CHPN FAAN FPCN, University of Maryland, Baltimore, MD.

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)

Maya Ladenheim, BA, University of California, San Francisco School of Medicine, San Francisco, CA. David O'Riordan, PhD MPH, University of California, San Francisco, San Francisco, CA. Giovanni Elia, MD FAAHPM, University of California, San Francisco, San Francisco, CA. Steven Pantilat, MD FACP FAAHPM, University of California, San Francisco, San Francisco, CA.

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)

Jessica Langston, MD MPH, Stanford University, Palo Alto, CA. Vandana Sundaram, MPH, Stanford University, Palo Alto, CA. Vyjeyanthi Periyakoil, MD, Stanford University School of Medicine, Stanford, CA. Lori Muffly, MD, Stanford University, Stanford, CA.

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% >= 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)

Megan Lippe, PhD RN, University of Alabama, Tuscaloosa, AL. Andra Davis, PhD MN BSN, Washington State University, Vancouver, WA.

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.