

Incorporating Advance Care Planning Discussions into Annual Wellness Exams

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Abstract

Background: Advance care planning, a part of the Medical Orders for Life-Sustaining Treatment (MOLST) form and Advance Directives (ADs), is an important discussion that older adults may use to review and record their goals of care in the event of incapacitation or inability to communicate. Conducting regular advance care planning discussions with older adults can help avoid unnecessary hospitalizations and high healthcare costs. However, there is a lack of advance care planning regulation in independent living centers, which creates inconsistencies between documents and patients' wishes.

Local Problem: The nurse practitioner at an urban continuing care retirement community identified advance care planning as a priority that required a quality improvement project in the independent living facility's ambulatory care center. A formal audit of resident charts had not been conducted to evaluate completion of advance care planning forms and whether resident preferences matched between MOLSTs and ADs. There was also a lack of a systematic approach to ensure advance care planning discussions were occurring at regular intervals. The purpose of the quality improvement project was to audit charts for MOLST and AD discrepancies and to implement a systematic approach to prompt discussions about patients' preferences for care.

Interventions: Prior to the intervention, a chart audit comparing independent living facility residents' MOLSTs and ADs was performed over four weeks to assess for inconsistencies in goals of care such as desire for transfer to the hospital, placement and use of feeding tubes, and intravenous therapy. After the audit, the 10-week implementation phase occurred, consisting of a systematic approach to implementing advance care planning discussions during scheduled Medicare annual wellness visit. The advance care planning discussions helped determine if any preferences had changed and required a MOLST or Advance Directive documentation change.

Results: A total of 174 residents' charts were reviewed. Of the 61 residents who had both a MOLST and AD in the chart, two of those residents had a discrepancy regarding artificial hydration and nutrition. There was a total of eight Medicare annual wellness visits – all residents had an advance care planning discussion but no resident desired a change to the plan of care that required a MOLST change. Unintended results showed that 15 residents were missing MOLSTs, 12 residents had different paper and electronic MOLSTs, and 24 residents had MOLSTs that were voided incorrectly in various ways including not voiding the old MOLST or only voiding one page of the old MOLST.

Conclusions: Advance care planning is a valuable discussion to not only decrease hospitalizations and health care costs, but to improve quality of life for older adults. Audits can be instrumental in discovering discrepancies in patient preferences and workflow issues. This can help staff identify ways to fix MOLST tracking processes and to sustain routine advance care planning discussions. Though hospitalization rates were unable to be determined during the short implementation period, systematic processes can provide a basis for consistent advance care planning discussions to assess patient preferences in independent living facilities.

Background and Significance

By the year 2040, the number of Americans aged 65 years and older is predicted to increase by 72% (Johnson & Parnell, 2017). That projection has significant health care and health care cost implications for the population in nursing homes and continuing care retirement communities (CCRCs), which provides a continuum of care among independent living centers, assisted living facilities, and nursing homes. In a CCRC, residents live in a facility where they can receive a variety of health care services depending on their level of care needs. Generally, residents begin at the independent living level, but as they age or require more medical care, can move within the community to the assisted living or rehabilitation centers. In America, 60% of potentially avoidable hospitalizations (PAHs) are attributed to those age 65 years and older (America's Health Rankings, n.d.). This is comparable to nursing home (NH) residents since residents in their last year of life accounted for almost half of the PAHs, which totaled one billion dollars in Medicare costs (Xing, Mukamel, & Temkin-Greener, 2013). Advance care planning (ACP) is defined as the "process of discussion about goals of care and means of setting on record preferences for care of patients who may lose capacity or communicating ability in the future" (Brinkman-Stoppelenburg, Rietjens, & van der Heide, 2014, p. 1000). ACP is one strategy that can be implemented to reduce unnecessary hospitalizations in CCRCs and nursing homes (Brinkman-Stoppelenburg et al., 2014; Hendriks, Smalbrugge, Hertogh, & van der Steen, 2016; Martin, Hayes, Gregorevic, & Lim, 2016; Robinson et al., 2012).

