

The Association between Depression, Intensity of End-of-life Care and Advance Care Planning among Patients with Cancer (RP300)

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Objectives

1. Describe patterns of high-intensity end-of-life healthcare utilization by presence of absence of depression among patients with cancer
2. Recognize opportunities to address depression to ensure goal-concordant end-of-life care to patients with cancer

Abstract

I. Importance: The impact of depression on cancer diagnosis timing and anti-cancer therapy receipt has been explored, but limited data exist on the relationship between depression, end-of-life (EOL) healthcare utilization and advance care planning (ACP) documentation.

II. Objective(s): We examined high-intensity EOL healthcare and ACP documentation (e.g. living wills, durable power of attorney for healthcare, physician orders for life-sustaining treatment) by patients with cancer, comparing those with and without depression, to examine how depression impacts EOL healthcare and ACP documentation.

III. Method(s): We included patients with poor-prognosis cancer at UW Medicine who died 2010-2017. In addition to depression, we identified chronic comorbidities (CCs) in the 24 months preceding death using ICD9-10 codes, including: chronic pulmonary disease, coronary artery disease, heart failure, severe chronic liver disease, chronic renal disease, dementia, and diabetes with end-organ damage. Outcomes included ACP documentation, in-hospital death, and emergency department (ED) visit, hospitalization or ICU admission in the month before death. We performed logistic regression controlling for confounders defined *a priori* (age, race, sex, marital status, insurance, education, total CCs).

IV. Results: Of 15,092 patients with cancer, 3585 (34%) had a depression diagnosis. Compared to patients with cancer without depression (n=11507, 76%), depression was significantly associated with presence of ACP documents 31-180 days before death (OR 1.72, 95% CI 1.58-1.88), and increased healthcare utilization in the last 30 days including: ED visit (OR 1.78, 95% CI 1.43-2.21), hospitalization (OR 1.39, 95% CI 1.27-1.52), and ICU admission (OR 1.15, 95% CI 1.02-1.28). The groups did not differ on in-hospital death or ACP in the last 30 days.

V. Conclusion(s): Despite higher odds of ACP documents in the months preceding death, patients with cancer and depression experienced higher intensity of care in the last month.

VI. Impact: Future interventions should address the impact of depression on high-intensity EOL care, despite the presence of ACP documents, for patients with cancer and their families.

Prognosis Discordance between Physicians and Families regarding Patients' Functional Recovery after Severe Acute Brain Injury (RP301)

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Objectives

1. Identify the frequency of discordance in prognosis predictions between families and physicians of patients with SABI
2. Name the main factors that contribute to prognosis discordance and describe how they are measured
3. Recognize common reasons for "belief discrepancy"

Abstract

I. Importance: Patients with severe acute brain injury (SABI) face substantial prognostic uncertainty. Families are charged with making treatment decisions weighing death versus survival in a dependent state. Our goal was to understand discrepancies in prognostic expectations between physicians and families regarding patients' functional recovery.

II. Objective(s): Determine the prevalence of prognosis discordance between physicians and families regarding patients' functional outcome after SABI, and quantify contributing factors.

III. Method(s): Families of patients in an ICU with SABI and a GCS <12 after day 2 were eligible to participate. During in person interviews, families were asked (a) their prediction of the patient's chance of recovering to independence (0-100%), and (b) what they thought the physician would predict. Physicians caring for these patients were similarly asked (c) their prediction of recovery. "Prognosis discordance" was defined as a difference in family and physician prediction of at least 20% ($a-c \geq 20\%$). "Understanding discordance" was defined as a difference between family estimate of physician prediction and physician prediction of at least 20% ($b-c \geq 20\%$). A "belief discrepancy" was any difference between family prediction and their estimate of physician prediction ($a-b > 0$). If "belief discrepancy" existed, reasons were solicited.

IV. Results: We enrolled 160 families. "Prognosis discordance" occurred in more than half of family-physician pairs (57.6%), and 80% of families were more optimistic than physicians. Both "understanding discordance" (71%) and "belief discrepancy" (72.4%) were common. Reasons for "belief discrepancy" included faith; perceived benefit in optimism; patient's special strengths.

V. Conclusion(s): Discordance in prognosis between physicians and families of patients with SABI regarding functional outcome is common, and frequently attributable to differences in belief and understanding.

VI. Impact: These findings raise new questions regarding if and how differences in belief or understanding could be modified to promote alignment between physicians and families. They also highlight the need for additional research to determine the significance of discordance and its effect on long-term outcomes among patients and families.

Advance Care Planning and Intensity of Care at the End of Life for Adults with Chronic Kidney Disease and Congestive Heart Failure (RP302)

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Objectives

1. Our objective was to determine whether patients with CKD and CHF receive higher intensity end-of-life care.
2. Our objective was to determine whether patients with CKD and CHF have less ACP due to multiple disease conditions and providers.

Abstract

I. Importance: Despite evidence supporting palliative care, access to advance care planning (ACP) remains limited for those with chronic kidney disease (CKD) and congestive heart failure (CHF).

II. Objective(s): Our objective was to determine whether patients with CKD and CHF receive higher intensity end-of-life care and have less ACP due to multiple disease conditions and providers.

III. Method(s): We identified a sample of adults with CKD+CHF (n=1673), CKD without CHF (n=1706), CHF without CKD (n=2761) who died 2010-2017 in a retrospective cohort study using death certificates and electronic health records from a multihospital healthcare system. We used multivariable logistic regression, adjusting for a priori confounders.

IV. Results: In the last 30 days of life, 39% with CKD+CHF had inpatient admissions while 33% had intensive care unit (ICU) admissions; 57% died in hospital. Compared to patients with CKD without CHF, patients with CKD+CHF were more likely to have inpatient (OR 1.58, 95% CI 1.33-1.88) and ICU admissions (OR 1.48, 95% CI 1.25-1.79); compared to those with CHF without CKD, patients with CHF+CKD were more likely to have inpatient (OR 1.38, 95% CI 1.20-1.59) and ICU admissions (OR 1.21, 95% CI 1.06-1.40). Regarding ACP documentation 31-180 days before death, those with CKD without CHF were more likely to have documentation versus those with CKD+CHF (OR 1.32, 95% CI 1.14-1.53) whereas those with CKD+CHF were more likely to have documentation compared to those with CHF without CKD (OR 1.34, 95% CI 1.13-1.59). We found no significant differences in ED visits or in-hospital death among the groups.

V/VII. Conclusion/Impact: Patients with CKD+CHF receive higher intensity end-of-life care than those with CKD or CHF alone, identifying potential risk for burdensome care. However, patients with CHF were at higher risk of not having ACP documentation than those with CKD and represent an important target for ACP interventions.

Do Life-Sustaining Treatment Orders Match Patient and Surrogate Preferences? The Role of POLST (RP303)

Presenter: Susan Hickman, PhD, Indiana University, IN
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Objectives

1. Discuss the importance of concordance between documentation and current preferences to ensuring treatment preferences are honored at the end of life.
2. Describe the outcomes of a study comparing concordance in nursing home patients with and without POLST forms.

