

Scientific and Quality Improvement Project Poster Abstracts

Advance Care Planning Conversations: Measuring Registered Nurses' Self-Efficacy Before and After an Educational Intervention (QI701)



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Objectives

- Describe advance care planning from the perspective of the registered nurse.
- Articulate changes in registered nurse advance care planning self-efficacy following evidence-based training.

Background. Advance care planning (ACP) improves patient outcomes at the end-of-life. Effective ACP requires specialized knowledge and communication skills lacking in traditional nursing education and by nurses practicing in our local community. Substantial gaps in the literature exist in understanding nurses' ACP self-efficacy and the effects of innovative teaching approaches on this outcome.

Aim Statement. The purpose of this quality improvement project was to evaluate changes in registered nurses' (RNs) ACP self-efficacy after participating in a multimodal evidence-based educational program designed to improve ACP conversations.

Methods. This project was a comparative study using a non-experimental Before-After design with an equivalent control group. Participants completed a demographic survey and the Advance Care Planning Self-Efficacy (ACP-SE) scale before and after a program combining lecture, video-taped demonstration using a simulated patient scenario, and role-play activities. Analyses were conducted using descriptive statistics and Wilcoxon Signed Rank test. Bivariate correlations between a global single-item measure of ACP-SE and the mean score of the items on the ACP-SE scale were examined using Spearman Rho correlation coefficient to assess the validity of the ACP-SE scale, originally developed for physicians, in this sample of RNs (N=45).

Results. Findings demonstrated a statistically significant improvement in ACP-SE scores following the program, $z=-3.65$, $p<.000$, with a medium effect size ($r=.39$). The median score on the ACP-SE scale increased from pre-activity ($Md=65$) to post-activity

($Md=74$). There were strong, positive significant correlations between the global single-item and mean score of ACP-SE pre-activity, $rs=.73$, and post-activity, $rs=.78$, supporting the validity of the ACP-SE scale in this sample of RNs.

Conclusions and Implications. Findings demonstrated that a multimodal educational program improved nurses' self-efficacy in conducting ACP. As nurses are uniquely positioned to facilitate ACP, additional research is needed to determine if increased ACP-SE improves patient and family outcomes and decreases healthcare costs.

Promoting Upstream Integration of Palliative Care in Elderly Heart Failure Patients (QI702)



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Objectives

1. Summarize understanding and deployment of the ARISE guideline.
2. Articulate possible provider barriers to early integration of Palliative Care.

Background. Heart failure (HF) is a devastating disease that inordinately affects the elderly. Although Palliative Care (PC) can be an invaluable tool in promoting symptom management and quality of life (QOL) for end-stage heart failure (ESHF) patients, it is a resource that is often underutilized by HF clinicians because many providers do not know when in the disease trajectory to refer patients for PC.

Aim Statement. The purpose of this quality improvement project was to assess clinicians' understanding of PC to determine barriers preventing appropriate referrals for elderly patients with stage 3 and 4 HF. This information was then used to develop an evidence-based guideline for promoting earlier PC referrals. Finally, the developed guideline was disseminated as a resource for HF providers/clinicians.

Methods. Baseline data were collected from the facility PC team about the number of inpatient (IP) and outpatient (OP) referrals for PC that were received from the HF attending physicians for three months prior to the ARISE guideline launch, and for three months following the deployment of the guideline. A pretest-posttest design was the approach employed to measure changes in provider attitude toward PC, frequency of PC referrals, and barriers to consulting PC.

Results. Referral data from the PC team indicated that although IP referrals decreased slightly (17%) in the 3 months after the guideline launch, OP referrals increased by 40%. In general, pilot feedback from the ARISE guideline was positive with 100% of clinicians indicating they felt the guideline was "very" or "extremely" useable. In addition, 75% of clinicians in the posttest indicated they anticipated using the guideline in the future.

Conclusions and Implications. It is hoped that this project helped HF clinicians better understand the benefits that PC can provide for their patients, and that the ARISE guideline may be a viable tool to promote upstream integration of PC into the care of elderly ESHF patients and their families.

A Rapid Qualitative Synthesis of Insights from the Veterans Administration Life-Sustaining Treatment Decisions Initiative (LSTDI) National Implementation (QI703)



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Objectives

1. Describe the core elements of the Life-Sustaining Treatment Decisions Initiative.
2. Describe implementation barriers and facilitators from the perspective of multiple stakeholders.
3. Define essentials of a lightning report rapid qualitative synthesis methodological approach.

Background. The Veterans Health Administration's Life-Sustaining Treatment Decisions Initiative (LSTDI) was initiated to elicit, document, and respect seriously ill Veterans' goals, values, and preferences for life-sustaining treatments. To characterize implementation barriers and facilitators, we interviewed stakeholders from four geographically diverse demonstration sites (Salt Lake, Black Hills, Madison, and James Lovell), and identified strategies to enhance continuing national rollout.

Aim Statement. To characterize major contextual factors affecting implementation of goals of care in a diverse health system.

Methods. We conducted 16 semi-structured interviews (4/site) with providers and clinical leaders identified using snowball sampling and characterized themes using rapid qualitative synthesis (RQS) which includes: pre-planning with evaluation partners; data gathering; data synthesis using Plus/Delta debriefing derived from LEAN techniques; report creation, with executive summary and findings that reflect Plus/Delta, refined with stakeholder input.

Results. Respondents represented nursing, primary care, social work, non-clinical administration, and leadership. Local issues were common, "Our badges say one VA. But then everybody jokes that when you've seen one VA you've literally only seen one VA." Nevertheless, general themes encompassed facilitators of having clinical champions, national support, outpatient palliative care, and strong local advisory oversight. Barriers included limited physician support, low provider self-efficacy for communication, lack of ownership by specialty/primary care clinicians, "We're not having great luck with the subspecialty providers," poor support (e.g., time and funding) for training, and staff/trainee turnover and inexperience. Insights included that middle manager outreach overcomes senior leader resistance, champions cultivate grass roots support for training, a dedicated trainer is critical, and that small group training, and cultivating long-term-care superusers, abets implementation. Local implementation coordinators succeeded through repeated incremental efforts that encompassed train-the-trainer, peer mentoring, and cultivating onsite experts/advocates.

Conclusions and Implications. Site leaders described critical strategies to support goals of care implementation and improvement in an extremely large, diverse national health system. RQS methodology can provide just-in-time information to inform ongoing implementation of complex initiatives.

The Discrepancy Between Palliative and Oncology Providers in Palliative Referrals (QI704)



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Objectives

1. Justify the need for palliative care consultation to outpatient oncologists by meeting with them on a regular basis in order to increase the rate of referrals.

2. Identify other patient-centered outcomes as a result of proactive palliative care consultation, including rate of completion of advance directives, rate of state-authorized portable orders (SAPO) completion, and rates of in-hospital and community deaths.

Background. According to NCCN and ASCO guidelines, there is evidence that early palliative care consultation in patients with advanced cancer led to significant improvement in quality of life, mood and longer survival as compared to patients receiving standard care.

Aim Statement. To improve the rate of palliative care consultation by 20% in patients with advanced cancer over a 15 month period at Buffalo Veterans Affairs Medical Center (VAMC).

Methods. Buffalo VAMC is an academic center affiliated with the University at Buffalo. We provide both outpatient palliative and oncology services. In 2017, we decided to seek proactive palliative care consultations (PPCC) with advanced cancer patients; defined as stage 4 lung cancer, any pancreatic cancer, or any cancer with more than 1 emergency, hospital or ICU admissions. Based on our root analysis our intervention was a meeting between palliative and oncology services once a week since 01/01/2017 to 3/30/2018 at the VA and reviewing the oncology cases on weekly basis with average 80-100 patients per week. From 163 patients requested to be seen by palliative team, oncologists approved 63 proactive palliative consults with denial rate of 60%.

Results. PPCC resulted in an increase of referrals by 33% over a 15 month period. Of those patients seen by outpatient palliative care, 92% died in a community setting (hospice or home) while those identified but denied PPCC died in the community setting only 50% of the time. Interestingly, patients whose PPCC were denied but were later seen by the palliative care team during a hospital admission died in the community 91% of the time. In addition, advanced directives and SAPO increased by 30% and 65% respectively.

Conclusions and Implications. Seeking proactive palliative care consultation in patients with advanced cancer led to an increased outpatient referral rate with a simultaneous decrease in in-hospital mortality.

Repeal and Replace: Overcoming Institutional Biases to Implement a Safe and Efficacious End-of-life Opioid Infusion (QI705)

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Objectives

1. Contrast pharmacology-based end-of-life opioid infusion guidelines with commonly observed real-life practice.
2. Illustrate the challenges to implementing and measuring the impact of an institution-wide opioid project.

Background. End-of-life opioids, when delivered exclusively via rapidly-titrated infusions without bolus doses, can lead to ineffective symptom control early and toxic levels late. Despite best practice guidelines based on steady-state pharmacology, our institution regularly delivered morphine using only an “every thirty minute” titratable drip with 20mg/h max. Multiple systemic issues including a collective mindset resistant to change perpetuated this unsound practice an average of nine times per month in 2016.

Aim Statement. Improve safety and efficacy in end-of-life infusion-based opioid treatments

Methods. In 2017, through a series of presentations, we generated interdisciplinary buy-in to remove the dangerous order and build a consensus replacement order set. In our plan, morphine or fentanyl infusions are nurse-titrated using objective FLACC (pain) and RDOS (dyspnea) assessments after at least four half-lives. Infusion max doses were halved and linked to q15minute bolus doses equal to the infusion dose. Education included narrated e-learning (nursing) with pre/post survey to assess understanding and in-person, including Grand Rounds, and via email (pharmacists and providers).

Results. Pre-intervention, end-of-life patients receiving the rapidly-titratable morphine infusion often reached high rates (median 550% of initial infusion rate) in a matter of hours (median = 5.25) while PRN boluses were available and used in only 35.7% of cases (n= 28). Initial post-intervention analysis showed safer maximum levels (median 160% of initial infusion rate) with slower time to maximum infusion rate (median 29 hours) while PRN boluses were available and used in 69.6% of cases (n = 22).

Conclusions and Implications. Institution-wide change was achieved by addressing barriers at every level of implementation of the opioid order set from pharmacist to nurse to ordering provider. Basic safety and efficacy measures have improved, but more in-depth case review analysis is needed to assess fidelity of provider ordering and nursing execution.

The PACT Conversation Trigger Tool: Assessing Reliability, Acceptability and Validity (QI706)



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Objectives

1. Describe a novel approach to screening patients for unmet advance care planning needs.
2. Describe the reliability, acceptability and validity of the PACT Trigger Tool.

Background. Many patients who would benefit from Advance Care Planning (ACP) do not have discussions with providers. One barrier is the lack of a standardized method to identify these patients.

Aim Statement. As part of a larger initiative whose aim was to increase ACP conversations, the Preference-Aligned Communication and Treatment (PACT) Trigger Tool was developed to help inpatient clinicians of any discipline identify patients with ACP needs based on serious illness, care dependency and functional decline. This study evaluated the reliability, acceptability and validity of the tool.

Methods. To assess inter-rater reliability, 100 patients were double-scored across participating hospitals. For acceptability, nurses ($N=185$) completed a 10-item survey using a Likert scale. Validity was measured using retrospective chart reviews ($N=135$).

Results. The PACT Trigger Tool demonstrated moderate to high reliability. A factor analysis of the acceptability survey showed that nurses found the tool useful ($M=4.07$, $SD=0.73$) and easy to complete ($M=4.24$, $SD=0.67$). Nurses who had been trained to use the tool found it easier to complete ($F(1, 183)=12.69$, $p<.001$) and more useful ($F(1, 183)=26.42$, $p<.001$) than those who had not. Chart reviews revealed that patients who triggered positive ($n=40$) were significantly more likely to have a DNR order (43% vs 11%) and palliative care consult (53% vs 20%) during the index admission and less likely to discharge home (53% vs 86%) compared with patients who triggered negative ($n=95$). Patients who triggered positive had shorter survival times ($M=125$ days, $Mdn=69$ days) than those who triggered negative ($M=248$ days, $Mdn=240$ days; log rank test $p<.001$).

Conclusions and Implications. The PACT Trigger Tool is a reliable, acceptable, and a valid means of identifying hospitalized patients who may benefit from ACP discussions. A larger validity study and evaluation of optimal ACP methods for patients who trigger positive are needed.

Improving Patient-Reported Outcomes Collection Rate in an Outpatient Palliative Care Clinic (QI707)



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Objectives

1. Explain the significance of patient reported outcome measures (PROMs) in the management of advanced cancer patients.
2. List potential barriers for PROMs collection in an outpatient palliative care clinic.

Background. From January 2018 to March 2018, Dana Farber Cancer Institute (DFCI) launched a pilot to collect Patient-Reported Outcomes of the Common Terminology Criteria for Adverse Events (PRO-CTCAE) within the adult palliative care (APC) clinic using smart tablets. We had a limited response rate—only 20% of patients attempted to complete the questionnaire. After the pilot ended on March 2018, smart tablets were discontinued and were replaced with a paper version of PRO-CTCAE from April to June 2018.

Aim Statement. Our aim was to increase the patient attempt and collection rate of the paper PRO-CTCAE from 20% to 50%.

Methods. Our primary outcome measure was the percentage of paper PRO-CTCAE attempted and collected. Eligible patients were established patients scheduled to see a provider in the APC clinic. We implemented several Plan-Do-Study-Act (PDSA) cycles including the implementation of the paper version of the questionnaire, training and educating front desk staff, and posting provider reminders in exam rooms. We used a statistical process control (SPC) chart to track percentage of attempted and collected questionnaires over time and to differentiate between special cause and common cause variation.

Results. From April 2018 to June 2018, the PRO-CTCAE collection rate improved from 20% to 48%. Special cause variation was associated with implementation of the paper version of the PRO-CTCAE and increased front desk staff engagement. Increased provider satisfaction was also associated with the paper version of the PRO-CTCAE.

Conclusions and Implications. Implementing a high-reliability process for collecting patient reported outcome measures in an outpatient palliative care clinic is complex and requires cohesive multi-disciplinary teamwork, a user-friendly patient-facing and provider-facing interface, and a streamlined workflow. The electronic version of PRO-CTCAE will resume in

September 2018. We will implement lessons learned from the paper PRO-CTCAE implementation, including ongoing front desk staff engagement and an enhanced provider view in the electronic medical record.

Increasing Awareness and Recognition of Pediatric Physician Orders for Life-Sustaining Treatment (POLST) at an Academic Children's Hospital: A Quality Improvement Project (QI708)



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Objectives

1. Describe the barriers to POLST recognition and subsequent ordering of correct code status on admission in the pediatric setting.
2. Identify possible strategies to increase documentation of POLST awareness and ordering of correct code status on admission in the pediatric setting.

Background. When children are admitted to our institution using electronic admission orders, code status defaults to "full code." POLST documents on file are often not recognized by the admitting team. As a result, there are instances in which code status is incorrectly ordered on admission.

Aim Statement. Increase documentation indicating POLST recognition by 5% and decrease inaccurate code status orders in EMR by 5% within 1 year.

Methods. Pre-data was collected via chart review of patients on the Palliative Care Registry in Epic admitted within a two-month window. Documentation of the existence of POLST and whether the ordered code status was consistent with the POLST form was assessed. Intervention included adding a banner in Epic notifying admitting physicians of a POLST, with a corresponding hyperlink to POLST document. Post-data was collected by chart review of patients on the Palliative Care Registry admitted within a two-month window after intervention was implemented.

Results. Pre-intervention, 9% of available POLSTs were documented as recognized on admission. Three patients (11%) had incorrect code status ordered on admission. After intervention implementation, 12% of POLSTs were documented as recognized on admission. One patient (5%) had the wrong code status entered by the resident. This was recognized and corrected by the attending within several hours.

Conclusions and Implications. After implementation of the POLST banner, there were less instances

of the wrong code status being entered on admission, thus meeting smart aim of decreasing inaccurate code status orders. However, documentation of reviewing POLST remains low. We feel this may be secondary to the fact that the majority of POLSTs are filled out as full code, and banner alone may not be enough to trigger documentation. One future aim for this project includes adding a line to the standard admission H&P template indicating if POLST is present and reviewed by primary team.

Addition of the Nurse Triage Role in Improving Inpatient Consultation Delivery: A Palliative Care Team Model Quality Improvement Initiative (QI709)



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Objectives

1. Explain the process of incorporating a nurse triage role into an inpatient Palliative Care consultative service team.
2. Articulate benefits to the Palliative Care team as well as the hospital system in instituting a nurse triage role.
3. Differentiate replicable benefits to other hospital systems and the financial implications of this model.

Background. The Inpatient Palliative Care team at a 700+ bed academic medical center had been clinician led for years. The consults were placed by paging the consult pager and were therefore triaged by clinicians seeing patients throughout the day. This was inefficient and was identified as a contributor to burnout.

Aim Statement. The nurse triage role was proposed as a means of improving the efficiency of the team to see more patients, have time for more family meetings, and improve the wellbeing of the clinician team members.

Methods. Palliative Care Quality Network (PCQN) data was used for number of consults seen and family meetings, looking six months before initiation of Nurse Triage and six months after. Palliative Care team members shared their written reflections on how adding this team member improved their quality of life at work.

Results. Number of new consults per month increased from 66.5 patients to 81.6 patients. Average number of family meetings per day increased from 1.1 to 1.2. The prevailing themes shared by all interdisciplinary team members in their narratives were: The Nurse Triage improved the coordination of care, improved communication between palliative team members and also with the referrers, and allowed

clinicians to focus on taking care of their patients without distractions. In turn, this improved the work environment for all team members, even non-clinicians.

Conclusions and Implications. Though this data does not take into account the fluctuating FTE of the providers on the team, there is a trend to improvement in both quantitative parameters after initiation of the Nurse Triage role. Qualitative data was resoundingly positive in terms of improved wellbeing and pride in the quality of the work done by the team. Nurse Triage is an effective possibly replicable model to improve delivery of care in Palliative Care inpatient consult teams.

Open-Ended Responses to Bereaved Surveys: Best Practices from the Veterans Health Administration and Kaiser Permanente (QI710)



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Objectives

1. Recognize opportunities to collect and/or use existing qualitative self-reported data in their practice settings for quality improvement.
2. Discuss how self-reported data can be used to educate administrators and non-palliative care clinicians about end-of-life care.

Background. The U.S. Veterans Health Administration's (VA) Bereaved Family Survey (BFS) is administered to the next-of-kin of Veterans who die in VA hospitals; Kaiser Permanente (KP) recently piloted an abridged version of the BFS, adapted items for its members across inpatient and outpatient settings. Narrative responses to 2 BFS open-ended questions informed identification of best end-of-life practices.

Aim Statement. We compared VA and KP BFS narrative responses to identify best care practices across 2 large integrated delivery systems.

Methods. Content analysis of: *Is there anything else that you would like to share about either:*

1. *The patient's care during his/her last month of life?*
2. *How the care could have been improved for the patient?*

Results. A sample of responses to VA's and 1,463 responses to KP's open-ended questions were reviewed to identify best practices. Responses confirmed the quantitative BFS structured content (i.e., multiple-choice items) and generally supported its domains. However, unique processes of care emerged. For example, using music therapy to calm and soothe Veterans was identified in the VA sample. Data suggests opportunities and specific approaches for improving quality of life at the end of life. Other processes of care to emerge from both data sets included frequent and timely updates to family and loved ones on patients' clinical status as death nears. Among KP responses, it was noted that families appreciate more frequent and timely interaction with clinicians with respect to early information sharing and dialogue about end-of-life process, what to expect, and how they can help their loved one.

Conclusions and Implications. Analysis of qualitative data affirmed the domain structure and comprehensive nature of the BFS. It also provided unique insights into best end of life care practices.

Department of Veteran Affairs Gold Status Practice—Advance Care Planning Using Group Visits (QI711)



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Objectives

- Describe key components of advance care planning group visits, including social worker and team-based facilitation, clinic-based needs, and staffing resources.
- Obtain person-centered tools and communication skills to successfully facilitate advance care planning group visits.

Background. Advance care planning (ACP) is a health behavior that requires person-centered education, support by trained professionals and motivational strategies to promote goal-setting and actions. Group visits in the healthcare setting can effectively increase an individual's knowledge, motivation and self-efficacy.

Aim Statement. This session presents a best practice and lessons learned from implementation of group visits focused on ACP.

Methods. To improve care delivery for our nation's Veterans, the Department of Veterans Affairs (VA) developed the Diffusion of Excellence Initiative to identify and spread practices developed through quality improvement methods. One such practice is Advance Care Planning via Group Visits (ACP-GV), which uses an interactive and patient-centered group session to engage Veterans in thinking about and planning for future medical decisions. In these sessions, social workers, or other health professionals, facilitate discussions for Veterans and their trusted others. Facilitators emphasize that while completing an advance directive is voluntary, it increases the chance that their care aligns with their wishes and values and relieves trusted others of having to make these difficult decisions. In addition, ACP-GV increases the effectiveness of advance care planning through allowing Veterans to discuss and process these complex topics with other Veterans in a group session.

Results. To date, 34 VA Medical Centers (VAMCs) have adopted the ACP-GV practice and more than 10,250 Veterans have attended ACP-GV sessions. Of those participants, approximately 18-20% developed a new advance care directive within one month of the session, and 86% set a smart goal to take additional steps toward advance care planning. Continued rollout of this innovative practice to VAMCs across the nation is ongoing.

Conclusions and Implications. At the conclusion of the session, attendees will have practical guidance, techniques and tools for implementation of ACP discussions using group visits in integrated (VA) or fee-for-service (Medicare) outpatient settings.

It's Everyone's Business: Capturing the Conversation (QI712)



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Objectives

1. Describe an innovative way to increase goals of care communication between providers.
2. State the required components of goals of care discussions.

Background. Results of research studies show that clinicians typically avoid discussing goals of care (GoC) and prognoses with patients. However, in order for patients facing serious illness to receive the care they want that is consistent with their values and wishes, health care providers must be skilled at challenging conversations. Currently, the GoC documentation is variable between generalist providers leaving the Palliative Care clinicians unclear as to if the discussions took place or what was

understood regarding quality of life goals. Because of this, a standardized GoC form was implemented in the EHR to help facilitate communication between clinicians that would be accessible for subsequent admissions and sudden changes in the patient's condition.

Aim Statement. The purpose of this quality improvement project is to improve communication, collaboration and decision making about GoC between clinicians, patients and family members.

Methods. The current standard of care is for clinicians to review GoC with patients upon admission and to document them in the GoC section of the EHR utilizing specific criteria. After an education session to all clinicians regarding the essential information to be included, GoC discussions were reviewed for all palliative care consults and rated as good, intermediate, or poor. Monthly standardized e-mail messages are sent to providers acknowledging good documentation as well as to offer assistance to improve discussion and documentation.

Results. Good GoC discussions increased by over 25% and patients with no GoC discussion decreased by over 20% during the initial study intervention. A secondary analysis of individual provider results is in progress.

Conclusions and Implications. Providing feedback to clinicians helped to improve GoC discussions and documentation in the EHR. Additional recognition as a GoC ambassador was sent to the managers of those clinicians who consistently performed at a high level. By educating providers regarding how to have difficult discussions surrounding GoC documentation increased leading to care that aligns with the patient's wishes.

Capturing Wishes: A Novel Approach to Goals of Care Documentation for Inpatient Palliative Care Consults (QI713)



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Objectives

1. Identify the need for improved goals of care documentation in the inpatient electronic medical record among patients seen by an inpatient palliative care service.
2. Articulate a strategy for improving goals of care documentation among patients seen by an inpatient palliative care service.

Background. Patients with life-threatening illness face critical decisions regarding goals of care (GOC) and treatment preferences (TP). Palliative Care (PC) consultants play a pivotal role in clarifying and documenting patients' wishes to ensure they receive goals-aligned care. However, inconsistencies in documentation of GOC/TP in the electronic medical record (EMR) can result in patients receiving interventions incongruent with their preferences. Among a baseline sample of patients seen by the University of California San Francisco (UCSF) PC service for GOC discussions in April and May 2017, only 63.3% had any goals documented in the EMR, and only 54.5% had both overall GOC (e.g., curative) and at least one specific TP specified in addition to code status (e.g., artificial nutrition, dialysis, etc). This quality improvement study examined the impact of an easily accessible, highly reproducible EMR note template on the consistency of GOC/TP documentation for patients seen by the UCSF PC service.

Aim Statement. This study aimed to increase documentation of GOC/TP among patients seen for GOC by the UCSF PC service from 54% to 80% with the use of a note template designed to integrate into the Advance Care Planning (ACP) problem in Epic.

Methods. Study authors designed an Epic note template to facilitate consistent documentation of GOC/TP. The PC service encouraged routine use of the dot phrase by all consulting PC physicians. Analysts assessed compliance at monthly intervals.

Results. Among 640 patients seen by the UCSF PC service between September 2017 and May 2018, 466 (72.8%) were seen for GOC. Of these, 461 patients (98.9%) had documentation of both overall GOC and at least one TP in their ACP problem in Epic.

Conclusions and Implications. Implementation of an EMR note template increased consistency and clarity of GOC/TP documentation for patients seen by the PC consult service.

Reducing Medication Errors in Home Hospice to Improve Patient Safety (QI714)



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Objectives

1. Reduce medication errors in the home hospice setting by focusing on performance improvement efforts in nurse practice and patient/caregiver practice.
2. Develop patient- and family-centered educational tools for safe medication practices in a home hospice setting.

Background. Gilchrist Hospice Care's average daily census is 433 in the home care setting, representing 49% of the total served. In FY15, our medication error rate was 0.61, with 55% in home care. A Medication Safety Team uncovered root causes and focused efforts on nurse centered medication reconciliation practices and patient/caregiver education.

Aim Statement. To reduce medication errors in home hospice service by 20% by FY18.

Methods. The Medication Safety Team includes our home care Medical Director, Clinical Nurse Specialist, and nurses from home care, triage, admissions, and after-hours teams. Using the IHI model, the team developed new educational tools for medication safety: Syringe Tool, Medication Record, PRN Medication Tracker. Feedback about the ease of use during a crisis to prevent medication errors was collected from patients, family caregivers, and clinicians. The Patient and Family Advisory Council consulted on the visual representation of the tools. A double check process was initiated in the new First Dose Protocol, providing families 24/7 access to our nurse help line. Our Medical Director trained nurses in polypharmacy, to improve crucial conversations about reducing the number of medications taken.

Results. The nurses and family members surveyed reported over 90% satisfaction with use of new education tools. The FY18 medication error rate is 0.34, representing a 44% decline over a three-year period. The errors in home care decreased 9% during the same period.

Conclusions and Implications. The new tools are integrated into the hospice Caregiver Handbook and provide cues about when to administer medications, how to safely check dosing, and provide clinicians a clear picture of medication usage between visits. The double check process in triage has led to countless 'great catches'. These simple improvements to nurse practice and patient education have made a lasting impact at the frontline of care to improve patient safety and overall caregiver confidence.

Nursing Telephonic Intervention to Reduce No-Show Rates for Outpatient Oncologic Palliative Care (QI715)



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Objectives

1. Illustrate the potential value of a nursing telephonic intervention to reduce no-show rates to an outpatient palliative care practice.
2. Identify care coordination needs of patients with serious illness that may be addressed through

telephonic follow-ups to potentially decrease ED utilization and hospitalizations.

Background. Missed appointments for palliative care clinics are reportedly as high as 50-70% and may be prevalent in cancer patients due to care coordination confusion, late referrals, and time burden. In our urban academic cancer center, the no-show rate in 2017 was 38% despite automated appointment reminder alerts. This results in inefficient utilization of limited palliative care resources.

Aim Statement.

- Decrease no-show rates in our oncologic palliative care clinic through implementation of a nursing telephonic intervention.
- Provide follow up telephone calls to identify symptom management and care coordination needs.

Methods. Patients were called the day before their scheduled appointment to introduce the service for new referrals, identify needs, and coordinate scheduling changes. Follow-up calls were provided one week after the patient encounter to monitor interventions and triage for needs at home. No-show patients were called to identify potential barriers to the visit.

Results. A total of 408 patients, 202 new and 206 follow-ups, were scheduled for palliative care appointments over the course of 3 months. The most commonly represented oncologic disease groups included GI and thoracic malignancies. 329 patient calls were attempted, and 252 patients were reached. 40% (n=133) of the patients reached reported needs that were addressed during these calls, ranging from prescription problems, symptom management, and patient education. No-show rates during our intervention period decreased to 19%. The most common reasons for no-shows included last minute patient cancellation and illness/hospitalizations.

Conclusions and Implications. Our telephonic nursing intervention reduced no-show rates by 50% as compared to automated appointment reminder alerts. 40% of patients reached reported needs at home that were addressed, possibly reducing ED visits and hospitalizations for pain and symptoms. This preliminary intervention can have implications for improving quality of care and more efficient utilization of limited outpatient palliative care resources.

Got WiFi? Exploring the Feasibility of Televisits Among Vulnerable Patients (QI716)

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Objectives

1. Appraise existing literature regarding the implementation of telehealth palliative care, with attention to the patient populations studied.
2. Review the methods, findings, and experiences of a pilot telehealth initiative at an urban, safety net palliative care clinic.
3. Reflect on lessons learned and formulate approaches to overcoming barriers to completing tele-visits, for vulnerable patients.

