
☐ Veins
☐ Lungs
☐ Intestines
☐ Bone
☐ Fascia
☐ Liver (and associated vessels)
☐ Kidneys (and associated vessels)
☐ Tendons
☐ Skin
☐ Pancreas/Islet Cells
☐ Eyes/Corneas
☐ Ligaments
☐ Nerves

For the following purposes authorized by law:
☐All purposes ☐Transplantation ☐Therapy ☐Research ☐Education

If I do not indicate a desire to donate all or part of my body by filling in the lines above, no presumption is created about my desire to make or refuse to make an anatomical gift.

SIGNATURE of DECLARANT

I understand that I am responsible for telling members of my family, the agent named in my Health Care Power of Attorney (if I have one), my physician, my lawyer, my religious advisor and others about this Living Will Declaration. I understand I may give copies of this Living Will Declaration to any person.

I understand that I must sign (or direct an individual to sign for me) this Living Will Declaration and state the date of the signing, and that the signing either must be witnessed by two adults who are eligible to witness the signing OR the signing must be acknowledged before a notary public. [R.C. §2133.02]

I sign my name to this Living Will Declaration

on _______________, 20___, at ______________________, Ohio.

____
Declarant

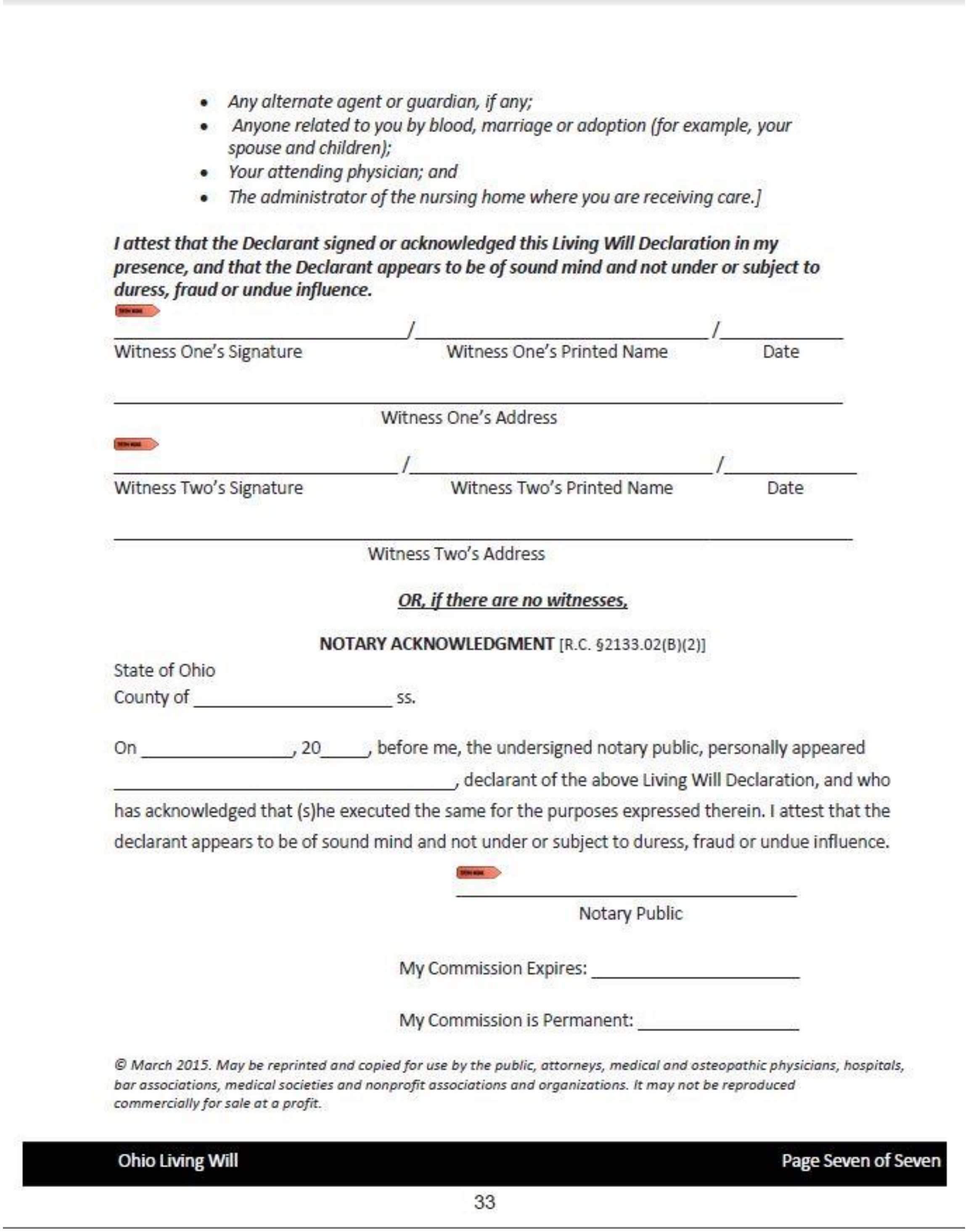
[Choose Witnesses OR a Notary Acknowledgment.]