Abstract

I. Importance: It is essential to high quality medical care that life-sustaining treatment orders match the current, values-based preferences of patients or their surrogate decision-makers. It is unknown whether concordance between orders and current preferences is higher when a POLST form is used compared to standard documentation practices.

II. Objective(s): To assess concordance between existing orders and current preferences for nursing facility residents with and without POLST forms.

III. Method(s): Chart reviews were performed at 40 Indiana nursing facilities (29 where POLST is in use, 11 where polst is not in use). Interviews were conducted with 161 residents able to provide consent and 197 surrogate decision-makers of incapacitated residents. The main outcome was concordance between current reported preferences and existing documentation in the medical record (e.g., POLST or orders about resuscitation, intubation, and hospitalization). Concordance was analyzed using a population-averaged logistic regression model. Inverse probability weighting accounted for non-response. It was hypothesized a priori that concordance would be higher in patients with POLST (n = 275) in comparison to patients without POLST (n = 83).

IV. Results: Concordance was higher for residents with POLST than without POLST (59.3% versus 34.9%). In a model adjusted for resident, surrogate, and facility characteristics, residents with POLST were 3.05 times more likely to have preferences match orders for life-sustaining treatment than residents without POLST forms (OR 3.05 95% CI 1.67-5.58, $p < .001$). No other variables were significantly associated with concordance.

V. Conclusion(s): Nursing facility residents with POLST are significantly more likely than residents without POLST to have concordance between orders in their medical records and current preferences for life-sustaining treatments, increasing the likelihood that their treatment preferences will be known and honored.

VI. Impact: Findings suggest that POLST offers significant advantages over standard approaches in helping ensure that treatment preferences are known and honored.

Development of a Novel Implicit Association Test for Racial Bias in End of Life Care – The EOL-IAT (RP304)

Presenter: Elizabeth Chuang, MD, MPH, FAAHPM, Albert Einstein College of Medicine/Montefiore Med, NY
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Objectives

1. Describe implicit bias and recognize its prevalence among clinicians
2. Appraise the relative contribution of various types of bias to deficiencies in clinical communication
3. Evaluate key challenges in measurement of implicit bias

Abstract

I. Importance: Clinician unconscious bias may contribute to racial disparities in quality of end-of-(EOL) life care.

II. Objective(s): To develop a novel Implicit Association Test (IAT) to measure clinicians' unconscious associations between patient race and form of EOL care.

III. Method(s): Words representing “comfort oriented” and “aggressive” EOL care were identified through literature review. A convenience sample of clinicians treating patients with serious illness completed sorting and ranking tasks to select stimuli. Words consistently sorted into categories that aligned with the target categories were retained for ranking. Words consistently ranked as representative of the categories were used as attributes in an end-of-life IAT (EOL-IAT). The EOL-IAT was piloted on-line by ProjectImplicit® with a standard general racial bias IAT (Race IAT). Differences in response latencies when pairing race categories (black/white) with attribute categories (good/bad, comfort/aggressive) were assessed using the IAT-D score.

IV. Results: 23 subjects completed the sorting or ranking tasks (57% women, 74% White, 70% physicians, 70% palliative specialists). 14 subjects then completed the pilot (64% women, 57% White, 57% physicians, 86% palliative specialists). The mean error rate was comparable between the EOL-IAT (M=3.33%; SD=2.6) and the Race IAT (M=3.2%; SD=2.4), $t=-0.18$, $p=0.86$. Participants were slower to respond to EOL-IAT stimuli (M=940 ms; SD=252.8) compared to Race IAT stimuli (M=861.2 ms; SD=223.9) ($t=-2.22$, $p=0.045$), but the difference was small (Cohen's $d=-0.33$; CI=-1.07, 0.42). Mean Race IAT-D score was 0.32 (SD=0.31), and mean EOL-IAT-D score was 0.06 (SD 0.26). The association between EOL-IAT-D and Race IAT-D scores was small ($\rho=0.20$, $p=0.50$).

V. Conclusion(s): The EOL-IAT is feasible to administer and yields similar error rates as the Race IAT. The EOL-IAT will be refined to improve response latency before validation in a larger sample of clinicians.

VI. Impact: Prevalence of clinician bias and the relationship between bias and communication behaviors will be assessed with the refined tool.

Latent Profiles of Symptom Experiences in Advanced Stage Cancer: Relationships to Acceptance and Commitment Therapy Constructs (RP305)

Presenter: Catherine Mosher, PhD, Indiana University-Purdue University Indianapolis, Indianapolis, IN
Ellen Krueger, BS, Indiana University Purdue University - Indianapolis Clinical Psychology PhD Program, Indianapolis, IN

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Objectives

1. Describe the state of the science on Acceptance and Commitment Therapy (ACT) in advanced cancer.
2. Describe ACT constructs associated with symptom outcomes in advanced cancer.

Abstract

I. Importance: Many advanced cancer patients experience persistent, disabling symptoms. In pilot research, Acceptance and Commitment Therapy (ACT) has shown promise for reducing symptom interference with activities in advanced cancer patients. However, relationships between key ACT constructs and cancer patients' symptoms are largely unknown.

II. Objective(s): This study examined symptom-based subgroups of advanced cancer patients and their associations with ACT constructs.

III. Method(s): Stage IV cancer patients were recruited from academic medical centers and a public hospital in Indianapolis, IN from February to October 2018. Prostate, breast, gastrointestinal, and lung cancers were equally represented. Patients completed standard measures assessing the severity of five symptoms (i.e., pain, fatigue, sleep disturbance, depressive symptoms, anxiety) and ACT constructs (i.e., psychological inflexibility, values obstruction, cognitive fusion, illness acceptance, mindfulness). A latent profile analysis was performed to identify patient subgroups based on symptom severity, allowing anxiety and depressive symptoms to covary in the model.

IV. Results: A total of 201 patients ($M_{age}=62$, $SD_{age}=12$, 49% female, 81% White) participated. The latent profile analysis revealed three subgroups. Subgroup 1 reported low severity on all symptoms ($n=65$, 32%). Subgroup 2 reported mixed symptom severity (T-scores range=42-56; $n=39$, 19%). Subgroup 3 reported high severity on all symptoms except for pain ($n=97$, 48%). Multinomial logistic regressions indicated that greater psychological inflexibility, values obstruction, and cognitive fusion were associated with a higher likelihood of being in subgroup 3 than subgroups 1 or 2 (ORs=.72 to .90; $ps\leq.001$). Lower illness acceptance and mindfulness were associated with a higher likelihood of being in subgroup 3 than subgroup 1 (ORs=1.33, 1.36; $ps\leq.001$).

