Chronic obstructive pulmonary disease (COPD) is a significant burden in the US. COPD is currently the third leading cause of death in the US. In the past ~30 years, the prevalence of COPD has been significantly higher among women than among men. The cost of COPD in the United States was estimated to be $49.9 billion in 2010, which includes approximately $20 billion in indirect costs and $30 billion in direct health care costs. One of every six patients admitted to PA/LTC facilities may have a history of emphysema or COPD.

Excerpts from the 2016 AMDA Clinical Practice Guidelines: COPD Management in the PA/LTC Setting*

AMDA recommends long-acting bronchodilators, including long-acting beta₂-agonists (LABAs), for COPD maintenance therapy.

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One of every six patients admitted to PA/LTC facilities may have a history of emphysema or COPD.

AMDA does not endorse any specific treatments.

*PA/LTC=Post-Acute/Long-Term Care
Source: Adapted from AMDA 2016
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Sunovion has derived this information, with permission from AMDA, from the AMDA Clinical Practice Guideline (CPG) on COPD. Sunovion had no involvement in the preparation of the CPG.
AMDA recommends regular treatment with long-acting bronchodilators

Guiding principles for COPD pharmacotherapy in the PA/LTC setting

- Medications should be used in combination with nonpharmacologic approaches
- Medications should be selected on the basis of adverse effect profiles and should be used at the lowest effective doses
- Regular treatment with long-acting bronchodilators is more effective and convenient than regular treatment with short-acting bronchodilators [for maintained symptom relief]
- For most patients with COPD in PA/LTC, a long-acting inhaled anticholinergic medication and/or a long-acting inhaled beta2-agonist...should be used for the maintenance treatment of bronchospasm associated with COPD.... These agents are not indicated for the initial treatment of acute episodes of bronchospasm, for which short-acting agents can provide rescue therapy.

—AMDA 2016

- All patients should have access to a short-acting beta2-agonist, as needed for rescue therapy

Treatment should be individualized for patients with COPD

- Combining bronchodilators of different pharmacologic classes may improve efficacy and decrease the risk of adverse effects compared with increasing the dose of a single bronchodilator
- The medication delivery system should be tailored to the patient’s needs
- Regular treatment should be maintained at the same level for long periods of time, unless significant medication adverse effects occur or there is a need to revise management owing to progressive disease, including higher symptom burden and exacerbation history
- Treatment tends to be cumulative, with more medications required as the disease state worsens
- Patients and caregivers should be trained in the proper administration of inhaled medications
- The patient’s response to therapy and potential adverse effects should be carefully assessed with goals of therapy and treatment adjusted accordingly

Source: Adapted from AMDA 2016
Most residents with COPD should be treated with long-acting maintenance bronchodilators

AMDA recommendations for COPD treatment/intervention

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Quality of Evidence*</th>
<th>Strength of Recommendation†</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Pulmonary rehabilitation is considered the standard of care for the treatment of COPD</td>
<td>High</td>
<td>Strong</td>
</tr>
<tr>
<td>11 Oxygen therapy is a principal treatment for patients with severe COPD, based on measured pO2 or oxygen saturation</td>
<td>High</td>
<td>Strong</td>
</tr>
<tr>
<td>12 Influenza vaccine is advised yearly for all individuals with COPD. Pneumococcal vaccine is also advised for all COPD patients, regardless of age</td>
<td>High</td>
<td>Strong</td>
</tr>
<tr>
<td>13 Most patients with COPD in PA/LTC should be treated with a long-acting inhaled anticholinergic medication and/or a long-acting inhaled beta2-agonist, supplemented by other medications as needed for maintenance treatment</td>
<td>Moderate</td>
<td>Strong</td>
</tr>
</tbody>
</table>

Source: Adapted from AMDA 2016

- The AMDA Clinical Practice Guidelines were developed to address specific concerns and common issues in the PA/LTC setting. The guidelines focus on process (what should be done) rather than on personnel.

“A retrospective analysis of more than 126,000 nursing home residents suggested that bronchodilators, especially the long-acting forms, are underutilized in PA/LTC.”

—AMDA 2016

*Quality of evidence ratings defined as: High=At least 1 randomized controlled trial OR 3 pre/post interventions or other prospective interventions or 3 well-structured, relevant observational studies; Moderate=Studies that use well-tested methods to make comparisons in a fair way, but where the results leave room for uncertainty (eg, because of the size of the study, losses to follow-up, or the method used for selecting groups for comparison); Low=Studies in which the results are doubtful because the study design does not guarantee that fair comparisons can be made.
†Strength of Recommendation defined as: Strong=Benefits clearly outweigh risks; Weak=Benefits are balanced with risks; Insufficient=Evidence is inadequate to make a recommendation.