WITNESSES [R.C. §2133.02(B)(1)]

[The following persons CANNOT serve as a witness to this Living Will Declaration:

- *Your agent in your Health Care Power of Attorney, if any;*
- *The guardian of your person or estate, if any;*

Appendix B



- *Any alternate agent or guardian, if any;*
- *Anyone related to you by blood, marriage or adoption (for example, your spouse and children);*
- *Your attending physician; and*
- *The administrator of the nursing home where you are receiving care.]*

I attest that the Declarant signed or acknowledged this Living Will Declaration in my presence, and that the Declarant appears to be of sound mind and not under or subject to duress, fraud or undue influence.

____________________________/____________________________/____________

Witness One's Signature Witness One's Printed Name Date

____

Witness One's Address

____________________________/____________________________/____________

Witness Two's Signature Witness Two's Printed Name Date

____

Witness Two's Address

OR, if there are no witnesses,

NOTARY ACKNOWLEDGMENT [R.C. §2133.02(B)(2)]

State of Ohio
County of ____________________ ss.

On _______________, 20_____, before me, the undersigned notary public, personally appeared __________________________________, declarant of the above Living Will Declaration, and who has acknowledged that (s)he executed the same for the purposes expressed therein. I attest that the declarant appears to be of sound mind and not under or subject to duress, fraud or undue influence.

____

Notary Public

My Commission Expires: ____________________

My Commission is Permanent: ________________

Appendix C

Advance Directive Pre Questionnaire

1. **Advance directive conversations should occur in the hospital, hospice, or long term setting for advanced life limiting illness.**

a. Strongly agree
b. Agree
c. Disagree
d. Strongly disagree

2. **I feel I have adequate knowledge of the components required for advance directive discussions.**
a. Strongly agree
b. Agree
c. Disagree
d. Strongly disagree

3. **A patient must be suffering from a life limiting illness to be eligible for advance care planning.**
a. True
b. False

4. **I believe advance directives are an important component of providing total care for patients.**
a. Strongly agree
b. Agree
c. Disagree
d. Strongly disagree

5. **I currently ask patients if they have advance directives during the following visit types. (select all that apply)**
a. Medicare wellness visits
b. Acute illness visits
c. Hospital follow up visits
d. I do not routinely ask

6. **Advance directive planning and documents should be reviewed annually**
a. True
b. False

7. **I feel comfortable in discussing advance directives with patients and families.**
a. Strongly agree
b. Agree

c. Disagree
d. Strongly disagree

8. **Advance directive planning is covered by Medicare in the following visit types (Select all that apply)**

a. Medicare wellness visits
b. Acute illness visits
c. Hospital follow up visits
d. Any office visits in which advance directives are discussed for at least 30 minutes

