

## Scientific Poster Abstracts

### **Protocol Development for Successful Palliative Care (PC) Consultation in Population of Patients Receiving Mechanical Circulatory Support (MCS) (S701)**



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#### *Objectives*

- Identify how close collaboration between palliative care and heart failure teams can increase documented surrogate decision makers for patients being evaluated for an MCS device.
- Acknowledge collaborative effort between palliative care and cardiology as a key element for successful advanced care planning with MCS patient population.

**Original Research Background.** Over 1700 long-term MCS are implanted annually in the United States. In 2014, Joint Commission began requiring a palliative care (PC) consultation prior to destination therapy implantation. This recommendation is based on published data that suggests early involvement of a PC team can increase quality of life, survival time, and decrease aggressive care at the end of life. Limited information is available on established PC protocols in MCS population.

**Research Objectives.** Close collaboration between heart failure specialists and PC clinicians will result in significant increase in the documentation of surrogate decision makers (SDM) and development of an advanced care plan (ACP) by patient and family.

**Methods.** In March 2014, a protocol for PC consultation at IU Health Methodist Hospital was established. A MCS referral automatically triggered a PC consultation. The goals of the PC consultation were to document ACP discussion and designate a SDM prior to implantation. Data on ACP discussion and SDM were retrospectively collected for two years prior to the new protocol through 2015.

**Results.** 122 patients were implanted between 1/2012 and 12/2015 (85 were males, mean age 56.1 years, 73 destination therapy, 49 bridge to transplant). Of 64 patients implanted prior to intervention, 11 received PC consult with ACP discussion and 26 had

documented SDM. Post PC protocol initiation, 56 of 58 patients implanted received PC consult with ACP discussion prior to implant and 57 had SDM documented. Percent of PC consult with ACP discussion increased from 17% to 97% and SDM documentation from 41% to 98%.

**Conclusion.** Defining SDM and preparing an ACP are part of the PC evaluation prior to MCS implantation. This can be used as a metric of successful utilization of a PC consultation protocol in this population.

**Implications for Practice, Policy or Research.** The multidisciplinary approach and close collaboration demonstrated here facilitates successful PC consultations and suggests protocol utilization for future practice.

### **Palliative Care in the ICU: A Qualitative Study of MICU Physicians' Beliefs & Practices (S702)**



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#### *Objectives*

- Delineate the models by which palliative care (PC) may be provided for medical ICU (MICU) patients.
- Describe services provided by PC physicians that critical care (CC) physicians find particularly helpful.
- Appreciate that many CC physicians gain satisfaction from providing PC for their patients, and so understand the value of educating and supporting CC physicians in providing PC.

**Original Research Background.** Despite the recent growth of palliative care (PC) as a specialty, there remains a relative shortage of PC professionals. In medical intensive care units (MICUs) both PC and critical care (CC) physicians are needed to meet the need for PC.

**Research Objectives.** We aimed to explore MICU physicians' beliefs and practices regarding PC. This analysis reports MICU physician's beliefs about providing PC, the role that they attribute to the PC team, and their motivations for initiating a PC consultation.

**Methods.** Seventeen of the 53 physicians within a Department of Allergy, Pulmonary, and Critical Care Medicine took part in semi-structured interviews, which were conducted, transcribed and coded according to

qualitative research methods. Four code-rich interviews were tested for inter-rater reliability, and 96% agreeability was reached through negotiated agreement.

**Results.** All CC physician participants stated that PC was a part of their job, and 9 out of 17 expressed gaining professional identity or personal satisfaction from providing PC. Participants identified many activities performed by PC consultants that were helpful to the CC team. They also described a variety of motivations for seeking a consult, some of which were unrelated to the specific expertise of a PC clinician.

**Conclusion.** This study provides a baseline understanding of the PC provided by MICU physicians and when a PC consulting team may be most helpful in one academic medical center. It also provides support for developing an appropriate balance of primary and secondary palliative care, as it is likely to support physicians' job satisfaction as well as optimal patient care.

**Implications for research, policy or practice.** How to appropriately meet the need for PC services utilizing experts and non-experts remains unclear, but this study supports further discussion regarding the PC that CC physicians and PC consultants should provide in light of the team members' differing expertise and the relative shortage of PC specialists nation-wide.

**“Just Knowing That I Was Going to Be Questioned About His Last Days”: Bereaved Next-Of-Kin's Pre-Interview Cognitive and Affective Work (S703)**



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*Objectives*

- Identify the underlying cognitive processes characterizing the pre-interview period for bereaved next-of-kin who participate in research about end-of-life care for deceased loved ones in VA Medical Centers.
- Identify the underlying affective processes characterizing the pre-interview period for bereaved next-of-kin who participate in research about end-of-life care for deceased loved ones in VA Medical Centers.

**Original Research Background.** Retrospective interviews with next-of-kin are important for identifying deficits in end-of-life care. The literature documents risks, benefits and potentially therapeutic value of research participation for bereaved persons. How little is known about the pre-interview phase from the perspective of participants.

**Research Objectives.** To explore the pre-interview phase of qualitative research participation in order to characterize more fully the research experiences of bereaved next-of-kin.

**Methods.** We conducted in-depth, face-to-face interviews with 78 next-of-kin to explore end-of-life care in VA Medical Centers, using content analysis to identify and synthesize salient themes.

**Results.** Research participation was preceded by a preparation period where participants considered what questions would be posed, organized their thoughts, recalled and synthesized information from providers, and identified gaps in knowledge. This process also involved making mental note of unanswered questions, taking stock of grievances, and identifying key points to address. Participants reported concerns about providing a competent and coherent report of the deceased's care. Some participants worried about wasting the interviewer's time. Others felt they could have been more informative if questions were provided in advance. Participants described pondering reasons for doing the interview, considering readiness to share personal experiences, and giving serious thought to the emotional impact of the interview. They also speculated about the qualities [rather than qualifications] of the interviewer and wondered if the interview would be a positive or negative experience.

**Conclusion.** Interviews with bereaved next-of-kin are preceded by a significant amount of cognitive and affective work by participants which can be a source of stress and concern, most of which is unseen and unknown to researchers.

**Implications for research, policy or practice.** Recognizing the psychosocial dynamics of the pre-interview process can sensitize clinician researchers to how next-of-kin prepare for research participation and inform how clinical and behavioral scientists approach individuals for after-death research and provide support and reassurance during the pre-interview phase.

**Care in Nursing Homes After Hospital-Based Palliative Care Consult (S704)**



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*Objectives*

- Describe the continuity of care in the nursing home after a hospital palliative care consultation.
- Identify opportunities to improve continuity of care after a palliative care consult.

**Background and Objective.** Few studies have examined the post-acute care and outcomes for older patients after discharge from a hospital stay during which they received a palliative care consult (PCC), especially for those not referred for hospice care. The purpose of this analysis was to describe the continuity of older adults' palliative plan of care from the hospital to the nursing home.

**Study Identification.** Longitudinal, qualitative descriptive study

**Data Extraction and Synthesis.** Semi-structured interviews and medical record reviews were used to examine patient/family preferences, clinical course, and care processes at hospital discharge and up to 4 times after nursing home admission. Data were analyzed using inductive content analysis techniques.

**Results.** Twelve adults (mean age 80.9 years), 9 females and 3 African-Americans, were enrolled. All participants engaged in palliative care-facilitated goals of care conversations in the hospital. Care preferences ranged from comfort care to curative treatment; all patients accessed the Skilled Medicare Benefit at nursing home admission. Analysis revealed 3 themes: *Goal discontinuity* was related to inadequate communication about care preferences which led to mismatches between staff and family expectations; *Prognosis incongruence* were discrepancies among documented prognoses from the PCC team, hospital medical record, and the nursing home; and *New and Worsening symptoms* were newly identified symptoms and exacerbations in existing symptoms following hospital discharge.

**Conclusion and Implications for Practice, Policy and Research.** Continuity of care preferences and communication between health care settings is inconsistent following inpatient PCC for older adults discharged to nursing homes. Ongoing communication between settings to re-address prognosis, goals of care, and symptoms—the central tenets of palliative care—is lacking. Efforts to improve access to comprehensive palliative care during and after nursing home transitions are greatly needed.

### ***Evidence for Morphine or Hydromorphone-Induced Neurotoxicity in Renal Impairment: A Systematic Review (S705)***



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#### *Objectives*

- Describe opioid-induced neurotoxicity and its risk in renal impairment.

- Summarize evidence for morphine or hydromorphone neurotoxicity in hospice and palliative care patients with renal impairment.
- Understand current opioid guidelines in renal impairment.

**Background and Objective.** Opioids are the mainstay of symptom control for seriously ill patients with pain. The accumulation of active metabolites, particularly with use of morphine and hydromorphone, is thought to increase risk of neurotoxicity in patients with renal impairment exacerbating the high symptom burden of these patients.

**Study Identification.** To identify and assess the quality of evidence for opioid-induced neurotoxicity in patients with renal impairment receiving morphine or hydromorphone. Systematic searches were conducted of the following databases from inception to December 2015: MEDLINE, CINAHL, EMBASE, in addition to hand-searching relevant review articles' citations. Studies were included if they reported neurotoxic effects of either morphine or hydromorphone for chronic or malignant pain in patients with renal impairment. Review articles and case reports were excluded.

**Data Extraction and Synthesis.** Narrative review was undertaken. The Grading of Recommendations, Assessment, Development and Evaluation approach was used to assess study quality.

**Results.** Six original articles, including three prospective and three retrospective studies were identified and assessed. No relevant randomized clinical trials were identified.

**Conclusions and Implications for Practice, Policy, and Research.** Though morphine and hydromorphone may be associated with neurotoxic effects in patients with renal impairment, current evidence is limited to very low-quality studies with conflicting findings. Clinicians may consider using either morphine or hydromorphone in mild to moderate renal impairment, while closely monitoring for neurotoxic effects, particularly when used in high doses and for extended duration.

### ***An Educational Intervention to Increase Advance Directive Completion (S706)***



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#### *Objectives*

- Understand the current rate of advance directive completion in the United States.
- Name two important aspects of this educational intervention to increase advance directive completion.

**Original Research Background.** When medical care is delivered in accordance with patients' wishes at the

end of life it leads to greater patient empowerment, enhances patient comfort and dignity while relieving suffering and decreasing hospital costs. Advance directives are one means of clearly documenting patient preferences for end-of-life care. Unfortunately, completion rates for advance directives remain low. This study was an evidence-based intervention to increase advance directive completion. It took place in a large urban hospital in the Southwestern United States with a large minority and underserved population.

### Research Objectives.

1. To design an intervention for patients that includes an educational booklet and discussion guide about advanced directives
2. To implement the intervention on a small sample of patients
3. To assess the effectiveness of the intervention on completion of advance directives

**Methods.** This was a randomized controlled study. The sample was drawn from inpatients on a cardiology unit who were randomly assigned to a treatment or control group. The treatment group received the intervention (booklet and discussion), the control group received usual care. Data was collected by chart review. Subjects with an advance directive document on their EMR at discharge were recorded as having a completed advance directive. At the end of the study the groups were compared using a comparison of percentages and a Chi square test of independence.

**Results.** The results showed a completion rate of advance directives of 69% in the treatment group and only 3% in the control group. This is a 66% increase in completion for those patients who received the intervention.

**Conclusion.** The study results strongly support the use of this written and verbal education to increase advance directive completion.

**Implications for research, policy, or practice.** If this intervention is incorporated into end of life practice it may lead to significantly improved patient outcomes and improved resource management.

### *Let's Be Smart About Improving Pain: A Patient Controlled Analgesia (PCA) Safety Checklist Quality Improvement (QI) Project (S707)*



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#### Objectives

- Develop a Patient Controlled Safety Checklist
- Implement standardized PCA documentation techniques using smart phrases

### Measurable behavioral Objectives:

1. Develop a PCA safety checklist
2. Implement standardized PCA documentation techniques using smart phrases
3. Reduced pain scores in 2 days

**Study Identification.** Introduction: Safety checklists have been shown to improve patient care (1, 2). The inpatient palliative care consult service (PCCS) frequently manages opioids via PCAs for rapid pain control. A PCA safety checklist would serve as a safeguard against unintentional misses of priority safety measures in this high risk population.

**Data Extraction and Synthesis.** An initial PCA safety checklist was developed by agreed upon fundamentals for PCA safety. Four checklist components (PCA initiation, PCA titration, PCA transition to oral opioids, PCA discharge handoff) were converted into EPIC Electronic Health Record (EHR) smart phrases to facilitate standardized documentation of PCA management. Fill-in-the-blanks PCA data trend tables were included in the smart phrases. Patient pain scores were documented at each encounter using the modified Edmonton Symptom Assessment Scale (ESAS). In cycle 1 (July-September 2015), smart phrases were implemented with team input. In cycle 2 (November 2015-January 2016), focused team reminders were utilized and smart phrases modified based on team feedback.

**Results.** Pre-intervention (March-May 2015), 58% (n=101/172 encounters) of PCAs managed by the PCCS had documented PCA trend tables. Reports of moderate-severe pain decreased to no-mild pain in 42% of patients within 2 days. Post-intervention cycle 1 revealed 84% (n=82/98 encounters) had completed PCA tables, and 94% (n=93/99 encounters) after cycle 2. Reports of moderate-severe pain decreased to no-mild pain in 85% (cycle 1) and 54% (cycle 2) of patients within 2 days.

**Conclusions and Implications for Practice, Policy, and Research.** Our PCA safety checklist smart phrases increased use of a safety checklist and documentation of daily PCA opioid trends, and correlated with more rapid improvement in moderate-severe pain levels.

### *Advance Care Planning Preferences in Hispanic Population in the Bronx (S708)*



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#### Objectives

- Awareness of Advance care planning preferences in Hispanic cancer patients
- Improve communication among Hispanic cancer population

**Original Research Background.** Despite the fact that Hispanic Americans are among the fastest growing minority group, studies exploring decision

control preferences (active, shared, passive) in the Hispanic population are limited and found inconsistent results.

**Research Objectives.** We aim to explore medical information-sharing and decision-making preferences of Hispanic patients in the Bronx. Determine disclosure of information preferences diagnoses, prognosis and plan.

**Methods.** We recruited cancer patients who self-identify as Hispanic and are waiting at the oncology clinic at Montefiore Medical Center Cancer Center before an appointment. We used standardized validated questionnaire based on previous studies.

**Results.** We interviewed 114 patients. The majority (60, 52.6%) preferred shared decision-making with their doctors, families or both, while 45 (39.5%) had an active decision-making style. A minority (9, 7.9%) had a passive decision-making style, deferring to their families and only 1 (0.9%) had a passive decision-making style deferring to the physician. The only demographic characteristic that was associated with decision-making preference was language; those who are English-speaking were more likely to endorse an active decision-making style ( $\text{Chi}^2 = 7.06, p = 0.029$ ) and less likely to endorse shared decision-making ( $\text{Chi}^2=6.33, p=0.042$ ). The majority of patients agreed or strongly agreed that they wanted to hear all of the information regarding their diagnosis (108, 94.7%), treatment options (107, 93.9%), treatment expectation (106, 93.0%) and treatment risks and benefits (109, 95.6%).

**Conclusion.** These results confirm our hypothesis that most Hispanic patients prefer either an active or a shared decision-making process rather than a passive decision-making process. Most patients prefer disclosure of diagnosis, prognosis and plan.

**Implications for research, policy or practice.** This study will impact the oncologist interaction with Hispanic patients considering their preferences while making medical decisions, therefore, may improve overall doctor-patient satisfaction.

### ***Palliative Care Clinicians' Perceptions of Clinician Bias and Bias Management in Goals of Care Discussions at the End of Life (S709)***



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#### *Objectives*

- State at least one literature-derived definition for bias.
- Identify at least five biases specific to goals of care discussions at the end of life.

- Identify at least five bias management strategies used by palliative care clinicians in goals of care discussions at the end of life.

**Original Research Background.** The literature defines bias as our unwarranted inclinations or one-sided perspectives that dispose us to certain judgments. In the context of end-of-life care, biases can interfere with patient articulation of goals and hinder provision of patient-centered care. No studies have addressed clinician bias or bias management specific to goals of care discussions at the end of life.

**Research Objectives.** The Objectives of this study were to identify palliative care clinician biases and bias management strategies in end-of-life goals of care discussions.

**Methods.** A qualitative, interview-based study was conducted to achieve these Objectives. A purposive sampling of twenty palliative care clinicians in Middle Tennessee participated in interviews. Participants were asked directly to identify biases and bias management strategies applicable to goals of care discussions at the end of life. Two researchers developed a codebook to identify themes using a 25% transcript sample through an iterative based on grounded theory. Inter-rater reliability was evaluated using Cohen's Kappa. It was 0.81, indicating near perfect agreement between coders. The data approaches saturation.

**Results.** The 20 clinicians interviewed identified 18 biases and 11 bias management strategies. The most frequently mentioned bias was a bias against aggressive treatment (N=9), described as a clinician's assumption that most interventions at the end of life are not beneficial. The most frequently mentioned bias management strategy was self-recognition of bias (N=17), described as acknowledging that bias is present.

**Conclusion.** Palliative care clinicians perceive that specific biases can undermine best practices in facilitating goals of care discussions at the end of a patient's life. The increased convergence of perceptions around bias management strategies suggests that clinicians more often agree that biases need attention even though they do not agree as often on what the operative biases are.

**Implications for Research, Policy or Practice.** Future studies can seek to understand the applicability of these findings to palliative care clinicians in other geographical regions.

### ***Palliative Care Teaching in the Yale Internal Medicine Curriculum: How Are We Doing? (S710)***



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#### Objectives

- Review the approach to curriculum mapping for current palliative care content in one Internal Medicine Residency Program.
- Identify the resident level palliative care competencies that are explored and missed during Internal Medicine Training in this program.
- Discuss the strengths and limitations of curriculum mapping as a method in this setting.

**Original Research Background.** As the prevalence of patients living with serious illness rises, it is essential that residents are trained to provide primary palliative care.

**Research Objectives.** To elucidate the existing palliative care exposure in the Yale Primary Care and Traditional Internal Medicine Residency Programs through the use of curricular mapping, a tool linking instructional methods with educational outcomes.

To identify content gaps in the Yale Internal Medicine residencies based on published residency-level palliative care competency domains: Pain & Symptom Management (PSM), Communication, Psychosocial/Spiritual/Cultural Aspects of Care (PSC), Terminal Care & Bereavement (TCB), Palliative Care Principles & Practice (PCPP).

**Methods.** We reviewed curricular content for 7/1/2014-6/30/2015. We identified core educational venues: grand rounds, morning report, attending rounds, ambulatory didactic sessions, noon conference, geriatrics rotation, electives, and the intranet palliative care curriculum. We reviewed the online content of grand rounds, ambulatory didactics, and the intranet curriculum. For morning report, attending rounds, and noon conference content, faculty from both residency programs were emailed. This was not feasible in the Traditional Program given scheduling complexity and size. We emailed 22 core Primary Care Program faculty for the title and learning Objectives identifying the covered competencies. We mapped the content to the competencies.

**Results.** We had data for 4 educational venues: grand rounds, morning report, attending rounds, ambulatory didactics. Of the physicians emailed 10 provided data. Within the 4 venues, 38 events addressed at least 1 competency domain. 66% addressed communication, 58% addressed PSC, 34% addressed PSM, 16% addressed PCPP, none addressed TCB. 10% were palliative care lectures, 10% covered Hospice, none covered Spirituality.

**Conclusion.** Communication and Psychosocial & Cultural Aspects were addressed often while TCB and Spirituality were absent. Mapping was limited by a lack of a central content database and the inability to capture informal teaching.

**Implications for research, policy or practice.** We are implementing a new structured curriculum addressing the above deficits. We recommend graduate medical education programs track educational content to facilitate curricular improvement.

#### *Population-Based Measures from Administrative Data to Guide Efforts to Examine and Improve the Quality of Hospice Care (S711)*



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#### Objectives

- Identify seven population based measures that can be calculated for Medicare claims data.
- Understand how certain characteristics of hospices correspond to being an outlier on multiple measures listed in Objective 1.

**Original Research Background.** Medicare requires hospices to submit claims containing information that could be used to create population based measures of processes and outcomes to guide efforts to monitor hospices and improve care delivery.

**Research Objectives.** Identify hospices that are outliers in the provision of hospice services along seven dimensions: (1) provision of General Inpatient and Continuous Home Care days, (2) visits by nurse or social worker at the end of life, (3) long length of stays in hospice, (4) rates and patterns of hospice live discharge, (4) selective enrollment of nursing home and ALF patients, (6) infrequent hospice visits by nursing staff over the entire course of the episode, and (7) average time spent by nurse during a visit.

**Methods.** Population based measures are calculated using 100% of Medicare hospice claims from FFY 2014. For each measure, hospices are grouped into deciles. We count how times a hospice is in the highest decile for each measure and use that count to determine outliers.

**Results.** 460 out of 3,453 hospices scored in the highest decile for 3 or more measures. Those hospices were in southern census region (56% vs. 38%,  $p < .001$ ) and were for-profit (75% vs 55% for not-for-profit,  $p < .001$ ). A multivariate ordinal logit model showed newer, smaller, for-profit hospice programs were more likely to be above the thresholds for 3 or more measures compared to larger, older, not-for-profit programs (AOR 2.52 - 95% CI: 1.86-3.42).

**Conclusion.** Potential markers of poor performance can be calculated using hospice claims. Ownership and location are correlated with poor performance across multiple measures.

**Implications for research, policy or practice.** The IMPACT Act requires hospices to be surveyed every 3 years. In addition to patient complaints, the substantial variation in existing population based measures potentially could help guide surveyors to target key processes of care to ensure Medicare beneficiaries receive high quality hospice care.

***Goals of Care and the Dying Experience in Advanced Dementia: What Might Be Learned By Implementing Goals of Care (S712)*** 

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*Objectives*

- Facilitate future research in hospice and palliative care.
- Apply sound communication principles with patients, families, and interdisciplinary teams.

**Original Research Background.** Two-thirds of dementia deaths occur in nursing homes. Evidence suggests communication about goals may improve satisfaction with care at the end of life in the nursing home setting, though other outcomes have not been examined.

**Research Objectives.** To describe the dying experience for nursing home residents with advanced dementia who participated in the Goals of Care study, and to examine factors associated with quality of dying and comfort at the end of life.

**Methods.** This is a pre-planned analysis of data from a cluster randomized controlled trial in twenty-two nursing homes in North Carolina to test a Goals of Care video decision aid and care plan discussion among family members of nursing home residents with advanced dementia who died within nine months after enrollment. Structured family interviews provided data on Comfort Assessment in Dying at the End-of-Life with Dementia (CAD-EOLD) and Quality of Dying in Long-Term Care measure (QOD-LTC). Data on residents' clinical characteristics were abstracted from the medical charts. Logit models were used to determine factors associated with comfort and quality of dying.

**Results.** Of the sixty-one decedents, thirty-five (57%) had a primary goal of improving comfort. Family members reported moderate comfort (CAD-EOLD) at 33.3 (SD=5.5) and moderate quality of dying

(QOD-LTC) at 41.7 (SD=7.0). There were no significant differences in relation to participation in the Goals of Care Intervention.

**Conclusion.** As judged by family caregivers, there is room to improve comfort and quality of dying for nursing home residents with advanced dementia. Future research powered to detect changes in the decedent populations may reveal factors associated with quality of dying and comfort.

**Implications for research, policy or practice.** Future interventions might target the dying experience for patients with dementia and their families. Tailoring Goals of Care to the end-of-life may be one such strategy, given that the intervention was not designed to target patients who were imminently dying.

***The Association Between Hospital Mortality and Mortality Shortly After Hospice Admission (S713)*** 

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*Objectives*

- Identify ethical, regulatory and legal concerns related to hospice and palliative care.
- Facilitate future research in hospice and palliative care.

**Background and Objective.** Hospital mortality rates available through CMS's Hospital Compare database are commonly-used quality indicators. Patients admitted to hospice care during the first 24 hours of a hospital stay, however, are excluded from the metrics, raising concern that this exception may lead to greater mortality shortly after hospice admission. Our analysis examines the association between hospital mortality rates and mortality among hospice admissions recently discharged from hospitals.

**Study Identification.** Retrospective analysis of 100 percent of claims for Medicare hospice beneficiaries in fiscal year 2014 transferring from short-term Medicare-certified hospitals.

**Data Extraction and Synthesis.** We match 100 percent hospice claims to mortality rate data from the Centers for Medicare and Medicaid Services' Hospital Compare database. Our analysis focuses on beneficiaries suffering from heart disease, lung disease, or stroke. We categorize high (low) hospital mortality as hospitals with rates above (below) the national average.

**Results.** Hospice beneficiaries transferring from hospitals with low mortality rates are more than twice as likely to die two days after hospice admission. For instance, only 3 percent of heart disease patients transferring from hospitals with high acute myocardial

infarction mortality die two days after hospice admission, as compared to 10 percent of heart disease patients from hospitals with low acute myocardial infarction mortality. The results are robust across different types of hospitals and alternative definitions of mortality shortly after hospice admission. Different factors may explain the observed relationship between hospital mortality and hospice mortality shortly after admission. This association may not necessarily imply causation. For instance, we find that, hospitals with higher rates of patients transferred to hospice have lower mortality than other hospitals.

**Conclusion and Implications for Practice, Policy and Research.** Preliminary results reveal an inverse association between hospital mortality and death shortly after hospice admission, and that factors such as the number of patients transferring from hospital to hospice affect this association.

### *Palliative Care for Advanced Dementia: Nursing Home Staff Knowledge and Attitudes (S714)*



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#### *Objectives*

- Identify key characteristics and the design of the Questionnaire Palliative Care for Advanced Dementia (qPAD).
- Explain the Questionnaire Palliative Care for Advanced Dementia and its relevance to clinical practice.

**Original Research Background.** Dementia is a leading cause of death across the globe. Palliative care may not be well-integrated into the care plans of older adults residing in nursing homes at the end of life. The *Palliative Care for Advanced Dementia: Training and Implementation* program, initiated by the Alzheimer's Association New York City Chapter, embarked on a formal palliative care education program to institute change in nursing homes that care for people with dementia by promoting quality care during the final stages of life.

**Research Objectives.** To ascertain the improvement in knowledge and attitudes after a palliative care education program.

**Methods.** Dementia special care units in three large nursing homes in New York City were recruited to participate in an education and research program designed to enhance organizational practices and staff knowledge over the yearlong education intervention. Institutional Board Review approval was obtained. Direct care staff and managers (n=129) from all nursing home disciplines completed the Questionnaire of Palliative Care for Advanced Dementia (qPAD)<sup>®</sup>, a reliable and valid

tool that measures knowledge obtained and attitudes before and after completion of the educational program.

**Results.** Eighty-five nursing home staff completed two rounds of the qPAD. Scores on the Knowledge Test improved from 15.13 (SD = 3.46) to 16.17 (SD = 3.53); t-test = 3.872 (p = .000). Two Way Repeated Measures ANOVA for the attitude items revealed, among others, improved communication among team members  $F(1,74) = 9.655, p = .003$  and improved enjoyment in caring for persons with advanced dementia  $F(1, 73) = 7.411, p = .008$ .

**Conclusion.** The qPAD can guide nursing homes in determining the impact of palliative care education on knowledge and attitudes of staff and managers who care for people with dementia.

**Implications for research, policy or practice.** Reliable and valid instruments are necessary to guide clinicians regarding the effects of palliative care for advanced dementia education programs.

### *Preferences for Quality or Length of Life: An Analysis of Patients with Advanced Cancer and Their Family Caregivers Prior to Death (S715)*



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#### *Objectives*

- Describe the demographics of patients with advanced cancer and their family caregivers.
- Distinguish the differences in preferences for quality versus length of life between patients with advanced cancer and their family caregivers.

**Background/Objectives.** Patients with advanced cancer are often faced with difficult decisions throughout their course of treatment and at end of life. These decisions can be influenced by their family caregiver's preferences for the patient's cancer treatment. The purpose of this study is to examine the concordance between patients and family caregivers' preferences for quality or length of life over time.

