

# Productivity Considerations for Service Design [Beta]

## COPD

When designing chronic obstructive pulmonary disease (COPD) services, consider the following interventions as ways to achieve productivity improvements while maintaining the quality and safety of clinical care.

### Prevention

#### Neuraminidase inhibitors

Administer zanamivir or oseltamivir within 48 hours of the appearance of symptoms to people with COPD who present with influenza-like illness when influenza is circulating.<sup>1</sup>

People with COPD are at high risk of developing severe or complicated influenza.<sup>1</sup> Influenza vaccinations for people with COPD aid both management of and prevention of acute exacerbations of COPD.<sup>1,2</sup> Treatment with zanamivir or oseltamivir is clinically- and cost-effective.<sup>1</sup>

### Therapeutic interventions

#### Inhaled corticosteroids (ICS)

Avoid the use of ICS in people with mild COPD (FEV1 > 50%).<sup>1</sup>

It is an unnecessary cost to prescribe steroids for people with mild COPD. A health economic review published in 2010 by the National Institute for Health and Clinical Excellence (NICE) showed no effect of ICS on exacerbation rates in patients with mild COPD.<sup>1</sup>

#### Long-acting muscarinic antagonists (LAMAs) versus short-acting muscarinic antagonists (SAMAs)

Prescribe LAMAs instead of SAMAs to manage stable COPD.<sup>1</sup>

Treatment with LAMAs is as clinically-effective and more cost-effective than treatment with SAMAs. Patients and carers strongly support the use of once-daily therapy as a means of improving compliance.<sup>1</sup>

#### Short burst oxygen therapy (SBOT)

Annually assess all people with COPD on home oxygen therapy (HOT) for removal from SBOT.<sup>2</sup>

SBOT is a treatment with a high cost and relatively unknown benefits. Annual assessment for removal from therapy prevents inappropriate and ineffective prescriptions of SBOT. It is estimated that 75% of SBOT users will be removed from SBOT after clinical assessment, leading to savings of £645 per SBOT user removed.<sup>2</sup>

#### Long-term oxygen therapy (LTOT)

Prescribe a concentrator rather than cylinders\* for LTOT if more than 3 will be used per month.<sup>1</sup>

Prescribe a concentrator rather than cylinders\* for LTOT if 2 or more will be used per month for a year or longer.<sup>1</sup>

It is more cost-effective to prescribe a concentrator rather than cylinders with a capacity of 1360 litres, if more than 3 are being used per month; this is irrespective of the flow rate or duration of the prescription. It is always more cost-effective to prescribe a concentrator when 2 or more cylinders are being used per month and the duration of the prescription is likely to be 12 months or longer; this is irrespective of the flow rate of the prescription.<sup>1</sup> Note that the ability to implement this productivity consideration may be affected by contracts with oxygen suppliers.

\*A cylinder has a 1360 litre capacity.

# COPD

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## Pulmonary rehabilitation

Provide quality-assured pulmonary rehabilitation to all people with COPD who have functional impairment.<sup>2</sup>

Pulmonary rehabilitation is cost-effective in the out-patient setting compared to usual care. There is currently an unmet need for pulmonary rehabilitation in a significant number of people with COPD. The widespread use of pulmonary rehabilitation in those with functional impairment is recommended as this is estimated to bring annual savings of around £5.5 million per year.<sup>3</sup>

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## Non-invasive ventilation (NIV)

Offer NIV to all people with COPD presenting with acute respiratory failure.<sup>3</sup>

NIV is cost-effective in people with a severe exacerbation of COPD, as it is more effective and less expensive than standard therapy alone.<sup>1</sup> There is an estimated average net saving of £1.5 million per year by managing acute respiratory failure in people with COPD through the provision of NIV.<sup>2</sup>

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### Key dates

This document will be updated on the same schedule as the Map of Medicine COPD pathway:

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### Methodology

The productivity considerations presented are specific to the UK. They were identified by systematically searching for, quality appraising, and synthesising productivity evidence from multiple sources, including clinical practice guidelines, interventional procedure guidelines, health technology assessments, systematic reviews, and evidence sourced from the NHS Economic Evaluation Database (NHS EED).

A productivity consideration explicitly states an action that can reduce the cost of care, whilst providing equivalent or improved patient outcomes, and is based on unequivocal clinical and economic evidence. Actions that are believed to lead to improved productivity, but for which there is not unequivocal clinical and economic evidence, are not included.

Some productivity considerations are informed by more recent evidence than that included in relevant national guidelines.

### Feedback

This approach to productivity guidance is being trialled as a BETA alongside Map of Medicine's COPD pathway. We welcome your feedback. If you know of additional resources that describe cost-effective interventions that maintain or improve patient outcomes, please forward the reference information to us at [productivity@mapofmedicine.com](mailto:productivity@mapofmedicine.com).

### References

1. National Institute for Health and Clinical Excellence (NICE). Chronic obstructive pulmonary disease: Management of chronic obstructive pulmonary disease in adults in primary and secondary care (partial update). London: NICE; 2010. [\(PDF\)](#)
2. Department of Health (DH). Consultation on a Strategy for Services for Chronic Obstructive Pulmonary Disease (COPD) in England: Consultation Impact Assessment. London: DH; 2010. [\(PDF\)](#)
3. Department of Health (DH). Consultation on a Strategy for Services for Chronic Obstructive Pulmonary Disease (COPD) in England. London: DH; 2010. [\(PDF\)](#)

### Disclaimer

This document is not to be substituted for a healthcare professional's diagnosis or clinical decisions.