9. **Documentation requirements to bill for advance directive planning include: (select all that apply)**

a. An account of the discussion including the voluntary nature of the encounter
b. Explanation of the forms (and completion of forms when performed)
c. Who was present for the discussion, including providers, staff, patient, families, and surrogate decision makers
d. Time spent in the face to face encounter

10. **When can patients who have been diagnosed with dementia complete advance directives? (select all that apply)**

a. Advance directives cannot be completed by the patient at any point after a dementia diagnosis
b. Preparation of advance directive should occur early in the disease process
c. Ideally preparation of advance directives should occur on in early adulthood on all individuals, regardless of health
d. If a patient has the capacity to understand the discussion and express their wishes, advance directives can be documented

11. **Additional questions or comments regarding advance directives and advance care planning.**

Appendix D

Advance Directive Post Questionnaire

1. **Advance directive conversations should occur in the hospital, hospice, or long term setting for advanced life limiting illness.**

a. Strongly agree
b. Agree
c. Disagree
d. Strongly disagree

2. **I feel I have adequate knowledge of the components required for advance directive discussions.**
a. Strongly agree
b. Agree
c. Disagree
d. Strongly disagree

3. **A patient must be suffering from a life limiting illness to be eligible for advance care planning.**
a. True
b. False

4. **I believe advance directives are an important component of providing total care for patients.**
a. Strongly agree
b. Agree
c. Disagree
d. Strongly disagree

5. **I currently ask patients if they have advance directives during the following visit types. (select all that apply).**
a. Medicare wellness visits
b. Acute illness visits
c. Hospital follow up visits
d. I do not routinely ask

6. **Advance directive planning and documents should be reviewed annually**
a. True
b. False

7. **I feel comfortable in discussing advance directives with patients and families.**
a. Strongly agree
b. Agree

c. Disagree
d. Strongly disagree

8. **Advance directive planning is covered by Medicare in the following visit types (Select all that apply)**
a. Medicare wellness visits
b. Acute illness visits
c. Hospital follow up visits
d. Any office visits in which advance directives are discussed for at least 30 minutes

9. **Documentation requirements to bill for advance directive planning include: (select all that apply)**
a. An account of the discussion including the voluntary nature of the encounter
b. Explanation of the forms (and completion of forms when performed)
c. Who was present for the discussion, including providers, staff, patient, families, and surrogate decision makers
d. Time spent in the face to face encounter

10. **When can patients who have been diagnosed with dementia complete advance directives? (select all that apply)**
a. Advance directives cannot be completed by the patient at any point after a dementia diagnosis
b. Preparation of advance directive should occur early in the disease process
c. Ideally preparation of advance directives should occur on in early adulthood on all individuals, regardless of health
d. If a patient has the capacity to understand the discussion and express their wishes, advance directives can be documented

11. **Additional questions or comments regarding advance directives and advance care planning.**

Appendix E

Advance Directive Staff Education Learning Objectives

Upon completion of the training the learner will be able to:

