Implementation of Advance Care Planning Discussions and Completion of Advance

Directives

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Abstract

Problem: In the Heart Failure Clinic of a tertiary care, academic institution, the advanced directive (AD) completion rate is marginal and the documentation surrounding advance care planning (ACP) discussion is suboptimal. A retrospective chart review between September and November 2020 revealed a 15% AD completion rate with no documentation of ACP discussions. The impact of not having an AD on record potentiates misalignment of the patient's future goals and wishes, in addition to unnecessary life-sustaining measures utilized, and prolonged hospitalizations.

Purpose: The purpose of this quality improvement (QI) project was to implement and monitor the effectiveness of a multistage approach to documenting ACP discussions and completing ADs.

Methods: This QI project took place in an ambulatory heart failure clinic from September 2021 - December 2021. The individuals involved in carrying out this QI project included a multidisciplinary team impacting nearly 200 patients during the implementation phase. The stakeholders instituted evidence-based structure and workflow changes to attain the goals of this project, including integration of an ACP discussion and end-of-life goals documented via the utilization of smart phrases within the electronic health record (EHR). An inpatient heart failure census was audited daily for patient enrollment. Smart phrase utilization reports were extracted weekly from the EHR while ADs were manually totaled on a weekly basis from the EHR.

Results: This project yielded a 95% (177/187) consistent trend in documentation of ACP conversations. Initial shifts were noted in the documentation of patient goal alignment totaling

73% (136/187). A total of 18% (34/187) of ADs were completed which was an increase of 3%

in comparison to the preceding year.

Conclusion: The aim of this project was to enhance clinical practice at a heart failure clinic

related to standardizing ACP discussions to increase AD completion rates. Future implications

include assessment of literacy levels and comprehension of ADs. Translating this evidence into

practice was reasonable, yet limitations include episodic care provided post-discharge in this care

transition clinic, highlighting the need to engage with community primary care providers (PCP)

to further address this practice gap.

Implementation of Advance Care Planning Discussions and Completion of Advance Directives

The Centers for Disease Control and Prevention (CDC) cite approximately 6.2 million

adults in the United States have heart failure (HF) (CDC, 2020). In 2017, the American Heart

Association (AHA) identified 9.4% of deaths attributable to HF while estimated costs to the

nation yielded $30.7 billion in 2012, which encompasses cost of health care services, medicines

for HF treatment, and missed days of work (CDC, 2020). In an ambulatory Heart Failure Clinic

of a tertiary care, large academic institution, the AD completion rate was marginal and there was

suboptimal documentation surrounding ACP in the medical record. A retrospective chart review

over 12 consecutive weeks between September and November 2020 revealed a 15% AD

completion rate with no documentation of ACP discussions. The impact of not having an AD

potentiates misalignment of the patient's future goals in addition to unnecessary life-sustaining

measures, prolonged hospitalizations, and unintended healthcare costs.

Running head: ADVANCE CARE PLANNING DISCUSSIONS AND ADVANCE DIRECTIVES

Understanding that men are more likely be hospitalized for heart disease, and women are more likely to be admitted for HF, this QI project addresses vulnerable populations given the death rate from acute coronary syndrome is 30% higher among African Americans than in non-Hispanic whites (Graham, 2015). An initial intake titled General Care Management Assessment was conducted which included inquiries related to socioeconomic status and or environmental challenges. Responses to these questions trigger the need for the appropriate referral to social work.

Current state of clinical practice reveals an absence of process surrounding completion of ADs in addition to the paucity of documented ACP conversations (Appendix A). A formal policy existed where patients are informed of the right to make an AD. The purpose of this QI project was to implement and evaluate the effectiveness of a multistage approach to discussing and completing ADs among the adult heart failure population while the goal was to engage patients in ACP conversation and increase AD rates.

Literature Review

Renowned public health agencies coupled with systematic reviews utilizing randomized control trials (RCT), comprehensive literature reviews, and expert consensus pathways developed by a reputable Task Force all endorse the use of patient decision aids and ACP discussions to assist in completion of ADs. The American College of Cardiology 2017 ACC Pathway for Optimization of Heart Failure advocates for the use of patient decision aids and ACP discussions to aid in completion of ADs (Yancy et al., 2018). These strategies are also supported by Stacey et al. (2017) and Barnes et al. (2012) who additionally indicate that ACP discussions should focus on tailoring the goals of care to the individual, and clinicians should be

responsive to the emotional content while utilizing decision aids. To supplement ACP conversations and decision aid application, Barnes et al. (2012) included an important concept surrounding the need to incorporate education in addition to written documentation related to the patient's understanding of ACP and ADs.

Studies of RCTs comparing usual and traditional care against an assortment of decision forums and aids allowed individuals to consider themselves better informed and capable to take an active stance in their decision-making capabilities (Stacey et al., 2017). Additionally, the evidence unveiled from Weathers et al. (2016) highlighted the widespread advantages of ACP interventions to facilitate the completion of ADs while simultaneously impacting patients, families, and healthcare professionals from an overall satisfactory standpoint and end-of-life care choices.

Specifically, within the heart failure population, Doorenbos et al. (2016) underscored the notion of improving communication surrounding ACP between the patient and provider to be beneficial in establishing goals-of-care (GoC) and patient-centered outcomes. Patient-centered GoCs are embedded into the intervention portion of the provider and patient engagement and documented in the EHR during the patient's follow-up clinic visit. The 2017 ACC/AHA/Heart Failure Society of America (HFSA) heart failure (HF) guidelines corroborated Doorenbos et al. (2016) strong findings and are in support of employing ACP discussions, particularly within the palliative care population and furthermore identified multiple evidence-based therapies to engage in ACP.

The Evidence Review Table (Table 1) and Nursing Synthesis Table (Table 2) provide detailed information in relation to the level of evidence and quality aspect supporting the development and implementation of this QI project.

Theoretical Framework

The middle range theory selected for this DNP project was Imogene King's Goal Attainment Theory, which accepts human beings as the focus of nursing. The primary cornerstones of this theory include interaction, transaction, and perception which augment nursing assessments and explore appropriate interventions (Khowaja, 2006). King's Goal Attainment Theory reinforced the nursing profession to promote, retain, and restore health; care for the sick and injured; and acknowledge and address the care of the dying (Khowaja, 2006). The applicability of King's Theory of Goal Attainment in relation to ACP was to emphasize the necessity and purpose of informed decision making (Figure 1). Standardizing ACP discussions contribute to patient's comprehension of their health status while increasing the likelihood of completing an AD (Goodwin et al., 2002).

The organizational framework of innovation utilized by Helfrich et al. (2007) underscores two constructs including the presence of an innovation champion and the appropriate correspondence between the innovation champion and the values of the innovation users (Figure 1). The objective of applying this framework was to reinforce the need and purpose surrounding ACP as a routine standard within healthcare (Figure 2). Goodwin and colleagues (2002) emphasized that both nurses and nurse practitioners can facilitate this process. Integrating this model into practice produced mutual goal attainment and demonstrated informed decision-making between the patient and healthcare team.