**Methods:** Using a longitudinal, descriptive study design in this on-going study, we are collecting data on an adult sample of patients with advanced stage GI or lung cancers and their family caregivers (n=41). Using a one item visual analog scale (0-100 with higher number indicating a preference for length of life over quality of life), patients and family caregivers are being asked "regarding your/your loved one's care, what is most important to you right now?" Data are collected every 3 months until 15 months or patient's death.

**Results.** 41 patient-family caregiver dyads are included in these analyses. On average, patients died 5.2 months after enrollment into the study. At baseline, patients' average preference scores were 55.5 (SD=32.8) and family caregivers' average preference scores were 40.1 (SD=27.1)—this difference was statistically significant ( $p=.04$ ). At the last assessment prior to death, patient preference scores were 58.3 (33.2) and family caregivers were 34.4 (22.9)—the difference was statistically significant ( $p=.003$ ). However, when examining differences over time, we found that neither patient ( $p=.80$ ), family caregiver ( $p=.26$ ) or differences between patient and family caregiver preferences changed over time ( $p=.44$ ).

**Conclusion/Implications:** Patients and family caregivers have differing preferences regarding quality versus length of Life and their preferences diverge over time and at end of life. While not statistically significant, attention to these differences could be used to guide conversations between patients and family caregivers regarding preferences at the end of life.

### *Nurses' Experiences of Spiritual Communication with Seriously Ill Children (S716)*



Elaine Wittenberg, PhD, City of Hope, Duarte, CA. Betty Ferrell, FPCN FAAN, City of Hope National Medical Center, Duarte, CA. Vanessa Battista, MS RN CPNP, Children's Hospital of Philadelphia, Philadelphia, PA. Gay Walker, RN CHPPN CHPN, Providence Trinity Care, Fullerton, CA.

#### *Objectives*

- Understand the spiritual communication needs of seriously ill children.
- Describe at least one topic of spiritual communication with ill children.
- Describe at least one communication strategy for communication with ill children.

**Original Research Background.** Spiritual care is essential in pediatric palliative care and nurses have been identified as the key team member with whom parents and children most often communicate. Yet, spiritual communication remains one of the most difficult areas of communication for nurses.

**Research Objectives.** The purpose of this presentation is to describe spiritual communication with seriously-ill children to inform communication training in pediatric palliative care.

**Methods.** Researchers developed a brief survey to prompt nurses to reflect on pediatric palliative care experiences that included spiritual discussions. Stories were collected from nurses attending End-of-Life

Nursing Education (ELNEC) courses. Qualitative responses were transcribed and inductively analyzed using an iterative process of theme analysis.

**Results.** Nurses' spiritual conversations with children revealed that children question God and the reason for their illness, have a desire to talk about the afterlife as a way of understanding their limited lifespan, and to share descriptions of an afterlife, in these cases described as heaven. Nurses conveyed the importance of being present and engaging in spiritual communication with children. Nurses believed that ill children had spiritual needs and that it was important to nourish the child's spirit by being with them and acknowledging their experiences. Nurses also emphasized being present for and with the children and their families and available to pray with them. Finally, nurses highlighted that they themselves had to be spiritually available.

**Conclusion.** This presentation will emphasize the importance of being present and engaging in spiritual communication with children.

**Implications for research, policy or practice.** Communication training is needed and should prepare providers to respond to a child's spiritual questioning, assist parents when the child initiates discussion about the afterlife, and help parent and child understand the spiritual meaning of their illness. Quality palliative care communication is incomplete without attention to spiritual care.

### *Collaborative Care Across the Silos: Respecting Wishes and Decreasing Unwanted Readmissions (S717)*



Tara Liberman, DO, Northwell Health, Manhasset, NY. Adriana Calosso, RN NP, Northwell Health, Manhasset, NY. Mary Curtis, PhD, North Shore University Hospital, Manhasset, NY. Regina Roofeh, BS, Northwell Health, Manhasset, NY. Maria Carney, MD, Long Island Jewish Medical Center, New Hyde Park, NY.

#### *Objectives*

- Understanding the importance of transitions of care coordination for reducing unwanted patient hospital readmission.
- Understanding how patient disposition is effected by systemic and personal factors.

**Original Research Background.** According to research, Long Island sees higher rates of hospital utilization and in-hospital death in the last 6-months of life compared to other regions. Of those who prefer to die at home, 55% died in the hospital.

**Research Objectives.** The hypothesis is that palliative coordination among a tertiary-care hospital, nursing home facility, and community agency will lead to fewer readmissions and in-hospital deaths in a population with multiple readmissions. The goal is

to provide palliative consults on individuals with advanced illness (AI) and readmission history.

**Methods.** The Geriatric and Palliative (GAP) team at Long Island Jewish Medical Center (LIJ) consulted patients with AI arriving from Parker Jewish Institute for Healthcare & Rehabilitation (PJI), a skilled nursing facility, with hospitalizations in preceding 3-months. Upon hospital discharge, a GAP nurse practitioner consulted with staff at PJI, discussing diagnosis, health status, goals of care, and advance directives (ADs). A community agency supported patients and families for psychosocial needs.

**Results.** Two hundred patients were included, with median age of 82 years; 89 males, 111 females. Nearly all (98.7%) documented ADs, with 55% wanting “Do Not Resuscitate” orders and 44.5% remaining “Full code” status. While 97.5% of patients had one or more hospitalizations within 3-months pre-intervention, only 47.7% of discharged patients were hospitalized within 3-months post-intervention, a 49.8% decline. Of discharged patients, 62.6% died outside the hospital at home, hospice, or nursing facility, and 37.4% died in the hospital setting consistent with their goals of care.

**Conclusion.** Conversations regarding ADs, goals of care, prognosis, proper documentation, and communication between facilities can decrease readmissions. While the majority of patients were comfortable documenting ADs, a significant number want full code status, re-hospitalization, and resource utilization.

**Implications for research, policy, or practice.** These findings shed light on the factors that may lead to in-hospital deaths, as there are both systemic and human factors involved in each patient’s trajectory through the care continuum.

### *A Randomized Clinical Feasibility Trial Comparing the Letter Project Advance Directive to Traditional Advance Directive (S718)*



V.J. Periyakoil, MD, Stanford University School of Medicine, Stanford, CA.

#### *Objectives*

- Gain an initial understanding of how multi-ethnic patients were engaged to design and refine the multi-lingual Letter Project Advance Directive.
- Gain an initial understanding of the methods, measures and results of the feasibility randomized clinical trial.

**Original Research Background.** Most advance directives (AD) are complex documents and patients require professional assistance to complete them. Simpler alternatives to traditional advance directives (TAD) that are available in multiple languages and

formats can empower patient-driven advance care planning.

**Research Objectives.** Working closely with multi-ethnic, multi-lingual patients, we designed the Letter Project Advance Directive (LPAD) in a question and answer format at a 5th grade reading level. The goal of this study was to compare the usability of the LPAD to TAD.

**Methods.** A web-based randomized controlled trial was conducted with a convenience sample of 456 participants, who completed one of two forms of AD: intervention (LPAD) or the control (TAD). Primary outcomes were participant rating of the ease, value and their level of comfort in the AD they completed.

**Results.** A total of 458 participants completed the study, with 232 randomized to the LPAD and 226 to the TAD by a computerized algorithm. Overall, participants preferred the letter directive to the traditional directive ( $p < 0.0001$ , SRD=0.44, AUC=0.72).

Compared to the TAD, the participants felt that the LPAD was easier to read and understand ( $p < 0.001$ , SRD=0.52, AUC=0.76); better reflected what matters most to them ( $p < 0.001$ , AUC=0.70); helped stimulate their own thinking about the types of treatments they wanted at the end-of-life ( $p < 0.001$ ); described how they make medical decisions in their family ( $p < 0.001$ , AUC=0.65); can help their doctor(s) ( $p < 0.001$ , AUC=0.62) and their family ( $p = 0.001$ , AUC=0.58) understand their end-of-life treatment preferences; and participants felt more comfortable using the LPAD ( $p < 0.001$ , AUC=0.63).

**Conclusion.** The LPAD is a feasible and easier alternative to the TAD.

**Implications for research, policy or practice.** According to the Institute of Medicine, electronic AD that elicit statements of patient wishes, documents health care proxies, are a promising solution to remedy some of current national problems related to AD. The LPAD is an electronic multi-lingual tool to promote advance care planning.

### *Understanding of Death and Dying in Children from Diverse Cultural Backgrounds with Life-Threatening Illnesses and Their Siblings (S719)*



Paula McPoland, MD, Akron Children’s Hospital, Akron, OH. Sarah Friebert, FAAP FAAHPM, Akron Children’s Hospital, Akron, OH. Kristine Allmendinger-Goertz, BA, Akron Children’s Hospital, Akron, OH.

#### *Objectives*

- Describe current state of pediatric palliative care and its relevance in international and low resource settings.

- Outline the developmental stages of children's understanding of death and dying.
- Discern differences in understanding of death and dying among children from diverse cultural backgrounds.

**Original Research Background.** Pediatric palliative care (PPC) is increasingly recognized as an effective way to deliver services to children and adolescents experiencing life-threatening illness and their families. As PPC emerges as the standard of care for serious illness, it is imperative that all children and families in need have access. Yet, in many parts of the world, access to PPC is limited or non-existent and, where present, is often not adapted to the cultural or developmental needs of children due to significant barriers to its provision in low resource settings.

**Research Objectives.** Increase the knowledge base surrounding children's understanding of illness, death and dying in diverse cultural settings to gain insight into how children develop and communicate their ideas. This is essential to ensuring that PPC services being developed and integrated into health systems effectively meet the needs of patients and families.

**Methods.** Study participants were recruited from two pediatric hospitals in Akron, Ohio and Port-au-Prince, Haiti. Individuals trained in interviewing children completed 10-15 semi-structured interviews at each site with patients with life-threatening illnesses and their siblings ages 5-18 years. Interviews addressed illness experience, understanding of death and dying and coping.

**Results.** Preliminary results indicate that children with life-threatening illnesses and their siblings frequently worry about death and dying. Further, they have a mature understanding when compared to age-matched healthy children. Notable differences include an increased exposure to death and focus on faith as a means to understand their experience amongst the Haitian children.

**Conclusion.** Though children from diverse cultural backgrounds have differences which guide their understanding of death and dying, there are also multiple similarities. Both similarities and differences should inform policy, practice and distribution of scarce resources.

**Implications for research, policy or practice.** Further research in additional cultural settings is essential for generating services which support patients and families and for targeting deployment of precious resources, particularly in resource-limited settings.

### ***Reiki for Hospice Patients and Their Caregivers: An In-Depth Qualitative Study of Experiences and Effects on Symptoms (S720)***



Kristina Conner, MD, Lawrence General Hospital, Medford, MA. Gowri Anandarajah, MD, Alpert Medical School of Brown University, Providence, RI.

#### *Objectives*

- Describe the current state of research regarding Reiki therapy for hospice and palliative care patients
- Articulate the key findings of this qualitative exploratory study on Reiki in hospice patients and their caregivers.
- Demonstrate an understanding of the strengths and weaknesses of this study.

**Original Research Background.** Reiki is a form of complementary and alternative medicine (CAM), based on biofield theory, which is increasingly being used in hospice and palliative care settings. Although small studies on Reiki in cancer patients and the elderly suggest an improvement in symptoms, few, if any, studies have been performed in the hospice setting.

**Research Objectives.** To explore in-depth the experiences of hospice patients receiving Reiki and caregivers.

**Methods.** Design: An exploratory qualitative in-depth individual interview study. *Participants/Setting:* Hospice patients and their caregivers who have chosen to receive Reiki therapy through a New England hospice. Patients' and caregivers' interviews were supplemented with interviews of their Reiki providers. Institutional Review Board approval was obtained. *Data collection:* Individual semi-structured interviews, using an interview guide, were audio-recorded and transcribed verbatim. *Analysis:* 2 researchers used the phenomenological approach to qualitative analysis to determine themes in the transcripts.

**Results.** Three major themes emerged: (1) *Trust* - plays an important role in both trying Reiki and experiencing benefits; (2) *Sensations are felt in the body during Reiki* - notable similarities in descriptions included somatic sensations, temperature changes and visual sensations; (3) *Some symptoms are relieved* - the most common was anxiety. Others include: pain, agitation, nausea, and insomnia. Participants' description of sensations and symptoms appeared unrelated to how Reiki providers describe Reiki to clients. Participants reported no side effects.

**Conclusion.** This exploratory study suggests that Reiki therapy may result in positive physical sensations and symptom relief in hospice patients and their care-

givers, with no reported side effects. Further study is needed to better understand this phenomenon.

**Implications for research, policy or practice.** Symptom management in hospice patients remains a challenge. Our study suggests that Reiki has the potential to serve as a useful adjunctive therapy in treating several symptoms, particularly anxiety.

***Just in KASE: Evaluating Nursing Students' Knowledge, Attitudes and Self-Efficacy to Care for the Dying Patient (S721)*** 

Emma Max, SN, Villanova University, Villanova, PA. Meredith Mackenzie, PhD RN CRNP CNE, Villanova University, Villanova, PA.

**Objectives**

- Describe nursing student knowledge, self-efficacy and attitudes around caring for the dying patient across class years.
- Discuss the relationship between nursing student experience with caring for a dying patient and their attitudes around caring for the dying patient.

**Original Research Background.** Caring for the dying patient can be distressing for nursing students. End of life (EOL) care is an essential skill for the professional nurse and the nursing student must prepare to provide quality care to these patients, while maintaining their own emotional health. Little is known about current student nurse knowledge, self-efficacy or attitudes towards EOL care.

**Research Objectives.** Describe the knowledge, self-efficacy, and attitudes towards EOL care among nursing students at a northeastern traditional baccalaureate program and examine correlations between student demographics and outcomes.

**Methods.** Nursing students from the sophomore to senior levels were sent an online survey consisting of demographic questions, the Frommelt Attitude Toward Care of the Dying (FATCOD), the Knowledge Assessment, and Self-Efficacy Assessment Instruments. The response rate was 25%. Multivariate modeling was used to identify correlates of student knowledge, self-efficacy and attitudes.

**Results.** Sixty-nine sophomore (22%), junior (52%), and senior (26%) nursing students completed the survey. The sample was 87% white, 98% female and 71% had cared for a dying person, either in clinical or personal life. On average, students scored 5.8 (out of 7) on knowledge, scored 35 (out of 48) on self-efficacy and held positive attitudes towards EOL care. Class year was the only correlate of knowledge, while student's attitudes and class year impacted their self-efficacy. Students' attitudes towards EOL care were correlated with ethnicity, previous experience with EOL care, age and self-efficacy.

**Conclusion.** Enhancing student exposure to EOL care in the clinical environment positively impacts their attitudes towards caring for the dying patient.

**Implications for research, policy or practice.** Nursing schools should consider actively incorporating hospice and palliative care experiences into their clinical rotations.

***Improving Education on Palliative and End-of-Life Care in the ICU: A Survey of Residents (S722)*** 

Ayla Pelleg, MD, Rush University Medical Center, Chicago, IL. Elaine Chen, MD, Rush University Medical Center, Chicago, IL.

**Objectives**

- Identify gaps in residents' training regarding PEOLC in the ICU.
- Formulate PEOLC curricula for residents during ICU rotations.

**Original Research Background.** Palliative and End-of-life Care (PEOLC) is an important part of resident training in Intensive Care Units (ICU). Improving PEOLC education for residents in the ICU should be prioritized.

**Research Objectives:**

1. Identify gaps in residents' training regarding PEOLC in the ICU.
2. Formulate PEOLC curricula for residents during ICU rotations.

**Methods.** A previously designed web-based survey tool was used to conduct a survey of all residents at one academic hospital center who have completed one or more ICU rotations. Responses were evaluated for strengths and deficiencies in educational programs.

**Results.** Of 305 surveys distributed, 147 (48.2%) were returned. Nine surveys were incomplete, thus the analytic sample was 139. Of 147 responses, there were 87 Internal Medicine, 10 Preliminary, 18 Anesthesia, 15 Neurology, and 17 General Surgery residents. Palliative care specialists had been encountered by 137 (98.6%) of respondents. The skills in greatest need of improvement include leading a family meeting, managing symptoms, and discussing organ donation and autopsy. Most residents felt comfortable with discussing prognosis, the process of withdrawal of life support, and notifying family after a patient's death. Most residents felt they did not have adequate feedback on PEOLC during training but think that more PC education could be readily incorporated during ICU months.

**Conclusion.** The vast majority of residents surveyed had encountered a palliative care specialist during resident training, speaking to the strong palliative care presence in this academic institute. A simple PEOLC resident curriculum during ICU months would benefit

residents. A pre-post ICU rotation survey could be designed to assess knowledge ascertained during ICU months.

**Implications for research, policy or practice.** This survey highlights potential to improve residents' PEOLC educational experience in the ICU. A concrete curriculum can be established to address learning gaps such as describing an autopsy, discussing organ donation, and managing distress, anxiety, and pain in ICU patients.

### ***Trends in Hospital Palliative Care from the National Palliative Care Registry™ (S723)***

Tamara Dumanovsky, PhD, Center to Advance Palliative Care, New York, NY. Maggie Rogers, MPH, Center to Advance Palliative Care, New York, NY.

#### *Objectives*

- Describe the prevalence of palliative care programs in U.S. Hospitals
- Identify the types of palliative care teams in terms of professional discipline, full-time equivalent, workload, and coverage

**Original Research Background.** The National Palliative Care Registry™ is a central resource for national data on the operational features of hospital palliative care programs. The Registry provides palliative care programs with comparative data on their operations, staffing, reach and key outcomes. This information has been critical for program leaders who otherwise have no benchmarks to assess their own programs. The Registry promotes standardization to improve the quality of palliative care.

**Research Objectives, Methods, Results.** This session will provide an overview of trends in the operational features and service models of palliative care in U.S. hospitals from 2008 to 2015. Two key metrics are penetration and staffing. Penetration, a measure of how well programs are reaching patients in need, is defined as the percentage of annual hospital admissions seen by the palliative care team. Hospital programs have increased their penetration from 2008 to 2015 by 85 percent, from 2.6 (2.3-2.8) to 4.8 percent (4.4-5.1). Data from participating hospitals also show the growth of palliative care interdisciplinary teams. For hospitals with 500 or more beds, the interdisciplinary team has nearly doubled from 2008 to 2015—from 3.7 full-time equivalent (FTE) staff to 6.9 FTE; hospitals with fewer than 150 beds report an increase of only 32 percent, from 2.2 FTE in 2008 to 2.9 FTE in 2015.

**Conclusion and Implications for policy and practice.** Since 2008, the Registry has been an essential resource for hospital palliative care programs and has contributed to the expansion of access to palliative care. For specific programs, Registry data have helped to make the case for program development, staffing

and value. Over the past few years, palliative care has moved from predominantly hospital- and hospice-based programs toward service models that reach across the care continuum. With palliative care's expansion into community settings, the Registry will work to meet the needs of programs in long-term care, home health, clinics and office practices.

### ***Evaluating the Feasibility and Variability of Measuring What Matters (MWM) in 49 Veterans Administration Hospitals (S724)***

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#### *Objectives*

- Understand how EHR data can be used to calculate Measuring What Matters (MWM) items.
- Understand individual and facility level variation in MWM items in the VHA.

**Original Research Background.** Routine evaluation of performance is a growing focus, and Measuring What Matters (MWM) identifies key quality measures reflecting palliative performance. Veterans Health Administration (VHA) hospitals may use the Palliative Care-National Clinical Template (PC-NCT) to capture MWMs data to inform quality improvement.

#### **Research Objectives.**

1. Demonstrate the feasibility of using electronic health record (EHR) data to calculate five MWM measures.
2. Characterize patient and facility level variation in five MWM measures.

**Methods.** Many VA sites use the PC-NCT to collect routine clinical data about palliative consults. PC-NCT collects 51 items in 9 domains and we evaluated 49 facilities with  $\geq 30$  uses of PC-NCT and operationalized five MWM measures. We characterized PC-NCT item completeness and mapped items to MWM constructs: comprehensive assessment [MWM1]; symptom assessment [MWM2]; spiritual concerns [MWM6]; surrogate documentation [MWM7]; treatment preferences [MWM8]. We characterized patient and facility adherence as the proportion of cases receiving recommended care and examined facility-to-facility variation.

**Results.** Mean age of Veterans who received consults using the PC-NCT between 10/1/2014 and 9/30/2015 was  $73.8 \pm 11.5$  years; 97% male; 70% White (non-Hispanic); 57% had cancer; mean comorbidities totaled  $7.0 \pm 3.1$ . At the patient-level, proportions meeting the measures ranged from 47-93%: MWM1

47%; MWM2 76%; MWM6 58%; MWM7 83%; MWM8 93%. Across 49 facilities, there was substantial facility-level variation with median and interquartile ranges [IQR] for facility-level adherence ranging from 47-99%: MWM1 47% [20-75]; MWM2 88% [64-96]; MWM6 67% [24-85]; MWM7 93% [68-97]; MWM8 99% [95-100].

**Conclusion.** It is feasible to use EHR process data to specify five MWM measures. Patient and facility-level variation identified gaps in care and demonstrated inter-facility variation.

**Implications for research, policy or practice.** Our analysis provides a benchmark for non-VHA and other VHA sites and demonstrates meaningful gaps in care to motivate improvement. Use of routinely collected EHR data to operationalize MWM measures suggests MWM usefulness for performance improvement.

### *Describing Transitional Palliative Nursing Care Using a Standardized Terminology (S725)*



Diane Holland, PhD RN, Mayo Clinic, Rochester, MN. Cory Ingram, MD MS FAAHPM, Mayo Clinic, Rochester, MN. Ann Dose, PhD RN ACHPN, Mayo Clinic, Rochester, MN.

#### *Objectives*

- Describe patient problems and interventions associated with transitional palliative care.
- Describe the value of using standardized terminologies.

**Original Research Background.** Standardized terminologies describing primary needs of patients and the nursing interventions used to address them increases the comparability of clinical data across settings and models of care.

**Research Objectives.** We used the Omaha System to describe patient problems and the care provided by a nurse in a pilot study of a technology-enhanced transitional palliative care (TPC) intervention with patients and caregivers transitioning from hospital to home.

**Methods.** Deductive analysis was performed using the Omaha System as the organizing framework. Narrative phrases were mapped to the Omaha System categories (problem–intervention–target).

**Results.** 109 notes (1473 phrases) from a variety of nurse interactions (in-hospital, home, ED, phone call) were written over the course of the 8 week intervention for 9 adults (average age 68, 7.1 co-morbid conditions and 15.4 medications) discharged home from an upper Midwest regional community hospital. Average number of notes per patient was 12.1. Thirty-one of the 42 total Omaha System problems were identified; the average number of problems identified per patient was 13. Phrases mapped to problems in all four domains of the Omaha System (Environmental 2.6%; Health-related

Behaviors 52.3%; Physiological 30.8%; Psychosocial 14.3%). Surveillance intervention phrases were most frequent (72%); 21% of phrases involved Case Management interventions; 7% involved Teaching, Guidance, and Counseling. Fifty of the 75 total Omaha System targets were utilized. Average time from first to last note was 32.3 days. Number of problems documented per patient correlated with the duration between first and last note ( $\rho = 0.76$ ;  $p=0.02$ ), but not with the number of notes per patient ( $\rho = 0.51$ ;  $p=0.16$ ).

**Conclusion.** The study results are the first description of a TPC nursing intervention using a standardized terminology.

**Implications for research, policy or practice.** Linking interventions to patient problems is a critical first step in our ability to describe effective strategies in transitioning palliative care from hospital to home.

### *Relationship of ICU Family Expectations and Treatment Evaluation on Values (S726)*



Barbara Daly, PhD RN FAAN, Case Western Reserve University, Cleveland, OH. Sara Douglas, PhD RN, Case Western Reserve University, Cleveland, OH. Amy Lipson, PhD, Case Western Reserve University Cleveland, OH.

#### *Objectives*

- Describe the relationship between family outcome expectations, evaluation of treatment effectiveness, and identification of what is most important to ICU families (length of life versus quality of life).
- Evaluate approaches to early identification of family values through brief, explicit discussions.

**Original Research Background.** Family decision makers for the critically ill vary in what is most important, with some focusing entirely on the goal of survival and some on future quality of life. Decisions about aggressiveness of interventions often reflect these implicit values.

**Research Objectives.** To examine the extent to which values are influenced by outcome expectations and evaluation of treatment effectiveness.

**Methods.** 264 family surrogates of patients with >3 day stay in the ICU were interviewed every 5 days until patient death or discharge. At each time they were asked to identify, in making decisions, what is most important, how well the treatment was working, and expectations for future survival, functional status, and cognition.

**Results.** The majority of family surrogates were female (76.5%), Caucasian (66.7%), and either a spouse (40.5%) or adult child (31.4%) of the patient. Patients had an average ICU LOS of 14 days, hospital LOS of 22.4 days, in-hospital mortality of 27.3%, and 3 month cumulative mortality of 52%. Expectations for the best

possible outcomes all decreased over time, being highest at Time 1 (5 days) and lowest at Time 3 (15 days). Evaluation of how well the treatment was working decreased significantly from T1 to T2 ( $p < .000$ ) and from T2 to T3 ( $p < .005$ ). However, identification of what was most important in the care of the patient (quality of life versus length of life) did not change over time and the means (100 mm scale) remained between 54.7 – 52.7 (SD 35.2-37.8).

**Conclusion.** Families demonstrated awareness of the significance of prolonged need for critical care, with gradual lowering of expectations. However, these perceptions did not influence the values that direct decisions about goals of care, which may delay consideration of hospice even in the face of deteriorating patient condition.

**Implications for research, policy or practice.** Direct discussion of what is most important may assist in early identification of goals.

### *Palliative Care and Organ Procurement Organization Collaboration Ensures Patient-Centered Decision Making in End of Life Care (S727)*



Paul DeSandre, DO, Emory University School of Medicine, Atlanta, GA. Kim Kottemann, MBA, Lifelink of Georgia, Norcross, GA.

#### *Objectives*

- Recognize organ donation as an important component of end-of-life care
- Identify a process to assure optimal communications between Palliative Care and Organ Procurement teams

**Original Research Background.** Inpatient hospice services within hospitals serve as an effective care option for patients in critical condition who no longer benefit from critical care interventions, and in whom goals support a transition to comfort. Without effective collaboration, patients may be removed from life-sustaining interventions prior to considering an opportunity of organ donation. Palliative Care (PC) provides an essential bridge between organ procurement organizations (OPO), primary medical teams, and the patient-family unit in assuring optimal end-of-life care.

**Research Objectives.** To determine the influence of a PC and OPO collaboration on organ donation and inpatient hospice services.

**Methods.** In April 2015, our institution began inpatient hospice services for physiologically unstable patients. In August 2015, our PC team established a collaboration with our OPO to ensure that goals for end-of-life care include the possibility of organ donation. The OPO notified the PC team of all new referrals and provided updates at key process

points. The PC team screened new consults meeting OPO triggers to ensure referral. A flowchart was used to outline and assure bilateral communications.

#### **Results.**

	Nov 2014- Apr 2015	May 2015- Oct 2015	Nov 2015- Apr 2016
<b>Organ Referrals</b>	132	140	148
<b>Organ Donors</b>	10	10	16
<b>PC Referrals</b>	450	635	779
<b>Hospice Admissions</b>	18	160	194

**Conclusion.** We demonstrate that a PC and OPO partnership created synergistic improvements in all services during a growth phase in the program development of PC and hospice at our institution. Through a cooperative protocol, we were able to assure that the values and needs of the patient and family were properly explored and honored.

**Implications for research, policy or practice.** Our results support an important leadership role for PC in establishing policies and practices that encourage collaboration with OPOs to assure optimal end-of-life care.

### *Palliative Care Consultation from the Emergency Department: Rationale and Patient Characteristics in a Veteran Population (S728)*



Nitin Ubhayakar, MD, Veterans Affairs Greater Los Angeles Healthcare, Los Angeles, CA. Eric Prommer, MD HMDM FAAHPM, Greater Los Angeles Healthcare, Los Angeles, CA. M. Jillisa Steckart, MED PsyD, Veterans Affairs Greater Los Angeles Healthcare/UCLA David Geffen School of Medicine, Los Angeles, CA.

