

3. Review the essential elements and components of an inpatient palliative program implemented in a rural community safety net hospital in an era of cost containment.

**Background.** There is a plethora of data detailing the utilization of inpatient palliative care programs (IPCPs). However, the data is dominated by academic centers including urban/suburban facilities. There is a lack of data regarding rural safety net facilities (RSNF) primarily serving the medically indigent. The medically indigent represent a vulnerable population that historically has been ignored regarding access to palliative care.

**Research Objectives.** To assess the impact of an IPCP in a RSNF in south Louisiana regarding hospital/ICU deaths, palliative care and withdrawal of life support order set utilization, ICU codes, and patient days and hospice referrals.

**Method.** An IPCP was implemented in July 2008 and consisted of providers, nursing staff, social workers, and others formed a palliative care team in 2007 at Chabert Medical Center in Houma, LA. Other components included a consult service, an evidence-based palliative care and withdrawal of care order set, an educational campaign for patients and employees including medical students and residents that includes a lecture series, updated end of life facility policies, a dedicated palliative care suite, and pamphlets and printed literature available for patients and family members in high utilization areas. A quality of care palliative care registry was created and data was tracked from 2005 (3 years prior to program inception) to early 2012.

**Result.** Hospital deaths were reduced by 15-18% and ICU deaths by 12.5-15%. Palliative care order set utilization increased from 28% in 2008 to 55% in 2010/2011, ICU deaths were reduced 10%, withdrawal of life support order set use increased from 28% in 2008 to 50% in 2011, ICU codes remained unchanged, ICU patient days fell 20%, and hospice referrals have increased 40-45%.

**Conclusion.** An IPCP implemented at an RSNF may successfully reduce resource utilization and increase hospice referrals.

**Implications for Research, Policy, or Practice.** IPCPs can be implemented successfully at rural safety net facilities primarily serving the medically indigent.

### ***Intensive Care Unit Nurses and Palliative Care: Perceptions and Recommendations (S706)***

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(All authors listed above had no relevant financial relationships to disclose.)

#### ***Objectives***

1. Describe common preconceptions regarding palliative care held by ICU patients, family members, and clinical providers.
2. List principles that are considered, by this study of ICU nurses, to be inherent to ICU-based palliative care.
3. Discuss barriers to optimal ICU-based palliative care and suggest ways to overcome or circumvent these barriers.

**Background.** ICU nurses confront PC-related issues and can provide key insights into how ICU-based palliative care is perceived and should be provided.

**Research Objectives.** Explore ICU nurse perceptions surrounding palliative care.

**Method.** This is a qualitative study using focus groups that were audio-recorded, transcribed, de-identified, and analyzed. Informed by a grounded theory approach, we used line-by-line, focused, axial, and theoretical coding to identify salient themes.

**Result.** Six semi-structured focus groups were convened with 26 ICU nurses (day and night shift) from three ICUs (one medical, two surgical) at a tertiary care, academic inner city hospital. Four axial domains were identified: (1) issue inherent to PC; (2) utilizing PC consultants; (3)

preconceptions surrounding PC; and (4) barriers to PC. ICU nurses related concepts (ie, dignity and quality of life) they considered inherent to PC but were concerned about how to address these concepts (ie, when should PC be consulted). Nurses noted preconceptions (ie, PC is “giving up”) and barriers to PC (ie, ICU culture) that complicate PC delivery within the ICU.

**Conclusion.** ICU nurses advocate for PC principles, but recognize that many preconceptions and barriers complicate delivery of PC in the ICU.

**Implications for Research, Policy, or Practice.** Based on this data, we recommend to: formalize how/when to involve PC consultants; provide more PC education for ICU patients, family, and clinicians; and identify local ICU and hospital PC champions. Further research is needed into how to most effectively enact these recommendations.

### ***Incidence of Naloxone Usage in Palliative Medicine Unit (S707)***

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(All authors listed above had no relevant financial relationships to disclose.)

#### ***Objectives***

1. Identify the incidence of naloxone usage in adult patients admitted to a palliative medicine unit over 2 years.
2. Identify the circumstances leading to naloxone administration and the appropriateness of naloxone usage.
3. Identify the relationship between opioid and naloxone dose.

**Background.** Opioids are the most common analgesics used to palliative pain. Opioid toxicity in terminally ill patients is multifactorial. Naloxone, an opioid antagonist, reverses sedation and respiratory depression from opioid toxicity but little is known about naloxone usage in palliative care.

**Research Objectives.** Identify the incidence of naloxone usage in adult patients admitted to a palliative medicine unit over 2 years; identify the circumstances leading to naloxone administration and the appropriateness of naloxone usage; and identify the relationship between opioid and naloxone dose.

**Method.** This study was conducted in the palliative medicine inpatient unit at Cleveland Clinic Foundation and was a retrospective review of patients admitted to the palliative medicine unit over 2 years (from 01/01/2010 to 12/31/2011). Patient demographics: medical history, concurrent use of CNS depressants, total opioid dose 24 hours prior to respiratory depression, circumstances leading to respiratory depression, and outcome with naloxone administration.

**Result.** Among 1814 patients who were admitted to palliative medicine unit, 25 patients (1.37%) received naloxone. Circumstance of naloxone usage was as follows: Seven overmedicated without drug interactions, 10 received benzodiazepines, and two had procedural sedation (past 12hrs), two received haloperidol, one chlorpromazine, three had minimal notes. There were no medication errors or equipment failures. Twenty-three patients had their opioid dose decreased/held and two patients experienced other adverse effects. The naloxone dose did not correlate with the 24 hour opioid dose.

**Conclusion.** Naloxone usage in a palliative unit is low (less than 2%) and the dose requires clinical judgment and titration to effect rather than based on the opioid dose.

**Implications for Research, Policy, or Practice.** The incidence of naloxone usage is low. The addition of benzodiazepines to opioids is a significant cause of respiratory suppression. The dose of naloxone that reverses the respiratory suppression does not correlate with the opioid dose.

### ***Start While They're Young!: A First-Year Medical Student Elective on Aspects of Palliative and End-of-Life Care (S708)***

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#### ***Objectives***

1. Apply effective strategies using the hospice and palliative care competencies in teaching/learning situations.