Advance care planning can be accomplished through advance directives (ADs), do-not-resuscitate orders, or do-not-hospitalize orders. Though state regulations vary, Maryland law mandates that (1) all patients who are discharged from the hospital must have a Medical Orders for Life-Sustaining Treatment (MOLST) form completed before admission to a NH or assisted

living facility (ALF) (Maryland MOLST Training Task Force [MMTTF], 2017); (2) a MOLST is completed during the admission process to the NH or ALF if admitted from an inpatient facility or from home (MMTTF, 2017); (3) staff inquire about the existence of an AD at the time of NH admission (Van Leuven, 2012). In addition to the lack of ACP regulation in an independent living center, this may create incongruencies between documents and patients' wishes. This has been identified as an issue by providers at a CCRC in Baltimore, Maryland and will be addressed in a Doctor of Nursing Practice (DNP) quality improvement project.

Purpose Statement, Short-Term Goals, and Long-Term Goals

With the incongruency of ACP requirements, CCRC and NH staff can aid in decreasing hospitalizations through ACP discussions with residents and their families. The purpose of the quality improvement project was to audit charts for MOLST and AD discrepancies and to implement a systematic approach to prompt discussions about patients' preferences for care in order to decrease the rate of avoidable hospitalizations of CCRC patients. The short-term goals stated that by September 30, 2018, an audit of 100% of resident charts will be performed to identify discrepancies in MOLSTs and ADs. Additional short-term goals were by December 14, 2018, 100% of residents with MOLST and AD discrepancies will have had an ACP meeting and 100% of residents (including new residents) scheduled for annual wellness exams at the ambulatory care center will have had an ACP meeting during which MOLST discussions will occur. Since the project time period did not allot for measurement of hospitalization rates, the following long-term goal was identified: by December 2019, for residents with Do Not Hospitalize orders, there will have been no hospitalizations. Additional long-term goals were by December 2019, MOLST forms will be discussed with all new residents and quarterly audits of MOLSTs and ADs will be performed.

Identification of the Theoretical Framework and Utilization

Ruland and Moore's (1998) Theory of the Peaceful End of Life (TPEOL), a middle range nursing theory that guides nurses in providing interventions to ease suffering and pain at the end of life, will be operationalized to solve end-of-life care problems such as unnecessary hospital admissions. TPEOL is a theoretical framework consisting of five concepts that contribute to and provide for a peaceful end of life: not being in pain, the experience of comfort, the experience of dignity/respect, being at peace, and closeness to significant others/persons who care. While the use of the TPEOL framework has been acknowledged mainly in intensive care units in Thailand and Taiwan (Kongsuwan, Chaipetch, & Matchim, 2012; Kongsuwan & Locsin, 2009; Lee et al., 2009), the applicability to CCRC residents in the United States is clinically important as well.

The operationalization of the TPEOL in this quality improvement project will utilize the first four concepts: not being in pain, the experience of comfort, the experience of dignity or respect, and being at peace. In an ACP meeting led by a member of the interprofessional team, the concepts of not being in pain and the experience of dignity or respect can be addressed by establishing a need for pain-relieving therapy and creating a trusting relationship where one's wishes are respected. Experiencing comfort and being at peace are comparable to the concept of not suffering, which can be affected by not only diseases but from the prolongation of life through technology and machines utilized in hospitals (Kongsuwan, Chaipetch, & Matchim, 2012). This suffering can be reduced by giving patients the right to refuse medically futile treatment, and not performing cardiopulmonary resuscitation or pursuing aggressive treatment in patients with unfavorable outcomes, which can be reviewed and noted in ACP (Kongsuwan et al., 2012). When all of the mentioned concepts from the Theory of the Peaceful End of Life are

incorporated into an advance care planning meeting to discuss goals of care, a peaceful end of life and a decrease in unnecessary hospitalizations can be achieved.

Analysis of Research Studies

The need for systematic implementation to discuss patients' preferences for care with an emphasis on advance care planning (ACP) for older adults is the focus of the evidence in this literature review. The review will begin with an analysis of the evidence supporting the need for and effectiveness of different ACP interventions at predetermined intervals and certain changes in patient conditions. The discussion will conclude with a synthesis of similarities and differences in the literature regarding ACP interventions.