V. Conclusion(s): Results suggest that advanced cancer patients with higher symptom severity are more likely to judge or avoid their thoughts and feelings, struggle to accept their illness, and have difficulty engaging in personally meaningful activities.

VI. Impact: Findings support further testing of ACT to reduce symptom interference with functioning in advanced cancer.

Content of Documented Goals of Care Discussions Based on Communication Best Practices for Patients with Stage IV Cancer (RP306)

Presenter: Laura Hanson, MD, MPH, FAAHPM, University of North Carolina, Chapel Hill, NC

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Objectives

1. Describe the prevalence of key communication components in EHR-documented goals-of-care discussions.
2. Identify whether the use of an ACP Note template is associated with increased documentation of best-practice components.

I. Importance: Written communication between clinicians is critical to goal-concordant care. Little is known about electronic health record (EHR) documentation of goals-of-care discussions.

II. Objective(s): For hospitalized patients with Stage IV cancer, (1) to describe frequency of communication and decision-making components in EHR-documented goals-of-care discussions; and (2) to assess whether use of an ACP Note template is associated with improved documentation.

III. Method(s): We analyzed all EHR-documented goals-of-care discussions in a cohort of hospitalized patients with Stage IV cancer. Research staff reviewed the EHR from admission to 60-days follow-up, and abstracted documentation of goals-of-care discussions, operationalized as communication between clinician and patient/family with two components: (1) prognosis or illness understanding; and (2) goals or treatment options. Investigators conducted qualitative textual analysis using content codes derived from communication conceptual frameworks.

IV. Results: Among the 206 of 492 (42%) patients with documented goals-of-care discussions, clinicians frequently communicated cancer progression or incurability (89%), but rarely addressed life expectancy (22%). Goals and values were documented for 83%, and a clear treatment decision was documented for 82% of patients. At least one treatment preference was assessed for 98% of patients; options discussed included cancer treatment (62%), hospice (62%), resuscitation (51%), or intensive care (38%). Clinicians documented making a recommendation for 40% of patients. Documentation of attention to emotional and spiritual concerns was uncommon (15%). Use of the ACP Note template was associated with increased documentation of patient goals and values (80% vs. 61%, $p < 0.01$), but did not affect other documentation components.

V. Conclusion(s): EHR documentation of goals-of-care discussions frequently included information about disease progression, attention to patient goals, and treatment options; documentation of patient goals improved with use of an ACP template.

VI. Impact: Insights from the study can be used to guide future research to determine what elements of documented goals-of-care discussions improve receipt of goal-concordant care.

“If It’s The Time, It’s The Time”: Existential Communication in Naturally-Occurring Palliative Care Conversations with Individuals with Advanced Cancer, Their Families, and Clinicians (RP307)

Presenter: Elise Tarbi, MSN, CRNP, ACHPN, University of Pennsylvania School of Nursing, Doctor of Philosophy in Nursing, Philadelphia, PA

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Objectives

1. Describe the full spectrum of existential experience individuals may encounter during serious illness.
2. Recognize how existential content may be expressed during naturally-occurring conversations.

Abstract

I. Importance: Being diagnosed with a serious illness can heighten awareness of the fragility of life, with potential to trigger existential concerns. Despite the inevitability of existential experience for individuals facing life-limiting illnesses, existential experience remains a neglected area in palliative care research. In particular, little is known regarding how existential experience is discussed among individuals with advanced cancer, their families, and clinicians in everyday palliative care conversations.

II. Objective: This study aimed to describe how individuals with advanced cancer, families, and clinicians communicate about existential concerns in actual palliative care conversations.

III. Methods: This study employs data from the *Palliative Care Communication Research Initiative (PCCRI)*—a multisite observational cohort study involving hospitalized adults with advanced cancer (Stage 3 or 4 non-hematologic malignancies) who were referred for inpatient palliative care consultations. The unique dataset includes 231 patients, contributing to 363 recorded conversations. The present study used a qualitative descriptive approach paired with inductive conventional content analysis to analyze a randomly selected sub-sample of 30 palliative care consultations to address the study aims.

IV. Results: The random sample of 30 patient participants contributed to 37 conversations. Data converged around three major themes: (1) individuals with advanced cancer and their families strive for maintaining a coherent self in the changing landscape of illness and dying; (2) existential communication is woven, at times implicitly, within practical elements of palliative care conversations; (3) time as a precious, finite resource serves as the most pressing boundary of existence to be navigated in the conversations.

V and VI. Conclusion and Impact: The results of this study highlight the implicit nature of existential communication, while also identifying language and opportunities that can be leveraged by palliative care clinicians and researchers to better identify and explore the unmet existential needs of individuals with advanced cancer and their families.

Is PCP Involvement Associated with earlier Advance Care Planning?: A study of patients in an academic primary care setting (RP308)

Presenter: Dylan Sherry, MD, Beth Israel Deaconess Medical Center, Boston, MA

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Objectives

1. Review rationale for having PCPs involved in ACP.
2. Identify variables which affect the timing and prevalence of complete advance care planning in a primary care practice.
3. Determine the impact of PCP involvement on timing and completeness of ACP and discuss the implications of this finding.

Abstract

I. Importance: Improving advance care planning (ACP) is important to ensuring patients receive care aligned with their preferences. While studies have examined factors correlated with ACP, few have examined primary care physician (PCP) involvement in ACP.

II. Objective(s): To determine whether documented complete ACP (healthcare proxy, POLST, and connected reasoning) would occur earlier among patients whose PCP was involved in the process compared to patients without PCP involvement.

III. Method(s): Charts of deceased patients from 2015-2017 in an academic primary care practice were reviewed. We examined static factors such as gender, age, marital status and mortality risk scores, and dynamic factors such as palliative care involvement and visits within the last year of life to both PCPs and specialists. Categorical and continuous variables were compared using chi-squared/Fisher's exact tests and Wilcoxon signed rank or student t-test respectively. Poisson models were used to estimate the likelihood of earlier ACP being associated with PCP involvement.

IV. Results: Of 403 deceased patients, 71 (18%) met criteria for complete ACP; 118 (29%) had POLST/HCP or connected reasoning/HCP; 214 (53%) patients had only an HCP. Complete ACP was compared to HCP only. Adjusting for potential confounders, (specialist visits, marital status) relative risk for earlier ACP compared with late ACP and HCP only was 4.7 (95% CI 1.3-17.1) for PCPs filling out POLST form and 4.6 (95% CI 1.2-17.1) for documentation of connected reasoning. Other variables (mortality risk scores, palliative care involvement, admissions, etc) did not impact the analysis.

V. Conclusion(s): This retrospective cohort study provides a snapshot of ACP practices within an academic primary care practice. The findings suggest PCP involvement in ACP correlates with earlier ACP.

VI. Impact: These findings suggest PCP involvement in ACP results in earlier completion, highlighting the importance of educating PCPs on this subject and crafting systems-based approaches to improve ACP in this setting. Further research will examine whether PCP involvement in complete ACP improves end-of-life care.