Background. No-show rates for palliative care clinic visits can be high (21-36% in our setting), frequently due to severe illness, limited transportation, or fatigue from multiple appointments. Telehealth visits may expand access to community-based palliative care for these complex patients.

Aim Statement. To explore the feasibility of telehealth visits with vulnerable patients in an urban, safety net palliative care clinic.

Methods. We developed a brief technology access survey to assess patients' access to email and necessary technology, and experience with videoconferencing. The survey was professionally translated into Spanish and Chinese. All patients who completed in-person clinic visits between November 2017 and May 2018 were eligible to participate. Patients who reported access to the necessary technology were offered training to complete televisits.

Results. During the study period, 109 patients completed in-person visits. Patients were 26% Latino, 24% Asian/Pacific Islander, 21% African American, and 20% Caucasian; 34% had Limited English Proficiency, and 10% were either marginally housed or homeless. 89 patients (82%) completed the survey. 60 patients (67%) reported access to a smartphone, tablet, or computer and were screened for eligibility. 18 (20%) were deemed ineligible due to significant sensory impairment, cognitive impairment, or limited technology experience. Of the 42 patients eligible for televisits, only 11 (26%) accepted training for televisits. The most common reasons patients declined were preference for in-person visits and lack of WiFi access. 5 patients were scheduled for televisits, and 4 completed visits (4%). The no-show rate for televisits was lower than the general clinic during the same time period (20% vs. 26%).

Conclusions and Implications. In our setting, likely 10-20% of patients have the access, capability, and interest to attempt televisits. More study is needed to determine whether these patients no-show at lower rates for televisits compared to in-person clinic visits.

PC-PAICE Palliative Care—Promoting Access & International Cancer Experience in India Collaborative (QI717)



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Objectives

1. Describe the application of online methods to teach Quality Improvement.
2. Describe key principles of fostering successful international collaboratives.

Background. India has a burgeoning elderly population, and limited palliative care (PC). Using a LEAN-based quality improvement (QI) curriculum, US & Australian institutions (Stanford, Duke, UCSF, Johns Hopkins, UTS Sydney, Peter MacCallum) partnered with Indian PC & cancer centers (AIIMS, CIPLA, Homi Baba, MNJ, Tata Memorial, Thrissur, Trivandrum) 10/17-6/18 to improve care.

Aims. We used PC-PAICE to train a cohort of Indian leaders to promote improvement in PC capacity and performance. Participants were recruited from members of the Indian Association of Palliative Care, and faculty of US and Australian sites with PC oncology services were recruited as site coaches. PC-PAICE 2018-9 is transitioning to a US-Indian leadership model with Stanford as resource hub and Indian maintenance of coaching, education, and team relationships.

Methods. In addition to monthly online curricula, group, and site coaching, all teams met in person in February 2018 at Delhi IAPCON for didactics, team building, and problem solving. PC-PAICE curricula encompassed baseline states, problem descriptions, outcomes measurement, intervention deployment, sustainability, and QI methods (e.g., run charts).

Results. QI projects addressed earlier solid tumor (lung, head and neck, advanced cancer) PC referrals, documenting goals of care, hospital-hospice coordination, and improving community-based service allocation. 4/6 teams reached self-defined QI goals for the 1st cycle. On a 0-5 scale, 20/29 participants found project templates, key driver diagrams, in person workshop, monthly group WebEx, and sustainability plans to be most helpful; online videos, Pareto charts, internal progress scoring, Box, and a 'graduation template' least helpful didactic features. One participant remarked, "I have always thought here is a problem, this is the solution and jumped right into it. PC-PAICE helped approach solutions in a more open-minded approach through various steps and logic."

Interpretation. PC-PAICE demonstrated feasibility of remote support to improve PC QI capacity, access and quality in India.

Online Specialty Education Impact on Social Work Knowledge, Attitudes and Skills Regarding Palliative Care (QI718)



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Objectives

1. Appraise tools to monitor distress and improve communication.
2. Support implementing goals of care (GOC) conversations.
3. Evaluate the impact of this education on work engagement.

Background. Social work is an integral part of healthcare delivery especially for those with serious illness. Palliative care education can increase comfort and skills needed for healthcare social workers.

Aim Statement. Examine impact of 8 month online certificate program in palliative care on medical social workers.

Methods. Forty-four social workers in the Providence system enrolled in online palliative care certificate program. Twenty-three (51%) were social workers for 0-6 years and fourteen (32%) had 15+ years of experience. A seventeen question, anonymous, emailed survey was administered pre/ post course. Forty-three responded pre-course. Five participants withdrew. Twenty- eight responded post-course.

Results. Social worker comfort in discussing GOC jumped from 25% pre to 75% post course and increase in having tools needed to monitor patient and family caregiver distress improved from 25% to 67%. Work engagement improved as well as increased social worker satisfaction with use of skills at work (37% pre and 57% post). Social worker perception of palliative care consultation as routine for patients with medical complexity and not always associated with end of life care improved post course.

Conclusions and Implications. Palliative care education is effective regardless of time as a social worker. Increased comfort with GOC conversations, improved patient, family and provider communication and increased work engagement was noted after specialty training. Assessment tools allow monitoring of patient and family caregiver distress so interventions can be planned, implemented and distress reassessed objectively. Improved comfort in GOC conversations allows social workers to operate at the top of licensure increasing provider efficiency. Ease with GOC conversations increases delivery of congruent care. Social workers can increase provider efficiency and patient

safety through documentation of billable work and accurate care goals. Increased work engagement leads to social worker retention. Based on this descriptive study, healthcare systems are encouraged to explore enrollment of social workers in such training to increase palliative care knowledge, attitudes and skills.

It Takes a Village: An Interdisciplinary Effort to Improve the PAL-05 Measure in a Large Academic Medical Center (QI719)



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Objectives

1. Review the Joint Commission PAL-05 measure description and expectations.
2. Discuss some of the barriers to meeting the PAL-05 measure.
3. Describe an interdisciplinary approach using a step-wise method to improve PLA-05 measure compliance.

Background. The National Consensus Project for quality palliative care (2013) guidelines recommend that a patient's or surrogate's goals and treatment preferences are used as the foundation for the plan of care. Despite recognition of the value of these conversations by both physicians and patients, there is often hesitancy to initiate these discussions. According to the PEACE project the use of a Treatment Preferences quality measure will promote discussions regarding treatment preferences and goals between seriously-ill patients and their physicians. The Joint Commission's PAL-05 measure assures that documentation of the patient's treatment preferences and goals accompanies the patient to the next level of care. Joint Commission certified palliative care programs, however, have found it challenging to develop a feasible and effective approach to meet this measure.

Aim Statement. Utilizing an interdisciplinary approach along with a step-wised method is crucial to the successful development and execution of the PAL-05 measure Initiative.

Methods. In order to integrate the important PAL-05 quality measure in our large academic medical center, we developed an interdisciplinary committee encompassing representatives from the palliative care service, nursing leadership, social work, information technology, and quality measure. Several steps were taken, including monthly meetings scheduled over the course of six months, to discuss design, construction, and education of the PAL-05 measure initiative. This initiative encompassed three phases. 1) design and construction; 2) education and training; 3) assessment and impact.

Results. Data regarding compliance of the PAL-05 measure was collected at the one month and three month mark. User feedback regarding the practicality and effectiveness of this initiative was assessed via a survey. Data collected showed marked increased in PAL-05 measure compliance, as well as the impact and feasibility of this initiative.

Conclusions and Implications. Our approach highlights the importance of collaborating with other disciplines, especially when dealing with the complexity of caring for seriously-ill and end-of-life patients.

Opioid Screening & Monitoring in the Palliative Care Clinic: An Attempt at Standardization (QI720)



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Objectives

1. List and recognize components of opioid monitoring.
2. Devise and implement his/her own screening and monitoring plan for the Palliative Care Clinic.

Background. The Centers for Disease Control (CDC) recommend Urine Drug Testing (UDT) for managing non-palliative care patients on chronic opioid therapy (COT)¹. There are no guidelines for the care of palliative care patients receiving (COT). Studies have shown that in some cohorts roughly half of cancer patients receiving palliative/supportive care have abnormal UDT, suggesting that even palliative care patients misuse/abuse opioids, and that the UDT may serve as an important tool in uncovering this misuse/abuse. Our Palliative Care Clinic (PCC) demonstrated inconsistent use of UDT testing and inaccurate ordering of the appropriate UDT for our patient population. Lack of a formal approved Mercy protocol puts the Palliative Care Clinic at risk of being deemed as subjectively selecting random patients for drug testing. This could be perceived as unfair or unequal treatment of patients from different color, economic backgrounds or gender identity.

Aim Statement.

1. Develop/implement a new policy for standardization of UDT in the PCC.
2. Increase provider compliance ordering the correct UDT.
3. Increase patient/family education and compliance with opioid policy, risk assessment and use of opioid contracts.

Methods. We utilized the IHI Model for Improvement (AIM/Plan-Do-Study-Act).

Results. Cycle 1 investigated baseline clinical practice as we had no existing policy for UDT in the PCC. Our institution has 4 different UDT's and we frequently ordered the wrong test. Cycle 2 we developed and presented a policy that was accepted by hospital administration. We provided a staff educational session for policy compliance, correct test codes, opioid contract compliance, and physician follow-up of UDT results. Cycle 3 we provided patient/family education and tracked 100% compliance with opioid contract use, correct UDT, policy compliance and physician follow-up of UDT results. Cycle 4 is in process with initiation of opioid risk assessments and continued maintenance of previous interventions.

Conclusions and Implications. Physician monitoring of opioid therapy is essential from legal, regulatory and professional mandates in the palliative care setting.

The Implementation of a Palliative Care Intervention During Induction Chemotherapy for Patients with Acute Myeloid Leukemia (AML) at a Community Cancer Institute (QI721)



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Objectives

1. Recognize the benefits of upstream palliative care in patients with hematologic malignancies.
2. Describe multifaceted intervention to increase palliative care utilization in patients with AML undergoing induction chemotherapy.
3. Discuss future directions to assess uptake of palliative care utilization in patients with AML.

Background. Patients with hematologic malignancies are referred to palliative care less than patients with solid tumor malignancies. Clinical trials are underway at academic centers exploring early inpatient palliative care for patients newly diagnosed with AML receiving induction chemotherapy. Feasibility of such interventions have not been studied in a community setting.

Aim Statement. We structured a multi-faceted intervention for our community hematology and palliative team on the benefits of early palliative care in

hematologic malignancies with the aim to increase utilization.

Methods. In 2017, 24% of patients with AML admitted to Lancaster General Hospital for induction chemotherapy received an inpatient palliative care consultation. Needs assessment performed on the hematology and palliative teams demonstrated a need for integration of palliative care into clinical pathways, automatic triggers for consultation, a need for increased education on AML, and creation of standard elements in inpatient consultations.

Results. In the spring of 2018, we integrated palliative care into institutional AML clinical pathways such that all patients receive inpatient palliative consultation within 72 hours of admission. A consultation trigger was placed within the admission order set and is currently being incorporated into the chemotherapy treatment protocol. An educational program on AML was created and presented by the hematology team to the inpatient palliative team. This intervention included creation of minimum standards for inpatient palliative consultation including provider assessment within 72 hours of referral, two visits per week by a provider, and a minimum of one visit by the interdisciplinary team during admission with a focus on symptom management, psychosocial assessments, and advanced care planning.

Conclusions and Implications. We have demonstrated feasibility of creating standards for early palliative care intervention in AML patients with collaboration from the hematology and palliative teams. Next steps will include assessing whether these interventions increase uptake of palliative care utilization and specific patient outcomes.

Increasing Outpatient Palliative Care Referrals in a Veteran's Affairs Hospital Oncology Clinic: A Quality Improvement Project (QI722)



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Objectives

1. Describe a quality improvement project regarding increasing outpatient palliative care utilization among advanced cancer patients.
2. Describe different PDSA cycles that can affect outpatient palliative care referrals.

Background. The American Society of Clinical Oncology recently published guidelines recommending palliative care (PC) to patients with advanced stage cancer. PC referral and involvement may provide improved goals of care discussions and planning for transitions to end of life care.

Aim Statement. To increase referrals from oncology clinic to palliative care to 60% for patients with advanced solid tumor malignancies.

Methods. A PC screening tool was used to identify patients with advanced solid tumor malignancies with other poor prognostic factors seen in oncology clinic from October 1 to November 17, 2017. Patients were followed over 6-months. Oncology clinicians, nurse coordinators, and social workers were educated in the use of the screening tool. Additional PDSA cycles included individual provider feedback on PC referral rates and integration of PC referrals to clinician pay-for-performance in 2018 fiscal year.

Results. Among 559 unique patient encounters, 174 patients met PC screening criteria. 33% of these patients had been referred previously to PC, primarily by oncology, other providers (ie GI, ENT, Radiation Oncology), and inpatient medicine. At 6-month follow up, 51% of patients had a PC referral, with new consults placed primarily by inpatient medicine, then oncology providers. 25% of patients had died and 26% were on hospice at 6 months. 42% of patients who died were on home hospice and 84% were seen by palliative care prior to death. Palliative care consultation was associated with hospice referral prior to death ($p<0.01$).

Conclusions and Implications. Oncology patients with advanced solid tumor malignancies are not currently referred to palliative care in congruence with current guidelines. Outcomes data on the results of a screening tool to increase these referrals showed minimal improvement by oncology providers over 6-month period. Further long-term analysis is necessary to evaluate the effect of pay-for-performance on PC referrals for advanced cancer patients.

Supportive Cardiology Quality Improvement Project: Identifying Symptomatic, Advanced Heart Failure Patients for Palliative Care Consultation (QI723)



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Objectives

1. Reflect on one possible barrier faced by health-care providers in documenting goals of care discussions for in-patients with heart failure.
2. Describe the benefits and drawbacks of using the numerical rating scale (NRS) for dyspnea as a screening tool for symptomatic patients with heart failure.

Background. Heart failure is a life-limiting illness and the leading cause of hospitalization in Canada.

The Toronto Western Hospital Palliative Care Consultation Service identified an opportunity for improvement when it noted only 9 in-patient cardiology referrals for palliative consultation were received from January to September 2017 despite 472 cardiology in-patient admissions.

Aim Statement. The aim of this quality improvement project was to increase the number of palliative consultations completed for cardiology in-patients with symptomatic, advanced heart failure by 50% compared to the previous year, starting in February 2018. The project also aimed to document a numerical rating scale (NRS) score for dyspnea for 100% of patients at the time of initial consultation and last palliative care visit and document goals of care discussions for 100% of referred patients by time of discharge.

Methods. A process map identified an opportunity for screening cardiology in-patients and screening criteria were developed: nurses identified patients with a NRS for dyspnea of $> 3/10$; a palliative care physician then attended cardiology interdisciplinary team rounds once weekly to identify symptomatic patients with advanced heart failure and approached the cardiology physicians for referral.

Results. Results from February to June showed an increase in total cardiology referrals for palliative consultation from 3 (2017) to 19 (2018), with 16 referrals received at team rounds. Though all referrals received were appropriate for palliative consultation, only 6 of 19 referrals screened positive using screening criteria. Only ten out of 19 patients were able to report dyspnea using a NRS. Five of nineteen patients referred had documentation of goals of care discussions prior to consultation, compared to 18 out of 19 patients post-consultation.

Conclusions and Implications. Refinement of screening criteria and criteria used to identify symptomatic patients is ongoing. This project may expand to other in-patient services and provided evidence to support teaching serious illness communication skills to cardiology fellows.

Evidence-Based Triggers: Incorporating Patient-Reported Outcomes (PROs) into Palliative Care Referrals (QI724)



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Objectives

1. Describe how to develop, scalable, transferable and sustainable symptom management systems to monitor and address common cancer

symptoms and trigger referral to palliative care with PROs.

2. Describe how to test prototypes of an integrated PROs clinical assessment pathway and understand who are the stakeholders and how to beta test PRO measures.

Background. Specialty palliative care (SPC) has been shown to improve quality of life, reduce unnecessary healthcare utilization, and decrease mortality in patients with advanced cancer. Despite calls for universal palliative-oncologic co-management for people with metastatic disease, only a small proportion of such patients are appropriately and promptly referred.

Aim Statement. Test hypothesis that improving documentation, availability, tracking, and transparency of PROs in oncology visits will increase SPC referrals.

Methods. 74 English-speaking patients seen at least once by oncology in a breast cancer clinic were invited and agreed to participate in the study. Patients completed the electronic, validated PROMIS and PRO-CTCAE PRO questionnaires in the waiting room. Results were presented to the oncologist during the encounter if PRO-CTCAE score exceeded 3 ("severe") in at least one domain. Data was also gathered via chart review and patient/provider interviews.

Results. At baseline, 9 (12.2%) patients reported severe anxiety; 17 (23.0%) severe pain; and 27 (32.1%) severe fatigue. At study entry, 25 (33.8%) already had been referred to SPC; 19 were seen (76% of those referred; 25.7% of all participants). 63 (85.1%) had complete data. Among these, 13 (20.6%) reported at least "severe" in ≥ 2 or more components of the CTCAE domains, 6 (46.2%) of whom had been previously referred to SPC. The 7 remaining patients with severe symptoms never received a referral to SPC. Oncologists reported that referrals were limited by concern of negative impact to doctor-patient relationship and challenge of having this conversation during a time-constrained oncology encounter.

Conclusions and Implications. While oncologist referral has been a traditional mechanism through which patients can access SPC services, the decision to refer is complex and subjective. Referrals triggered by PRO have the potential benefit of accessing the proven survival benefits of PROs and rationalizing patient identification for SPC.

An Innovative Tuck-In Program to Improve Service Delivery in Hospice Patients (QI725)

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Objectives

1. Demonstrate an innovative delivery of hospice services to anticipate care needs in a rural environment.
2. Manage resource delivery to anticipate patient status, current and future needs, to avoid service failures and improve continuity of care.

Background. Hospices face unique challenges, including broad service areas, and, in Maine, extreme weather conditions. Patients may express frustration and anxiety if supply and medication needs are not well anticipated, requiring urgent visits to provide them. Deploying weekend/overnight staff for visits unassociated with acute symptom management misdirects resources.

Aim Statement. The quality initiative will result in anticipation and resolution of supplies, medications, and visit planning to improve continuity of care delivery to hospice home care patients, and to decrease off-shift requests.

Methods. Historical weekend/night triage data analysis showed 45% of calls requested urgent medications, supplies, or visit planning. A volunteer led program uses a scripted Tuck-In questionnaire to call patients several days before each weekend and anticipated weather event. Urgencies are prioritized and forwarded to an RN for resolution. All calls are reviewed each service day for quality assurance.

Results. Immature data demonstrates an 18% decline in medication, supply, and visit planning requests. Acute symptom management data remain consistent with pre-initiative data. Unanticipated benefits include capture of additional clinical data useful in early intervention, and longitudinal data trending nurse performance in anticipating patient needs.

Conclusions and Implications. Tuck-In programs for hospices provide an additional evaluation point, review of service satisfaction, and early identification of patient needs. Staff travel burden is reduced, and additional nursing performance measures can be monitored.

Integrating COMFORT^{TMSM} at a Comprehensive Cancer Center (QI726)



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Objectives

1. Describe use of COMFORT Communication Curriculum to promote primary palliative care among oncology nurses.

2. Recognize the benefits of role play for communication based learning.

Background. While some nurses receive fundamental communications skills training, opportunities exist to strengthen palliative communication skills among nurses in cancer care. At our NCI-designated comprehensive cancer center, we sought to adopt the COMFORT^{TMSM} Communication Curriculum to broaden oncology nurses' competencies to engage in difficult conversations in routine practice across all settings. Developed through research, the curriculum includes communication skills-building sessions and provides participants with a communication toolkit.

Aim Statement. To improve nurses' patient centered communication across the cancer trajectory.

Methods. Participants in the NCI-funded COMFORT^{TMSM} *Communication for Oncology Nurses* professional training program partnered with our departments of Supportive Care Medicine and Nursing Professional Development. A COMFORT^{TMSM} Team was established to develop and deliver a curriculum for our cancer center. The target audience included nurses and nursing/medical assistants throughout all clinical environments. The program consists of seven 1.5-hour classes, including lecture and role-play to enhance skills. Each class dedicated time for debriefing and interactive discussions to address barriers and concerns related to integration of COMFORT^{TMSM} techniques into nurses' busy practices. To foster engagement, the curriculum was offered as part of Nursing Grand Rounds, as an element of progression within the nursing Clinical Ladder, and by linking COMFORT^{TMSM} with our foundational nursing theory (Duffy's Quality Caring Model).

Results. To date, 74 individuals from various clinical areas have participated in the COMFORT^{TMSM} Curriculum, including registered nurses, advance practice nurses, care coordinators, clinical educators, and medical assistants. Results from the C-COPE survey indicate attendees' comfort with palliative conversations increased following participation.

Conclusions and Implications. We have successfully adopted the COMFORT^{TMSM} Communication Curriculum within our Nursing Grand Rounds format. Nurses from diverse clinical areas are equipped with COMFORT^{TMSM} techniques to communicate with patients, families, and team members. Our COMFORT^{TMSM} Team plans to continue the current program, explore inclusion in new staff orientation, and monitor impact on patient satisfaction.

Evaluation of Medication-Related QTc Prolongation Risks in Patients Receiving Hospice Care (QI727)

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Objectives

1. Characterize the use of QTc prolonging medications in hospice patients.
2. Recall the average QTc prolonging medication burden in hospice patients.

Background. Medications commonly used for symptom management in the hospice population are linked with QTc interval prolongation, which may lead to *torsades de pointes*. Safety risk of QTc-prolonging medications in this population may be underestimated.

Aim Statement. To develop a risk assessment scoring tool for QTc prolongation in hospice patients.

Methods. A retrospective chart review of a national hospice pharmacy provider was completed. Decedents with a cardiac-related primary hospice diagnosis and medication claims profiled during between January 1, 2018 and March 31, 2018 were included. Age, sex, and medications profiled were also collected. Charts of decedent's age \geq 65 years were reviewed for medications with a known or possible risk of QTc interval prolongation. Independent patient risk factors and profiled medications, based on [CredibleMeds.org](https://www.crediblemeds.org) categories of QTc interval prolongation risk, were scored using a modified RISQ-PATH tool. Independent patient risk factors were also scored.

Results. A total of 16,501 decedents were reviewed with an average age of 87 years. The population is 56.6% (n=9,343) female. This subset of patients scored 9 on RISQ-PATH based on independent risk facts alone. Percentage of patients with QTc-prolonging drugs was 28.8% with 10.3% of the population on a drug that [CredibleMeds.org](https://www.crediblemeds.org) ranks as known risk of *torsades*. Additionally, 6.9% of patients were prescribed diuretics. After the initial review of population data, additional statistical analysis is in progress for final risk assessment tool development. Results of this analysis will be incorporated in final presentation.

Conclusions and Implications. Our population review illustrates utilization of medications with QTc prolongation risk in patients with several independent risk factors already present. Evaluating patient risk for QTc interval prolongation will help prioritize significance of drug-drug interactions and inform our discussions with interdisciplinary teams about the risk vs benefits of these medications for symptom management.

Sleepless Nights: Trazodone Use and Insomnia Evaluation in the Palliative Care Clinic (QI728)

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Objectives

1. Discuss the evaluation of insomnia in the palliative care clinic of a large academic medical center.
2. Discuss the use of trazodone in the palliative care population and discuss the concerns regarding the use of trazodone.

Background. Insomnia is a common symptom in the Palliative Care patient population with some estimates showing up to 70% of patients having symptoms of Insomnia. However, patients continue to depend on pharmaceutical agents owing in part due to lack of access to Cognitive Behavioral Therapy and longtime use of medications to treat insomnia. Although trazodone has limited efficacy for insomnia, it is used roughly by 1% of the U.S. adult population. We sought to better define within our clinic population the likelihood patients were using trazodone and also the likelihood of recognition of its use for insomnia.

Aim Statement. evaluate the use and documentation of Insomnia and trazodone use in the outpatient clinic in the palliative care clinic of a large academic medical center.

Methods. This is a retrospective chart review assessing patients seen in the Palliative Care Clinic at a large academic center from June 2017 to November 2017. Data includes demographics, presence of trazodone in their medication list, and documentation of ESAS (date documented, and drowsiness score). Charts were manually reviewed for any documented discussion of insomnia either in the problem list, discussion, or history. Descriptive statistics were used during analysis.

Results. Fifteen (9.2%) of 163 patients had trazodone in their medication list during the review period; 6(40%) were female with mean age of 63.5. Discussion of insomnia was documented for only 4(26.6%) patients. The mean ESAS drowsiness score was 5.03. The most common prescribed dose of trazodone was 50 mg (47%). We were unable to identify thorough assessment or alternative non-pharmacologic strategies within any of these charts.

Conclusions and Implications. Discussion with patients regarding the effectiveness of interventions to help treat insomnia are rare in palliative care patients receiving trazodone. Future interventions will focus on implementing better screening methods, patient education, and documentation regarding insomnia and its management.

Driving Organizational Change in Serious Illness Communication: Successes and Challenges of Implementing the Serious Illness Care Program (QI729)



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Objectives

1. Describe different approaches to the use of clinical tools, clinician training, and systems-changes to improve serious illness communication throughout a system.
2. Examine aggregate implementation data across three health systems on structures and processes of implementing a primary palliative care program focused on communication.
3. Explore strategies to maximize clinician behavior change and factors that may influence uptake of serious illness communication on the frontlines.

Background. Clinicians commonly miss opportunities to engage seriously ill patients in conversations about values and goals, or do so late in the illness course. Achieving more, earlier, and better serious illness communication requires system-level change.

Aim Statement. Examine early learnings about successes and challenges of implementing a communication quality-improvement initiative in three health systems.

Methods. Three U.S. systems have adapted and implemented the Serious Illness Care Program (SICP), which includes tools, training, and systems-changes, in partnership with Ariadne Labs (AL) using a system-level implementation model. We combined and analyzed structure and process data from the three systems and routinely collected coaching notes to understand early successes and challenges.

Results. From 2016-present, AL trained and coached 24 champions (including 20 palliative care specialists) at the 3 systems. Champions launched SICP in cardiology, oncology, geriatrics, surgery, and primary care; Champions have trained 330 clinicians. EMRs have been modified to include an accessible template; 1,852 patients have a documented conversation thus far. Preliminary analysis of coaching notes revealed: 1) Structures and capabilities (e.g. clinician training, EHR template) can be replicated, yet clinician uptake of serious illness conversations varies and may depend on factors not captured in the model, e.g. attitudes toward palliative or end-of-life care; 2) Uncertainties about the role of inter-professionals (e.g. nurses) and specialists vs. generalists in serious illness

communication may contribute to workflow challenges; 3) Supportive coaching, leadership/peer engagement, and/or data-reporting are likely to enhance practice change but require time and resources.

Conclusions and Implications. Successful adaptation and adoption of SICP structures and processes in three health systems suggests the promise of a systems-level implementation model to improve serious illness communication. More effective workflows that activate the care team and a better understanding of the mechanisms and contextual factors that support practice change are likely to enhance efforts.

Rapid Access Service for Symptom Management: An Out-Patient Palliative Medicine Clinic Initiative in a Cancer Institute (QI730)

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Objectives

1. Discuss the operation of a mobile out-patient consult team.
2. Discuss the challenges for the mobile out-patient service.

Background. The benefits of early introduction of palliative care in patients with advanced cancer are increasingly recognized and integration of palliative care in standard oncology care is recommended. Since oncology care is mostly in the out-patient setting, access to out-patient palliative care service is important.

Aim Statement. To share our experience with our mobile out-patient palliative medicine consult team.

Methods. In May 2017, the section of Palliative Medicine under the Department of Supportive Oncology at Levine Cancer Institute piloted a Rapid Access (RA) service for symptom management. This is a mobile out-patient service to complement the out-patient palliative medicine clinic. The goals of the service are: 1) provide immediate assistance to patients with poorly controlled symptoms related to their cancer and/or treatments; 2) prevent unnecessary emergency room (ER) visits; and 3) facilitate early palliative medicine integration in cancer care. The RA service is staffed by a nurse and a palliative medicine physician. The team sees urgent referrals for uncontrolled symptoms.

Results. 183 patients were referred over 12 months. 75% of the patients have solid tumor malignancies, 15% have gynecologic cancers, and 9% have hematologic malignancies. Majority of patients referred were seen on the same day or next day. The most common reasons for referral are uncontrolled pain (83%) and GI symptoms (6%). Of the patients seen by the RA team, only 4% needed to be sent to the ER.

Longitudinal follow-up was arranged in the out-patient palliative medicine clinic.

Conclusions and Implications. The RA access service increased out-patient palliative referrals of patients with advanced cancer.

Evaluation of Goals of Care Communication Training for Medical Oncologists (QI731)



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Objectives

1. Develop succinct goals of care communication skills training for oncologists.
2. Design an evaluation tool for the above training sessions.
3. Recognize that such succinct training sessions can be perceived as effective, relevant, and practice-changing.

Background. Medical oncologists commonly have goals of care (GOC) conversations with their patients, but many report insufficient formal communication training. The lengthy nature of many training curricula may limit participation.

Aim Statement. Evaluate the effect of a 90-minute GOC communication training for medical oncology providers on perceived barriers to GOC conversations.

