Hospice Management of Chronic Obstructive Pulmonary Disease (COPD)

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Disclaimer

Governing Board and Exam Committee Chair of the Hospice Medical Director Certification Board

“The educational material I am presenting does not represent preparation for the HMDCB exam and this presentation is not meant to be preparation for this exam.”
What is toughest in managing COPD?
COPD diagnosing

- Not going to discuss
  - COPD, Emphysema, Chronic Bronchitis, Chronic Asthma

- If they have the diagnosis or any of its synonyms I admit and manage based off goals and symptom needs
COPD prognosticating

True or False Questions:

A Bode Score of 7 to 10 is a good marker that a person has less than 6 months of life?

Being hospitalized for an exacerbation of COPD indicates a person has less than 6 months of life?

Being intubated for an exacerbation of COPD indicates a person has less than 6 months of life?

The National Hospice and Palliative Care Organization (NHPCO) guidelines for prognosis for COPD are most accurate for indicating a prognosis of less than 6 months of life?

(Bobby)
COPD prognosticating

BODE Scoring

<table>
<thead>
<tr>
<th>Variable</th>
<th>Points on BODE index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
</tr>
<tr>
<td>FEV1 (% predicted)</td>
<td>≥65</td>
</tr>
<tr>
<td>Distance walked in 6 min (meters)</td>
<td>&gt;350</td>
</tr>
<tr>
<td>MMRC dyspnea scale</td>
<td>0-1</td>
</tr>
<tr>
<td>Body-mass index (BMI)</td>
<td>&gt;21</td>
</tr>
</tbody>
</table>

Based on patients FEV1, distance walked in 6 min, MMRC dyspnea scale and BMI, patients are given a score (sum of points of the four variables) which is utilized in Table 2.

<table>
<thead>
<tr>
<th>BODE index score</th>
<th>12-month mortality (%)</th>
<th>24-month mortality (%)</th>
<th>52-month mortality (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>2</td>
<td>6</td>
<td>19</td>
</tr>
<tr>
<td>3-4</td>
<td>2</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>4-6</td>
<td>2</td>
<td>14</td>
<td>40</td>
</tr>
<tr>
<td>7-10</td>
<td>5</td>
<td>31</td>
<td>80</td>
</tr>
</tbody>
</table>

Index score is utilized to predict 12-, 24- and 52-month mortality. Index score obtained via Table 1.
COPD prognosticating

• Roughly 10% of patients admitted with a PaCO2 >50 mmHg will die during the index hospitalization
  • 33% will die within six months and 43% die within one-year

• COPD patients who require mechanical ventilation have an in-hospital mortality of ~25%
  • 50% will die within one-year
COPD prognosticating

• NHPCO guidelines for hospice admission
  • evidence of cor pulmonale
  • pO2 < 55 mmHg while on oxygen
  • albumin < 2.5 gm/dl
  • weight loss of > 10%
  • progression of disease
  • and poor functional status

• When studied 50% of the patients were still alive at six months
So when do you start hospice?

• Avoid “Prognostic Paralysis”

• Start with the “Surprise Question”
  • ‘would I be surprised if my patient were to die in the next 12 months?’

• Include transparency in interactions with patients / families

(Bobby)
So when do you start hospice?

- Use severity of disease / disease burden / evidence of disease progression / goals of care
- Dyspnea at rest
- Hypoxia or hypoxemia at rest
- Poor response to bronchodilators
- NHPCO indicators of progression of disease
  - evidence of cor pulmonale
  - pO2 < 55 mmHg while on oxygen
  - albumin < 2.5 gm/dl
  - weight loss of > 10%
  - progression of disease (including hospitalization, ER visits, steroid use)
  - and poor functional status
And when do you keep hospice?

- This is a irreversible disease and most will continue to meet criteria for hospice eligibility unless new treatment interventions improve the baseline picture

- BUT YOU MUST KEEP DOCUMENTING EVERY VISIT
  - severity of disease / disease burden / evidence of disease progression / goals of care

- Level of dyspnea, oxygen saturation, evidence of disease progression, weight loss, and functional status should be documented every visit

- Include interventions which likely prevented hospitalization / ER visits

(Bobby)
COPD Symptom Burden

Which of the following is highest reported symptom of those with COPD?