#### *Objectives*

- Describe benefits and practice patterns in palliative care regarding early vs. late consultation.
- List reasons why emergency department providers consult palliative care providers, and describe the characteristics of those patients.

**Original Research Background.** Palliative Care (PC) provided early in the course of disease has been shown to significantly improve quality of life, patient satisfaction, mood, and in some cases, survival duration. Despite this, PC has more commonly been provided later in the disease course when it is less effective. The Emergency Department (ED) offers a unique setting to initiate PC early in a patient's hospitalization and/or disease trajectory; however, the rationale for ED-initiated PC consultations remains unknown.

**Research Objectives.** To explore the reasons for ED PC consultations and the characteristics of patients who receive them.

**Methods.** A retrospective chart review of Veterans Affairs Greater Los Angeles Healthcare System patient records was conducted between 1/1/2012 - 12/8/2015. Electronic query of all PC consults was filtered by requesting provider type for ED provider initiated, completed consults. Discontinued, duplicate or cancelled consults were excluded from analysis. Data collection included consult reason(s), age, gender, ethnicity, and life-limiting illness.

**Results.** 52 (3.5%) of 1495 PC consults were initiated by ED providers. Over half (54%) listed more than one reason for consult. Patients who received PC consults in the ED were typically older (67 years [43-93]), Caucasian (45%), male (87%) with cancer diagnoses (79%). Discharge planning and symptom management were equally cited in the majority of consults (56%). Communication/decision-making (42%) and goals of care discussions (12%) were cited less frequently.

**Conclusions.** Over half of ED PC consults were initiated for disposition and symptom management though consult reasons were not mutually exclusive. Although the ED remains an important focus of care for patients with advanced illness, continued examination of consultation rationale will help inform provider practice patterns and the nuances of primary versus specialty PC. It will be important to explore ED PC, beyond a VA-based program.

**Implications for research, policy or practice.** Identification of roles and expectations of both PC and ED providers will help to recognize educational and logistical barriers to providing appropriately delivered PC.

### *A Qualitative Analysis of Family Surrogate Decision Making in Chronic Critical Illness (S729)*



Karen Moss, PhD RN CNL, Case Western Reserve School of Nursing, Cleveland, OH. Sara Douglas, PhD RN, Case Western Reserve University, Cleveland, OH. Eric Baum, PhD DNP, Case Western Reserve University, Cleveland, OH. Barbara Daly, PhD RN FAAN, Case Western Reserve University, Cleveland, OH.

#### *Objectives*

- Discuss factors associated with family surrogate decision making for the chronically critically ill.
- Discuss how the study results can be used to improve family surrogate decision making in chronic critical illness.

**Original Research Background.** Understanding surrogate decision making for the critically ill is an important component in improving healthcare towards the end of life. Acute-on-chronic conditions found in critical care units presents unique, extended and repeated decision-making challenges for patients, families, and healthcare providers.

**Research Objectives.** The purpose of this pilot study is to understand the process of family surrogate decision making for the chronically critically ill.

**Methods.** Qualitative interviews with family surrogates were conducted in three intensive care units as part of a larger descriptive, longitudinal study (N=264) to determine factors related to end-of-life decisions and evaluation of treatment effectiveness. A subset of this sample (n=7) was interviewed regarding their decision-making experiences. Simple content analyses were guided by Miles and Huberman's methods of qualitative data analyses.

**Results.** The majority of family surrogates were female serving as decision makers for a spouse or adult child. Most reported that they were "comfortable" with their role as decision maker. However, the process was often described as "frustrating", even when end-of-life plans were in place for their loved one. Decision-making experiences with healthcare providers and facilities were overall positive. Communication with providers was key to this outcome. Reliance on advice from other family members, healthcare providers, past experiences, and faith/spirituality were significant resources for coping with decision-making challenges. Most surrogates identified assistance from nurses and physicians as helpful to the decision-making process. Communication among physicians as well as consistency of channels for delivery of updates of a loved one's condition were identified as areas for improvement.

**Conclusion.** Results support recommendations from the 2014 Institute of Medicine discussion paper that endorses shared decision making as a key aspect of patient-centered care.

**Implications for research, policy or practice.** These data also support the design of more effective team communication processes and decision support strategies, with a goal of reduced conflict while facilitating essential end-of-life care for diverse populations.

### *One Thing Leads to Another: Untangling the Relationship Between Depression and Pain in Outpatients with Serious Illness (S730)*



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#### Objectives

- Describe the issue and prevalence of co-occurring pain and depression in an outpatient palliative care clinic
- Describe the relationship between depression severity and pain intensity

**Original Research Background.** Depression and pain are commonly experienced by patients with serious illness, such as cancer and heart disease. Depression and pain co-occur in patients 30-50% of the time resulting in the exacerbation of each symptom, warranting equal attention to develop an effective treatment plan.

**Research Objectives.** The objective of this study was to determine the relationship between depression severity & pain intensity (least, worst, average, pain now) among patients with chronic illnesses.

**Methods.** We conducted a secondary analysis of the UAB Supportive Care and Survivorship Clinic dataset of outpatients with serious illnesses treated from 2012-2016. Depression, scaled 0-27, was measured by the PHQ-9, and pain, scaled 0-10, was measured by the Brief Pain Inventory.

**Results.** The sample (n=120) was mean age 51.27 years, 58.3% female, 24.2% black/African-American, 74.2% white/Caucasian and 52.5% married. The diagnoses of the outpatients were 72.5% cancer, 13.3% heart diseases, and 14.2% other diagnoses. We found positive correlations between mean depression total scores ( $12.43 \pm 6.21$ ) and “least” (mean= $4.07 \pm 2.86$ ,  $r=.347$ ,  $p=.001$ ), “worst” (mean= $7.48 \pm 2.45$ ,  $r=.285$ ,  $p=.012$ ), & “pain now” (mean= $4.89 \pm 3.27$ ,  $r=.312$ ,  $p=.002$ ) pain scores. One-way ANOVA and post hoc tests demonstrated that the “least” ( $p=.009$ ) and “pain now” ( $p=.027$ ) pain scores were significantly higher in the patients with severe depression than those with mild depression.

**Conclusion.** These results suggest that outpatients with severe depression report higher “least” and “pain now” pain scores than those with mild depression. These findings are consistent with other literature describing a close relationship between pain and depression but adds specificity regarding the relationship of depression severity and pain intensity.

**Implications for research, policy or practice.** Research and practice implications include considering depression severity and pain intensity assessment for effective management of their co-occurrence in patients with serious illness.

### ***Pain Intensity, Symptom Distress, and Number of Comorbidities Differ by Age Groups Among Hospice Patients with Cancer (S731)***

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#### Objectives

- Describe differences in pain intensity among adult (18-64), older adult (65-84), and the oldest old (85+) hospice patients with cancer.
- Describe differences in symptom distress among adult (18-64), older adult (65-84), and the oldest old (85+) hospice patients with cancer.
- Describe differences in comorbid medical conditions among adult (18-64), older adult (65-84), and the oldest old (85+) hospice patients with cancer.

**Introduction:** The oldest old report less pain than younger adults, but it is not known if the oldest old with cancer and receiving hospice care report lower pain, symptom distress, and comorbidities than other age groups. The study purpose was to compare pain intensity, symptom distress, and comorbid medical conditions among adult (18-64), older adult (65-84), and the oldest old (85+) hospice patients with cancer.

**Methods.** Recruited from two Midwest hospices, 237 patients completed PAINReportIt (pain intensity now, least and worst in the past 24 hours [0-10]), the Symptom Distress Scale (SDS, 0-5), and presence of comorbidities (health history form). Data were analyzed using ANOVA, Fisher’s test, and Pearson correlations.

**Results.** Patients were 49% male, 33% African American, 47% non-Hispanic white, 17% Hispanic, and 3% Other with an average age of  $68.3 \pm 14.2$ . Although patients’ ages ranged from 20-100 years, 41% (n=98) were 18-64, 43% (n=102) were 65-84, and 16% (n=37) were 85+. Pain intensity now scores were not significantly different by age groups. Least pain ( $p=.001$ ) and worst pain ( $p<.001$ ) in the past 24 hours as well as symptom distress ( $p=.005$ ) scores all differed by age groups with the oldest old group having the lowest mean scores, except for least pain where the 65-84 group was lowest. If averaged across pain now,

least pain and worst pain in the past 24 hours, the average pain intensity ( $p < .001$ ) differed significantly with the oldest old reporting lowest pain. The number of comorbidities differed by age groups ( $p = .01$ ), with patients in the 65-84 group reporting on average almost twice as many comorbidities as the oldest old (2.9 versus 1.5). Correlations between number of comorbidities and pain or symptom distress scores by age group were generally nonsignificant.

**Conclusions.** The oldest old hospice patients with cancer have less pain, symptom distress, and comorbidities compared to other age groups. Reasons for these findings require additional prospective research.

### *Implementing Standardized Palliative Care Education for Children and Adults with Cystic Fibrosis (S732)*

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#### *Objectives*

- Describe the potential changes in knowledge about palliative care that can be achieved with a standardized educational tool.
- Describe the positive changes in participants' perceptions of palliative care that can be achieved with a standardized educational tool.
- Acquire language and techniques to incorporate palliative care education into routine outpatient visits with people with CF and their families.

**Background.** People with cystic fibrosis (CF) can benefit from early introduction to palliative care (PC) while living with a life-limiting, progressive illness. However, currently there is no standardized approach to inform people with CF about PC.

#### **Objectives.**

1. Test the feasibility of incorporating standardized PC education into routine CF care
2. Assess changes in knowledge and perceptions of PC after receiving education

**Methods.** Patients (>12 years) and a caregiver are eligible to participate in an ongoing evaluation of a 30-minute PC education session, developed from existing resources and key stakeholder interviews, during a routine clinic visit. Participants' knowledge and perceptions of PC is assessed before, after, and at 3-months. Changes in knowledge and perceptions are measured using non-parametric Mann-Whitney U tests.

**Results.** Participants ( $n=17$  patients, 10 caregivers) demonstrated low baseline PC knowledge (median composite score: 18 of 50), which increased significantly following the session (37 of 50;  $p < 0.01$ ). Participants reported the education was helpful and understandable; participants felt relieved and hopeful about receiving PC after the session.

Eight of twelve participants who completed the 3-month follow-up have spoken with their family about PC since the session. Most said PC was introduced at an appropriate time ( $n=8$ ); few indicated it was too early ( $n=3$ ) or too late ( $n=1$ ). All affirmed that clinic was the best setting for PC education. Participants retained knowledge (median: 38 of 50) and positive perceptions of PC.

**Conclusion.** Results suggest that this standardized education session effectively increases patient and caregiver knowledge and establishes positive perceptions about PC.

**Implications.** Findings indicate that PC education is well-received by adolescents and adults with CF and caregivers, and it can be provided efficiently during outpatient CF care. With PC education, we anticipate people with this life-limiting illness to request and receive earlier PC services.

### *Physician Perspectives and Behaviors Toward New Medicare Initiatives Regarding Compensation for Advanced Directives Conversations (S733)*

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#### *Objectives*

- Aims to increase awareness about physicians' interest in ADC training, leading to educational opportunities to ensure success in the new Medicare initiatives for ADC.
- Encourage physicians especially primary care providers to initiate advanced directive conversations with patients.

**Original Research Background.** As of 2016, CMS now proposes compensation for advanced directives conversations (ADC) by physicians for Medicare patients (CPT billing codes #99497 and #99498). Currently, only one third of the US adult population has advance directives, and preferences are often not well documented in health care records. This study explored physician perspectives and behaviors towards this initiative.

**Methods.** An anonymous survey distributed to physicians in two states from 10/1/2015-11/30/2015. Continuous variables were compared using Mann-Whitney or Kruskal-Wallis test, as appropriate. Associations between categorical variables were assessed using Fisher's exact test.

**Results.** Of 102 physicians surveyed, 52% were female, 30% were attendings, 63% residents and 7% fellows. All practiced either in NY (59%) or NJ (41%). The majority (73%) was aware of the new fee schedule and 83% believed the new initiative would decrease unnecessary resource use. Yet, 52% actually engaged in ADC with their patients and only 15% stated being extremely comfortable with ADC. While 77% have received less than 10 hours of ADC training in their career, and 27% having never received any, most (71%) would welcome ADC training. Finally, 45% responded that 60 minutes of allotted time would be adequate for ADC, and 44% believed 30-60 minutes is enough. Physicians who did have ADC with their patients were more likely to have years of experience ( $p < 0.009$ ), and increased ADC training ( $p < 0.001$ ). Increased comfort with carrying out ADC was associated with years of experience ( $p < 0.0001$ ), hours of ADC training ( $p < 0.0001$ ), and level of training ( $P < 0.0002$ ). Physicians trained in Europe/Asia were more comfortable with ADCs than those trained in North America ( $p < 0.05$ ), and believed that the new initiative would decrease unnecessary resource use (74% vs 45%;  $p < 0.04$ ).

**Conclusion.** This study highlights physicians' interest in ADC training, leading to educational opportunities to ensure success in the new Medicare initiatives for ADC.

### *Hospice Referral Patterns for Patients with Left Ventricular Assist Devices (LVAD) (S734)*



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#### *Objectives*

- Describe two barriers to hospice referral for patients with LVADs.
- Describe differences in referral patterns for inpatient and home hospice among patients with LVADs.

**Original Research Background.** Patients with LVADs have need for high-quality end-of-life care, including hospice services. It is not known how often patients with LVADs are referred to hospice, and what barriers to referral exist.

**Research Objectives.** To assess frequency of hospice referral for patients with LVADs, and barriers encountered by referring providers.

**Methods.** Surveys were distributed to LVAD nurse coordinators and social workers who are members of the Society for Transplant Social Workers and the Mechanical Circulatory Support Collaborative on Yahoo Groups.

**Results.** Fifty-three providers responded: 10 social workers, 38 nurse coordinators, and 5 individuals serving in other capacities on LVAD teams. LVAD programs of all sizes were represented, including those implanting fewer than 5 LVADs annually (10%, 5/50) to those implanting greater than 40 LVADs annually (30%, 15/50). In the preceding 12 months, 53% (24/45) of respondents had not referred any patients to inpatient hospice, while 44% (20/45) had referred 3 or fewer patients. Referrals to home hospice were slightly more common, with 66% (30/45) having referred between 1 and 3 patients. Perceived barriers to hospice referral included LVAD clinician, patient/family, and hospice associated factors. When asked specifically about hospice-associated barriers, respondents cited lack of hospice staff training in LVAD management (56%, 25/45), lack of experience in caring for patients with LVADs (56%, 25/45), and cost (13%, 6/45).

**Conclusion.** Referral to home hospice was more common than referral to inpatient hospice, and the number of patients referred to hospice programs was low. A number of barriers to hospice referral exist, with lack of education and training for hospice providers being cited most often.

**Implications for research, policy or practice.** LVAD programs should partner with hospices to provide education and support around LVAD management. Increased hospice staff comfort may increase the proportion of LVAD patients who receive hospice services.

### *Home-Based Palliative Care Reduces Hospital Readmissions (S735)*



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#### *Objectives*

- Discuss strategies and challenges of identifying patients who will benefit from home-based palliative care intervention.
- Review outcomes of home based palliative care intervention and effects on hospital admissions, readmissions, ED visits, and direct costs.
- Identify characteristics of home-based palliative care intervention.

**Original Research Background.** Many patients who are readmitted to the hospital have advanced chronic illness and multiple chronic conditions. They often have poor social support networks and limitations of functional ability. Medication regimens are complex and often difficult to follow.

**Research Objectives.** Develop a pilot program to determine if home visits for patients with advanced

illness who have frequent hospital encounters, will reduce hospital readmissions

**Methods.** The palliative care intervention includes home visits by a physician, cell phone availability, availability for urgent home visits during office hours, advance care planning, disease management education, plan for managing anticipated emergencies in the home. This intervention is performed by a physician, with support of the transitional care clinic (which focuses on providing clinic-based care for the 30 days post hospital discharge). Intervention includes face-to-face encounters wherever the patient lives, with a team approach by using home health agencies for nursing, social work, and rehabilitation therapies, or home hospice.

**Results.** Data comparing the year prior to palliative care intervention compared to the year following palliative care intervention showed 67% reduction of hospital encounters (hospital admission, observation admission, or emergency department admission), from an average of 6.7 encounters per patient during the year prior to palliative care intervention, to 2.5 encounters during the subsequent year. Estimated direct cost per patient was \$23,239 during the year prior to intervention, and \$8527 during the subsequent year. During the year following initiation of the palliative care intervention, only 21 of the 41 patients had a hospital encounter. Additional data for 30 patients' shows a 71% reduction in hospital admissions, 75% reduction in readmissions within 30 days, and 69% reduction in emergency Department visits.

**Conclusion.** Home visits have significant potential to address the complex issue of hospital readmissions.

**Implications for research, policy or practice.** Further research can identify which interventions are most cost effective and which patients will benefit the most.

### *What Are the Personal Goals of Women with Breast Cancer and What Hinders Goal Achievement? (S736)*

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#### *Objectives*

- Identify the personal goals of breast cancer patients
- Identify the goal barriers of breast cancer patients

**Original Research Background.** Goal-setting can help align patients' personal goals with their health care plans. Little is known about the nature of personal goals among breast cancer patients and what hinders goal achievement.

**Research Objectives.** To describe personal goals and goal barriers in a sample of breast cancer patients.

**Methods.** Participants identified goals within a trial of a cancer self-management intervention. Eligible participants were women aged 21+ with Stage I-IV breast cancer who were receiving treatment, had a >6-month prognosis, spoke English, and resided in Connecticut. At baseline, we asked participants to identify three personal goals for the coming three months. At three months, we asked participants to rate (1= goal not met; 5= goal met much better than expected) the extent to which they felt they had achieved each goal. For goals ranked as unmet or partially met, we asked participants to describe what hindered goal achievement. Two reviewers used content analysis to code goals and goal barriers; a third reviewer settled disagreements.

**Results.** Participants (n=69) had a mean age of 50.9 years (range 28-75) and nearly 80% were receiving chemotherapy. Fifty-four percent identified as minorities. Participants were similarly distributed by cancer stage. We identified eight categories of personal goals: Healthy Lifestyle (n=66); Cancer Management (n=43); Social (n=32); Emotional (n=22); Leisure (n=14); Family (n=6); Spiritual (n=4); and Altruism (n=3); and eight categories of barriers to goal achievement: Didn't Get There Yet (n=14); Still in Treatment (n=12); Still Healing (n=8); Symptom Burden (n=6); Emotional Distress (n=4); Weather/Season (n=4); Financial (n=3), and Other (n=6).

**Conclusion.** Participants' goals spanned a range of health and life goals, but most often focused on healthy lifestyle behaviors. Goal achievement was most often hindered by physical issues and needing more time.

**Implications for research, policy or practice.** While limited by a small sample, this preliminary categorization informs the literature on goal-setting and goal barriers during breast cancer self-management.

### *"You've Got the Curative One, the Prolonging My Life One, and the One Where Things Aren't Good": Oncologists' and Patients' Perceptions of Initial, Intermediate, and Final Goals of Care Conversations (S737)*

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#### *Objectives*

- Identify two key gaps in the literature about timing and content of goals of care conversations.

- Identify at least 3 preferred content items and their timing within initial, intermediate and final goals of care conversations from oncologists' perspectives.
- Identify at least 3 preferred content items and their timing within initial, intermediate and final goals of care conversations from patients' perspectives.

**Original Research Background.** While the gold standard is for goals of care (GoC) conversations to happen early and often, their timing and content over the course of care remains unclear.

**Research Objectives.** To describe perceptions of the timing and content of GoC conversations among oncologists and patients with advanced cancer.

**Methods.** Semi-structured interviews with oncologists and patients at hospitals (n=4) in New York and Connecticut. We analyzed data using interpretive description.

**Results.** Oncologists (n=21) were 67% male, averaged 44 years old (range 32-66), and had a mean 18 years (range 6-40) in practice. Patients (n=39) were 60% female with a mean age of 58 (range 26-88). Oncologists reported having initial GoC conversations to build rapport, provide disease information, clarify curative/palliative intent, and consider treatment options and side effects. Intermediate conversations focused on changes in the treatment plan and side effects. Final conversations occurred towards the end of the care trajectory when there were no potential treatments and patients were hospice-eligible. Final conversations covered the shift to comfort care, a summary of successes/limitations, and DNR. Timing and content were influenced by patients' type of cancer, location on the care trajectory, and emotional state. Patients supported beginning GoC conversations early, but had different preferences for the content of initial conversations. Some wanted complete information while others found this overwhelming. Patients felt intermediate GoC conversations should occur at decision points (e.g., with test results, starting/failing treatment, high symptom burden), with conversations spaced from a few days to three weeks in between to allow patient processing. Content of intermediate and final conversations was dependent on patients' prognosis, questions, and treatment decisions.

**Conclusion.** While GoC conversations should follow individual patient preferences, our findings offer structure for their timing and content.

**Implications for research, policy or practice.** Through integrating findings into OncoTalk, a program to train oncologists in palliative care skills, we hope to improve timing and content of GoC conversations.

### ***Mindful Yoga for Symptom Management in Metastatic Breast Cancer (S738)***



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#### *Objectives*

- List at least three characteristics of a comprehensive yoga intervention.
- List at least two ways that yoga can help with pain and symptom management.

**Original Research Background.** Women with metastatic breast cancer (MBC) often report high levels of pain and other disease-related symptoms including fatigue, sleep disturbance, psychological distress, and functional impairment. Yoga and mindfulness interventions have shown promise for improving the management of pain and related symptoms, however they have rarely been tested in patients with advanced disease. We developed a mindful yoga intervention that specifically targets pain and related symptoms and are currently testing its feasibility and preliminary efficacy in women with MBC.

**Research Objectives.** Study aims are to test the feasibility and acceptability of the yoga intervention along with its effects on pain, fatigue, sleep disturbance, psychological distress, and functional impairment. This presentation will include an overview of the yoga intervention along with preliminary data on feasibility outcomes.

**Methods.** Approximately 70 patients will be recruited and randomized to either the yoga intervention or a comparison condition (social support group). Assessments occur at baseline, post-treatment, and 3- and 6-month follow-ups. Currently 51 patients have been enrolled and completed baseline and post-treatment assessments.

**Results.** The mean age of the sample is 56.5; 24% are African American and 72% are White. At baseline, patients reported mild levels of pain (mean=2.0, SD=1.5 on Brief Pain Inventory) and fatigue (mean=3.4, SD=2.5 on Brief Fatigue Inventory), and moderate levels of psychological distress (mean=11.8, SD=7.0 on Hospital Anxiety & Depression Scale). Retention is 84% which contrasts favorably with prior behavioral studies in MBC (retention  $\leq$  74%). 71% of patients have attended at least 4 of the 8 sessions. There have been no adverse events associated with the yoga intervention.

**Conclusion.** Mindful yoga appears to be a feasible and acceptable approach for symptom management for women with MBC.

**Implications for research, policy or practice.** Further research is warranted on yoga interventions for pain and symptom management in patients with advanced cancer.

***Proactive Outpatient Palliative Care Consultations for Persons with Advanced Cancer: What's in the "Special Sauce"?***  
(S739)



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*Objectives*

- Determine the nature of evaluation and treatment/advance directives recommendations made in early Palliative care protocol-driven outpatient palliative care consultations.
- Consider implications of study results for future outpatient palliative care consultations.

**Original Research Background.** Outpatient palliative care consultations (OPCC) are typically requested for uncontrolled cancer symptoms; however little has been reported about the content of proactive OPCCs that are triggered by a new diagnosis with advanced cancer.

**Research Objectives.** To describe the evaluation and treatment recommendations made in proactive OPCCs for newly-diagnosed advanced cancer patients.

**Methods.** Qualitative content analysis of provider notes documented during OPCCs of persons newly-diagnosed with advanced cancer participating in the ENABLE: Educate, Nurture, Advise, Before Life Ends, [10/2010-9/2013]) early palliative care randomized clinical trial consisting of an OPCC, weekly nurse coaching sessions, and monthly follow-up. OPCCs were coded for 71 specific evaluation areas and treatment recommendations grouped into 5 categories: general evaluation, symptom-specific evaluation, general treatment and symptom-specific treatment recommendations and advance care planning (ACP).

**Results.** Of 207 ENABLE participants, 142 (68.6%) had an OPCC. Median OPCC length was 60 minutes (range 15-105). The most frequent general evaluations were spirituality/emotional well-being (79.6%, n=113), caregiver/family support (78.9%, n=112) and advance directive/code status (78.2%, n=111). The most frequently evaluated

symptoms were mood (81.0%, n=115), pain (73.9%, n=105) and cognitive/mental status (68.3%, n=97). The most frequent general treatment recommendations were counselling (38.7%, n=55), maintaining current medications (33.8%, n=48), and initiating new medication (23.9%, n=34). The most frequent symptom-specific treatment recommendations were for pain (22.5%, n=32) and constipation (12.7%, n=18). The most frequent ACP recommendations were for AD completion (43.0%, n=61) and identifying a surrogate (21.8%, n=18).

**Conclusion.** Proactive OPCCs for newly-diagnosed advanced cancer patients prospectively evaluated mood, pain, and cognitive/mental status and treated needs for counseling, symptom control and ACP.

**Implications for research, policy or practice.** Future analyses should ascertain longitudinal patient outcomes from proactive OPCCs and compare outcomes between proactive OPCCs and symptom-triggered consultations.

***Defining Advance Care Planning for Adults: A Consensus Definition from a Multidisciplinary Delphi Panel***  
(S740)



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*Objectives*

- List components of an advance care planning definition for adults, as identified by a large, multi-disciplinary Delphi panel.
- Describe areas of disagreement concerning an advance care planning definition and how consensus was achieved using Delphi panel methodology.

**Original Research Background.** Policy makers and payers are increasingly endorsing advance care planning (ACP). Despite a recent Institute of Medicine report describing ACP, a Delphi panel of ACP experts, initially convened to rank ACP outcomes, were surprisingly unable to agree on a formal definition. A consensus definition of ACP is needed to standardize research and to guide policy and quality metrics.

**Research Objectives.** To develop a consensus definition of ACP for adults.

**Methods.** We conducted 10 rounds of a modified Delphi method including clinicians, researchers, and ACP policy leaders from 4 countries. Four rounds included a full 52-member panel, 5 rounds included a 15-member subgroup, and 1 round included a patient advisory committee. All Delphi panel data were analyzed using content analysis and collated panel comments were iteratively reviewed by Delphi members for each round.

**Results.** Panelists identified several tensions such as whether the ACP definition should focus on conversations vs. written advance directives; patients' values vs. treatment preferences; current shared decision making vs. future medical decisions; and who should be included in the process. The panel achieved a final consensus definition and accompanying goals statement: "Advance care planning is a process that supports adults at any age or stage of health in understanding and sharing their personal values, life goals, and preferences regarding future medical care. The goal of advance care planning is to help ensure that people receive medical care that is consistent with their values, goals and preferences during serious and chronic illness." The panel also created a description of clinical best practices to support ACP in adults.

**Conclusion.** A large, multi-disciplinary Delphi panel developed a consensus definition for ACP in adults and identified ACP best practices.

**Implications for research, policy or practice.** This ACP definition can be used to inform ACP research and clinical initiatives, and help define ACP outcomes and quality metrics.

### *Intensity in End-of-Life Care for Medicare Patients Dying with Melanoma (S741)*



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#### *Objectives*

- Identify two utilization patterns indicative of overly aggressive end-of-life care analyzed for this population of patients dying with melanoma.
- Name two of the patient characteristics that were found to be associated with more aggressive end-of-life care.

**Original Research Background.** Many patients receive care that is overly aggressive end-of-life (EOL) care. There is limited knowledge about EOL care received for the melanoma population according to patient characteristics.

**Research Objectives.** Understand frequency of, and patient characteristics associated with, overly-aggressive care during EOL (defined as the 30 days before death) for patients dying with melanoma.

**Methods.** We used the Surveillance, Epidemiology, and End Results (SEER)-Medicare database to identify 9099 melanoma patients who were 65 and older at diagnosis, enrolled in Medicare part A and B for six-months prior to diagnosis, and not in managed care for the last month of life. Patients were diagnosed between 2000 and 2009 and died before December 2010. We examined utilization patterns during EOL including  $\geq$  two emergency department (ED) visits,  $\geq$  two hospitalizations, an ICU stay or in-hospital death. Patient characteristics analyzed included age, race, medical comorbidities, gender and rural residence. Socioeconomic disparities were investigated by using census-tract median income and education.

