

**\*\*\*Co-existing asthma and COPD may need to be treated differently\*\*\***

**For ALL patients:**

- Diagnosis should be confirmed with symptoms and spirometry.
- Offer referral to a smoking cessation service to any person with COPD who continues to smoke.
- Offer pneumococcal and annual influenza vaccination.
- Refer to Pulmonary Rehabilitation (forms available [here](#)); *repeat attendance may be appropriate.*
- Prescribe according to inspiratory flow (guidance how to assess [here](#)) - and check inhaler technique with every device used and **any change** in device (promotional videos on inhaler technique available online). Check inspiratory flow at all reviews.
- Prescribe by brand name to avoid confusion. Refer to BNF/individual Summary of Product Characteristics (SPC) for full prescribing details. Doses shown do not reflect those for special patient populations, and are sourced from SPCs (accessed 16/12/16).
- Specialist opinion suggests promoting the use of a spacer for all MDI prescribing and confirming technique. Please note not all MDI devices are licensed for use with a spacer. Respimat devices are not licensed for use with a spacer.
- Standby antibiotics and oral corticosteroids for frequent exacerbator patients (advice can be found [here](#)).
- All patients with COPD should have oxygen saturations monitored at each review. Patients with oxygen saturations that are 92% or below when clinically stable should be referred to the COPD clinic for consultant review and will then be referred onwards for oxygen assessment.

Aim to have same device delivery, either Metered dose inhaler (MDI) or Dry powder inhaler (DPI), for all classes of drug

Inspiratory Flow	
Prescribe device according to inspiratory flow – check inhaler technique with every device used	
<b>LOW</b> <30L/min MDI/soft mist: 'Long and Slow'	<b>HIGH</b> >30L/min DPI: 'Quick and fast'

**Mild Disease**

Few symptoms, no history of exacerbations *and/or* FEV<sub>1</sub> % predicted ≥80%\*

OFFER Short Acting β <sub>2</sub> Agonist (SABA) FOR USE AS REQUIRED	
Ventolin 100mcg Evohaler®(salbutamol) 1-2 puffs prn up to QDS	Easyhaler Salbutamol 100mcg 1-2 puffs prn up to QDS <b>OR</b> Bricanyl Turbohaler®500mcg (terbutaline) 1 puff prn up to QDS

**Moderate**

Daily symptoms of dyspnoea, cough, sputum production *and/or* Infrequent exacerbation history ≤1 in last year (not leading to hospital admission) *and/or* FEV<sub>1</sub> % predicted 50-79%\*

Increasing severity



MONO BRONCHODILATOR THERAPY	
Offer Long Acting Muscarinic Antagonist (LAMA), Continue prn SABA	
Spiriva Respimat® 2.5mcg/dose (tiotropium) 2 puffs OD	Eklira Genuair® 322mcg/dose (aclidinium) 1 puff BD <b>OR</b> Incruse Ellipta® 55mcg/dose (umeclidinium) 1 puff OD
OR Offer Long Acting β <sub>2</sub> Agonist (LABA)	
Atimos Modulite® 12mcg pMDI (formoterol) 1 puff BD <b>OR</b> Striverdi Respimat® 2.5mcg/dose (olodaterol) 2 puffs OD	Oxis 12 mcg Turbohaler® (formoterol) 1 puff OD or BD <b>OR</b> Formoterol 12mcg Easyhaler 1 puff BD

ONGOING SYMPTOMS <i>and/or</i> INCREASE IN EXACERBATIONS	
COMBINATION DUAL BRONCHODILATOR THERAPY	
<i>Choices depend on which mono-therapy was initiated – use same inhaler device if patient technique good.</i>	
Spiolto Respimat® 2.5/2.5mcg (tiotropium/olodaterol) 2 puffs OD	Duaklir Genuair® 340/12mcg (aclidinium/formoterol) 1 puff BD <b>OR</b> Anoro Ellipta® 55/22mcg (umeclidinium/vilanterol) 1 puff OD

**Severe and very severe**

Daily symptoms of dyspnoea, cough, sputum production *and/or* Frequent exacerbations ≥2 per year (or ≥1 leading to hospital admission) *and/or* FEV<sub>1</sub> % predicted <50%\*















COMBINATION DUAL BRONCHODILATOR THERAPY	
<i>Choices depend on which mono-therapy was initiated – use same inhaler device if patient technique good.</i>	
Spiolto Respimat® 2.5/2.5mcg (tiotropium/olodaterol) 2 puffs OD	Duaklir Genuair® 340/12mcg (aclidinium/formoterol) 1 puff BD <b>OR</b> Anoro Ellipta® 55/22mcg (umeclidinium/vilanterol) 1 puff OD