A. Breathlessness
B. Anorexia
C. Constipation
D. Depression/anxiety
COPD Symptom Burden

• Breathlessness recorded in 94% of chronic lung disease cases
• Anorexia in 67%
• Constipation in 44%
• Anxiety or Depression 90%
• Fatigue
• Pain
• Poor sleep

A prospective comparison between patients with end stage COPD and lung cancer indicated that patients with COPD had significantly worse activities of daily living and physical, social and emotional functioning than patients with lung cancer.

(Bobby)
COPD Overall Treatment Strategy

• Buckle up for how many of the interventions have no clinical evidence or found to not be effective, SO

• Use what makes Hospice great – interdisciplinary team (Bobby)

• Total Pain / Suffering Model
  • Physical
  • Emotional
  • Social
  • Spiritual

• Physician / Nurse reminder – you can prescribe Persons or both Persons and Pills
  • never pills alone
Which of the following has the best evidence in management of dyspnea in COPD?

A. Oxygen
B. Fans
C. Morphine
D. Albuterol MDI
COPD Dyspnea Management / Hospice B-team

• Long-acting beta agonist – effectiveness at end of life and cost may limit
• Inhaled steroid – effectiveness at end of life and cost may limit
• Long acting anticholinergic – effectiveness at end of life may limit
• Theophylline may be of value in some patients, but has a narrow therapeutic index and multiple interactions which may limit its use.

• Other non-pharmacological interventions
  • Relaxation techniques
  • Humidification of air
  • Unobstructed view

• Remember none of these alter mortality rates and effectiveness / delivery may wane
COPD Dyspnea Management / Hospice A-team

- Opioids – many controlled, randomized trial show this as superior to most other modalities
  - Oral long-acting and short-acting or subcutaneous all have good clinical evidence
  - Not nebulized
  - Respiratory depression not seen in standard dosing and titrating practices
COPD Dyspnea Management / Hospice A-team

- Oxygen – tailor to patient need, goals and safety
  - Clinical evidence for mortality benefit in hypoxic patients, but not in symptom benefit of dyspnea
  - Concentrator versus Cylinder versus Liquid Oxygen – truly no superiority seen in repeated clinical trials
  - Concentrator generally used if > 15 hours of long duration oxygen therapy
  - Cylinder or conservator generally used for burst oxygen therapy
  - Liquid oxygen generally used for people who like large shiny things
  - Consider no oxygen in active smokers (concentrator has slight risk reduction)
COPD Dyspnea Management / Hospice A-team

- Fans / Air flow
- Nebulized bronchodilators – effectiveness may wane at end of life
- Oral steroids (side effects may limit use)
- Benzodiazepines
COPD Weight loss and muscle wasting

- Poorly understood process, but I teach the “work out” analogy which eases some patients / families on the “why is this happening”

- Calorie and protein supplementation with limited success, unless coupled with exercise (limited to some hospice patients)

- Dietician if available can be a good team member for support even if not for weight gain

- So since paucity of options – educate, normalize, support and if needed give them something to do or someone to talk to
  - Do what makes hospice great
COPD Anxiety Management

• No clinical trials for the safety or efficacy of any particular therapy in COPD
• SO.... Support with clinical team
• Benzodiazepines as needed
• Long acting anxiolytics just as lacking in evidence as the short acting, so pick your poison
  • My personal preference is lorazepam / midazolam over the others

(VistaCare QAPI)
COPD Depression Management

• Consider actively seeking this diagnosis for those with potentially extended prognosis.

• The symptoms are disabling and distressing, and patients often become socially isolated and have to give up activities that they enjoy. The psychosocial effects of the disease may be reinforced by the depressed mood.