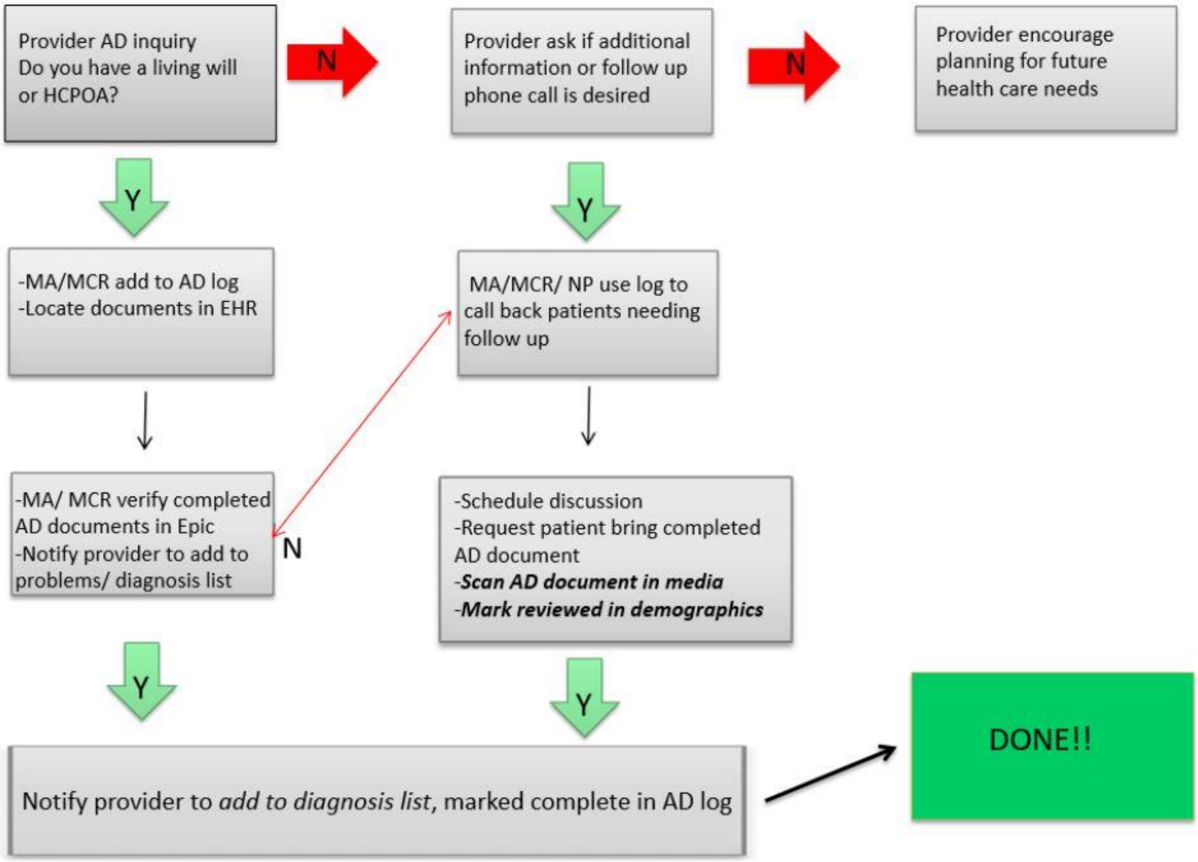
1. Identify current literature and health care organization's that support and recommend AD
2. Recall the office work flow and process for AD at the project site
3. Identify the patient education materials available
4. Recognize the supportive tools for implementation including quick reference guides for completing AD, Epic documentation, and billing

Training Outline

1. Brief overview of literature evidence and health care organization's support and recommendations for AD
2. Explanation of the office work flow and process
    a. Providers inquiring about AD on patients 65 and older at wellness/ physical and other appropriate appointments
    b. Patient who require follow up are added to the office AD call back log
    c. MA/ MCR call patients to inquire what follow is needed
        i. Request AD documents be brought in
        ii. Schedule appointment with the Nurse Practitioner if further discussion is desired
        iii. Email, mail, or provide documents or patient education materials as requested by patients
        iv. Scan record in media, notify provider to add to diagnosis list
    d. Provider add to diagnosis/ problem list in Epic
3. Introduction to the available patient education materials
4. Demonstration on how to complete the Ohio Living Will and Health Care Power of Attorney document with quick reference guide tool
5. Demonstration on how to record AD and scan documents appropriately in Epic with quick reference guide
6. Discuss required documentation elements for billing and appropriate billing codes with quick reference tool