In the longitudinal observational study to determine consistency about care goals and treatment orders, Hendriks, Smalbrugge, Hertogh, and van der Steen (2016) collected data on 372 nursing home patients with dementia in 28 facilities. Treatment order discussions were performed for 80% of patients at baseline and were also performed 27-51% of the time during semiannual assessments. For patients with Do Not Hospitalize (DNH) orders, hospitalizations occurred 21% of the time. Strengths included a large sample size from multiple facilities and the longitudinal design enabled investigators to study admission until death and changes in patients' conditions. One limitation included result reporting from physicians' perspectives and did not account for other disciplines' roles in ACP. A potential threat to internal validity was participant mortality; however, physicians completed an end-of-life questionnaire within two weeks after patient death. The study can be generalized to other nursing homes, but it should be noted that the researchers conducted the study in the Netherlands.

In a systematic review, Houben, Spruit, Groenen, Wouters, and Janssen (2014) reviewed 56 studies for concordance of ACP preferences with care delivered. Two interventions were

included in the review: interventions that focused on completion of ADs and interventions that focused on communication about ACP along with AD completion. When end-of-life care discussions (ACP for elderly patients, ACP for specific diseases, and initiated by social work) occurred as compared to usual care, there was a significant difference between control and intervention groups in concordance of patients' preferences and end-of-life care received ($p=0.03$). Five trials were performed and specifically measured health care service usage; and in three of those five trials, hospitalizations were decreased. Strengths included the large number of studies used and all were randomized controlled trials. However, the limitations and threats to validity included not blinding participants and therapists, which may have resulted in bias; several trials included in the review did not use previously validated instruments; several trials used small sample sizes or were performed in one setting; and patients demographics such as diagnosis were variable.

Martin, Hayes, Gregorevic, and Lim (2016) reviewed 13 studies in a systematic review to determine effects of different ACP interventions on hospitalizations, mortality, place of death, and medical treatment consistency with care goals. Five interventions were evaluated; AD educational programs, introduction or evaluation of a new ACP form, an ACP program focusing on a palliative care initiative, and effectiveness of Do Not Resuscitate (DNR) orders on respiratory infection treatments. Five studies were specifically focused on hospitalizations, and all of those studies showed that hospitalization rates decreased by 9 to 26% with DNR orders, an evaluation of Physician Orders for Life Sustaining Treatment forms, and educational programs. Strengths included the analysis of several randomized controlled trials in different countries, which allows for more generalizability. Participants were all nursing home residents, but

demographics such as diagnosis were not provided. Other limitations and threats to validity include differences in operators and educational programs effectiveness.

Robinson et al. (2012) conducted a systematic review of four studies to determine the effectiveness of ACP interventions consisting of AD education programs and ACP implementation for nursing home patients with cognitive impairment and dementia. In the two studies focusing on hospitalization rates, the researchers found that the use of ACP was associated with significant decreases in hospitalization rates and in hospital costs. One strength is the ability to generalize the results since all participants were nursing home residents in three different countries. Limitations include: patients' dementia stage was not clearly defined and inability to generalize to non-nursing home patients. Threats to validity include mortality of participants and differences in educators.

Similarities and Differences Synthesis

The importance of ACP has been widely studied and found to be effective in decreasing avoidable hospitalizations and in accurately representing patients' end-of-life care preferences (Hendriks et al., 2016; Houben et al., 2014; Martin et al., 2016; Robinson et al., 2012). However, there are differences related to when ACP is initiated such as at admission or changes in condition or what diagnosis (i.e. cancer or dementia) prompts a discussion. ACP should be done semiannually (Hendriks et al., 2016) and with changes in condition such as pneumonia or intake problems or for patients with dementia (Robinson et al., 2012). Differences in the types of ACP implementation also vary from physician discussion (Hendriks et al., 2016) to patient centered ACP (Houben et al., 2014) and from introduction of and evaluation of a new ACP form (Martin et al., 2016) to educational programs for patients, families, and staff such as nurses and social workers (Robinson et al., 2012). There are also differences in when ACP discussions occur such

as at admission for a baseline, semiannually, and with acute changes in condition. In the proposed quality improvement project, ACP discussions will be initiated based on usual admission protocol and during the annual wellness exam.