• “The National Institute for Clinical Excellence (NICE) guideline on COPD recommends that patients who are found to be depressed or anxious should be treated with conventional pharmacotherapy, but for antidepressant treatment to be successful, it needs to be supplemented by spending time with the patient explaining why depression needs to be treated alongside the physical disorder.” Or in other words,
  • Prescribe People with Pills, not pills alone (and if person not ready to talk I find pills alone ineffective)
  • Consider life expectancy and Age in considering antidepressant therapy
COPD Acute Exacerbation management

• Treat like typical acute exacerbation with some special considerations
  • Increase use of bronchodilators – if effective
    • Nebulizer v. Inhaler discussion
  • Steroids – consider if indicated
  • Antibiotics – consider if indicated
• Think and discuss and plan ahead on
  • Will in-patient be available and used?
  • Will iv interventions be available and used?
  • Have frank discussion on location of death and “trade off” decision on location versus treatment

(Bobby)
COPD Non-Invasive Ventilation (BiPAP)

General considerations:

- NPPV is noisy and can be uncomfortable and frightening.
- It may interfere with sleep and family intimacy and could confuse care goals if not discussed carefully.
- Not offered by all hospices in the home setting.
- Some experts have published concerned that NPPV may complicate end of life decision-making for the bereaved and by consequence increase the risk of associated anxiety.
COPD Non-invasive Ventilation (BiPAP)

Used in three circumstances:

1. Patients who desire full, life-prolonging interventions, regardless of prognosis.
   - If the patient’s respiratory status deteriorates, intubation and ventilation are initiated.
   - In several trials NPPV has been shown to reduce mortality, intubation rates, and hospital length of stay in patients with COPD
   - Probably need to discuss goals of care in this patient on hospice

2. Patients who want life-prolonging therapy but with limitations of no desire for intubation or resuscitation.
   - No high-quality trials, some observational studies suggest that NPPV can reverse acute respiratory failure and decrease hospital mortality in patients with COPD or CHF who have ‘Do Not Intubate’ orders.
   - So, still needs good conversation on goals of care, but may be useful
COPD Non-invasive Ventilation (BiPAP)

3. Dying patients with respiratory failure or dyspnea for palliative purposes. The intention to reduce the work of breathing, to ease dyspnea, and to help maintain wakefulness by reducing the amount of opioids a patient needs to be comfortable. NPPV can also be used to prolong life for a short period to meet a patient’s goals while otherwise providing a comfortable death (e.g., to allow time for family to visit).

• Endorsed in a survey of pulmonologists.
• In multiple controlled studies of hospitalized cancer patients with acute respiratory failure and life expectancy less than 6 months, NPPV was shown to improve dyspnea much faster and have an opioid sparing effect in the first 48 hours compared with passive oxygen therapy.
• So, remember opioids are first line therapy for dyspnea at end of life, but can discuss this option if sedation predominant
• For dying patients who wish to forestall death briefly for a specific goal, it is reasonable to start a trial of NPPV. Before initiating NPPV, it is important to discuss withdrawal of NPPV after the above goal has been achieved, and to caution the patient/family that NPPV might not be able to forestall death long enough as hoped.
COPD Alternative medicine

- There is limited evidence for the use of complementary and alternative medicine in the management of dyspnea.

- Individual patients with severe COPD may benefit from the use of acupuncture, acupressure and muscle relaxation with breathing retraining to relieve dyspnea, and aroma therapy.

- As these interventions are low risk it would seem reasonable to employ these therapies on an individual basis if they are requested by the patient.
COPD miscellaneous

• Smoking?
  • Evidence that there is mortality and morbidity benefit of quitting even in hospice setting

• Flu and pneumonia shots?
  • Yes, of course
References


References


Gore JM, Brophy CJ, Greenstone MA. How well do we care for patients with end stage chronic obstructive pulmonary disease (COPD)? A comparison of palliative care and quality of life in COPD and lung cancer.


Schwartzstein RM, Lahive K, Pope A, Weinberger SE, Weiss JW. Cold facial stimulation reduces breathlessness induced in normal subjects

References


References


References