Methods

The patient population affected by the practice change included the adult heart failure patient who was hospitalized and referred for follow-up in the ambulatory heart failure clinic post-discharge. The staff population involved in this practice change included Transitional Care Coordinator (TCC) Registered Nurses (RN); Community Health Workers (CHW); Social Workers (SW); and HF Nurse Practitioners (NP). These individuals evaluated and managed approximately 20-30 patients per week of those directly assessed. This clinic purposefully sought out heart failure patients at high risk of readmission during the transition phase between hospitalization to community-based care.

Some of the vulnerable population demographics served by this clinic included those with low health literacy levels, support, and individuals of a lower socioeconomic status. To ensure the most vulnerable populations received this project improvement intervention, an initial intake titled General Care Management Assessment was conducted by the TCC RN which addresses literacy challenges, financial obstacles, and any barriers to healthcare access. If any of these questions were marked for follow-up, the appropriate referrals to social work and or case management were made to intervene.

This multipronged intervention included an initial encounter by the TCC RN to engage and evaluate the HF patient for Transitional Care Coordination Program suitability. Additionally, the TCC RN held and documented the ACP conversation via the use of the smart phrase in the EHR (Figure 7). The TCC RN also provided the patient with a Maryland AD as needed. Upon discharge, the patient was closely followed by the TCC RN, CHW and SW team prior to the clinic appointment via telephonic communication. During the post-hospitalization

discharge clinic visit, the heart failure NP evaluated the plan-of-care (POC) and documented

whether it was congruent with the patient's goals (Figure 8).

Measures used to track implementation progress included monitoring and auditing the

utilization of smart phrases via an electronic report generated by the EHR and manually tracking

the number of completed ADs. These electronic reports revealed the utilization of smart phrases

related to ACPs and POC goals, in addition to weekly chart audits for completion of ADs.

Strategies used for this DNP QI project included initial and ongoing education among the

entire multi-disciplinary team via face-to-face, virtual online sessions, and e-mail. These

encounters were followed up as needed with individuals to ensure full understanding of this QI

project goals. Appointment a TCC RN project champion to oversee these processes, initiate

implementation, and maintain the appropriate ACP documentation was key in confirming the

success and momentum of this QI project. Patient feedback was solicited and aided in gauging

levels of understanding. Lastly, the change in EHR included the adoption of a smart phrase that

was used to assist in streamlining content related to ACP conversations as well as efficiently

capturing quantifiable results.

Results

The key principle of this QI project was to implement and monitor the value of a

multipronged approach to documenting ACP discussions and completing out ADs among the

adult HF population. Outcome data collected related to this practice change encompassed

utilization of smart phrases in the EHR as well as the number of ADs completed. The structure

in which this QI DNP project took place is within a large academic, tertiary care organization

providing ambulatory clinic services to HF patients. Beginning January 2021, the structure was

evaluated and assessed specifically to analyze the workflow; examine the AD policy; and

identify key players associated with overseeing these process changes. The lack of documented

ACP conversations and nominal AD completion rates were noted as a deficit. A formal policy

was in place to ensure patients are informed of the right to make an AD. This policy traverses

throughout the entire organization. Conversely, it is important to note that this policy does not

mandate these critical ACP conversations be documented in the EHR. Structural measures

included the training behind using the electronic smart phrases and focused on whether

employees received the necessary and appropriate education, which was 100% of team members

involved (Figure 3).

Process measures required the staff implement modifications to the workflow. Nursing

embraced the utilization of an ACP smart phrase in the EHR during the General Care

Management Assessment prior to the patient being discharged from the hospital (Figure 7). The

HF clinic providers were required to document a separate smart phrase identifying the patient's

goals matched the POC developed (Figure 8). Process measures concentrated on employee's

actual utilization of these smart phrases which revealed 95% (177/87) of ACP conversations

documented in the patient's EHR (Figure 4) in addition to 73% (34/187) of HF clinic providers

documenting congruency between the POC developed and the patient's goals (Figure 5).

Observed associations of the process changes ultimately led to an AD completion rate of 18%

(34/187), which was an increase of 3% in comparison to the preceding year (Figure 6).

Of equal importance are the unintended consequences related to holding ACP

conversations. The most glaring finding this QI project unveiled was the vast misunderstandings

surrounding the use of Advanced Directive and Health Care Proxy (Living Will), Physician

Order Life Sustaining Treatment (POLST), and Do Not Resuscitate (DNR) versus Do Not

Intubate (DNI) versus Do not Hospitalize (DNH) forms and procedures. Patients were

frequently found unable to articulate what each of these meant. On a positive note, bedside

nursing and provider staff remarked on the positive aspect of having these conversations early in

the patient's disease course for the patient to better understand and ask questions about their

prognosis. Healthcare clinicians also expressed sentiments such as it is the duty and role of the

entire multidisciplinary team to educate patients and their family members, not solely on the

shoulders of social work and case management when it comes to end of life subject matter.

Furthermore, these encounters stressed the need for patients and family to better understand the

role of palliative care medicine and the definitions of what measures are taken when deciding life

choices.

Discussion

Despite a robust number of ACP conversations and POC goal congruency documented in

the EHR, AD completion rates were nominally impacted. Possible explanations for this finding

include the variable level of understanding how to complete an AD as well as significance it

holds. ACP conversations are found challenging to hold on account of the sensitive subject

matter and the necessary time it may take. A total of 220 heart failure patients were impacted by

this QI project. The concept of ACP importance of completing an AD were introduced as a

means of desensitizing, normalizing, and creating a patient-centered approach to shared decision

making about ACP and ADs. Implementation of this QI project suggests that ACP conversations

may have positively impacted the completion rate of ADs as evidenced by the 18% completion

rate in comparison to the 15% the preceding year, however, other contributing may have led to

this result. These findings are consistent with the literature in that ACP demonstrated improved

variable outcomes including increased AD rates (Kuldeep et al., 2017).

Social determinants such as healthcare literacy and limited primary support systems

appeared to have impacted the population served at this academic institution. This was

evidenced by the need for supplemental follow-up and resources from the case management and

social work domains. The observed outcomes were favorable from a documentation perspective,

yet the completion rate of ADs was marginal. This incongruous finding has many implications

limiting internal validity. The amount of time spent with each patient may have been limited;

variable time frames existed between the time ACP conversations took place and when the

patient was followed up in clinic; and lastly, not all patients referred and enrolled in the HF TCC

program made it their scheduled appointment. Discoveries include that HF may have been the

sequelae of a poorly treated primary diagnosis that was not well managed, such as pulmonary

hypertension and therefore, these patients may have been referred to an alternative specialist.

Some patients also went on to receive advance therapy evaluations for Ventricular Assistive

Device (VAD) placement and or heart transplant eligibility. These constructs emphasize and

bolster the need for having ACP conversations even more since these patients did not make it to

their follow-up appointment. Efforts to minimize these limitations include routing the

documented ACP discussions in the EHR to the new specialist or PCP in the community to

follow-up with for loop closure.

Conclusion

The purpose of instituting and standardizing ACP conversations early in identified

disease states is to assist patients with decision-making capacity to take control of their health

care decisions and guide them when questions arise. These conversations encompass critical

patient-centered elements of beneficence and non-maleficence by querying what is important for

the patient; what is it that they value; what their preferences are; and at the least assist patients to

identify someone if primary support is unavailable to update their wishes. It is strongly advised

and encouraged for healthcare clinicians to have these ACP conversations and even more

important to document these conversations in the EHR so all participating team members can

approach the patient through the same treatment lens.