Improving Documentation of Advance Care Planning in Outpatients with Decompensated Cirrhosis (RP309)

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Objectives

1. To understand perceived gaps in communication and advanced care planning among patients with decompensated liver disease.
2. To understand methods of improving advance care planning among patients with decompensated liver disease.

Abstract

I. Importance: Patients with decompensated cirrhosis (DC) experience high morbidity and mortality; very few will ultimately receive a liver transplant. Advance care planning (ACP) is one particularly unmet need. Reported rates of advance directive (AD) and goals of care discussion (GCD) completion are as low as 0% and 0-2%, respectively, among patients with DC.

II. Objective(s): Our primary objective was to pilot an intervention that improves rates of AD and GCD completion in outpatients with DC seen in a non-transplant hepatology clinic. Our secondary objective was to identify real-time barriers to ACP experienced by providers for the purposes of further quality improvement (QI).

III. Method(s): We piloted a 6-month ACP intervention in a once-weekly hepatology clinic at Mount Sinai Hospital staffed by a rotating group of eight gastroenterology and transplant hepatology fellows and overseen by four attending hepatologists. We pre-identified patients with DC and no prior AD. During clinic visits, fellows were recommended to bring up AD completion for patients flagged as lacking AD and to utilize standardized electronic health record (EHR) templates for documenting a GCD and providing after-visit instructions. Our primary outcome was the presence of AD in the medical chart (measured monthly and at end of follow-up). Our secondary outcomes were: 1) the presence of a GCD note in the EHR and 2) providers' self-reported barriers to AD completion.

IV. Results: Sixty-two patients were seen over 115 clinic visits. After the intervention, AD completion rates increased from 8 to 31% and GCD completion rates rose from 0 to 51%. Women ($p=0.048$) and non-married adults ($p=0.01$) had greater changes in AD completion compared to men and married adults, respectively. Needing more time during visits was seen as the major barrier to ACP among providers.

V. Conclusion(s): Addressing provider and system-specific barriers dramatically improved documentation rates of ACP.

VI. Impact: This is the first QI study to report improved ACP documentation among patients with DC in a non-transplant setting.

Decision-making About Clinical Trial Options Among Older Patients with Metastatic Cancer who have Exhausted Standard Therapies (RP310)

Presenter: Mazie Tsang, MD,MS, University of California San Francisco, CA
Daniel Dohan, PhD, UC San Francisco, CA

Objectives

1. To interpret how patient-provider interaction shape decision-making among older cancer patients who have advanced disease and have exhausted standard therapies.
2. To analyze how social context shapes decision-making among older cancer patients who have advanced disease and have exhausted standard therapies.

Abstract

I. Importance: Research on decision-making among older patients with incurable cancer has focused on end-of-life care and advanced care planning. Fit, older patients may be candidates for investigational therapies once they exhaust standard options, yet are underrepresented in clinical trials, leading to gaps in the evidence basis for their management. Qualitative research is needed to understand and guide decision-making about the next steps after standard treatment for these patients.

II. Objective(s): To characterize the decision-making approaches of patients older than 70, who have exhausted standard therapies for their metastatic cancer, to clarify their perceptions on their options.

III. Method(s): Longitudinal qualitative data were collected at two academic centers (in Pacific and Midwest regions) on patients with metastatic cancer, who were identified by their oncologist as having nearly exhausted all standard therapies, via direct observation of clinical interactions; in-depth interviews with patients, caregivers, and oncologists; and a survey of patients and caregivers. We performed exploratory pattern analysis of decision-making themes.

IV. Results: Of the 96 patients enrolled in the overall study, 17 were older than 70 (range 71-95). Several themes were identified: (1) the majority were interested in various options ranging from cancer clinical trials to complementary and alternative medicine; (2) many did not view their age to be a limitation in either their medical care or quality of life; (3) despite having researched their cancer, patients deferred to their oncologist for treatment decision-making.

V. Conclusion(s): Older patients at two academic centers were generally interested in life-prolonging therapies, including enrollment on cancer clinical trials, despite not explicitly stating this to their oncologist. The majority of patients deferred to their oncologists for the next steps in their management.

VI. Impact: This study suggests that oncologists should assess patients' and caregivers' treatment preferences and have a discussion about the role of clinical trials in order to clarify any misconceptions.

Testing the “Extra Layer of Support” (ELOS) Mobile Application to Engage Cancer Patients Around Palliative Care (RP311)

Presenter: Arif Kamal, MD,MBA,MHS,FAAHPM, Duke Cancer Institute, Durham, NC

Objectives

- 1.Participants will be able to describe how usability testing of digital health is performed
- 2.Participants will be able to conclude usability of the ELOS platform after results are shared of the research testing

Abstract

I. Importance: Despite the immense growth of palliative care clinical services, only a minority of cancer patients and their oncologists have a robust understanding of palliative care’s utility. This leads to underutilization of available palliative care services.

II. Objective: We aimed to develop and test an educational tool for patients with advanced cancer to clarify misconceptions.

III. Method: We used a panel of physicians, nurses, patients, and caregivers to develop the Extra Layer of Support (ELOS) mobile application (app). The app was designed to introduce patients and caregivers to palliative care, patient navigation, cancer basics, symptom management, and advance care planning. We then conducted usability testing of ELOS from October 2018 through October 2019. Patients with advanced gastrointestinal or genitourinary cancer at Duke University and University of North Carolina – Chapel Hill were enrolled. We collected demographics and assessed system usability scores, willingness to use and recommend, and patient preparedness.

IV. Results: 100 patients were enrolled. 65% were male, 27% racial minorities, and 61% with less than a Bachelor’s degree. ELOS The mean usability score was 82.6, putting ELOS usability in the 93rd percentile of all mobile health tools. When asked if the patient was likely to consider using the services introduced in the tool (palliative/supportive care services), 75% of patients responded they were either somewhat likely or very likely. When asked how likely the patients were to recommend the tool on a zero to ten Likert scale, the average response was 8.74.

V. Conclusion: Our testing indicates that a novel, mobile tool designed to educate and introduce patients to palliative care is highly usable, and study participants were both likely to utilize palliative care services and recommend it to others. Larger trials are needed to evaluate efficacy.

VI. Impact: Electronic tools to educate and engage cancer patients around palliative care services are usable, even among a diverse population.

Getting Everyone on the Same Page: Key Components of an Implementation Process for a Large Pragmatic Randomized Trial Across Three Health Systems (RP312)

Presenter: Anne Walling, MD,PhD, FAAHPM, UCLA, Los Angeles, CA

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Jonathan Lee, MD, MAS, UCSF, CA

Judy Thomas, JD, Coalition for Compassionate Care of California, Sacramento, CA

Neil Wenger, MD, UCLA, Los Angeles, CA

Objectives

- 1.Understand key components necessary for the implementation of a large ACP pragmatic trial.
- 2.Understand how to effectively achieve multi-disciplinary stakeholder engagement across multiple sites.