**Results.** Among 9099 patients who died with melanoma, 475 (5.2%) had  $\geq$  two ED visits, 265 (2.9%) had  $\geq$  two hospitalizations, and 494 (5.4%) had an ICU stay during EOL. 681 (7.5%) died in the hospital. Male patients were significantly more likely to have ED visits (5.7% vs 4.2%; p-value 0.005) and hospitalizations (3.2% vs 2.2%; p-value 0.007) at EOL. Patients with more comorbidities at diagnosis were also more likely to receive more aggressive care at EOL on all measures. Patients from census tracts with lower educational levels were more likely to visit the ED during EOL (5.8% vs 4.3%; p-value 0.02).

**Conclusion.** Patients dying with melanoma continue to receive aggressive EOL care unlikely to provide benefit and that may not be consistent with their goals of care.

**Implications for research, policy or practice.** Decreasing undue aggressiveness at EOL may require education of patients and families as well as increased access to palliative care providers.

### *Impact of ED-Based Palliative Care on Quality of Life: A Systematic Review (S742)*



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#### *Objectives*

- Understand the current state of Quality of Life (QoL) outcomes research in ED-initiated Palliative Care, including understanding the importance of QoL outcomes in this area of research.
- Identify potential barriers to such research, and possible avenues forward. They can use this

information to design future QoL studies of ED-initiated Palliative Care.

**Background and Objective.** Palliative Care referral from the Emergency Department (ED) is increasing. Various aspects of ED-Initiated Palliative Care (PC) have been examined in the literature, but a synthesis of outcomes data is currently lacking. The purpose of this investigation was to undertake a systematic review of Quality of Life (QoL) outcomes in ED-initiated PC. Such an investigation is fundamental for practical justification of this emerging intervention.

**Study Identification.** Three reviewers developed a search broadly inclusive of PC and the ED that was run through PubMed, CINAHL, and Web of Science. Eligible studies were evaluated independently by two researchers and conflicts were settled by a third party advisor. Our purposely broad inclusion criteria included any ED-based PC referral reviewed for standardized QoL outcome(s).

**Data Extraction and Synthesis.** Included studies were reviewed for methodological quality and strength, then synthesized using a narrative approach. Results were compiled into a table of study characteristics and outcomes and used to inform recommendations for future research.

**Results.** Of 1065 results, four studies met inclusion criteria. Wrong study design (case presentation, editorial, etc.) and wrong outcome (no QoL measurement) were the most common reasons for exclusion, suggesting areas for improvement. Only one study, on patients with advanced cancer, was a randomized controlled trial. All studies showed positive association between PC intervention and QoL, but results were highly variable, showed substantial QoL measurement heterogeneity, and were frequently not statistically valid.

**Conclusions and Implications for Practice, Policy, and Research.** Evaluation of QoL in ED-initiated palliative care is important and feasible, but currently understudied. The strengths and limitations of the existing data are explored and recommendations for the future study of QoL in this setting are shared. Failure to reach statistical significance and conflicting results suggest there will be value in more rigorous study design and standardizing measurement for QoL in this area in the future.

### *A Local Needs Assessment for Palliative Care Education (S743)*

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Timothy Quill, MD FACP FAAHPM, University of Rochester Medical Center, Rochester, NY.

#### *Objectives*

- List the three palliative care content domains in which non-palliative care physicians were most interested in improving their skills/knowledge.
- Describe two reasons why it is important to tailor primary palliative care education to physician preferences.

**Original Research Background.** Access to high quality palliative care is critical for those with serious illness, but palliative care specialists cannot see all such patients. Mastery of primary palliative care skills by all physicians is one method to begin addressing this challenge.

**Research Objectives.** To measure interest in primary palliative care education among physicians in the Rochester, NY area.

**Methods.** A survey was developed to assess interest in: 1) primary palliative care educational offerings and, 2) settings in which such education could be offered. Subjects were palliative care specialists (PCSs) and non-palliative care physicians (NPCPs), including residents and physicians practicing primary care, hospital medicine, and neurology. NPCPs were asked to rate their own interest in improving their skill/knowledge in 13 domains and the settings they preferred. PCSs were asked to assess referring physicians' level of palliative care skill/knowledge and the effectiveness of each educational setting.

**Results.** NPCPs expressed the most interest in addressing requests to hasten death, managing psychological symptoms, and the responsibilities of a hospice attending (60-67%), which was similar to PCSs' opinions. In contrast, opinions about desired/effective educational settings differed significantly, with NPCPs rating hour-long workshops or lectures most positively, and PCSs assessing these as least effective. Educational content preferences also varied among NPCP specialties in 4 of 13 items.

**Conclusion.** This survey revealed overlapping areas of interest, as well as some disagreement, with respect to topics important to primary palliative care education between NPCPs and PCSs. There was significant disagreement regarding educational settings, with NPCPs indicating a preference for brief educational formats and PCSs rating longer formats as more effective. Additionally, heterogeneity of responses among NPCP groups suggests a need to tailor educational efforts by specialty.

**Implications for research, policy or practice.** Future studies are needed to determine whether these results are applicable outside of the Rochester area and among other specialties.

**Looking Back, Moving Forward: A Retrospective Review of Care Trends in an Academic Palliative and Supportive Care Program from 2004-2015 (S744)**



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**Objectives**

- Relate the primary reasons palliative care consultations are ordered in an academic medical center.
- Propose strategies for expanding palliative care in underserved areas.

**Original Research Background.** The University of Alabama at Birmingham (UAB) launched one of the first comprehensive PC programs in the U.S. in an area of the country with the lowest PC access.

**Research Objectives.** To examine UAB PC program trends from 2004-2015 to plan for future Southeast expansion.

**Methods.** Retrospective electronic-record review of inpatient consultation, palliative care comfort unit (PCCU), and outpatient clinic trends.

**Results.** Inpatients (n=11,786) were on average 64 years old, male (50.1%), white (62.3%), with pulmonary, cardiac, or cancer diagnoses (45.0%) and referred primarily for goals of care discussions (83%). Between the 5-year time periods of 2004 (October)-10 and 2011-15, referral volumes increased from 5081 to 6705 and time from hospital admission to PC consult decreased from 9.3 to 7.8 days. Nearly half (47%) of consult inpatients were transferred to PCCU for an average of 5 days. Individuals transferred to PCCU tended to be older, female, and white, although one-third of PCCU patients were black. Top PCCU discharge dispositions were death (52.2%; n=2888), and home with hospice (21.3%; n=1179). Outpatients (n=315) were younger, female (63.5%), white (76.8%) with a cancer diagnosis (75.1%). Most outpatients presented with pain (64.8%) and over a quarter (27.3%) had moderately severe/severe depression. Symptoms with the highest

severity reported by outpatients were fatigue, disturbed sleep, and pain.

**Conclusion.** The UAB PC service model has demonstrated robust growth in consultations since inception, served a substantial number of racially diverse in- and outpatients, and treated debilitating symptoms including pain, fatigue, and depression in community-dwelling individuals with serious illness.

**Implications for research, policy or practice.** Based on the successes and growth of the UAB PC program model, consisting of 3 inpatient services, 2 inpatient PCCUs, 2 outpatient clinics and growing tele-health and community-based services, the newly-founded Southeast Institute for Innovation in Palliative Care at UAB, will now scale this service model throughout the Southeastern U.S.

**Antibiotic Use in Hospice Patients (S745)**



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**Objectives**

- Outline the use of antibiotics during the last days of life in hospice patients
- Describe targeted (based on underlying symptoms) versus empiric approaches to antibiotic use

**Original Research Background.** Hospice teams work to ensure that patients are prescribed only drugs that provide a clear benefit. Use of antibiotics is common in hospice despite limited evidence demonstrating any benefit improving symptoms or quality of life for this population. Regular medication reconciliation (MR) offers providers an accurate list of a patient's current medications, and prompts providers to reevaluate the indication for each medication.

**Research Objectives.** This study proposes to describe the prevalence and timing of antibiotic use in our Hospice of Summa patients and the quality of MR documentation.

**Methods.** We reviewed the charts of all hospice patients that died within a one year period and had oral antibiotics prescribed in the last 30 days of life. We determined if MR was documented on these patients. Descriptive statistics were used to describe the number of patients prescribed antibiotics, had documented MR after being prescribed antibiotics, and had antibiotics discontinued prior to death. Mann Whitney U testing was performed to determine median last Palliative Performance Score for patients by antibiotic status.

**Results.** 824 patients enrolled and died with hospice services during 2015. 135 unique patients were prescribed antibiotics during this period. At time of death, 64 (47.4%) of these patients had an

MR documentation of continued antibiotic use. Only 19 (28.1%) patients did not have antibiotic use addressed prior to death. The median PPS score for patients prescribed antibiotics at the time of death was 20 (IQR 20-30) versus 10 (IQR 10-20) for patients without ( $p < 0.001$ ).

**Conclusion.** Our project illustrates antibiotics are frequently prescribed in the last days of life. In 116 cases (88.9%) hospice physicians and RN case managers appeared to be aware of their continued use. Our comparison of median PPS scores suggests that providers may be appropriately considering a patient's condition when deciding whether to continue antibiotics.

**Implications for research, policy or practice.** Further studies regarding antibiotic use in hospice are needed.

### *Concordance of Patient and Caregiver Proxy Report of Quality of Colorectal Cancer Care (S746)*

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#### *Objectives*

- Identify the concordance of proxy and patient report of quality of colorectal cancer care.
- Describe the limitations of using the kappa statistic for describing agreement in highly skewed observations such as those seen in patient satisfaction results.

**Original Research Background.** Patient-reported evaluations of interpersonal quality of care are essential elements of quality of care assessment. During times of serious illness, proxy report of care experiences may be necessary. The validity of this proxy approach, however, depends on the degree to which caregiver and patient assessments are concordant.

**Research Objectives.** To examine concordance of patient and caregiver proxy reports of quality of cancer care and to identify any patient or caregiver characteristics that may influence the level of concordance.

**Methods.** A VA cohort of colorectal cancer (CRC) patients and their caregivers were surveyed on the quality of VA cancer care in 3 specific domains: surgery, chemotherapy overall and chemotherapy nursing care. Because the kappa statistic penalizes skewed distributions, like commonly seen in patient satisfaction reports, agreement between patients and caregivers on quality of care were measured using Gwet's AC2 statistic. Stratified analyses on caregiver burden, race, education, and age as well as patient's stage of disease were used to assess variation in agreement.

**Results.** 417 caregiver-patient dyads completed the survey (70% response rate), of whom 362 (86.8%)

had surgery and 195 (46.8%) had chemotherapy. Overall agreement was very high for the 3 quality of care domains: AC2 (95% CI): 0.870 (0.838, 0.903) for surgery, 0.835 (0.786, 0.884) for chemotherapy overall and 0.906 (0.868, 0.944) for chemotherapy nurses. Stratified analyses of agreement did not reveal a consistent pattern of patient or caregiver characteristics resulting in higher or lower levels of agreement.

**Conclusion.** Family caregiver reports on the quality of CRC care were highly concordant with patient reports and not consistently affected by patient or caregiver characteristics.

**Implications for research, policy or practice:** Family caregivers may be able to provide reasonable proxy report on measures of quality of cancer care when patient reports are unavailable.

### *The Impact of Teaching End-of-Life Prognostication: A Pre-Post Survey-Based Interventional Study (S747)*

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#### *Objectives*

- Understand house staff accuracy in prognostication compared to palliative care faculty.
- Recognize the differences in accuracy in prognostication for interns versus senior house staff.

**Background.** Disclosing a poor prognosis can be amongst the most difficult of responsibilities, thus receiving accurate and valid prognostic information during training is crucial for appropriate prognostication.

**Objectives.** The aim of this study was to provide internal medicine (IM) house staff with a pre and post-educational survey to determine their ability to accurately prognosticate five common end-stage diseases.

**Methods.** We conducted a pre- and post-educational intervention survey-based study during the fourth and fifth months of the academic year. A pre-intervention survey was administered to IM post-graduate-year-1 (PGY-1) and PGY-2-4 house staff. The survey consisted of case scenarios for five common end-stage diseases, containing one question on comfort level and two prognostication questions (totaling 10 points). A 30-minute educational intervention was presented immediately after initial survey. The same survey was re-administered four weeks there-after. An identical survey was administered once to palliative care faculty. At 90% power, 25 participants were required to detect

a 20% post-educational improvement on the 10-question survey. We compared the mean differences between groups for both pre-test and post-test using 2-sample t-test.

**Results.** Forty house staff completed both surveys. Eight palliative care faculty completed the survey. No difference was found between all house staff pre and post-scores (mean  $2.70 \pm 1.45$  versus  $2.78 \pm 1.59$ ,  $p=0.141$ ). There was no significant difference between PGY-1 and PGY-2-4 pre-test scores (mean  $2.63 \pm 1.71$  versus  $2.81 \pm 1.42$ ,  $p=0.72$ ). PGY-2-4 post-test score was significantly greater than PGY-1 post-test score ( $3.38 \pm 1.58$  versus  $2.38 \pm 1.58$ ,  $p=0.05$ ). Total house staff post-test score was significantly lower than gold-standard palliative care faculty (mean  $4.71 \pm 1.98$  versus  $2.78 \pm 1.59$ ,  $p=0.006$ ).

**Conclusion.** Our pre-post intervention survey-based study demonstrates no significant increases in all house staff scores. PGY-2-4 post-intervention scores improved significantly.

**Implications.** We speculate the optimal time for providing education on prognostication may be after the PGY-1 year when house staff have had sufficient exposure to the aforementioned five conditions. This can be enhanced by integration of educational topics throughout residency training.

### **Outcomes of a Population Health Community-Based Palliative Care Program (S748)**



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#### *Objectives*

- Identify patients at risk for an over-medicalized death through predictive modeling.
- Evaluate the clinical and financial outcomes of a population health community-based AIM program.

**Original Research Background.** Improving the care of patients with serious illness is important for humanitarian and financial reasons. We present a population health community-based palliative care pilot program providing advanced illness management (AIM) to a Medi Advantage (MA) population. Predictive analytics used for patient selection and the clinical and financial outcomes are highlighted.

#### **Research Objectives.**

1. Identify patients at risk for an over-medicalized death through predictive modeling
2. Evaluate the clinical and financial outcomes of a population health community-based AIM program

**Methods.** We built a predictive model to identify members at risk of over-medicalized death using the

Medicare 5 % file for modeling and regression analysis. Clinical measures were selected based upon literature review; assessments captured key performance metrics. Using the predicted risk of patients referred for intervention, we segmented the population into patients enrolled in the program and those not enrolled and compared admission, re-admission, ER visit rates of each group, and relative costs.

**Results.** 212 patients enrolled in the program; 88% over age 80. 98% percent had goals of care addressed with 38% changing code status. Over 96% of patients reported satisfaction with symptoms and patient and family satisfaction with the program was very high. Preliminary cost savings demonstrated a net savings of \$24,000 per month/150 patients. Hospice admission rate was 16.5%; median length of stay of 52 days.

**Conclusion.** Care at the end of life was improved through better education, support, communication and coordination by skilled palliative care providers. Patients were admitted to hospice earlier, reported high satisfaction, and costs of care were lowered.

**Implications for research, policy or practice.** The current health care environment incentivizes insurance companies to engage in population health interventions to provide their beneficiaries with the highest benefits while managing their costs. Palliative care organizations are in an excellent position to partner with payers to care for seriously ill patients in the community setting.

### **“Stuck in the ICU”: Caring for Children with Chronic Critical Illness (S749)**



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#### *Objectives*

- Describe family factors which contribute to recurrent and prolonged ICU hospitalizations for children with chronic critical illnesses.
- Describe clinician factors which contribute to recurrent and prolonged ICU hospitalizations for children with chronic critical illness.

**Original Research Background.** Neonatal and pediatric intensive care units (ICU's) increasingly admit patients with chronic critical illness (CCI)-children

whose medical complexity leads to recurrent and prolonged ICU hospitalizations.

**Research Objectives.** Describe clinician and family experiences with ICU care for pediatric CCI.

**Methods.** Semi-structured interviews with: 1) interdisciplinary providers (inpatient; outpatient; home care; foster care) with extensive CCI experience, or 2) parents of children with CCI. Stakeholders came from 5 regions (Seattle, WA, Houston, TX, Jackson, MS, Baltimore, MD, and Philadelphia, PA).

**Results.** 51 stakeholders identified these ICU challenges for pediatric CCI:

- *Patient factors* Children with CCI are often “stuck” in the ICU because they need therapies (e.g., ventilators) that hospitals centralize to one unit. During extended ICU stays, these children require longitudinal relationships and developmental stimulation that often outstrip ICU staff capabilities. Daily management for pediatric CCI is often dictated by ICU routines; lack of individualized approaches can undermine well-being.
- *Family factors* These families are perceived as particularly vulnerable due to chronic social, emotional, logistical and financial strains. The prolonged ICU experience leads some to disengage from their child and from decision-making.
- *Clinician factors* Clinicians note that parents of children with CCI are often experts about their child’s disease, shifting the typical ICU clinician-parent relationship. Clinicians admit that comprehensive care for children with CCI can become secondary to needs of acutely ill patients. For clinicians, pediatric CCI care is professionally and personally taxing and stretches typical “ICU mentality.”
- *System factors* Stakeholders agree that achieving consistent ICU care goals is difficult for CCI patients. Challenges include rotating ICU staff, an ICU bias toward more interventions, and variability within values-based decision-making.

**Conclusion.** ICU care is poorly adapted to pediatric CCI. Patient, family, clinician, and system factors highlight opportunities for targeted interventions.

**Implications for research, policy or practice.** As the pediatric CCI population expands, we must take steps to individualize and shorten their ICU stays.

### *Emergency Medical Services Utilization in Palliative and Hospice Patients (S750)*



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#### *Objectives*

- Understand and categorize four areas or symptoms that palliative care or hospice patients call Emergency Medical Services.
- Discuss possible plans to address the gaps in palliative care.

**Original Research Background.** Our study aims to characterize EMS role and interventions in hospice and palliative care patients whose previous relationship has rarely been looked at.

**Research Objectives.** Our study is a retrospective chart review of patients transported by EMS in a large urban academic center who also received inpatient palliative care services.

**Methods.** The chart review was over a 3-month period from March-June 2015. We collected patient demographics, reason for EMS dispatch, advance directive documentation, pain and symptom interventions, and if there was repeated EMS use after discharge. Reasons for EMS dispatch were categorized into respiratory distress, altered mental status, trauma, stroke, or sickness.

**Results.** Out of 463 inpatient palliative care (PC) consults within the 3 month period, there was a total of 232 EMS encounters. Excluding repeat consultations and EMS usage, 125 unique PC patients used EMS. Most common reason coded for EMS dispatch were respiratory distress 32% (75), altered mental status (AMS) 15% (34), and sickness 13% (31). Pain was documented in 34% (79) of EMS encounters with 40% (32) of patients giving a pain scale over 0 on a scale 0-10; however, only 16% (5) percentage of these patients received pain medications.

Of EMS encounters, 38% (47) of PC patients discharged from hospital re-used EMS within 3 months. Top repeat reasons for EMS usage were 38% (41) respiratory distress 19% (20) AMS, 15% (16) sickness, and 5% (5) cardiac arrest. Advance documentation was only documented in 3% (6) with families stating patients had a do not resuscitate or do not intubate (DNI/DNR) order or were hospice patients where none received intubation or CPR.

**Conclusion.** Reasons of unmanaged respiratory distress and AMS show potential gaps in overall symptom control or understanding in disease progression.

**Implications for research, policy or practice.** This study sheds light for improvements not only within EMS but how we treat all patients with chronic, serious illnesses.

### ***Determinants of Palliative Care in HIV-Infected and Uninfected Adults Hospitalized with Heart Failure (S751)***



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#### *Objectives*

- Identify the prevalence of palliative care in HIV-infected and uninfected adults hospitalized with heart failure.
- Identify determinants of palliative care in HIV-infected and uninfected adults hospitalized with heart failure.
- Discuss potential reasons for the study's findings and future directions for research, policy and practice.

**Original Research Background.** Non-AIDS comorbidities including heart failure (HF) now drive morbidity and mortality in the HIV-infected adults. However, the extent to which these patients receive palliative care (PC) is not known.

**Research Objectives.** To identify use and determinants of PC in HIV-infected and uninfected adults hospitalized with HF.

**Methods.** We conducted a retrospective review of data from the Veterans Aging Cohort Study (VACS) of HIV-infected and uninfected adults hospitalized with a HF diagnosis from 2000-2012. The outcome was PC, defined by the International Classification of Diseases Ninth Revision (ICD-9) code V66.7 and VA hospice/palliative bed-section codes. We included demographic and clinical variables, the VACS Index (a prognostic indicator including age and laboratory-based biomarkers), and healthcare utilization. Comorbidities were identified using ICD-9 codes. We conducted logistic regression using generalized estimating equations to account for multiple hospitalizations per patient.

**Results.** The sample included 11,666 adults representing 43,750 hospitalizations with ICD-9 codes for HF (HIV-infected=3,596, 31%). At first hospitalization, the mean age was 60±11 years, and 52% of the sample was African American. PC occurred in 1.8% of adults. HIV was not associated with PC. PC was associated with anxiety (OR 2.33, 95% CI 1.45 – 3.77), Index highest tertile (OR 1.60, 95% CI 1.15 – 2.22) hospital length of stay in days (OR 1.02, 95% CI 1.02 – 1.03), and intensive care unit admission (OR 1.46; 95% CI 1.04 – 2.04). Posttraumatic stress disorder (PTSD) was negatively associated with PC (OR 0.55, 95% CI 0.30 – 0.99).

**Conclusion.** Among HF inpatients with and without HIV, PTSD was associated with a 45% decreased odds of PC. Whether this association influences healthcare outcomes among HIV-infected and uninfected adults with HF requires further exploration.

**Implications for research, policy or practice.** Confirmation that adults with PTSD are less likely to receive PC is necessary. Policies are needed to increase access to PC for adults with HIV and HF.

### ***Validation of the Diagnostic Code for Palliative Care in Patients Hospitalized with Heart Failure Within the Department of Veterans Affairs (S752)***



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#### *Objectives*

- Describe a method for validating the International Classification of Diseases Ninth Revision (ICD-9) code for palliative care encounter, v66.7, in electronic health records.
- Identify the positive predictive value, negative predictive value, sensitivity and specificity of the ICD-9 code for palliative care encounter, v66.7, in electronic health records.
- Discuss potential reasons for the study's findings and future directions for research, policy and practice.

**Original Research Background.** Palliative care (PC) can be identified using the International Classification of Diseases Ninth Revision (ICD-9) diagnostic code for PC encounter, v66.7. However, performance of this code for detecting PC in electronic health records (EHR) has not been determined.

**Research Objectives.** To validate ICD-9 code v66.7 in a sample of Veterans hospitalized with heart failure (HF).

**Methods.** We reviewed EHRs of hospitalized Veterans with and without ICD-9 code v66.7, from the Veterans Aging Cohort Study. The sample included 100 patients hospitalized from 2000-2012 with HF (ICD-9 codes: 425.x, 428.x). Fifty patients with the v66.7 code were matched 1:1 to patients without the PC code who had died within one year of hospitalization. Patients were matched on age (+/-5 years), hospitalization site, length of stay (+/- 3 days), intensive care unit admission, and year of cohort entry. Two researchers reviewed inpatient progress notes, discharge summaries, and other clinical data for PC. For chart

review, we defined PC as documentation of inpatient PC consultation or progress note title, or care in a palliative or hospice unit. For analysis, we calculated diagnostic code positive and negative predictive values (PPV, NPV), sensitivity, and specificity.

**Results.** With 100% agreement between reviewers, PC was documented in the EHR for 48/50 (PPV 96%, 95% CI 85.1 – 99.3) patients with the v66.7 code. PC was documented for 10/50 (NPV 80%, 95% CI 65.9 – 89.5) of patients without the code. Sensitivity of v66.7 for PC documentation in the EHR was 83% (95% CI 70.1 – 91), and specificity was 95% (95% CI 82.6-99.2).

**Conclusion.** In a sample of hospitalized in-patients with HF, PC was confirmed in those with code v66.7. Among those without diagnostic code v66.7, 20% received PC.

**Implications for research, policy or practice.**

Additional validation of the PC diagnostic code in other data sources is necessary. Researchers may require alternative methods to accurately identify PC in EHRs.

***Striving to Improve Primary Palliative Care: The Palliative Care Resource Nurse Survey (S753)***



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**Objectives**

- Define the role of the palliative care resource nurse (PCRN).
- Describe how the PCRN is utilized on their floor or unit.
- Discuss the continuing educational needs of nurses fulfilling the PCRN role.

**Background.** The Palliative Care Resource Nurse (PCRN) is a registered nurse who functions as a champion for palliative care on her/his floor or unit. The PCRN facilitates best practices in patient care by relieving distressing symptoms, enhancing the quality of life, providing support for patient family and friends, and enhancing communication among members of the interdisciplinary care team. The PCRN role was created at our academic medical center in 2014. The purpose of this study was to assess how the PCRN is utilized in the workplace and to better understand their continuing education needs.

**Methods.** The 40-question survey contained a mix of multiple choice and short answer questions focused on three areas: demographics, work environment/role, and continuing education needs. The Qualtrics survey link was emailed to 45 PCRN, with two follow-up reminders.

**Results.** Eleven PCRN completed the anonymous survey (24%). The respondents were mostly women

(81.8%), white (81.8%), with an average age of 35.5 years (SD 9.4). Half had received some palliative care training, most often an ELNEC course, but others had no significant palliative care education beside the PCRN meetings. Most had served as a PCRN for over two years (average 27.7 months) and worked on a medical-surgical floor or in the intensive care unit. They viewed their role primarily as advocates for patients and families with activities focused on discussing goals of care, completing advance directives and DNR orders, and initiating comfort care. The major barrier to initiating palliative care consults was a lack of understanding of palliative care by both patients and providers (mainly physicians) and a treatment-focused plan of care until death was imminent. The PCRN identified communication training in palliative care and obtaining palliative specialty certification as their most important educational needs.

**Conclusions.** The PCRN provides primary palliative care and extends the function of the palliative care consult team. This survey shows that the PCRN could benefit from additional training in palliative care communication.

***Role of Megestrol Acetate Versus Dexamethasone for Improvement in Appetite in Patients With Cancer Associated Anorexia Cachexia: A Randomized Controlled Pilot Trial (S754)***



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**Objectives**

- Effect of either drug on appetite improvement in patients with cancer associated anorexia-cachexia.
- Effect of either drug on lean body mass and quality of life.

**Original Research Background.** Loss of appetite is a frequent and distressing symptom in patients with advanced cancer and other life-limiting illnesses. Prolonged periods of anorexia, can lead to both serious physical and psychological distress to patients and their families contributing to a poorer quality of life.

**Research Objectives.** The primary objective was to assess improvement in appetite in patients with cancer associated anorexia-cachexia, while secondary Objectives were to assess effect of either drug on (1) lean body weight and (2) Quality of life.

**Methods.** A prospective, randomized controlled pilot study was conducted in the outpatient clinic of Department of Palliative Medicine from September to December 2015. Registered patients consenting and meeting the inclusion criteria and exclusion criteria were assessed for anorexia as related to other symptom

burden, measured by ESAS scale, lean body weight (Hume's Formula) and QOL (EORTC-QOL PAL15). Patients were randomized to receive tab. Dexamethasone (4mg) or Megestrol acetate (160mg given in divided doses) for a period of 21 days. Patients were reassessed at days 7, 21 and 35.

CTRI No: REF/2015/10/009871

**Results.** Total of 40 patients were enrolled in the study (20 in each group). Patients in both groups showed statistically significant improvement in appetite, lean body weight and quality of life at days 21 and 35, compared to baseline. However, study failed to show any significant difference for primary and secondary outcomes between two groups, at days 21 and 35. Dexamethasone was found to be associated with more side effects, like difficulty in standing from sitting position, nausea and vomiting which were found to be statistically significant.

