Palliative Care and Hospice Research
Updates from 2016-2017

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Objectives

• Identify 10 of the most important research studies conducted in 2016-2017
• Describe ways these studies could be applied to improve the way you deliver palliative care.
• Avoid putting you to sleep

Methods

• Summarize the key scientific presentations of the year and focus only on either clinically relevant points or information for promoting palliative care
  – AAHPM “State of the Science”
  – “PC-FACS: A Year in Review”
  – “Speed Dating with Pharmacists”
Getting Palliative Care Involved Earlier


What They Did
• Randomized 136 patients with advanced cancer who presented to the ED to either palliative care or usual care
• Patients followed for 12 weeks and they measured:
  – QOL (FACT-G)
  – Depressed mood (PHQ-9)
  – Healthcare utilization for 180 days
  – 1 year survival

Why It Matters
• Quality of Life increased significantly higher in the palliative care group (5.91) than the control group (1.08)
• Survival was 289 days in palliative care and 132 days in the control (P= 0.2)
• No differences in depression, admission to ICU, or discharge to hospice.

Conclusion
• A palliative care presence in the ER for patients with advanced cancer patients may actually improve quality of life with a trend towards improving survival as compared to current misconceptions.
Developing Evidence-base Algorithms for Managing Symptoms in Nursing Homes

Pain Management Algorithms for Implementing Best Practices in Nursing Homes: Results of a Randomized Controlled Trial.

What They Did
- Randomized 485 nursing home residents to an intervention receiving:
  - Pain handbooks to all RNs
  - 4 in-person classes
  - Pain mgmt. teams/champions
  - Primary care provider involvement with 4 biweekly booster session
- Control group was 1-hour in-service x 4

Why It Matters
- No difference in CRNA reported pain scores
- No difference in patient reported pain scores
- Out of 8 measurements the only significant finding was a slight reduction (0.8) in resident-reported “worst” pain scores

Conclusions
- We still lack optimal evidence-based algorithms for managing pain in nursing homes
- More work on this topic is desperately needed
Reducing CHF Readmissions

**Properties of a transitional palliative care model on patients with end-stage heart failure: a randomised controlled trial**

**What They Did**
- Randomized 84 patients with advanced CHF
  - (2/4 of class III/IV, > 3 hospitalizations, expected prognosis < 1 year or heavy symptom burden)
  - Intervention consisted of
    - Meeting with nurse case manager prior to discharge
    - Weekly meetings/calls with RN CM and volunteer tapered over 12 weeks

**Why It Matters**
- 4 weeks readmissions
  - Intervention: 23%
  - Control: 29%
- 12 weeks readmissions
  - Intervention: 39%
  - Control: 67%
- Ave # read per/pt over 12 weeks
  - Intervention: 1.12
  - Control: 0.42
- ESAS Improved (73% vs 41%)
- QOL Improved (McGill 7.6 vs 6.5)
- Higher patient satisfaction

**Conclusions**
- An intensive 12 week transitional home-based program reduced readmissions at both 4 and 12 weeks and reduced symptom burden, improved quality of life, and increased patient satisfaction with care.
- Although very small size and conducted in Hong Kong so may not be generalizable to US.
**Therapies for Pruritus**


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**Pharmacological Interventions for Pruritus in Adult Palliative Care Patients**

**What They Did**
- Authors reviewed 50 studies with 1916 participants that covered a total of 39 different therapies for pruritus.
- 96% of the studies had a high risk of bias due primarily to low sample size.

**Why It Matters**
- In palliative care patients without a clear etiology, paroxetine demonstrated a 0.78 reduction in pruritus score.
- In uremic pruritus, gabapentin, nalfurafine, and cromolyn sulfate all demonstrated significant improvement.
- In cholestatic pruritus, rifampin demonstrated a reduction in itching.
- Others with some supporting evidence include capsaicin and ondansetron.

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**Conclusions**

- Pruritus is an area where more research is needed but for patients with favorable prognoses, I should use more paroxetine and for patients with renal disease, continue low-dose gabapentin, and I am itching to try cromolyn sulfate.
Best Practices for Treating Agitation

Efficacy of Oral Risperidone, Haloperidol, or Placebo for Symptoms of Delirium Among Patients in Palliative Care: A Randomized Clinical Trial.

What They Did
- Randomized double-blind trial of 247 patients with delirium at 11 palliative care units/inpatient hospices
- Pt given either risperidone, haloperidol, or placebo 0.5mg loading and than 0.5mg q12H (less than 65) or ½ that dose if older than 65

Why It Matters
- Delirium symptom scores were at least as high in the patients receiving low-dose haloperidol and risperidol
- Extrapyramidal symptoms worse in experimental arms
- Patients in the placebo group used less midazolam for breakthrough agitation
- Worse survival for the haloperidol group

Conclusions
- In this RCT patients receiving low-dose haloperidol and risperidol had worse delirium symptom burden, high treatment toxicity, and decreased survival (in the haloperidol arm)
Challenges of Medication Administration


