CONCERT 2010 Consensus Conference
Palliative care in COPD and transitions to end-of-life care

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2010 COPD Conference on Acute / Transition Research Prioritization

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Disclosure:

Research Funding Related to Topic:
AHRQ, NHLBI, NINR, NCI, National Quality Forum, CMS, American Lung Association of Oregon, Northwest Health Foundation, VA HSR&D, Samueli Research Institute & Robert Wood Johnson Foundation

•Professional Organization Support Related to Topic:
•ATS, ACCP, CCI, SCCM, NQF, AAHPM, VHA & Robert Wood Johnson Foundation

•Industry Support (COPD Research):
•Novartis Pharmaceuticals Corporation, Spiration, Inc
Palliative care in COPD and transitions to end-of-life care

- Goal of effectiveness / CER / translational research
- COPD and PEOLC – why and what?
- End-of-Life Care in COPD → Communication
- Palliative Care for COPD as part of Transitions
- Dyspnea (including Acute Care)
INNOVATION

IMPROVED HEALTH

BENCH

T1

BEDSIDE

T2

PATIENTS

CLINICAL TRIALS

EFFICACY RESEARCH

SYSTEMATIC REVIEWS
META-ANALYSES
GUIDELINE DEVELOPMENT
DISSEMINATION
QUALITY MEASUREMENT

T3

PRACTICE

PRACTICE-GUIDED TRIAL DESIGN

EFFECTIVENESS & IMPLEMENTATION RESEARCH

Oregon Clinical and Translational Science Institute (OCTRI)
Translating Research Into Practice and Policy (TRIPP)
COPD is predicted to be the 3rd leading cause of death by end of this decade.
Medicare Enrollees Admitted to ICU During the Last Six Months of Life

Use of intensive care at the end of life in the United States: An epidemiologic study*

Derek C. Angus, MB, ChB, MPH, FCCM; Amber E. Barnato, MD, MPH, MS; Walter T. Linde-Zwirble; Lisa A. Weissfeld, PhD; R. Scott Watson, MD, MPH; Tim Rickert, BA; Gordon D. Rubenfeld, MD, MSc; on behalf of the Robert Wood Johnson Foundation ICU End-of-Life Peer Group

- 22% of all deaths after ICU admission
- > 1/2 of all deaths in hospital
Long Term Survival After Acute Exacerbation of COPD

Survival ()

Follow-Up, Days

Connors, AJRCCM, 1996; 154:959

< 60 years

60-75 years

> 75 years
US Hospice Data

- Number of Hospices: 3,200
- Median Length of Stay: 26 days
- Patients Served: 885,000
- Lung Disease: 6.7%

National Hospice and Palliative Care Organization
www.nhpco.org
Symptom Burden in Advanced Lung Disease

• ~ quarter million individuals die from either COPD every year in the U.S. – increasing worldwide

• Incidence and cumulative burden of chronic progressive lung disorders are increasing in concert with ↑ aging

• 70% - 90% of late-stage patients with COPD and other advanced progressive pulmonary disorders experience troublesome shortness of breath

Desbiens NA, Wu AW. Pain and suffering in seriously ill hospitalized patients. JAGS 2000; 48:S183-186
Pauwels RA, et al. (GOLD Scientific Committee) Am J Respir Crit Care Med 2001;163:1256-1276
Sorenson HM. (Palliative Respiratory Care, May 2000, Cancun, Mexico) Resp Care 2000; 45:1331-38
Medicare Criteria for Eligibility of Patients with Advanced Lung Disease for Hospice

- Severe chronic lung disease as documented by
  - Disabling dyspnea at rest, poorly or unresponsive to bronchodilators, resulting in decreased functional capacity (FEV1 < 30% predicted as evidence)
  - Progression (increasing visits to the emergency department or hospitalizations for pulmonary infections and/or respiratory failure (serial decrease of FEV1)
- Hypoxemia at rest on room air (PaO2 ≤ 55 mmHg or Sat 88%) or Hypercapnia (pCO2 ≥ 50 within the last 3 months)
- Cor pulmonale
- Unintentional progressive weight loss (> 10% in < 6 months)
- Resting tachycardia (>100 beats / min)

Poor Predictive Performance (alive at 6 months ~ 75 %)

Fox E. et al (SUPPORT) *JAMA* 1999; 282(17):1638-1645
Quality of Life 6 Months After Hospitalization for COPD

- Overall quality of life:
  - 50% of patients rate their quality of life as fair or poor
  - 50% rated as good, very good, or excellent
- Little more than half (54%) require assistance with at least 1 basic ADL
- 44% readmitted within 6 months

Connors, AJRCCM, 1996; 154:959
SUPPORT
Most Patient with Pain

% of 5176 patients with moderate to severe pain between days 8-12 of hospitalization (50% died):

- colon cancer 60%
- liver failure 60%
- lung cancer 57%
- MOSF + cancer 53%
- MOSF + sepsis 52%
- COPD 44%
- CHF 43%

For most patients, 2 fundamental facts ensure that the transition to death will remain difficult. First is the widespread and deeply held desire not to be dead.