**Conclusion.** Though both drugs individually improved appetite, lean body weight and quality of life, their comparison failed to show any statistical significant difference. No significant difference in side effect profiles of both study arms is seen.

**Implications for research, policy or practice.** Study helps to identify cheaper option for cancer associated anorexia cachexia.

### **Assessment of Self-Perceived End-Of-Life Care Competencies of Healthcare Providers at a Large Academic Medical Center (S755)**



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#### *Objectives*

- Familiar with the End-of-Life Care questionnaire.
- Learn about EOL care self-perceived competencies for the provision of quality end-of-life care among disciplines in a large tertiary academic medical center.

**Original Research Background.** Lack of healthcare professionals' preparedness for the provision of end-of-life (EOL) care can negatively impact the quality of care provided to hospitalized patients.

**Research Objectives.** To assess healthcare professionals' self-perceived competencies in the provision

of EOL care as a first step in planning educational interventions for hospital staff.

**Methods.** Healthcare professionals in 25 adult and pediatric acute and intensive care units at a large tertiary academic medical center completed the End-of-Life Questionnaire (EOLQ) (Montagnini, Smith and Balistreri, 2012) which consists of 28 questions assessing knowledge, attitudes and behaviors related to the provision of EOL care. Participants were also asked to comment on their positive or negative experiences providing care to a dying patient. Data analysis was descriptive, correlational and qualitative in nature.

**Results.** 1199 participants (52% nurses; 22% physicians) completed the EOLQ. Self-perceived competencies were significantly correlated with years in practice ( $p < 0.0001$ ), acuity level of unit ( $p < 0.0001$ ), discipline ( $p < 0.0001$ ), and physician specialty ( $p < 0.0002$ ). Significant differences in self-perceived knowledge, attitudes and behaviors related to the provision of EOL care were found among disciplines. The most frequent themes identified in a quantitative analysis ( $n = 475$ ) were: *Communication among disciplines and patients/families* (59.6%), *Decision-making issues* (50.1%), *Educational needs for patients/families and staff* (38.5%), and *Addressing EOL care needs of patients/families* (31.8%).

**Conclusion.** This study found that educational needs related to EOL care may be different depending on the discipline, unit population (adult versus pediatric), unit acuity level, and experience of staff. Several deficiencies in EOL care competencies were found among disciplines. Goals for educational interventions to address the documented deficiencies include improving EOL care knowledge, attitude and behaviors, communication, collaboration and decision-making among disciplines.

**Implications for research, policy or practice.** This study provided baseline measurements for educational interventions targeting the documented deficiencies among various disciplines.

### **Documentation of Crucial Medical Information in Critically Ill Patients (S756)**



Alexandria Bear Medical College of Wisconsin Affiliated Hospitals, Milwaukee, WI. Elizabeth Thiel, MD MS, Medical College of WI, Milwaukee, WI.

#### *Objectives*

- Elucidate the differences in documentation of key aspects of medical decision making.
- Describe the implications of inadequate documentation of care choices as it relates to informed consent as well as inter-team communication.

**Background.** The medical record is one of the primary communication methods for patient information and is integral to patient care, inter-team communication, and care continuity. Documentation of prognosis and care options as they relate to medical decision making should ideally be in the medical record. There is little research on the documentation of discrete medical options, including disease-based treatments versus a comfort plan of care.

**Objective.** Understand the current documentation practices for prognosis and medical options, at a large academic institution, by both primary and palliative teams.

**Methods.** A retrospective chart review was completed on all patients for whom a Palliative consult was obtained and who required ventilator support, dialysis, or gastric tube. Both primary and palliative team documentation was evaluated for the following: notation of critical labs or imaging, prognosis, medical options, and plan as it relates to medical options in the 72 hours after a palliative consult.

**Results.** 114 patients were included in the study. Both teams documented critical test results in over 80% of the patients. In the primary team's notes, prognosis was documented 31.6% of the time, medical options 50%, and documentation of the plan as it related to the options 46.4%. In the palliative notes, 83.3% contained documentation of prognosis, 81.6% contained documentation of medical options, and 81.6% contained documentation of the plan as it related to the options.

**Conclusion.** The palliative care team documented prognosis, care options, and care plan significantly more than the primary teams. The lack of documentation in the medical record of both prognosis and medical options by the primary team can have significant impact of the ability to provide appropriate patient care, inter-team communication, and care continuity.

**Implications.** The integration of templates relating to the aforementioned topics into the medical record may result in improvement in both communication as well as patient care.

### ***Integration of Palliative Care into Breast Cancer Self-Management and Its Effect on Healthcare Utilization (S757)***

Catherine Adams, MD PhD, St. Peter's Hospital, Albany, NY. Sarah Linsky, MPH, Yale University, West Haven, CT. Sangchoon Jeon, PhD, Yale University, New Haven, CT. Dena Schulman-Green, PhD, Yale School of Nursing, West Haven, CT.

#### *Objectives*

- Define self-management and its relationship to palliative care.
- Identify palliative care support services that were more highly utilized by the patients who received the self-management intervention.

**Original Research Background.** Self-management, although well established in chronic disease, has only recently been linked with palliative care. Enabling patients to manage the physical, psychosocial, and spiritual changes associated with illness empowers them to make important choices about their health care and health care utilization.

**Research Objectives.** We sought to determine how a palliative-oriented self-management intervention affects health care utilization. We hypothesized that the intervention would increase use of palliative care.

**Methods.** This is a pilot-RCT with a three-month protocol for women with Stage I-IV breast cancer. Participants receive either the intervention, *Managing Cancer Care*, a magazine-format guide teaching self-management skills and highlighting care options (curative/palliative/hospice care) and goals of care communication, or a symptom management booklet. We reviewed participants' charts for utilization of support services (palliative care, social work, mental health, chaplain, complementary) within a three-month period post-enrollment and examined associations between health care utilization, cancer stage and race.

**Results.** Participants' (n=71) mean age is 51 years (SD = 9.47). There is nearly equal distribution between whites and minorities. Cancer stage is well distributed (25.4% I, 33.8% II, 16.9% III, 24% IV); mean number of symptoms is 5.61 (SD = 4.01). Patients are undergoing chemotherapy (77%), surgery (26%), hormone therapy (16%) and radiation (9%). No patients had new palliative care consults at the three-month time point. Four patients already receiving palliative care had stage III or IV disease. The highest rates of support service utilization were in social work followed by complementary services. There were no significant differences by race.

**Conclusion.** Although there was no increase in use of palliative care support services at three months, this time point may be too soon for self-management strategies to take effect.

**Implications for research, policy or practice.** Analysis of six and nine-month post-intervention data will help to identify the most relevant clinical indicators of improved palliative care self-management among patients with breast cancer.

### ***Multiple Stakeholders' Perspectives Regarding Barriers to Hospice Access in Diverse Patient Populations: Preliminary Findings of a Qualitative Study (S758)***

Katherine Cicoello, BA, Alpert Medical School of Brown University, Providence, RI. Gowri Anandarajah,



MD, Alpert Medical School of Brown University, Providence, RI.

#### Objectives

- Describe the current state of research regarding disparities in hospice utilization in ethnic and racial minority populations.
- Discuss the preliminary findings of this qualitative study of the perspectives of multiple stakeholders in Rhode Island regarding barriers to access to hospice services in diverse patient populations.
- Demonstrate an understanding of the implication of this study for developing interventions to improve access to hospice services for diverse patient populations.

**Original Research Background.** Patients from ethnic minority groups underutilize hospice services. Although a few studies identify possible causes for this disparity, many questions remain. Most existing studies focus on a single ethnic group, and most utilize physicians as informants. None compare and contrast views of multiple stakeholders within a single geographic region.

**Research Objectives.** Gain in-depth understanding of causes for disparities in access to hospice care in diverse patient populations in one state, including barriers and potential solutions.

#### Methods.

*Design:* Qualitative individual interview study.

*Setting:* Rhode Island.

*Participants:* Purposeful sampling strategy, aiming for a maximum variation sample. Snowball sampling identifies additional participants to provide new perspectives. Initial key informants: physicians, nurses, social workers, chaplains, minority hospice patients and/or caregivers, leaders in RI Department of Health and organizations serving minority communities.

*Data Collection:* Semi-structured interviews, using an interview guide, are audio-recorded and transcribed verbatim. Data collection will occur until saturation.

*Analysis:* Two researchers are analyzing data, using grounded theory. Our multi-step process involves individual coding of transcripts by each researcher followed by iterative group analysis meetings to reach consensus regarding themes. Steps: Coding each interview (open coding), organizing data by codes, identifying themes within coded segments, clarifying relationships and variations between themes (axial and selective coding).

*IRB:* approval obtained.

#### Results.

*Sample:* 13 interviews to date - analysis ongoing.

*Participant characteristics:* 5 physicians, 3 RNs, 2 chaplains, 1 MSW, 1 Department of Health leader, 1

community agency administrator. Informants' self-identification: Caucasian/White, African American, Portuguese, Cape Verdean, Puerto Rican/Dominican. *Initial themes:* (1) Goals of care conversation challenges are intensified in minority populations; (2) Knowledge regarding hospice is lacking; (3) Improved communication is needed – requires both “goals of care trained” language interpreters and “cultural” interpreters; (4) Trust is essential – for both knowledge transmission and decision making.

**Conclusion.** Data collection/analysis ongoing.

#### Implications for research, policy or practice.

Elucidates new avenues for improving hospice access for minority populations.

### “If I Could Just Chime in Here”: Communication Patterns of Interprofessional Team Meetings in a Pediatric Cardiac Intensive Care Unit (S759)



Jennifer Walter, MD MS PhD, University of Pennsylvania, Philadelphia, PA. Theo Schall The Children's Hospital of Philadelphia, Philadelphia, PA. Aaron Dewitt, MD, Perelman School of Medicine/Children's Hospital of Philadelphia, Philadelphia, PA. Robert Arnold, MD FAAHPM, University of Pittsburgh, Pittsburgh, PA. Chris Feudtner, MD MPH PhD, The Children's Hospital of Philadelphia, Philadelphia, PA.

#### Objectives

- Identify major themes of communication in interdisciplinary teams in the pediatric cardiac intensive care unit.
- Learn the recommended standards for interdisciplinary communication in preparation for family care planning meetings and be able to identify patterns of behaviors in actual team meetings.

**Original Research Background.** Little is known about how interdisciplinary teams communicate with each other about care plan development in the pediatric cardiac intensive care unit (CICU).

**Research Objectives.** To describe the communication of interdisciplinary teams in a pediatric CICU when developing care plans and preparing for family meetings.

**Methods.** We audio recorded weekly CICU team meetings that included representatives from all interdisciplinary care providers prior to meeting with a patient's family. We calculated the percentage of time each type of provider spoke in the meeting and qualitatively coded to determine major themes relevant to team function.

**Results.** 10 meetings discussed one patient each and lasted 31-51 minutes. Physicians spoke for an average of 86% of each meeting (SD 8.2). Non-physician

team members spoke for an average of 10% of each meeting (SD 5.3); when present, nurse practitioners averaged 5% (SD 3.3), registered nurses 3% (SD 1.7), social workers 3% (SD 3), and all other team members 4% (SD 6.9).

Qualitative coding revealed several themes: (1) Explicit request for input from members of different disciplines: "Are there any nursing concerns?" (2) Use of a "devil's advocate" question to challenge the group consensus: "What would make us stop support?" (3) Incorporation of other team members' contributions of new information: "So where we are currently is, he's severely malnourished, based on [dietician's] assessment." (4) Interjections to offer new information: "If I could just chime in here..." (5) Planning for communication with the patient's family: "We can try to prepare them that these are the things that are coming up."

**Conclusion.** Physicians spoke during a majority of interprofessional meeting time but requested and integrated input from their colleagues of different disciplines.

**Implications for research, policy or practice.** To ensure optimal use of team members' skills, team processes may need to be incorporated into interprofessional care plan meetings.

### ***Palliative Care Needs of Young and Middle Age Adults (20-59) With Cancer: A Pilot Study (S760)***

Mary Anne Hales Reynolds, RN ACNS-BC, Northern Arizona University, Flagstaff, AZ.

#### *Objectives*

- Identify three (3) palliative care issues and needs specific to young and middle age adults diagnosed with cancer.
- Be aware of three (3) barriers to palliative care for young and middle age adults in rural communities.

**Background.** The diagnosis of a potentially life threatening cancer is a documented stress that encompasses biological, cognitive and socioemotional dimensions. In the cancer and palliative care literature, individuals between 20 and 59 are rarely looked at as a separate and unique population within the context of a life limiting diagnosis such as cancer.

**Research Objectives.** To explore and describe the palliative and supportive care issues and needs of young and middle age adults (20-59) with a potentially life limiting cancer diagnosis. Specifically, this study examined perceived changes relating to quality of life and functional status since diagnosis.

**Methods.** A convenience sample of 15 oncology patients between the ages of 20 and 59, completed a demographic survey and two questionnaires relating to quality of life and functional health status. In addition,

they were asked questions relating to personal descriptions of quality of life and palliative care.

**Results.** Quality of Life Dimensions were significantly impacted with this population including physical, psychological, and social factors. The majority of this population lived in rural communities and had limited access to resources. Finally, none of the participants could accurately describe palliative care.

**Conclusion.** All dimensions associated with quality of life were impacted by the diagnosis of cancer for this population. Palliative care was not being well communicated or integrated within their cancer care.

**Implications for practice.** There were several themes that have emerged from the interviews including slow diagnosis and treatment and lack of knowledge about or access to palliative care services. In addition, the majority (80%) of this population lived in rural communities. They are being treated in outpatient oncology centers in an urban setting and then returning to their families and communities and health care providers with limited knowledge or access to resources relating to palliative care.

### ***The Development and Validation of the Palliative Care Knowledge Scale (PaCKS) (S761)***

Elissa Kozlov, PhD, Weill Cornell Medical College, New York, NY. Brian Carpenter, PhD, Washington University, Saint Louis, MO.

#### *Objectives*

- Learn about a new, psychometrically validated scale that assesses general knowledge of palliative care in laypeople.
- Know how and when to use the PaCKS to enhance clinical practice.
- Know how and when to use the PaCKS to enhance research in palliative care.

**Original Research Background.** Current research suggests that palliative care is drastically underutilized. Patient knowledge of a healthcare service is theorized to drive utilization. If people do not know what palliative care is, they cannot be expected to seek out or accept a referral for the service. Currently, there are no psychometrically evaluated scales to assess knowledge of palliative care.

**Research Objectives.** The purpose of this study is to develop a reliable and valid scale that broadly measures knowledge about palliative care.

**Methods.** An initial item pool of 38 true/false questions was developed based on extensive pilot data. The preliminary items were administered to a community sample of 614 adults aged 18-89 as well as 30 palliative care professionals. Using Exploratory and Confirmatory Factor Analysis (EFA & CFA, respectively), correlational

analyses, ICC and KR-20, the reliability, stability, internal consistency, and validity of a 13-item Palliative Care Knowledge Scale (PaCKS) were assessed.

**Results.** Results of this study indicate that the PaCKS meets or exceeds psychometric standards of scale development.

**Conclusion.** The PaCKS is a brief, psychometrically valid scale that assesses knowledge of palliative services in the general population. Additional testing of the scale in various sub-populations such as patients, caregivers and health care workers is needed to establish norms and further evaluate the utility of the PaCKS. The final version of the PaCKS has 13 true/false items that cover a broad range of topics within the construct of palliative care including goals of care, members of the team, system-related components, timing of palliative care, and symptoms that palliative care addresses.

**Implications for research, policy or practice.** Given its broad content coverage, the PaCKS would be useful in order to gain a preliminary assessment of individuals' gaps in knowledge of palliative care. With the successful development of this scale, new research exploring how knowledge of palliative care influences access and utilization of the service is possible.

### ***Deliberate Practice with Standardized Patient Actors and Development of a Formative Feedback Tool for Advance Care Planning Facilitators (S762)***



William Bond, MD MS, OSF HealthCare/University of Illinois COM, Jump Simulation, Peoria, IL. Linda Fehr, BSN RN CPHQ, OSF Healthcare System, Peoria, IL. Amy Funk, PhD RN-BC, Illinois Wesleyan University, Bloomington, IL. Robert Sawicki, MD HMDC FAAFP FAAHPM, OSF Health Care, Peoria, IL. Hanna Gonzalez, BS, University of Illinois College of Medicine, Peoria, IL. Jeremy McGarvey, MS, OSF Healthcare System, Peoria, IL. Jessica Svendsen, BA CCRC, OSF Healthcare, Peoria, IL.

**Original Research Background.** Actor-based simulation represents an important method for formative feedback and setting minimum standards for performance.

**Research Objectives.** We used actor-based simulation to train advance care planning (ACP) facilitators and developed a formative feedback tool for future application in the workplace setting.

**Methods.** Participants were surveyed pre-course regarding past experience (EXP). The course includes four 30-minute (prep-simulate-debrief) simulation scenarios. The observational tool derived from a mini-clinical examination for residents includes 18 yes/no observable critical actions, 2-3 case-specific critical actions

(together = CL), and a global rating for scale of competence (GRSCOMP) (“needs further instruction,” “close supervision,” “minimal supervision,” “competent to perform independently”) and communication skill (GRSCOMM) (“unsatisfactory,” “satisfactory,” “good,” “very good,” “outstanding”). Each participant performed at least one direct interaction with the patient actor. Trained faculty observers rated real time or by video recording. Inter-rater reliability (IRR) was calculated on randomly selected paired ratings. Simulation performance based on observational tool ratings was explored for construct validity using Spearman's rho correlations.

**Results.** 69/83 individuals consented to participate during 7 courses over 13 months ending May 2016, including 43 nurses, 16 social workers, and 10 others. 112 total simulations were conducted and we randomly selected 48 paired ratings for IRR. The absolute rater agreement for critical actions across all scenarios was 82% and IRR was 0.71 (Gwet's AC1 statistic) and 0.58 (Brennan-Prediger's kappa). We found a positive correlation between CL and GRSCOMP ( $\rho=0.48$ ,  $p<0.05$ ) and between GRSCOMM and GRSCOMP ( $\rho=0.73$ ,  $p<0.05$ ). We did not find a correlation between run order in the day and GRSCOMP ( $\rho=0.03$ ,  $p=0.66$ ) or between EXP and GRSCOMP ( $\rho=0.11$ ,  $p=0.16$ ).

**Conclusion.** We achieved good inter-rater reliability using the observational rating tool. We suggest the observational checklist and rating scale are adequate for formative feedback.

**Implications for research, policy or practice.** Future research will attempt to demonstrate construct validity so that minimum competency of ACP facilitators can be determined.

### ***Palliative Care Consultation in the Sub-Acute Rehab Setting: Results of a Pilot Program (S763)***



Adam Marks, MD, University of Michigan, Ann Arbor, MI. Lyle Walton, MD, University of Michigan, Ann Arbor, MI.

#### *Objectives*

- Review basic demographics regarding the role of sub-acute rehabilitation in the post-hospitalization period for patient with a serious or life-limiting illness.
- Understand potential role of palliative care consults for adult patients admitted to a sub-acute rehab service.
- Review outcomes for a pilot study evaluating the role palliative care consults at a sub-acute rehab facility.

**Original Research Background.** There is limited data regarding the role of palliative care in sub-acute

rehabilitation (SAR). Hospital administrators are currently working to design programs to decrease hospital re-admittance rates for chronically ill patients. The purpose of this study is to describe the characteristics of patients who received a palliative care consultation (PCC) at one SAR and describe the outcomes of these consults.

**Research Objectives.** To evaluate clinical outcomes of patients who receive palliative care consultation while residing in a sub-acute rehabilitation (SAR) facility.

**Methods.** We identified patients admitted to a single SAR facility from May 2014 to November 2014 who received a PCC at any point during their SAR stay. We conducted a retrospective review to attain: demographics, clinical characteristics and reason for PCC. We examined: goals of care, discharge disposition, and code status (pre and post consult).

**Results.** From May 2014 to November 2014, we identified 15 patients who received a PCC with a mean age of 79. Subjects had a myriad of primary diagnoses, including: cancer (47%), and non-cancer neurodegenerative diseases (dementia, CVA, ALS). Most cases (n=11) had goals consistent with a comfort focused approach and were DNAR. Three cases died in the SAR; one died at a local hospital after being transferred. Among cases who survived to discharge, none returned home; 5 were discharged with plans to be followed in hospice.

**Conclusion.** This study underscores the need to identify seriously ill patients in SAR because of their significant risk of death and decisional burden, as well as the need to help these patients with transitioning care and ensuring comfort in the SAR where hospice is not available. The study is small; findings need to be confirmed in a larger population.

**Implications for research, policy or practice.** This pilot projects suggests that incorporating palliative care consults can be beneficial for patients faced with a life-limiting illness.

### *Successful Use of Dexmedetomidine for the Treatment of Terminal Delirium (S764)*



Jacquelin Fabina, DO, University of Pittsburgh Medical Center Altoona, Altoona, PA. Amy Swindell, DO HMDC, University of Pittsburgh Medical Center Altoona, Altoona, PA.

#### *Objectives*

- Recognize terminal delirium, the distress it causes family and staff, and traditional treatment for the condition.

- Identify the use of Dexmedetomidine in terminal delirium and conclude its role in treatment of terminal delirium including its advantages and possible limitations.

**Original Research Background.** Delirium is a complex and distressing neurocognitive syndrome seen commonly in patients with life threatening illnesses. Palliative sedation, particularly with Dexmedetomidine (Precedex) could be used to treat patients with terminal delirium. There is very limited literature on the treatment of delirium with Dexmedetomidine. There is no specific literature on the use of Dexmedetomidine for terminal delirium in palliative medicine.

**Research Objectives.** To assess whether Dexmedetomidine controlled symptoms associated with terminal delirium better than standard medications being opiates and benzodiazepines.

**Methods.** We looked at two cases of cancer patients where despite maximizing opiate therapy with continuous infusions, along with as needed bolus dosing via a PCA pump with a benzodiazepine continuous infusion the patient's agitation symptoms were still being reported as uncontrolled by family and nursing staff. We then replaced the benzodiazepine infusion with Dexmedetomidine and assessed symptom control after that intervention. We also looked at whether the patient's opiate infusion could be decreased related to Dexmedetomidine's opiate sparing properties.

**Results.** In both cases we were able to get better symptom control with Dexmedetomidine infusion than with benzodiazepine infusion. This was based on provider's progress note review and reports from nursing staff and family. In one case we were able to demonstrate a dramatic reduction in the amount of opiate needed to control symptoms. In the other case a very slight reduction in opiate use was noted.

**Conclusion.** While there is little literature on the use of Dexmedetomidine for terminal delirium we have two cases where we were able to successfully use Dexmedetomidine to achieve patient comfort and decrease opioid doses.

**Implications for research, policy or practice.** Due to these two successful cases it is our belief that Dexmedetomidine has a unique but definitive role in palliative care.

### *Using Patient Data to Electronically Identify Palliative Care Patients (S765)*



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Corporation, Kansas City, MO. April Krutka, DO, Intermountain Healthcare, Ogden, UT. Emmie Gardner, MSW LCSW, Intermountain Healthcare, Salt Lake City, UT.

#### Objectives

- Understand how electronic data can be leveraged to identify potential palliative care patients
- Understand the value of mixed-methods research in developing a palliative care identification algorithm

**Original Research Background.** Growing evidence suggests timely integration of palliative care is needed in the acute care hospital setting. Intermountain Healthcare collaborating with Cerner Corporation, developed an electronic palliative care identification algorithm, which leverages historical and near real time data to identify patients that would benefit from secondary level palliative care services at the time of admission, along with an integrated clinical workflow solution to help providers decrease cost and improve quality of care.

#### Research Objectives.

1. Increase early identification of patients who would benefit from palliative care.
2. Measure the value and accuracy of an electronic palliative care identification algorithm.
3. Understand barriers in delivering palliative care in the acute care setting.

**Methods.** This evaluation utilized a non-randomized, mixed-methods retrospective study design. We analyzed 30 days of clinical data from the Intermountain Healthcare system for patients who received palliative care consults, as well as for patients identified by the electronic algorithm. Key informant interviews were conducted after presenting the 30-day results to the palliative care team.

**Results.** The algorithm triggered 2,995 times on 1,384 unique patients (70% of the total inpatient population) during the 30 days. During this same time period, only 62 patients actually received palliative care consults (3% of the total inpatient population). Qualifying criteria inclusive of diagnosis, hospital utilization, functional status and symptoms were reviewed. Interviews with palliative care teams provided the context and clinical expertise needed to understand what changes should be made to the algorithm to increase the accuracy of the triggers. After making proposed changes, we reanalyzed the same 30-day data. The number of times the algorithm triggered dropped to 992 on 425 unique patients (21% of total inpatient population).

**Conclusion.** A mixed-methods collaboration is successful for developing and optimizing a palliative care identification algorithm.

**Implications for research, policy or practice.** The results of this study will be used to drive program expansion including home-based and outpatient palliative care.

#### *The Intensive Care Unit Isn't Right, but There Is Nowhere Else to Go: Family Experience of Recurrent and Prolonged Pediatric Hospitalizations: A Systematic Review (S766)*



Emily Hahn, MD, Johns Hopkins University, Baltimore, MD. Rebecca Seltzer, MD, Johns Hopkins School of Medicine, Baltimore, MD. Laura Wright-Sexton, MD, University of Mississippi Medical Center, Jackson, MS. Renee Boss, MD, Johns Hopkins School of Medicine, Baltimore, MD. Carrie Henderson, MD, University of Mississippi, Jackson, MS.

#### Objectives

- Understand the disrupted parental role in the intensive care unit during prolonged and recurrent hospitalizations.
- Describe the ways the pediatric intensive care unit is inappropriate for children with chronic critical illness, and the barriers to transitioning children out of the ICU setting.
- Appreciate the profound psychosocial implications for family members of hospitalized children.

**Background and Objective.** Pediatric chronic critical illness (CCI) is an emerging phenomenon due to advances in neonatal and pediatric critical care. A typical child with CCI has a congenital or genetic condition, multi-organ dysfunction, and technology dependence; they may have transferred between intensive care units (ICUs) without ever leaving the hospital. Such patients survive acute critical illnesses but remain dependent on technologies and medications.

Family experience of pediatric CCI is largely unknown but is likely distinct from other ICU families. Understanding this can help us better treat children, support parents and siblings, and facilitate serious decision-making for a population of patients at high risk for adverse outcomes.

**Study Identification.** As no standard nomenclature regarding pediatric CCI exists, we used a broad search strategy using PubMed and JSTOR from inception to July 2016. Search terms included the following (and variants): “chronic critical illness,” “medically fragile,” “medical complexity,” “chronic illness,” and “long-stay hospitalization,” combined with “family,” “caregiver,” “parent,” and “sibling.” Close review of bibliographies of relevant literature identified other pertinent publications.

**Data Extraction and Synthesis.** Publications were reviewed for content related to the family experience of prolonged and recurrent hospitalizations, and analyzed thematically.

**Results.** The literature regarding family experience of CCI reveals the following thematic domains 1) Disrupted parental role; 2) children with CCI are a “poor fit” for the ICU, 3) stress for parents and siblings 4) complicated ICU discharge; and 5) medical decision making.

**Conclusions and Implications for Practice, Policy, and Research.** As a population of children with CCI grows, families deal with consequences of prolonged and recurrent hospitalizations. Families experience stress, worry, depression; try to connect with their child; and be an advocate in an acute care system that isn't designed for them. Better understanding these families' experiences will help clinicians support decision-making that achieves their goals. Pediatric palliative care teams will play an essential role in coordinating care and facilitating decision-making.

### ***Racial Disparities in End-of-Life Care Knowledge and Treatment Preferences in Maintenance Dialysis Patients (S767)***



Fahad Saeed, MD, University of Rochester Medical Center, Rochester, NY. Muhammad Sardar, MD, Monmouth Medical Center, Long Branch, NJ. Timothy Quill, MD FACP FAAHPM, University of Rochester Medical Center, Rochester, NY.

#### *Objectives*

- Learn about racial disparities in treatment preferences in dialysis patients.
- Learn about racial disparities in end-of-life choices in dialysis patients.