Based on increased ACP conversation and POC goal congruency results, sustainability of

this QI project is planned. Efforts should continue to ensure the most vulnerable populations

receive this QI intervention where social work and or case management are appropriately

consulted to intervene and provide further education when needed. To avoid duplicative efforts,

roles and responsibilities should be identified early in the process, understanding there will be

overlap in content discussed.

The discussion surrounding ACP and AD completion are an enriching patient centric

experience. In order to ensure the sustainability of this QI project, healthcare providers and

clinicians must introspectively evaluate their own level of comfort with the subject matter before

choosing to assist patients and their families with making informed decisions that align with their

future goals of care. The documentation of a smart phrase in software databases will allow for a

simple and meaningful way to assess in the EHR if ACP discussions and ADs have been carried

out. Incorporating this initiative into onboarding materials, described by the Joint Commission

as a mandate for this dialogue to take place, will help to accentuate the importance of this QI

project.

Future opportunities include cross-pollination among organizational departments to promote the need for well documented ACP conversations in the EHR which folds into the propensity for increasing AD completion rates. Bidirectional communication with PCPs in the community should be further explored to certify all care teams have an aligned, patient-centered approach to treatment. Investigating and employing evidence-based healthcare literacy tools to assess patient's knowledge of ACP discussion and ADs is suggested, as this was an emerging theme found during this QI project. Also, future studies should consider examining healthcare cost comparatives for patients with and without ADs. As a result of holding ACPs, healthcare clinicians participating in the care of the HF patient can expect to better understand the patient's point of view related to health care decisions and treatment, as well as mitigating disparities among family members about the approach to end-of-life care.

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Tables

Table 1. University of Maryland School of Nursing Evidence Review Table

Citation: Barnes, S., Gardiner, C., Gott, M., Payne, S., Chady, B., Small, N., Seamark, D., & Halpin, D. (2012). Enhancing patient-professional communication about end-of-life issues in life-limiting conditions: a critical review of the literature. Journal of pain and symptom management, 44(6), 866–879. https://doi.org/10.1016/j.jpainsymman.2011.11.009					Level: V
Purpose/ Hypothesis	Design	Sample	Intervention	Outcomes	Results
"The overall aim of this comprehensive review of the literature was to identify existing interventions of patient-professional communication developed for life-limiting conditions and explore the applicability of interventions developed within a cancer framework to other diagnostic groups."	Literature Review 16 articles explored patient-professional communication interventions for patients with life-limiting conditions. The studies from this review used various approaches to extract data including controlled trials and qualitative methods.	Several studies a limited number of settings and/or had a small sample size, and none of the studies aimed at enhancing patient-professional communication investigated real-life encounters with patients. All the studies included small number of participants from other groups.	**Intervention**: Ranged from successful communication models such as participant-led training; using effective communication to improve patient understanding; and flexible patient-led advance care planning.	Only a small number of communication interventions have been appraised for patients with life-limiting conditions and even less are delivered in primary care settings. Findings showed that advance care planning should preferably occur over a number of meetings with a trained professional and ample time allocated to answer questions. Initiation of these conversations should be considered during a life-changing events, after new diagnosis, significant change in treatment, assessment of individuals' needs, and/or multiple hospital admissions	Advance care planning discussions should ideally focus more on the goals of care than specific treatments, and clinicians should be responsive to the emotional content. Discussions should be tailored to the individual, avoid destroying hope, and discussions with health care professionals or trained facilitators should be provided with written documentation. The interventions identified in this article represent a heterogeneous group, reporting mixed outcomes.
Citation: Doorenbos, A. Z., Levy, W. C., Curtis, J. R., & Dougherty, C. M. (2016). An Intervention to Enhance Goals-of-Care Communication Between Heart Failure Patients and Heart Failure Providers. Journal of pain and symptom management, 52(3), 353–360. https://doi.org/10.1016/j.jpainsymman.2016.03.018					Level: II

Purpose/ Hypothesis	Design	Sample	Intervention	Outcomes	Results
"To determine the effects of a goals-of-care (GoC) intervention compared to usual care on the number of GoC conversations, quality of communication between patients and providers, referrals to palliative care services and completion of advance care directives."	Randomized, two group study design (n = 40/group), testing a GoC intervention against usual care (UC). The primary outcome was number of GoC conversations between HF patients and providers during the HF clinic visit that followed the intervention. Secondary findings include a description on the effect of the intervention on quality of communication, referrals to palliative care services, completion of advance care directives, anxiety, and depression.	**Sampling Technique**: 660 Heart Failure patients screened # **Eligible**: 237 patients # **Accepted**: 99 # **Control**: 108 # **Intervention**: 80 patients were enrolled and randomly assigned **Inclusion criteria were**: 1) diagnosis of heart failure with reduced ejection fraction (HFrEF) with EF ≤40% or heart failure with preserved ejection fraction (HFpEF) with EF <50%; 2) completion of an outpatient HF visit within the past six months with a scheduled follow-up visit; and 3) ability to read, write, and speak in English. **Exclusion criteria**: 1) Short BLESSED cognitive score > 10 to rule out significant cognitive impairment;28 2) diagnosis	**Intervention**: The patient GoC intervention Included: 1) telephone-based pre-visit coaching by a nurse to review perceived barriers to communication regarding with the cardiology provider; patient preferences; completion of the Five Wishes advance directive form; 2) a one-page summary constructed from pre-visit coaching call shared with both the patient and their HF provider, along with suggestions for addressing barriers and using facilitators; and 3) patient activation, skills enhancement, and role-playing conversation openers to initiate a GoC discussion with the provider at the next upcoming HF clinic visit.	**DV**: The number of GoC conversations carried out between the patient and HF provider post intervention. Goals-of-care conversations were derived using patient self-report as well as documentation of the conversation in the EHR. Secondary measures included measuring the quality of communication, number of referrals to palliative care, and number of advance care directives completed.	**Statistical Procedures**(s): Chi-square ($\chi2$) or ttests were used to determine baseline equivalence in demographic and outcome measures. Comparisons were made by group using analysis of covariance (ANCOVA), controlling for baseline characteristics. **Primary Outcome:** The GoC intervention was associated with a statistically significant increase in GoC conversations between HF patients and providers, 58% vs. 2.6%, P<0.001. Patients identified their top barrier to having a GoC conversation as wanting to focus on staying alive rather than talk about death (82.5%). The top facilitator to having a GoC conversation was worry about quality of life in the future (75.9%). There were no statistically significant

		of terminal illness with life expectancy of ≤ 1 year not related to heart disease; 3) psychiatric illness that required hospitalization in the past year; and 4) age less than 18 years. Seattle Heart Failure Model (SHFM) scores were calculated using information from electronic health records (EHR).	The provider GoC intervention consisted of receipt of the patient activation outline that was constructed during pre-visit coaching and given to the provider on the day of the planned HF clinic visit. The provider was asked to facilitate a GoC discussion with the patient at the HF clinic visit and document this in the EHR		differences between the groups in identified barriers or facilitators to having a GoC conversation with their HF provider.
		Power Analysis: a sample size of 80 patients provided 80% power to detect the between-group difference in number of GoC conversations, - Power Analysis met, minimizing risk of Type II error.			**Secondary Outcomes:** Baseline outcome measures did not significantly differ between GoC and usual care groups. Higher quality of end of life communication reported in GoC compared to the UC group (F=5.09, P=0.03). Importantly, the significant increase in goals-of-care conversation did not result in increased anxiety or depression.
		Group Homogeneity: More men than women enrolled (61 vs 19); Demographic characteristics were comparable between the two groups; average age 58.2+ 11.3, with a mean LVEF= 30.3±9.7%, and			There were no significant differences noted between the groups on number of palliative care referrals or completion of advance directives at the conclusion of the GoC intervention; however, the study was not powered to detect these differences.