Second is medicine's inability to predict the future ... to give patients a precise, reliable prognosis ... When death is the alternative, many patients who have only a small amount of hope will pay a high price to continue the struggle.

94 y/o with COPD, CHF, myelodysplasia, a systolic blood pressure of 100, and shortness of breath at rest or with mild exertion

She is treated with monthly transfusions, an ACE-I, MDIs, and diuretics; no O2 or exacerbations

*Is this patient terminally ill?*

(adapted from a slide courtesy of Joan Teno MD, Brown University)
Prediction is very difficult, especially about the future!!
- Niels Bohr (Danish physicist (1885 - 1962)

slide adapted from Joanne Lynn, MD Rand Corp.
Estimates of 6-month Survival by Day Before Death

Claessens, J Am Geriatr Soc, 2000
Preferences for Life Support During Hospitalization

Claessens, J Am Geriatr Soc, 2000

p > 0.05 all comparisons

COPD
Lung Cancer
Life Support Received During Terminal Hospitalization

Claessens, J Am Geriatr Soc, 2000

p<0.05 all comparisons
Wall, Chest 2007; 132: 1427
Communication With Physicians: Severe COPD

Of 105 patients with severe COPD in 2 pulmonary rehabilitation programs

- 94% had opinions about intubation
- 99% wanted to discuss advance directives with their physician
- 19% had discussed with their physician
- 14% thought their physician understood their wishes
Assessing the Communication about End-of-life Care

- Prospective cohort study of 115 patients with oxygen-dependent COPD
- Recruited from VA, County, and University Hospitals in Seattle
- Used focus groups of patients to identify

Curtis, Eur Resp J, 2004; 24:200
Items important for quality of
“Doctor Did Not Discuss”

- Talking with family about dying
- Talking with patient about dying
- Talking about prognosis
- Asking about important things

Curtis, Eur Resp J, 2004; 24:200
Communication With Patients: Competencies

- Listens to patients
- Encourages questions from the patient
- Talks with patients in an honest and straightforward way
- Gives bad news in a sensitive way
- Willing to talk about dying
- Sensitive to when patients are ready to talk about death

Curtis, J Gen Intern Med, 2000, 16:4
Barriers to Communication about End-of-life Care for COPD

- Only 32% of patients report discussing end-of-life care with physician
- 15 barriers identified by patients
  - Only 2 barriers applied to >50% of patients
- 7 barriers identified by physicians
  
  Knauft, Chest, 2005; 127:2188
  - Only 1 barrier applied to >50% of patients
“Hope and expect for the best. Prepare for the worst.”

- Tony Back et al

VALUE: 5-step Approach to Improving Communication in ICU with Families

• V... Value family statements
• A... Acknowledge family emotions
• L... Listen to the family
• U... Understand patient as a person
• E... Elicit family questions

Curtis JR Crit Care Med 2002;17:147
Curtis JR, White DB Chest 2008; 134:835-43
Mularski RA Chest 2008; 134:676-8
• Go


Attention Dog Guardians
Pick up after your dogs. Thank you.

Attention Dogs
Grrrrr, bark, woof. Good dog.

District of North Vancouver.
Bylaw 5981-11(i)
Palliative Care Definition

Medical treatment that aims to relieve suffering and improve quality of life simultaneously with all other appropriate treatment for patients with advanced illness, and their families.

PATIENT - FAMILY CENTERED

Adapted from Diane Meier MD, www.capc.org
Scope of Palliative & End-of-life Care

Traditional Medicine

CURATIVE

Hospice

COMFORT

END-OF-LIFE CARE

Palliative Care
Palliative Care’s Place in the Course of Illness

- Diagnosis of serious illness
- Life Prolonging Therapy
- Palliative Care
- Medicare Hospice Benefit
- Death

Adapted from Diane Meier MD, [www.capc.org](http://www.capc.org)
Model for Palliative Care for COPD
Concurrent with Curative Therapy
Patient-Family Centered
Provided by Coordinated Interdisciplinary Team

ATS Clinical Policy Statement on Palliative Care 2007
Dyspnea Management

- Focus on care in the community setting
- Goals primarily oriented to symptom relief & comfort
- Discuss preferences life-saving interventions
- Anticipation – Education (lay) – Preparation
- Calm soothing environment
- Consider fan / cool air
- Have available opiates, tested, and plan for use
- Consider oxygen (n-of-1 trial)
- Know who to call for help and have plan for when

Highlights from May 2009 ATS Workshop
End of Life Care and Outcomes - Southern California Evidence Based Practice Center

- Titles reviewed: 24,423
- Abstracts reviewed: 5,216
- Articles used: 911
- Prognosis & Trajectory: 278


Available online at www.ahrq.gov/clinic/epcsums/eolsum.htm
RECOMENDATION 1: Assessment

In patients with serious illness at the end of life, clinicians should regularly assess patients for pain, dyspnea, and depression.