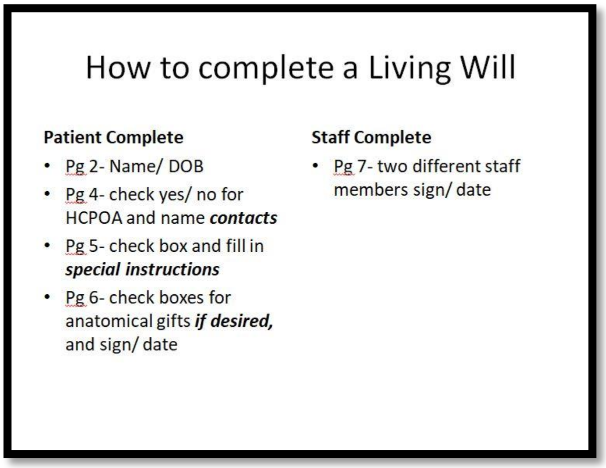
Appendix F

Office Workflow Diagram for DNP Project



Appendix G

Provider Quick Reference Guides



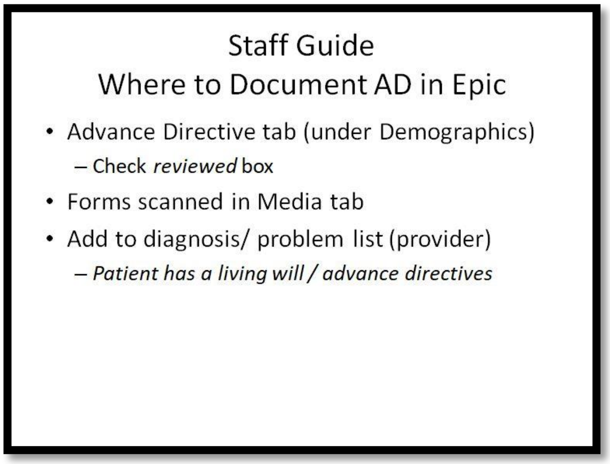
How to complete a Living Will

Patient Complete

- Pg 2- Name/ DOB
- Pg 4- check yes/ no for HCPOA and name ***contacts***
- Pg 5- check box and fill in ***special instructions***
- Pg 6- check boxes for anatomical gifts ***if desired,*** and sign/ date

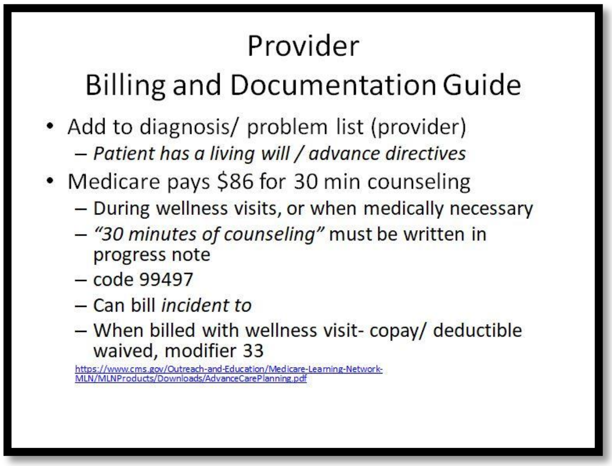
Staff Complete

- Pg 7- two different staff members sign/ date



Staff Guide
Where to Document AD in Epic

- Advance Directive tab (under Demographics)
  - Check *reviewed* box
- Forms scanned in Media tab
- Add to diagnosis/ problem list (provider)
  - *Patient has a living will / advance directives*