Methods. This training evaluation was conducted at the University of North Carolina at Chapel Hill. Recruitment targeted medical oncology providers specializing in lung, breast, and genitourinary cancers. Medical oncology leadership participated in study planning and assisted with recruitment. Training consisted of a 90-minute interactive primary palliative care skills session, offered four times to accommodate clinicians' schedules. Training consisted of elements from the Ariadne Labs Serious Illness Conversation Guide, Vital-Talk, and a case-based exercise. Participants learned to document advanced care planning (ACP) notes in the EMR. Participants evaluated the training on semi-structured surveys using a 5-point Likert scale (1 = not at all, 5 = very much) and open-ended questions assessing perceived communication barriers, quality and relevance of training, and expected effect on practice.

Results. Seventeen of twenty eligible medical oncologists (85%) and five of nine NPs (56%) attended the training and completed the evaluation. They

perceived the most significant barriers to GOC conversations to be “patients may be too stable to warrant a GOC conversation” (mean Likert scale score 3.2) and “patients may be upset by GOC conversations” (3.0). Participants strongly agreed that training provided skills applicable to clinical practice (4.8) and that they would recommend the training (4.8). In response to an open-ended question about effect on practice, participants most often identified specific communication principles, including “Ask-Tell-Ask” and “I wish” statements.

Conclusions and Implications. We successfully recruited medical oncology providers to attend a 90-minute GOC communication training, which was perceived positively and expected to change practice. To assess impact on practice we will review documented GOC discussions before and after training for participants.

Improving Advance Care Planning in Residency Through Annual Wellness Visits (QI732)



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Objectives

1. Describe the structure and outcomes of a project to increase initiation of advance care planning by Internal Medicine Residents in Medicare Annual Wellness Visits.
2. Evaluate Internal Medicine residents' perspectives on initiating advance care planning during the Medicare Annual Wellness Visit.
3. Assess the feasibility of advance care planning in the Medicare Annual Wellness Visit.

Background. The Annual Wellness Visit (AWV) through Medicare offers an opportunity to initiate advance care planning (ACP) in the outpatient setting. In continuity clinics staffed by medical residents, the AMV is also an opportunity for improving trainees' skills for supporting ACP. We piloted an intervention to enhance residents' initiation of ACP during AWV.

Aim Statement. Residents will initiate ACP with 1 patient during an AWV.

Methods. Among patients for whom they served as the primary care physician, second and third year Internal Medicine residents at a university-affiliated community hospital used a query of the electronic medical record (EMR) to identify patients in Medicare with ≥ 1 high-risk medical condition (specified ICD-10 codes), dependence for ≥ 1 activity of daily living (collected during nursing intake at last visit), and ≥ 1 hospitalization or emergency department visit in the past year. Each resident selected one patient who met all four criteria to address ACP within in an

AWV. At the visit, patients first reviewed Prepare For Your Care (<https://www.prepareforyourcare.org>), an interactive, online resource for ACP with a clinic patient educator. The resident then discussed the patient's preparatory responses and health-related values, and documented them using an EMR template. A post-intervention questionnaire surveyed residents' views of the experience (1-7 scale, 7=most positive) and suggestions for improvement. The primary outcome was the number of residents who initiated ACP with 1 patient.

Results. 10 of 12 residents initiated ACP. Most common conditions were CHF requiring hospitalization, ESRD on hemodialysis, diabetes with severe complications, and COPD on home oxygen. The average scores (n=8) for overall experience, impact on patient care, and likelihood of incorporating ACP in future practice were 6.0, 6.1, and 6.6, respectively. Common areas for improvement included delays in scheduling visits and visit duration.

Conclusions and Implications. The AWV is an opportunity to initiate ACP with high-risk patients while training physicians in this important area of practice. Future improvements include streamlining clinic workflow.

Palliative Medicine Education for Internal Medicine Residents (QI733)



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Objectives

1. Explain the improvement that a lecture series in palliative medicine can have in resident knowledge and skill in providing palliative care.
2. Describe an educational program in palliative medicine that can be used to train internal medicine providers.

Background. Caring for patients with palliative needs is an essential part of internal medicine training, however this care is often not a focus of resident education. Less than half of accredited internal medicine programs have required palliative care lectures in their curriculum. Due to a shortage in palliative care specialists, internal medicine physicians need basic palliative training to help fill this need.

Aim Statement. The purpose of this quality improvement project was to create and maintain a curriculum to improve resident knowledge and skill in caring for patients with palliative care needs.

Methods. Internal medicine residents at the University of Chicago were surveyed to determine their knowledge, attitudes, and skills regarding palliative care pre and post-curriculum. The curriculum utilized presentations, workshops, and simulation over a one-

year period. Chi-squared analysis was used to compare pre and post-curriculum results.

Results. Response rate was 37% pre-curriculum (n=46/123) and 41% post-curriculum (n=51/123). Based on the pre and post-curriculum surveys, 61% self-reported baseline competence in providing symptom management for patients with chronic disease or life limiting illness, improving to 88% post-curriculum (p=0.002). On initial survey, a minority reported competence in providing patients with palliative resources (26%) which improved to 48% post-curriculum (p=0.027). Reported knowledge in the role of palliative care consultants increased from 78% to 90% post-curriculum (p=0.105) and knowledge in the educational training palliative care consultants receive increased from 35% to 57% (p=0.029).

Conclusions and Implications. This study discovered that at baseline, many internal medicine residents report lack of competence in providing palliative care for patients. Following the one year curriculum, improvement in resident knowledge and skill was observed, however residents still report weaknesses in these areas. Based on these results, this curriculum has the potential to improve resident knowledge and skill in caring for patients with palliative needs.

You've Got This! Developing Primary Palliative Care Education Within a Safety-Net Health System (QI734)



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Objectives

1. Identify needs and opportunities to implement primary palliative care education with a focus on vulnerable and underserved patient populations served in safety-net settings.
2. Describe the impact of an interdisciplinary primary palliative care education session for providers caring for seriously ill, vulnerable and underserved patients in safety-net setting.

Background. California recently passed a state bill mandating access to palliative care services for Medi-Cal patients with serious illness. With a limited number of palliative care specialists serving these often vulnerable and underserved patients with complex psychosocial needs, it is crucial to educate non-palliative care trained front-line providers in primary palliative care.

Aim Statement. To increase access to palliative care through the development and implementation of a no-cost primary palliative care curriculum for vulnerable and underserved patients in the San Francisco safety-net system.

Methods. Curriculum development was based on a comprehensive needs assessment, including: interviews with content experts, organizational leaders and key stakeholders; an environmental scan; a literature review; and an online survey. We created a novel half-day training program with content focused on defining palliative care and serious illness, differentiating palliative care from hospice care, and serious illness communication skill training specific to vulnerable patient care. Curricular impact was gauged through pre and post-surveys which assessed for confidence in participants' understanding and ability to provide palliative care (Likert scale from 1-10).

Results. Four half-day education sessions were conducted with a total of 40 participants from the San Francisco Department of Health, including non-clinical case managers, social workers, nurses, nurse practitioners and physicians. Participants reported significantly higher confidence in their ability to describe palliative care to a patient (pre-5.09 to post-8.33), differentiate palliative care vs. hospice care (4.92 to 8.73), define serious illness (6.08 to 8.60), define illness trajectories (4.98 to 7.90), elicit patient's illness understanding, prognostic awareness and goals (5.32 to 8.23) and describe advance care planning (6.03 to 8.23).

Conclusions and Implications. A half-day course introducing basic palliative care concepts and communication skills to non-palliative care trained interdisciplinary providers can improve confidence in providing palliative care to patients in a safety-net setting.

Coaching Palliative Care Conversations: Evaluating the Impact on Resident Preparedness and Goals of Care Conversations (QI735)



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Objectives

1. Describe a novel coaching intervention to improve palliative care skills of resident physicians.

2. Identify positive outcomes in resident preparedness and goals of care documentation resulting from palliative care coaching sessions.

Background. Lectures alone are likely inadequate to prepare resident physicians for goals of care (GOC) discussions. Drawing on adult learning theories, we developed a real-time, learner-centered coaching intervention to improve palliative care (PC) skills of residents.

Aim Statement. Evaluate whether short interactive PC didactic and coaching sessions increased resident physicians' preparedness in discussing PC topics and completion of GOC discussions with hospitalized patients.

Methods. Prospective quality improvement study involving internal medical residents during their four-week hospitalist rotation at an urban medical center. Two PC physicians led the sessions. Brief didactics trained each three-person resident group in a GOC communication roadmap and appropriate documentation. Informal coaching sessions centered on building skills related to conducting GOC conversations and addressing other PC topics residents raised. Residents completed surveys addressing their level of preparedness on a 5-point scale (from 1 = not well prepared to 5 = very well-prepared) in issues related to discussing GOC pre/post-rotation. We measured GOC documentation in a defined patient population considered "at-risk" by the health system based on age, comorbid conditions, and frequent hospitalizations. We monitored data monthly and made small curricular adjustments during the year.

Results. We trained 39 residents over 12 months in thrice-weekly coaching sessions lasting on average 16 minutes. Residents' level of preparedness increased across several GOC topics. The greatest increases were in eliciting patients' fears for the end of life (pre/post 3.3/4.1, change +0.8) and helping patients talk with their families about the future (pre/post 3.4/4.2, change +0.8). Documented GOC discussions in at-risk patients increased from 17.4% pre-hospitalization to 53.9% by the end of hospitalization. Resident physicians rated coaching sessions as useful (4.5) and relevant (4.3) to their training.

Conclusions and Implications. Brief coaching sessions can integrate PC education into a busy clinical service and improve the likelihood that residents will facilitate GOC discussions with hospitalized patients.

The Implementation of a Comprehensive Advanced Care Planning (ACP) Program (QI736)

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Objectives

1. Explain the importance of advance care planning (ACP) to our nation's healthcare system and specifically how it affects end-of life care.
2. Discuss our advance care planning hospital wide performance improvement project.

Background. A recent national survey found that about 90% of people say that talking with their loved ones about end-of-life care is important but about 27% have actually done so. Much of this care involves extremely aggressive measures to preserve life, resulting in higher costs and decreased patient/family satisfaction

Aim Statement. To create an Advanced Care Planning (ACP) system as an integral part of the health care routine and the community culture by facilitating conversations that help individuals and those close to them come to a clear and fuller understanding of their values, goals and treatment preferences.

Methods. Over a two year period, we conducted three hospital wide trainings on having ACP discussions, developed educational materials including an informational video, improved workflow in the electronic medical record (EMR) to track discussions, education and documentation, and stressed use of billable codes for discussion to generate revenue.

Results. Initial preliminary data showed 24.76% of outpatients and 36.95% of inpatients had an advance directive in the EMR. This increased to 92% into the second year for outpatients. The improved EMR workflow to track discussion and education revealed that, at start of second year, 69% of inpatients had been asked about advance directives ("discussion"), 52% were provided information packet/shown educational video ("education"), and 15% of inpatients had an advance directive on file. Increased discussions are further revealed by steadily increasing revenue from billable discussions (CPT codes 99497 & 99498) with \$4,693 at end of first year to \$9,998 three months into second year.

Conclusions and Implications. Training providers, distribution of educational materials to patients and improving workflows in the EMR resulted in increased ACP billable discussions. Examination of inpatient data suggests that increased discussions do not readily translate into documentation on file, suggesting cultural factors might affect actual completion of documents.

Decreasing Barriers and Increasing Confidence: Ambulatory Advance Care Planning Internal Medicine Resident Curriculum (QI737)



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Objectives

1. Employ REMAP as a framework for teaching ambulatory ACP to learners.
2. Illustrate innovative teaching methods including use of drills and 'homework' to reinforce learning.
3. Identify barriers and opportunities to ambulatory ACP completion by residents and physicians in general.

Background. Patients are eager to participate in advance care planning (ACP) discussions, but there are numerous physician barriers to outpatient discussions. Education in overcoming these barriers are rare in residency programs.

Aim Statement. Reduce perceived barriers to ACP and increase resident willingness and confidence to have ACP conversations in the clinic.

Methods. Second and third year internal medicine residents participated in two 3-hour sessions during an ambulatory care rotation. The first session presented information about ACP; a conversation framework using the acronym REMAP (Raise the issue, respond to Emotion, Map patient values, Affirm the patient, and propose a Plan); drills practicing using REMAP, and documentation in the electronic medical record. Residents were asked to discuss ACP with a clinic patient in between sessions, and write down how the conversation went. During the second session, residents practiced ambulatory ACP skills using a simulated patient, and debriefed the homework. A pre-survey was completed by participants before the curriculum, and a post-survey was completed immediately after, ranking confidence and barriers on a 5-point Likert scale.

Results. 54 residents completed the pre-survey, and 50 completed the post-survey. Pre-post intervention medians were compared using Wilcoxon-Mann-Whitney U tests due to non-normal data. After completion of the curriculum, residents felt more confident bringing up ACP ($p<0.001$), discussing choosing a surrogate decision-maker ($p<0.001$), were more willing to bring up ACP ($p=0.007$), and felt it was more important to bring up ACP ($p=0.002$). Notably they no longer felt time was a barrier to discussing ACP ($p<0.001$), and no longer felt uncomfortable initiating the discussion ($p=0.049$).

Conclusions and Implications. An ambulatory ACP curriculum that includes a structured conversation framework and opportunities to practice with simulated patients is effective in improving resident confidence and willingness to complete ACP and help patients identify a surrogate decision maker. Future research will evaluate whether education leads to improvement in completion of AD.

Redundancy or Value-Added? Ethics Consults in Hospitalized Patients with Palliative Medicine Involvement (QI738)



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Objectives

1. Describe services typically provided by clinical ethics services and the ways in which these overlap with reasons for palliative medicine consults.
2. Discuss ways in which incorporation of ethical principles in palliative medicine notes and recommendations may provide additional reassurance to primary teams.

Background. Many academic medical centers have both palliative medicine (PM) and clinical ethics teams; there is overlap in the services provided by these teams.

Aim Statement. We sought to better understand what services are provided by clinical ethics consultations not currently offered by PM.

Methods. We performed a retrospective chart review on all patients seen by both PM and clinical ethics during a single admission over a two-year period. Assessment and recommendations from clinical ethics notes were abstracted verbatim. Two members of the study team used MAXQDA software to independently code themes present in the clinical ethic notes; they met to discuss and reach consensus on codes.

Results. We identified 84 patients seen by both palliative medicine and clinical ethics during a single admission over a two-year period. The three most common issues addressed by the ethics consult were goals of care, medical surrogacy, and providing support. Specific issues relating to goals of care included: patients refusing medical treatment or wanting to return home, code status discrepancies, and concerns around withdrawing or continuing life-sustaining treatment. Surrogacy issues addressed included: assistance with identifying an appropriate surrogate, concerns about the surrogate, decision making when no surrogate is available, and guardianship. There was specific language regarding legal or ethical recommendations in 32/84 patients (38%). We observed frequent explicit use of ethical principles in ethics notes, such as

autonomy and beneficence, which were not included in PM notes.

Conclusions and Implications. We noted that many of the services provided by clinical ethics are similar to those offered by PM including assistance with goals of care conversations and advice regarding surrogacy. However, use of language such as “ethically permissible” or “legally permissible,” accompanied by moral reasoning, may be delivering additional reassurance to medical teams not currently provided by PM. PM clinicians may be able to further assist primary teams by using ethical reasoning in their assessments and recommendations.

Development and Implementation of a Patient-Centered Tool for the Assessment of an In-Patient Palliative Care Team (QI739)

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Objectives

1. Identify primary issues for patients' satisfaction with an inpatient Palliative Care team.
2. Describe areas for improvement for the palliative care team's operation and composition as identified by patients receiving care.
3. Recognize the use of Lean A3 process to improve the administration and refine the content of a survey tool.

Background. Patient feedback is an important part of evidence-based, high value care. We wanted to develop a tool for more rigorous assessment of Palliative Care Services (PCS) at our institution.

Aim Statement. Design and implement a protocol, using a standard Lean A3 problem-solving approach, for collecting inpatient feedback on Palliative Care (PC) team performance.

Methods. Eligible inpatients receiving PCS at our institution were approached in person over a 9-month period, to complete a semi-structured interview regarding their experience of care. The survey tool included Likert scale-based and open-ended questions. We examined characteristics of all patients meeting eligibility criteria and thematically reviewed responses from patient interviews. Lean A3 methods were applied to plan and improve the process.

Results. Of the 74 eligible patients, 21 completed the interview. Major themes included: Felt understood

(excellent/good: 95%); communicating plans (excellent/good: 80%), effectively respond to spiritual and religious needs (excellent/good: 75%), team availability (always: 65%), controlling/alleviating symptoms (excellent/good: 80%), sharing information about illness (excellent/good: 70%), likelihood to recommend PCS (very likely: 90%). The open-ended questions identified satisfaction with time spent with and clarification of issues by the PC team. Other common themes included the desire for increased cultural sensitivity and diversity of the PC team. We observed mixed responses about patients' previous or current understanding of PC and the PCS offered.

Conclusions and Implications. Patient's perception of team effort, active listening and strength of relationship with providers has a beneficial impact on the patient's experience of care. Areas for improvement were identified as team availability and sharing of information between providers and patients. Feedback regarding team diversity and previous misunderstandings of PC highlighted the need for continuing public education and re-assessment of the composition of the PC team at our institution. Lean A3 methods were helpful in planning and improving the survey process.

Caution! Unstable Patients Will Collapse Without Warning: Improving Advance Directive Completion for Patients with Chronic Obstructive Pulmonary Disease in an Urban, Safety-Net Hospital (QI740)

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Objectives

1. Recognize the unique challenges to advance care planning discussions in patients with severe pulmonary disease.
2. Identify markers of poor prognosis in pulmonary disease through a novel advance care planning trigger.
3. Evaluate an intervention to increase advance care planning in the outpatient setting with severe pulmonary disease.

Background. Despite recommendations, advanced care planning (ACP) occurs infrequently in patients with COPD. A few studies describe rates of 11-15%, with scant information regarding methods to increase ACP in this population.

Aim Statement. Over six months, to increase advance directive (AD) completion by 10% in patients with COPD requiring outpatient subspecialty care.

Methods. Stakeholders (physicians and nurses) at an urban, safety-net pulmonary subspecialty clinic convened, reporting three primary challenges in ACP: discomfort discussing ACP in clinic, inability to locate AD documents and identifying patients appropriate for ACP. Consequently, a two-step intervention was implemented over 8 months: 1) education addressing ACP discomfort and 2) a novel reminder nudge with COPD-specific ACP criteria plus re-structuring the clinic's AD process. As pulmonary providers were encouraged to complete patient ADs themselves or refer to an outpatient palliative care specialist, AD completion of patients with COPD seen in either clinic was tracked, using statistical process control p-charts.

Results. Before the intervention (June 2016-September 2017), the monthly AD completion rate among COPD patients seen in pulmonary and palliative subspecialty clinics was unstable by statistical process control, with a mean of 25.4% (range 13%-39%). The average monthly number of patients with COPD seen in both clinics was 106. With the education cycle (end October 2017), followed by the reminder nudge and AD paperwork optimization (March 2018), the new average AD completion rate was 28.8% (range 6-42%). Special cause signals indicating significant process change were a shift (December 2017-June 2018) and a point outside the 3-sigma upper control limit (June 2018).

Conclusions and Implications. Although the project aim was not met, the combined intervention was associated with special cause improvement in AD completion. The process was not under statistical control prior to intervention, and continued measurement is necessary to ensure sustained results. However, this study implies that with combined education, a nudge and re-organization, AD completion in this population can improve, thus improving outcomes for patients and families.

Compassionate Technology: Palliative Care Telemedicine in the Rural Hospital Setting (QI741)

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Objectives

1. Recognize the challenges of providing palliative care in rural hospitals.
2. Describe the use of telemedicine to improve access to palliative care in our organization.

3. Reflect on how a similar approach may be used in other rural medical organizations.

Background. Early hospital-based palliative care is associated with significant improvement in patient quality of life and lower hospital costs. Although there is a robust presence of palliative care services in urban centers, there is a substantial disparity of care for seriously ill patients in rural areas. The medical literature demonstrates that telemedicine has been successful in the hospital setting for treatment of disease and in the home setting for palliative care. There is currently no available literature describing the use of telemedicine to address inpatient palliative care at rural hospitals.

Aim Statement. The purpose of the program is to determine the feasibility of utilizing telemedicine with palliative care services for adult inpatients at a rural community hospital.

Methods. An interdisciplinary team was formed at Valley View Hospital consisting of local providers, social workers, chaplains, and physicians from the University of Colorado Anschutz Medical Campus via teleconferencing. Palliative care consultations were performed with adult inpatients with a focus on advance care planning, symptom management, communication and prognostication. At subsequent visits, the patients were asked about the perceived value of the service and acceptability of the teleconferencing component.

Results. The program launched in January 2018, and 19 patients were seen in the initial 4 months of the service. 95% of patients tolerated teleconferencing well and reported satisfaction with the service. There was a 26% increase in completion and documentation of advance care plans following the visit. 30 patients were identified as needing palliative care services but could not be seen due to limited staff and time.

Conclusions and Implications. Telemedicine may be an option for rural healthcare facilities needing inpatient specialized palliative care services. Key components to program success include concurrent education for involved providers, adequate staffing, and sufficient technological support for telemedicine equipment and software.

Characterizing Life-Sustaining Treatment Decisions of Seriously Ill Veterans During Pilot Testing of the Veterans Health Administration's Life-Sustaining Treatment Decisions Initiative (QI742)

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Objectives

1. Describe essential elements of the Life-Sustaining Treatment Decisions Initiative.
2. Apply lessons learned from this evaluation of the Life-Sustaining Treatment Decisions Initiative to other implementation efforts related to improving advance care planning.

Background. To ensure that seriously ill Veterans' values, goals and preferences for life-sustaining treatments are elicited, documented and honored, VA's National Center for Ethics in Health Care implemented the Life-Sustaining Treatment Decisions Initiative (LSTDI).

Aim Statement. We aimed to characterize goals of care conversations (GOCC) and LST decisions at four VA pilot sites between 8/11/2014 and 11/14/2016.

Methods. Data from the patient medical record was linked to health factor (HF) data from the LSTDI template for initial GOCC. Descriptive statistics were performed for the following HF: Decision Making Capacity (DMC), Consent, Goals of Care (GOC) and Resuscitation status. We evaluated HF associations with DMC and chi-square t-tests were used to evaluate comparisons. We performed brief chart abstractions for rare instances of validity concerns.

Results. 6664 Veterans had ≥ 1 GOCC and were on average 72 years old, 93% male, 87% white, 61% urban. 35% of Veterans died. 15% with documented GOCC lacked DMC and <1% lacked a decision-maker. GOC varied for the cohort and included (more than one goal allowed): to be cured (8%), to prolong life (34%), to improve/maintain quality of life (62%), to be comfortable (53%), to obtain support for family/caregiver (8%), to achieve life goals (2%), and other (11%). Most with an initial LSTDI note had a DNR order (59%). Veterans lacking DMC were more likely to have comfort oriented goals (49% vs. 77%, $p < 0.01$) and a DNR order (53% vs. 84%, $p < 0.01$) compared to those with DMC. Most cases examined via chart abstraction due to data validity concerns were implicitly validated and identified opportunities to make adjustments to the LSTDI template to improve workflow.

Conclusions and Implications. LSTDI and goals of care documentation was successfully implemented at four pilot sites. Lessons learned will inform ongoing implementation across the VA nationally.

Integrating Creative Art Therapy with Palliative Care (QI743)



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Objectives

1. Discuss the integration of a creative art therapy program with a palliative care service.
2. Describe program evaluation outcomes with symptoms, and patient and family member perceptions regarding their experiences with creative art therapy.
3. Demonstrate the emotionally therapeutic effects of creative art therapy with patient examples.

Background. The University of Colorado Hospital (UCH) implemented a Creative Art Therapy (CAT) program in September 2016, offering CAT to hospitalized patients as a component of comprehensive Palliative Care services.

Aim Statement. To evaluate short term effects of the CAT session on patient symptoms and patient/family perceptions regarding their experience with CAT.

Methods. CAT was made available to all adult (18 and older) UCH Palliative Care Consult Service (PCCS) patients beginning in September 2016. The program evaluation occurred between 10/1/16-6/1/17. Patients self-selected a CAT session with a music or art therapist. The program evaluation consisted of a quantitative and qualitative component:

- a. Self-report of 3 symptoms that we hypothesized CAT would have a short-term effect on: pain, anxiety, and well-being (0-10 scale) using the Edmonton Symptom Assessment Scale (ESAS) prior to and following the CAT session; $n=12$ patients.
- b. Semi-qualitative patient and family member interviews using 6 questions to acquire in-depth information about perceptions of and experiences with the CAT session, administered within 1 day of the CAT session; $n=40$ patients and family members.

Results. During the study period, there were 366 CAT patient encounters. 12 patients completed pre/post-CAT session ESAS. Symptom scores showed a trend in improvement on a 0-10 scale for pain (4.8 to 4.3; $p=0.410$), anxiety (2.7 to 2.4; $p=0.699$), and well-being (5.8 to 4.8; $p=0.376$) from pre-intervention to post-intervention. 40 patients and family members completed semi-qualitative interviews. Qualitative analysis revealed the over-arching theme of improved

quality of life through emotionally therapeutic effects, with sub-themes of non-medical relationships, distraction, family engagement, and personalized care.

Conclusions and Implications. This pilot CAT-PCCS program evaluation supports the need to confirm the association with positive trends in patient-reported pain, anxiety, and well-being in further studies with larger enrollment, and provides qualitative themes of patient and family member emotionally therapeutic effects.

Caring About Cancer—Advance Care Planning Group Visit Intervention (QI744)

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Objectives

1. Implement the ENACT-GV intervention to persons living with cancer.
2. Determine the feasibility and acceptability of the ENACT-GVs at the University of Colorado Hospital Anschutz Cancer Pavilion.
3. Evaluate the impact of ENACT-GV on medical durable power of attorney documentation.

Background. Electronic health record (EHR) documentation of a medical durable power of attorney (MDPOA) for persons living with cancer is only 25% at the University of Colorado Hospital Anschutz Cancer Pavilion (UCH-CP). Engaging in Advance Care planning Talks Group Visit (ENACT-GV) intervention can improve ACP discussions and EHR documentation in the primary care setting.

Aim Statement. To increase MDPOA documentation from 25% to 50% in persons living with cancer within six months.

Methods. Patients were recruited from UCH-CP Genitourinary Cancer Clinic by letters and phone calls. Three ENACT-GV were conducted, each consisting of two 2-hour sessions, one month apart, facilitated by a palliative care nurse practitioner and UCH-CP social worker. The groups consisted of ≤ 10 participants with an option for patients to bring a guest. ACP documentation in the EHR (baseline and one week after the 2nd session) and the 4-item ACP Engagement Survey (baseline and immediately post session) were assessed. Cycle 1 implemented ENACT-GVs at UCH-CP, cycle 2 optimized patient referrals, and cycle 3 enhanced group facilitation techniques.

Results. Ten patients (<2% recruitment rate) were recruited. Three patients returned for the 2nd session (30% retention rate). Seven guests attended ENACT-

GVs (all attended only the 1st session). At baseline, 20% had a MDPOA in the EHR; one week after the 2nd session, 100% had MDPOAs in the EHR ($p < 0.001$). 17% of patients (n=2205) who did not attend ENACT-GV had MPDOAs in the EHR compared to 100% who attended ENACT-GV ($p < 0.001$). 87% of participants believed ENACT-GV was better than normal clinic visits for ACP discussions. 93% of participants would recommend ENACT-GV to another person. 50% of patients preferred one session over two sessions.

Conclusions and Implications. ENACT-GV was an acceptable method to engage persons living with cancer in ACP discussions and significantly improved documentation, however, recruitment was low. Limiting ENACT-GV to a single group session may improve feasibility.

Residential Homes for the Dying: An Untapped Resource for Teaching Patient and Family-Centered End of Life Care Before Professional School Training (S801)



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Objectives

1. Describe a clinical training program for undergraduate health professions students to provide bedside end of life care.
2. Explain the effect which participation in the CARE program had on undergraduate health professions students.

Original Research Background. There is a lack of clinical training opportunities in end-of-life care, especially at the bedside. The Community Action, Research, and Education (CARE) program was developed to help students interested in healthcare better understand the challenges of providing care when no cure is possible. Program participants train to serve as surrogate family members and spend 8 weeks providing care to 2 hospice patients in residential homes for the dying in upstate New York. In addition to providing 24 hours of direct bedside care per week, students complete 10 online learning modules, each of which emphasize different skills for providing end of life care. Students also meet with hospice and palliative care professionals and conduct agency-driven research to benefit the home where they provide this care.

Research Objectives. To determine whether the CARE program improves empathy and self-efficacy to provide end of life care among participants.

Methods. Eighteen undergraduate health professions students from 4 different institutions completed

the 8-week summer program that included weekly didactic sessions with hospice and palliative care providers. Empathy and Self-Efficacy to provide end of life care were measured in 18 undergraduate health professions' students (7 men; 11 women) between the ages of 19 and 27 before and after the program. **Results.** Paired t-tests revealed significant increases in perceived self-efficacy to provide end of life care ($p < .001$) and empathy ($p < .05$) among participants following completion of the program.

