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 for 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 reflection s 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%), $\chi 2(1) = 78.06$, $p < .001$.