DNP Project Implementation

Description of Project

A quality improvement (QI) project focused on an audit to identify discrepancies between MOLST forms and ADs, and implementation of advance care planning (ACP) discussions during annual wellness visits (AWVs) at a continuing care retirement community (CCRC) in the fall of 2018. The sample ($n=174$) consisted of residents residing at the independent living facility (ILF) of the CCRC who utilized primary care services at the CCRC ambulatory care clinic. Residents were not included in the project if they resided at the ILF but did not utilize the primary care services at the CCRC ambulatory care clinic.

Procedures and Timeline

The Doctor of Nursing Practice (DNP) project took place over a 14-week period. During the first two weeks, the project leader trained the clinic team consisting of the secretary and the nurse practitioner (NP) who conducts the Medicare annual wellness visits. The NP was trained on using the form named Tracking Advance Care Planning Discussions for Patients During Annual Wellness Exam (Appendix A). Discussions were to include reviewing all portions of the MOLST form to determine if any changes in goals of care had occurred and needed to be documented. The secretary was trained on scanning new MOLSTs into a resident's electronic medical record (EMR).

During weeks one through four, a pre-implementation audit was performed by the project leader on ILF residents' charts to identify discrepancies between the MOLST forms and ADs in

order to determine if more ACP meetings needed to be held to address goals of care inconsistencies. If a discrepancy was found, the project leader made note on the MOLST and AD Discrepancies form (Appendix B) and a subsequent advance care planning (ACP) meeting was scheduled before the end of the project period. If no MOLST was located within the chart, the resident was scheduled for an immediate ACP meeting that was held before the end of the project timeframe.

During a resident's annual wellness exam, which took place on or around the resident's birthday, the provider discussed goals of care and filled out a new MOLST that reflected any changes in the goals of care. If a change was made, the new MOLST was placed in the paper chart and scanned into the EMR, a copy of the new MOLST was provided for the patient to keep, and the old MOLST was voided but remained in the paper chart. Every other week during weeks three through fourteen, the project leader collected the forms (Appendix A) used for data collection by the project team in order to generate data on how many ACP discussions were occurring and if MOLST changes had occurred during the discussions. During the time of collecting forms, the project leader addressed any questions posed by the project team.

Data Collection

The audit conducted by the project leader was tracked on the MOLST and AD Discrepancies form (Appendix B). The project leader indicated if an ACP meeting was scheduled, the date of the ACP meeting, and the reason if no ACP meeting was scheduled. The Tracking Advance Care Planning Discussions for Patients During Annual Wellness Exam form was used by the nurse practitioner. This form consisted of a table to track if a discussion with the NP was held, if changes were made to the MOLST, if further action was needed and what that action was, and what other comments were noted.

Measures to Protect Human Subjects, Permissions Required, and Plans for Submission

To protect the human subjects at the CCRC, an approval to implement the DNP project was sought from the CCRC. A description of the project was submitted for review to the University of Maryland Baltimore Institutional Review Board (IRB) for a Non-Human Subjects Research determination. No resident identifiers were collected on any data forms.

Results**Modifications made.**

Over the course of the DNP project, only one modification was made to the project procedures. According to the project proposal, the secretary would generate a weekly list of who was scheduled for an AWP during the implementation phase. That list would help the NP become aware of who was to have ACP discussions and that a MOLST change may be necessary. During the audit phase, the NP decided that the secretary did not need to generate a weekly list because she was able to see the scheduled AWP on her own schedule and not many AWP were scheduled weekly.

Data analysis and outcomes.

A data report was generated by the project leader using the collected forms completed by the project team (Appendices A and B). The project leader entered coded data into Microsoft Excel for further data analysis through descriptive statistics. The process outcome of percentage of ACP discussions was calculated by using the total number of annual wellness exams divided by the total number of advance care planning discussions.

