

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

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

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

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

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

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

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

Susan Hickman, PhD, Indiana University School of Nursing, Indianapolis, IN. Kathleen Unroe, MD, Indiana University, Indianapolis, IN. Mary Ersek, RN FPCN, University of Pennsylvania, Philadelphia, PA.



Wanzhu Tu, PhD, Indiana University, Indianapolis, IN. Monica Ott, MD, Indiana University, Indianapolis, IN. Greg Sachs, MD FACP, Indiana University School of Medicine, Indianapolis, IN.

#### *Objectives*

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

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

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

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

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

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

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

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

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



Rebecca Hutchinson, MD MPH, Maine Medical Center, Portland, ME. Adam Black, BA, Maine Medical Center, Portland, ME. Kathleen Fairfield, MD, Maine Medical Center, Portland, ME.

#### ***Objectives***

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

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

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

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

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

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

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

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



Masayuki Iwata, MSN RN PhN, Keio University, Chita-Gun, Aichi, Japan. Soojeong Han, RN AGNP-BC, University of Washington, Seattle, WA. Helene Starks, PhD MPH, University of Washington, Seattle, WA. Ross Hays, MD, Children's Hospital and Regional Med Center, Seattle, WA. Ardith Doorenbos, PhD RN FAAN, University of Washington, Seattle, WA.

#### ***Objectives***

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

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

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

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

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