Conclusion. Residential homes for the dying offer a unique patient care experience with time to practice end of life care with instruction by, and observation of, more experienced caregivers.

Implications for Research, Policy, or Practice. There are approximately 30 residential homes for the dying in upstate NY and 30 others across the U.S. in need of caregivers. This educational initiative represents an opportunity to improve community-based end of life care and cultivate communities of compassionate caregivers.

Characteristics of Hospices Providing High-Quality Care (S802)



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Objectives

1. Identify hospice characteristics associated with high performance on CAHPS Hospice Survey measures.
2. Identify hospice characteristics associated with high performance on Hospice Item Set measures.
3. Compare hospice characteristics associated with high performance on Hospice Item Set measures to characteristics associated with high performance on CAHPS Hospice Survey measures.

Original Research Background. Newly available data from the Hospice Quality Reporting Program allow for examination of hospice characteristics that are associated with high-quality hospice care.

Research Objectives. Examine hospice characteristics associated with high performance on Hospice Item Set (HIS) and Consumer Assessment of Health-care Providers and Systems (CAHPS) Hospice Survey measures.

Methods. We used 2015 hospice claims and 2016 Provider of Services data to identify structural features of hospices, characteristics of their patients, and their processes of care. We used logistic regression models to assess the association between hospice characteristics and hospices' being in the top quartile of 2015-

2017 performance for HIS measures, CAHPS measures, or both.

Results. Of the 2,746 hospices in our analysis, 5.6% were in the top quartile of both HIS and CAHPS measure performance. Hospice characteristics associated with being in the top quartile for HIS included being in a for-profit chain, larger size (91+ patients per year), and having fewer than 40% of patients in a nursing home. Characteristics associated with being in the top quartile for CAHPS included being a non-profit and non-chain hospice, smaller size (< 200 patients per year), and serving a rural area. Providing professional staff visits in the last two days of life to a higher proportion of patients was associated with hospices' being in the top quartile of HIS and in the top quartile of CAHPS.

Conclusion. Hospice characteristics associated with strong performance on clinical process measures differ from those associated with better patient and family experiences of care; however, some hospices achieve high performance on both domains, suggesting that there is no inherent tradeoff between them.

Implications for Research, Policy, or Practice. Variation in care quality by hospice characteristics suggests opportunities for improvement.

Teaching the Skill of Shared Decision Making Utilizing a Novel Online Curriculum: A Blinded Randomized Controlled Pilot Study (S803)



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Objectives

1. Identify the components of shared decision making using a values-guided support approach.
2. Identify language that identifies parental values and how language to elicit these values can be learned via the educational intervention.
3. Identify common ways that decisions may be inadvertently and inappropriately framed during conversations in high stakes situations.

Original Research Background. Competence in shared decision making for non-palliative care professionals is becoming essential as children's hospitals are increasingly caring for more chronically and critically ill children. The resources of Pediatric Palliative Care teams are often stretched thin, and the medical team is often unable to ascertain families' goals of care during rounds or bedside discussions, often due to lack of communication training and skills.

Research Objectives. To test the effectiveness of an online module in improving the language of shared decision making used by non-palliative care pediatric

providers who often participate in shared decision making with patients and families.

Methods. Pediatric subspecialty fellows were video-recorded in a simulated patient encounter with parents facing a decision to either go forward with a life-extending procedure or transition to a course of care aimed at comfort. Conversations were evaluated with a validated scoring tool for the degree of shared decision making present on a scale of 0-11. The intervention group then received a brief online curriculum aimed at teaching the skill of shared decision making. Participants from both groups then repeated the same simulation and were reassessed. Members of the control group then became a delayed-intervention group and also underwent the curriculum and a third simulation.

Results. Regression analysis demonstrated the odds of improved performance in mean total score for intervention groups was 39.78 times greater than that of the control group (95% CI [1.72 - 919.29]; P-value 0.022).

Conclusion. Shared decision making is becoming more and more important as children's hospitals are increasingly caring for more chronically and critically ill children. Our data show that an easily accessible educational intervention in the form of an online module format is an effective way of teaching these behaviors.

Implications for Research, Policy, or Practice. Shared decision making behaviors in non-palliative care pediatric providers can be significantly improved by access to online educational modules.

Impact of Physician Attire on Palliative Care Patients' Perception of Physician Compassion and Professionalism: A Randomized Clinical Trial (RCT) (S804)

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Objectives

1. List different elements of communications skills.

2. Discuss how attire can be a form of non-verbal communication.

Original Research Background. Environment is an important component of communication skills. Physicians' communication style including attire may influence patient perceptions. Previous studies mostly based on pictures of providers in different attires provide conflicting evidence.

Objectives. This RCT aimed to explore the effects of a physician's attire on patients' perceptions. Hypothesis was that patients will perceive the physician with formal attire as more compassionate & professional than the physician wearing casual attire.

Methods. 105 English speaking adult patients presenting as follow-ups to out-patient supportive care center, were randomized to watch 2 standardized, 3-minute video vignettes, with similar script, depicting a routine clinic encounter. In one video, physician was wearing formal attire with tie and buttoned up white coat, while in the other, physician was in casual attire without a tie or white coat. Actors and patients were all blinded to the purpose of the study. Investigators were blinded to the videos watched by the patients. After viewing each video, patients completed validated questionnaires rating their perception of physician compassion (0 = best, 50 = worst), professionalism (5 = poor, 25 = very good) & overall preference for the physician.

Results. No significant differences seen between formal and casual attire for compassion [median (interquartile range), 25 (10, 31) vs 20 (8, 27); P=0.31] and professionalism [17 (13, 21) vs 18 (14, 22); P=0.42]. 30% (32) patients preferred formal, 31% (33) preferred casual attire and 38% (40) had no preference. Subgroup analysis did not show statistically significant differences among age, sex, marital status & education level for compassion, professionalism & physician preference.

Conclusions and Implications. Doctor's attire did not have an impact on patients' perceptions of physicians' level of compassion & professionalism and did not influence their preferences for their doctor or their trust and confidence in the doctor's ability to provide care. More RCTs are needed to better understand the impact of different forms of attire on patient perceptions & preferences.

Advance Care Planning Education for Psychiatrists: A Novel Training Workshop (S805)

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Objectives

1. Identify medical and psychosocial factors that support a greater need for advance care planning among psychiatric patients.
2. Argue for the need for psychiatrists to receive training in advance care planning.
3. Evaluate the potential of a one-time, skills-based training workshop to impact attitudes, comfort, skills, and knowledge of psychiatry residents in advance care planning.

Original Research Background. Despite a perceived need, rates of advance directive completion among psychiatric patients are low, and psychiatrists receive little to no training in advance care planning. We identified advance care planning as an unmet educational need in psychiatry and developed a skills-based training workshop for psychiatry residents.

Research Objectives.

- Identify areas of need for advance care planning (ACP) training for psychiatry residents at the University of Pittsburgh Medical Center.
- Develop and implement a residency-wide educational workshop to train psychiatry residents in medical and mental health ACP.
- Assess residents' attitudes, comfort, knowledge, and skills in engaging in medical and mental health advance care planning before and after the workshop.

Methods. Based on results of a needs assessment, we developed a three-hour ACP educational workshop for psychiatry residents, including drill-based guided practice in ACP communication skills and a case-based roleplay exercise to complete mental health advance directives. Psychiatry residents participating in this training completed pre- and post-workshop surveys assessing their attitudes, comfort, knowledge, and skills in ACP domains.

Results. Psychiatry residents completed this training and the pre-workshop ($n = 42$) and post-workshop surveys ($n = 41$). After the training, residents reported a greater responsibility to facilitate psychiatric ACP ($p = 0.03$). They cited greater comfort in discussing end-of-life care ($p = 0.04$), facilitating medical ACP ($p = 0.002$), and facilitating psychiatric ACP ($p < 0.001$). They reported being more able to address key elements of ACP with patients ($p < 0.001$). They also demonstrated statistically significant score increases on objective measures of ACP knowledge. Finally, residents reported high satisfaction with this training.

Conclusion. A one-time educational workshop targeting produced improvements in psychiatry residents' attitudes, comfort, skills, and knowledge in ACP.

Implications for Research, Policy, or Practice. This educational workshop is the first known ACP training for psychiatry residents. This model proved effective at our institution and may be adapted to other psychiatry training settings.

The Landscape of Cardiac Palliative Care Practices in the United States (S806)



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Objectives

1. Describe clinical characteristics of U.S. cardiac palliative care programs.
2. Differentiate between U.S. cardiac palliative care programs challenges and successes.

Original Research Background. Patients with advanced cardiac disease (CD), and their caregivers, may benefit from early palliative care (PC) services. There is limited information on the number and nature of U.S. cardiac PC programs.

Research Objectives. To describe operational and clinical characteristics of U.S. cardiac PC programs.

Methods. We developed, pilot tested, and disseminated an Internet survey to a convenience snowball sample of U.S. cardiac PC programs. The survey included closed- and open-ended questions on practice type, CD, service utilization, staffing, practice characteristics, referrals, funding sources, services, and challenges.

Results. Seven (70%) cardiac PC programs completed the survey. Most programs identified as comprehensive (in-, out-, home services), outpatient (12.5%), inpatient (25%), or combined (25%). Programs varied in duration of existence, from one month-12 years. All programs served HF patients, while others serve heart transplant (75%), COPD (75%), pulmonary arterial hypertension (62.5%), and interstitial lung disease (62.5%). Most outpatient programs (71.4%) saw less than 50 new patients annually, whereas one practice served 400. Most common referral reasons were discussion of goals, management of emotional symptoms, and preparedness planning for ventricular assist devices. The most commonly managed symptoms were fatigue, dyspnea, depression, and anxiety. PC co-management (57.1%) and consult only PC (57.1%) were the most common practice models. All of the cardiac PC practices had expanded since opening. Qualitative follow up interviews are planned to provide a deeper program understanding.

Conclusion. Though cardiac PC programs are in their infancy, there has been significant growth and

need for expansion. Understanding current cardiac palliative care services, potential funding sources, and future needs is a high clinical/research priority.

Implications for Research, Policy, or Practice. Study results provide an initial picture of cardiac PC specialty programs which will be further expanded based on qualitative interviews.

A Palliative Care Patient Navigator and Counseling Intervention for Latinos with Stage III/IV Cancer (S807)



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Objectives

1. Describe a method for culturally tailoring a counseling intervention.
2. List 3 elements of feasibility when pilot testing a new intervention.

Original Research Background. Latinos with advanced cancer are unlikely to access palliative care and can have high distress. To address this, we adapted and combined two successful interventions, a patient navigator and a counseling intervention. In prior work, the patient navigator intervention increased advance care planning for Latinos, and the counseling intervention reduced depression in a general population using behavioral activation and interpersonal psychotherapy.

Research Objectives. (1) Adapt the content and format of the counseling intervention to ensure cultural and literacy appropriateness with Latinos; (2) Determine the feasibility of the combined patient navigator and counseling intervention, including video counseling visits.

Methods. (1) Community participatory action approach. We collaborated with Latino patient navigators (n= 5) and a Latina psychologist with multiculturalism expertise to revise the counseling treatment manual and patient materials. (2) Pilot test in Latino patients with stage III/IV cancer who screen positive for high distress or depressive or anxiety disorder.

Results. 1) The counseling intervention underwent major changes. The written patient materials were adapted to a 5th-6th grade reading level. Thirteen stories of adjusting to illness were culturally tailored in an iterative process using paired navigator/study team members. Stories were transformed into video scripts using a similar process, with multiple revisions to

increase cultural tailoring and adhere to core counseling components. Videos were subsequently produced. 2) 14 of 23 eligible Latinos with stage 3/4 cancer enrolled. Participants were distressed (mean baseline NCCN distress 6.2/10, SD 1.4; PHQ8 10.6, SD 6.2; GAD7 9.4, SD 6.5). Intervention visits are ongoing and final pilot data will be presented.

Conclusion. A patient navigator and counseling intervention was adapted for use with Latino populations.

Implications for Research, Policy, or Practice. Developmental studies that culturally tailor established interventions to specific populations require time and funding. The community participatory action approach we used could be applied to other interventions and populations.

Behind the Scenes: The Care Coordination/Non-Billable Time Associated with Outpatient Pediatric Palliative Oncology (S808)



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Objectives

1. Describe the unique aspects of a pediatric palliative oncology clinic and the time spent in care coordination.
2. Identify the demographic and disease-based factors that contribute to increased care coordination time.
3. Formulate talking points to advocate for appropriate care coordination time in your outpatient clinic model.

Original Research Background. Integrated pediatric palliative oncology (PPO) outpatient models are emerging to assist oncologists and patients with longitudinal support, symptom management, and care coordination. Considerable time is devoted to care coordination, but the scope, time per patient, and ratio of non-billable to billable (NB:B) minutes is unknown. This information is crucial to designing new PPO outpatient clinics in order to understand and advocate for appropriate personnel, physician time, and resources.

Research Objectives. To determine the trends and ratio of NB:B minutes for PPO clinic patients.

Methods. All encounters were tracked from June 2017 through April 2018 for a single-institution 1-day per week PPO clinic. Administrative minutes and PPO inpatient time were excluded. Billable and non-

billable (e.g. care coordination) minutes were recorded. Descriptive statistics were conducted. The overall ratio of NB:B minutes and ratios by diagnosis type and vital status were calculated. One-way ANOVA and chi-square tests were used to assess differences in the NB:B ratios.

Results. Out of 98 patients, PPO had billable visits on 54 (55%) and assisted without billing in the care of 44 (45%). Twenty-four (25%) patients are deceased; vital status did not differ by diagnosis type ($p=0.29$). Patients had solid tumors (ST; 42, 43%), brain tumors (BT; 33, 34%), leukemia/lymphoma (L/L; 21, 21%), and other diagnoses (2, 2%). Overall NB:B ratio was 1.03. NB:B ratios differed among diagnoses ($p<0.0001$), with L/L the highest at 2.5 compared to ST (0.9), BT (0.8) and other (0.5). Deceased patients had a higher ratio of NB:B minutes than alive patients ($p<0.0001$; 1.9 vs 0.8).

Conclusion. Care coordination in PPO clinic is time-intensive and grows with clinic volume. For patients with L/L and those who were deceased, non-billable minutes outpaced billable clinical minutes.

Implications for Research, Policy, or Practice. When devising a PPO outpatient program, this NB:B ratio should be accounted for in physician time, and personnel devoted to patient and family assistance.

The Gang's All Here: All-Inclusive Interprofessional Education in a Palliative and Hospice Center (S809)



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Objectives

1. Describe the interprofessional education process that included non-clinical staff.
2. Discuss tools utilized to measure readiness for interprofessional learning, team collaboration, burnout and knowledge.
3. Describe outcomes of the interprofessional educational intervention.

Original Research Background. Nursing assistants (NAs), housekeepers, dietary staff, volunteer coordinators, and clerical staff are integral team members

in inpatient palliative and hospice settings, but may not be included in interprofessional education.

Research Objectives. The primary aim of this study was to evaluate the impact of interprofessional education on collaborative work practices. Secondary aims included: knowledge changes, job burnout, and retention.

Methods. Staff in a new palliative and hospice care center participated in a 12-session interprofessional education program. Participants' preparation included discipline specific reading materials. Session format focused on group exercises to maximize interaction among disciplines. All participants were evaluated pre/post education and at 3-month follow-up using the following tools: Readiness for Interprofessional Learning Survey (RIPLS), Assessment of Interprofessional Team Collaboration Survey (AITCS), and Maslach Burnout Inventory (MBI). Registered nurses (RNs) and NAs also completed knowledge surveys. RNs also completed the End of Life Professional Caregivers Survey (EPCS).

Results. RNs ($n = 15$), NAs ($n = 4$), housekeepers ($n = 2$), cooks ($n = 3$), a volunteer coordinator ($n = 1$), and clerical staff ($n = 3$) participated in the education. A significant increase in participant AITCS and EPCS scores was observed post education and sustained through 3-month follow-up (AITCS 16.4 percent increase at 3-month, $p<0.0001$; EPCS 17.7 percent increase at 3-month, $p<0.0001$). RNs (15.7 total point increase 95% CI (6.3, 25.1)) and NAs (4.3 total point increase 95%CI(0.3, 8.2)) both demonstrated significantly improved scores on knowledge surveys and, and after 3 months, reported significantly reduced emotional exhaustion (20.0, 95%CI (14.9, 25.2)) and depersonalization (6.0, 95%CI (3.2, 8.9)).

Conclusion. Our interprofessional education intervention has improved overall team function, which may ultimately affect patient outcomes and experience with care.

Implications for Research, Policy, or Practice. The education's sustained impact will be evaluated at 6 months follow-up. Interprofessional education will be studied among diverse groups within the broader medical center and region.

General Practitioners' Barriers and Facilitators to Opioid Prescription in Medellin, Colombia (S810)



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Objectives

1. Identify the attitudes and specific practices of general practitioners regarding opioid prescription.
2. Recognize general practitioners' perceived barriers and facilitators of opioid prescription.
3. Describe how general practitioners' knowledge of opioids influence opioid prescription.

Original Research Background. Understanding key attitudes, barriers and facilitators of opioid prescription can help overcome the current undertreatment of pain in Low and Middle-Income Countries (LMICs).

Research Objectives. Identify barriers and facilitators for opioid prescription by GPs in Medellin, Colombia.

Methods. Descriptive-quantitative, cross-sectional study. A 53-item questionnaire was designed to assess: 1) attitudes (concerns and confidence when prescribing opioids), 2) practices related to opioid prescription, 3) perceived barriers and facilitators of opioid prescription; and 4) knowledge of opioids. We surveyed GPs who graduated from medical schools in Medellin, and GPs currently practicing in ten institutions in Medellin, Colombia. 179 participants completed the questionnaire. Descriptive and correlational analyses were conducted.

Results. The mean age was 33.3 years old (SD 10.43), 53.3% were female, 47.8% had been practicing for over 5 years, 51.66% did not receive training in pain management during medical school and only 2.8% received training after medical school. Regarding knowledge, 49.5% responded accurately. Common concerns were managing adverse effects and potential opioid abuse. Participants felt less confident to prescribe opioids to pediatric, pregnant patients, and those with history of substance abuse. Common barriers to opioid prescription were restriction to access, high costs, and insufficient training. Adequate opioid prescription practices were significantly and positively correlated with confidence when prescribing opioids (0.466; $p<0.01$), knowledge of opioids (0.422; $p<0.01$), age (0.233; $p<0.01$), and training in pain management (0.308; $p<0.01$); and significantly and negatively correlated with perceived barriers (-0.332; $p<0.01$).

Conclusion. Adequate practices regarding opioid use are related to training, knowledge and confidence when prescribing opioids. However, GPs in our context have insufficient knowledge about pain control and opioid use.

Implications for Research, Policy, or Practice. These results indicate the urgent need to increase pain management training for current and future GPs.

Efficacy Variables in Cancer Versus Noncancer Patients Treated with Methylnaltrexone or Placebo: An Analysis of 2 Placebo-Controlled Studies (S811)



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Objectives

1. Describe that methylnaltrexone is effective in treating opioid-induced constipation in patients with advanced illness with and without active cancer regardless of baseline opioid requirements.
2. Articulate that treatment with methylnaltrexone improves laxation response, has a fast onset of laxation in patients with or without cancer, and reduces the need for rescue laxatives versus placebo.
3. Describe that methylnaltrexone taken every other day or as needed is effective in patients with advanced illness.

Original Research Background. Methylnaltrexone (MNTX) inhibits opioid peripheral adverse effects.

Research Objectives. Post-hoc analysis of pooled data from randomized, double-blind studies and open-label extensions of adults with advanced illness and opioid-induced constipation.

Methods. Patients received SC MNTX 0.15 mg/kg or placebo (study 302) and SC MNTX 8 mg (38- <62 kg), 12 mg (≥ 62 kg), or placebo (study 4000) every other day for 2 weeks and MNTX (same doses as needed) during the first 2 weeks of open-label extensions. Double-blind populations were stratified by those with/without cancer. Endpoints included rescue-free bowel movements (RFBM) within 4 hours after each dose for ≥ 2 of the first 4 doses; time to rescue-free laxation; rescue laxatives use; and ≥ 3 RFBMs/week with ≥ 1 RFBM/week increase in ≥ 3 of 4 weeks.

Results. Median baseline opioid use (mg/day) was greater in cancer (187.9 placebo [n=114]; 180.0 MNTX [n=116]) versus non-cancer patients (80.0 placebo [n=71]; 120.0 MNTX [n=62]). MNTX significantly ($P<0.0001$) improved the proportion of cancer (56.9%) and non-cancer (58.1%) patients

with an RFBM within 4 hours after each dose for ≥ 2 of the first 4 doses versus placebo (5.3% cancer; 11.3% non-cancer). Median time to laxation was significantly ($P \leq 0.0002$) shorter in cancer (0.96 hours) and non-cancer (1.25 hours) patients 24 hours after the first dose versus placebo (≥ 23 hours). Rescue laxatives were used by 39.7% of cancer and 30.6% of non-cancer MNTX patients versus 51.8% and 39.4% of placebo patients. Of 108 open-label extension double-blind MNTX patients, 79 (73.1%) achieved ≥ 3 RFBMs/week with ≥ 1 RFBM/week increase in ≥ 3 of 4 weeks versus 48 (46.6%) of 103 double-blind placebo patients (data from double-blind and 2 weeks of open-label).

Conclusion. MNTX improved laxation with a faster onset and reduced rescue laxative use.

Implications for Research, Policy, or Practice. These data support the efficacy of MNTX in cancer/non-cancer patients.

Treatment with Methylnaltrexone in Patients with Opioid-Induced Constipation with or Without Active Cancer (S812)

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Objectives

1. Describe that methylnaltrexone is equally effective in treating opioid-induced constipation in patients with advanced illness with and without active cancer.
2. Articulate that treatment with methylnaltrexone does not increase pain scores in patients treated with opioids for pain due to advanced illnesses independent of cause.

Original Research Background. Subcutaneous (SC) methylnaltrexone is approved for opioid-induced constipation (OIC) in adults with chronic non-cancer pain and OIC in adults with advanced illness or with active cancer who require opioid dosage escalation for palliative care.

Research Objectives. Post hoc analysis of pooled data from 3 randomized studies of patients with advanced illness and OIC.

Methods. Patients received single doses of SC MNTX 0.15 or 0.30 mg/kg or placebo (study 301); SC MNTX 0.15 mg/kg or placebo every other day for 2 weeks (study 302); and SC MNTX 8 or 12 mg in patients 38- <62 or ≥ 62 kg, respectively, or placebo every

other day for 2 weeks (study 4000). Data were stratified by those with/without cancer. Efficacy endpoints included laxation ≤ 4 hours and rescue-free laxation (RFL) ≤ 24 hours after the first dose; time to RFL; and pain scores.

Results. Median baseline opioid use was higher in cancer (MNTX: 190 mg/d, n=198; placebo: 200 mg/d, n=157) versus non-cancer patients (MNTX: 120.0 mg/d, n=82; placebo: 80.0 mg/d, n=80). MNTX significantly increased the percentage of patients with a laxation response ≤ 4 hours and RFL ≤ 24 hours after the first dose in cancer (MNTX: 61.1% and 71.2% vs placebo: 15.3% and 41.4%, respectively; $P < 0.0001$) and non-cancer patients (MNTX: 62.2% and 74.4% vs placebo 17.5% and 37.5%, respectively; $P < 0.0001$). MNTX significantly reduced the median time to RFL at 4 hours in cancer (MNTX: 1.1 h, placebo: > 4 h; $P \leq 0.0001$) and non-cancer patients (MNTX: 1.1 h, placebo: > 4 h; $P \leq 0.0001$). Mean changes in pain scores were similar (cancer patients, MNTX: -0.4 vs placebo: -0.2; non-cancer patients, MNTX: -0.4 vs placebo: -0.4).

Conclusion. MNTX increased laxation responses and improved clinical signs of constipation in OIC patients with/without cancer.

Implications for Research, Policy, or Practice. MNTX patients continued opioid treatment with a reduction in constipation symptoms.

Physician Use of Empathy During Clinical Practice (S813)

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Objectives

1. Discuss mixed methods research outcomes of how and when physicians use empathy when interacting with their patients during clinical practice.
2. Demonstrate the importance of empathy and its use during clinical practice.

Original Research Background. The use of empathy during clinical practice is paramount to delivering quality patient care and is important for understanding patient concerns at both the cognitive and affective levels. Physician use of empathy is associated with better patient and family experiences, higher patient satisfaction, increased patient compliance, and trust. Conversely a lack of empathy may adversely impact

a patient's treatment course or impede communication about prognosis.

Research Objectives. To determine how and when physicians use empathy when interacting with their patients.

Methods. A cross-sectional survey of 76 physicians working in a large urban hospital was conducted in August of 2017. Physicians were asked a series of questions with Likert scale responses as well as asked to respond to open-ended questions.

Results. All physicians self-report that they always (42.1%) or usually (57.9%) use empathic statements when engaging with patients. 98.6% of physicians believe that their colleagues always (19.2%) or usually (79.5%) use empathic statements when communicating with patients. Almost half of physicians indicated that using the words "I understand" denotes an empathic statement. 68% of physicians report that they would not like to receive more training or assistance about how and when to use empathy in the health care setting.

Conclusion. Although almost all physicians report that they and their colleagues use empathic statements while engaging with patients, almost half of physicians surveyed identified that telling a patient "I understand" is an expression of empathy; however, using the words "I understand" is traditionally not considered to be an expression of empathy. Although almost half of all physicians could not correctly iterate words of empathy, the majority of physicians report that they are not interested in receiving more training about how and when to use empathy.

Implications for Research, Policy, or Practice. This study emphasizes the need for physician education on both the importance and application of empathy during clinical practice.

"No Really, Dr. Surgeon, I Am NOT Here to Kill Your Patient; Let's Collaborate!":



The Development of Surgical Oncology Education Resources for Palliative Care Providers in the Perioperative Setting (S814)

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Objectives

1. Describe the process used to develop surgeon and palliative care clinician approved learning materials focusing on diagnosis and surgical intervention to be used in the perioperative setting by palliative care clinicians in a multi-center study of perioperative palliative care.

2. Present the obstacles to consensus and how the materials were finalized, approved, and operationalized for use in a multi-center study by all stakeholders.

Original Research Background. Evidence supports significant cultural barriers to palliative care in surgical settings. Development of palliative care interventions targeting surgical patients and family members may benefit from close partnership between surgical and palliative care clinicians.

Research Objectives. To facilitate close engagement between surgical, oncologic, and palliative care clinicians to agree on key, and sometimes controversial, information concerning surgical oncologic diagnoses and operations for the use of palliative care clinicians providing palliative care in the perioperative setting for patients with upper GI cancers preparing for surgery.

Methods. Perioperative palliative care goals, barriers, and approaches were discussed among patient, family member, surgeon, oncologist, anesthesiologist, and palliative care clinician team members at a stakeholder summit. Based on these discussions, surgeon, palliative care physician and anesthesiologist team members developed one-page information sheets that were iteratively revised through a detailed feedback process involving front-line palliative care clinicians, oncologists, anesthesiologists, and surgeons.

Results. Sheets were developed for the seven diagnoses of pancreatic adenocarcinoma, pancreatic neuroendocrine tumors, hepatocellular carcinoma, gastric carcinoma, cholangiocarcinoma, and esophageal adenocarcinoma and the five surgeries of pancreateoduodenectomy, distal pancreatectomy, hepatectomy, gastrectomy, and esophagectomy. Sheet content involving prognostic information was controversial with regards to framing and content discussed, requiring multiple iterations. After five iterative drafts, the final content was approved by all stakeholders, including surgeons, and was operationalized for use in a multi-center randomized controlled trial of perioperative palliative care.

Conclusion. Close engagement between stakeholders can facilitate acceptance and utilization of palliative care, even in settings where significant cultural barriers exist and when content includes potentially contentious issues.

Implications for Research, Policy, or Practice. Barriers to palliative care can be addressed and overcome through close, open and iterative feedback between key stakeholders.

Provider Perceptions of Implementing Home-Based Palliative Care as a Covered Health Benefit (S815)

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Objectives

1. Describe the provider-level barriers and facilitators to implementing a home-based palliative care program within a community-based hospice agency.
2. Describe several strategies for implementing a home-based palliative care program within a community-based hospice agency.

Original Research Background. Despite repeated studies demonstrating that home-based palliative care (HBPC) can improve patient outcomes while decreasing costs of care, replication of this model in fee-for-service has been stymied by a lack of reimbursement structure. To overcome this barrier, a large California-based health insurer has begun to reimburse contracting medical group providers for HBPC. Little is known about the provider-level experience of developing and implementing a reimbursable HBPC program as part of a community-based hospice organization.

Research Objectives. The purpose of this qualitative study was to explore the provider-level impact of implementing HBPC as a covered health benefit.

Methods. Focus groups were conducted among three interdisciplinary HBPC teams from community-based hospice organizations implementing the HBPC program and serving geographically and culturally diverse patient populations.