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		NYHA FC = 2.4±0.8 and SHFM score = 95.1±1.6.			

Citation: Stacey, D., Légaré, F., Lewis, K., Barry, M. J., Bennett, C. L., Eden, K. B., Holmes-Rovner, M., Llewellyn-Thomas, H., Lyddiatt, A., Thomson, R., & Trevena, L. (2017). Decision aids for people facing health treatment or screening decisions. The Cochrane database of systematic reviews, 4(4), CD001431. https://doi.org/10.1002/14651858.CD001431.pub5					Level: I
Purpose/ Hypothesis	Design	Sample	Intervention	Outcomes	Results
"This study aimed to determine formal orientation and orientation programs, compared to current APRN orientation and orientation can improve the competence and quality of APRN care for eight weeks."	Prospective study with pre and post assessments	Sampling Technique: convenience sample of six practicing APRNs Group Homogeneity: APRNs had eleven months to five years practicing as independent providers. No other identifying information	Intervention fidelity (describe the protocol): All six APRNs completed the pre-implementation assessments and four completed post-implementation assessments. The results outlined the significance of a formal onboarding practice using an evidence-based competency tool created by the Veterans Administration (VA) Center of Excellence in Primary Care Education (CoEPCE) competency tool which included a total of 69 items. Seven domains were scored: clinical competency in planning and managing care, leadership, interprofessional team collaboration, and	DV: survey scores Measurement tool (reliability), time, procedure: The CoEPCE competency tool demonstrates an evidence-based initiative with high reliability and internal consistency with a Cronbach alpha of 0.85-0.95	Statistical Procedures(s) and Results: Paired t-tests; None of the p values are less than 0.05, so there have not been any statistically significant changes at the 0.05 levels in any of the competency tool domain scores following the implementation of the nurse onboarding and orientation program.

			patient-centered care, shared decision making, and sustained relationships, and quality improvement, and population management.		

Citation: Weathers, E., O'Caoimh, R., Cornally, N., Fitzgerald, C., Kearns, T., Coffey, A., Daly, E., O'Sullivan, R., McGlade, C., & Molloy, D. W. (2016). Advance care planning: A systematic review of randomised controlled trials conducted with older adults. Maturitas, 91, 101–109. https://doi.org/10.1016/j.maturitas.2016.06.016					Level: I
Purpose/ Hypothesis	Design	Sample	Intervention	Outcomes	Results
"This systematic review examines the impact of ACP on several outcomes (including symptom management, quality of care and healthcare utilization) in older adults (>65 years) across all healthcare settings."	Systematic Review consisting of nine randomized controlled trials (RCTs), A total of 3646 older adults were included (range 72–88 years). Seven studies were conducted with community dwellers and the other two RCTs were conducted in nursing homes.	**Sampling Technique**: Literature was conducted using CINAHL and PubMed/MEDLINE. The search was conducted before January 2015. Key search words or phrases included "advance directive," "healthcare directive," or "advance care planning," "randomized controlled trial," "long term care" OR nursing home," "end-of-life" or "palliative care." **Inclusion Criteria**: Randomized controlled trial, Using an ACP intervention,	**Intervention** Advance Care Planning (ACP) interventions were variable among the studies and the majority encompassed informational aids such as verbal, written (in the form of a questionnaire), or video in nature providing information on what an ACP is and how to complete it. Overarching goal of interventions in studies were to improve the accuracy of proxy decision-making, Two studies implemented education for healthcare staff; Only one study implemented a	Three studies did not specify a primary outcome measure. ACP outcomes included three studies reporting that the intervention led to an increase in the documentation of EOL care preferences. One study yielded an increase in the rates of completion of durable powers of attorney and another study reported an increase in those completing a standardized ACD Patient and family outcomes included one study yielding an	**Outcome data retrieval**: Two independent extractors pulled the articles used for this SR. Each study used the Cochrane risk of bias criteria in addition to a five-point scoring system to assess the quality and validity of the RCTs used. **Conclusion:** due to the heterogeneity of the studies related to intervention type and outcomes assessed, drawing distinct conclusions from the interventions was difficult to synthesize. The feasibility of conducting RCTs was however noted to be

		Sample of older adults (≥65years old), Reported in English. Conducted in any setting. Nine papers were included in final analysis **Exclusion Criteria**: Four papers described a study protocol only and were excluded; Seventeen papers did not pertain to an EOL intervention (n = 1), only described the theoretical basis of the intervention (n = 1), was not an RCT (n = 1), was not specific to older adults (n = 6), was not an ACP intervention (n = 8). **PRISMA:** Included detailing criteria for retaining/omitting studies from the SR **Power analysis:** Not applicable to SR critique **Group Homogeneity**: The sample was heterogeneous, in terms of setting, types of interventions, methods and outcomes measured.	standardized ACD. Five studies involved direct discussions initiated by trained healthcare professionals.	increase in patient knowledge of ACDs and life-sustaining treatments. Only one study reported a significant reduction in hospitalization rates EOL care discussions between patients and proxies increased in a single study. Patient and family satisfaction with care increased in one study.	possible in order to evaluate the impact of ACP interventions, in older adults, with multiple outcomes in different settings. **SR Bias Risk:** The Oxford Quality Scale showed that all studies had some risk of bias across all quality criteria.

Citation: Yancy, C. W., Januzzi, J. L., Jr, Allen, L. A., Butler, J., Davis, L. L., Fonarow, G. C., Ibrahim, N. E., Jessup, M., Lindenfeld, J., Maddox, T. M., Masoudi, F. A., Motiwala, S. R., Patterson, J. H., Walsh, M. N., & Wasserman, A. (2018). 2017 ACC Expert Consensus Decision Pathway for Optimization of Heart Failure Treatment: Answers to 10 Pivotal Issues About Heart Failure With Reduced Ejection Fraction: A Report of the American College of Cardiology Task Force on Expert Consensus Decision Pathways. Journal of the American College of Cardiology, 71(2), 201–230. https://doi.org/10.1016/j.jacc.2017.11.025					Level: IV
Purpose/ Hypothesis	Design	Sample	Intervention	Outcomes	Results
"The purpose of this document is to complement the 2017 ACC/AHA/HFSA Focused Update of the 2013 ACC/AHA Guideline for the Management of Heart Failure (1) by addressing new medical therapies, prevention, and comorbidities relevant to HFrEF for which data are available."	Expert consensus where the main goal of the Task Force is to develop a clear and concise decision pathway via criteria set forth. Expert Consensus Decision Pathways (ECDPs) aim to develop policy based on expert opinion in capacities where significant clinical decisions are not sufficiently addressed by current available data.	N/A	This expert consensus decision pathway recommends the use of decision aids (support tools) with subsequent ongoing personalized and directed conversations. Of the 10 Pivotal issues in HFrEF, "How to integrate palliative care and transition to hospice care" is folded in as one of the initiatives by the Task Force.	Despite not having a cure for advanced heart failure, alternatives include a left ventricular assist device and heart transplantation for suitable candidates as options to improve quality of life. As a result, the advent of these therapies may delay the progression of the disease and prolong onboarding palliative care.	The expert consensus supports the use of decision support tools, also known as decision aids to propagate and frame options for patients with chronic disease states that can be followed up with ongoing and personalized conversations. These conversations are thought to be the most beneficial when they are shared decision-making discussions and occur on an annual basis between the patient and provider. The goal of these discussions is to help provide clarity and prognosis for patients and empower them to help align their values and beliefs with what they feel their treatment decisions should be and

					or determine the appropriate healthcare proxy as a surrogate decision maker.