**Background.** There is a paucity of literature on racial differences in patient perspectives on end-of-life care (EOLC) among maintenance dialysis patients.

**Objectives.** We aimed to study differences in EOLC knowledge, treatment preferences and advance care planning (ACP) in maintenance dialysis patients.

**Methods.** We surveyed a total of 450 maintenance dialysis patients. Two hundred and eighty-five were Black and 114 were White.

**Results.** In comparison to white patients, a higher percentage of Black patients were single or divorced. A lower proportion of Blacks had knowledge about hospice (82% versus 91%,  $p=0.02$ ), a significantly higher percentage of Black patients regretted their decision to start dialysis (21.7 % versus 12.2%,  $p=0.02$ ) and considered it unimportant to know about options such as withdrawal from dialysis (30 % versus 11%,  $p<0.001$ ). Majority of Black patients wanted to be “full code” (68.7% versus 56.1 % for whites,  $p=0.01$ )

and a fewer had living will(s) (31% versus 46%,  $p=0.004$ ). There was no difference in knowledge about palliative care between the two groups.

**Conclusions.** Racial differences exist in areas of hypothetical end of life treatment preferences, and knowledge about hospice, but not knowledge about palliative care. Future research is needed to promote better patient understanding and EOL planning.

### ***Black and Hispanic Patients Receive Care from Poorer Quality Hospices and Do Not Receive the Right Amount of Emotional and Spiritual Support (S768)***



Rebecca Anhang Price, PhD, RAND Corporation, Arlington, VA. Joan Teno, MD MS, University of Washington, Seattle, WA.

#### *Objectives*

- Familiarize with the development of CAHPS Hospice Survey and disparities at the close of life.
- Examine the results of the 2 quarters of CAHPS hospice survey where bereaved family report their perceptions of the quality of care.

**Original Research Background.** Access to hospice has improved; however, we know little about whether all racial/ethnic groups receive high-quality hospice care.

**Research Objectives.** To examine whether bereaved family members' experiences of hospice care differ by race/ethnicity, and to examine the degree to which differences are due to racial/ethnic minorities concentrating within certain hospices or differences in care within the same hospices.

**Methods.** We analyzed Consumer Assessment of Healthcare Providers and Systems (CAHPS) Hospice Survey responses from 141,412 bereaved family members or friends of patients who died while receiving hospice care from 2,500 hospices participating in the Quarter 2 and 3 2015 national implementation. The CAHPS Hospice Survey measures patient and family caregiver experience with: Hospice Team Communication, Getting Timely Care, Treating Family Member with Respect, Getting Emotional and Religious Support, Getting Help for Symptoms, and Getting Hospice Care Training. A multivariate mixed-effects regression model examined whether patients' race/ethnicity predicted care experiences after case-mix adjustment, and whether differences were due to differences within the hospice or receipt of care in worse-performing hospices overall.

**Results.** Across all measures, Black and Hispanic hospice patients were more likely than non-Hispanic white patients to receive care from hospices that offer poorer care experiences. For example, the median hospice attended by Black patients was equivalent to the 37<sup>th</sup> percentile of hospices overall in reports of patients being

treated with respect. Within a given hospice, caregivers of Black and Hispanic hospice patients reported similar or significantly better hospice care experiences to those for non-Hispanic White patients on most dimensions. However, they were less likely to report receiving the right amount of emotional and spiritual support.

**Conclusion and Implications for Research, Policy or Practice.** Black and Hispanic patients receive care from hospices with poorer average quality of care. Across all hospices, emotional and spiritual support of Black and Hispanic patients is an important dimension to target for quality improvement.

***Palliative Care Needs in Patients with Heart Failure Presenting to the Emergency Department: A Patient-Centered Evaluation of Health Status and Quality of Life Approach (S769)*** 

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**Objectives**

- Gain an understanding of an interdisciplinary approach to assessing the palliative care needs of heart failure patients in the challenging setting of the emergency department.
- Better understand the utility of patient-reported measures of health status and quality of life in stratifying HF patients at high risk for readmission that may benefit from earlier palliative care discussion.

**Original Research Background.** Integration of palliative care into the management of heart failure (HF) has remained suboptimal, and identification of patients that would benefit from palliative services remains a challenge.

**Research Objectives.** In this study, we characterize the palliative care needs of HF patients presenting to the ED using patient-reported measures of health status and quality of life, and assess the utility of these instruments in predicting HF readmissions and occurrence of goals-of-care (GoC) discussions during admission.

**Methods.** Inclusion criteria included English-speaking adults with a diagnosis of HF who presented to the ED, NYHA Class III or IV as identified by symptom assessment, and ability to pass a cognitive screen. Enrolled patients were assessed using standard instruments for quality of life, depression, function, and HF symptoms. Follow-up chart review was performed to assess most recent LVEF, readmissions and mortality at 6 months. Clinical notes from hospital admissions

were reviewed to identify GoC conversations. Content analysis was performed to characterize palliative care recommendations.

**Results.** Enrolled patients (n=34) averaged 71.10±14.54 years of age with mean LVEF= 42%±18.99. 50% were NYHA class III and 50% class IV. 15 patients were readmitted at 6 months, 1 patient died. Mean PHQ-9 score was 8.61±5.11, mean FACT-G (quality of life) score was 67.67±18.99. Mean Kansas City Cardiomyopathy Questionnaire (KCCQ) score was 39.71 ±20.93. Patients who were readmitted had lower KCCQ scores (23.75±8.36 vs. 48.8±22.21, P=0.03). Four patients had GoC conversations during admission. Code status was discussed in all four cases. Hospice referral/discussion occurred in one case. LVEF, PHQ-9, FACT-G, and KCCQ scores were not associated with occurrence of a GoC discussion during admission. **Conclusion.** Patient-centered evaluation of health status and quality of life is feasible in the ED, and future research should confirm its utility in stratifying HF patients at high risk for readmission that might benefit from earlier palliative care discussions.

***Trends in Utilization of Palliative Care by General Surgery Services (S770)*** 

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**Objectives**

- Evaluate the trends for consults to Palliative Medicine by surgical services.
- Evaluate the end of life care for surgical patients over time.

**Original Research Background.** Palliative Care (PC) focuses on symptom relief and quality of life improvement for patients, but it is often thought to be synonymous with end-of-life (EOL) care. The American Board of Surgeons has endorsed the incorporation of palliative principles into surgical care.

**Research Objectives.** To determine the trends of utilization of Palliative Care consultation by surgical services over time.

**Methods.** A single institution retrospective chart review was utilized from 2006-2013. Patients on inpatient surgical service (general, vascular, cardiothoracic, transplant surgery) and who had a PC consult were identified. Charts were evaluated for patient demographics, admission and medical/surgical information, consult reason and disposition.

**Results.** Of the 358 consults the majority of the diagnoses were cancer-related (47.5%), 13.4% cardiac-related, and 13.7% vascular-related. The main reasons for PC consultation were clarifying goals of care, EOL issues and symptom management, with an increase in

the number of consults over time. Discharge disposition included 30.2% dying in hospital, 17.3% to home hospice, 12.0% to hospice, and the remainder to home or rehab. 46.3% of the patients who died in hospital had a PC consult within a day of death.

**Conclusion.** Since the initiation of a Palliative Care consult service at our hospital there has been an increase in the utilization of their services by surgical services. The main reason for consultation has been for goals of care and EOL care with an increase in consultation for assistance with symptom management. There continues to remain a significant portion of patients who died in the hospital with a significant portion of the consults placed late in the hospital course, specifically within a day of death.

**Implications for research, policy or practice.** Within surgical training additional training in the principles of palliative care principles may improve the EOL care for surgical patients and should be incorporated into standardized curriculum.

### ***Association Between Mental Health Diagnoses and Process of Care at the End of Life: Findings from the BEACON Trial (\$771)***



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#### *Objectives*

- Gain knowledge on mental health disparities in end of life care.
- Identify at least three quality indicators of end-of-life care processes that are associated with mental health diagnoses.

**Original Research Background.** Mental health disparities have garnered increasing interest in the last two decades. Patients diagnosed with mental disorders are less likely to receive optimal care in various health care settings; however, little is known about the relationship between mental health diagnoses and processes of care at the end of life.

**Research Objectives.** Our study aimed to determine whether the presence of mental health diagnoses was correlated with specific processes of care in the last 7 days of life.

**Methods.** Data were drawn from the Best Practices for End-of-Life Care for Our Nation's Veterans (BEACON) trial conducted between 2005 and 2011. Five processes of care were identified as primary end points

as indicators of quality end-of-life (EOL) care, including opioid order, do not resuscitate order (DNR), intravenous line infusing at time of death, nasogastric tube, and physical restraints. Generalized estimating equation (GEE) modeling was conducted to examine the association between mental health diagnoses and each process of care.

**Results.** Among the 5476 inpatient decedents (mean [SD] age, 70.1 [22.5]), 98.2% were male, 65.2 were white, and 34.4% were black. Over a half had a terminal diagnosis of cancer (30.1%) or heart disease (20.1%). After controlling for covariates, patients with any mental health diagnosis were less likely to have IV infusion at time of death (OR=0.80, p=.001) but more likely to have DNR (OR=1.23, P=.002) and physical restraints (OR=1.23, P=.004) compared to those without. No differences were observed in other processes.

**Conclusion.** Significant differences were observed for several EOL processes of care between veterans with mental disorders and those without. Patients with comorbid mental conditions were more likely to receive care that was directed at controlling symptoms or supporting DNR.

**Implications for research, policy or practice.** More research is needed to explore whether differences exist in other quality indicators of EOL care processes and develop care guidelines for those with mental health needs.

### ***A Retrospective Analysis of Pain Burden in Hospitalized Young Adult Cancer Patients Compared to Their Older Adult Counterpart (\$772)***



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#### *Objectives*

- Review current evidence for symptom burden in young adults with cancer.
- Identify differences in clinical characteristics and related outcomes between young adult and older adult cancer patients admitted for cancer-related pain.
- Describe future research areas that will help to refine pain management strategies in young adults with cancer-related pain.

**Original Research Background.** Literature shows an increased symptom burden in young adult (YA) cancer patients compared to their older adult counterpart. Research focused on defining this difference is limited.

**Research Objectives.** The purpose of this study is to identify differences in clinical characteristics and related outcomes between YA and older adult cancer patients admitted for cancer-related pain.

**Methods.** We retrospectively identified 100 patients using a single electronic medical record admitted with diagnoses of cancer and pain to a single academic center from July 2013 to July 2014. Patients were grouped into either “young adult”, defined in the literature as ages 18-39 years (N=26), or “older adult” cohorts (N=74). Basic demographic data, type of cancer, readmissions within 30 days for pain, and information regarding pain regimens were collected. Fisher’s exact tests, and Wilcoxon rank-sum tests were used to identify differences between young and older adults.

**Results.** The majority of patients in both groups were admitted for abdominal pain but the cancer type varied. Gastrointestinal (not colorectal) cancer was most common in older adults compared to hematologic malignancy or sarcoma in YAs. The median length of hospitalization was 5.0 days for both YAs and older adults. Younger adults received a median daily oral morphine equivalent (OME) of 290 mg compared to 72 mg for older adults ( $p=0.034$ ). Younger adults were more likely to use a PCA compared to older adults (54% vs. 28%;  $p=0.030$ ). Palliative care consultation rates were similar between YAs and older adults (54% vs. 50%;  $p=0.82$ ), as were readmissions for pain (3% vs. 11%;  $p=0.44$ ).

**Conclusion.** This study found that in YAs admitted with cancer-related pain, there is a higher median OME per 24-hour requirement, along with increased PCA use.

**Implications for research, policy or practice.** Future research is needed to identify tailored treatment regimens for YAs with cancer-related pain.

### ***Impact of a Consult Cap for a Busy Inpatient Palliative Care Program (S773)***

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#### *Objectives*

- Describe implementation of an inpatient consult cap at a large academic hospital.
- Examine the impact of implementing a daily consult cap on a palliative care program.

**Original Research Background.** The ability of many hospital-based palliative care programs to provide high-quality care in a sustainable fashion is now paradoxically threatened by their own success. Approximately 10% of such programs have responded by instituting caps on consults, but the effects are unknown.

**Methods.** We identified all palliative care inpatient consults requested from July 1, 2014 to April 30, 2016 at a large academic hospital. We describe the implementation of a hospital-wide daily cap on new consults on May 1, 2015, and compare the volume, characteristics, and timing of consults in the year before and year after the cap.

**Results.** The hospital-wide cap on new palliative care consults was typically set at 8 per day and varied based on available staffing and census. Consults requested after the cap were prioritized the following day. Mean monthly consult requests increased from 157.7 (range 126-196) in the year before to 173.7 (range 155-209) in the year after the cap ( $p<0.001$ ), while the proportion actually seen decreased from 96.4% to 88.6% ( $p<0.001$ ). There was no difference in mean pre-consult length of stay (8.4 days [SD 14.8] vs. 8.6 days [SD 14.3],  $p=0.75$ ), the proportion of patients transitioned from aggressive to comfort care (38% vs. 35%,  $p=0.08$ ), or the number of patients discharged to hospice (287 (25.4%) vs. 263 (24.4%),  $p=0.59$ ). Following the cap, reduced proportions of consults originated from the Oncology and ICU services, and an increased proportion from General Medicine, but not all changes were statistically significant.

**Conclusion.** Implementation of a daily cap on new palliative care consults did not reduce consultative demand, increase the time to consultation, or change the rates of hospice referrals or transitions in goals of care.

#### **Implications for research, policy or practice.**

Future research is needed to examine the impact of capping consults on patient- and family-centered outcomes, including among those whose consults were deferred.

### ***Excess Consult Volume for Hospital-Based Palliative Care Teams in the U.S. (S774)***

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Philadelphia, PA Objectives. Scott Halpern, MD PhD, University of Pennsylvania, Philadelphia, PA.

#### Objectives

- Review current estimates of palliative care consult volume across the U.S.
- Determine predictors of self-reported excess palliative care consult volume.
- Describe strategies to manage excess consult volume implemented by palliative care programs.

**Original Research Background.** The surge in demand for palliative care consultation over the past decade has quickly outstripped the supply of available palliative care specialists. We sought to understand how this imbalance impacts hospital-based palliative care teams and their perceptions of consult volume.

**Methods.** We invited American Academy of Hospice and Palliative Medicine members and affiliates to complete a confidential, web-based survey querying demographic factors, job responsibilities, and information about inpatient palliative care consults. We used a generalized linear model with logit link function and robust standard errors to identify predictors of self-reported excess volume, defined as the proportion of time teams are inadequately staffed to see new consults.

**Results.** We received 884 responses (response rate 11.4%). Majorities of respondents were physicians (86.9%), female (60.8%), had <10 years' experience post-training (73.3%), and spent  $\geq 6$  months per year on an inpatient consult team (62.9%). Palliative care teams see a mean of 16.2 (standard deviation 13.1) total consults per day, including 5.4 new consults. Respondents reported inadequate staffing to see new consults in a timely fashion a mean of 35.8% (95% confidence interval 33.6%-38.1%) of the time. In the multivariable model, women and respondents with  $\geq 10$  years of experience reported having inadequate staffing more commonly (both  $p=0.04$ ). For example, clinicians with  $\geq 10$  years of experience reported inadequate staffing 39.4% of the time, while those with <10 years reported it 33.9% of the time. Most (84.9%) of palliative care teams have implemented at least one strategy to manage excess workload, including triaging consults (62.6%), dividing them among team members (59.7%), signing off earlier (45.3%), and setting a formal consult cap (9.9%).

**Conclusion.** Most hospital-based palliative care teams have already implemented strategies to address the problem of excess consult volume.

**Implications for research, policy or practice.** Future research is needed to understand which strategies minimize untoward impacts on patient-centered and programmatic outcomes.

### **Do Family Comments Received on Quality of Care Surveys Help to Systematically Understand Performance? Evaluating Family Comments on the Bereaved Family Survey (BFS) (S775)**



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#### Objectives

- Understand how qualitative comments of family members' perceptions of care can be analyzed.
- Describe the nature of open-ended comments received in response to VA's Bereaved Family Survey (BFS).

**Original Research Background.** The Veterans Health Administration (VHA) routinely uses the Bereaved Family Survey (BFS) to evaluate end-of-life care received by Veterans. BFS consists of 17-structured and 2 open-ended questions. Responses to open-ended questions have not been analyzed to identify themes that may enhance care.

**Research Objectives.** Qualitatively analyze bereaved families' written BFS comments and explore the relationship of the comments to quantitative scores.

**Methods.** We analyzed a random 5% of written responses ( $n=341$ ) to the question: "Is there anything else that you would like to share about the Veteran's care during the last month of life?" Using codes derived from the BFS, analysts identified which quantitative BFS item(s) responses addressed as well as comment valence (1=positive; 0=neutral; -1=negative). Compound responses (comments relating to more than one BFS item) were disaggregated. Mean/ number of independent comments and average valence were calculated and assessed for correlation with the BFS Performance Measure (PM; overall rating of care).

**Results.** Average number of unique comments to the question was  $1.5 \pm 0.8$  (range: 1 to 6) and average valence was  $0.5 \pm 1.5$  (range: -5 to +6). Comments most frequently related to whether staff was kind/caring/respectful (28.4%) and whether family members were kept informed about the Veteran's condition/treatment (13.5%). Average valence of unique comments ranged from  $-0.06 \pm 0.31$  (was Veteran provided with medication/treatment they/you wanted) to  $0.21 \pm 0.49$  (kind/caring/respectful) indicating that although staff are caring, additional communication about treatment preferences may be warranted. BFS-

PM was positively correlated with valence ratings (Spearman=0.51;  $p < 0.001$ ).

**Conclusion.** It is feasible to analyze routinely collected qualitative data in the assessment of end-of-life care. More often, comments were laudatory than critical. Comments correlated moderately with quantitative overall ratings of care.

**Implications for research, policy or practice.**

Moderate correlation of quantitative and qualitative ratings of care suggests researchers and policymakers should not overlook the value of comments to better understand survey data and provide context-rich descriptions of care.

***“She’s Doing Great”: Perceptions of Family Quality of Life and Disability Among Parents of Medically Complex Neonatal Intensive Care Unit Graduates in the First Two Years of Life (S776)***



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*Objectives*

- Understand how parents’ illness narratives of their experience in the NICU and after discharge impacts the way parents define quality of life.
- Understand the psychosocial implications of parenting a child with medical complexity through the uncertainty of potential disability.
- Discuss strategies for supporting families in the NICU and with NICU graduates at high risk for disability.

**Original Research Background.** Children with medical complexity and disability often start life in the neonatal intensive care unit (NICU) due to prematurity, genetic, or congenital diseases. Quality of life for children with disability and caregivers is profoundly interconnected, but there is little known about what families experience as it becomes evident their child is disabled.

**Research Objectives.**

1. Understand how parents of medically complex NICU graduates define quality of life for their child and family, and how this evolves.
2. Understand how uncertainty of emerging disability impacts caregiving and decision-making.
3. Learn when and with whom families are most receptive to conversations about disability.

**Methods.** Thirty parents of NICU graduates age 2 or younger with complex medical needs, recruited from:

a resident primary care, NICU follow up, and pulmonary bronchopulmonary dysplasia clinics. Parents completed the Pediatric Inventory for Parents (PIP), a measure of caregiver strain, and a semi-structured interview. Interviews were analyzed thematically.

**Results.** Sixteen of 30 participants were recruited at time of submission. Diagnoses included prematurity and congenital anomalies. All saw multiple subspecialists; most were dependent on medical technology. Preliminary analysis shows elevated PIP scores across all domains. Themes included 1) social isolation; 2) stress from multiple appointments/hospitalizations, 3) fear of acute illness; 4) hope for developmental progress despite delay; 5) technology as a path to home. Most parents defined quality of life as happiness and meeting developmental potential.

**Conclusion.** After NICU discharge, parents of children at high risk for disability deal with an uncertain outcome while managing their child’s daily needs and medical complexity. As a child’s delays are revealed over the first two years of life, families redefine quality of life as they reflect on their experience.

**Implications for research, policy or practice.**

Understanding the social isolation of families and their desire to connect with others can help us better support families in their first few years of life as disability emerges.

***Are Internal Medicine Residents Meeting the Bar? Comparing Resident Knowledge and Self-Efficacy to Published Palliative Care Competencies (S777)***



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*Objectives*

- Review the development of an instrument to measure internal medicine residents’ baseline knowledge and self-efficacy in palliative care, which is aligned with published palliative care competencies.
- Discuss results of our palliative care needs assessment and identify the gaps in resident knowledge, comfort, and ability with core palliative care competencies.

**Original Research Background.** We developed a novel instrument based on consensus palliative care (PC) competencies to assess Internal Medicine (IM) residents’ knowledge and self-efficacy (SE) in five core domains of PC: Pain/Symptom Management (PSM), Communication (COMM), PC Principles/Practice (PCPP), Terminal Care/Bereavement

(TCB), and Psychosocial/Spiritual/Cultural Aspects of Care (PSC).<sup>1</sup>

**Research Objectives.** To establish baseline resident knowledge and self-efficacy in proposed PC competencies to identify learning needs and curriculum gaps.

**Methods.** A 2-part instrument comprised of 14 knowledge questions and 35 SE items was distributed to incoming, current, and graduating IM residents between June-July 2015. Respondents selected one answer to each multiple choice question, and for each SE statement ranked their knowledge, comfort, or ability on a Likert scale (1=never, 2=sometimes, 3=mostly, and 4=always). We used standard descriptive statistics and Kruskal-Wallis and One-way ANOVA with Tukey Post-Hoc Analysis to identify differences between post-graduate year (PGY).

**Results.** Eighty-three residents completed the survey (30% response). Overall median score on the knowledge test was 79%, with lowest median score of 67% in PSM and highest median score of 100% in PSC. The only significant knowledge difference identified was a higher score in TCB for recently completed PGY-2s ( $p=0.046$ ). Self-efficacy overall mean score was 2.62 (SD 0.41), with the lowest mean of 2.40 (SD 0.61) in TCB and the highest mean of 2.79 (SD 0.44) in COMM. While PGY-1s reported lowest SE overall and significantly lower SE than PGY-2-4 in 3/5 domains ( $p<0.05$ ), recently completed PGY-2s reported highest SE overall in 4/5 domains.

**Conclusion.** IM residents may not be attaining proposed PC core competencies.

**Implications for research, policy or practice.**

Results can guide the development of focused, competency-based PC care education for IM residents.

1. Schaefer, et al. Raising the bar for the care of seriously ill patients: results of a national survey to define essential palliative care competencies for medical students and residents. *Academic Medicine*. 2014; 89(7): 1024-1031.

***Provider Concerns About Emotional Regulation Are Negatively Associated with Advance Care Planning in Patients with Chronic Complex Illness (S778)***



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***Objectives***

- Facilitate research in palliative care and advanced care planning.
- Identify opportunities for enhanced self-care and resilience.

**Original Research Background.** One salient barrier to advanced care planning (ACP) includes the emotional demands of discussions about end-of-life issues.

**Research Objectives.** We conducted 3 studies to investigate the relationship between providers' concerns about emotion regulation and the degree to which they initiate (or delay) ACP conversations with their patients with chronic obstructive pulmonary disease (COPD) or congestive heart failure (CHF).

**Methods.** Participants in Studies 1 ( $n = 152$ ) and 2 ( $n = 77$ ) included resident and attending physicians in internal and family medicine at two medical centers; participants in Study 3 ( $n = 79$ ) were nurses serving general medicine and surgery patients. **Measures:** Participants read two vignettes describing patients with moderate or high intensity symptoms. Vignettes described patients with COPD (Study 1) or CHF (Studies 2 and 3). The ACP-CARE scale assessed providers' initiation of communication about ACP-related topics (e.g., illness course and prognosis, advance directives). The ACP-DELAY scale assessed providers' preference for delaying ACP discussions. The Provider Concerns about Advanced Care Planning scale (PCACP: Physician and Nurse Versions) was used to assess provider emotion regulation. The PCACP yields a total score, and two subscale scores, assessing providers' concerns about managing their own emotions during ACP conversations and providers' concerns about managing their patients' emotions during ACP conversations. All scales had good reliability (Cronbach's alphas  $> .79$ ) and evidence of construct validity.

**Results.** In study 1, providers' concerns about their own emotion regulation capacities were negatively correlated with initiating ACP ( $r = -.31, p < .001$ ). Provider concerns about managing patients' emotions were positively correlated with delaying ACP ( $r = .25, p < .01$ ). These relationships remained significant controlling for trait anxiety, and other variables, and were replicated in studies 2 and 3.

**Conclusion.** Provider emotion regulation concerns are significantly associated with ACP.

**Implications for research, policy or practice.** Attention to provider emotion regulation skills may improve ACP in chronic complex illness.

***A New Competency-Based Instrument to Assess Residents' Self-Efficacy and Knowledge in Palliative Care (S779)***



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CT. Ashwini Bapat, MD, Yale School of Medicine, New Haven, CT.

#### Objectives

- Describe the development of a novel instrument to measure resident knowledge and self-efficacy in palliative care.
- Discuss the psychometric analysis used to assess this novel palliative care competency-based instrument.

**Original Research Background.** We developed a needs assessment based on consensus palliative care (PC) competencies for internal medicine (IM) residents to identify baseline knowledge and self-efficacy as a first step in developing a competency-based PC curriculum (Shaefer, 2014).

**Research Objectives.** To evaluate a novel competency-based instrument assessing residents' self-efficacy and knowledge in PC.

**Methods.** We created a 2-part instrument with a knowledge test (KT; 14 questions) and self-efficacy inventory (SEI; 35 statements) addressing 13 core resident PC competencies across 5 domains: Pain/Symptom Management (PSM); Communication (COMM); Psychosocial/Spiritual/Cultural Aspects of Care (PSC); Terminal Care/Bereavement (TCB); and PC Principles/Practice (PCPP). We distributed the instrument to all IM residents between June-July 2015. We performed a standard item analysis on the KT; for the SEI, we measured internal consistency (Cronbach's Alpha) and variable relationships among the domains (Pearson's bivariate correlations).

**Results.** Eighty three residents completed the survey (30% response). The difficulty index for KT items ranged from 0.19-0.96 with 10 items ranging from 0.63-0.89 (optimum difficulty); the discrimination index ranged from 0.05-0.68 with 8 items  $>0.27$  (optimum difficulty). Difficulty and discrimination indices for 5/6 questions in PSC and COMM ranged from 0.84-0.96 and 0.05-0.23, respectively. Cronbach's Alpha was 0.954 for the 35 SEI items. Pearson's correlation highlighted  $>80\%$  of items in COMM, PSM, and TCB having positive correlations between  $\geq 2$  other items and  $<20\%$  of items in PCPP and PSC having positive correlations ( $r > 0.45$ ;  $p = 0.0001$ ).

**Conclusion.** The KT demonstrated moderate difficulty and discrimination indices. PSC and COMM items performed least well, highlighting the challenge in testing these domains. Excellent internal consistency and positive correlations among 3/5 domains point to reliability of the instrument in probing PC.

**Implications for research, policy or practice.** With further refinement and validation, our instrument will serve as an important Graduate Medical Education tool to assess resident knowledge and self-efficacy in PC.

### Complementary and Alternative Medicine for Management of Symptoms in Hospice & Palliative Care (\$780)



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#### Objectives

- Evaluate the available evidence on the use of complementary and alternative therapies in hospice and palliative care.
- Summarize the potential benefits of CAM therapies in this patient care setting.

**Systematic Review Background.** The aim of palliative care is to improve quality of life for patients with serious illnesses by treating their symptoms and side effects. Hospice care also aims for this for patients with a life expectancy of six months or less. When conventional therapies do not provide adequate symptom management or produce their own adverse effects, patients, families and caregivers may prefer complementary or alternative approaches in their care.

**Purpose.** The purpose of this systematic review is to identify and evaluate complementary and alternative therapies which may have a beneficial role in management of common symptoms present at end of life.

**Methods.** A defined search strategy was used in reviewing literature from major databases. Searches were conducted using the base terms, "complementary medicine" or "alternative medicine", "hospice care" or "palliative care", and the symptom in question. Symptoms included anxiety, pain, dyspnea, cough, fatigue, insomnia, nausea, and vomiting. Studies were selected for further evaluation based on relevancy and study type. After evaluation using quality assessment tools, findings were summarized and the systematic review was structured based on PRISMA guidelines.