Results. Participants consisted of physicians (8%), nurse practitioners (23%), registered nurses (23%), social workers (30%), chaplains (8%), and patient coordinators/liaisons (8%). The majority of participating providers were Caucasian (85%) females (85%). Qualitative data were analyzed using grounded theory and results revealed three independent themes: 1) Referrals to the HBPC program; 2) Organizational factors; and 3) Reimbursement for HBPC. Findings highlight barriers and facilitators to implementing HBPC such as: impact of the organization's reputation in the community, the dynamic and "teaminess" of the HBPC team, having a site champion, and issues associated with working in a siloed medical system. Participants across all study sites also discussed several challenges with patient referrals that focused on a lack of knowledge of palliative care (both physicians and patients) and physicians' lack of communication with the patient being referred to HBPC.

Conclusion. Findings highlight barriers and facilitators to implementing HBPC and a set of implementation strategies has been developed.

Implications for Research, Policy, or Practice. Findings hold implications for practice and widespread replication of the HBPC model as other health insurers and CMS look for effective ways to support their members with serious illness.

Access to Pediatric Palliative Care in the Neonatal Intensive Care Unit by Minorities and Rural-Dwellers in the Deep South: Patterns of Care from 2009-2017 (S816)

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Objectives

1. Describe patterns of pediatric palliative care and care disparities in neonatal intensive care unit (NICU) patients and families hospitalized in the Deep South (Alabama, Louisiana, and Mississippi).
2. Describe implications for practice related to current trends of pediatric palliative care use in the NICU and implications for future research.

Original Research Background. Pediatric mortality is the highest in the first year of life. In 2013, 23,446 infants died in the U.S. Access to timely pediatric palliative care (PPC) services are limited for seriously ill infants and their families in the U. S. Deep South. Patterns of PPC in the neonatal intensive care unit (NICU) and the extent of PPC disparities in the Deep South are unknown.

Research Objectives. Examine racial and geographical differences in pediatric palliative care (PPC) consultation for seriously ill infants in the neonatal intensive care unit.

Methods. This was a retrospective medical record review of infant decedents who received PPC while hospitalized in a level III NICU at an academic children's hospital in Alabama from 2009-2017. Demographic characteristics, timing of palliative care consultation, hospice enrollment, final resuscitation status, circumstances at time of death, and interventions received in the last 48 hours of life. Data were analyzed in SPSS using descriptive statistics and t-tests.

Results. The percentage of infants receiving PPC in the NICU increased over time from 7% in 2009 to 38% in 2017. Infant decedents ($N=140$) who received PPC in the NICU were mostly Caucasian (58%) and African American (39%), receiving Medicaid (84%), and had genetic (53%) and prematurity (34%) diagnoses. There were no statistically significant differences between racial or urban versus rural groups in the timing of PPC consultation during the NICU admission. Infants who lived over 1 hour away received PPC significantly later than infants living less than 1 hour away from the NICU ($p=0.03$).

Conclusion. There were no racial or rurality differences in PPC timing during hospitalization; however, traveling over an hour to the hospital was associated with a delay in receiving PPC.

Implications for Research, Policy, or Practice. Interventions tailored to reduce disparities in timely PPC in the Deep South may need to account for families living great distances from their hospitalized infant.

“Why Would You Choose Death?”: Heart Failure Patient Attitudes Regarding Palliative Care (S817)

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Objectives

1. Discuss relationships among attitudes toward palliative care, advanced care planning and care satisfaction among patients with heart failure.
2. Identify implications for PC implementation in HF care.

Original Research Background. Patient-level factors potentially influencing perceived need for palliative care (PC) in heart failure (HF) remain unclear.

Research Objectives. Explore HF patients' attitudes toward PC, including self-defined triggers for specialty PC.

Methods. Semi-structured interviews exploring palliative needs, the extent to which those were met within current HF management, and preferences regarding PC initiation. Two investigators independently analyzed transcript data using thematic analysis. The Kansas City Cardiomyopathy Questionnaire (KCCQ) was administered to measure symptom burden.

Results. 28 patients recruited from a quaternary care hospital were interviewed. The average participant was 63 years old, male and Caucasian with 3.4 symptoms and KCCQ score of 39. 71% ($n=20$) had advanced disease (NYHA III/IV). After being read a definition of PC expressing its role in symptom control and quality-of-life across the illness trajectory, most viewed it favorably. However, participants also expressed

preferences to delay specialty PC involvement until their disease became terminal. Other themes include: (1) exhaustion of treatment options, and loss of ability to perform activities-of-daily-living as triggers for specialty PC involvement; (2) lack of relationship between symptom burden and advance care planning activities; (3) general satisfaction with HF management despite identifying gaps (e.g. social services management) in treatment.

Conclusion. Our results suggest HF patients, despite positively viewing PC as an option for symptom control across HF's disease course, prefer to utilize PC solely for end-of-life care.

Implications for Research, Policy, or Practice. Efforts are needed to negate patient reluctance to PC across the illness trajectory, as patients may believe PC is reserved exclusively for terminal care.

Spirituality and Religiosity and Burnout in Latin-American Palliative Care Health Care Professionals (LAPC) (S818)

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Objectives

1. Identify demographic factors related to spirituality and religiosity in PC health care providers from Latin America.
2. Identify factors related to burnout in PC health care providers and the relationship with spirituality and religiosity.

Original Research Background. Spirituality(S) and religiosity(R) are common with Latino cultural values. These elements are essential in delivering Quality Palliative Care (PC). There is limited literature regarding Latin American clinicians' spiritual and religious characteristics, or how these commitments shape their clinical engagement and presence of burnout.

Research Objectives. To describe the frequency, intensity and importance of self-reported S and R and burnout on the clinical practice of LAPC.

Methods. From 6/1, to 12/31, 2017, a cross-sectional study using an anonymous and voluntary Online Survey was provided to active members of PC-Latin American-Association. We collected and analyzed data regarding demographics, personal and professional role of S and R and burnout.

Results. 221/353 members from 20 Latin American Countries participated, Response rate 63%. Median age 47(SD+/-12), 75% were women. 40% were Catholic. 58% were physicians, 19% nurses, 12% psychology, and other12%. The median time of working in PC was 9 years (+/-7). LAPC considered themselves spiritual (median: 8/10, range 0-10) and religious (5, 0-10). LAPC considered S/R very important in their lives (9/10, 0-10 and 6/10, 0-10), respectively. LAPC reported that S/R was a source of strength and comfort (9/10, SD+/-2), helped them to cope with their problems (8/10, SD+/-3), and helped them to keep their quality of life in a stressful work environment (8/10, SD+/-4), significant in those belonging to a church community (p=0.000), time working in PC (p=0.01), age (p=0.03). 190/221(86%) reported strongly/somewhat agreed with the statement: "I feel called to take care of patients who are dying". 31/221(14%) reported being Burned out. No significant difference among gender, profession, age, years in profession or in PC, or importance of spirituality and religion.

Conclusion. Most of LAPC considered themselves spiritual and religious. Low percentage of LAPC reported presence of burnout. The "call" and feeling energized caring patients dying are associated with less burnout. More research is needed.

Implications for Research, Policy, or Practice. Spirituality and Religiosity helping to decrease burnout in Latin American PC.

Validation of the Palliative Performance Scale (PPS) to Predict Survival of Older Adults Admitted to the Hospital from the Emergency Department (S819)

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Objectives

1. Identify those patients admitted from the emergency department who have a high 6 month mortality rate and could benefit from early Palliative intervention.
2. Recognize that patients who have low baseline functional status will have a lower 6 month survival when admitted to the hospital from the emergency department.

Original Research Background. Emergency clinicians have a role in early prognostication. Babcock et al. (2016) validated the PPS among adult patients

admitted to the hospital through the ED. They demonstrated the content validity that PPS of 0-30 and 40-60 predict 6 month survival of 14% and 48%, respectively. However, their study was limited by a modest sample size at a single hospital of a predominantly white affluent patient population. We hypothesize that decreasing baseline PPS score will correlate with decreasing survival and that PPS will be a predictor of mortality. If the PPS can discern those at high risk of death it may provide a method to identify those patients who might benefit from a goals-of-care conversation prior to hospital admission.

Research Objectives. To evaluate the construct validity of the Palliative Performance Scale (PPS) as a measure that can stratify the 6 month survival of older adults admitted to an urban university hospital from the emergency department.

Methods. Adults >55 years admitted from the ED were interviewed by investigators on day of admission. Baseline PPS assessed and on admission and followed up at 6 months.

Results. One hundred and forty five participants were enrolled, 129 participants accounted for and 16 were lost at the end of 6 month follow-up. Survival at 6 months as follows: 86% survival of those with initial PPS of 70-100 (13/95 died), 58% survival of those with initial PPS of 40-60 (18/43 died), and 28% survival of those with initial enrollment PPS of 10-30 (5/7 died) (Chi-squared statistic = 21.15, p=.000026).

Conclusion. Palliative performance scale is validated tool for predicting mortality at 6 months and can be used to screen patients admitted from the ED who could benefit from Palliative care consult.

Implications for Research, Policy, or Practice. P-CaRES tool in combination with PPS could help define this population further and additional studies may be of benefit.

How Do Internal Medicine Residents Perceive Direct Observation for Education in Goals-of-Care Communication? (S820)

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Objectives

1. Describe resident perceptions of direct observation of goals-of-care communication.
2. Describe barriers to direct observation of goals-of-care communication.

Original Research Background. Effective communication with patients and families is a core competency of residency education. While internal medicine residents frequently hold goals-of-care discussions with patients and families, they report inadequate training in goals-of-care communication (GOCC). Direct observation presents opportunities for formative feedback and competency-based assessment of resident GOCC. However, resident perceptions of direct observation as a teaching modality for enhancing goals-of-care communication have not been described.

Research Objectives. To describe resident perspectives on use of direct observation as a method for improving GOCC among residents.

Methods. Fifteen semi-structured interviews were conducted and recorded. Recordings were transcribed, de-identified, and thematically analyzed in grounded theory framework using NVivo 11. A codebook representing salient themes was created. Two reviewers established strong post-inter-rater reliability, $\kappa = .98$ with 3 (20%) of the interviews.

Results. Residents broadly shared negative attitudes towards direct observation as a learning tool, such as feeling uncomfortable or anxious or that the experience was artificial (53%). However, they reported a willingness to be observed, noting that the observation exercise is valuable in their development of GOCC skills (53%). The majority of residents described GOCC as "higher stakes" than other patient-provider communication (60%). Careful preparation and structuring of the direct observation encounter helped mitigate resident unease about direct observation of GOCC. Residents expressed preference for direct observation by faculty with expertise in GOCC (53%). The primary barrier to direct observation of GOCC was time conflicts (60%).

Conclusion. Residents described the experience of direct observation for GOCC as an uncomfortable, yet useful exercise due to the higher stakes nature of these discussions. The challenges to conducting direct observations did not stem from resident unwillingness, but rather logistics.

Implications for Research, Policy, or Practice. Direct observation of GOCC should be encouraged, and procedures should be put in place to set expectations and allow for time for observation and feedback surrounding resident GOCC.

How Family Caregivers Assist with Upstream Healthcare Decision-Making by Community-Dwelling Persons with Advanced Cancer: A Qualitative Study (S821)

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Objectives

1. Describe the roles of family caregivers in patients' healthcare decision-making in the context of advanced cancer.
2. Describe two implications for outpatient and community-based early oncology palliative care concerning enhancing decision support for family caregivers.

Original Research Background. In the palliative care context, the family caregiver role in patients' healthcare decision-making has focused on being a surrogate decision-maker at end-of-life. Less is known about family caregiver's role in supporting upstream patient decision-making in advanced cancer.

Research Objectives. Describe how family members assist community-dwelling relatives with advanced cancer with current and prospective healthcare decisions.

Methods. Qualitative descriptive study consisting of one-on-one, semi-structured interviews with persons with metastatic cancer and their family caregivers. We elicited family members' perspectives on how they assist their relatives with any current and prospective healthcare decisions. Transcribed interviews were analyzed using a thematic analysis approach. Co-investigators reviewed and refined themes.

Results. Caregivers (n=20) averaged 56 years of age and were mostly female (95%), White (85%), and the patient's partner/spouse (70%). Patients (n=18) averaged 58 years of age and were mostly male (67%) in "fair" or "poor" health (50%) with genitourinary (33%), lung (17%), and hematologic (17%) cancers. Themes describing family member roles in supporting patients' decision-making were: 1) seeking information about the cancer, its trajectory, and different treatments options; 2) identifying treatment and disease decision points, including decisions about

seeking emergent care; 3) ensuring family members have a common understanding of the patient's plan of care; 4) initiating and facilitating conversations with patients about coping, values, beliefs, and "what if" scenarios about current and potential future health states and treatments; 5) implementing choices (e.g., providing transportation) and addressing "spillover" decisions (e.g., work arrangements) resulting from medical treatment choices; and 6) making upstream healthcare decisions on behalf of patients who preferred to have decisions made by their family caregivers.

Conclusion. These data highlight a previously unreported and understudied set of critical decision partnering roles that cancer family caregivers play in patient healthcare decision-making.

Implications for Research, Policy, or Practice. Optimizing these roles may represent novel targets for early palliative care decision support interventions for family caregivers.

A Codified Process for Multidisciplinary Team Consensus Around the Termination of Life Sustaining Treatments (LST) in France: An Interview Study (S822)



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Objectives

1. Describe three ways that the LAT process used at the Paris hospitals in this study enabled nurses and other allied health professionals to feel empowered to co-create consensus surrounding LST decision-making.
2. Demonstrate how a LAT-type process might be applied to an American context to improve consensus, ethical decision-making, and nurse/staff empowerment.

Original Research Background. In 2005, French lawmakers passed the Claeys-Leonetti (C-L) Law, which prohibits futile care and authorized withholding or withdrawing (WD/WH) of futile treatments. This law allowed patients to refuse futile treatments and physicians to WD/WH LST where appropriate, and provided a framework for mandatory multidisciplinary team consensus around LST.

Research Objectives. The objective of this study was to understand how the C-L law influences multidisciplinary team dynamics, clinician empowerment, and the intensity of end-of-life care.

Methods. Semi-structured in-depth interviews were conducted with 13 physicians and 6 nurses (with

additional interviews underway) at two hospitals in Paris. Participants were purposively sampled by seniority and profession/specialty to provide a range of perspectives and contribute to understanding emerging patterns and themes. Transcripts were analyzed using thematic analysis.

Results. Decisions to WH/WD LST are achieved through consensus of the entire multidisciplinary team including physicians, nurses, and at times other allied health professionals. Meetings to decide upon termination of LSTs (réunion de Limitation et Arrêt des Thérapeutiques Actives (LAT)) are an important part of the process and can be called by any team member. Treatment decisions generally do not proceed until every team member is in agreement. This procedure improved nurse and junior physician empowerment, although the degree to which individuals felt comfortable/empowered to speak up was variable.

Conclusion. Since the passage of the C-L Law, decision-making practices at two Parisian hospitals have adapted procedures that provide time and space to achieve consensus amongst the entire interdisciplinary team. These procedures encourage consensus and ethical decision-making around WD/WH of LSTs. More research is needed to determine how best to implement interdisciplinary consensus and the impact on quality of decision-making.

Implications for Research, Policy, or Practice. An intervention using the LAT procedures could improve multidisciplinary team consensus and improve nurse and junior physician empowerment around end-of-life decision-making in the United States.

Defining Palliative Opportunities in Pediatric Patients with Bone and Soft Tissue Tumors (S823)



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Objectives

1. Define and recognize palliative opportunities that occur during a patient's disease course, including how many and when these occur in a patient's course with a bone/soft tissue tumor.
2. Describe the palliative opportunities that preceded a palliative care consultation and the timing of palliative care consultation during these patients' illness.

Original Research Background. Pediatric patients with solid tumors have many opportunities for increased primary or specialty palliative care (PC).

However, how many, when they occur, and if they are correlated with other factors are unknown.

Research Objectives. To define palliative opportunities within pediatric cancer, and explore how these occur in patients with solid tumor.

Methods. A priori, nine palliative opportunity categories were defined (disease progression and relapse, hospital admission for symptoms or social concerns, intensive care or marrow transplant admission, phase 1 trial or hospice enrollment, DNR status). A single-center retrospective review was conducted on patients aged 0-17 years at diagnosis with bone/soft tissue tumors who died from 1/1/12-11/30/17. Demographic, disease, and treatment data was collected, and descriptive statistics were performed. Timing of opportunities was evaluated over quartiles from diagnosis to death.

Results. Patients (n=60) had a mean of 9 (SD=4) palliative opportunities. Number or type of opportunities did not differ by demographics or diagnosis. PC consulted on 18 patients (30%) a median of 14.0 months (IQR 25.0) after diagnosis, and 2.6 months (IQR 11.5) prior to death. Likelihood of PC consult did not differ by diagnosis or total opportunities. The opportunities that preceded PC consult were progression/relapse (9/18), escalated hospital level of care (4/18), symptom admission (3/18), and end-of-life (EOL) concerns (2/18). Hospice was involved for 72% of patients. The majority of opportunities occurred in the last quartile of the disease course (median 5.0, IQR 5.0).

Conclusion. Patients with solid tumors incur many events warranting psychosocial or palliative support, which increase toward the EOL. Mean reported opportunities is likely a minimum due to stringent collection methods. No palliative opportunity or demographic variable was associated with PC consultation.

Implications for Research, Policy, or Practice. Additional work is needed to further refine what qualifies as a palliative opportunity, how to fully capture opportunities, and how those may differ across different cancers.

Identifying Late-Stage Cancer and Chronic Kidney Disease Patients for Palliative Care Research and Practice: Computable Phenotypes and Natural Language Processing (S824)



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Objectives

1. Describe the utility of computable phenotypes and natural language processing in a palliative care population.
2. Describe the research and practice implications of systematic identification of palliative care patients.

Original Research Background. Systematic identification of seriously-ill patients allows palliative care researchers and clinicians to test new models of care delivery. Algorithms based on clinical indicators—including natural language processing—can aid in such identification.

Research Objectives. To develop electronic health record (EHR) phenotypes to identify patients with Stage 4 solid-tumor cancer (CA) or Stages 4-5 chronic kidney disease (CKD).

Methods. We developed two computable EHR phenotypes to retrospectively identify decedents who had been admitted to an academic medical center in the last six months of life with CA or CKD, respectively. Each search included International Classification of Diseases (ICD) 9 and 10 codes and a date of death 11/07/17-12/31/17 (CA) or 11/26/17-12/31/17 (CKD). Additionally, the cancer search included natural language processing (NLP) searches of notes for indicators of stage 4 CA (e.g., “stage IV,” “metastatic”); the CKD search included glomerular filtration rate (GFR) <30. For each EHR phenotype, we calculated the sensitivity, positive predictive value (PPV), and false discovery rate (FDR). Results of the phenotypes were compared to manual chart review for indicators of late-stage disease among patients admitted to the Oncology and Nephrology inpatient services, respectively.

Results. The EHR phenotype identified 116 CA patients, of whom 84 had Stage 4 CA, and 65 CKD patients, of whom 23 had Stage 4-5 CKD. The EHR phenotype for Stage 4 cancer had a sensitivity of 98.8%, PPV of 79.2%, and a FDR of 20.8% when compared to the assessment of the primary oncology services. The EHR phenotype for Stage 4-5 CKD had a sensitivity of 100%, PPV of 47.9%, and a FDR of 52.1% when compared to the assessment of the primary nephrology service.

Conclusion. EHR phenotypes can efficiently identify patients with late-stage disease for palliative care.

Implications for Research, Policy, or Practice. EHR phenotypes may shape identification of seriously-ill patients at high risk of having palliative care needs for both research and clinical purposes.

Integrating Palliative Care Social Workers into Sub-Acute Settings: Feasibility of the ALIGN Intervention Trial (S825)

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Objectives

1. Describe the justification for methodological approach in this pragmatic trial design.
2. Discuss the justification for the ALIGN intervention and preliminary results of the intervention in the SNF setting.

Original Research Background. Sub-acute rehabilitation (SNF), intended for short stay care transitions, cares for 1/3 of older adults in the last six months of life with low penetration of hospice and palliative care. ALIGN (Assessing & Listening to Individual Goals and Needs) is a palliative care social worker led intervention aimed to improve quality of life (QOL), goals of care (GOC) alignment, and provide support to patients and caregivers.

Research Objectives. Determine the feasibility of conducting a trial of ALIGN in older persons and their caregivers admitted to SNF and conduct exploratory analysis of ALIGN vs usual care on patient goals of care alignment (curative, life-prolonging/rehabilitative, comfort), QOL (FACT-G), and caregiver reaction assessment (CRA) and burden (Zarit).

Methods. To conduct a pilot pragmatic randomized step wedge design of the ALIGN intervention versus usual care in three SNFs with 120 older adults and caregivers (optional) admitted with advanced medical illness (LACE score ≥ 7) to determine feasibility and preliminary efficacy.

Results. To date, 362 SNF patients met illness criteria and the team was able to approach 127 patients within required 72 hours of admission. Enrollment rate for patients = 68%, caregivers = 36%. Caregivers are

often not available to participate in-person, alternate approaches are being tested. Baseline GOC alignment = 50%. Baseline FACT-G = 70.0 (± 16.9) demonstrating compromised QOL, CRA Self Esteem scale (1-5) = 1.8 (± 0.5) showing some benefit finding, and Zarit = 14.5 (± 9.2) showing moderate burden.

Conclusion. A pragmatic trial of the ALIGN intervention is feasible and needed based on low GOC alignment, low QOL, and moderate caregiver burden.

Implications for Research, Policy, or Practice. The current model for SNF does not address the palliative care needs of patients, ALIGN has potential to be an effective, scalable, reproducible intervention to improve palliative care outcomes within sub-acute settings.

The Most Common Reflections of the Dying (S826)

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Objectives

1. Discuss the importance of learning about the most common end-of-life reflections.
2. Identify the most common reflections of the dying.

Original Research Background. Reflecting on one's life can be therapeutic for dying people. Knowledge about common end-of-life reflections may increase caregivers' ability to identify appropriate occasions to initiate or facilitate therapeutic life review.

Research Objectives. Identifying the most common end-of-life reflections.

Methods. One hundred twenty-three nurses who were HPNA members responded to an anonymous survey. Participants were asked to list the most commonly expressed reflections that patients have about their lives. A coding scheme was determined based on themes identified in participants' responses. Two independent raters coded all the responses. The overall inter-rater agreement (Cohen's kappa) was $k = .823$. After the data were independently coded, the two raters consulted to resolve discrepancies and generate a final set of codes.

Results. The top five end-of-life reflections themes emerged from the data were; concern for loved ones, regret, spirituality, legacy, and lack of acceptance/readiness. Nurses were more likely to report that patients were concerned about their families (50.41%) than their own morbidity/mortality (36.59%), $\chi^2(1) = 9.39$, $p = .002$ and were more likely to report that patients expressed concerns about their loved ones as opposed to gratitude for them (10.57%), $\chi^2(1) = 78.06$, $p < .001$.

Conclusion. Concern for loved ones was identified as the most common theme of end-of-life reflections.

Implications for Research, Policy, or Practice. Health care professionals should extend their efforts to alleviate their patients' concerns related to relationships with loved ones. Future research could focus on determining the specific causes of concern for loved ones among the dying patients and developing measures to ameliorate such concerns.

Increasing Awareness of Palliative Care in the Latino Community (S827)

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Objectives

1. Discuss challenges and opportunities to improving awareness of palliative care in underserved communities.
2. Identify potential community partners to reach underserved populations the provider's areas of practice.

Original Research Background. Research indicates significant disparities in the use of palliative care (PC) in underserved populations. Although 17% of America's population is Latino, and Latinos account for 48% of California's population, only 6.9% of individuals receiving PC are Latino. Thus, culturally and linguistically sensitive approaches to improve awareness of PC are imperative to improving health outcomes among Latinos.

Research Objectives. To evaluate the feasibility of applying the promotores model to improving awareness of PC in the Latino Community. To describe the implementation and evaluation of a PC promotores project in an urban setting.

Methods. Promotores are respected Latino community members who provide health information to their local communities. *Familias en Acción* (a Latino advocacy and educational organization) and the Center for Latino Community Health at California State University, Long Beach partnered to provide 3- to 8-hour face to face trainings to promotores on PC. Each promotora agreed to teach 10 additional people. Pre and post surveys and 6-month follow-up telephone interviews evaluated program effectiveness.

Results. Sixty-one promotores participated; 57 completed the 6-month follow-up (93% retention rate). The mean age for the promotoras was 47.3 years (range 19-68, standard deviation [SD] 10.01); mean

length of US residency was 26.74 years (range 6-64, SD 11.18); 56 (91.8%) were female; and 52 (85%) reported their country of origin as Mexico. Initially, 57 (94%) promotores reported no knowledge of PC. At the completion of the training, 60 (98%) reported strongly agreed or agree with the statement, "I am ready to share this information with my community." Promotores provided the training in various settings including schools, churches, and senior centers to 1,950 community members, exceeding project Objectives by threefold.

Conclusion. This project provides evidence that promotores are extremely effective in disseminating PC information throughout their communities.

Implications for Research, Policy, or Practice. Rigorous methodologies are needed to provide empiric evidence of specific healthcare outcomes from PC promotores projects.

“Supportive Care Nurses” An Innovative Inpatient Primary Palliative Care Consultation Service at an Academic Medical Center (S828)

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Objectives

1. Describe a nurse-led primary palliative care consultation service to provide early palliative support for patients at a tertiary academic medical center.
2. Determine acceptability and perceived effectiveness of a nurse-led primary palliative care consultation approach.

Original Research Background. The ability to provide primary palliative care is a skill set that is underutilized by hospitalists. Many hospitalized patients lack access to palliative care consultation. To fill this gap, a primary palliative care consultation service could be beneficial to patients, families and hospitalists in addition to specialty level palliative care consult services.

Research Objectives.

- To develop a nurse-led inpatient primary palliative care consultation service.
- To evaluate the acceptability and perceived effectiveness of a nurse-led primary palliative care consultation approach.

Methods. A single-site, single-arm pilot study was conducted at the University of Iowa Hospital and Clinics.

Two selected registered nurses, called the supportive care nurses (SCN), received specialized training in primary palliative care over a 6 month period. We incorporated multiple teaching strategies including interactive didactic sessions, reading assignments, role-playing and shadowing of the interdisciplinary palliative care team. The project team, including two palliative care physician and two nurse practitioners, held daily supervision meetings with the SCN. After the training period, the SCN worked primarily with the general medicine hospitalist team. Acceptability of the pilot program was assessed 6 months after initiation of the pilot program. Providers on the hospitalist team were surveyed regarding their experience with the supportive care nurses.

Results. The SCN received two hundred sixty one consults over the initial 6 month pilot period. Fourteen physician and nurse practitioner providers completed the survey. Satisfaction with the service was high (79%). The SCN assisted the hospitalist team with: symptom management (86%); better communication (86%) with and understanding (79%) of patient and families; completing advanced care planning (79%); and discharge planning (71%).

Conclusion. Incorporating a nurse-led primary palliative care consultation service to facilitate early palliative care is acceptable and effective.

Implications for Research, Policy, or Practice. Further research is required to examine the impact of a primary palliative care consult service on patient and family centered outcomes.

Improving Goals of Care Discussion: Innovative Curriculum Development for Internal Medicine Residents (S829)



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Objectives

1. Describe the development of a communication workshop for internal medicine trainees focused on goals of care and code status discussions.
2. Recognize that brief educational interventions can improve palliative care communication skills.

Original Research Background. Palliative care communication skills are applicable to all physicians regardless of specialty. All internists need to understand and develop skills to facilitate conversations that ascertain patient preferences regarding life-sustaining therapies and goals of care (GOC), particularly in the context of serious illness. Internal medicine and palliative care educators both recognize the need to further develop curriculum structures that

address these communication skills. This project will assess an initiative focused on enhancing these skills.

Research Objectives. Assess the impact of a communication workshop for internal medicine trainees focused on goals of care and code status discussions.

Methods. The learners consisted of internal medicine residents (n=67) at the University of Iowa during the 2017-2018 academic year. We developed and implemented a 100-minute interactive GOC communication workshop to introduce learners to the knowledge and skills of negotiating GOC and code status (CD). Multiple teaching strategies were used including pre-assigned reading material, video clips demonstrating effective GOC discussion, didactics, and facilitated role-playing led by interdisciplinary faculty. The evaluation included: 1) a standard session evaluation survey to examine learner reaction to the training; and 2) a retrospective pre/post self-assessment survey on confidence in discussing GOC.

Results. 31 residents completed the survey. Analysis of paired evaluations showed significant improvements in residents' confidence in conducting 1) GOC discussions ($p=0.0012$); 2) CD discussion ($p=0.03$) and 3) end-of-life discussions ($p=0.01$). 87% found the curriculum to be useful; 97% reported that palliative care training is essential.

Conclusion. The GOC communication workshop was successfully implemented and increased internal medicine residents' confidence in having difficult discussions. We need to further implement such curriculum in other residency-training programs.

Implications for Research, Policy, or Practice. Further research is needed to understand the amount of training required to help learners skillfully incorporate GOC into their discussions with patients.

Control Groups in RCTs of Psychoeducational Palliative Care Interventions: A Systematic Review (S830)



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Objectives

1. Explain the purpose of a control group that is neither usual care nor no-treatment.
2. Describe the current practice using control groups that are neither usual care nor no-treatment in RCTs of psychoeducational palliative care interventions.

3. Compare the explanations of the active intervention and the more-than-usual-care control in trial reports of RCTs of psychoeducational palliative care interventions.