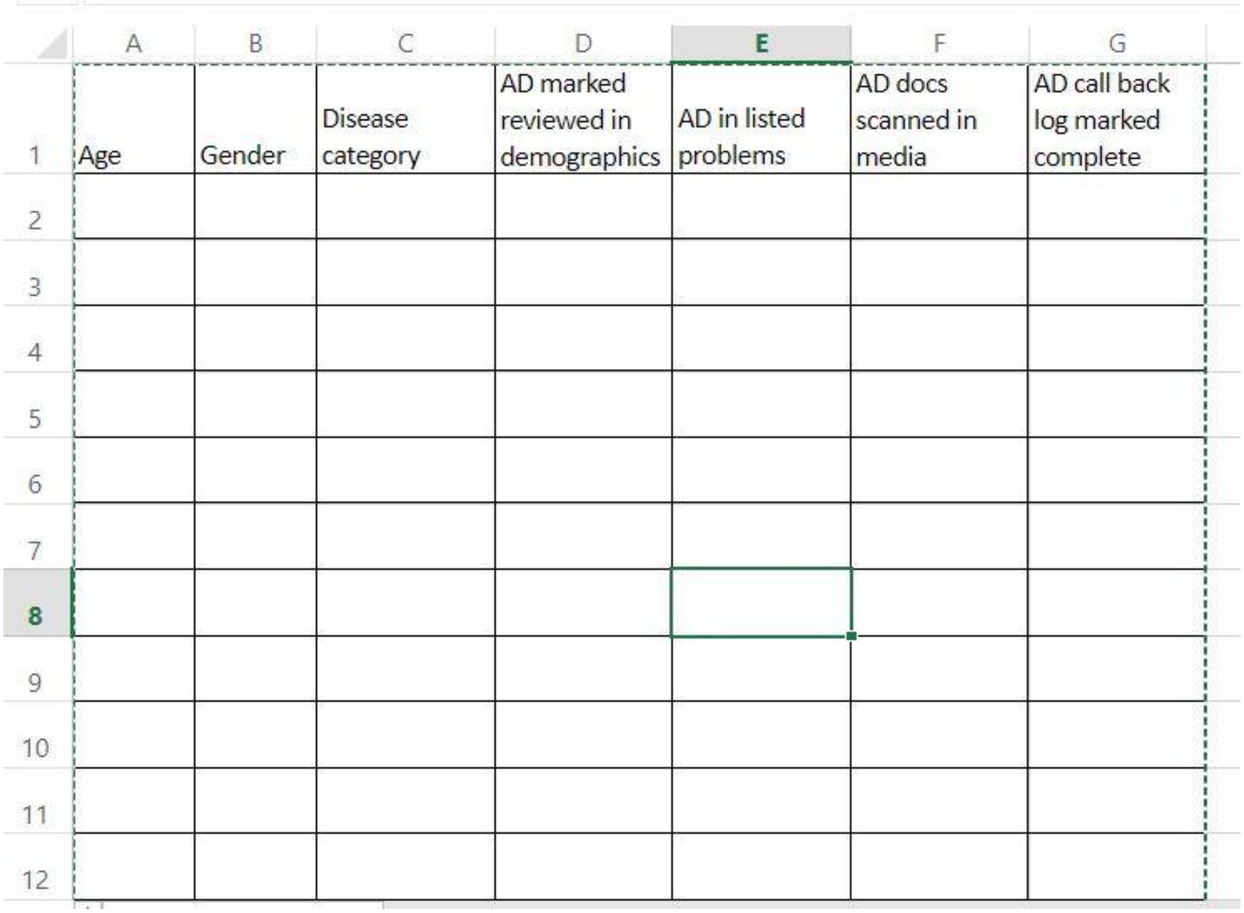
Provider
Billing and Documentation Guide

- Add to diagnosis/ problem list (provider)
  - *Patient has a living will / advance directives*
- Medicare pays $86 for 30 min counseling
  - During wellness visits, or when medically necessary
  - *"30 minutes of counseling"* must be written in progress note
  - code 99497
  - Can bill *incident to*
  - When billed with wellness visit- copay/ deductible waived, modifier 33

https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/AdvanceCarePlanning.pdf

