

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. 1) 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,