ONGOING SYMPTOMS <i>and/or</i> INCREASE IN EXACERBATIONS	
<i>Add Inhaled Corticosteroid (ICS) to dual bronchodilation ('triple' therapy)</i>	
<i>If patient stable on triple therapy for 3 months or more use single inhaler (Trimbow orTrelegy)</i>	
Trimbow®87 micrograms/5 micrograms/9 micrograms (beclometasone/formoterol/ glycopyrronium) 2 puffs BD <b>OR</b>	Trelegy Ellipta® 92 micrograms/55 micrograms/22 micrograms (fluticasone furoate/umeclidinium/vilanterol) 1 puff OD <b>OR</b>
Fostair 100/6 or Symbicort MDI 200/6 added to LAMA, if trialling triple therapy or continuing with two inhalers	Symbicort Turbohaler® 200/6mcg or Relvar Ellipta® 92/22mcg added to LAMA, if trialling triple therapy or continuing with two inhalers

Issue of a steroid card should be considered for the ICS options above (all ICS doses equivalent to ≥800mcg/day beclometasone dipropionate). All ICS options above give potential steroid side effects (including pneumonia).

\* based on post bronchodilator FEV<sub>1</sub> in patients with FEV<sub>1</sub>/FVC <0.7

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CLASS	Metered Dose Inhalers (MDI)	Dry Powder Inhalers (DPI)
<b>SABA</b>	Ventolin Evohaler® 100mcg/dose (salbutamol) <i>(£1.50 per 200 doses)</i> 	Bricanyl Turbohaler® 500mcg/dose (terbutaline) <i>(£6.92 per 100 doses)</i> <b>OR</b> Easyhaler Salbutamol 100mcg/dose (Please note: easyhaler device has high resistance) <i>(£3.31 per 200 doses)</i> 
<b>LAMA</b>	Spiriva Respimat® 2.5mcg/dose (tiotropium) <i>(£23.00 per 30 days)</i> 	Eklira Genuair® 322mcg/dose (aclidinium) ▼ <i>(£28.60 per 30 days)</i> <b>OR</b> Incruse Ellipta® 55mcg/dose (umeclidinium) ▼ <i>(£27.50 per 30 days)</i> 
<b>LABA</b>	Atimos Modulite® pMDI 12mcg/dose (formoterol) <i>(£18.04 per 30 days)</i> <b>OR</b> Striverdi Respimat® 2.5mcg/dose (olodaterol) ▼ <i>(£26.35 per 30 days)</i> 	Oxis 12mcg Turbohaler® (formoterol) <i>(£24.80 per 30 days (based on 1 puff BD))</i> <b>OR</b> Formoterol Easyhaler 12mcg/dose (Please note: easyhaler device has high resistance) <i>(£11.88 per 30 days)</i> 
<b>LAMA/LABA</b>	Spiolto Respimat® 2.5/2.5mcg.dose (tiotropium/olodaterol) ▼ <i>(£32.50 per 30 days)</i> 	Duaklir Genuair® 340/12mcg/dose (aclidinium/formoterol) ▼ <i>(£32.50 per 30 days)</i> <b>OR</b> Anoro Ellipta® 55/22mcg/dose (umeclidinium/vilanterol) ▼ <i>(£32.50 per 30 days)</i> 
<b>ICS/LABA</b>	Fostair® 100/6mcg pMDI (beclometasone/formoterol) <i>(£29.32 per 30 days)</i> <b>OR</b> Symbicort® 200/6mcg pMDI (budesonide/formoterol) <i>(£28.00 per 30 days)</i>  	Symbicort Turbohaler® 200/6mcg (budesonide/formoterol) <i>(£28.00 per 30 days)</i> <b>OR</b> Relvar Ellipta® 92/22mcg (fluticasone furoate/vilanterol) ▼ <i>(£22.00 per 30 days)</i>  
<b>ICS/LAMA/LABA</b>	Trimbow® 87 micrograms/5 micrograms/9 micrograms (beclometasone/formoterol/ glycopyrronium) <i>£44.50 per 30 days</i> 	Trelegy Ellipta® 92 micrograms/55 micrograms/22 micrograms (fluticasone furoate/umeclidinium/vilanterol) ▼ <i>£44.50 per 30 days</i> 

▼ Denotes medicines intensively monitored by the Commission on Human Medicines (CHM) and the MHRA

\*Prices obtained from Drug Tariff Dec 2016/C&D Data online (accessed 05/12/16)