Appendix H

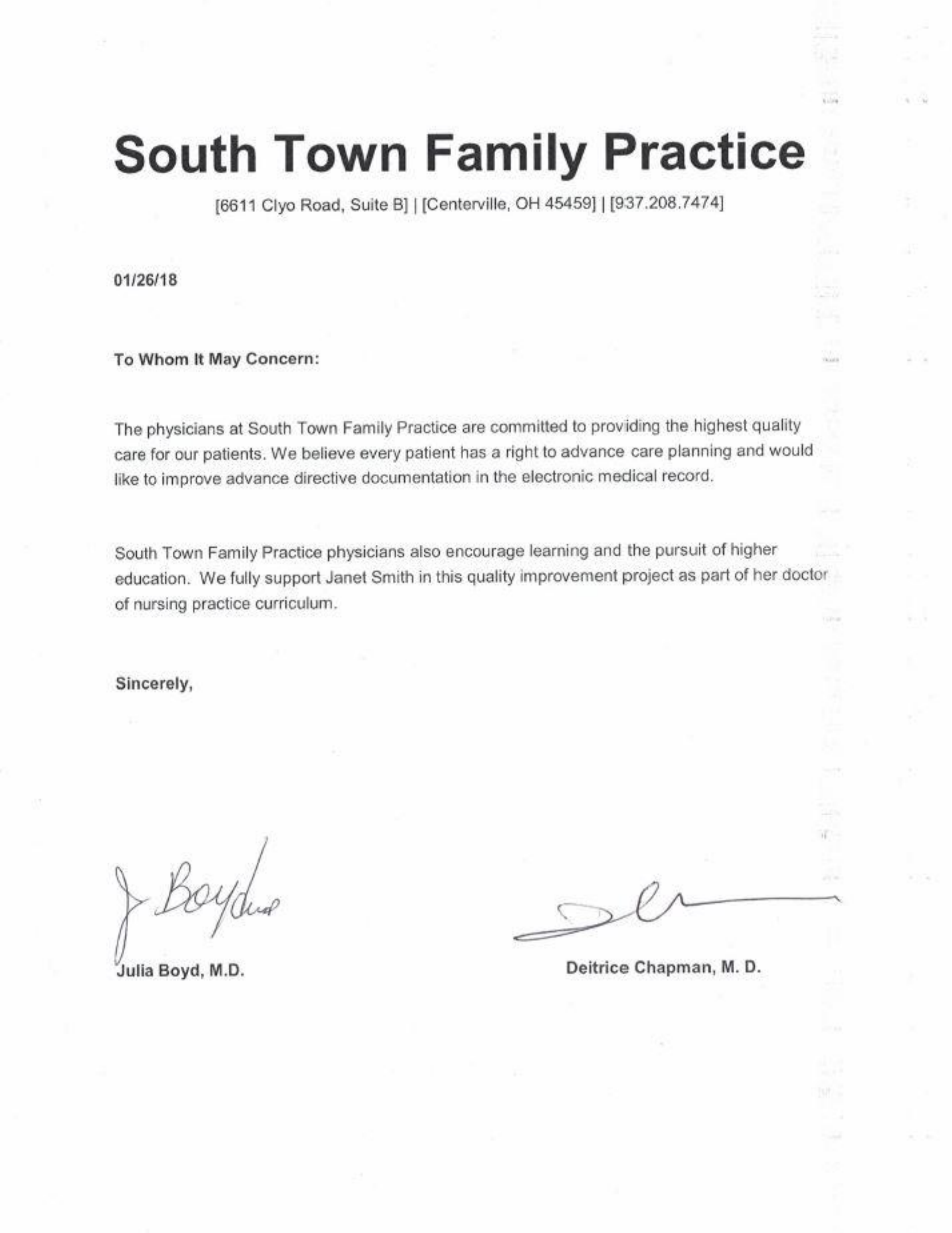
Data Collection Tool for DNP Project



	A	B	C	D	E	F	G
1	Age	Gender	Disease category	AD marked reviewed in demographics	AD in listed problems	AD docs scanned in media	AD call back log marked complete
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

Appendix I

Physician's Letter of Support for DNP Project



South Town Family Practice

[6611 Clyo Road, Suite B] | [Centerville, OH 45459] | [937.208.7474]

01/26/18

To Whom It May Concern:

The physicians at South Town Family Practice are committed to providing the highest quality care for our patients. We believe every patient has a right to advance care planning and would like to improve advance directive documentation in the electronic medical record.