Abstract

I. Importance: Pragmatic trials that implement scalable advance care planning (ACP) interventions in real-world setting are needed.

II. Objective(s): To determine system-level changes needed to implement three scalable ACP interventions ((1) advance directive (AD) alone vs. (2) AD + PREPAREforYourCare website vs. (3) AD + PREPARE + lay navigator) for a large cluster-randomized pragmatic trial across three University of California (UC) health systems.

III. Method(s): The trial includes patients with serious illness from primary care clinics at UC Los Angeles, UC San Francisco, and UC Irvine. Interventions are automatically sent through the electronic health record (EHR, Epic) patient portal and mail. We convened a multi-disciplinary stakeholder advisory board including state/national leaders and, from each site, health system/Population Health leaders, Epic coders, clinicians, patients/caregivers, analysts, and payers. We obtained input from stakeholders and monitored secular trends to determine the key components required to launch this large pragmatic trial.

IV. Results: Required key components included: (1) obtaining several administrative, privacy, Epic/patient portal approvals at each site; (2) standardizing local ACP documentation practices and providing education; (3) developing a validated SI algorithm; (4) developing site-specific EPIC code, based on local site structure, to identify patients prior to clinic appointments to receive the intervention while maintaining intervention fidelity; (5) obtaining privacy approvals for mail vendors; (6) obtaining buy-in from over 100 stakeholders to standardize ACP messaging; (7) monitoring ongoing secular trends (e.g., local Epic updates and changing Population Health priorities); and (8) requiring constrained randomization to ensure age and prior AD completion were equal among arms. We have randomized 50 clinics across the three sites, obtained all needed permissions, finalized Epic builds, and launched the trial. The trial will include approximately 7000 patients.

V. Conclusion(s): Implementing a large pragmatic trial, with automated, EHR-based cohort identification and intervention delivery, requires a high level of multi-disciplinary stakeholder engagement, standardization, and coordination between sites.

VI. Impact: These key components provide guidance for the implementation of other large ACP pragmatic trials.

The Influence of Neoliberalism on Burdensome Life Sustaining Treatments Near the End of Life (RP313)

Presenter: Elizabeth Dzung, MD,PHD,MPH, University of California, San Francisco (UCSF), CA

J. Randall Curtis, MD, MPH, University of Washington, Seattle,

Thea Matthews, BA, University of California San Francisco, CA

Jason Batten, MD, MA, Stanford Internal Medicine Residency, Translational Investigator Program, CA

Christine Ritchie, MD,FAAHPM, University of California San Francisco, San Francisco, CA

Daniel Dohan, PhD, UC San Francisco, CA

Objectives

1. To explain the relevance of systems-level influences on the quality and intensity of end-of-life care
2. To list at least three factors that arise from a culture of consumerization and neoliberalism that might contribute to burdensome, overly aggressive end-of-life care

Abstract

I. Importance: Burdensome, overly aggressive life-sustaining treatments (LST) near the end of life (EOL) such as mechanical ventilation and resuscitation have the potential to create ethical challenges where treatments can cause harm and suffering with little chance of benefit. Interventions to reduce inappropriate LST have met with limited success, raising the possibility that the social context within which clinical decisions are made may play a role in the persistence of burdensome care. One such contextual factor is neoliberalism, characterized by free-market capitalism, which encourages a culture of consumerization and unlimited choice.

II. Objective(s): The objective of this study is to understand the broader macro-sociological factors that influence institutional culture and individual behavior that impact burdensome care.

III. Method(s): We conducted 37 semi-structured in-depth interviews with clinicians and administrators at two hospitals in California rated by the Dartmouth Atlas as high-intensity and low-intensity for aggressiveness of end-of-life care. Transcripts were analyzed using thematic analysis.

IV. Results: Interviews reveal different practice patterns and behaviors in response to ethical challenges around burdensome LST, which reflect different support structures that mitigate the influences of neoliberalism at an institutional level. Stronger systems-level support structures at the low-intensity hospital appear to support clinicians in making decisions in a patient's best interest that modulate the aggressiveness of end-of-life care. In contrast, the high-intensity hospital reflected a culture of consumerism, which encourages clinical momentum towards burdensome LST. This was characterized by a prioritization of an unreflective reverence to patient autonomy; extreme deference towards consumerization; clinician powerlessness to act ethically; a focus on metrics and in particular, patient satisfaction; and the coopting of ethics committees into a regulatory body.

V. Conclusion(s): These results suggest that neoliberal ideology might shape organizational culture and clinical practice in ways that may have implications for burdensome LST.

VI. Impact: Understanding how macro-sociological phenomena influence clinical practices and behaviors have the potential to inform the development of systems-level interventions to mitigate burdensome care.

Latent Class Analysis to Determine Patients with Advanced Heart Failure at Highest Risk of Poor Outcomes (RP314)

Presenter: Karen McKendrick, MPH, Icahn School of Medicine At Mount Sinai, NY
Laura Gelfman, MD, MPH, FAAHPM, Icahn School of Medicine at Mount Sinai, New York, NY
Harriet Mather, BMBCh, MSc, Icahn School of Medicine at Mount Sinai, New York, NY
Nathan Goldstein, MD FAAHPM, Mount Sinai Hospital, New York, NY
R Sean Morrison, MD, FAAHPM, Icahn School of Medicine Mount Sinai, New York, NY

Objectives

1. To examine the relationship between readily available clinical data and poor outcomes such as multiple hospitalization and death for patients with advanced heart failure.
2. Discuss the use of latent class analytic techniques for finding subgroups or phenotypes within a group of subjects

Abstract

I. Importance: Predicting prognosis for patients with advanced heart failure (HF) is difficult. Most prediction models don't use regularly captured clinical data.

II. Objective(s): To find a phenotype of patients with advanced HF that might be associated with poor outcomes.

III. Method(s): Latent class analysis was conducted using secondary data from a 6-site cluster RCT of an intervention to improve communication with advanced HF patients who had implantable cardioverter defibrillators (ICDs). Nine baseline measures were included: hospitalizations in the year before enrollment, HF severity (NYHA class), HF etiology, ICD indication (primary/secondary), functional status (ADLs), symptom burden (>2), comorbidities (>2), depression, and anxiety. Model fit criteria were compared for models testing 1 to 5 latent classes.

IV. Results: Two groups of patients emerged: Class1 - "Healthier" - N=352 (62.5%) and Class2 - "More Sick" N=211 (37.5%). Class1 was more likely to be male (76% vs. 61%, $p<0.001$), married (58% vs. 50%, $p<0.05$), ischemic (48% vs. 39%, $p<0.05$) and less severe HF (NYHA class I or II) (12% vs. 2%, $p<0.001$), and to report no hospitalizations in the prior year (21% vs. 8%, $p<0.001$). Class2 was more likely to report ADL difficulty (93% vs. 26%, $p<0.001$), symptom burden (100% vs. 51%, $p<0.001$), comorbidities (86% vs. 74%, $p<0.002$), depression (28% vs. 1%, $p<0.001$), anxiety (30% vs. <1%, $p<0.001$) and have Medicaid (32% vs. 24%, $p<0.05$). Differences were not detected for age, race, ethnicity, or education. Patients in Class2 reported more hospitalizations (2.8 vs. 2.2, $p<0.02$) and were more likely to die (26% vs. 17%, $p<0.01$).

