Breaking Down Barriers to Pulmonary Therapies: Patient Education, Teach Back, and More

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Pulmonary and Critical Care Symposium June 12th, 2015

Disclosure:
We have had no financial relationships over the past 12 months with any commercial sponsors with a vested interest in this presentation.

Objectives
- Review recommended therapies for Chronic Obstructive Pulmonary Disease (COPD)
- Describe Teach-Back and how to utilize in respiratory therapy
- Identify barriers to pulmonary therapies and describe how to mitigate them
COPD’s Impact

- Fourth leading cause of death in the world
- Leading cause of morbidity and mortality in the world with significant economic and social burden
- Prevalence and burden are projected to increase
- Associated with many comorbidities

Classification of Airway Limitation

- In patients with FEV1/FVC < 0.70

<table>
<thead>
<tr>
<th>COPD Stage</th>
<th>FEV1 *</th>
<th>Exacerbations/yr</th>
<th>Hospitalizations/yr</th>
<th>3-yr mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOLD 1, Mild</td>
<td>≥ 80%</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>GOLD 2, Moderate</td>
<td>50-79%</td>
<td>0.7-0.9</td>
<td>0.11-0.2</td>
<td>11%</td>
</tr>
<tr>
<td>GOLD 3, Severe</td>
<td>30-50%</td>
<td>1.1-1.3</td>
<td>0.25-0.3</td>
<td>15%</td>
</tr>
<tr>
<td>GOLD 4, Very Severe</td>
<td>&lt; 30%</td>
<td>1.2-2.0</td>
<td>0.4-0.54</td>
<td>24%</td>
</tr>
</tbody>
</table>

*Post bronchodilator measurement


COPD Medications

**Maintenance:**
- Long-acting beta₂-agonists
  - LABA
- Long-acting anticholinergic
- Inhaled Corticosteroids
  - ICS
- Combo: LABA+ICS
- Methylxanthines (theophylline)
- Systemic Steroids
- PDE4-inhibitor (roflumilast)

**As needed or “Rescue”:**
- Short-acting beta₂-agonists
  - SABA
- Short-acting anticholinergic
- Combo: SABA + SA-Anticholinergic
Advancement Therapies:
- Theophylline
- PDE4-inhibitor
- Steroids

Non-pharmacologic Interventions

<table>
<thead>
<tr>
<th>COPD Assessment</th>
<th>Essential</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A</td>
<td>Smoking Cessation, pharmacologic assistance</td>
<td>Physical Activity, Yearly Influenza Vaccine, Pneumococcal Vaccine</td>
</tr>
<tr>
<td>Group B - D</td>
<td>Smoking Cessation, pharmacologic assistance</td>
<td>Pulmonary Rehab</td>
</tr>
</tbody>
</table>

Very Severe COPD therapy options:
- Oxygen therapy (>15 hours/day)
- Surgical Interventions
Teach Back

Teach back is so important because it gives you an opportunity to see if your patient is understanding the education session.

“The main problem with communication is the assumption that it has occurred.”
-George Bernard Shaw
Health Literacy Strategies

- Are you speaking clearly and listening carefully?
- Is the information appropriate for the user?
- Is the information easy to use?
- Use a medically trained interpreter for language barriers
- Adapt for learning ability
- Check for understanding frequently
Use of Valved Holding Chambers

Unless you’ve got the reflexes of a NASCAR driver or compulsive video gamer, catching that fleeting premeasured dose in a slow, deep inhalation is almost impossible.

Spacer Technique
(~3.5 years old)

In-check Dial

The DIAL can be adjusted to accurately simulate the resistance of popular inhaler devices which include MDI’s and DPI’s such as Turbuhaler®, Flexhaler®, Twinhaler®, Aerolizer®, Handihaler® and Diskus® among others. The In-Check DIAL enables clinicians to train patients to the proper inspiratory technique considering force and flow rate to achieve optimal deposition of the medication being inhaled into the lungs.

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RRT Barrier #1 - Smoking Cessation

- The patient will not quit smoking until they are ready.
- Refer to your state quit line.
- Helpful hints.
RRT Barrier #2 - Medication Cost

- Coupons/Programs
- Financial Advocates

RRT Barrier #3

- Med WRECK-conciliation
- Ask all the questions
- When, how many, show me!

RRT Barrier #4 - Meds prescribed at home are not consistent with GOLD Standards

- Make recommendations to the discharging docs.
- Fax the PCP after discharge if needed.
Pharmacist’s role in care of inpatients

- Review patient cases and pharmacotherapy orders for inpatient and orders upon discharge
- Patient education based upon priority/complexity, discharge disposition, pharmacist and/or patient availability

Rx Barrier 1

- Patient does not have pulmonary meds despite being diagnosed with COPD
  - Possible med-reconciliation omission
  - Medication cost issue
Rx Barrier 2
- Provider forgot to order Nebulizer-machine for new Neb-medications

Rx Barrier 3
- Patients do not take pulmonary therapies as prescribed
  - Maintenance meds are stopped when symptoms subside
  - Complex medication regimen
    - Multiple comorbidities
    - Simplify when appropriate
  - Medication cost

Rx Barrier 4
- Patient has Rx insurance related issues
  - Preferred therapies vs less preferred therapies
  - Medicare Part B (Neb) vs. Part D (Inhalers)
  - “24-hour Neb rule” by Medicare
Success Stories

- Coordinating education and care from the time of admission with the entire medical team.
- Monthly multidisciplinary meetings
  - Pharmacy
  - Financial Advocates
  - RT Education
  - Care Transitions and Home Care

References


Questions?

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