

COPD is predominantly caused by smoking and is a major cause of morbidity and mortality in the UK.

- **Smoking cessation is the only intervention that reduces decline in FEV₁.**
- **Drug treatment is aimed at managing symptoms. No drug is perfect; all have limitations and due to the nature of the disease, patients will deteriorate with time. Achievable targets need to be set and effectiveness of treatment measured against these targets. *If a new treatment does not improve a patient's quality of life, then stop it and try something else; don't keep adding in.***

Management of all COPD patients

- Smoking cessation for all smokers. Provide advice on the benefits of stopping smoking, together with the Derbyshire Helpline number **0800 0852299** or, for Derby City patients, the Live Well Derby number **01332 641254**
- Flu vaccination every year in the autumn
- Pneumococcal vaccination once only
- Advice and support on exercise and nutrition
- Patient information and self management plan should be offered to assist patients in self care

Pulmonary rehabilitation should be offered to all patients who consider themselves functionally limited by breathlessness or fatigue, including those who have had a recent hospitalisation for an acute exacerbation.

Spirometry training – are you able to produce a valid reading? Do you know how to interpret it? Please contact the respiratory team for information on training.

To assess the effectiveness of COPD treatments, use improvements in symptoms, activities of daily living, exercise capacity and rapidity of symptom relief, in addition to lung function tests. The online [COPD Assessment Test](#) (CAT) may be used, or:

5 simple questions

(to assess benefit of therapy)

1. Has your treatment made a difference to you?
2. Is your breathing easier in any way?
3. Can you do some things now that you couldn't do at all before, or do the same things but faster?
4. Can you do the same things as before but are now less breathless when you do them?
5. Has your sleep improved?

Ask the patient to give examples - if a treatment is not providing significant benefit, is it worth continuing it?

Before moving to the next stage in the therapeutic management of COPD always check the patient's adherence to treatment and inhaler technique.

Consider referring appropriate patients to their regular community pharmacist for a Medicines Use Review. When prescribing a new inhaler, consider referring the patient to the community pharmacist for the New Medicines Service (NMS); this will help to ensure that the patient gets the full benefit from their new treatment.

Prescribing notes

Long acting beta agonists (LABA) e.g. formoterol, compared with long acting muscarinic antagonists (LAMA) – e.g. tiotropium

- NICE proposes no significant difference between these classes with regard to exacerbations or hospitalisations when FEV₁ ≥50% predicted. Preferred first-line choice is Easyhaler formoterol. [MHRA](#) February 2015 advises that tiotropium should be used with caution in patients with certain cardiac disorders.

LAMA/LABA combination therapy

- There is some [evidence](#) suggesting that this combination could improve lung function and symptoms compared with the individual drugs. There is [strong evidence](#) that dual bronchodilator therapy (specifically, glycopyrronium plus indacaterol) is more effective than LAMA or LABA monotherapy **and LABA plus ICS therapy** in reducing the risk of moderate-to-severe COPD exacerbations. Drug costs can be reduced by prescribing a combination inhaler rather than giving separate inhalers.

Triple therapy (LABA +LAMA + ICS)

- Triple therapy for exceptional use only
- Undertake [diagnostic review](#) before commencing triple therapy
- It remains [unclear](#) whether there is benefit from using triple combination of two long acting bronchodilators and ICS. Use only in severe disease in the presence of persistent exacerbations despite other treatment. (NICE 2010)
- If no clinical benefit after 2 months **STOP** one of the drugs.
- Fostair 100/6 inhaler (2 puffs BD) is the preferred ICS/LABA combination inhaler.

Side effects

- Be aware of the potential risk of developing side effects (including non-fatal pneumonia) in people with COPD treated with high dose (particularly at 2000 microgram beclomethasone or equivalent dose) inhaled corticosteroids and be prepared to discuss with patients

Mucolytics

- Mucolytic drug therapy should be considered in patients with a chronic cough productive of sputum
- Mucolytic therapy should be continued if there is symptomatic improvement (for example, reduction in frequency of cough and sputum production)
- Do not routinely use mucolytics to prevent exacerbations in people with stable COPD