During the four-week audit phase, the project leader conducted an audit of 174 independent living residents' charts. Of the 174 residents, fifteen did not have a MOLST in the chart, 113 residents did not have an AD in the chart, 61 residents had both a MOLST and AD;

therefore, 113 residents did not have both a MOLST and AD. Of the 61 residents who had both a MOLST and AD, two of those residents had a MOLST and AD discrepancy. See Table 2 for summary of audit results. By the end of the project implementation, those two residents (100%) with MOLST and AD discrepancies had those discrepancies resolved during an ACP discussion. There was a total of eight Medicare AWWs; all residents had an ACP meeting but no resident required any MOLST changes. Therefore, of the eight AWWs that occurred, one hundred percent of residents had ACP discussions with the provider. See Tables 3 and 4 for summary of implementation results.

Discussion

Results Interpretation.

In the project implementation phase, all residents who were seen at the ACC for an AWW had an advance care planning discussion, but all of the residents MOLST forms were fully completed and up to date, requiring no changes to the MOLST forms. This is an indication that most residents received thorough ACP education during their initial ACP discussion, which led to beneficial MOLST choices that were individualized for each resident.

There were several unintended consequences encountered during the quality improvement project period. The wording in the MOLSTs and ADs can be technical and may be confusing to the layperson. Before the project began, the project leader did not clarify what a MOLST and AD discrepancy meant. This should have been defined prior to the project period because the first day of the audit consisted of the student rechecking and comparing MOLST provisions to ADs. Predefined discrepancies of differences in goals of care for resuscitation, ventilation, and artificial nutrition and hydration would have saved time and streamlined the audit process.

During the audit, the project leader found there were 15 residents missing MOLSTs. At the mid-semester progress report, three of the 15 (20%) residents with missing MOLSTs had an ACP discussion to complete a MOLST. By the end of the project implementation, the NP had completed the remainder (12) of the missing MOLSTs (15/15 or 100%). Although not a part of the data collection, the project leader found 12 resident charts had different MOLSTs in the EMR compared to the MOLSTs in the paper chart. Finding the differences between EMR and paper chart MOLSTs led the project leader to discover that 24 old MOLSTs were not voided properly. The type of mistakes varied from not voiding the old MOLST in the EMR, to not voiding the old MOLST in the paper chart, to only voiding one of two pages of the MOLST. When the NP was made aware of this information, she realized there needed to be better education on how to void a MOLST when a new one is completed. The NP consulted with the office manager about the different MOLSTs in the EMR versus the paper chart. The office manager noted that per office policy the most updated MOLST in both the EMR and paper chart in case there was EMR downtime and the paper chart needed to be consulted.

Upon completing the audit, the project leader realized many residents did not have an AD, or if they did, a copy was not given to the ACC staff. Because of the lack of 113 ADs, only two residents were identified to have a MOLST and AD discrepancy. If all residents with an AD had given a copy to ACC staff, more MOLST and AD discrepancies may have been found and then consequently addressed for the benefit of the residents.

Comparison with Other Publications and Reasons for Differences between Observed and Anticipated Outcomes.

The literature supported the use of regular review of ADs and MOLSTs to increase treatment consistency compared to goals of care and to decrease potentially avoidable

hospitalization rates. The goal of scheduling an ACP meeting with all residents with AD and MOLST discrepancies and all new residents is a positive step toward decreasing potentially avoidable hospitalizations. The scope of this QI project did not include monitoring of hospitalizations due to an implementation of 14 weeks.

Strengths.

There were several strengths to the DNP project. Methodology was simple and is easily replicable in a different setting. One project leader conducted the audit, which provided consistency in defining consistencies between MOLSTs and ADs.

Limitations of Project.

At the CCRC's ambulatory care center, the NP conducts AWWs on or close to the residents' birthdays. Through the entire 14-week project period, only eight residents had birthdays, which limited the number of residents for ACP discussions. Adding more AWWs to the NP's schedule would have created an overbooked schedule especially since the fifteen residents who did not have a MOLST also needed to be scheduled for an ACP discussion. In addition, this would have caused residents to be "off schedule" for continued AWW discussions of AD and MOLSTs.