V. Conclusion(s): We found a phenotype of advanced HF patients who were more likely to experience multiple hospitalizations and death based on readily available clinical data.

VI. Impact: These findings may help clinicians identify patients at higher risk of poor outcomes to target interventions such as palliative care and advance care planning.

Communication about Prognosis and Illness Understanding Among Adults Receiving Targeted Therapy (TTx) for Metastatic Non-Small Cell Lung Cancer (mNSCLC) (RP315)

Presenter: Laura Petrillo, MD, Massachusetts General Hospital, Boston, MA

Robert Sommer, BS, Massachusetts General Hospital, Boston, MA

Lara Traeger, PhD, Massachusetts General Hospital/Harvard Medical School, Boston, MA

Joseph Greer, PHD, Massachusetts General Hospital Cancer Center, Boston, MA

Jennifer Temel, MD, Massachusetts General Hospital, Boston, MA

Objectives

1. By the end of this session, participants will recognize common themes of patients' and caregivers' experiences gaining illness understanding and prognostic awareness in the group of adults with metastatic non-small cell lung cancer who receive targeted therapy and caregivers that we studied.

2. By the end of the session, participants will be able to apply insight from this cohort's experience to future discussions with adults with metastatic lung cancer with targetable mutations and their caregivers about illness understanding and coping with uncertainty.

Abstract

Importance: Precision medicine has dramatically improved survival for a subset of adults with mNSCLC, yet mNSCLC remains a life-limiting illness. Prognostic awareness allows patients and caregivers to plan for the future and discuss preferences with their medical team.

Objectives: To describe how patients with mNSCLC who receive precise TTx and their caregivers learn about, understand, and live with their diagnosis and prognosis.

Methods: We conducted semi-structured interviews with 32 adults with mNSCLC receiving TTx and 14 caregivers. Interviews explored how TTx was explained, facilitators and barriers to prognostic communication, perceptions of the goal of TTx, and participants' experience of uncertainty. Two reviewers used a framework approach to code transcripts and we synthesized codes into themes. We also administered a questionnaire that assessed prognostic awareness.

Results: We identified these themes: 1) Patients and caregivers were surprised by the mNSCLC diagnosis because patients lacked risk factors, and this shock affected their ability to absorb information; 2) Oncologists' optimism framed patients' understanding of their cancer as a chronic problem with hopeful treatments on the horizon; 3) Patients experienced a "duality" of feeling well in the moment, yet sensing that "the other shoe is going to drop," leading to anxious uncertainty that affected life choices; 4) Patients felt it is important "to become your own advocate," and desired support for living with uncertainty. Most participants endorsed that the goal of TTx is "to gain time," yet in surveys, 58% of patients and 58% of caregivers believed TTx might cure mNSCLC, or were unsure.

Conclusions: The illness understanding of adults with mNSCLC who receive TTx is shaped by oncologists' communication and their lived experience. Patients and caregivers feel uncertain about the future, and seek empowerment and support in managing their health care.

Impact: These results will inform development of an intervention to support adults with mNSCLC receiving TTx and their caregivers, a model for future supportive care in precision oncology.

Advance Care Planning by an Embedded Social Worker for Patients with Advanced Heart Failure Desiring Heart Transplant or Mechanical Circulatory Support (RP316)

Presenter: Neil Wenger, MD, UCLA, Los Angeles, CA

Codie Lieto, LCSW, Ronald Reagan UCLA Medical Center/California State University, Northridge, CA

Anne Walling, MD, PhD, FAAHPM, UCLA, Los Angeles, CA

Mario Deng, MD, UCLA, CA

Jennie Kung, MBA, N/A, Los Angeles, CA

Objectives

1. Understand implementation of a shared mental model within a specialty service
2. Consider the elements of a disease specific advance care planning process.
3. Understand measurement of utilization outcomes for advance care planning

Abstract

I. Importance: Patients with advanced heart failure who are candidates for mechanical circulatory support and heart transplant are at risk for severe adverse events and long hospital stays leading to death.

II. Objective(s): Describe how a social worker embedded within a Cardiomyopathy service can implement timely advance care planning (ACP) with patients considered for mechanical circulatory support and/or heart transplant and evaluate the impact on goals of care (GOC) conversation documentation and inpatient utilization.

III. Method(s): After developing a shared mental model with cardiologists, surgeons and team, an ACP social worker implemented disease-targeted discussion with admitted patients to (1) clarify understanding of condition and treatment options, (2) identify and document appropriate proxy decision makers, (3) conduct and document GOC including preferences concerning disease- and procedure-specific adverse outcomes, and (4) ensure proxies are aware of patient preferences. A structured visit note reflected discussions, decisions and obstacles to decision making. We evaluated whether patients receiving the intervention had documented GOC including goals for future health states and an advance directive (AD), and compared inpatient utilization after an index hospitalization among all patients before (4/2013-5/2015) and after (6/2015-9/2019) the intervention.

IV. Results: The ACP social worker approached 556 of 638 admitted cardiomyopathy patients and documented GOC and designated surrogate for every patient; 71% of patients effectively explored preferences in future health states and 68% completed a valid AD. Compared to the 390 patients admitted during the 26 months pre-intervention, index admission length of stay (25d post v 26d pre) and inpatient mortality (13% post v 14% pre) were similar. However intervention period length of stay in hospital (26d v 43d, $p<0.001$) and ICU (21d v 35d, $p<0.01$) was shorter among decedents.

V. Conclusion(s): Implementing an ACP program on a Cardiomyopathy inpatient service is feasible with most patients meaningfully considering GOC, and may decrease hospital use among decedents.

VI. Impact: ACP is feasible even among cardiomyopathy inpatients desiring the most aggressive treatment.

Palliative Care Consultation for Patients with Central Nervous System Malignancies (RP317)

Presenter: Rita Crooms, MD, Icahn School of Medicine at Mount Sinai, New York, NY

Sean Neifert, BS, Icahn School of Medicine at Mount Sinai, NY

Stacie Deiner, MD, Icahn School of Medicine at Mount Sinai, NY

Jonathan Gal, MD, Icahn School of Medicine at Mount Sinai, NY

Laura Gelfman, MD, MPH, FAAHPM, Icahn School of Medicine at Mount Sinai, New York, NY

Objectives

1. To compare characteristics of inpatients with CNS malignancies who were and were not referred to palliative care
2. To compare patient outcomes in inpatients with CNS malignancies who were and were not referred to palliative care

Abstract

I. Importance: American Society of Clinical Oncology guidelines recommend early palliative care referral into routine oncology care. Little is known about palliative care utilization among patients with central nervous system (CNS) malignancies.