Table 2. Rating System for Hierarchy of Evidence

Level of Evidence	Type of Evidence
I (1)	Evidence from systematic review, meta-analysis of randomized controlled trails (RCTs), or practice-guidelines based on systematic review of RCTs.
II (2)	Evidence obtained from well-designed RCT and/or reports of expert committees.
III (3)	Evidence obtained from well-designed controlled trials without randomization.
IV (4)	Evidence from well-designed case-control and cohort studies
V (5)	Evidence from systematic reviews of descriptive and qualitative study
VI (6)	Evidence from a single descriptive or qualitative study
VII (7)	Evidence from the opinion of authorities

Table 3. University of Maryland School of Nursing Synthesis Table

Evidence Based Practice Question (PICO): Why does the ambulatory heart failure patient population have a 15.5% advanced directive completion rate and no documentation of an Advance Care Planning (ACP) conversation in the patient's medical record (when retrospectively audited between September through November 2020)?			
Level of Evidence	**# of Studies**	**Summary of Findings**	**Overall Quality**
I	2	Stacey et al. (2017) compiled a systematic review consistent of randomized control trials comparing usual care against an array of decision settings which ultimately revealed that individuals provided with decision aids feel more knowledgeable, better informed, and have a more active stance in their decision-making capabilities.	**A**, This systematic review had clear and consistent results with adequate sample sizes including in the randomized samples. The conclusions of this review were limited by inadequate power by virtue of the differences across the clinically varied studies. The expertise was apparent in relation to the meaningful evidence supplied and the overall quality of the studies included in this review.
		Weathers et al. (2016) revealed the overall benefit of ACP interventions and their impact related patients, families, and healthcare staff, yet the results of this study revealed a clear lack of well-conducted RCTs that would better evaluate the ACP interventions.	**B**, The quality of the studies in this review were variable as evidenced by the Oxford Quality Scale scoring in addition to many of the studies demonstrating lesser levels of randomization, three studies carried out a power calculation at the design stage. Two studies had over 1,000 participants making generalizability applicable.

II	I	Doorenbos et al. (2016) found a statistically significant increase in Goals of Care (GoC) documented in the medical record post staged intervention including a phone call from nurse to review barriers and facilitators surrounding end-of-life care discussions among the heart failure population. Additionally, a higher quality of end-of-life communication reported in GoC compared to the UC group.	**B**, Adequately powered, randomized control trial which strengthens internal validity, fair sample size. Inclusion and exclusion criteria were appropriate and applicable to this population of heart failure patients. The results were consistent, and the recommendations were clear.
IV	1	Yancy, et al. (2017) Among others involved in an expert consensus panel reveal the significance behind utilization of decision aids when reviewing advance care planning and initiating palliative care among the population.	**A**, Expert consensus decision pathway incorporated concise steps in addressing multiple evidence-based therapies in order to improve adherence, address treatment barriers, and most importantly engage in conversation surrounding initiation of palliative care and advanced care planning with the use of decision aids. The framework supplied in this document included many subject matter experts with a paramount notion that "no guideline, pathway, or algorithm should ever supersede clinical judgment."
V	1	Barnes et al. (2012) provided a comprehensive review revealing that limited evidence exists surrounding the appraisal of effective communication for patients with life-limiting illnesses. Successful interventions identified include a combination of training, patient discussion, education, and written documentation.	**B**, The results from this literature review are fairly consistent, however sample sizes were small making generalizability a challenge. The recommendations suggested based off a constellation of design studies make a defined and succinct conclusion difficult to establish.

Table 4. Rating scale for quality of evidence (Newhouse)

Rating Scale for Quality of Evidence (Newhouse)		
High (A)	Scientific	Consistent results with sufficient sample size, adequate control, and definitive conclusions; consistent recommendations based on extensive literature review that includes thoughtful reference to scientific evidence
	Summative Review	Well-defined, reproducible search strategies; consistent results with sufficient numbers of well-defined studies; criteria-based evaluation of overall scientific strength and quality of included studies; definitive conclusions
	Experiential	Expertise is clearly evident
Good (B)	Scientific	Reasonably consistent results, sufficient sample size, some control, with fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence

	Summative Review	Reasonably thorough and appropriate search; reasonably consistent results with sufficient numbers of well-defined studies; evaluation of strengths and limitations of included studies; fairly definitive conclusions.
	Experiential	Expertise seems to be credible.
Low Quality (C)	Scientific	Little evidence with inconsistent results, insufficient sample size, conclusions cannot be drawn
	Summative Review	Undefined, poorly defined, or limited search strategies; insufficient evidence with inconsistent results; conclusions cannot be drawn
	Experiential	Expertise is not discernable or is dubious
Newhouse, R. (2006). Examining the source for evidence-based nursing practice. JONA.Volume 36, Number 7/8, pp 337-340		