Due to the short implementation period, the ultimate outcome of decreased hospitalization rates was unable to be determined; therefore, project goals were determined by process outcome results. Evaluating the rates of hospitalizations and how often they occur in contradiction to the resident's AD and MOLST would be the next step to continue evaluation of the use of a Medicare annual wellness visit as a mechanism for regular review and update of the AD and MOLST.

Conclusion

To correctly identify goals of care for older adults, MOLSTs and ADs can be completed by residents with one on one counseling with their healthcare providers. These advance care planning discussions can be accomplished during the AWW. At the ambulatory care center of the CCRC, the QI project identified residents who did not have any ACP provisions in place or who had discrepancies between two ACP forms. The QI project also identified that implementing a systematic approach to ACP relates to having MOLST discussions at every annual wellness visit.

To promote sustainability, the CCRC clinic will discuss MOLST forms with all new independent living facility residents and continue to use the Advance Care Planning Discussion form (Appendix C). A quarterly audit of MOLSTs and ADs can be performed to assess consistency between the documents. Since a thorough audit has occurred already, staff can schedule ACP meetings for residents who have made any changes to their MOLSTs or ADs and new residents. To ensure residents have a MOLST in both the paper chart and in the EMR, the NP will give the secretary each new or updated MOLST, which will then be scanned into the EMR in addition to being placed in the paper chart. To ensure the most up-to-date MOLST is in both places, the NP will properly void the old paper MOLST. These steps will help ensure the long-term outcome measure of unnecessary hospitalizations will decrease.

This QI project can be spread to other independent living facilities or other healthcare facilities. Audits are important to maintain consistency in an organization's practices and to discover issues that need correcting. The results may be used to educate current and new staff regarding the importance of advance care planning and systematic approaches to ensuring its utilization. More information is needed to determine the effectiveness of the project; therefore, the long-term project goals should be evaluated at the end of the year to determine if hospitalization rates were affected by the intervention.

References

- America's Health Rankings. (n.d.). Preventable hospitalizations – Seniors. Retrieved from https://www.americashealthrankings.org/explore/2017-senior-report/measure/preventable_hospitalizations_sr/state/ALL
- Brinkman-Stoppelenburg, A., Rietjens, J., & van der Heide, A. (2014). The effects of advance care planning on end-of-life care: A systematic review. *Palliative Medicine*, 28 (8), 1000-1025. <http://dx.doi.org/10.1177/0269216314526272>
- Garrido, M.M., Balboni, T.A., Maciejewski, P.K., Bao, Y., & Prigerson, H.G. (2015). Quality of life and cost of care at the end of life: The role of advance directives. *Journal of Pain and Symptom Management*, 49 (5), 828-835. <http://dx.doi.org/10.1016/j.jpainsymman.2014.09.015>
- Hendriks, S.A., Smalbrugge, M., Hertogh, C., & van der Steen, J.T. (2016). Changes in care goals and treatment orders around the occurrence of health problems and hospital transfers in dementia: A prospective study. *Journal of the American Geriatrics Society*, 65, 769-776. <http://dx.doi.org/10.1111/jgs.14667>
- Houben, C.H.M., Spruit, M.A, Groenen, M.T.J., Wouters, E.F.M., & Janssen, D.J.A. (2014). Efficacy of advance care planning: A systematic review and meta-analysis. *Journal of the American Medical Directors Association*, 15, 477-489. <http://dx.doi.org/10.1016/j.jamda.2014.01.008>
- Johnson, J.H., Jr. & Parnell, A.M. (2017). The challenges and opportunities of the American demographic shift. *Journal of the American Society on Aging*, 40 (4), 9-15.