Liquid Medication Errors and Dosing Tools: A Randomized Controlled Experiment

What They Did
• Randomized 2099 parents to 1 of 5 measuring groups.
• Measuring either 2.5/5/7.5 ml or using a 10 cc syringe to measure 0.2 or 0.5 increments or a dosing cup.
• Amounts that deviated by more than 20% were not accurate

Why It Matters
• 84% of parents made at least one error
• 21% of parents made multiple errors
• Syringes much better than cups but error rates still very high with syringes
• Make sure units are all the same throughout the study

Study Conclusions
• Medication errors are common with measuring liquid medications.
• Errors are especially common if using measuring cups or changing units.
• Greater efforts should be made to identify high risk patients/families

My Conclusions
• We need to use more prefilled syringes and place more effort on observing caregivers fill up an initial dose of medication
• For high risk or expensive medications, prefilled syringes may be optimal
Predicting Functional Status after Hospitalization

Trajectories of disability among older persons before and after a hospitalization leading to a skilled nursing facility admission

What They Did
- Longitudinal survey of 754 community dwelling people age >70 years old. Examined 12 tasks:
  - 4 core ADLs, 5 IADLs, and 3 mobility tasks (walk 0.25 mile, climb flight of stairs, lift 10 pounds)
- Comprehensive assessment at 18 months and monthly phone calls

Why It Matters
- If minimal disability before hospital than 52% had substantial improvement
- If mild disability before than 5% had substantial and 56% had little improvement
- If moderate disability prior there was no substantial improvement in SNF rehab

Study Conclusions
- Pre-hospital ADLs strongly predict improvement with SNF care
- >3 ADL impairments pre-acute care suggest that a SNF is unlikely to improve care over the long run

My Conclusions
- This study is helpful for setting expectations to help patients/families understand the limitations of modern medicine
- It provides evidence for my "engineering patients" that want as much information as possible

Conclusions
Treating Resistant Depression

A Double-Blind, Randomized, Placebo-Controlled, Dose-Frequency Study of Intravenous Ketamine in Patients With Treatment-Resistant Depression

What They Did
- Multicenter double-blind RCT where 68 patients with refractory depression received either IV ketamine (0.5mg/kg) or IV placebo either 2 or 3 times per week
- Primary outcome was Montgomery-Asberg Depression Rating Scale (MADRS)

Why It Matters
- In the twice weekly ketamine group depression scores dropped by 18.4 vs 5.7 for placebo on day 15
- In the three times a week ketamine group depression scores dropped by 17.7 compared to 3.1 on day 15 for placebo
- Ketamine overall well tolerated: Headaches, anxiety, dissociation, nausea

Conclusions

Study conclusions
- Twice-weekly and thrice-weekly administration of ketamine at 0.5mg/kg similarly maintained antidepressant efficacy over 15 days

My Conclusions
- Intravenous ketamine could be a useful solution for severe refractory depression and twice weekly appears just as effective
How Does US EOL Compare to Other Nations

Comparison of Site of Death, Health Care Utilization, and Hospital Expenditures for Patients Dying With Cancer in 7 Developed Countries

What They Did
• Retrospective cohort study using administrative registry data from 2010 in patients over 65 with cancer
• Outcomes included death in acute care hospitals, hospitalizations, ICU admissions, ED visits, chemotherapy, and hospital expenditures

Why It Matters
• In the last 180 days of life 40.3% of American had an ICU stay compared to less than 18% of other reporting nations
• The United States actually had the lowest proportion of patients die in the hospital (22.2%) compared to Canada (52.1%)

Comparison of Site of Death, Health Care Utilization, and Hospital Expenditures for Patients Dying With Cancer in 7 Developed Countries

Study Conclusions
• Among patients over 65 with advanced cancer end-of-life care was more hospital focused in Europe in Canada while ICU care was nearly twice as common in the United States compared to other developed nations.

My Conclusions
• I was pleasantly surprised that American hospitals have the lowest in-hospital mortality rates for patients with advanced cancer and expected our ICU admissions rate and costs to be higher than our peers.
Family's Perspective on High Quality EOL Care


What They Did
• Prospective cohort study of 1146 patients with advanced lung and colorectal cancer
• Interviews conducted with their caregivers after death
• Primary outcome was caregivers rating the quality of end-of-life care "excellent"

Why It Matters
• The majority of caregivers rated end of life excellent for patients:
  – > 3 days of hospice (59%)
  – Died at home (58%)
• Lower adjusted satisfaction
  – ICU in last month (43%)
  – Died in hospital (41%)
  – Chemo in last 2 weeks (49%)

Family Perspectives on Aggressive Cancer Care Near the End of Life

Conclusions

Study Conclusions
• Family members of patients with lung or colorectal cancer found that earlier hospice enrollment, avoidance of ICU admissions, and death occurring at home were associated with better perceived end-of-life care

My Conclusions
• I use this study frequently in presentations as it is powerful to show clinicians what really matters to our patients/families
Other Nominees

Identifying Practice Patterns

Best Study 2016


VOTE AMERICA
EVERY VOTE COUNTS