

Summary of Changes V2.38, June 2014

C3 Assessing the severity of COPD

New paragraph based on 2014 GOLD and Hurst 2010:

- Exacerbations are an important complication of COPD
- Future risk of exacerbations should be assessed
- Exacerbations are more frequent with increased severity
- Most important risk factor is a history of past exacerbations
- Other factors include gastro-oesophageal reflux, poorer quality of life and elevated white cell count

O1.1.2 Short-acting anticholinergics (antimuscarinics)

New wording based on Cochrane Review comparing treatment of tiotropium with ipratropium found tiotropium was associated with improved lung function, fewer hospital admissions, fewer exacerbations and improved quality of life. There were fewer serious adverse events and disease specific events, but no significant difference in deaths for ipratropium when compared to tiotropium. Tiotropium appears to be a reasonable choice instead of ipratropium in stable COPD.

O1.2.1 Long-acting anticholinergics (antimuscarinics)

Inclusion of evidence to allay concerns regarding use of lower doses of Tiotropium delivered by Respimat Soft-mist inhaler and the risk of death.

Addition of new paragraph regarding aclidinium bromide demonstrating improved bronchodilation, quality of life and dyspnoea

O1.2.2 Long-acting beta-agonists

A 2013 Cochrane Review showing treatment using salmeterol or formoterol twice daily was associated with improved quality of life. LABA treatment has been shown to reduce exacerbations but the evidence is of moderate quality. LABAs did not significantly reduce mortality or serious adverse events.

An addition of a reference (Cope et al, 2013) in relation to indacaterol.

O1.2.3 Long-acting bronchodilator combinations

New paragraph added regarding indacaterol/glycopyrronium bromide once daily.

- increased trough FEV1 compared to monocomponents tiotropium or placebo
- had a comparable safety profile
- moderate-to-severe exacerbations were reduced compared to glycopyrronium bromide alone
- combination showed favourable improvements in lung function over salmeterol/fluticasone propionate in moderate-to-severe patients

O3.2 Inhaled corticosteroids

A 2014 Cochrane Review demonstrated an increased risk of pneumonia with use of ICS as monocomponents or combination inhalers.

- Non-fatal serious adverse pneumonia events were increased with fluticasone and budesonide.
- No significant differences in serious adverse events or mortality when budesonide and fluticasone were compared indirectly

- Risk of any pneumonia event was found to be higher with fluticasone than budesonide, but should be interpreted with caution due to differences in definitions of pneumonia.
- Safety concerns regarding increased pneumonia should be balanced with the benefits of reduced exacerbation and improved quality of life.

O4.1 Inhaled corticosteroids and long-acting beta-agonists in combination

Addition of 2014 Cochrane Review showing that quality of life and lung function improved most with combination ICS/LABA inhalers with LABA/LAMA inhalers next and ICS alone was the least effective.

O6.2 Exercise training

New paragraph based on 2013 Cochrane Review showing water-based exercise may provide short-term benefits in exercise capacity and quality of life.

O6.8 Nutrition

New sentence included showing Vitamin D deficiency associated with lower lung function and more rapid decline in FEV₁ among smokers in a cohort of elderly men.

O7.2.3 Statins

Inclusion of a sentence showing that use of a statin prior to hospital admission was associated with a reduction in all-cause mortality (a study of NZ public hospitals).

O7.5 Aspiration

New sentence added discussing abnormal swallow reflex and association with more frequent exacerbations.

O7.10 Cognitive Impairment (NEW Section added)

O7.11 Anaemia (NEW Section added)

P7 Mucolytic agents

New sentence added regarding the use of N-acetylcysteine showing significant improvement in small airway function and reduction in frequency of exacerbations in stable COPD.

D3 Self-Management

New evidence based on a 2014 Cochrane Review which found benefit for self-management interventions on health related quality of life and lower probability of respiratory-related hospitalisation but no effect on all-cause hospitalisation or mortality.

Additional sentence regarding 2010 Walters Cochrane Review showing that although action plans result in an increased ability to recognize and react appropriately to an exacerbation by individuals there was no reduction in healthcare resources utilization or improved health related quality of life with action plans.

X2.2.2 Systemic corticosteroids for treatment of exacerbations

A Swiss study of prednisolone found that five day treatment was not inferior to 14 day treatment in patients presenting to the emergency department in relation to subsequent exacerbations over six months of follow-up.

X2.2.3 Antibiotics for treatment of exacerbations

New paragraph based on 2012 Cochrane Review:

- Reduction in treatment failure in patients with severe exacerbations treated with antibiotics.
- Reduction in mortality and reduced length of stay only seen in ICU patients.
- Patients treated with antibiotics experienced higher rates of diarrhoea.
- No significant benefit for treatment failure in out-patients found when analysis restricted to currently available antibiotics.

X3.4 Clearance of Secretions

Inclusion of a paragraph about PEP therapy being added to usual care (which includes a standardized physical exercise program) in a populations of patients hospitalised with an acute exacerbation. Evidence did not support a routine role for PEP therapy in this situation, as no significant differences or quality of life were seen over a six month period following discharge.

Appendix 2 Explanation of Inhaler Devices

Inclusion of Genuair (aclidinium bromide) and Ellipta (fluticasone fuorate/vilanterol trifenate) devices.