- Kim, S.L. & Tarn, D.M. (2016). Effect of primary care involvement on end-of-life care outcomes: A systematic review. *Journal of the American Geriatrics Society*, *64*, 1968-1974. <http://dx.doi.org/10.1111/jgs.14315>
- Kongsuwan, W., Chaipetch, O., & Matchim, Y. (2012). Thai Buddhist families' perspective of a peaceful death in ICUs. *Nursing in Critical Care*, *17* (3), 151-159. <http://dx.doi.org/10.1111/j.1478-5153.2012.00495.x>
- Kongsuwan, W. & Locsin, R.C. (2009). Promoting peaceful death in the intensive care unit in Thailand. *International Nursing Review*, *56*, 116-122.
- Lee, S.-Y., Hung, C.-L., Lee, J.-H., Shih, S.-C., Weng, Y.-L., Chang, W.-H., ... Lai, Y.-L. (2009). Attaining good end-of-life care in intensive care units in Taiwan: The dilemma and the strategy. *International Journal of Gerontology*, *3* (1), 26-30.
- Martin, R.S., Hayes, B., Gregorevic, K., & Lim, W.K. (2016). The effects of advance care planning interventions on nursing home residents: A systematic review. *Journal of the American Medical Directors Association*, *17*, 284-293. <http://dx.doi.org/10.1016/j.jamda.2015.12.017>
- Maryland MOLST Training Task Force. (2017). Maryland MOLST FAQs. Retrieved from marylandmolst.org/docs/MarylandMolst%20faq%20current%2011.1.17.pdf
- Robinson, L., Dickinson, C., Rousseau, N., Beyer, F., Clark, A., Hughes, J., ... Exley, C. (2012). A systematic review of the effectiveness of advance care planning interventions for people with cognitive impairment and dementia. *Age and Ageing*, *41*, 263-269. <http://dx.doi.org/10.1093/ageing/afr148>
- Ruland, C.M. & Moore, S.M. (1998). Theory construction based on standards of care: A proposed theory of the peaceful end of life. *Nursing Outlook*, *46*, 169-175.

- Teno, J.M., Gozalo, P., Mitchell, S.L., Bynum, J., Dosa, D., & Mor, V. (2011). Terminal hospitalizations of nursing home residents: Does facilitating increasing the rate of do not resuscitate orders reduce them? *Journal of Pain and Symptom Management*, 41 (6), 1040-1047. <http://dx.doi.org/10.1016/j.jpainsymman.2010.07.014>
- Van Leuven, K.A. (2012). Advance care planning in health service users. *Journal of Clinical Nursing*, 21, 3126-3133. <http://dx.doi.org/10.1111/j.1365-2702.2012.04190.x>
- Xing, J., Mukamel, D.B., & Temkin-Greener, H. (2013). Hospitalizations of nursing home residents in the last year of life: Nursing home characteristics and variation in potentially avoidable hospitalizations. *Journal of the American Geriatrics Society*, 61, 1900-1908. <http://dx.doi.org/10.1111/jgs.12517>

Table 1

Evidence Table

Author, year	Study objective/ intervention or exposure compared	Design	Sample (N)	Outcomes studied (how measured)	Results	Level and Quality Rating
Brinkman- Stoppelenburg, A., Rietjens, J., & van der Heide, A. (2014).	To provide an overview of advance care planning (ACP) studies and to determine effectiveness of ACP	Systematic review	113 articles were used in this systematic review	Amount of life- sustaining treatment, hospice and palliative care usage, and hospitalization rates	Of the nine studies reviewing hospitalization rates, eight studies showed that Do Not Hospitalize (DNH) orders were related to decreased hospitalization rates.	1B
Hendriks, S.A., Smalbrugge, M., Hertogh, C., & van der Steen, J.T. (2016).	To determine whether or not discussions about care goals and treatment orders were consistent with hospitalization rates	Longitudinal observational study	372 nursing home patients in 28 facilities in the Netherlands	Hospitalization rates	Within two months of admission, 80% of patients' proxy decision-makers had care goal meetings with physicians. For the rest of patients without advance care planning within two months of admission, a meeting for goals of care was performed within six months. Reassessments of care goals were performed as part of semiannual assessments, when end-of-life care was evident, and the development of pneumonia or intake (eating or drinking) problems. With these assessments of care goals, the percentage of DNH orders increased after advance care planning meetings were done with proxy decision-makers (from 28%, 42-59%, and 76% shortly after admission, after semiannual assessment, and the last 6 months of life, respectively). Hospitalizations occurred in patients with DNH orders	4B

