Inhaled therapy in chronic obstructive pulmonary disease (COPD)

This briefing focuses on inhaled treatments for COPD and reviews medicines optimisation interventions ensuring that treatment is in line with national guidelines. The bulletin reviews the evidence for new treatments and further supporting materials are available on the step down of inhaled corticosteroids and inhaler technique assessments.

Recommendations

- Ensure that when a patient is first prescribed an inhaler they are shown how to use it, demonstrate that they are able to use it and ensure inhaler technique is assessed on a regular basis. (see PrescQIPP inhaler technique assessment tools (http://www.prescqipp.info/respiratory)
- Optimise treatment of patients with COPD in line with national guidelines. Discontinue ineffective treatments before adding new ones.
- Review patients on triple therapy. Only prescribe inhaled corticosteroids (ICS) for certain patients with moderate or severe COPD or patients with mild COPD and persistent exacerbations. When considering ICS in COPD, clinicians should weigh the possible benefits such as reduced exacerbations and improved quality of life, with the potential adverse effects, particularly an increased risk of pneumonia. Issue steroid warning cards to patients on high dose ICS.
- Consider whether co-morbidities and interactions with other drugs may be affecting the patient's willingness or ability to use their medicines correctly. Consider the following:
  - For patients with eGFR ≤50 ml/min use aclidinium or umeclidinium as preferred long acting antimuscarinic antagonists (LAMAs).
  - For patients with diabetes consider whether a high dose ICS is worsening their condition, i.e. an increase in HbA1c seen after long term use of high dose ICS.
  - All LAMAs should be used with caution in patients with certain cardiovascular disease.

Savings

Current annual spend on LABAs is £30.6 million. A switch to formoterol Easyhaler® could result in potential annual **savings of £15.7 million or £27,657 per 100,000 patients.**

Current annual spend on Seretide® 250 Evohaler is £155.1 million. Assuming that 50% prescribing is for COPD and a MDI is suitable, a switch to Fostair® could result in potential annual **savings of £31.2 million or £54,818 per 100,000 patients.**

Current annual spend on Symbicort® 400 Turbohaler or Seretide® 500 Accuhaler is £238.1 million. A switch to cost effective dry powder inhalers, DuoResp Spiromax® 320/9 or Relvar® 92/22 respectively could result in potential annual savings **of £59.4 million or £104,024 per 100,000 patients.** It is important to ensure that patients who are switched are trained on correct inhaler technique and are followed up.

If an ICS is not appropriate in COPD patients with mild to moderate severity, a 10% reduction in ICS could result in **annual savings of £22.6 million.** Any plans to discontinue ICS therapy should be discussed with the local respiratory consultant and involve a multidisciplinary approach to carefully identify exacerbation risk and ensure regular review of the patient when stepping down. All patients at risk of exacerbations should be prescribed a course of antibiotics and corticosteroid tablets to keep at home as rescue medication.

Slow reduction in ICS dosage with follow up is needed (see attachments 3a-3d).

Supporting evidence

The NICE[1] and GOLD[2] COPD pathways are summarised in attachments 1a and 1b. Triple therapy (ICS with LABA and LAMA) is only recommended as an option in patients with significant symptoms and high risk of exacerbations.[1,2]

The cost/QALY for triple therapy in COPD (i.e. an ICS plus LAMA plus LABA) is between £7,000 and £187,000, which is well above the NICE threshold of £21,000 per QALY for a treatment to be regarded as cost effective.[3] Non-drug interventions and lifestyle advise such as stopping smoking, flu vaccination and pulmonary rehabilitation are more cost effective than COPD drug treatments. Patient education and self care are also key components of COPD management and support medicines optimisation. Choice of therapy should be based on the patient's ability to use the inhaler, side effects, interactions with other medicines and the cost-effectiveness of the total regimen they are on. Tables 1 and 2 in the bulletin provide a summary of the products available.

References

1. National Institute for Health and Care Excellence (NICE). Clinical Guideline, CG 101. Chronic Obstructive Pulmonary Disease (updated) June 2010. Accessed 08/12/2014 via http://guidance.nice.org.uk/CG101
2. Global Initiative for Chronic Obstructive lung disease (GOLD), Management and prevention of COPD. January 2015. Available via www.goldcopd.com
3. London Respiratory Team, Value COPD treatment Pyramid, 2010. Work now continued by IMPRESS www.impressresp.com

Additional resources available

 Bulletin  Data pack  Patient letter, audit and pathways

http://www.prescqipp.info/inhaled-therapy-in-copd/viewcategory/191

PrescQIPP Community Interest Company