Management of COPD in Primary Care

**Step 1** Breathlessness and exercise limitation

Start SABA
Assess response in 4 weeks and **review assessment panel** before proceeding to the next option.
If no benefit or persistent symptoms consider adding SAMA.

**Step 2**

**FEV\(_1\) >50% of predicted**

**FEV\(_1\) <50% of predicted**

**With persistent breathlessness**

**Option 1**
LAMA plus PRN SABA (stop SAMA)
Assess response in 4 weeks and **review assessment panel** before proceeding to next option.

**Option 2**
LABA (continue SABA/SAMA)
Assess response in 4 weeks and **review assessment panel** before proceeding to next option.

**Persistent breathlessness without exacerbations**

**Option 1**
LAMA plus PRN SABA (stop SAMA)
Consider LABA plus PRN SABA/SAMA if LAMA not tolerated.
Assess response in 4 weeks and **review assessment panel** before proceeding to next option.

**Option 2**
LABA + LAMA
Assess response in 4 weeks and **review assessment panel** before proceeding to next option.

**2 or more exacerbations in last 12 months**

**Option 1**
LABA + ICS
Consider LABA + LAMA if ICS declined or not tolerated.
Assess response in 4 weeks and **review assessment panel** before proceeding to next option.

**Option 2**
LABA + LAMA
Assess response in 4 weeks and **review assessment panel** before proceeding to next option.

**Step 3**

If still symptomatic and diagnosis confirmed

**FEV\(_1\) ≥50% of predicted with persistent breathlessness**

**FEV\(_1\) <50% of predicted with persistent breathlessness**

**Consider alternative diagnosis/management**

**Consider LABA + LAMA**
Assess response in 4 weeks and **review assessment panel** before proceeding to next option.

**Assessment Panel**
Before initiating treatment and at every review, refer to Assessment Panel.

**Assess Response**
Assess each new treatment step **4 weeks** after initiation.
- Consider alternative technique.
- Consider alternative diagnosis.
- Has the treatment made a difference to you?
- Is your breathing easier in any way?
- Has your sleep improved?
- Can you do some things that you could not do before or do the same things faster?
- Are you less breathless than before when doing these things?
- Record MRC scale.

If no benefit **STOP** treatment and consider alternative.
Try to prescribe the same type of device for each type of drug.

**Pulmonary Rehabilitation**
Consider referral to pulmonary rehabilitation if MRC score is 3+.

**Lifestyle Advice**
Smoking cessation - promote at every opportunity.
Dietary advice - if BMI <18 or >30
Exercise - promote gentle exercise

**Self-Management**
Consider written self-management plan for all patients and rescue pack for appropriate patients.
Prescribe antibiotics in line with antimicrobial guidance.

**Immunisation**
Influenza annually
Pneumococcal as per green book

**Anxiety and Depression**
Screen for depression and anxiety using the PHQ-9 / HADS score.

**Oxygen Therapy**
If SPO2 <92% (at rest & stable) refer via Home Oxygen Assessment & Referral (HOS-AR) form.

**Chronic Productive Cough**
Consider a trial of carbocisteine 375mg (2caps tds, reducing to 2caps bd). This should be stopped if there is no benefit after a 4-week trial.

Please refer to specialist. Clinicians must use the specified referral pathway: [http://www.valeofyorkccg.nhs.uk/rss/](http://www.valeofyorkccg.nhs.uk/rss/)
**Drug choices for the management of COPD**

**Key:** MDI = metered dose inhaler. DPI = dry powder inhaler

### Prescribe by brand

- To aid patient familiarity and identification of devices please prescribe by brand name.
- The choice of drug(s) should take into account the person’s symptomatic response and preference, and the drug’s potential to reduce exacerbations, its side effects and cost (NICE, 2010).

### SABA (short acting beta agonist)

- Salbutamol 100mcg MDI, two inhalations four times a day, as and when required (£1.50) or
- Salbutamol 100mcg MDI and spacer device (Aerochamber® £4.90/Volumatic® £3.88) or
- Alternative SABA device to suit patient (e.g. salbutamol 100mcg Easyhaler® DPI £3.31/terbutaline 500mcg Turbohaler DPI £8.30)

### SAMA (short acting muscarinic antagonist)

- Ipratropium bromide 20mcg MDI 1-2 puffs QDS PRN (£5.56) +/- spacer

### LAMA (long acting muscarinic antagonist)

#### First line

- Incruse Ellipta®, DPI, umeclidinium 55mcg, one inhalation once a day (£27.50)

#### Alternative options

- Eklira Genuair®, DPI (blister and device), aclidinium 322mcg, one inhalation twice a day (£28.60)
- Seebri Breezhaler®, DPI (blister and device), glycopyrronium 44mcg, one inhalation once a day (£27.50)
- Spiriva Respimat®, MDI, tiotropium 2.5mcg, 2 puffs once daily (£23.00)

### LABA + LAMA

#### First line

- Anoro Ellipta®, DPI, umeclidinium/vilanterol 55/22mcg, one inhalation once a day (£32.50)

#### Alternative options

- Duaklir Genuair®, DPI, aclidinium/formoterol 340/12mcg, one inhalation twice a day (£32.50)
- Ultibro Breezhaler®, DPI, (blister & device) indacaterol/glycopyrronium 85/43mcg, one inhalation once a day (£32.50)
- Spiolto Respimat®, MDI tiotropium/olodaterol 2.5/2.5mcg, 2 puffs once daily (£32.50)

### LABA + ICS (long acting beta agonist and inhaled corticosteroid)

#### First line

- Relvar Ellipta®, DPI, fluticasone/vilanterol 92/22mcg, one inhalation once a day (£22.00)

#### Alternative options

- Fostair®, MDI, beclometasone/formoterol 100/6mcg, two inhalations twice a day (£29.32)
- Fostair NEXThaler®, DPI, beclometasone/formoterol 100/6mcg, two inhalations twice a day (£29.32)
- DuoResp Spiromax® 320/9mcg (£27.97) OR Symbicort Turbohaler® 400/12 (£28.00), both DPIs, budesonide/formoterol. Both dose equivalent – one inhalation twice a day, patient will require appropriate device training.

### ICS + LAMA + LABA (Triple therapy)

#### First line

- Trelegy Ellipta®, DPI, fluticasone/umeclidinium/vilanterol 92/55/22mcg, one inhalation once a day (£44.50)

#### Alternative options

- Trimbow®, MDI, beclomethasone/glycopyrronium/formoterol 87/9/5mcg, two inhalations twice a day (£44.50)

### Referral to a specialist

When there is:

- Diagnostic uncertainty
- Uncontrolled severe COPD
- Onset of cor pulmonale
- Assessment of surgery: bullous lung disease
- Rapid decline in FEV₁
- Aged <40 or FH of alpha 1 antitrypsin deficiency
- Frequent infection
- Haemoptysis

### Supporting information:


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