II. Objective(s): To describe rates of inpatient palliative care referral in patients with CNS malignancy tumors and to compare patients who were and were not referred.

III. Method(s): Using administrative claims, we conducted a retrospective study of patients with a neurological DRG who were admitted to a single academic center between 10/1/2011 to 3/31/2019 and had a primary or secondary CNS tumor based on ICD-9/10 codes. We conducted bivariate analyses to compare patients who were and were not referred for specialty palliative care.

IV. Results: In total, 1,669 patients met our inclusion criteria: 1,431 (80%) were not referred to palliative care and 328 (20%) were referred to palliative care. Patients referred to palliative care were older (mean age 63.1 vs 56.1, $p < .0001$) and more likely to be male (50% vs 41%, $p = .003$). Patients referred to palliative care were more likely to die during the admission (12.2% vs 1.6%, $p < .0001$), be discharged to hospice (17.1% vs 2.5%, $p < .0001$), have a do-not-resuscitate (DNR) order on discharge (51.5% vs 1.0%, $p < .0001$), and less likely to go home (40.6% vs 69.4%, $p < .0001$).

V. Conclusion(s): There was a low utilization of palliative care in a patient population with limited life expectancy. Those who did were more likely to be near the end of life as demonstrated by increased likelihood of DNR orders, hospice enrollment and in-hospital death.

VI. Impact: Increased and early palliative care has the potential to improve quality of care for patients and caregivers with CNS malignancies. Further research is needed to increase referrals to palliative care for this population.

Frequency of Preoperative Advance Care Planning for Older Adults Having High-Risk Surgery (RP318)

Presenter: Elle Kalbfell, MD, University of Wisconsin, WI

Anna Kata, MD, Georgetown University Hospital, DC

Anne Buffington, MPH, N/A, WI

Nicholas Marka, MS, University of Wisconsin - Madison, WI

Karen Brasel, MD, MPH, Oregon Health & Science University, OR

Anne Mosenthal, MD, FACS, Rutgers NJMS, Newark, NJ

Zara Cooper, MD, MS, FACS, Brigham & Women's Hospital, Boston, MA

Emily Finlayson, MD, MS, University of California San Francisco, CA

Margaret Schwarze, MD, University of Wisconsin, WI

Objectives

1. Identify the discrepancy between perceived and reported frequency of preoperative advance care planning (ACP) discussion and documentation for older adults undergoing major surgery.
2. Recognize the importance of preoperative advance care planning (ACP) discussion and documentation for older adults undergoing major surgery.

Abstract

I. Importance: Although surgery generally proceeds as planned, discussing patient preferences for life-sustaining treatments is important given the potential for poor outcomes. While surgeons believe ACP is commonly addressed, it is unclear how often this occurs.

II. Objective(s): To determine the frequency of preoperative advance care planning (ACP) discussion and documentation for older adults undergoing major surgery.

III. Method(s): We performed secondary analysis of data from a multisite RCT testing a question prompt list (QPL) intervention in patients >60 years with a major oncological or vascular problem, in which the consultation with one of 40 surgeons was audio-recorded. We excluded patients who did not proceed with major surgery. We counted any ACP-related utterance by the surgeon or patient. We recorded ACP documentation in the medical record, defined as a written advance directive or an order limiting life-sustaining treatment present at any time preoperatively, including the date of procedure.

IV. Results: Two hundred thirteen patients had major surgery (51% intervention/49% usual care). The QPL intervention had no effect on communication about or documentation of advance directives. Only 12 (5%) preoperative consultations contained any discussion of ACP. ACP documentation was present in the medical record at the initial consultation or added preoperatively for 72 (33.8%) patients. One hundred and forty-one patients (66.2%) had no ACP documentation at the time of surgery. Patients who had additional visits with their surgeon were less likely to have ACP documentation at the time of surgery (29% vs 44%, $P < 0.045$).

V. Conclusion(s): Despite surgeons' perception that they preoperatively discuss patient preferences about prolonged postoperative life-sustaining treatment, there is limited evidence that these preferences are being explored, addressed or documented.

VI. Impact: Interventions to improve preoperative ACP discussion are sorely needed.

New Horizons: Evolving Our Understanding of Prognostication in the Era of Machine Learning (RP319)

Presenter: Finly Zachariah, MD,FAAFP,FAAHPM, City of Hope, Duarte, CA
Lorenzo Rossi, PhD, City of Hope, CA

Objectives

1. Increase awareness of machine learning methodologies.
2. Explain how machine learning augments human prognostication

Abstract

I. Importance: Significant mismatches exist between patient wishes and care delivery at the end of life. While global capture of end of life patient care preferences remains elusive for the healthcare system, another challenge, especially in an era of rapidly advancing therapies, is accurate prognostication.

II. Objective(s): Increase awareness of machine learning methodologies and use in prognostication.

III. Method(s): We developed a supervised machine learning model utilizing data from 2014-2017 on 18,797 cancer patient records with the goal of predicting 90-day mortality utilizing up to 180 days of data prior to the prediction date. Using a gradient boosted tree algorithm, evaluating 205 features (encompassing labs, age, gender, vitals, medications and utilization), we trained the model on 14,431 patients and evaluated the model on 4,366 patients, of which 116 patients died within 90 days of the prediction date.

Leveraging gradient boosted tree allows limited insight into the predictions, i.e. a gray box model. Using the SHapley Additive exPlanations (SHAP) method, we were able to estimate the contribution of each feature on the prediction score of each true positive patient.

IV. Results: Performance on the evaluation set showed a ROC AUC of 0.94 and an average precision (area under the precision-recall curve) of 0.44. We set a decision threshold for a precision of 70%. The model flagged 29 patients, 20 of which were true positives (17.2% recall). The highest weighted features predictive of 90-day mortality in this true positive population included known prognostic factors such as albumin, weight change, and performance status. Machine learning allows more sophisticated analysis, and the model found significance in unique aspects of the data, i.e. evaluating the slope of lab values, minimum value of albumin, or the maximum value for alkaline phosphatase. Other highly prognostic variables are intuitive, but beyond human capability to easily compute, including the percent of all normal labs.

V. Conclusion(s): Machine learning with explanation models to predict prognosis shows promise, but requires further evaluation.

A machine learning based risk stratification tool to coordinate referrals between inpatient specialty and palliative care for patients with Heart Failure (RP320)

Presenter: Claudia Nau, PhD, Kaiser Permanente, CA

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Anne Ichiuji, MD, Kaiser Permanente, CA

Mingsum Lee, MD, Kaiser Permanente, CA

Rebecca Buttler, ScM, Kaiser Permanente Southern California, CA

Janet Lee, MS, Kaiser Permanente, CA

Aiyu Chen, MPH, Southern California Kaiser Permanente, CA

Iona (Xia) Li, MA, Kaiser Permanente, CA

Huong Nguyen, PhD, RN, Kaiser Permanente Southern California, Pasadena, CA

Objectives

1. Explain how clinical stakeholders were involved in the multidisciplinary model building process of our model.
2. Explain how results of our risk score look like and how they can be used by cardiologists and palliative care teams to discuss and coordinate referrals.