**Results.** Out of 1298 results, 62 were identified for further evaluation. Many trials tested multiple therapies and symptoms simultaneously. Mind and body practices were the most common therapies evaluated in palliative and hospice care. Of the mind and body practices, massage therapy, aromatherapy, music therapy, and acupuncture were the most popular with 12, 10, 9, and 8 studies respectively. Pain and anxiety were the major symptoms of interest with 30 and 26 studies respectively.

**Conclusions.** Few high quality studies are available regarding the use of complementary and alternative therapy. Patients and their families interested in any complementary or alternative medicine should speak with their healthcare providers for further consideration.

### **Symptom Distress in Patients with Advanced Hepatocellular Carcinoma (S781)**



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#### *Objectives*

- Discuss levels of symptom distress in patients with advanced HCC.
- List the three most frequent symptoms experienced by patients with advanced HCC.

**Original Research Background.** Hepatocellular carcinoma (HCC) is the second leading cause of cancer related mortality in the world. In the U.S., its mortality rate is increasing faster than any other type of cancer. Although, many patients are diagnosed with HCC at an advanced stage and have unresectable disease, research on symptom distress experienced by these patients is limited.

**Research Objectives.** To describe the presence, frequency, severity, and distress of symptoms in outpatients with HCC toward the end of life and (2) to describe the variability in psychological and physical symptom distress between and within patients over time.

**Methods.** Using a prospective descriptive design data were collected from 18 patients with advanced HCC once a month for a six month period. They completed the Memorial Symptom Assessment Scale, which reports a Global Distress Index total score, a psychological and a physical distress score.

**Results.** Global Distress Index mean scores (measured on a 1-4 scale) ranged from 1.07 to 1.31 across time with notable variability between (1.25 [SD=0.53]; range 0.12 – 2.06) and within (0.45 [SD=0.28]; range 0.13 – 1.40) patients across time. Patients reported lack of energy (M=2.90; SD=1.21) and pain (M=2.68; SD=1.64) as the most frequent and distressing symptoms (measured on a 1-5 scale). Six patients died during data collection; none were referred to palliative care.

**Conclusion.** On average patients with advanced HCC experienced mild to moderate symptom distress. Gaining knowledge about the prevalent symptoms experienced by these patients is critical for designing symptom management strategies that are comprehensive and tailored to each patient including early referral to palliative care.

**Implications for research, policy or practice.** These findings warrant further research on symptoms and specific early palliative care indicators to optimize patient care and quality of life.

### **Accuracy of Adult Children in Predicting Older Parent Quality of Life Valuations (S782)**



Brian Carpenter, PhD, Washington University, Saint Louis, MO. Elissa Kozlov, PhD, Weill Cornell Medical College, New York, NY.

#### *Objectives*

- Understand the range of within- and across-family knowledge adult children have about parent QOL valuations.
- Articulate variation in child-parent concordance across different states of poor health.

**Original Research Background.** Adult children often collaborate with older parents on parent care decisions, and some are called upon to make decisions for their parents. To do either successfully, adult children need awareness of their parent's care preferences and values. However, families rarely have conversations about these issues and instead assume that values are known.

**Research Objectives.** The goals of this project were to establish 1) the degree to which adult children know how their older parent would evaluate quality of life (QOL) in different health circumstances, 2) variability in children's knowledge, both across and within families, and 3) the direction of any mis-estimation children make relative.

**Methods.** Adult children predicted their older parent's responses to a series of questions regarding factors that might influence their quality of life (QOL) should they ever become seriously ill.

**Results.** Forty families were recruited (40 parents, 70 children); 83% of the parents were mothers, and 59% of the children were daughters. Across all families, children were only modestly knowledgeable about parent QOL valuations (Spearman's rho = .31,  $p = .01$ ). The range of accuracy was large across the entire sample of families and within families. Some adult children within families were very knowledgeable about parent values, whereas other children within the same family were no better than chance at estimating how their parent defined a good or bad QOL. Similarly, some families, as a unit, were more consistent in their knowledge than others. As a group, children tended to underestimate how negatively their parents felt about some compromised health circumstances.

**Conclusion.** Adult children have only modest awareness of how their older parent would judge quality of life in different compromised health states.

**Implications for research, policy or practice.** Evidence-based interventions are needed to improve family knowledge, and, perhaps more usefully, competence at having effective conversations about care preferences and values.

### ***Serving Those Who Served: The Unique Benefit of Inpatient Hospice at the VA (S783)***



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#### *Objectives*

- Summarize unique characteristics of VA's Community Living Center.
- Highlight the benefit of early inpatient hospice for veterans with complex needs.

**Original Research Background.** VA's health care offers a variety of services and benefits for the Veterans of the United States. Community Living Center (VA nursing home-CLC) is one of them. CLC's aim is to restore Veterans to their highest level of well-being [Rehabilitation and Long Term Care (LTC/Rehab)] and provide comfort through inpatient hospice care (HC).

**Research Objectives.** To summarize the unique characteristics of VA's Community Living Center serving both HC and LTC Veterans, comparing trends of special care and symptoms.

**Methods.** Retrospective case-control study over 24-month period (Jan. 2014-Dec. 2015) data was analyzed, including San Antonio VA Veterans admitted to CLC HC as compared to LTC/Rehab.

Results: N= 121, Mean age= 74years. 94% male. 52% Caucasian. 90 HC and 31 LTC/Rehab subjects. As expected, there was a significant decrease in Palliative Performance Score (PPS) in HC (67% HC with PPS <50% vs 26% LTC/Rehab;  $p<0.0001$ ). Most HC subjects had a caregiver (64% vs 42%;  $p=0.028$ ) and Do Not Resuscitate orders (90% vs 61%;  $p<0.0001$ ). Admitting diagnosis of ESLD and HCC were more commonly seen among HC (24% vs 0%;  $p=0.04$ , and 12% vs 0%;  $p=0.04$  respectively) while COPD and post-surgical rehab were more commonly seen in LTC/Rehab (0% HC vs 10%;  $p=0.0156$  for each). 1% HC were referred from nursing facilities vs 16% LTC/Rehab ( $p<0.0001$ ), and 22% HC referred from home hospice vs 0% ( $p<0.0001$ ). HC spent less number of days in CLC as compared to LTC/Rehab [11.5 HC vs 68.0;  $p < 0.0001$ ]. More HC subjects required wound care likely secondary to poor functional status (67% HC vs 40% CG;  $p=0.006$ ). Pain was the most common complaint in both groups (81% HC vs 71%;  $p=NS$ ) however, narcotics were prescribed more frequently in HC (90% vs 71%;  $p=0.01$ ). 91% HC died while admitted vs 13% LTC/Rehab ( $p<0.0001$ )

**Conclusion.** Inpatient hospice benefit is a unique care option available to terminally ill Veterans. These Veterans have complex care needs, multiple terminal diagnoses and uncontrolled symptoms. Other community options need to explore early inpatient hospice benefits for terminally ill patients as standard of care.

### ***Do You Really Know What Palliative Care Is? Developing an Electronic Palliative Care Information Card (S784)***



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#### *Objectives*

- Discuss results of comfort level of medical learners with palliative care.
- Describe the EIC card that was formulated from results.

**Original Research Background.** Although palliative care (PC) is now prevalent in most hospital systems, many clinicians remain uncomfortable practicing primary-PC (PPC). Educational pocket tools have been shown to be low-cost and effective.

**Research Objectives.** Describe the process of developing a PC electronic information card (EIC) for medical learners assessing their PC knowledge needs and comfort level.

**Methods.** Internal Medicine (IM) and Family Medicine (FM) residents were asked to complete survey assessing how comfortable they were on multiple PPC topics. Data was utilized to develop EIC.

**Results.** N=61, 51%=male. Age: 62% were 20-29 years-old. 70% IM, 30% FM. 52%=PGY-1, 25%=PGY-2, and 18%=PGY-3. 69%=never had a PC rotation. There were statistically significant differences in progression of level-of-comfort amongst interns through third year residents when dealing with PPC [code status ( $p<0.0113$ ), delivering bad news ( $p<0.0018$ ), leading family meeting ( $p<0.0013$ )]. Level-of-comfort increased with increasing residency year. However, there were statistically significant differences between topics residents felt comfortable with, and the tools

that were requested. Although the majority of individuals reported comfort with goal-of-care ( $p < 0.0001$ ), advanced care planning ( $p < 0.0206$ ), family meetings ( $p < 0.0112$ ), and end-of-life expectations ( $p < 0.0201$ ), they still requested tools for these topics on the ECC. There were also statistically significant differences in those who felt uncomfortable with end-of-life care with the majority not requesting tools on this topic [managing mood disorders ( $p < 0.0201$ ) and nutrition and hydration ( $p < 0.0398$ )].

**Conclusion.** Our PC residency curriculum seems appropriate, as evidenced by increasing comfort level as residents' progress. However, there appears to be discrepancy regarding what resources residents need, and what resources they requested. Residents did not relate what they felt most comfortable with to what tools were chosen. Thus, they may have chosen topics that interested them, hence their increased comfort level, as opposed to topics where there was room for improvement and lower comfort levels.

**Implications for research, policy or practice.** Further research is needed on the actual clinical benefit of educational tools such as the EIC when caring for PC patients.

### *Outpatient Palliative Care Services to Latino Patients: A Closer Look into Advance Directives (S785)*



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#### *Objectives*

- Describe the type of end of life care that Latino patients usually receive based on the barriers to care.
- Describe how communication and goals of care conversations with Latino patients can affect their end of life care.

**Original Research Background.** Latino patients face many barriers to palliative care (PC) services and appropriate end of life (EOL) care. Previous studies have shown that Latino patients want more aggressive care and are less likely to sign a (Do Not Resuscitate) DNR compared to white patients.

**Research Objectives.** 1. Identify the number of patients that have completed an Advance Directive (AD) prior and after seeing a PC provider, 2. Evaluate the type of end of life care provided to Latino patients.

**Methods.** A retrospective chart review performed from January 2015 to June 2016 of Latino patients referred to an outpatient PC consultation service at a new PC clinic in an urban academic center.

**Results.** Of the 30 Latino patients seen in clinic, 29 had either locally advanced or metastatic cancer and 1 renal disease on hemodialysis. Median age was 68.5

years old. Majority of consults (87%) were for symptom management. Upon initial PC consultation only 4 Latino patients (13%) had previously completed any type of AD. Out of the 26 patients without an AD, 16 (62%) completed one after a palliative care consultation and 10 (38%) did not. 14 out of 16 (88%) patients completed a healthcare proxy form or confirmed surrogate decision maker, and 10 out of 16 (63%) signed a DNR order. There were 18 deceased patients, out of which 11 (61%) died in a hospice setting and 7 (39%) died in the hospital, but 2 of the latter were DNR.

**Conclusion.** A worrisome minority of Latino patients had completed AD prior to a PC consultation. Having EOL conversations were important PC interventions for Latino patients potentially resulting in less aggressive care at EOL.

**Implications for research, policy or practice.** Studies regarding EOL communication show that having goals of care conversations can influence the type EOL care that Latino patients receive. More research is needed to evaluate what factors affect these communication outcomes.

### *An Examination of Parent-Child Communication Patterns in Childhood Cancer (S786)*



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#### *Objectives*

- Describe associations between child characteristics and communication with mothers.
- Describe associations between child characteristics and communication with fathers.

**Original Research Background.** Children with life-threatening conditions such as cancer require specialized care for their unique psychosocial needs. The National Cancer Institute recommends that parents have open and honest communication about cancer with their children. However, little research has explored dynamics affecting communication between children with cancer and their parents.

**Research Objectives.** This study examined associations of child demographics and illness characteristics with child self-reports of communication with their mothers and fathers.

**Methods.** Participants included 76 child-parent dyads. Child demographics, illness characteristics, and child responses to the Parent Adolescent

Communication Scale (PACS) were used for this study. Total PACS and subscale (Open Communication, Problem Communication) scores for communication of children with mothers (N=76) and fathers (N=62) were generated. Descriptive statistics, t-tests, and Pearson correlations were used to summarize and analyze the data.

**Results.** No statistically significant associations of child characteristics with child reports of communication with their mothers were found. However, several significant associations were observed for reports on communication with fathers. Lower PACS Openness scores were associated with increasing age ( $r=0.26, p=0.039$ ). Females had lower openness ( $t=2.18; p=0.034$ ) and overall scores ( $t=2.24; p=0.029$ ) than males. Children who had undergone radiation had lower overall scores than those who had not ( $t=2.12, p=0.038$ ); those who had bone marrow transplants had lower problem scores than those who had not ( $t=2.03, p=0.047$ ).

**Conclusion.** Child age, gender, and treatment characteristics (radiation and bone marrow transplant) were significantly associated with the quality of communication between children with cancer and their fathers.

**Implications for research, policy or practice.**

Providers should be mindful that differences may exist in mother and father communication with children with serious illnesses. More research is needed to better understand communication between parents and their children during childhood cancer. Future work should include intervention development to support parent-child communication and ultimately enhance the quality of care for these children and their families.

***What Matters Most? A Mixed Methods Study Identifying Key Elements of an Effective Home-Based Palliative Program in Michigan (S787)***



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*Objectives*

- Understand the advantages of a mixed methods design and how this design was utilized in this study.
- Understand the high value services in this home based palliative program and who they made a difference for.

**Original Research Background.** There is growing interest in community-based palliative care as a high value service, but little is known about the critical elements of such programs.

**Research Objectives.** We assessed what services matter most to seriously ill patients receiving home-based palliative care.

**Methods.** Convergent mixed methods design. Patient sample was 18 patients in a home-based palliative program, sampled for demographic diversity. Participants were interviewed on their experience in the program, needs, and health care utilization. A grounded theory approach was used to identify major themes of what aspects of the program mattered most. This data was merged with quantitative data on the patients' symptoms, degree of functional independence, medical illnesses, caregiving, and utilization of both the program and the Emergency Department. Statistically different characteristics of patients reporting unique themes were assessed.

**Results.** 18 key elements of the program were identified, which could be captured by six overarching themes: education, emotional support, medical supplies, medical support, services, and no helpful aspects. While patients endorsing each theme had different demographic and symptom profiles, intake depression score was positively associated with valuing program services (OR 2.64, 95% CI 1.28-5.45) and emotional support (OR 1.95, 95% CI 1.04-3.66) and negatively associated with not valuing any aspects of the program (OR 0.08, 95% CI 0.01-0.74). Within our sample, no themes of critical palliative services predicted lower healthcare utilization in the program, however having more non-routine visits was associated with fewer ED visits (coef 0.98, 95% CI 0.26-1.70).

**Conclusion.** We present a conceptual framework of what matters most in a home-based palliative care program as well as a descriptive analysis of the characteristics of patients valuing each element and their utilization before and after enrolling in the program.

**Implications for research, policy or practice.** This evidence sets a foundation for future research on how to target high-value palliative services to the patients who might most benefit from them.

***Teaching to the Test: Measuring Advance Care Planning Quality Metrics in Hospice (S788)***



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#### Objectives

- Describe the implementation of the Hospice Item Set to measure advanced care planning practices in three hospice organizations.
- List quality improvement activities associated with implementation of the Hospice Item Set at three organizations.

**Background.** Hospices began reporting seven CMS-required quality measures in 2014. One Hospice Item Set (HIS) measure assesses whether a discussion of preferences for treatment, resuscitation, and hospitalization occurred or was refused by patient or caregiver near admission.

**Objectives.** Given the forthcoming public reporting of these measures in 2017, we examined how hospices record and measure such advance care planning (ACP) discussions from the perspective of diverse staff stakeholders.

**Methods.** Researchers reviewed internal documents and interviewed 10-15 executive leaders, interdisciplinary clinicians, and quality improvement administrators at three geographically-diverse non-profit hospice organizations regarding the practice and measurement of ACP. Data were coded in NVivo14.

**Results.** Participants were 59% clinicians, 26% leaders, and 15% QI administrators; 90% were white and 82% female. At all sites, the HIS measures replaced any previously used quality measures and no additional measures were used. After HIS implementation, sites used quarterly HIS summary reports to improve documentation of care; all sites reported near 100% documentation. Only one organization reported an ACP-related quality improvement initiative. Participants believed HIS requirements helped to encourage ACP discussions at admission but that the measures alone neither adequately capture nor positively impact the quality of discussions. Barriers to ACP quality improvement included an assumption that ACP is currently conducted well and measuring ACP tasks (e.g. obtaining forms) is easier than measuring quality of ongoing discussions.

**Conclusions.** Implementation of the HIS quality measures ensures hospices measure the occurrence of a discussion about preferences at admission to hospice. Current quality indicators may contribute to “teaching to the test” by focusing on HIS documentation rather than on care quality.

**Implications.** If hospices report uniformly positive performance on ACP measures, additional quality measures should be developed to assess the quality

of ACP discussions and whether care is received in accordance with documented preferences.

### Caregiving, Death, and Recovery After Onset of Disability in Older Adults (S789)

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#### Objectives

- Describe what the experience is of newly disabled adults over time.
- Describe the potential needs of newly disabled adults that could be amenable to palliative care support.

**Original Research Background.** Older adults with incident functional disability have high medical costs, caregiving needs, and mortality.

**Research Objectives.** We aimed to assess the overall patterns of caregiving, death, and recovery after the onset of disability.

**Methods.** This study used the Health and Retirement Study (HRS), a nationally-representative phone and in-person study of adults age  $\geq 51$  in the United States. We identified individuals age  $\geq 65$  with incident disability in activities of daily living (ADLs) or instrumental activities of daily living (IADLs). Primary outcome measure was a combined measure of functional and caregiving status: recovery, disability and no assistance, unpaid assistance, paid assistance, both paid and unpaid assistance, nursing home care or death. Proportions of individuals in each outcome category were calculated every two years after the onset of disability to a maximum of ten years of follow-up, adjusting for survey sampling design and weighting.

**Results.** We identified 8,713 individuals with incident functional disability, with mean follow up of 8.4 years. Two years after onset of disability, 46.8% of the cohort had died, increasing to 79.4% by 10 years. While 22.1% of individuals recovered by two years after onset of disability, the majority became disabled again in the next decade. More than half of all individuals transitioned between function and care states every study wave. Over 10 years of follow-up, 40.1% of the cohort reported at least once that they were relying only on unpaid family and friends for assistance and 36% reported at least once that they had no assistance at home despite disability.

**Conclusion.** In older adults with new onset of disability, mortality rates are high and enduring recovery is infrequent.

**Implications for research, policy or practice.** This vulnerable population could benefit from palliative care. Further work is needed to understand how to best prospectively identify and support this population.

***An Educational Intervention for Internal Medicine PGY-1 Residents Improves Knowledge in Principles of Pain Management and Opioid Safety (S790)***



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**Objectives**

- Describe the aspects of an educational intervention that have been shown to increase knowledge in Internal Medicine residents in pain management principles and application.
- Appraise the data from the pilot study and apply to the formulation of an expanded study design to assess superiority of the educational intervention over clinical experience alone and measure knowledge retention.

**Original Research Background.** In our institution, prior research has revealed that 74% of Internal Medicine residents report no prior education in pain management, specifically opioid-prescribing, before entering post-graduate training. Despite this, Internal Medicine residents are often expected to prescribe opioids and other analgesics with varying levels of supervision. Amongst clinicians, several barriers exist in the delivery of safe and adequate pain management, including an inability to properly assess pain, knowledge deficits in pharmacology, and a lack of access to specialists.

**Research Objectives.** 1. Measure residents' baseline understanding of pain management principles including analgesic selection, prescribing, and safety. 2. Improve these residents' knowledge and application of pain management principles. 3. Improve patient care with the appropriate prescribing of analgesics for pain and the recognition of opioid dependence and diversion.

**Methods.** We implemented a pain management curriculum for categorical PGY-1 Internal Medicine residents from January 2016 to June 2016. The curriculum consists of didactics covering pain assessment and management and opioid safety, supplemented with clinical vignettes and practice cases highlighting analgesic selection and

opioid conversions. Content knowledge is assessed pre- and post-exposure to the educational curriculum.

**Results.** Pilot data from sixteen categorical PGY-1 residents has been collected. Content knowledge scores improved after exposure to the educational intervention (median: Pre = 6.81, Post = 8.50, n = 16, p<.05 Wilcoxon matched-pairs signed rank test). The rotation was highly rated, and the content was felt to be relevant.

**Conclusion.** Delivery of an educational curriculum targeted to address the existing knowledge deficits of Internal Medicine PGY-1 residents in pain management is feasible, highly rated, and associated with improvements in knowledge of pain management principles.

**Implications for research, policy or practice.** Ongoing research in our section will compare residents' knowledge after an experiential rotation alone (current practice) to knowledge after implementation of an educational intervention, as well as examine retention of pain management principles in subsequent years of training.

***A Quality Improvement Study Evaluating Nurses' Interest in Independently Initiating End-Of-Life Conversations and Palliative Care Consultations (S791)***



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**Objectives**

- Recognize that brief educational sessions are able to teach basic palliative care concepts.
- Identify nurses as interested, active participants in end-of-life conversations and palliative care specialty consultations.
- Identify a potential barrier that nurses may face when initiating end-of-life conversations and requesting specialty consultations.

**Original Research Background.** Patients who receive early palliative care consults have clinical courses and outcomes more consistent with their goals. Nurses have been shown to be advocates for early palliative care involvement and are able to lead advanced care planning discussions.

**Research Objectives.** We hypothesized that after a brief educational session, nurses at a community hospital in suburban Maryland could demonstrate

understanding of basic palliative care concepts and that they would want to independently initiate end-of-life conversations with patient and families and place specialty palliative care consults.

**Methods.** Four one-hour presentations were made at four nursing leadership council meetings. Inclusion criteria were any full-time or part-time hospital employee, participation in a nursing leadership council, and attendance of the presentation. There was no exclusion criteria. Participants were asked to complete anonymous pre-presentation and post-presentation surveys. Seven questions were repeated on both surveys to assess understanding of basic palliative care concepts.

**Results.** Fifty nurses, representing 19 departments, completed pre-presentation surveys (100% response rate) and 49 nurses completed post-presentation surveys (98% response rate). After a 1-hour presentation, the average score on the 7 index questions increased from 71% to 90%. After the presentations, 86% of nurses strongly agreed or agreed that nurses should be able to independently order a palliative care consult, and 88% of nurses strongly agreed or agreed with feeling comfortable initiating an end-of-life conversation.

**Conclusion.** Brief educational sessions can teach basic concepts to nurses and bolster confidence in their ability to initiate palliative care conversations and consult specialists. The majority of nurses in this study would want to be able to directly consult palliative care and would feel comfortable initiating a conversation about palliative care after this educational session.

#### **Implications for research, policy or practice.**

Further studies are necessary to assess knowledge retention and motivating factors behind nurses' interests. This could affect hospital policies regarding who can place specialty consultations.

### ***Star Therapy Decreases End of Life Symptoms (S792)***



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#### *Objectives*

- Describe analysis of the "The Star Effect" and discuss the factors prompting initiation of the Star Effect Research Study as well as the patient and families reaction.
- Explain how to integrate current research findings into care of terminally restless patients and review the importance of applying evidence to practice.

**Original Research Background.** Effective management of negative symptoms at end of life improves quality of life and well-being. Intervention strategies are not always effective or feasible, and often are pharmacologic.

**Research Objectives.** To investigate the effects of low lux Starlight Therapy for comfort and/or enhancing sleep and rest on physiological, cognitive and behavioral indices in adults receiving hospice care or palliative care.

**Methods.** Each patient was studied over a period of two hours. Prior to beginning the Starlight Therapy, the patient's heart and respiratory rates were documented, as well as the situation in the room. The light dosage in the room was measured by a lux meter. Lights, TVs and radios were turned off, room darkening shades were closed. The Starlight Therapy was started by projecting moving green stars and white/blue clouds on the ceiling. The patients' heart/respiratory rates and room light measurements were taken again at 30 minutes and 2 hours.

**Results.** Results from the Outcome Measurement Tool using ANOVA with Bonferroni correction found that heart rate and respiratory rate were significantly different from baseline to 30 minutes, and from baseline to 2 hours ( $F=17.04$ ,  $P<0.05$ ). Data showed that symptom relief was obtained within 30 minutes. While heart and respiratory rates did not change significantly between 30 minutes and 2 hours, symptom relief was sustained for up to or greater than 2 hours.

**Conclusion.** Starlight Therapy was effective in 90% of the patients for treating symptoms of anxiety, agitation, dyspnea, insomnia and pain. Starlight Therapy was effective in decreasing "as needed" medications, elevated heart rates, and respiratory rates. It relieved symptoms in 30 minutes or less and sustained symptoms relief for up to or greater than 2 hours.

#### **Implications for research, policy or practice.**

Further research is required to explore additional types of care, subjects, and sites which could benefit from Starlight Therapy.

### ***Mobility Impairments (MI) and Associated Distress Domains in African American and Caucasian Older Adults with Cancer in a Multisite Lay Navigation Program (LNP) (S793)***



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Birmingham, AL. Maria Pisu, PhD, University of Alabama at Birmingham, Birmingham, AL.

#### Objectives

- Identify the incidence of mobility impairments in onco-geriatric in lay navigation program.
- Describe the associated distress level and domains from data collected by distress thermometer for African Americans and Caucasians enrolled in a lay navigation program.

**Original Research Background.** Mobility impairments (MI) have a strong negative influence on quality of life (QOL). The Patient Care Connect Program (PCCP) trained 39 lay navigators (LNs) on fundamentals of onco-geriatrics, navigation, and using a Distress Thermometer (DT) to guide patient interactions across the cancer continuum.

**Research Objectives.** To describe (1) incidence of mobility impairments (MI), and (2) associated distress level and domains among African Americans (AA) and Caucasians enrolled in the PCCP

**Methods.** LNs routinely utilized a modified National Comprehensive Cancer Network (NCCN) Distress Thermometer (DT) in the LNP. Patients were 65 years old and older, AA or Caucasian, and diagnosed with cancer in 2008-2015 in five southeastern states. We analyzed data from DTs administered in the quarter of enrollment. MI was defined as any difficulty with balance/walking/mobility, getting around inside/outside, moving in/out of chair/bed. An average score >3 indicated high distress. Distress causes were categorized in 6 domains: emotional, information, cognitive, practical, family, and spiritual. Chi square tests were used to determine differences across patients with and without MI, and across races.

**Results.** Among 4916 patients, 10% reported MI, the third highest ranked distress item after pain and fatigue. Compared to patients without MI, those with MI were more likely to report high stress (51.9% vs. 22.1%), and distress in each domains ( $p < .0001$ ): emotional (41.7% vs 14.1%), information (39.9% vs. 24.2%), cognitive (29.1% vs 3.9%), practical (27.2% vs. 10.8%), family (6.8% vs. 2.4%), and spiritual (4.4% vs 0.7%). AAs reported more MI than Caucasians (13.2% AAs, 9.7% Caucasians,  $p = 0.005$ ). Similar associations of MI with distress level and domains were found for AAs and Caucasians.

**Conclusion.** AA onco-geriatric patients have a higher incidence of MI that impact well-being.

**Implications for research, policy or practice.** Use LN to identify MI and related distress early and implement proactive interventions may improve well-being, QOL, and reduce distress and health disparities.

### ***“Stay Practiced Up and Know What You’re Gonna Say”*: A Qualitative Study of Lay Patient Navigators’ Perceived Helpfulness and Needs for Advance Care Planning Training (\$794)**



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#### Objectives

- List the rationale of integrating advance care planning training into lay cancer navigation.
- List at least three of the key training needs.

**Original Research Background.** The Deep South is an area of the U.S. with the lowest rates of advance care planning. To address this problem, we integrated an advanced care planning facilitation program, Respecting Choices<sup>®</sup>, into lay cancer navigation.

**Research Objectives.** To explore lay patient navigators’ experiences with Respecting Choices<sup>®</sup> training and identify strategies to refine the training curriculum in order to optimize implementation.

**Methods.** Qualitative descriptive study of lay navigators employed by the University of Alabama at Birmingham’s Patient Care Connect program, one of the first U.S. cancer lay navigation programs comprising 11 cancer centers in 5 states. Thematic analysis was conducted to identify helpful training and implementation components of navigators’ Respecting Choices<sup>®</sup> training, consisting of 6 online modules and a 1-day in-person training.