Running head: ADVANCE CARE PLANNING DISCUSSIONS AND ADVANCE DIRECTIVES

Figures
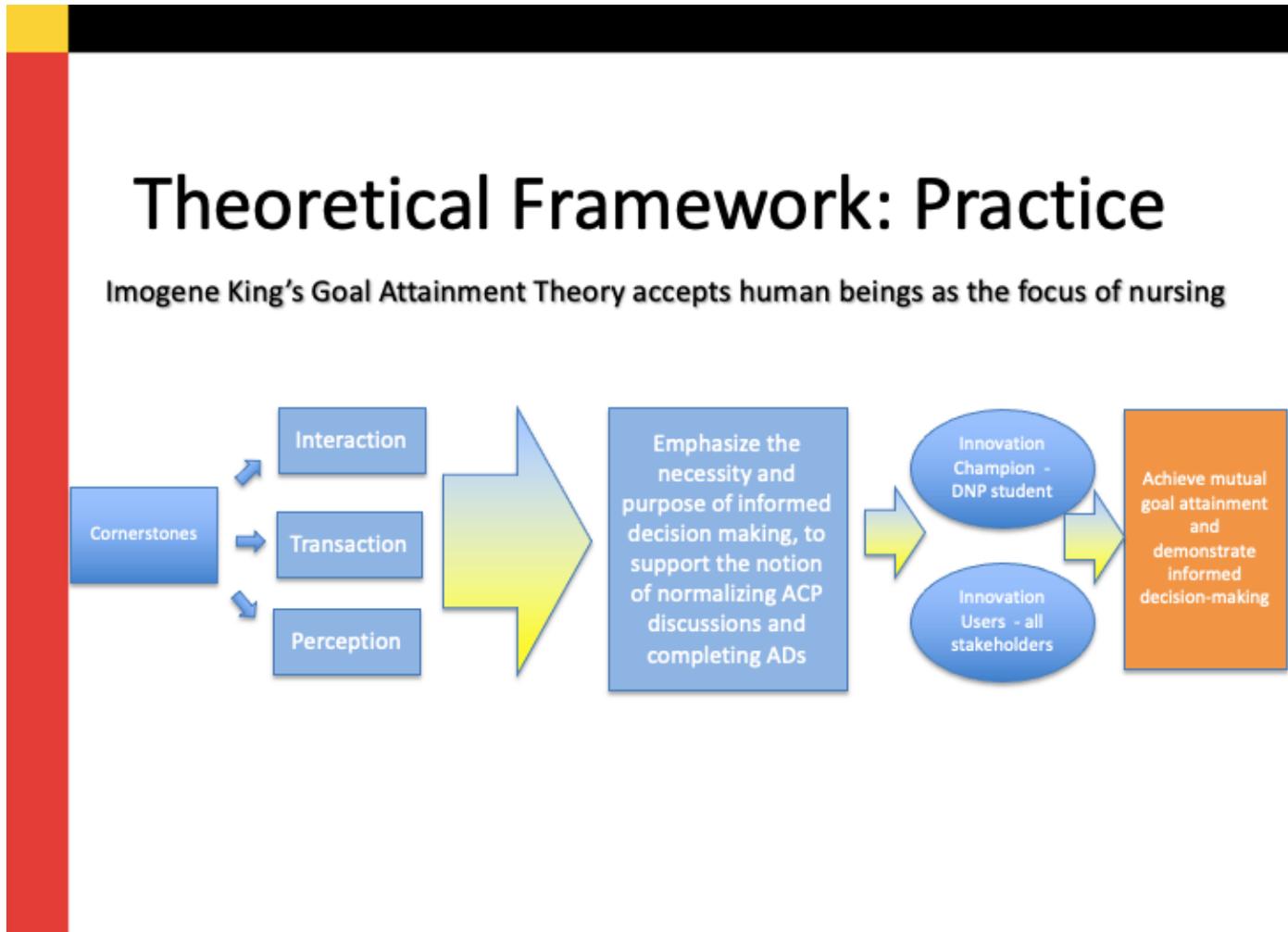
Figure 1. Theoretical framework: Practice

Figure 2. Theoretical framework: Implementation science
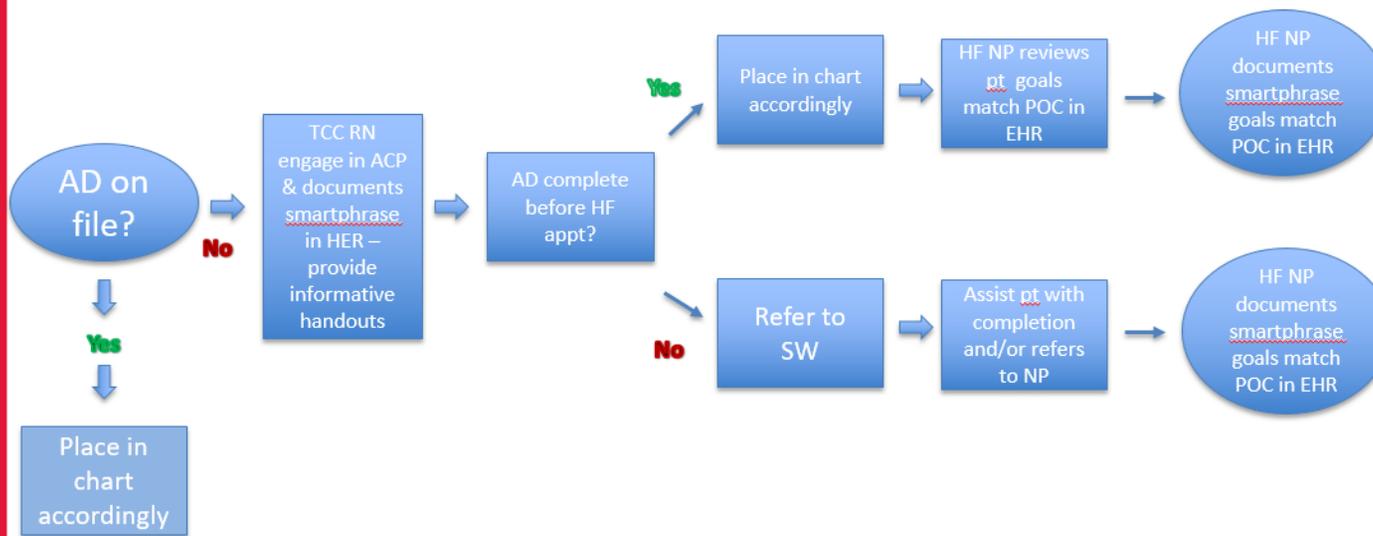
Figure 3. Percentage of staff educated