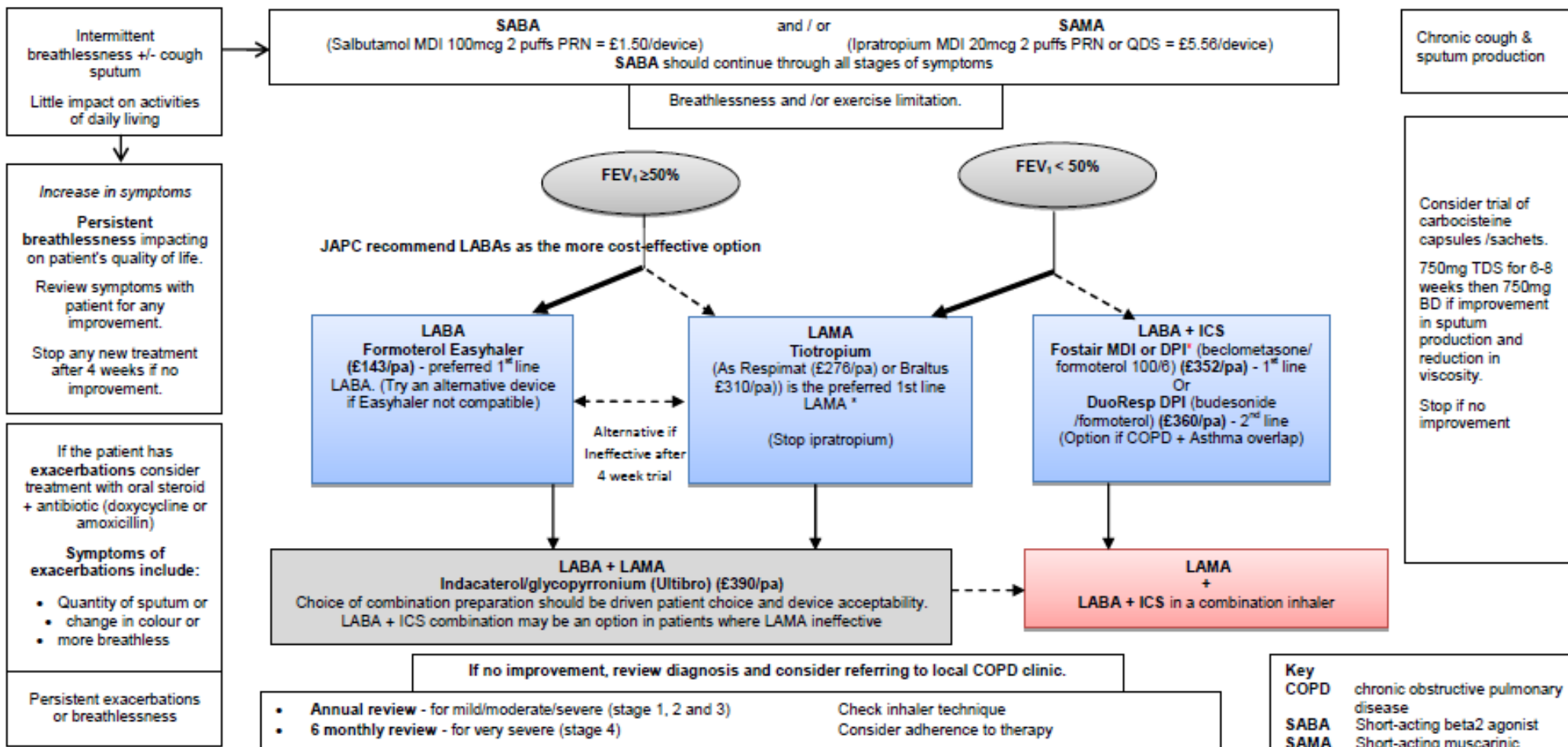
Theophylline

- Offer only after inhaler therapy has been optimised

4. Medicine's Management of stable COPD

Non-pharmacological interventions: Remember to check the patients smoking status and offer smoking cessation advice. Offer pulmonary rehabilitation if MRC score 3 – 5 and on optimal medication. Offer pneumococcal and annual influenza vaccination to all patients. Patients at risk of exacerbations should be given a respiratory action plan.

Check inhaler technique and compliance with particular device using In-check DIAL at annual review.
If a patient is unable to use a particular device satisfactorily, then an alternative device should be sought.



N.B *if tiotropium is not tolerated or contra-indicated, see table 1 p.10 for alternative LAMAs. *Fostair Nexthaler is licenced in COPD.

All prices are annual costs obtained from MIMs online. (pa = per annum)

For further details see key message 4 on p8-9

Key	
COPD	chronic obstructive pulmonary disease
SABA	Short-acting beta2 agonist
SAMA	Short-acting muscarinic antagonist
LABA	Long-acting beta2 agonist
LAMA	Long-acting muscarinic antagonist
ICS	Inhaled corticosteroid
FEV ₁	Forced expiratory volume in 1 Second
FVC	Forced vital capacity