Background and Objective. In randomized controlled trials (RCTs) an active intervention's efficacy is determined relative to a control condition; thus the control condition's design is as important as the intervention's. In RCTs of psychoeducational palliative care interventions, researchers often use a control condition that is neither usual care nor no-treatment, but little is known about the extent of research practices in designing such control conditions. Therefore, this study examined: 1) the current research practice using control conditions that are neither usual care nor no-treatment controls in RCTs of psychoeducational palliative care interventions, and 2) the rationale and completeness of the description of those control conditions in trial reports.

Study Identification. PubMed, Embase, PsychINFO, and Web of Science were searched. The final sample included nine trial reports.

Data Extraction and Synthesis. For quality assessment, a modified Delphi list was used. The descriptions of both the active interventions and the control conditions were assessed using a modified version of Schulz et al's Intervention Taxonomy checklist.

Results. Four trials used attention controls designed to be equivalent to the structure of the active interventions. An additional four trials used a control condition with some aspects of attention control, but neither the amount nor the intensity of attention were similar to the intervention. Only three trial reports stated the rationale for choice of control conditions. Most reports contained delivery mode, materials, duration, frequency, and sequence of both the intervention and control conditions; but none described the qualifications or training required to deliver the control condition. Only one report mentioned the fidelity monitoring method, and no report included fidelity monitoring data.

Conclusions and Implications for Practice, Policy, and Research. Our review of RCTs in psychoeducational palliative care interventions calls for researchers' attention to appropriate selection, design, conduct and report of control conditions.

Systematic Advance Care Planning and Potentially Avoidable Hospitalizations of Nursing Home Residents (S831)



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Objectives

1. Describe the systematic implementation of person-centered advance care planning in nursing homes using the Respecting Choices Last Steps facilitation model.
2. Discuss the associations between who is offered ACP, resident characteristics, and hospitalization rates.

Original Research Background. Prior research suggests associations between nursing home (NH) residents' preferences for comfort-focused care and lower rates of hospitalization.

Research Objectives. To compare hospitalization rates among residents following intensive efforts to systematically offer ACP.

Methods. The sample consisted of 1,468 NH residents enrolled in a multi-component demonstration project designed to reduce potentially avoidable hospitalizations between January 2015 – June 2016. Embedded project nurses certified in Respecting Choices Last Steps facilitated ACP. Hospitalizations were tracked using Minimum Data Set 3.0 data and judged as avoidable or unavoidable by project nurses.

Results. Comparisons were made between residents based on ACP status: 1) ACP indicating comfort care/DNH (n = 497, 33%); 2) ACP with other preferences (e.g., code status only: n = 771, 52%); and 3) no ACP (n= 218, 15%). Compared to the comfort care/DNH group, the overall hospitalization rate was 1.47 times higher for patients having other ACP preferences ($p=.005$) and almost 2 times higher for those with no ACP ($p=.0003$). Compared to the comfort care/DNH group, avoidable hospitalizations were 2.48 times higher than for those with no ACP ($p=.0005$). However, when adjusted for covariates including gender, age, hospice, functional status, and cognition, there were no differences between the three groups.

Conclusion. In this large, non-randomized study, the association between lower hospitalization rates and ACP status were no longer significant once fully adjusted for resident characteristics. Isolating the effects of ACP may be challenging due to study design (multi-modal intervention, non-randomized) and the nature of the population. Although ACP was identified as a key factor in reducing hospitalizations in a qualitative evaluation by stakeholders, it serve as a reflection rather than a determinant of culture change.

Implications for Research, Policy, or Practice. Additional studies, including prospective

trials, are needed to determine the impact of ACP on nursing home resident outcomes.

Intensity in End-of-Life Care and Hospice Utilization for Patients Dying with Heart Failure (S832)

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Objectives

1. Describe results from this analysis which found that patients dying with advanced heart failure had high rates of healthcare utilization.
2. Recognize patient characteristics that are associated with receipt of more aggressive care for patients dying with heart failure.

Original Research Background. Little is known about end-of-life (EOL) care received for patients dying with congestive heart failure (CHF). One prior Medicare analysis found CHF patients received aggressive care at EOL and had low rates of hospice utilization.

Research Objectives. We used claims data to understand EOL healthcare utilization for patients dying with CHF.

Methods. We analyzed a multi-payer database to identify 11,685 patients 35 or older who died with CHF in Maine between 2013 and 2016. The primary outcome was healthcare utilization during EOL, defined as 180 days prior to death, including emergency department (ED) visits, hospitalizations, ICU admissions and hospice utilization. Patient characteristics analyzed included age, gender, medical comorbidities, area deprivation index (ADI) and rurality.

Results. Among 11,685 patients, 49% had ≥ 2 hospitalizations, 73% had ≥ 2 ED visits, and 30% had an ICU stay during EOL; 62% were admitted to hospice. Younger patients, men and patients with ≥ 2 other comorbidities (compared with none) were more likely to receive aggressive care on all measures and less likely to utilize hospice. Rural patients were more likely to have an ICU admission (34% in most rural vs 24% in urban, $p < 0.0001$) but less likely to have ≥ 2 ED visits or receive hospice. Patients residing in areas with higher ADI were less likely to enroll in hospice (54% of those from the most deprived vs 69% in the least, p -value < 0.0001) and more likely to have an ICU stay (33% in most deprived vs 27% in least deprived, p -value < 0.0001).

Conclusion. Healthcare utilization is high for patients dying with advanced CHF, and we observed variation across patient groups and according to rurality and ADI.

Implications for Research, Policy, or Practice. Decreasing undue aggressiveness at EOL for patients with advanced CHF may require better recognition of EOL, education of providers, patients and families, and increased access to palliative care, especially in rural and socioeconomically deprived areas.

Predictors of Depression and Anxiety in Family Members Three Months After Child Admission to a Pediatric ICUs (S833)

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Objectives

1. Describe the difficulties family members' experience when their child is in the ICU.
2. Describe factors that are associated with family members' depression and anxiety.

Original Research Background. Critically ill and injured children and infants are admitted to children's intensive care units (ICUs). Children's family members are known to suffer from severe stress and to be a high-risk population for acute and chronic psychological problems. Depression, anxiety, and acute and post-traumatic stress among family members during and after a child's admission affect not only well-being but also social functioning and productivity.

Research Objectives. We aimed to identify associations between demographic and psychosocial variables at early stages of a child's ICU admission and depression and anxiety in family members at approximately 3 months after admission. We also explored predictive models for depression and anxiety at 3 months after hospitalization.

Methods. 380 family members of 220 children reported demographic and psychosocial status at approximately 1 week after ICU admission (baseline), at discharge from the ICU, and at 3 months after the child's ICU admission. Clinical data were extracted from the children's medical records. We used linear regression models and stepwise linear regression for analyses.

Results. We found gender (female) and child mortality were strongly associated with family members' depression and anxiety at 3 months. Worse psychological health status at baseline, represented by reported depression, anxiety, and acute stress symptoms, was associated with more severe depression and anxiety at 3 months. Also, better social support at baseline

was associated with better psychological status (e.g., lower depression and anxiety) at 3 months.

Conclusion. We suggest a need to screen family members with validated scales and intervening with those at high risk of depression and anxiety at 3 months.

Implications for Research, Policy, or Practice. Our findings suggest that a family's own functioning and ability to cope with stress may have a stronger impact on family members' psychological health, we also suggest that health care providers empower family members to maintain and improve their own family's well-being or resilience.

Cancer Patients' and Healthcare Providers' Perceptions About Supportive and Integrative Oncology Services (S834)

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Objectives

1. Describe cancer patients' and healthcare providers' perceptions of supportive and integrative oncology services.
2. Compare cancer patients' and healthcare providers' perceptions of supportive and integrative oncology services.

Original Research Background. Supportive and integrative oncology services improve quality of life for cancer patients and are increasingly popular.

Research Objectives. To characterize and compare the perceptions of supportive and integrative oncology services among cancer patients and healthcare providers.

Methods. A cross-sectional survey was administered at Seidman Cancer Center (SCC), an NCI designated Comprehensive Cancer Center, to providers and patients in the spring of 2018. We inquired about familiarity, perceived importance, and

frequency of use, accessibility and barriers of 19 supportive and integrative oncology services. Data analysis included the Chi-square test and Spearman's rank correlation (ρ).

Results. A total of 585 surveys were obtained (421 patients and 164 healthcare providers). Patients were generally over 60 (58.2%), female (57.4%), Caucasian (64.2%) with most at >1 year from starting treatment (59.9%). Healthcare providers were physicians (38.7%), RN partners (38.1%), and advanced practice providers (APPs) (23.2%). Most were female (74.3%), Caucasian (80%) and worked at SCC for >5 years (56.4%). Providers were more familiar with palliative care (71.7%) and felt it was more important (92%) than patients did (25.2% and 43.6%, $p<0.001$). Patients who were in treatment for a longer length of time were more familiar with social work, palliative care and psychiatry ($\rho= 0.17, 0.14, 0.20; p<0.01$). Most providers ($>85\%$) of all types regarded palliative care, social work and diet & nutrition services as important. The most common barrier for both patients and providers was being unaware of the services (41.6% and 67.1%).

Conclusion. Overall, healthcare providers were more familiar and considered most services to be more important than patients with many supportive and integrative oncology services. Being unaware of the services was a common barrier.

Implications for Research, Policy, or Practice. Interventions are needed to improve the patients' and providers' awareness of supportive and integrative oncology services and communication of the importance of these services.

Acute Care Utilization at End-of-Life in Sickle Cell Disease: Highlighting the Need for a Palliative Approach to Sickle Cell Disease (S835)

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Objectives

1. Describe the acute nature and young age of deaths of patients with Sickle Cell Disease.
2. Consider what a palliative approach to care of patients with Sickle Cell Disease entails.

Original Research Background. Despite recent advances, people with sickle cell disease (SCD) continue to have a life expectancy <50 y. Therefore, understanding end-of-life care in SCD is critically important, but remains understudied.

Research Objectives. To determine the location of death and acute care utilization by people with SCD at end-of-life.

Methods. The study utilized the California Sickle Cell Data Collection Program database, which combines data from administrative sources, vital records, and Medicaid claims. We examined people with SCD who died between 2006 and 2015 (cases) and examined their utilization of the hospital, emergency department (ED), and intensive care unit in their last year of life compared to living controls with SCD matched 1:1 based on age, year, insurance, and income.

Results. The 485 cases with SCD died at a mean age of 44y (SD: 16y). Most people with SCD died in the hospital (63%) after short admissions (mean 3.4d) and the ED (15%). In the last year of life, people with SCD were admitted for an average of 42d (SD: 49d) over 5 inpatient admissions. Utilization patterns were stable throughout the year and comparable for cases and controls until the month before death when the cases had a sharp increase in utilization with the exception of 1) a slow increase in the length of hospital admissions for cases (2.6 days 12 months before death to 5.7 days the month before death) and 2) more ED visits for young adult (22-39y) cases compared with children and older adult SCD cases or young adult SCD controls.

Conclusion. People with SCD are dying acutely and at a young age – with most dying in the hospital (after short visits) and in the ED.

Implications for Research, Policy, or Practice. In SCD, a palliative approach to care should be extended beyond managing chronic pain and psychosocial challenges to include advanced directives and living wills at a young age.

Periprocedural Code Status Discussions for Inpatients Undergoing Percutaneous Gastrostomy Tube Placement (S836)

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Objectives

1. Describe recommendations for “Do-Not-Resuscitate” orders in the periprocedural period.
2. Discuss current low rate of documented periprocedural code status conversations for patients undergoing inpatient G-tube placement.

Original Research Background. Gastrostomy tube (G-tube) placement is a common procedure performed for patients with life-limiting diseases. Patients may present for G-tube with a “Do-Not-Resuscitate” (DNR) order. Despite multiple national societies recommending periprocedural conversations for patients

with a DNR status, it is not clear how often these conversations occur.

Research Objectives. We sought to evaluate the frequency of documented code status conversations for inpatients who are DNR at the time of G-tube placement at an academic medical center. We also explored factors associated with the presence of a documented conversation.

Methods. We performed a retrospective chart review for adult inpatients undergoing G-tube placement between May 2016 and May 2017. We abstracted demographic information, type of G-tube inserted, code status, indication for G-tube and mortality data. For patients with a code status other than “Full” at time of G-tube, notes five days pre- and post-procedure were reviewed for documentation of a code status discussion.

Results. We identified 254 adult inpatients who underwent G-tube placement during the one-year study period. 101/254 patients (44%) were 66 or older, 62% were male and more than half had the highest severity of illness. The most common indication for G-tube was dysphagia/aspiration (23% of patients). Thirty-three (13%) had code status other than “Full” at the time of procedure. Of those, 9 (27%) had documented code status discussion. Patients for whom anesthesia was involved were significantly more likely to have a documented code status discussion (89% of patients with an anesthesia consult vs. 33% of patients without; p=.0057).

Conclusion. The majority of patients with code status other than “Full” at the time of procedure did not have documented discussions in the chart despite clear recommendations from major medical societies.

Implications for Research, Policy, or Practice. Future work should include investigation into interventions to improve the rate of code status conversations as well as ensuring these are appropriately documented.

A Pilot Study of Hospice Admission Predictors of Hyperactive Terminal Delirium (S837)

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Objectives

1. Identify types of terminal delirium and its relevance to hospice patient care.
2. Describe the relationships between hospice admission data and hyperactive terminal delirium.
3. Recognize opportunities for future research about terminal delirium.

Original Research Background. Terminal delirium is a common occurrence at the end of life. It is a

poor prognostic indicator that is distressing to patients, caregivers, and providers. The pathogenesis of terminal delirium is not well understood.

Research Objectives. The purpose of this study was to explore the relationships between hospice admission data and the incidence of hyperactive terminal delirium. Specifically, the study explored whether physical, psychosocial, and/or spiritual data collected at hospice admission was associated with terminal delirium.

Methods. This was a retrospective cohort study design utilizing chart review. Admission data were collected from the Hospice Item Set (shortness of breath, pain, scheduled and PRN opioids, bowel regimen); psychosocial assessment (psychiatric diagnosis, significant fears); and spiritual assessment (active spirituality). Chi-squared test of independence, Fisher's exact test, and ANOVA tested for relationships between independent variables and the dependent variable of hyperactive terminal delirium.

Results. A sample size of 148 deceased hospice patients was included in this study. The independent variables of psychiatric diagnosis, significant fears, active spirituality, shortness of breath, pain, and scheduled opioid were not found to have significant relationships with hyperactive terminal delirium ($p > .05$). The relationship between PRN opioid and terminal delirium was found to be significant [$\chi^2 (1, N = 148) = 4.587, p < .05$]. Risk ratios indicated that the risk of terminal delirium, within the category of PRN opioid prescription, increased by 58.5% relative to the group of non-PRN opioid prescription. Logistic regression analysis indicated that while PRN opioid prescription ($B = .806, p = .034$) is a significant predictor variable, although when combined with the equation constant, it did not provide a worthwhile predictive model (Nagelkerke R-Square = .041).

Conclusion. There were no clear relationships between physical, psychosocial, and spiritual admission data and hyperactive terminal delirium.

Implications for research. This study provides preliminary data needed to inform future research about terminal delirium predictors.

Impact of Race and Ethnicity on End-of-Life Experiences for Children with Cancer (S838)



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Objectives

1. Recognize data regarding racial and ethnic disparities in the provision of end-of-life (EOL) care within the adult oncology literature, and how these data contrast with the limited literature on EOL disparities in the context of pediatric oncology.
2. Examine the impact of race and ethnicity on EOL variables for pediatric palliative oncology patients in this study.
3. Discuss potential hypotheses to explain why the impact of race/ethnicity on EOL variables may differ between the medical and pediatric oncology literature.

Original Research Background. Racial and ethnic disparities in the provision of end-of-life (EOL) care are well described in the medical oncology literature. However, the impact of racial and ethnic disparities at EOL in the context of pediatric oncology remains poorly understood.

Research Objectives. To investigate associations between race/ethnicity and EOL experiences for children with cancer.

Methods. A retrospective cohort study was conducted on 321 children with cancer enrolled on a palliative care service who died between 2011 and 2015 using a comprehensive standardized data extraction tool comprising a broad spectrum of EOL metrics.

Results. Black patients were more likely to receive cardiopulmonary resuscitation as compared to White patients (correlation coefficient=1.413, confidence interval=0.359–2.467, $p=0.009$); however, the remainder of variables related to treatment and EOL care did not correlate significantly with race. Hispanic patients were less likely to receive cancer-directed therapy within 28 days prior to death (correlation coefficient =-0.708, confidence interval = -1.398–0.018, $p=0.044$) as compared to White patients, yet they were more likely to report a goal of cure over comfort as compared to Non-Hispanic patients (correlation coefficient =1.129, confidence interval=0.042–2.216, $p=0.042$). The remainder of EOL variables were not found to be significantly correlated with ethnicity.

Conclusion. In contrast with data from the medical oncology literature, neither race nor ethnicity correlated with most EOL variables for pediatric palliative oncology patients treated at a large urban pediatric cancer center. Multicenter investigation is needed to ascertain the impact of racial/ethnic disparities on EOL experiences of children with cancer.

Implications for Research, Policy, or Practice. These data suggest that race and ethnicity

have minimal impact on EOL experiences for children with cancer treated at this study site. These findings differ significantly from the medical oncology data, highlighting the critical need for further investigation of associations between race/ethnicity and EOL care for children with cancer across diverse treatment centers.

Barriers to Provision of Palliative and Hospice Care to Children and Families in the Community: A Population-Level Survey of Hospice Nurses (S839)

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Objectives

1. Discuss the challenges related to access of quality palliative and hospice care to children and families in the community.
2. Describe the self-reported training and experience levels of community-based hospice nurses with provision of care to children and families across the domains of symptom management, end-of-life care, goals of care, family-centered care, and bereavement.
3. Describe the self-reported comfort of community-based hospice nurses with provision of care to children and families across the domains of symptom management, end-of-life care, goals of care, family-centered care, and bereavement.

Original Research Background. Approximately 500,000 children in the United States suffer from life-limiting illnesses annually, many of whom are hospice eligible. Unfortunately, most children enrolled in hospice agencies receive services in the absence of specialized pediatric programs.

Research Objectives. To determine the levels of expertise and comfort of hospice nurses who provide care to children and families in the community.

Methods. A cross-sectional survey was developed, pilot-tested, and widely distributed to hospice nurses across a tristate region. Survey items assessed nurse experience and comfort across the domains of symptom management, end-of-life care, goals of care, family-centered care, and bereavement.

Results. A total of 71 hospices that provide services to children participated, from which 551 respondents completed surveys. The majority of nurses reported no training in pediatric palliative or hospice care (89.8%), with approximately half reporting < 5 years

of hospice experience (53.7%) and no experience providing care to pediatric patients (49.4%). Those with pediatric hospice experience reported limited opportunities to maintain or build their skills, with the majority providing care to children several times a year or less (85.7%). Nurses reported feeling somewhat or very uncomfortable providing services to children during the illness trajectory and at the end of life across all domains.

Conclusion. Children with serious illness who receive care from local hospices often interface with nurses who lack training, experience, and comfort in the provision of palliative and hospice care to pediatric patients.

Implications for Research, Policy, or Practice. These findings should inform future development and investigation of educational resources, training programs, and child- and family-centered policies to improve the delivery of palliative and hospice care to children in the community.

Evolution of an Interprofessional Palliative Care Fellowship and Integration of a PGY-2 Pain Management and Palliative Care Pharmacy Resident (S840)

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Objectives

1. Describe the results of a survey of interprofessional fellows in regard to their educational experience after completion of a fellowship.
2. Discuss comments from fellows and faculty in regard to their experience participating in an interprofessional education.

Original Research Background. Clinical practice in palliative care lends itself to a deeply integrated team dynamic. Early exposure of multiple disciplines in palliative care training may enhance the function of the team in delivering patient care. The Harvard Interprofessional Palliative Care Fellowship (HIPCF) is the umbrella program for several specialty-specific programs, including physician, nursing and social work. In 2016, a Palliative Care Pharmacy Resident was added to the interprofessional fellowship, which was unique nationally.

Research Objectives. Describe the interprofessional educational experience of one class of fellows (with a pharmacy fellow) before and after the completion of the fellowship.

Describe the interprofessional educational experience of fellows in an interprofessional fellowship prior to the inclusion of a pharmacy resident.

Describe fellowship faculty experience with teaching an interprofessional fellowship.

Methods. Surveys were administered to 3 cohorts of fellowship participants, fellows from the 2017 AY (inclusive of a pharmacist), fellows from 2012-2016 AY, and fellowship faculty. The 2017 fellows were administered a survey assessing interprofessional education competencies in a post-then-pre fashion. Past fellows were administered a survey in a post fellowship fashion. Faculty were asked about their subjective experience in administering the fellowship. The online survey was completed over 12 weeks from December 2017-March 2018.

Results. 2017 fellows assessed a significant improvement in 3 out of 4 interprofessional education domains; Values and Ethics, Roles and Responsibilities and, Communication (+0.592 p=0.006, +0.935 p=0.011, +0.932 p=0.039, respectively). All four domains trended toward improvement in self assessed competencies. Past fellows similarly showed high levels of self-assessed competency after completion of their fellowships.

Conclusion. The Harvard Interprofessional Palliative Care Fellowship is a unique post-graduate education opportunity nationwide. The four professions who have the opportunity to participate receive a valuable interprofessional educational experience in addition to a robust clinical curriculum.

Implications for Research, Policy, or Practice. As more fellowships move to an interprofessional education model, data regarding interprofessional education is warranted.

Improving Conversations About ICD Management: A Training Session for Advanced Heart Failure Clinicians (S842)



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Objectives

1. Describe how patients and clinicians conceptualize the role of ICD deactivation in the setting of advance heart failure.
2. Practice and demonstrate specific examples of effective communication techniques related to ICD management and goals of care in the setting of advanced heart failure.

Original Research Background. Implantable cardioverter-defibrillator (ICD) devices reduce the incidence of sudden cardiac death for high-risk patients, but can also cause pain and anxiety at the end of life. However, conversations about ICD deactivation are difficult and occur infrequently.

Research Objectives. The study is a sub analysis of data from educational sessions for clinicians who care for patients with advanced heart failure as part of a 6-center, randomized-controlled trial. Primary outcomes compared pre- and post-workshop scores assessing confidence and skill in communication about advance care planning, ICD deactivation discussions, and use of empathy in conversations with patients.

Methods. Clinicians at intervention sites participated in a 90-minute communication training workshop focusing on goals of care communication including ICD deactivation, while clinicians at control sites received a lecture introducing the study. We first compared pre-workshop scores between control and intervention groups, then compared pre- and post-workshop scores for the intervention group, based on self-ratings on a 5-point Likert scale.

Results. 82 heart failure clinicians were enrolled. Pre-workshop scores showed high levels of confidence (4.22, SD=0.76) and skill (3.96, SD 0.76) in advance care planning in the setting of ICD management in both control and intervention groups, while comparisons of pre- and post-workshop scores in the intervention group showed decreases in confidence (-1.10) and skill (-0.12). None of these results reached statistical significance.

Conclusion. Heart failure clinicians had high baseline self-perceptions of confidence and skill in advance care planning in the setting of ICD management, with no differences between intervention and control sites. There were no significant changes seen immediately after the communication training intervention.

Implications for Research, Policy, or Practice. The results suggest that heart failure clinicians may overestimate their ability to engage in advance care planning discussions involving ICD deactivation, which may act as a barrier to the propagation of primary palliative care in this setting. Further research is needed to improve conversations about ICD management.

ICU Bereaved Family Members' Adjustment During the First Year (S843)



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Objectives

1. Identify how bereavement outcomes of family members change during the first year after a patient dies in the ICU setting.
2. Identify factors influencing prolonged grief symptoms over time.

Research Background. Nearly one in five deaths occurs in the ICU. Family members participate in the end-of-life decision making process for their critically ill family member and are considered to be at risk for psychological problems. However, little is known about how they adjust over time.

Research Objectives. Based on the Double ABCX model of family adaptation, the purpose of this study was to examine the prevalence and changes in symptoms of prolonged grief, post-traumatic stress, depression, stress, and anxiety.

Methods. A longitudinal design was used to conduct the investigation using three time points (1 to 3, 6, and 12 months after death). Family members were surveyed using validated instruments. Data were analyzed using descriptive statistics and linear mixed modeling.

Results. Participants (n = 30) were 60% female, 60% Caucasian, and 57% spouses. At 1-3 months after loss, 60% had symptoms of post-traumatic stress disorder and then 30.4% had symptoms 6 months after loss. At 1-3 months after loss, symptoms of depression, anxiety, and stress were found in 40%, 30%, and 26.7% of family members, respectively. At 6 months, symptoms of depression (17.4%), anxiety (13.3%), and stress (13%) were observed. In linear mixed models, symptoms of prolonged grief and post-traumatic stress, depression, and anxiety improved over time. However, they did not report a significant reduction of stress over time. There was also a negative association between social support and prolonged grief symptoms over time, indicating that the association decreased as time increased.

Conclusion. Bereavement outcomes reduced over the first year after loss, but family members tend to be at risk for psychological problems in the early months after bereavement. They may be best helped if early support can be provided by relatives, friends, and health care providers.

Implications. Further larger longitudinal studies and early supportive intervention studies need to be conducted to prevent the negative impacts of bereavement on family members' psychological outcomes.

Agreement Between Two Brief Tools to Assess Pain in the Palliative Care Setting (S844)

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Objectives

1. Describe the most frequently used single-item tools to assess pain severity, their strengths and limitations.
2. Examine the agreement between two single-item pain assessment tools commonly used during a palliative care consultation.
3. Demonstrate the agreement between patient report of pain improvement.

Original Research Background. The numeric rating scale (NRS) and the verbal rating scale (VRS) are commonly used, unidimensional tools for assessing pain among patients referred for palliative care (PC).

Research Objectives. Examine the agreement between the NRS and VRS for the assessment of pain among seriously ill patients, and assess change in pain scores from initial assessment to follow-up 24-hours later.

Methods. Patients receiving inpatient PC who reported pain 'right now' were assessed using the NRS (0='no pain' to 10='worst') and the VRS (none, mild, moderate, severe), and had a follow-up assessment 24-hours later. Patients were also asked if their pain had improved over the past 24-hours. Improvement was defined as change of 2+ points for the NRS and 1+ category for the VRS.

Results. Thirty-four patients provided baseline and follow-up pain assessments. At baseline, the mean NRS pain level was 4.3/10. Using the VRS, 40.6% reported mild pain, 34.4% moderate, and 25.0% severe. There was excellent agreement ($r=0.8, p<0.0001$) between these measures. At follow-up, the mean NRS score was 4.4/10. Using the VRS, 6.2% reported no pain, 39.3% mild, 33.3% moderate, and 21.2% severe. There was also excellent agreement between the two measures at follow up ($r=0.7, p<0.0001$).

Patient report of pain improvement at follow-up, identified that 42.8% improved. Using the NRS, 18.2% improved, and 34.4% improved with the VRS. The agreement between patient-reported improvement and the NRS change score was slight ($k=0.09, p=0.5$), and the VRS change score was fair ($k=0.3, p=0.03$).

Conclusion. There was excellent agreement between the NRS and VRS. However, perceptions of improvement did not align with those identified using the NRS or VRS.

Implications for Research, Policy, or Practice. Pain is a subjective and complex symptom. Assessing change in pain using unidimensional tools may not fully capture the patient experience and more detailed measures may be needed.

Health Care Utilization and Intensity at End of Life is High Amongst Adults Who Relapse Following Allogeneic Hematopoietic Cell Transplantation (S845)

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Objectives

1. Recognize specific challenges for palliative and end-of-life care in the acute leukemia relapse population.
2. Devise novel interventions to improve end-of-life care in this patient population.

Original Research Background. Relapse is the leading cause of death for patients with acute leukemia (AL) and myelodysplastic syndrome (MDS) who undergo allogeneic hematopoietic cell transplantation (HCT).

Research Objectives. We describe survival, intensity of healthcare utilization, and characteristics associated with high resource utilization at EOL.

Methods. Adult patients with AL/MDS who underwent HCT at a large regional referral center with subsequent relapse between 2005 and 2015 were included in this retrospective study. We created a composite score for EOL healthcare utilization intensity summing the presence of any of the following criteria: death in hospital, use of chemotherapy, emergency department (ED), hospitalization, intensive care unit (ICU), intubation, cardiopulmonary resuscitation, or hemodialysis in the last month of life. Higher scores indicate more intense healthcare use at EOL. Multivariable linear regression analysis was used to determine variables associated with EOL healthcare utilization intensity.

Results. 154 patients were included. 140 (91%) died within two years of relapse with median (IQR) survival after relapse for those who died of 5 months (1-9). Overall inpatient healthcare utilization in this cohort was high with 44% visiting the ED at least once, 92% hospitalized (16% \geq 5 times), and 38% using ICU. Utilization was high even among those receiving no additional disease-directed therapy. For those patients who died, the median (range) intensity score for EOL healthcare utilization was 2 (0-8). Most (70%) had a marker

of high-intensity healthcare use at EOL or died in hospital. In multivariable analysis, post-relapse chemotherapy plus cell therapy (donor lymphocyte infusion and/or repeat HCT) (estimate (95% CI): 1.41 (0.45-2.37)) compared to no treatment was associated with more intense EOL healthcare use; no other variables met significance.