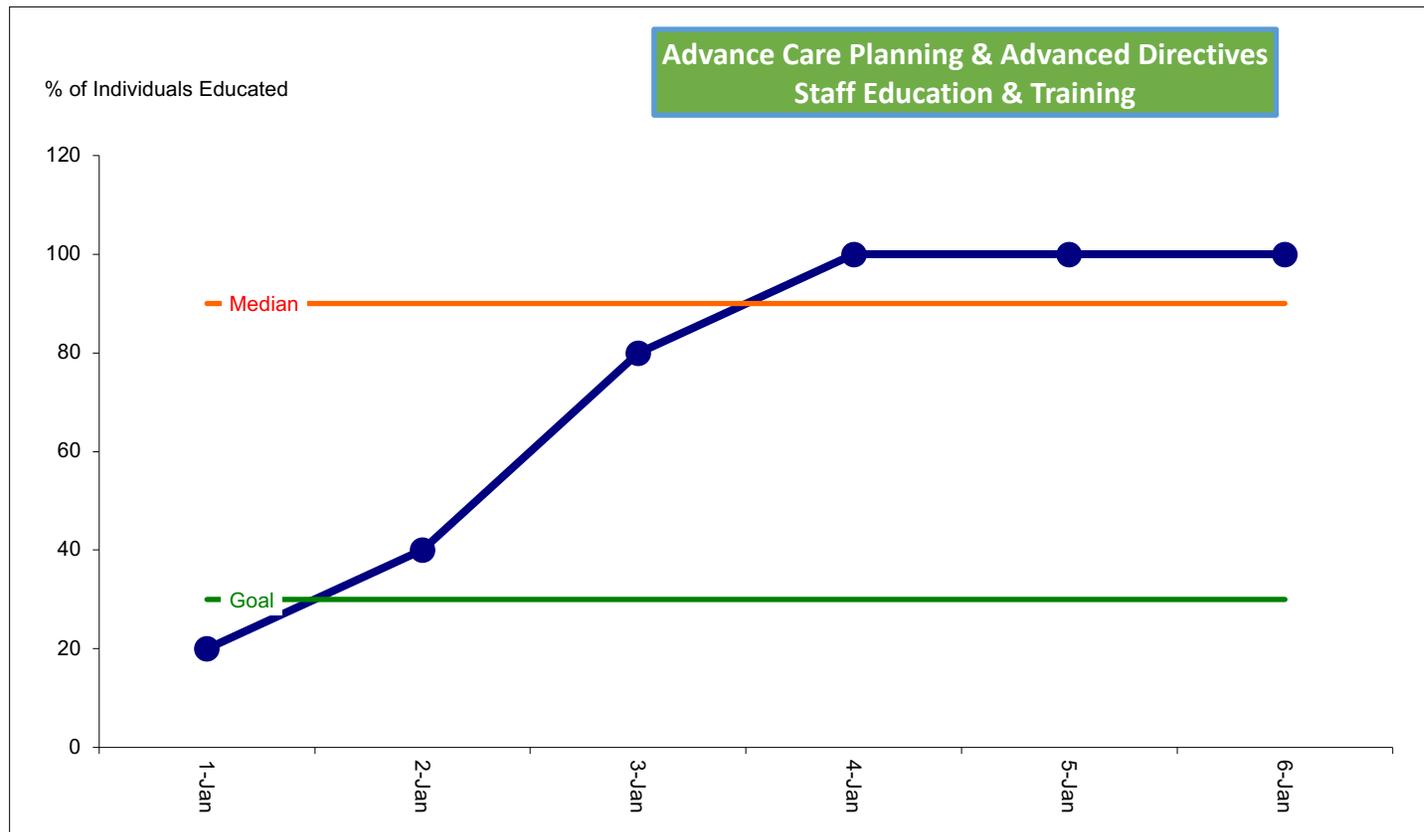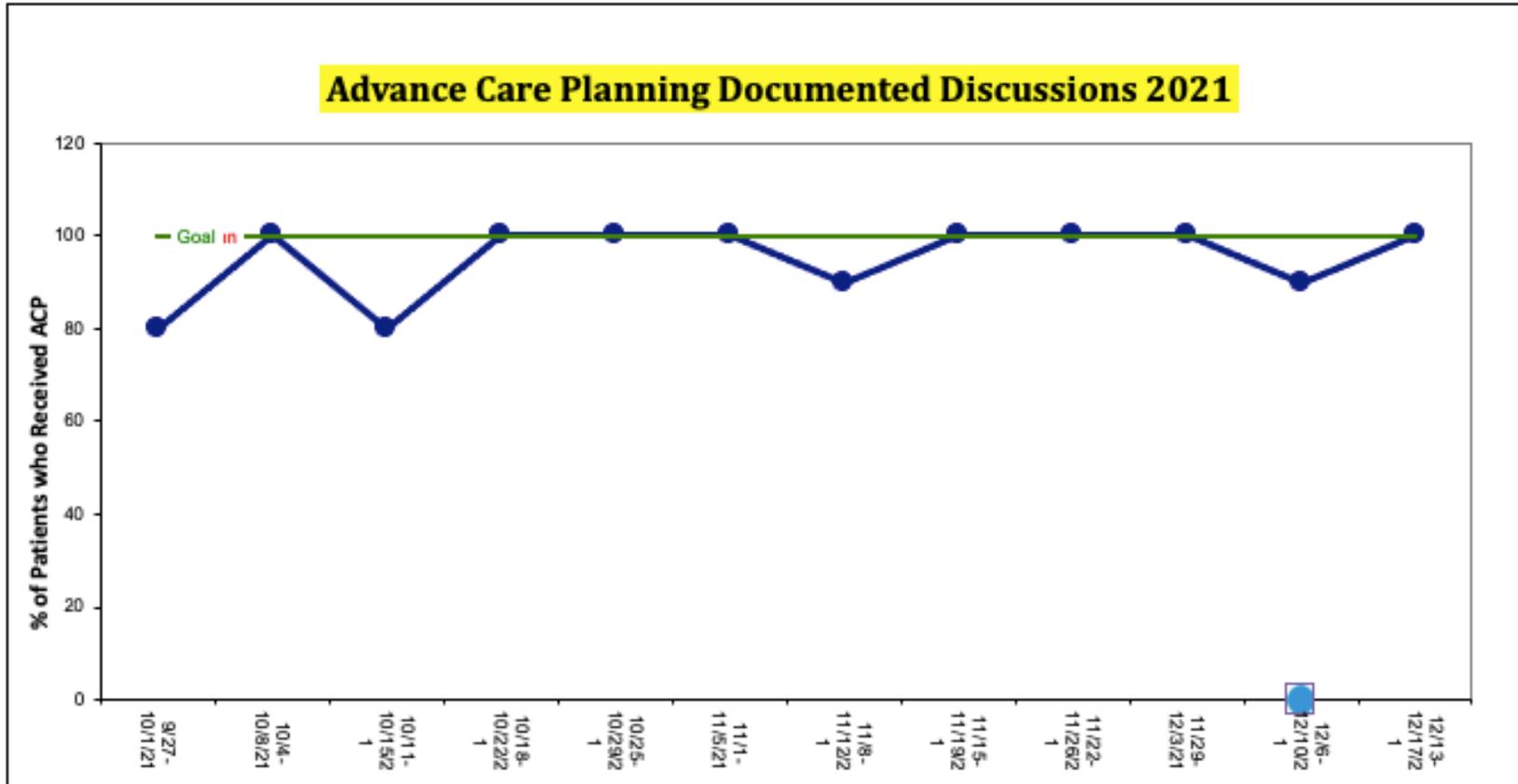Running head: ADVANCE CARE PLANNING DISCUSSIONS AND ADVANCE DIRECTIVES

Figure 4. Advance Care Planning Documented Discussions

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Figure 5. Patient Goals Aligning with Plan of Care

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Figure 6. Advance Directive Completion Rates