**Results.** Twenty-six navigators (mean age 44.7, 81% female, 77% with college/advanced degrees) participated in one-on-one semi-structured, digitally-recorded interviews. Key themes of helpful training components included: 1) comprehensive introduction on ACP for non-clinical navigators, 2) rehearsing Respecting Choices<sup>®</sup> scripts to guide ACP conversations, and 3) role-playing ACP discussions. Additional training needs identified included: 1) clarifying navigator role in ACP conversations, 2) tailoring training components to be more culturally sensitive to the Deep South, and 3) having opportunities for shadowing experienced facilitators, consultation, and/or

booster training to resolve ongoing implementation challenges.

**Conclusion.** Navigators considered the training content and methods of Respecting Choices<sup>®</sup> to be helpful to enhance skill and knowledge in facilitating ACP conversations. Strategies were identified to integrate culturally-sensitive educational materials into the curriculum and provide follow-up support after initial training.

**Implications for research, policy or practice.** Integrating Respecting Choices<sup>®</sup> training into lay cancer navigation has the potential to broaden dissemination of ACP in the Deep South. Incorporating feedback from navigators is crucial to improve training outcomes and optimize implementation. Future research is warranted to develop culturally-sensitive training material that are tailored to navigator roles and patient populations.

### *How Should Palliative Care Be Involved in the Response to Physician Assisted Dying in California? Intimately: Perspectives from a Statewide Conference (S795)*



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#### *Objectives*

- Describe the basic features of the End of Life Option Act, the new physician-assisted dying legislation in California.
- Summarize ways palliative care providers, even those who choose not to write prescriptions, can use their expertise to serve patients who are interested in using the End of Life Option Act.
- Discuss healthcare provider attitudes and concerns about the implementation of the End of Life Option Act in California.

**Original Research Background.** California's End of Life Option Act (EOLOA) went into effect in June 2016. The law allows patients with a terminal illness to request medication to end their lives from their doctors. California is the fifth state to legalize physician-assisted dying (PAD), and faces new challenges due to the state's size, diversity, and lack of universal access to hospice and palliative care.

**Research Objectives.** We aimed to learn what California healthcare leaders feel comprise the core elements of an ethical, compassionate response to the EOLOA. To do so, we held a conference six months before the law went into effect. We highlight here how conference participants perceive the relationship between the law and palliative care in California.

**Methods.** We invited 112 stakeholders from California, Oregon and Washington, including palliative care leaders, state officials, multidisciplinary clinicians and disability rights advocates, to meet. We asked a subgroup of participants to lead panels and small groups to maximize discussion. Four authors conducted thematic review of conference notes and refined themes to achieve consensus.

**Results.** A major theme of the conference was that patients who request PAD often have unmet palliative care needs. Specialist palliative care providers can help by 1) directly evaluating requests, to uncover and address issues like pain or depression 2) teaching other providers to evaluate requests 3) crafting local policies 4) advocating for legal change to increase access to palliative care. Participants were concerned about changing norms in how patients perceive palliative care, and about risks to vulnerable patients in areas where hospice and palliative care is limited.

**Conclusion.** The EOLOA places new responsibility on healthcare providers in California. Whether they opt to write prescriptions or not, palliative care providers are uniquely qualified to help patients, both through direct care and indirectly through education and advocacy.

**Implications for research, policy or practice.** Palliative care should be an integral part of future policy.

### *Early Palliative Intervention for Allogeneic Stem Cell Transplant (S796)*



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#### *Objectives*

- Understand the increased morbidity and mortality involved in the care of patients undergoing allogeneic stem cell transplant.
- Discuss the role of early palliative intervention based on our pilot study at Mayo Clinic in Florida.

**Original Research Background.** Bone marrow transplant (BMT) is potentially curative for otherwise incurable cancers is associated with significant morbidity/mortality. Early intervention by palliative medicine providers in patients with terminal cancers

has been shown to improve patient quality of life (QOL). The role of early palliative care intervention in BMT patients has not been studied extensively.

**Research Objectives.** We formed a multidisciplinary team combining the BMT treatment team and palliative medicine physicians to co-manage patients throughout the BMT process. We studied the effects of this model of care on patient symptoms during/after allogeneic transplant and improvement in patient/caregiver QOL.

**Methods.** From March 1, 2014 to May 1, 2015 all allogeneic BMT patients at Mayo Clinic Florida were evaluated by palliative medicine at time of initial BMT consultation, transplant admission, any readmissions for transplant related complications, and at patient and/or caregiver request to assess patient and caregiver needs and provide counseling or treatment recommendations. These consultations, considered Supportive Care Consultations, were focused on goals of care, advanced directives, and coping during the BMT process. Palliative care physicians attended the weekly pre-transplant patient BMT meetings to participate in patient care planning. The program impact was assessed anonymously by an IRB approved patient and caregiver 5 point Likert scaled survey regarding symptom control (nausea, diarrhea, appetite, fatigue) and QOL. Open-ended comments were also encouraged. Patients and caregivers were surveyed separately.

**Results.** The small study population precluded statistical analysis, but Survey results indicate that patients and caregivers felt better prepared for transplant after meeting with each of our pre-transplant services: physicians, nurse coordinators, social services, psychiatry, and palliative. There was also improvement in symptom management for patients.

**Conclusion.** Palliative intervention improved both quality of life and symptom management in allogeneic bone marrow transplant patients.

**Implications for research, policy or practice.**

Additional studies with larger populations of patients are needed to further validate these results.

### *Expanding Practice: Pharmacist and Social Worker Led Palliative Consults (S797)*



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Kelemen, LICSW ACHP-SW, MedStar Washington Hospital Center, Washington, DC.

#### *Objectives*

- Describe a practice model to expand access to palliative care services.
- Demonstrate expanded roles of non-physician/ NP palliative care clinicians.
- Consider opportunities for maximizing team expertise in the delivery of palliative care services.

**Original Research Background.** Palliative care (PC) physicians/nurse practitioners (NPs) often lead consultations, potentially delaying access to PC expertise of other disciplines. As an alternative, we describe a series of PC consultations served well by expanded team roles.

**Research Objectives.** Describe an approach that expands access to PC services. Demonstrate the practice potential of non-physician/NP clinicians.

**Methods.** PC consultations for a single center were reviewed from January to May 2016. Patients were included if seen by only a pharmacist (PHARMD) and social worker (LICSW) in the first 72 hours following initial consult. Metrics and chart notes from PC team members were reviewed for common actions and themes. Cost analysis was performed.

**Results.** Eight patients met inclusion criteria. Palliative diagnoses were: cancer, solid (5); heart failure (3). Consultations included: advance care planning (ACP) only (4); pain only (2); ACP and pain (1); ACP and non-pain symptoms (1). Setting of initial consultation was medical/surgical floor (3); cardiac floor (2); intensive care unit (1); intermediate care unit (1); emergency department (1). Setting of discharge included: home (4); death (2); acute rehabilitation facility (1); home hospice (1). PHARMD performed: medication initiation, titration and monitoring; opioid risk screening; substance abuse screening and counseling; symptom identification and treatment; medication reconciliation; de-prescribing; family meetings. LICSW performed: psychosocial assessment; brief counseling; advance directive completion; family meetings; non-pharmacologic pain management; reiki. Two patients were seen by a physician or nurse practitioner >72 hours after initial consultation. In those cases, recommendations were consistent with LICSW and PHARMD, and advancements in ACP were achieved in one case based on preliminary interventions conducted by LICSW and PHARMD. No adverse outcomes were noted.

**Conclusion.** Non-physician/NP disciplines can provide skilled symptom management and ACP in diverse settings and conditions.

**Implications for research, policy or practice.**

Maximizing the practice potential of non-physician/ NP clinicians can broaden access to PC services. Further research could examine the clinical value of this approach.

### ***Does Simulating Dying Really Work? The State of End-of-Life Care in Nursing Education Curriculum (S798)***



Susan Lowey, PhD RN CHPN, State University of New York College at Brockport, Brockport, NY.

**Objectives**

- Identify modes of simulation delivery and both positive and negative aspects of end of life simulation in nursing education curriculum.
- Identify strategies for ensuring end of life competencies are met in pre-licensure nursing education programs.

**Background and Objective.** There continues to be variability among didactic end of life content and clinical experiences that students receive in pre-licensure nursing programs. Many programs have started to incorporate simulation in their curriculum to expose students to scenarios in which they care for a patient who is dying or has died. What is less clear is how end of life simulation is being incorporated and its effects on learning outcomes. The purpose of this systematic review was to describe the use and effects of end of life simulation in undergraduate nursing programs.

**Study Identification.** Several databases were searched using keywords including *end of life care*, *nursing education* and *simulation*. Articles published between 2001 and 2016 focused on simulation implementation or effects were included. Review articles or those that did not meet minimum quality score were excluded. Thirty-three articles were included in the analysis.

**Data Extraction and Synthesis.** Study purpose, sample, design and results were extracted from each article. Using the matrix method, commonalities were further analyzed both within and across the sample.

**Results.** Three-fourths of the articles were quantitative and focused on describing the delivery of the simulation exercise and/or the effects on students' knowledge. Students reported positive feedback regarding the simulation. Recurring themes regarding the "realism" of communicating in a fictitious scenario were seen as negative aspects of simulation by students. Randomized control studies are lacking in this topic area.

**Conclusions and Implications for Practice, Policy, and Research.** Although more widely used, there is lack of simulation consistency in pre-licensure

programs. The use of recently published competencies for undergraduate curricula in end of life care should be incorporated into programs nationwide. A free-standing end of life course either as part of the nursing curriculum or as a pre-requisite course should be considered.

### ***Opioid Safety Assessment Implementation in Palliative Care Clinic (S799)***



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**Objectives**

- Implementation of Opioid Risk Tools in continuity patients in clinic is feasible and will assist in identifying at risk patients for abuse of narcotics.
- Discuss cases with specific concerns in the ORT and what the next step would be in monitoring.

**Background.** The Center for Disease Control recently released guidelines for prescribing Opioids specifically excluding palliative care (PC) patients. This guideline and others specific to chronic non-malignant, non-PC (NM-NPC) chronic pain patients recommends routine screening for patients at risk of substance abuse. There are no existing guidelines that provide recommendations for safe opioid prescribing in PC despite recent reports of rates of opioid misuse similar to the NM-NPC chronic pain population. Here we report our experience with instituting a safety assessment for PC patients being considered for chronic opioid therapy (COT).

**Methods.** All patients being considered for COT in an ambulatory PC clinic. Identified patients screened with a 7-point chronic opioid safety assessment: 1) medial co-morbidity review; 2) Opioid Risk Tool (ORT) screening; 3) UDT; 4) review of prescription monitoring program report; 5) Drug misuse history; 6) Informed Consent and Contract; 7) Safety and Education Counseling. Physician review of risk and subjective determination of appropriateness for COT is documented in medical record.

**Results.** 77 total patients in 12 weeks; 61.0% considered for COT. Mean age 52.5; 93.6% Caucasian; 61.7 Hispanic; 57.4% female. Primary PC diagnosis cancer in 76.5%; COT related to terminal illness in 51.1% and chronic NM-NPC in 48.9%. 46.8% compliance with complete safety assessment. 85.5% deemed appropriate for COT. 51.1% received long acting opioid; 27.7% received only immediate release. ORT results: min 0, 1st quartile 1, mean 3, quartile 7, max 14. UDT inappropriate 8.6%. Prescription monitoring

report inappropriate 2.1%. Illicit drug history 3.6% (marijuana 10.6%).

**Conclusions.** Implementation of routine, PC specific risk stratification is feasible for PC clinic and can help identify those at risk and engaging in opioid misuse.

**Future Directions.** Further research is needed to identify the best practice for risk assessment and monitoring PC patients receiving chronic opioid therapy.

### **Documentation of Code Status Discussions Prior to Cardiac Arrest on the General Wards (S800)**



Michael Huber, MD, University of Chicago, Chicago, IL. Sandra Shi, MD, University of Chicago Hospitals, Chicago, IL. Dana Edelson, MD MS, University of Chicago, Chicago, IL.

#### *Objectives*

- Learn the incidence and factors associated with discussion of code status in hospitalized patients that proceed to cardiac arrest.
- Learn previously published metrics for the quality of documentation of code status discussions and the incidence of these quality metrics.

**Original Research Background.** Documentation of a code status discussion (CSD) in hospitalized patients may increase care consistent with patients' wishes in the event of cardiac arrest. However, little is known about CSD documentation prior to cardiac arrest.

**Research Objectives.** We aimed to determine the incidence, quality, and factors associated with CSD documentation prior to cardiac arrest on the general wards.

**Methods.** We conducted a retrospective cohort study of adult patients with cardiac arrest on the general wards at the University of Chicago Medical Center between January 2013 and August 2015. The primary outcome was documentation of CSD in any provider note prior to arrest. CSD documentation was also examined for the presence of previously utilized quality metrics. Patient's one-year mortality from hospital admission was estimated using the CARING score, a previously validated prognostic scoring tool. Logistic regression was used to calculate the odds of having CSD documentation for each unit increase in CARING score while controlling for age, sex, and race.

**Results.** 140 unique patients had a ward cardiac arrest during the study period. 25 patients (18%) had 40 documented CSD. The median number of hospital days prior to CSD was 2 (IQR 1-9). In adjusted analysis, increasing age (OR 1.04, 95% CI: 1.001-1.08) and CARING score (OR 1.07, 95% CI: 1.01-1.14) were associated with documented CSD. The person participating in the discussion was documented in 98% of

CSD, the patient's goals in values in 43%, the prognosis in 23%, expected outcomes of cardiopulmonary resuscitation in 8%, and a surrogate or healthcare power of attorney in 20%.

**Conclusion.** In this single-center, retrospective study the incidence and quality of CSD documentation prior to ward cardiac arrest was low.

**Implications for research, policy or practice.** Further work should examine methods to improve CSD occurrence and documentation in patients at risk for cardiac arrest, including prognostic scoring to identify patients for specialist palliative referral.

### **The Palliative Care Quality Network: Four Years, 71 Palliative Care Programs, and 48 Thousand Patient Consultations (S801)**



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#### *Objectives*

- Describe patients referred to inpatient palliative care services.
- Describe the processes of care of inpatient palliative care teams in the course of usual patient care.
- Describe clinical outcomes pertaining to palliative care for patients seen by inpatient palliative care.

**Original Research Background.** The Palliative Care Quality Network (PCQN) consists of palliative care (PC) teams across the United States that are collecting standardized data about PC practice.

**Research Objectives.** Describe patients referred to inpatient PC, care provided by PC teams, and clinical outcomes.

**Methods.** Seventy-one PCQN members entered data on 48,290 patient encounters between January 3, 2013 and June 30, 2016.

**Results.** Patients referred to PC were an average of 72 years old (median=74) and were significantly debilitated (mean palliative performance scale=35.2). The most common diagnoses are cancer (32.8%), cardiac/vascular (12.3%), and pulmonary (11.0%) diseases. Common reasons for referral to PC were goals of care discussions (73.1%), pain management (20.2%), and providing support for patient/family (20.0%). Patients were referred to PC an average of 4.7 days (median=2) after hospital admission and were followed by the PC team for an average of 5.0 days (median=3.0). Disciplines involved in PC consults included physician (50.5%), social worker (36.5%), registered nurse (33.4%), and chaplain (31.8%).

Of patients with moderate to severe symptoms, 68.5% reported improved pain from the first to second PC assessment, 78.4% reported improved nausea, 65.9% reported improved dyspnea, and 65.7% reported improved anxiety.

A surrogate decision maker was identified for 95.2% of patients seen by PC. On average, patients had 1.2 family meetings with the PC team (median=1). Forty-four percent of patients had their code status clarified, 45% had a POLST form completed at discharge, and 3.1% completed an advanced directive. Three quarters of patients were discharged alive, with home being the most common discharge location (48.2%). Hospice services were arranged for 38.0% of patients.

**Conclusion.** The PCQN demonstrates the feasibility and value of standardized data collection for understanding and evaluating practice.

**Implications for research, policy or practice.** Standardized data collection through a national network can guide initiatives to promote PC quality and value.

### ***Pulsed RFA of Sphenopalatine Ganglion vs. Alcohol Neurolysis for Facial Pain in Cancer-Related Pain: A Prospective Study (S802)***

Shiv Pratap Singh Rana, MD, Fortis Hospital Noida, Uttar Pradesh, India.

#### *Objectives*

- Analyze the effectiveness and comparison of PRFA of Sphenopalatine ganglion and alcohol neurolysis for severe pain.
- Pain Relief and Quality of life.

**Original Research Background.** Pain is present in up to 80% of patients with cancer of the head and neck. Pulsed radiofrequency ablation (PRFA) is relatively new use of an older procedure, conventional thermal radiofrequency.

**Research Objectives.** This study was designed to analyze the effectiveness and comparison of PRFA of Sphenopalatine ganglion and alcohol neurolysis for severe pain in the orofacial region in advanced head and neck cancer pain patients on oral morphine or fentanyl patch with or without adjuvant and to assess the Quality of life before and after radiofrequency ablation.

**Methods.** 20 consecutive consenting patients of on oral morphine or fentanyl patch for cancer or cancer related pain in facial region were enrolled into the study and were divided into two equal groups of 10 patients each. One group received pulsed radiofrequency (Group P) after a positive diagnostic block and other group was given a diagnostic block followed

by alcohol neurolysis (Group A). The pain intensity, percentage of pain relief, analgesic consumption, breakthrough pain, changes of any medication, side effects were recorded in each visits.

**Results.** Pain score (VRS) decreased in both the groups but statistically significantly in PRFA group (Group P) on 2nd day onward (1.4 vs 2.1 at 1week, 2.2 vs 2.6 at 1 month, 1.8 vs 2.8 at 3 month and 2.6 vs 3.1 at 6 month. All the patients experienced relief of pain and it was found to be statistically significant (P value<0.05). Analgesic consumption was decreased in both the groups. 2 patients in alcohol group reported burning as a side effect with 1 patient in RFA group reported increased pain for 2 days. The Karnofsky score improved from the baseline of 60 to 90 subsequently in both groups.

**Conclusion.** Pulse Radio Frequency ablation and alcohol neurolysis of Sphenopalatine ganglion can be done for effective management of cancer facial pain.

**Implications for research, policy or practice.** Present.

### ***Timing of Inpatient Pediatric Palliative Care Services and Hospital Length of Stay (S803)***

Cady Berkel, PhD, Phoenix Children's Hospital, Phoenix, AZ. Tressia Shaw, MD, Phoenix Children's Hospital, Phoenix, AZ.

#### *Objectives*

- Understand the support for earlier palliative care consultations.
- Understand demographic differences.

**Original Research Background.** Extended hospital stays for children with life limiting conditions are costly to families and disrupt children's social/emotional development and quality of life. Engagement in pediatric palliative care services may reduce lengthy hospital stays when provided early in children's disease trajectory.

**Research Objectives.** To examine the influence of timing of a palliative consult on inpatient length of and demographics (race/ethnicity, gender, insurance) as moderators of this association.

**Methods.** Using program data from an inpatient palliative care program (N=935), this study examines 1) the stage at which initial consults are made, 2) associations between stage and length of stay, and 3) associations between time from admit to consult and from consult to discharge. Study aims were examined using descriptives, analysis of variance, and correlations in SPSS. Patients were evenly split by gender (52%

male), predominantly public insurance (70%), and ethnically diverse (41% White, 38% Latino, 11% Native American, 7% African American, 3% Asian/Pacific Islander).

**Results.** Consults frequently occurred at new diagnosis and patients in the new diagnosis and stable chronic stages had longer stays than patients more advanced in their conditions. Consults that occurred closer to admit were associated with shorter times from consult to discharge. These effects were consistent across gender and insurance coverage, but were moderated by race/ethnicity with no association between time to admit and time to discharge for Native Americans.

**Conclusion.** This study provides evidence that consults should occur closer to admission. The limited findings for Native Americans may be due to the fact that Native Americans often live far from the hospital and have no palliative services available in their communities. There may also be cultural differences in use of palliative care services.

**Implications for research, policy or practice.** Hospitals should promote early engagement in pediatric palliative care. Telemedicine approaches are recommended to address inadequate services for Native American or other rural populations.

### **Can the Delirium Observation Scale (DOS) Be Used to Screen for Delirium in the ICU? (S804)**

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#### *Objectives*

- List the incidence of delirium in ICU patients.
- Understand the importance of screening for delirium.

**Background.** Delirium is common in hospice and palliative care patients and has serious immediate and long-term consequences, especially when left untreated. Quality of life and morbidity is improved treatment; unfortunately, delirium is often not recognized. The Delirium Observation Screening Scale (DOS) is a screening tool which merely requires observation of patients, with no specific cognitive testing, making it ideal for routine use by busy nurses.

**Objectives.** This study aims to determine the ability of the DOS to accurately screen older ICU patients for delirium.

**Methods.** The effectiveness of the DOS was assessed by comparing its results to those of a validated delirium diagnostic tool, the Delirium Rating Scale-Revised-98

(DRS-R-98). Participants were patients admitted to the surgical ICU. Intubated and non-English speaking patients were excluded. Nurses working in the SNICU recorded DOS scores in the electronic medical records of all patients over the age of 65. A trained medical student administered the DRS-R-98 and collected data from consented patients within 24 hours of the nurse-recorded DOS score. The results of the DOS were then compared with those of the DRS-R-98.

**Results.** 61 assessments of 46 patients were conducted. Comparing the results of the DOS to the results of the previously validated DRS-R-98, the sensitivity of the DOS was 84.6% and the specificity of the DOS was 93.8%.

**Conclusions.** The DOS is a sensitive and specific test for the diagnosis of delirium in ICU patients over the age of 65. Its accuracy, coupled with its usability, makes it an effective tool for busy nurses to use to detect delirium while engaging in routine patient care.

**Implications for research, policy or practice.** Further studies are needed to see if the DOS can be effectively integrated into a busy ICU and to determine if identifying delirium early will improve patient outcomes.

### **Barriers to Facilitating Palliative Home Care for Heart Failure Patients: Perspectives of Discharge Coordinators (S805)**

Susan Lowey, PhD RN CHPN, State University of New York College at Brockport, Brockport, NY.

#### *Objectives*

- Identify 3 barriers impacting referrals for palliative home care following the presentation.
- Describe 2 areas of research that could improve palliative home care referrals following the presentation.

**Original Research Background.** Older adults with heart failure have the highest rates of hospital readmissions and comprise the largest percentage of home care admissions than any other group. Home care coordinators are responsible for facilitating the home care referral process which include referrals to palliative home care. Little is known about the factors associated with the discharge process regarding home care team placement for these patients.

**Research Objectives.** The purpose of this study was to describe the perspectives of home care coordinator nurses regarding their role and decision making surrounding the discharge of patients with heart failure to palliative home health care.

**Methods.** Nurses who work full-time as a home care coordinator nurse at a home care agency were invited

to participate in semi-structured audio-recorded interviews. Data were analyzed using content analysis.

**Results.** Fourteen home care coordinators participated in interviews. Nurses identified a combination of patient, clinician and system related factors that impeded their ability to refer patients to palliative care. Some nurses reported they were not comfortable having end of life conversations with patients despite their years of experience as nurse. Nurses also reported that systems issues at their hospital impacted their ability to refer patients to palliative care.

**Conclusion.** Although home care coordinators appear to be in an ideal position to advocate for appropriate team placement during care transitions, multi-faceted barriers play a large role in these transitions.

**Implications for research, policy or practice.** Further research that examines discharge protocols for palliative home care is needed. Continued education about palliative care should be provided to all nurses, including those that are experienced, as experience alone does not ensure quality end of life care for patients with heart failure. Further work that improves transitions in care of patients with heart failure is needed.

### *Navigating Multiple Systems to Ensure Delivery of Concurrent Care to U.S. Veterans with Cancer (S806)*



Leah Haverhals, PhD-Candidate MA, Denver VA Medical Center, Denver, CO. Chelsea Manheim, MSW, VA-Eastern Colorado Health Care System, Denver, CO. Cari Levy, MD PhD, University of Colorado, Denver, CO.

#### *Objectives*

- Describe delivery of concurrent care within the VHA.
- Describe delivery of concurrent care between the VHA and outside hospice agencies.

**Original Research Background.** The Veterans Health Administration (VHA) allows veterans with terminal cancer to receive hospice care concurrently with disease modifying treatments like radiation and chemotherapy. This differs from the Medicare Hospice Benefit, where patients must decide to continue such treatments or enroll in hospice. Hospice care can be provided inpatient at VHA medical centers or through contracting with community hospices.

**Research Objectives.** To describe care coordination between VHA oncology and palliative care teams delivering disease modifying treatments and community hospices or VHA inpatient hospice teams providing hospice services to veterans.

**Methods.** Six VHA sites were visited, representative of low, medium, and high volume of concurrent care based on 2012 VHA data. Individual and small group interviews were conducted with 76 providers and staff in the following areas: VHA oncology (25); VHA palliative care (17); community hospice (16); and VHA community living center or inpatient hospice (18).

**Results.** Six themes emerged influencing care coordination internally within VHA medical centers and externally between VHA and community hospices. At sites where coordination was smoother: 1) Oncologist(s) considered concurrent care a viable treatment option; 2) Palliative care and oncology departments worked closely together, leading to immediate referrals to palliative care for veterans with cancer; 3) Community hospice partners agreed to VHA's position on providing concurrent care; 4) Ongoing education was provided for new community hospice staff and VHA providers unfamiliar with concurrent care; 5) A motivated VHA liaison coordinated care between VHA and community hospices; and 6) VHA providers agreed to and understood concurrent care was an option.

**Conclusion.** All sites were committed to optimizing end-of-life care. However, varied interpretation of the concurrent care policy resulted in markedly different levels of hospice integration.

**Implications for research, policy or practice.** VHA providers ought to partner with hospices committed to understanding VHA policy and facilitate internal communication to encourage smoother delivery of concurrent care both internally and externally.

### *Assessing The Involvement of Primary Care Physicians in Patient's Advance Care Planning (S807)*



Alva Roche-Green, MD FAAP FACP, Mayo Clinic, Jacksonville, FL. Christina Bungo, DO, University of Pittsburgh Medical Center, Pittsburgh, PA. Brianna Nation-Howard, DO, Baylor, Scott & White Healthcare, Double Oak, TX.

#### *Objectives*

- Understand current trends in advance directive completion in US and how it varies among communities.
- Discuss the benefits of advance direction completion in health care outcomes.
- Describe our study to identify patient levels of understanding of advance directions and willingness to participate in a physician lead educational session.

**Original Research Background.** Significant discrepancies in advance directive (AD) completion are present in different communities, with studies reporting AD prevalence between 18-70% in the US. In one

community, implementation of the Respecting Choices booklet increased AD prevalence to 90%. Previous studies have suggested numerous benefits from advance care planning.

**Research Objectives.** To determine patient engagement in completion and sharing of advance directives.

**Methods.** We performed a questionnaire-based study to investigate the prevalence of advanced directives in our geriatric population, as well as determine if our patients are engaging in ACP or sharing ADs with their primary care physicians. This was an anonymous, self-administered questionnaire sent to 200 randomly selected primary care patients aged 65 years or older, who voluntarily participated by completing a written survey. Participants who were interested in being contacted with educational information were able to provide contact information.

**Results.** Fifty-five of the 200 surveys were returned to our clinic over 12 months. Of the respondents, 52 (94.5%) reported familiarity with the terms “advance

care planning” or “living will,” although 27 (49.1%) reported interest in participating in an educational session presented by a physician discussing details and importance of advance care planning. 83.6% of participants had completed one or more advance care planning document, including Do Not Resuscitate (DNR) orders, health care proxy or durable power of attorney designation, or a living will which is much higher than expected however the participant’s attorney was the source in 60.7% of scenarios, followed by family members at 23.2%. A primary care physician was the source of information for only 3.6% of patients.

**Conclusion.** In our patient population more patients than expected has advance care planning documents completed but only minimal physician input was noted.

**Implications for research, policy or practice.**

Additional studies on methods of how to improve advance directive completion and discussion of end life wishes with physicians is needed.