Grade: strong recommendation
moderate quality of evidence

Clinical Efficacy Assessment Subcommittee of the American College of Physicians
Ann Intern Med 2008; 148:141-146
American College of Chest Physicians Consensus Statement -- Management of Dyspnea in Patients with Advanced Lung or Heart Disease


American College of Chest Physicians Consensus Statement on the management of dyspnea in patients with advanced lung or heart disease *Chest* 2010;137(3):674-91
Dyspnea Assessment

1. Patients should be asked to routinely and regularly rate the intensity of their breathlessness as part of a comprehensive care plan.

2. The patient-reported rating of breathlessness should be routinely documented in the medical record to guide management and interdisciplinary care.

3. The assessment of dyspnea should include inquiry into the distress, meaning, and unmet needs that accompany breathlessness.

Chest 2010;137(3):674-91
Research in Dyspnea

- 134 Intervention Studies – ONLY 10 RCTs on dyspnea
- 27 Systematic Reviews – ONLY 5 included dyspnea
- Sample sizes in the 30-50 range – effect sizes small

Beneficial Therapies

- Rehabilitation (O.R. 0.62); severe COPD (0.42)
- Opiates overall are beneficial (SMD -0.31)
- Oxygen in hypoxic patients (exercise / n of 1 trial)
- Acupuncture and behavioral interventions

Available online at www.ahrq.gov/clinic/epcsums/eolsum.htm
Oxygen Therapy for Dyspnea

• O2 @ rest (COPD) – 5 studies mixed hypoxia
  – 1 improve, 1 equiv air, 2 no difference, 1 worse
• O2 with exercise (COPD) – 26 studies
  – those with hypoxia clinical significant differences
  – those without hypoxia mixed to no differences
  – no effect of pre-oxygenation
  – noted many do not continue (despite ↑ HRQOL)
• No evidence for O2 in advanced cancer or CHF
  in the absence of documented hypoxia
  – n of 1 trial recommended

Dyspnea - Palliative Therapies

- Treat Underlying Cause
  - pleural effusion, obstruction, emboli, pneumonia, CHF, anemia
- Non-pharmacologic Treatments
  - cold / fan air, chest wall vibration, positioning, relaxation/calm
- Medications
  - opiates (IV, IR-PO, SR-PO, nebulized, transdermal)
  - oxygen
  - corticosteroids / bronchodilators
  - anxiolytics esp benzodiazepines
  - phenothiazines / anti-depressants
  - indomethacin, lidocaine, sodium bicarbonate

• Nebulized morphine doesn’t work
• Oral/parenteral effective (SMD -0.40)
• Side effects
• Mostly single dose, no long term studies
• Hours/days only
• Small studies <18 & somewhat underpowered
• lack of adverse effect on hypercapnea / duration of life

Figure 1 Meta-analysis of dyspnoea outcomes (grouped by route of administration) using standardised mean differences. Changes from baseline within each treatment period were selected in preference to post-treatment measures when both outcomes were available.

Jennings, Thorax 2002
Use of COPD medications in last year of life

- Using National VA database 1999-2003 with COPD outpatients examined over last year of life (n = 11,376)
- Only 50% used any COPD therapeutics
- MPR 0.44 ± 0.32 over last 12 months of life
  - for all classes < 0.8 MPR
- 40% discontinued Rx within 30 days of death
- 70% discontinued Rx within 90 days of death
- Suggested suboptimal and that elderly veterans at EOL may have increased difficulty with inhalers

Dyspnea crisis is sustained and severe resting breathing discomfort that occurs in patients with advanced, often life-limiting illness and overwhelms the patient and caregivers’ ability to achieve symptom relief.

- Focus on care in the community setting
- Goals primarily oriented to symptom relief & comfort
- Preferences to forego life-saving interventions
Dyspnea Crisis Management

[We] … recognized that identification and assessment of dyspnea crisis should begin with first responders that may be lay or minimally trained.

Especially when dyspnea crisis occurs in the community setting away from acute care medical resources … emphasize the importance of preparation and practice of simple and stepwise interventions that are individualized for patients.

From the Ad Hoc Committee Palliative management of Dyspnea Crisis ATS Workshop