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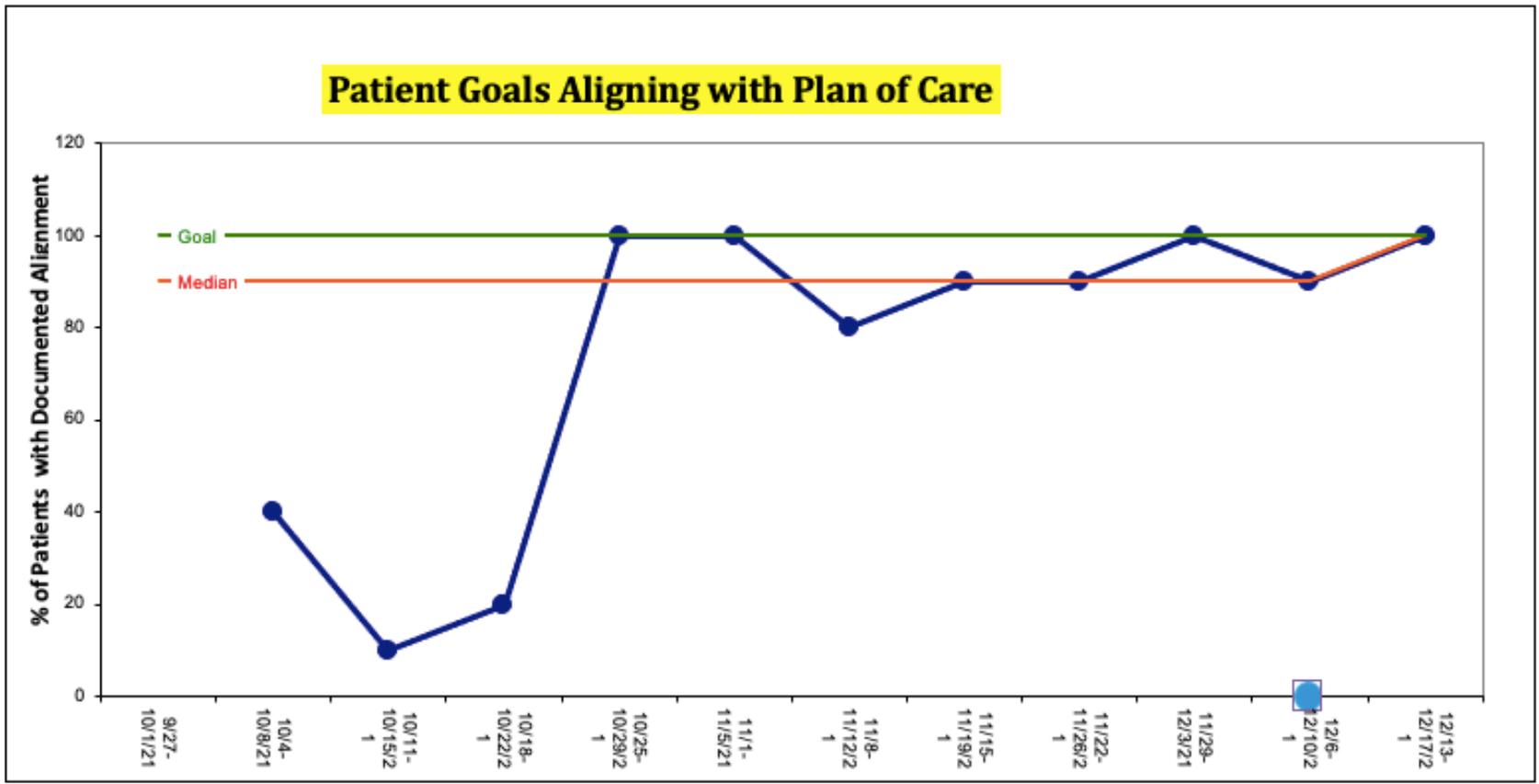Figure 7. Transitional Care Coordinator RN smart phrase

Running head: ADVANCE CARE PLANNING DISCUSSIONS AND ADVANCE DIRECTIVES

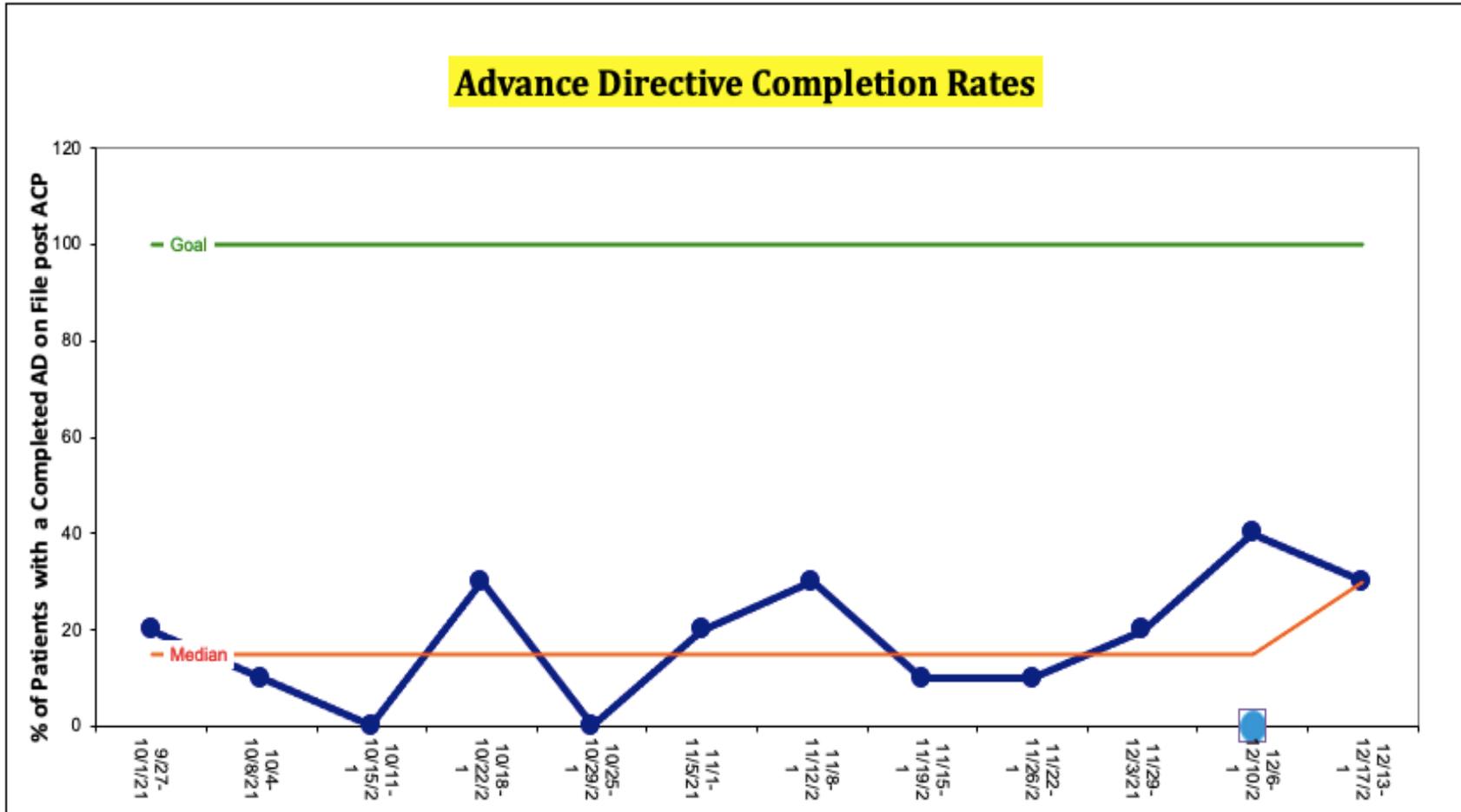Figure 8. Heart Failure provider smart phrase regarding patient goals

Smart Phrase C3 HF NP: .PATIENTGOALS

User SmartPhrase – PATIENTGOALS [415709]

ⓘ Do not include PHI or patient-specific data in SmartPhrases.

Arial   11   B   Insert SmartText   Insert SmartList

Are the patient's established goals from the advance care planning conversation congruent with the plan of care developed during this clinic visit? {YES /NO:21442}

**Will be embedded in .HFOV note under the assessment & plan (ASSESSPLANNORFV)

User SmartPhrase – HFOV [300236]

ⓘ Do not include PHI or patient-specific data in SmartPhrases.

Arial   11   B   Insert SmartText   Insert SmartList

@NAME@ is a @AGE@ @SEX@ with a history of ***

Cardiologist: ***

Assessment and Plan:
Presents with {NYHA Class/Stage:34407} @CAPHE@ appears {volumestatus:36221}

@ASSESSPLANNORFV@

@AFUTAPPT@

@CHIEFCOMPLAINT@

Last hospitalization ***

Hospital course:

Complications:

ICD: {YES:22294:n}

Running head: ADVANCE CARE PLANNING DISCUSSIONS AND ADVANCE DIRECTIVES

Appendix

Appendix A. Current state process flow map