South Town Family Practice physicians also encourage learning and the pursuit of higher education. We fully support Janet Smith in this quality improvement project as part of her doctor of nursing practice curriculum.

Sincerely,

J Boyd

Julia Boyd, M.D.

Deitrice Chapman, M. D.

Appendix J

Staff Participation and Waiver of Consent Letter

Dear Participant:

You are being invited to participate in a quality improvement project by completing a questionnaire about primary care office staff perceptions of advance care planning and advance directives. The essential need to improve end of life care was identified by the Institute of Medicine in the 2014 report, *Dying in America*. This report encouraged health care providers to engage in patient-centered advance care planning (ACP) conversations and provide opportunities for the completion of advance directives (AD) to facilitate improved end of life care (IOM, 2014). Your participation in this quality improvement project may benefit you and your colleagues by enhancing your knowledge of advance care planning and advance directives.

There are minimal risks of minor discomfort based on the content of the questionnaire that ask you about your perceptions of end of life care, advance care planning, and advance directives. Taking part in this quality improvement project is voluntary. You may choose not to answer any question(s) on the questionnaire that make you feel uncomfortable. You may withdraw from the quality improvement protocol at any time. By choosing not to take part in the quality improvement project, stopping the project at any time, or not answering all the questions, will not cause a loss of any employment benefits such as job status, salary, or promotion. Results of the project will be reported in a summary format, therefore; your identity will remain anonymous. By completing this questionnaire, you agree to take part in this project. Questionnaire data cannot be linked to you as an individual because no signature is required.

Individuals from the Institutional Review Board (IRB), Office of Research and Sponsored Programs and other regulatory agencies may inspect these records. In all other respects, however, the data will be held in confidence to the extent permitted by law. Should the data be published, your identity will not be disclosed, because you are not submitting your name with the questionnaire.
If you have any questions, concerns, or complaints about the quality improvement project, please contact: Janet Smith (937)790-0931.

If you have any questions about your rights as a quality improvement project participant, you may call the Wright State IRB Office at (937) 775-4462. You can discuss any questions about your rights as a quality improvement project participant with a member of the IRB or staff. The IRB is an independent committee made up of people from the University community, staff of the institutions, as well as people from the community not connected with these institutions. The IRB has reviewed this quality improvement project.

Sincerely,

Janet Smith, MSN, APRN, FNP-BC

Appendix K

Table 1

Composite Comprehension Scores Pre and Post Questionnaire

		Mean	N	Std. Deviation	Std. Error Mean
Comprehension Scores	Pre- Questionnaire	36.67	6	8.165	3.333
	Post-Questionnaire	86.67	6	16.330	6.667

Table 2

Composite Staff Opinion Scores Pre and Post Questionnaire

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Perceived Knowledge	Pre - Post	.833	1.722	.703	-.974	2.641	1.185	5	.289
Routinely Inquire	Pre- Post	.667	1.966	.803	-1.397	2.730	.830	5	.444
Comfort in Discussing	Pre - Post	-.500	2.258	.922	-2.870	1.870	-.542	5	.611

Table 3

Diagnosis Code Used for ACP Discussion Visit

		Frequency	Percent	Valid Percent	Cumulative Percent
Diagnosis Code Category	Cardiac Disease	5	9.8	9.8	9.8
	Pulmonary Disease	2	3.9	3.9	13.7
	Cancer	0	0	0	13.7
	Wellness/ Physical	29	56.9	56.9	70.6
	Other Diseases	15	29.4	29.4	100.0
	Total	51	100.0	100.0	

Table 4

Date AD Scanned in Medical Record

		Frequency	Percent	Valid Percent	Cumulative Percent
Date AD Documents Scanned	NA/ No documents	37	72.5	72.5	72.5
	Prior to Project	3	5.9	5.9	78.4
	After Project	11	21.6	21.6	100.0
	Total	51	100.0	100.0	