Conclusion. Inpatient healthcare utilization following post-HCT relapse is high despite known poor prognosis, including at EOL.

Implications for Research, Policy, or Practice. Interventions are needed to minimize non-beneficial treatments and promote goal-concordant EOL care in this seriously ill patient population.

Development of New Undergraduate Palliative Care Knowledge Measure (S846)

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Objectives

1. Describe the process for developing a new palliative care knowledge measure.
2. Explore possible ways to utilize the new knowledge measure to evaluate current students' palliative care knowledge.

Original Research Background. Palliative care nursing education has long been guided by the End of Life Nursing Education Consortium (ELNEC) curriculum, originally released in 2001. However, no measure to evaluate student's knowledge exists that appropriately reflects current palliative care best practice.

Research Objectives. The purpose of the presentation is to describe the development and psychometric evaluation of a new knowledge measure to be used for the evaluation of undergraduate nursing student's palliative care knowledge.

Methods. I) Creation of the new knowledge measure was guided by relevant research literature in instrument and scale development. The knowledge measure, titled the Undergraduate Nursing Palliative Care Knowledge Survey (UNPCKS), was developed in four systematic steps: 1) item generation from a team of seven palliative care and nursing education experts; 2) pilot test of UNPCKS; 3) instrument revision with experts; and 4) psychometric testing.

Results. The final version of the UNPCKS is a 27-item, multiple-choice instrument that evaluates undergraduate nursing students' palliative care knowledge. Students at three universities (n=262) completed the UNPCKS for psychometric testing.

Exploratory factor analysis revealed two primary factors: palliative care principles and nursing-specific responsibilities. Content validity was established by the expert panel.

Conclusion. The UNPCKS is a psychometrically strong contemporary measure that can be utilized to evaluate students' palliative care knowledge.

Implications for Research, Policy, or Practice. Future testing of the efficacy of the measure to evaluate changes in knowledge corresponding with palliative care or ELNEC-Undergraduate education are in progress. However, the instrument can be integrated into existing education programs to evaluate students' palliative care knowledge.

Enhancing Healthcare Students' Perceived Competence to Care for Dying Patients: An Interprofessional Simulation (S847)

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Objectives

1. Describe the three steps of the interprofessional withdrawal of life-sustaining measures simulation.
2. Identify at least one course at the attendee's home institution within which the simulation can be integrated.

Original Research Background. Within the context of an aging society in which individuals are increasingly diagnosed with multiple chronic conditions, there is a critical need for effective interprofessional educational interventions to prepare healthcare provider students to care for dying patients.

Research Objectives. The purpose of this study was to evaluate the impact of an interprofessional withdrawal-of-life-sustaining measures simulation on medical residents', nursing students', and social work students' perceived competence to care for dying patients.

Methods. Medical residents (n=8), social work students (n=8), and pre-licensure nursing students (n=57) were divided into small interprofessional teams to engage in a three-stage simulation. In each stage, teams engaged in pre-briefing, performance, and debriefing. First, team members communicated with family members regarding the need for a tracheostomy insertion. Second, nursing students assessed the client following the development of septic shock and communicated findings to the physician. Third, the team members communicated with the family and removed the patient from life-sustaining interventions. Perceived competence to care for dying patients was evaluated prior to and immediately following the simulation.

Results. The majority of participants had no prior hospice/palliative care patient experience and had not recently experienced the loss of a loved one or cared for a loved one who died. Most students had received hospice/palliative care education. Internal consistency reliability of the new measure was high (Cronbach's $\alpha=.957$). Mixed ANOVA results demonstrated significant improvements in perceived competence overall ($p<.001$) without a noted interaction effect or difference based upon healthcare profession.

Conclusion. The interprofessional withdrawal-of-life-sustaining measures simulation significantly enhanced perceived competence for healthcare students. Recommendations and implications will be discussed.

Implications for Research, Policy, or Practice. The simulation was an effective, dynamic mechanism to educate students from medicine, nursing, and social work regarding communication and end-of-life care.

Patient-Nurse Discordance in Goals of Care at End-of-Life (S848)

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Objectives

1. Describe the demographics of patients with advanced cancer and oncology nurses in the outpatient setting.
2. Identify patterns in discord in goals of care between the patient and nurse.

Original Research Background. Providing high-quality care to patients with advanced cancer relies on patients receiving treatment that aligns with their own goals of care (GoC). Goal concordance is dependent on communication between patients and their health care providers. While some research has been conducted on patient-oncologist discordance in GoC, little is known about the role of nurses in this context.

Objective. The purpose of this study was to determine concordance in GoC at end-of-life between patients with advanced cancer and nurses.

Methods. Using a sub-sample from a longitudinal, descriptive design study, data were collected on subjects with a diagnosis of stage 4 cancer and their nurses. Subjects were asked, "Regarding your care/the care of this patient, what is most important to you right now?" Anchors on the instrument were QOL (0) and survival (100)—with a value of 50 indicating equal weight on both domains. Discordance was defined as a > 40 point difference on the VAS.

Results. Results from the 167 PTs diagnosed with advanced cancers who died during the study period are presented. Mean age for PTs was 64.0 (SD=10.3,

range=36-88) with 51.5% being female. The majority of the RNs were female (84.6%) with a mean age of 48.9 (SD=7.0, range=28-61) and 13.3 years of experience in oncology nursing. In 37% of the PT-RN dyads, there was discord in GoC at the last interview prior to death. There was a statistically significant difference ($p=.000$) as the PTs reported goals more survival-focused ($M=47.4$, $SD=31.3$) than the RNs ($M=29.9$, $SD=21.4$).

Conclusion and Implications for Practice, Policy, and Research. These data show some discord between PT and RN at end-of-life and highlight the need for eliciting patient GoC throughout the illness trajectory. With the continuity of the PT-RN dyad in the outpatient setting, RNs are in the unique position to discuss GoC to ensure that PTs receive care congruent with their own preferences.

#Palliativecare and #Hospice: A Comprehensive Instagram Analysis (S849)



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Objectives

1. Assess Instagram posts related to #hospice and #palliative care.
2. Identify trends in #Hospice and #Palliativecare Instagram postings.
3. Compare trends between #hospice and #palliative care.

Background. Image-sharing social media platforms such as Instagram have grown in popularity and are rapidly becoming a media for personal, business and health-related information sharing. Instagram has over 1 billion active monthly users, with 64% of users ranging from 18 to 34 years old. The content of Instagram images of palliative care (PC) and hospice have not been investigated.

Objective. To assess Instagram posts related to #hospice and #palliative care, illustrating general population knowledge and opinions of hospice and palliative care and comparing trends.

Methods. Instagram-public data was retrieved for 30 days (images, video, metadata) for the two hashtags containing PC and hospice. Images were screened; duplicates removed and excluded non-English content. A customized coding scheme to determine major content themes and images was developed. Themes were

characterized by user (hospice/PC/personal); post type (picture, video); description (selfie, infographic), content (advertisement, fundraiser, education, animals); purpose (personal, work, business, motivational and healthcare-related). Content was evaluated to explore trends comparing hospice vs. PC.

Results. #hospice (n=2916) and #palliativecare (n=1075), 389 posts were included after screening; 292 #Hospice and 97 #palliativecare images selected for analysis. Most images were pictures of others and most images were posted by individual users. Common content themes included fundraising (26.99%; 12.5% PC vs. 31.85% hospice; $p=0.002$), advertisement 24.68%, $p=NS$, family/friends (14.65%; 28.13% PC vs. 10.27% hospice; $p<0.001$), education (11.05%; $p=NS$), and animals (8.23%; 2.08% PC vs. 10.27% hospice; $p=0.038$). If the user had a hospice/PC background, they will be more likely to post educational materials ($p=0.0388$).

Conclusions. Instagram #hospice and #palliativecare are available and widely used. #hospice is used more often in general and when identifying common categories such as fundraising, posting about the story of loved one or pets. Hospice and PC organizations have started to use posts as a means of education. Future studies should analyze how Instagram can be utilized as a means for educating the population, worldwide promotion and empowering patients and caregivers.

Management of Fatigue at the End of Life: A Systematic Review (S850)



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Objectives

1. Identify the most common and effective treatment modalities for fatigue management at the end of life.
2. Describe implications from this review of current evidence on directions for future research focused on symptom management of fatigue.

Background and Objectives. Fatigue is a common and distressing symptom associated with patients with progressive terminal illnesses who are nearing the end of life. The cause of fatigue is multifaceted and its presentation is exclusively subjective, which can both contribute to difficulty with treatment approaches. The purpose of this systematic review was to examine and describe the state of evidence surrounding the most current and effective treatments for fatigue in patients nearing the end of life.

Study Identification. Medical databases were searched using keywords including: *fatigue, fatigue management, terminal illness, end-of-life care, and palliative care*. Articles published between 2000 and 2018

focused on the management or treatment for fatigue in end-of-life, hospice or palliative care were included. Review articles or those that did not meet minimum quality score were excluded. Twenty-seven 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. 85% of the articles were quantitative and focused on describing presentation of the symptom and/or treatment. Ten of the papers focused on symptom clusters with the diagnosis of cancer to be the most common illness antecedent associated with fatigue. Both pharmacological and non-pharmacological approaches were identified but few randomized control trials focusing exclusively on fatigue management were found.

Conclusion and Implications for Practice, Policy, and Research. Research aimed at addressing best practices for fatigue management at the end of life are lacking, particularly those involving randomized trials. Few papers focusing exclusively on fatigue were found, and this symptom is most widely included in papers that examine symptom clusters, most often in cancer patients. Studies focused on examining and comparing fatigue treatment in cancer and non-cancer illnesses should be considered.

Pediatric Cardiothoracic Surgeons and Palliative Care: A National Survey Study (S851)



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Objectives

1. Outline pediatric cardiothoracic surgeons' understanding and use of pediatric palliative care.
2. Describe the barriers perceived by pediatric cardiothoracic surgeons to palliative care consultation.

Original Research Background. Among children with heart disease who die in the hospital, the majority occur within the first year of life in an intensive care setting. Discrepancies in understanding of prognosis and perceptions of suffering between parents and physicians caring for children with heart disease have been identified. While pediatric cardiology and

palliative care (PC) provider attitudes towards PC have been described, no studies have assessed the perspectives of pediatric cardiothoracic surgeons (CTS).

Research Objectives.

- Evaluate pediatric CTS understanding and use of PC.
- Describe barriers perceived by pediatric CTS to PC consultation.

Methods. A survey was distributed electronically to pediatric CTS in the United States. Subjects were excluded if they did not have a pediatric component to their practice. The survey consisted of 22 primarily closed-ended questions with multiple choice answers.

Results. Of the 220 CTS who were mailed the survey, 36 opened the survey and 5 did not meet inclusion criteria (n=31). Median years of practice was 23.5 and 87.1% were male. Almost all (90%) reported that they had experience consulting PC. While 68% felt PC consultation was initiated at the appropriate time, 29% felt it occurred too late. When asked the appropriate timing for PC consultation in patients with hypoplastic left heart syndrome, 45% selected "at time of prenatal diagnosis" and 30% selected "when surgical and transcatheter options have been exhausted." Common barriers to PC involvement included the perception of "giving up" (40%) and concern for undermining parental hope (36%).

Conclusion. While a majority of pediatric CTS are familiar with PC, there is variation in perception of appropriate timing of consultation and significant barriers to consultation still exist.

Implications for Research, Policy, or Practice. This is a preliminary study to better understand the attitudes of pediatric CTS regarding PC. Results will help inform future research and educational efforts for physicians caring for children with advanced heart disease.

Patterns of Anti-Cancer Therapy Use in the Last 14 Days of Life in a Community Cancer Institute (S852)



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Objectives

1. Define the costs of providing aggressive end of life care.

2. Describe population most likely to receive anti-cancer therapy at end of life in a community cancer center.
3. Discuss implications and potential application of these findings.

Original Research Background. Studies have shown that aggressive cancer care at end of life is associated with decreased quality of life, decreased median survival, and increased cost of care.

Research Objectives. This study describes the patients most likely to receive aggressive anti-cancer therapy at the end of life in a community cancer institute.

Methods. We performed a retrospective review of 213 patients who received anti-cancer therapy in our institution and died between July 2016 and April 2017. Data collected included primary malignancy, death date, date of last anti-cancer treatment, hospice enrollment, healthcare utilization, Oncology Care Model (OCM) enrollment, and clinical assessments at last office visit prior to a treatment decision before death. Data were analyzed using univariate logistic regression to determine feature importance.

Results. Of the 201 patients who died of cancer, 36(17%) received anti-cancer therapy within the last 14 days of life. Several factors were significantly positively correlated with receiving anti-cancer therapy at end of life, including enrollment in OCM ($p < 0.001$), frequency of hospital utilization ($p < 0.001$), death in hospital ($p < 0.001$), referral to hospice ($p < 0.001$), and hematologic malignancy ($p = 0.014$).

Conclusion. In our community cancer institute, enrollment in OCM, frequency of hospitalizations, death in a hospital, referral to hospice, and hematologic malignancy diagnosis were predictive of receiving aggressive anticancer therapy at the end of life, suggesting that these factors should have greater importance in our clinic.

Implications for Research, Policy, or Practice. Taken as a whole, these data will help inform clinicians and patients in choices regarding care near the end of life.

Palliative Care Education in U.S. Adult Neuro-Oncology Fellowship Programs (S854)

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Objectives

1. Describe the current need for palliative education in neuro-oncology fellowship programs as identified by program directors.

2. List the preferred education methods and tools of neuro-oncology fellowship program directors for teaching palliative care to fellows.
3. Know which barriers program directors face when providing palliative care education for neuro-oncology fellows.

Original Research Background. Palliative care (PC) for patients with neuro-oncological diseases positively impacts morbidity and mortality. No studies have evaluated whether neuro-oncology fellows receive formal PC education during fellowship.

Research Objectives. The purpose of this study was to describe the PC education and identify education needs of US neuro-oncology fellowship programs.

Methods. Program directors (PDs) of US neuro-oncology fellowships were surveyed. The electronic survey included qualitative and quantitative questions.

Results. Of 26 programs fellows, 17 completed surveys (65% response rate) of which 3 (18%) offered no formal PC education. The methods most utilized were formal didactics (seminars/conferences) and self-directed reading materials. One-third of programs have developed their own teaching materials. Communication was the domain identified as most important, the domain fellows were most well-trained in, and the domain PDs felt most comfortable providing for their own patients. Addressing spiritual distress and initiating life-prolonging therapies were the domains PDs identified as being least important, fellows were least well trained in, and PDs were least comfortable providing for their own patients. Most programs (83%) were satisfied with the PC education available at their program. Time for teaching and faculty availability were the most common barriers.

Conclusion. Neuro-oncology PDs recognize the need for PC education, which is currently offered in some form by most programs, but the content and methods of delivery are heterogeneous. Interdisciplinary educational teams and nationally-available PC educational material may improve implementation of PC education in neuro-oncology.

Implications for Research, Policy, or Practice. This study implies the need for a dedicated neuro-oncology palliative education curriculum.

Patient and Family Caregiver Perspectives on Palliative Care Needs in End-Stage Liver Disease: A Qualitative Study (S855)

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Objectives

1. Identify the specific impact ESLD has on patients and their family caregivers from their perspectives.
2. Identify the stated needs of patients and family caregivers in ESLD care from their perspectives.
3. Identify the barriers to integrating PC into care of patients with ESLD from patient and caregiver perspectives.

Original Research Background. Palliative Care (PC) is underutilized in persons with end-stage liver disease (ESLD) and little data exists on patient and family caregivers' perspectives on PC needs and how PC can be integrated into ESLD care.

Research Objectives. Identify ESLD patient and family caregiver perspectives on challenges of living with ESLD, potential PC needs, and barriers to integrating PC.

Methods. Semi-structured one-on-one interviews were conducted with purposively-sampled patients with ESLD and their caregivers at a tertiary care academic medical center. Patients and caregivers were asked about: 1) challenges of living with ESLD, 2) their unmet needs, and 3) their understanding and perceptions of PC and hospice, including accessing these services. Interviews were digitally recorded and transcribed. Transcripts were entered into NVivo software and analyzed using thematic analysis.

Results. Patients (n=7) had a mean age of 67 and were mostly female and white (70%) with ESLD due to alcohol (43%), hepatitis C (57%), non-alcoholic steatohepatitis (29%), and with concurrent hepatocellular carcinoma (43%). Most caregivers were female and white (83%), and were the patient's spouse/partner (83%). Patients and caregivers perceived that ESLD challenges occurred in all four quality of life (QOL) domains (physical, emotional, social, and spiritual). Participants' needs included better communication with providers, emotional support, caregiver support, and practical needs. A majority of patients and caregivers had a lack of understanding of PC.

Conclusion. Thematic analysis identified a variety of unmet patient and family caregiver needs in ESLD that could be addressed by PC services. However, a major barrier is a lack of understanding of PC services.

Implications for Research, Policy, or Practice. These results provide a first step in intervention development for a PC intervention to address identified patient/caregiver needs in ESLD with a focus on enhancing PC literacy.

Perceptions of Inappropriate Critical Care Are Decreasing (S856)



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Objectives

1. Explain what "inappropriate critical care" mean.
2. Recognize that there has been a decrease in inappropriate critical care at one institution.

Original Research Background. When a patient's chance of survival is very low or the quality of life is markedly diminished, intensive care interventions that prolong life without achieving the goals of medicine are often considered "inappropriate" by health care providers. In 2012, we showed that the prevalence of inappropriate treatment was 11% at one academic health system.

Research Objectives. To assess whether the proportion of patients receiving inappropriate critical care has changed from 2012 to 2017, we repeated the evaluation in the same health system.

Methods. On a daily basis from August 28 through December 28, 2017, we surveyed critical care attending physicians in five intensive care units (ICUs) in one health system to ask whether each patient was receiving inappropriate critical care and if so, why the care was inappropriate. In-hospital and 6-month mortality was collected. Receipt of inappropriate critical care, patient characteristics and outcomes were compared between 2017 and 2012.

Results. Over 4 months, 55 physicians made 10,105 assessments on 1424 critically ill patients. Of these, 94 (6.6%) patients received perceived inappropriate critical care, which was less than 11% ($p<0.01$) in 2012. Comparing 2017 and 2012, patient age (mean 61.8 vs 60.6), MS-DRG (4.5 vs 4.5), length of stay (15 vs 14.9 days), and overall mortality (18% vs 20%) were not significantly different ($p>0.05$). The most common reason why treatment was inappropriate in 2012 was burdens grossly outweigh benefits (67% of patients) whereas in 2017 it was that treatment cannot achieve patient's goals (70%). In 2017, inpatient mortality was 9%, 44%, and 73% for patients receiving critical care that was perceived to be appropriate, probably inappropriate and inappropriate.

Conclusion. Over five years at one health system the proportion of patients receiving perceived inappropriate critical care dropped by 40%.

Implications for Research, Policy, or Practice. Understanding the reasons for this decrease in inappropriate critical care might elucidate how to foster further improvement.

Lung Transplant Pulmonologists' Views of Specialty Palliative Care for Lung Transplant Recipients (S857)

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Objectives

1. Differentiate how lung transplant pulmonologists' views of lung transplantation affect their use of specialty of palliative care (SPC).
2. Contrast lung transplant pulmonologists definitions of specialty palliative care with their patterns of specialty palliative care utilization for lung transplant recipients.

Original Research Background. Lung transplant recipients face foreshortened life expectancies and frequently experience significant symptoms. They may benefit from but rarely receive SPC services. Transplant pulmonologists' views of SPC may be key to understanding SPC utilization for this population but these have not been well characterized.

Research Objectives. (1) Examine how lung transplant pulmonologists view SPC and make decisions to refer transplant recipients to SPC and (2) identify any unique aspects of lung transplantation affecting transplant pulmonologists use of SPC.

Methods. We conducted semi-structured interviews with attending transplant pulmonologists at nine geographically diverse high-volume transplant centers with SPC services in the U.S. and Canada. All interviews were audio-recorded and transcribed verbatim. The multidisciplinary team developed a qualitative codebook using the constant comparative method. Two investigators coded all transcripts, with disagreements discussed and resolved by consensus.

Results. We interviewed 37 transplant pulmonologists. Only 2 participants had never referred a lung transplant recipient to SPC. While most participants correctly defined SPC and differentiated SPC from hospice, approximately half used SPC only when disease-directed therapies failed. This approach was associated with a perception that transplant and SPC are "not convergent paths" because transplant focuses on "survival and aggressive treatment," particularly in the first post-transplant year or when re-

transplantation is possible. Participants who reported using SPC alongside disease-directed therapies were more likely to view transplant as a "palliative treatment" or a "terminal illness" with an uncertain "rollercoaster" course especially after the onset of chronic rejection.

Conclusion. Despite viewing SPC as more than solely end-of-life care, many transplant pulmonologists view SPC as incompatible with traditional post-transplant disease-directed therapy.

Implications for Research, Policy, or Practice. Efforts to integrate SPC into lung transplantation will require solutions that address transplant pulmonologists perception that transplant and SPC are divergent treatment paths.

The EFFECT (End-of-life Communication) Study: Acceptability, Feasibility, and Potential Impact of Using Mortality Prediction Scores for Initiating End-of-Life Goals of Care Communication in the Adult Intensive Care Unit (S859)

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Objectives

1. Describe the role of the Sequential Organ Failure Assessment (SOFA) in calculating mortality risk prediction scores.
2. Articulate the role of mortality risk prediction scores in promoting EOL goals-of-care communication.
3. Describe a patient example in which use of mortality prediction scores promoted earlier EOL goals-of-care communication.

Original Research Background. Uncertainties in prognosis remain a barrier to end-of-life (EOL) communication in the intensive care unit (ICU). Mechanisms for increasing the accuracy and timeliness of EOL goals-of-care communication are needed.

Research Objectives. This study evaluated: 1) the acceptability and feasibility of providers' use of patient mortality prediction scores as part of routine practice, and 2) providers' intentions to change practice, related to goals-of-care communication, as a result of awareness of the scores.

Methods. An explanatory mixed-methods approach was used. Using Sequential Organ Failure Assessment (SOFA), patient mortality prediction scores were provided to ICU providers (12) at a large urban medical university who then completed an acceptability and feasibility questionnaire. Follow-up interviews were conducted to further understand and gain insight into providers' perceptions regarding EOL practice changes as a result of having the scores.

Results. Overall, use of mortality risk prediction scores was acceptable and feasible. There was some disagreement related to the use of SOFA scores as an effective way for determining patient mortality risk. Providers with limited ICU experience were eager and accepting of the scores while those with vast experience found the scores to be an adjunct to their own intuition. All providers acknowledged the benefit of looking at daily scores or 'trends' and the most substantial theme was the need to consider SOFA scores in relation to patient context.

Conclusion. Use of SOFA scores for potentially increasing EOL goals-of-care conversations appears to be most beneficial for providers with limited ICU experience. A case example will be provided for attendees.

Implications for Research, Policy, or Practice. Deficiencies in EOL care communication can compromise quality of EOL care and increase resource utilization. Although large-scale studies are needed to determine the effect on patient EOL outcomes, routine consideration of mortality prediction scores may provide an avenue for more accurate and timelier EOL goals-of-care communication.

For Change You Need a Roadmap: An Implementation Model to Improve Serious Illness Communication Across Health Systems (S860)



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Objectives

1. Describe the three phases of a novel implementation model designed to achieve system-level improvement in serious illness communication.
2. Apply incremental milestones derived from implementation science and organizational change to primary palliative care programs.

Original Research Background. Programs that aim to improve clinician-patient communication about values and goals ('serious illness communication') often focus on skills-training while neglecting the system in which communication takes place. Driving measurable improvements in communication requires organization-level change.

Research Objectives. Develop a novel implementation model for improving serious illness communication across a health system with practical steps for palliative care leaders.

Methods. Researchers and implementers with the Serious Illness Care Program (SICP) at Ariadne Labs

(AL) conducted a four-stage process: 1) Assembled an expert panel (n=10) to draft a theory of change. 2) Reviewed the implementation science and organizational change literature. 3) Synthesized learnings into key implementation features and engaged a designer to create a "roadmap." 4) Refined the roadmap with feedback from its application in three systems.

Results. The 'Implementation Roadmap' has three phases: Prepare; Train/Coach; Sustain. Phase one creates a supportive environment for implementation. Actions include engaging leaders and colleagues to gain buy-in, assembling and training a team of champions (trainers + implementation team) with dedicated resources, selecting levers to support practice change, choosing pilot sites, and customizing the program (clinician training/coaching; workflow; EHR template; metrics for monitoring/evaluation). Phase two launches the program in pilot sites with rapid-cycle-improvement. The team trains early-adopter clinicians in serious illness communication who initiate the workflow, resulting in documented conversations with patients. The team uses metrics to track conversations, get feedback, and provide support to frontline clinicians. Phase three expands the program to new sites and plans for evaluation and sustainability, e.g. dashboards, automated triggers.

Conclusion. An Implementation Roadmap provides incremental milestones and practical steps to support palliative care leaders interested in organization-level, measurable improvements in serious illness communication across populations and settings.

Implications for Research, Policy, or Practice. Improving communication for a population requires education plus systems-change; following a roadmap may increase the likelihood of reaching the destination: every patient, every time.

Measuring the Quality of Palliative Care for Patients with End Stage Liver Disease (S861)



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Objectives

1. Discuss sampling strategies for measuring palliative care quality among Veterans with end stage liver disease (ESLD).
2. Describe approaches for measuring the quality of care for Veterans with (ESLD).

Original Research Background. Nineteen palliative care quality indicators (QIs) for patients with End Stage Liver Disease (PC-ESLD) were recently developed using the RAND/UCLA appropriateness method (RAM).

Research Objectives. These indicators were developed to measure the quality of care for patients with decompensated cirrhosis and a MELD > 19 or a CTP Score of 12 or greater.

Methods. We identified patients newly diagnosed with decompensated cirrhosis in 2012 who lived at least 30 days after diagnosis at a single Veteran health center using any of three ICD-9 based sampling strategies and followed them for one year or until death. A chart abstraction tool established a gold standard for clinical documentation of ESLD to compare the sensitivity and specificity of sampling strategies. We also pilot tested the PC-ESLD QIs in all patients confirmed to have ESLD.

Results. Out of 167 patients identified using at least one sampling strategy, 62 were confirmed to meet eligibility criteria after chart abstraction. The best performing sampling strategy had a sensitivity of 62% and specificity of 60%. The addition of laboratory values can improve specificity while limiting sensitivity. 98% of Veterans in the cohort were male, mean age at diagnosis was 61, 74.2% were white, 14.5% African American, 1.6% Asian, 6.5% other, and 3.2% did not have data on race. 38% were married or living with significant other, 36% homeless, and 66% had a history of drug or alcohol use. The overall QI pass rate for our cohort was 65% (59% for information care planning QIs and 76% for supportive care QIs). Patients receiving palliative care consultation were more likely to meet criteria for information care planning QIs (68% vs. 36%, p=0.02).

Conclusion. PC-ESLD Quality Indicators are valid and feasible.

Implications for Research, Policy, or Practice. Measuring the quality of palliative care for patients with ESLD is feasible and can identify opportunities for quality improvement in a vulnerable population.

Palliative Care Needs of Individuals with Cystic Fibrosis: A National Survey of Patients, Caregivers, and Cystic Fibrosis Care Team Members (S862)

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Objectives

1. Describe patient, caregiver, and providers perceptions of how palliative care in cystic fibrosis differs from palliative care in other conditions.
2. Identify the top palliative care needs of individuals with cystic fibrosis.

Original Research Background. Although palliative care (PC) has been demonstrated to alleviate suffering for patients with serious illness, no evidence exists for its role in cystic fibrosis (CF).

Research Objectives. To ensure the relevance of future CF-specific PC education and interventions, we 1) identified top PC needs of individuals with CF; and 2) examined perceptions of if/how PC may need to be different in CF.

Methods. Adults with CF ("patients"), family caregivers ("caregivers"), and CF care providers ("providers") recruited from online listservs maintained by the Cystic Fibrosis Foundation completed an online survey. We used descriptive statistics to analyze responses.

Results. All participant groups, including 85% of 70 patients, 87% of 100 caregivers, and 84% of 350 providers felt PC in CF differs from PC in other conditions. All groups ranked the unpredictable disease course as the top difference (44% of patients, 42% of caregivers, 39% of providers). Other key differences included shortened life expectancy and CF being a lifelong disease. Emotional support was identified as the top PC need of individuals with CF (ranked first by 38% of patients, 45% of caregivers, 49% of providers), with emotional symptom management also being a top need per patients and caregivers. Patients and providers felt advance care planning is a top PC need. Adult providers ranked physical symptom management as a top need more often than pediatric providers (47% vs 29%, P=0.001). Pediatric providers identified caregiver support as a top need more often than adult providers (28% vs 16%, P=0.011).

Conclusion. Most patients, caregivers, and providers feel that PC is different in CF than in other serious illnesses and identify a variety of PC needs.

Implications for Research, Policy, or Practice. PC education and interventions targeting key differences and needs could enhance the impact of PC in CF.

Barriers to Palliative Care in Cystic Fibrosis (S863)



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Objectives

1. Identify barriers to palliative care for individuals with cystic fibrosis from the perspectives of patients, caregivers, and CF providers.
2. Describe ways to overcome barriers to palliative care in cystic fibrosis.