					only 21% of the time, but 60% of those hospitalizations were for fractures.	
Houben, C.H.M., Spruit, M.A., Groenen, M.T.J., Wouters, E.F.M., & Janssen, D.J.A. (2014).	To determine if ACP interventions are efficacious	Systematic review	56 studies were used in the final analysis	Advance directive (AD) completion, end-of-life care discussions, concordance between care preferences and care delivered, knowledge of ACP, end-of-life care preferences, communication quality, health care satisfaction, health care service usage, and symptoms	Of the 5 studies reviewing hospitalizations, three showed that hospitalization rates decreased when ACP interventions occurred.	1B
Kim, S.L. & Tarn, D.M. (2016).	To determine the outcomes of primary care involvement in end-of-life care	Systematic review	13 studies were used for this systematic review	Discharge or death with home or hospice care; emergency department or hospital admission; intensive care unit use, hospital length of stay, costs; symptom management; survival to 1, 2, and 6 months	Of the 6 studies reviewing hospital admission, two showed that hospitalization rates were decreased when primary care providers were involved in ACP. Two studies showed no association and two studies showed an increase in hospitalizations. However, the studies showing an increase in hospitalizations correlated with a cancer diagnosis within one year.	1B
Martin, R.S., Hayes, B., Gregorevic, K., & Lim, W.K. (2016).	To determine effects of ACP interventions – educational programs, introduction or evaluation of a new ACP form, initiation of an ACP program with a palliative care initiative, and DNR	Systematic review	13 studies were used for this systematic review	Hospitalization rates, location of death, consistency of medical treatments with patients' wishes, health costs	Four studies reviewed hospitalization rates, and all of those studies showed that hospitalization rates decreased with DNR orders, an evaluation of Physician Orders for Life Sustaining Treatment (POLST) forms, and educational programs.	1A

	orders – on nursing home residents					
Robinson, L., Dickinson, C., Rousseau, N., Beyer, F., Clark, A., Hughes, J., ... Exley, C. (2012).	To determine the effectiveness of ACP interventions – advance directive education programs for residents, families, and staff; and ACP implementation – on for patients with dementia or cognitive impairment	Systematic review	4 studies were used in this systematic review	Hospitalization rates and hospital costs.	In the two studies focused on hospitalization rates, both found that ACP was significantly related to decreased hospitalization rates and decreased hospital costs.	1B
Teno, J.M., Gozalo, P., Mitchell, S.L., Bynum, J., Dosa, D., & Mor, V. (2011).	To determine if DNR orders were associated with terminal hospitalization rates	Retrospective cohort study	Data from 15,784 nursing homes	Terminal hospitalization rates	Terminal hospitalization rates decreased when nursing homes increased their DNR orders.	4B

Table 2

Audit Results

<u>Category</u>	<u>Number</u>
Total ACC Residents	174
Residents Without a MOLST	15
Residents Without an AD	113
Residents With Both a MOLST and AD	61
Residents With MOLST and AD Discrepancy	2

Table 3

Process Outcome Results

Residents Scheduled for AWW	Residents Who Had ACP Discussions	%
8	8	100

Table 4

Addressing MOLST and AD Discrepancies Results		
Residents with MOLST and AD Discrepancies	Residents Who Had ACP Discussions and Discrepancies Resolved	%
2	2	100

Appendix A

Tracking Advance Care Planning Discussions for Patients During Annual Wellness Exam

Dates: _____

Resident	Advance Care Planning Discussion with NP or MD (Yes/No)	Changes Made (Yes/No and What Change, If Any)	Further Action Needed (Yes/No and What Action, If Indicated)	Comments
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Appendix B
Absence of MOLST in Chart
or
MOLST and AD Discrepancies

Resident	Advance Care Planning (ACP) Meeting Scheduled (Yes/No)	Date of ACP Meeting	If No ACP Meeting Scheduled, Indicate Reason
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			