Abstract

I. Importance: Most inpatient palliative care teams rely on referrals from treating physicians. Reliable prognostication necessary to support timely referrals has proven challenging for treating physicians.

II. Objective(s): We engaged palliative care and cardiology providers to develop and evaluate a machine learning based risk stratification tool to identify patients with heart failure (HF) who are likely to die within 12 months of their hospitalization. Our tool will be shared with cardiology and palliative care teams and provides along with a risk score provider defined criteria such as frequent emergency department visits or high pain score to contextualize the risk score.

III. Method(s): We chose one randomly selected hospitalization for each patient (N=76,955) ages 18+ years with a diagnosis of HF who was hospitalized during 06-2007 to 10-2015 across 14 Kaiser Permanente Southern California (KSPC) hospitals. Predictive models were built and tested using extreme gradient boosting and cross-validation on 90% of the sample. Validation was conducted on the remaining 10%. Our predictor set is drawn from the highest performing models in the literature and clinician input. Clinicians choose specific predictors to display along with the risk score.

IV. Results: The model area under the curve (AUC) is 0.83, sensitivity is 66% and the positive predictive value (PPV) is 79% for default probability cut-offs. PPV can be increased to 90% with a sensitivity of 41%, changes in referral volume for different probability cut offs will be presented across hospitals and all of KPSC. Models will be run nightly. We will work with clinicians to identify palliative and cardiology team members who should receive the risk score every morning and discuss referrals.

V. Conclusion(s): We engaged with key clinical stakeholders to design and validate a high-performing risk-stratification model to target and coordinate referrals between specialty and palliative care providers.

VI. Impact: Our tool can facilitate and optimize specialty-palliative care-team discussions and palliative care referrals.

Living with Vs. Dying from End Stage Renal Disease: Dialysis Patients' Experiences with Advance Care Planning (RP321)

Presenter: Deborah Waldrop, PhD, MSW, University at Buffalo, NY

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Sandra Lauer, RN, BSN, Erie County Medical Center, Buffalo, NY

Kathleen Grimm, MD, Erie County Medical Center, Buffalo, NY

Objectives

1. To discuss dialysis patients' perspectives on provider communication about options for renal replacement therapy.
2. To describe the barriers to advance care planning conversations in end stage renal disease.

Abstract

I. Importance: People with end stage renal disease (ESRD) experience higher treatment intensity, more hospitalizations and lower rates of advance care planning near the end of life than people with other serious illnesses. Comprehensive care of people with ESRD includes advance care planning conversations that address goals of care well beyond choices between specific options for renal replacement therapy.

II. Objective(s): The objective of this study was to explore the nature of advance care planning and how provider communication influences a sense of coherence about illness and treatment in a sample of dialysis patients.

III. Method(s): In-depth chairside interviews involving the collection of both qualitative and quantitative data were conducted with 35 participants while they were on dialysis. Open-ended questions focused on the history of illness, development of understanding about the disease and its impact on their lives, goals of care and what gives life meaning. Categorical questions focused on the timing and quality of provider communication about healthcare decisions using the QEOLC-10, if they had a healthcare proxy and what the person knew about their wishes.

IV. Results: Participants $M_{age}=55.8(SD=17)$; 77% were African American, 20% White and 3% Latinx; 57% were female. The length of time on dialysis ranged from 4 months to 24 years. A majority (89%) had a health care proxy and 77% said the person would know their wishes if unable to speak for themselves. The length of time it took to fully comprehend the complexity of being a dialysis patient ranged from 6 months to 3 years. Four themes were illuminated from the analysis of the narrative data: Differential illness trajectories (unexpected kidney failure, long-term diabetes, hypertension, transplant failure); Meaning-making is Coping; Provider Communication; and Living with (not Dying) on Dialysis.

V. Conclusion(s): Comprehension of the realities of dialysis is complex and focuses on life-affirming choices.

VI. Impact: The unique and distinct decisions and experiences of ESRD underscore the importance of disease-specific and person centered advance care planning conversations.

"Connection" -- The Integration of a Person Centered Narrative Interventions into the Electronic Health Record: An Implementation Study (RP322)

Presenter: Heather Coats, PHD, APRN-BC, University of Colorado, CO

Paula Meek, PHD, RN, University of Colorado, Aurora, CO

Lisa Schilling, MD, MSPH, University of Colorado School of Medicine, Aurora, CO

Terrah Akard, PhD, RN, FAAN, Vanderbilt University, Nashville, TN

Ardith Doorenbos, PhD, RN, FAAN, University of Illinois at Chicago, IL

Objectives

1. Describe barriers and facilitators to implementation of the co-created patient narrative intervention included in the electronic health record (EHR)
2. Assess the acceptability and usability of including patient narratives in the EHR

Abstract

I. Introduction: Incorporating patient narratives into the electronic health record (EHR) is an opportunity to integrate patients' values into their care and improve patient-clinician communication.

II. Objectives: The study's aims were to (1) identify barriers and facilitators influencing the implementation of the integration of patient narrative intervention into the patient's electronic health record and (2) assess the acceptability/usability of patient narratives from the perspectives of patients and acute-care nurses.

III. Methods: Using the Consolidated Framework for Implementation Research (CFIR), we conducted an implementation study using mixed methods. The CFIR framework has 5 domains: (1) intervention characteristics, (2) individual characteristics, (3) outer setting, (4) inner setting and, (5) implementation process. To evaluate the acceptability of the patient narrative intervention, semi-structured exit interviews evaluating were conducted with each patient and nurse participant. To evaluate usability, the nurse participants were asked to complete the NIH system usability scale.

IV. Results: Twenty patients and 18 nurses were enrolled from 5 units in an acute care hospital. The narrative intervention provided patients an avenue to discuss how illness impacted their life in psychological, social, and spiritual belief domains. For nurses, the ability to read patient narratives provided benefits that "improved communication" and "more connection" with their patients. Despite successfully meeting recruitment targets, time was the largest barrier for both patient and nurse participants. Overall, nurses gave high ratings on most of the items on the system usability scale with one exception – EHR integration. The low system usability ratings of EHR integration corresponds with the nurses' stated desire for a more prominent location of patient narratives in the EHR.

V. Conclusions: The patient narrative intervention was acceptable and usable for hospitalized patients and nurse participants.

VI. Impact: Implications for Practice: Our study demonstrates that a co-created patient narrative intervention allows patients and nurses to "connect" despite being in hectic and increasing shorter lengths of stay for patients in acute-care settings.