Original Research Background. In the absence of clear guidelines for palliative care (PC) in cystic fibrosis (CF), little is known about PC provision to individuals with CF and barriers to PC.

Research Objectives. To identify barriers to PC in CF.

Methods. CF care team members ("providers"), adults with CF ("patients"), and family caregivers ("caregivers") recruited from listservs maintained by the Cystic Fibrosis Foundation completed an online survey about barriers to PC in CF. Responses were analyzed using descriptive statistics.

Results. Surveys were completed by 70 patients, 100 caregivers, and 350 providers. All providers and 96% of patients and caregivers expressed beliefs that PC is valuable for individuals with CF. Nearly half of patients and caregivers recalled knowing someone who received PC, but rarely had personal experience. While 73% of providers reported introducing PC to patients, only 26% of patients and 12% of caregivers recalled learning about PC from providers. From a list of common barriers to PC, all groups identified the same top three: perception that palliative care is only for dying people, lack of access to outpatient PC, and lack of PC training for CF providers. Nearly 1/3 of providers felt patient reluctance to engage in PC conversations is an important barrier, versus 5% of patients and caregivers. Many patients (64%) and caregivers (74%) were not aware of availability of PC specialists, and 19% of providers did not know if PC specialists were available to their patients.

Conclusion. Patients with CF and caregivers report little experience with PC despite a majority of providers reporting they introduce PC to their patients. The most common barriers to PC reflect gaps in

knowledge and provider concerns about patient willingness to engage in PC conversations.

Implications for Research, Policy, or Practice. PC education and tools to promote patient-provider communication may help alleviate barriers to PC in CF.

Non-Surgical Patients with Advanced Gynecologic Cancer Discharged to Subacute Rehabilitation Centers Have Low Rates of Subsequent Chemotherapy (S864)



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Objectives

1. Interpret survival data presented as median days after discharge.
2. Interpret significant of results from a univariate analysis.

Original Research Background. Women with advanced gynecologic cancer are often enticed by the promise of additional chemotherapy even when the potential for prolonged life or a cure is slim. Furthermore, many of these patients don't qualify for additional chemotherapy due to preclusive weakness or medical comorbidities. Despite these observations, they are often discharged from the hospital to skilled rehabilitation centers (SRC) to recuperate the strength to qualify for additional chemotherapy.

Research Objectives. We sought to characterize prognosis and rates of subsequent chemotherapy among non-surgical patients with advanced gynecologic cancer who were discharged to SRC.

Methods. Patients with stage III/IV or recurrent gynecologic malignancy who were admitted to the Kaiser Permanente Southern California health care system and discharged to SRC over a ten-year period were included in this retrospective cohort. Patients who had surgery during their admission or who were enrolled in hospice prior to discharge were excluded. A univariate analysis was performed to identify patient characteristics that might be predictive of receiving future chemotherapy. Statistical significance was ascertained in all analyses through a Fisher's exact test.

Results. 35 patients met inclusion criteria. The majority were Caucasian (75%), and the median age was 70. Survival after discharge ranged from 5 to 1463 days, with a median survival of 57.5 days. Seven patients (20%) received future chemotherapy after discharge. None of the examined patient or admission factors (age, primary site of malignancy, upfront vs recurrent disease, indication for admission) was predictive of future chemotherapy. Trends toward longer survival

were seen in patients with age ≤ 75 ($p=0.27$), cervical cancer ($p=0.11$), non-recurrent disease ($p=0.69$) and a non-infectious admission indication ($p=0.49$).

Conclusion. In this cohort of non-surgical patients with advanced gynecologic malignancy discharged to SRC, only 20% received additional chemotherapy, and the median survival was 58 days.

Implications for Research, Policy, or Practice. This may be an appropriate population to target for advanced care planning prior to discharge.

Why Do Some Patients Regret Their Decision to Initiate Dialysis? (S865)



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Objectives

1. Discuss the importance of patient autonomy in dialysis decision-making.
2. Discuss the impact of a physician's paternalistic style of decision making on patients' inner peace with the decision.

Original Research Background. Nearly 25% of patients receiving maintenance dialysis withdraw from dialysis each year. Many patients regret their decision to start dialysis.

Research Objectives. To identify factors associated with dialysis regret.

Methods. A forty-one item questionnaire was administered to adult patients receiving maintenance dialysis in seven dialysis units located in Cleveland, Ohio and its suburbs. Of the 450 patients who were asked to participate in the study, 423 agreed. The questionnaire items assessed patients' knowledge of their kidney disease, attitudes toward chronic kidney disease (CKD) treatment, and preference for end-of-life (EoL) care. A single question was used to assess dialysis regret, "Do you regret your decision to start dialysis?" We used logistic regression to identify predictors of decisional regret. Candidate predictors were patient demographics, attitudes toward CKD treatment, beliefs about the dialysis decision-making process, and EoL care preferences.

Results. Eighty of 395 respondents (20.2%) reported dialysis regret. Three variables were associated with dialysis regret: (1) patients chose dialysis over conservative management to please doctors or family members (adjusted odds ratio (AOR) 3.33, confidence interval 1.73, 6.37), $p=<0.0001$; (2) patients thought it was important for their families to be actively involved in dialysis decision-making (AOR 1.97, CI 1.73, 6.37), $p=0.0001$; (3) patients reported not

having prognostic discussions with the kidney doctors (AOR 2.60, CI 5.85, 1.15, CI), $p=0.0414$.

Conclusion. Dialysis regret was not uncommon in this sample. Regret is associated with beliefs about the dialysis decision-making process. There was no evidence of demographic (age, gender, race, income) differences in regret.

Implications for research. Future research involving multiple stakeholders (e.g., patients, caregivers, physicians) is warranted to identify modifiable risk factors for dialysis regret and to improve dialysis decision-making.

Trends in Hospital-Based Specialty Palliative Care: Insights from a National Palliative Care Quality Improvement Collaborative (S866)



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Objectives

1. Describe at least two trends in processes of care provided by inpatient palliative care (PC) teams over time.
2. Describe one major change in a clinical outcome achieved by inpatient PC teams over time.
3. Discuss how these trends relate to evolving expectations of and norms within the field.

Background. The field of palliative care (PC) is growing and evolving rapidly in response to increased demand and recognition of its benefits.

Objectives. Describe how processes of care and outcomes achieved by inpatient PC teams have changed over time.

Methods. Data for this study were extracted from the Palliative Care Quality Network database on 03/06/2018 and pertain to 135,197 patients referred to 88 inpatient PC consult teams between 01/01/2013 and 12/31/2017.

Results. The most common diagnoses leading to inpatient PC consult were cancer (32.0%, range between teams: 11.3%–93.9%), cardiovascular disease (13.2%, 0%–29.0%), and pulmonary disease (11.3%, 0%–26.0%). The percentage of referred patients with cancer decreased between 2013 and 2017 (39.0% to 30.0%, $p<0.0001$), while there was an increase in the percentage of patients with cardiovascular disease (12.0% to 14.0%, $p<0.0001$) and pulmonary disease (10.0% to 12.0%, $p<0.0001$).

Most patients were discharged from the hospital alive (78.7%, range between teams: 44.7%–99.4%), and the percentage of patients discharged alive increased over time (75.0% to 80.0%, $p<0.0001$). Between 2013 and 2017, there was a substantial decrease in hospice referrals (46.0% to 31.0%, $p<0.0001$) and an increase in referrals to clinic-based (2.0% to 4.0%, $p<0.0001$) and home-based PC services (2.0% to 4.0%, $p<0.0001$).

Conclusions. There is wide variation in practice across inpatient PC teams. Overall, teams are seeing more patients with diagnoses other than cancer and are doing so earlier in the course of illness, which may account for lower rates of hospice referral. Teams are connecting slightly more patients with outpatient PC services at the time of hospital discharge.

Implications. Changes in the practice of PC over time are consistent with guidelines calling for PC for all patients with serious illness earlier in the course of illness. Variations in practice between teams establish benchmarks and reveal opportunities for improvement.

Finding the Path: Incorporating Patient Preferences into an Interactive Clinical Pathway Platform (S867)



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Objectives

1. Identify preferences that affect treatment decision-making among women with Stage I-III breast cancer.
2. Describe a new clinical pathway model that will incorporate women's preferences for individualized assessments of prognosis and treatment benefits and challenges, and that will facilitate shared-decision making and use of palliative care services.

Original Research Background. Clinical pathway tools offer physicians a selection of cost-effective, evidence-based treatment options to discuss with patients. Although shared decision-making is essential to patient-centered care, clinical pathway tools have

not integrated patient preferences around treatment burden and outcomes.

Research Objectives. We sought to identify patient preferences for incorporation into MyPATHway, a patient-centered, interactive clinical pathway platform for patients with breast cancer.

Methods. Using interpretive description as an approach, we conducted individual qualitative interviews with women aged 18+ treated for Stage I-III breast cancer at Smilow Cancer Hospital in New Haven, CT. We asked participants if there was additional information they would have liked prior to treatment decision-making, their preferences for and factors affecting decision-making, and their attitude towards an electronic platform, including preferences for learning about and weighing treatment burdens and outcomes. We coded transcribed interviews and analyzed them for themes.

Results. The sample's ($n=21$) mean age was 56.4 (range 29-74). Breakdown of cancer stage was I (33.3%), II (42.9%), and III (23.8%). Participants reported receiving adequate information prior to treatment decision-making, although some wanted more regarding what to expect during and after treatment. Several factors affected treatment decision-making, including physical (e.g., symptom burden), lifestyle (e.g., ability to function in normal roles), provider (e.g., provider opinion), and health care system (e.g., consistency of care) factors. Participants strongly felt they had "final say" in treatment decision-making while preferring involvement of providers and family caregivers. Most were open to using an electronic platform at home or in clinic, but to augment versus to replace face time with providers.

Conclusion. Participants identified preferences regarding content and format that build on currently available clinical pathway tools.

Implications for Research, Policy, or Practice. We will utilize data to design and test MyPATHway so that it facilitates shared decision-making and, potentially, use of palliative care services to better set and meet patient expectations.

Are Pediatric Patients Just Short Adults? Most Commonly Prescribed Drugs for Pediatric Hospice Patients (S868)



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Objectives

1. Describe prescribing practices for pediatric patients receiving hospice care.

2. Compare and contrast prescribing practices for patients with different admitting diagnoses.

Original Research Background. Palliative care for children focuses on holistic care, including the alleviation of physical, psychosocial, and spiritual suffering. Medications are used in hospice patients to palliate physical symptoms of terminal illness, including pain, dyspnea, nausea, and fatigue.

Research Objectives. The purpose of this study was to characterize the most commonly prescribed medications and medication classes in a population of pediatric hospice patients.

Methods. We conducted a retrospective review of a patient information database compiled by a national hospice organization. The database contained demographic information, as well as information on drug name, dosage, formulation, and strength. We compared proportions of the most commonly prescribed pharmacological classes among the three most common admitting diagnoses: cancer, central nervous system disorders, and genetic disorders.

Results. A total of 3,017 medication orders were evaluated. Six of the 10 most commonly prescribed drugs (morphine, lorazepam, acetaminophen, hyoscyamine, prochlorperazine, and haloperidol) were included in symptom management medication kits provided to most patients at admission. Other drugs prescribed for over 20% of patients included metoclopramide, diphenhydramine, albuterol, atropine, ondansetron, diazepam, polyethylene glycol, and levetiracetam. Opioid analgesics, anxiolytics, anticholinergics, and antiemetics were prescribed to over 50% of patients at some point during admission. Other frequently prescribed medication classes included non-opioid analgesics, anticonvulsants, antiinfectives, laxatives, corticosteroids, acid reducers, antipsychotics, and vitamins/supplements. Of the 20 most commonly prescribed drug classes, patients with cancer were significantly more likely than those with CNS disorders or genetic disorders to be prescribed anticholinergics ($p=0.03$), antiemetics ($p<0.0001$), non-opioid analgesics ($p=0.003$), laxatives ($p=0.003$), corticosteroids ($p=0.0004$), antihistamines ($p=0.01$), acid reducers ($p=0.03$), and anti-psychotics ($p<0.0001$).

Conclusion. Medications commonly prescribed for children receiving hospice care include those intended to treat symptoms including pain, dyspnea, nausea, seizures, and constipation.

Implications for Research, Policy, or Practice. A general understanding of medications used in hospice care may be helpful in the development of educational materials, medications guidelines and protocols, and questions for future research.

The Comparison of State POLST Forms: Scope of Life-Sustaining Treatment (S869)



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Objectives

1. Analyze the structure and categories included in state POLST form to compare to a form in a neighboring state, and be able to state two similarities and two differences between forms.
2. Explain the potential implications of excluding a "Goals of Care" section from POLST forms, both from the perspective of the provider and the patient.

Original Research Background. Physician Orders for Life-Sustaining Treatment (POLST) is a portable medical order that delineates patients' and/or surrogates' care preferences. Currently, all states have POLST programs, either endorsed or in development. However, we do not know how consistent the treatments in POLST forms are across the states.

Research Objectives.

1. Identify the variations in life-sustaining treatments offered in state POLST forms.
2. Discuss the potential implications of variability in state POLST forms.

Methods. State POLST forms were retrieved in May 2018 from official websites or email correspondence with state program coordinators. Data on the presence of Goals of Care, Cardiopulmonary Resuscitation (CPR), Medical Interventions, Artificial Nutrition, Antibiotics, and other treatment categories were extracted and analyzed using descriptive statistics.

Results. Of the 45 state POLST forms reviewed, only six included a goals-of-care section. POLST forms included two to eight treatment categories: one with two categories (CPR and medical interventions), 17 with three categories (CPR, medical interventions, and artificial nutrition), 11 with four categories (CPR, medical interventions, artificial nutrition, and antibiotics), and 16 with four or more categories of other treatments. The CPR category had CPR and do-not-resuscitate choices in all forms. In 41 forms, the Medical Interventions category had choices of Comfort Measures Only, Limited Interventions, and Full Treatment. Forty-four forms had the Artificial Nutrition category with three choices (None, Defined Period, and Long-Term) with or without additional choices (e.g., hydration, parenteral nutrition). Seventeen forms included the Antibiotics category with two to four choices. Other treatment categories included dialysis, transfer to hospital, and blood transfusion.

Conclusion. Although there is some consistency in POLST forms, significant variation exists in treatment categories and choices.

Implications for Research, Policy, or Practice. Varied POLST forms create differences in life-sustaining treatment options given to patients and/or surrogates based on their state of residence. Greater discussion is needed among healthcare providers, policymakers, and researchers to reconcile this variation.

Impact of Palliative Care Interventions on Health-Related Quality of Life (HRQOL): A Secondary Analysis of the Promoting Resilience in Stress Management (PRISM) Randomized Controlled Trial (RCT) (S870)

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Objectives

1. Review the concept of health-related quality of life as a study outcome.
2. Evaluate the effectiveness of an intervention using patient-reported health-related quality of life as an outcome.

Original Research Background. PRISM is a novel resilience-building intervention for adolescents and young adults (AYAs). Primary analysis of the RCT in AYAs with cancer showed PRISM improved HRQOL.

Research Objectives. Secondary analysis explored changes in HRQOL domains and differences between patient groups.

Methods. English-speaking AYAs (12-25 years) were randomized to PRISM or usual care (UC) from 1/2015 – 10/2016. Surveys were completed at enrollment and six months later, using the Pediatric Quality of Life Inventory (PedsQL) Generic Short Form (SF-15) and Cancer Module to assess HRQOL. We compared change scores (PRISM vs UC) by domain (PedsQL SF-15: physical, emotional, social, school; Cancer: pain, nausea, procedure anxiety, treatment anxiety, worry, cognition, perceived appearance, communication). Participants were stratified by age (12-17 years vs 18-25 years) and advanced cancer status (yes/no).

Results. 74 patients (36 PRISM, 38 UC) completed 6-month assessments. 72% were 12-17 years old. 23% had advanced cancer at enrollment. PRISM improved patient-reported communication (UC: median [interquartile range, IQR] 0 [-17, 8]; PRISM: 8 [0, 25]). Younger patients benefited more, especially in PedsQL SF-15 school (12-17: UC 0 [-8, 0], PRISM 13 [0, 17]; 18-25: UC 0 [-33, 17], PRISM 0 [-25, 17]) and social domains (12-17: UC 0 [-33, 0], PRISM 0 [0, 8]; 18-25: UC 0 [-25, 4], PRISM -17 [-25, 8]), and cancer-specific perceived appearance (12-17: UC -4 [-25, 0], PRISM 8 [-8, 25]; 18-25: UC 0 [-21, 0], PRISM -8 [-25, 17]). Patients with advanced cancer benefited more in cancer-specific domains nausea (no: UC 0 [-10, 15], PRISM 10 [-10, 40]; yes: UC 6 [-15, 25], PRISM 35 [25, 50]) and pain (no: UC 13 [-13, 25], PRISM 6 [-13, 25]; yes: UC -13 [-25, 0], PRISM 6 [-13, 25]).

Conclusion. With PRISM, younger AYAs coped better with age-appropriate challenges and AYAs with advanced cancer improved physical symptom HRQOL.

Implications for Research, Policy, or Practice. Efficacious psychosocial intervention for AYAs.

Recruitment Outcomes Among African-American and Rural Populations with Heart Failure to an Early Palliative Care Clinical Trial (S871)

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Objectives

1. Examine relationships between sociodemographic factors and enrollment status in an early palliative care interventional clinical trial in the Deep South.
2. Describe baseline patient-reported outcome measures of quality of life, symptom burden, mood [anxiety/depression], activation, coping style, social support, self-reported health, health literacy, and spiritual/religious coping.

Original Research Background. Improving minority and underserved rural patient recruitment to palliative care (PC) clinical trials is a high clinical research priority area. We conducted a randomized trial of ENABLE CHF-PC (Educate, Nurture, Advise, Before Life Ends Comprehensive Heartcare for Patients and Caregivers) early PC telehealth intervention for persons with heart failure.

Research Objectives. To explore racial (Black vs White) and rural (vs. urban/suburban dwellers) ENABLE CHF-PC participant enrollment rates and differences.

Methods. Using bivariate tests and measures of association, we compared consented and non-consented patients by race and residency status. Among randomized participants we examined baseline differences in sociodemographic/clinical characteristics and baseline patient-reported outcomes (PROs) (quality of life [QOL], symptom burden, mood, resource use, activation, coping style, social support, health literacy, and spiritual/religious coping).

Results. Of 564 eligible patients, 82% (n=461) consented and 90% (n=415) of those were randomized. Of 103 eligible participants who declined, 73.5% (n=75) were White compared to only 25% (n=26) who were Black (d-equivalent =0.57; p<0.01). Of those randomized, 26 % (n=108) resided in a rural area (by RUCA criteria). Among rural residents there was a higher portion of White 58.3% (n_w=63) compared to Black participants 40.7% (n_B=44) (d-equivalent=0.34; p=0.124). Baseline PROs were not statistically different based on rural/urban location.

Conclusion. Higher proportions of Black and rural patients were recruited, relative to the Alabama population (26% African American; 23% Rural). At baseline, patients reported a fair QOL, low anxiety/depression and average pain. Minority and rural patient recruitment is possible despite documented PC disparities.

Implications for research, policy or practice. High recruitment rates of Black patients may be attributable to racial congruence between

recruiters and patients. We found no PRO differences based on racial or rural status; lack of disparities may be due to similar access to care and socioeconomic status.

An Opportunity for Palliative Care: Symptom Burden in Patients with Amyloidosis (S872)



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Objectives

1. Evaluate symptom burden of patients undergoing treatment for amyloidosis.
2. Justify the need for palliative specialists to be a part of standard of care for patients with amyloid.
3. Propose a model for palliative care to be integrated with standard of care for patients with amyloidosis.

Original Research Background. Although significant symptom burden has been described in patients with amyloidosis, few studies have used a validated tool to assess symptom burden or severity. Amyloidosis has many similarities to cancer; prognosis is poor, multiple organs may be involved, and treatment toxicities are common.

Research Objectives. To evaluate baseline symptom severity using the Edmonton Symptom Assessment System (ESAS), and the change in total symptom burden between outpatient hematology-oncology clinic visits in patients with amyloidosis.

Methods. Retrospective chart review of 48 consecutive patients with amyloidosis presenting to a cancer center outpatient clinic. ESAS and Total Symptom Distress Scores (TSDS) representing the combined physical, emotional, and well-being intensities were reported at each visit. Individual ESAS scores ≥ 4 were considered moderate to severe intensity. The minimal clinically important difference (MCID) was calculated for TSDS between first and second visits. Based on past research cutoffs used were $\geq +3/90$ for improvement and $\leq -4/90$ for deterioration. Patients being co-managed with at least one appointment with palliative care (PC) during the study period, were noted.

Results. Baseline ESAS scores were collected on 48 patients with 31 also receiving a second. At baseline 34 (71%) had at least one or more moderate-severe symptoms. Fatigue in 23 (48%) and insomnia 42% were most common. The MCID for TSDS showed 35% of patients improved while 35% showed deterioration. Only 6 (13%) of patients received palliative care.

Conclusion. Many patients with amyloidosis experience high symptom burden, and although the majority report moderate/ severe fatigue, and insomnia, few are co-managed by PC. About one third had improved symptom burden at their second visit.

Implications for Research, Policy, or Practice. Patients with amyloidosis have high symptom burden and may benefit from specialist palliative care. Further research is required to establish practice protocols and evaluate outcomes.

Testing Usability and Acceptance of the Electronic Patient Visit Assessment (ePVA) for Head and Neck Cancer: An Iterative Process (S873)

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Objectives

1. Describe usability testing of a web-based patient-report application for assessment of symptoms.
2. Evaluate the effectiveness of the usability testing and refinement of the electronic Patient Visit Assessment by the study population.

Original Research Background. Patients with head and neck cancer experience substantial symptom burden. A clinically useful tool is needed to evaluate symptoms for early detection of symptoms and functional limitations. Therefore, we developed a web-based electronic patient visit assessment (ePVA) for head and neck cancer. Using an iterative process to identify issues related to usability of the tool is imperative for the implementation of the ePVA in clinical settings.

Research Objectives. 1) Determine usability of the ePVA in head and neck cancer, and 2) refine the ePVA system over time based on patients' suggestions from the iterative process.

Methods. Study design consisted of usability testing using the Think Aloud technique to guide the iterative process to refine the ePVA based on participants' evaluations. After informed consent, 30 participants with head and neck cancer (Mean age = 61, 67% Male, 70% White, 83% stage IV cancer) completed the ePVA using iPads while thinking aloud about ease of use. Following ePVA completion, participants answered a valid and reliable survey about usability. All patient conversations were recorded, transcripts were analyzed using thematic analysis.

Results. Majority of participants reported symptoms (oral symptoms: 93%, fibrosis: 60%, fatigue: 60%); 90% strongly agreed/agreed that the system was easy

to use and 80% were very satisfied. Only minor usability problems were reported, decreasing in frequency over the study period. No usability problems were reported by the last 3 participants who completed the ePVA. Based on patients' suggestions from the iterative process, refinement of the ePVA included increased touch sensitivity and customized error messages to improve ease of use.

Conclusion. Study findings indicate that the ePVA is easy to use and has good acceptance by the study population.

Implications for Research, Policy, or Practice. Future research using the ePVA includes mapping of longitudinal trajectory of symptoms and clinical usefulness studies.

Bereavement Interventions for Grieving Family Members: A Systematic Review (S874)

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Objectives

1. Describe psychoeducational bereavement interventions that can be offered to family members during the first year of bereavement.
2. Identify family member outcomes that can be measured in an effort to determine if bereavement interventions are effective.

Background and Objectives. Bereavement care is part of palliative care that continues after patient deaths. It is important to determine what interventions are helpful and contribute to positive outcomes since supporting the bereaved may prevent long-term negative problems. The purpose of this systematic review was to review and evaluate the evidence regarding bereavement interventions for bereaved adults during the first year of bereavement.

Study Identification. Searches of MEDLINE, Embase, CINAHL, PsycINFO, and the Cochrane Central Register of Controlled Trials were conducted. Search terms used were grief, bereavement, mourning, intervention, program, support, therapy, outreach and counsel. A comprehensive review was conducted of bereavement intervention investigations published between 1979 and 2018.

Data Extraction and Synthesis. Twenty-five investigations were identified and analyzed. Of the 25 investigations 16 were randomized control trials and 9 were quasi experimental investigations. The interventions designed and tested included psychoeducational interventions (6), support group interventions (7), 1:1 support interventions provided by professionals, non-professionals or a combination of both (4), and

additional interventions (8). Examples of additional interventions included post death letters and post death telephone calls.

Results. The review demonstrated that psycho-educational interventions (including two web-based interventions) were most effective. Support group interventions and 1:1 support interventions had mixed results. Effective additional interventions included family focused grief therapy and an intervention that taught breathing and relaxation exercises. Positive family member outcomes included a decrease in symptoms of anxiety, depression and post-traumatic stress, decreased levels of grief and increased coping.

Conclusions and Implications for Practice, Policy, and Research. The results of this systematic review demonstrated that there are grief interventions that are effective and can be used to support adult family members during the first year of bereavement. Based on the results of this systematic review specific bereavement interventions can be safely offered to bereaved family members. Additional research is needed with diverse populations.

Cannabis Use Among Patients Prescribed Opioids in a Palliative Care Clinic (S875)



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Objectives

1. State the approximate percentage of patients receiving opioids in a palliative care clinic who also use cannabis.
2. Describe the most common symptoms for which patients use cannabis in our clinic population.

Original Research Background. Cannabis use is increasing in the United States. Palliative care patients utilize it to manage various symptoms, but there is little data about its use in this population.

Research Objectives. To assess cannabis use among palliative care clinic patients being prescribed opioids.

Methods. We conducted a retrospective chart review (October 2017, January 2018 and April 2018) using a convenience sample of patients being prescribed opioid therapy in a palliative care clinic at a rural, tertiary care, academic system.

Results. During this time period, 174 patients received prescriptions for opioids (98% for cancer-related pain, 4% dyspnea). Seventy-eight patients (45%) were using cannabis, and of these, 57 (73%) had the indication documented. Among those using cannabis, only 3 (4%) indicated using cannabis recreationally. Documented reasons for cannabis use included: pain (55, 96%), insomnia (12, 21%), nausea

(10, 18%), appetite (10, 18%), anxiety (5, 9%), depression (3, 5%), and seizures (1, 2%). Twenty patients (35%) used therapeutic cannabis for more than one indication. Routes of administration for the 38 patients for whom this was documented included: smoking (12, 32%), vaping (15, 40%), tincture (7, 18%), edible (6, 16%), and topical (6, 16%). Data was lacking on the formulations (CBD:THC ratios) of cannabis utilized and frequency of use.

Conclusions. Cannabis use is common among patients being prescribed opioids by a palliative care clinic. Indications and routes of administration are numerous. Our data lacks information on frequency and effectiveness of use for a given symptom. Use of cannabis and other complementary and alternative treatments should be assessed in palliative care patients.

Implications for Research, Policy, or Practice. Future research should investigate: better understanding of cannabinoid component formulations utilized for symptom relief, patients' perceived efficacy and side effects of cannabis as compared to FDA-approved medications for symptom management, safety profile of cannabis in combination with opioids, and whether cannabis use affects usage of opioids for cancer-related pain.

How are Pediatric Tracheostomy Decisions Discussed? An Analysis of Pediatric Tracheostomy Decision Processes (S876)



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Objectives

1. Describe pediatric tracheostomy decision discussions through the lens of the 10 Cardinal Issues from the Cardinal Issues Perspective (CIP) on decision making.
2. Interpret pediatric tracheostomy decision discussions through the lens of the 10 Cardinal Issues from the Cardinal Issues Perspective (CIP) on decision making.

Original Research Background. Parents of critically ill children who are ventilator dependent are often asked to consider the placement of a tracheostomy. This decision has substantial implications over the

life of the child and the family. Many healthcare professionals and parents find this decision process difficult. Understanding tracheostomy decision processes may inform researchers to develop decisions tools for promoting high-quality provider-parent communication and decision making.

Research Objectives. Our study aimed to describe and to interpret pediatric tracheostomy decision discussions according to the 10 *Cardinal Issues* from the *Cardinal Issue Perspective* (CIP) on decision making. *The Cardinal Issue Perspective* is a well-recognized approach for satisfying decisions in non-medical high-stakes economic situations.

Methods. We conducted a qualitative deductive thematic analysis of 19 de-identified transcripts of family conferences that discussed tracheostomy decisions.

Results. Five *Cardinal Issues*—*Need*, *Options*, *Possibilities*, *Judgment*, and *Implementation*—were discussed

more frequently than *Mode*, *Investment*, *Value*, *Tradeoffs*, and *Acceptability*.

Conclusions. Our qualitative analysis of real-life family conferences revealed that some aspects of decision making were discussed more frequently than others. In particular, decision process costs, values, and goals were discussed infrequently and thus suggest potential for improving tracheostomy decision processes.

Implications for Research, Policy, or Practice. Our work provides researchers, healthcare providers, and policy makers a better understanding of pediatric tracheostomy decision processes. *Cardinal Issues* may have the potential to structure and facilitate pediatric tracheostomy and other life-support-related medical decision making and communication processes. Our research findings may also inform medical school curriculum, to educate medical students how to facilitate discussions with families.