

NHSGGC Primary Care COPD Guideline

Identification and Diagnosis

- Persistent cough, sputum and/or breathlessness.
- Arrange chest X-ray and Full Blood Count at initial presentation.
- Outreach spirometry recommended if available.
- Following spirometry patients with FEV1/FVC <70% post bronchodilator can be diagnosed with COPD and should be offered annual review.
- Patients with FEV1 >80% predicted post bronchodilator should only be diagnosed with COPD if they have consistent symptoms.

Classification – as amended by **NICE, 2010**

- Mild: FEV1 >80% predicted (if symptomatic).
- Moderate: FEV1 50-79% predicted.
- Severe: FEV1 30-49% predicted.
- Very severe: FEV1 <30% predicted.
- FEV1/FVC ratio of <70% may over-diagnose mild COPD in the over 70s, ensure consistent history and symptoms.

- Distinguish from asthma (however COPD and Asthma can co-exist or overlap).

Consider asthma as a possible diagnosis particularly:

- Non-smoker.
- If pattern of symptoms suggest asthma e.g. wheeze, nocturnal wakening, atopy, diurnal variation. Raised eosinophils on FBC.
- 200ml or 12% improvement of FEV1 or significant (20%) variability in PEFR. See GGC Asthma Primary Care Guideline for further information.

- Consider alternative diagnoses such as bronchiectasis in patients with persistent purulent sputum, and/or crackles, or pulmonary fibrosis in patients with dyspnoea, dry cough and crackles.

Initial Assessment and Annual Review When Stable

- Functional ability / [MRC grade](#) and [COPD Assessment Test \(CAT\)](#) score.
- Pulse oximetry.
- Smoking status - offer [Smokefree Services](#).
- Ask about occupational dust or fume exposure.
- BMI – record – if >25 advise as appropriate (see Treatment section below).
- If BMI <20 or MUST questionnaire positive, refer to dietician (see below if unexplained).
- Medication review (see Treatment section) including a visual check of inhaler technique.
- Discuss referral for pulmonary rehabilitation if MRC ≥3 and not had within last 2 years. Reinforce potential benefits to patient.
- Consider chest x-ray and/or repeat [lung function assessment](#). (See Hospital Outpatient Referral section below).
- Consider psychological morbidity.
- Consider DEXA referral:
 - in patients maintained on inhaled steroid dose >800 microgram/day beclometasone equivalent for 10 years and a 10 year risk of major fracture >10%. (Use Qfracture <http://www.qfracture.org/index.php>)
 - Any COPD patient aged over 50 who has had a low trauma fracture (defined as occurring after a fall from standing height or less) within the previous 3 years. There is evidence that asthma/COPD is associated independently with fracture risk.
- Assess co-morbidities: Cardiovascular disease, osteoporosis, cardiovascular disease, anxiety and depression, skeletal muscle dysfunction, metabolic syndrome and lung cancer all occur more commonly in COPD patients. These conditions may influence mortality and admissions, and should be looked for routinely and treated appropriately.
- Reinforce action to be taken if acute exacerbation, including self management plan if appropriate.
- Ensure appropriate patient education, both verbal and written: <http://mylungsmylife.org/>
- Consider Key Information Summary and Anticipatory Care Plan.

Hospital Outpatient Referral

Consider hospital outpatient referral if:

- Age <40 years.
- Never smoked / occasional smoker.
- Diagnostic uncertainty e.g. symptoms disproportionate to lung function at initial assessment or follow up.
- Severe symptoms or signs of cor pulmonale (e.g. ankle swelling; MRC 4/5; FEV1 <30%; oxygen saturation <92%).
- Unintentional unexplained weight loss – consider chest x-ray.
- If considering nebulised treatments or [oxygen](#). Flight assessment is only indicated in patients with oxygen saturation <94%.
- Frequent exacerbations/persisting purulent sputum to exclude bronchiectasis.

Pharmacological Treatment

Please see [GGC COPD Inhaler Device Guide](#) and [Patient Information Leaflets on Inhaler Devices](#)

- Ensure adequate inhaler technique.
- Metered dose inhalers (+/- spacer device) should be considered first for SABA.
- See GGC Formulary for individual choices.
- Patients should not be started on nebulised treatments unless agreed with consultant.
- All inhalers, other than Salbutamol metered dose inhaler (MDI), should be prescribed by brand name.
- Drugs started for symptom relief should be reviewed after 1 month and discontinued if no benefit to patient
- Raised eosinophils, atopic tendency, or any other features suggesting asthma overlap make patients more likely to respond to inhaled corticosteroids independent of FEV1.
- Review patients prescribed ICS/LABA (LABA and corticosteroid combination inhaler) outwith NHSGGC guidance. If FEV1 >50% predicted and patient is not exacerbating consider stopping ICS/LABA (review exacerbation rate before ICS/LABA was started and if rate improved continue ICS/LABA).

Mucolytics

Consider trial of mucolytic if persistent productive cough. Review after 4 weeks and stop if no improvement. Reduce to maintenance dose if treatment continued.

Theophyllines

Consider theophyllines if persisting symptoms despite inhaled treatment. Refer to [GGC Formulary](#) for further information.

Azithromycin

[Long term azithromycin](#) or other long term macrolides should only be initiated by secondary care.

Treatment of Exacerbation of COPD

Defined as an acute onset of increase in breathlessness, cough or sputum production, or change in sputum colour, sustained for at least a day.

1. Step up current short acting beta-2 agonist.
2. Initiate Prednisolone 40mg/day for 5 days.
3. Antibiotic only if purulent sputum – 5 days of: Amoxicillin 500mg three times daily or Doxycycline 200mg once then 100mg daily. Use Clarithromycin 500mg twice daily if Doxycycline not tolerated and if no drug interactions.
4. If you offer self-initiation of antibiotics and/or steroids, ensure a written plan reflecting the above.

General Health Measures

- Smoking cessation advice – see NHSGGC guidance.
- Annual flu immunisation.
- Pneumococcal immunisation.
- Encourage physical activity (can use Vitality or Live Active referral if need additional encouragement/support).
- Encourage weight management if BMI >25 and no unintentional weight loss (can use NHSGGC Weight Management Service or Shape Up).

Palliative Care

- Annual flu immunisation.
- Patients may benefit from various non-pharmacological approaches, as well as the involvement of multidisciplinary palliative care teams.
- Opiates may be appropriate in patients with severe COPD for the palliation of breathlessness or cough unresponsive to other medical therapy. Benzodiazepines may help associated anxiety or panic.
- Consider creating an electronic palliative care summary.

For further detail and drug dosage advice see www.palliativecareguidelines.scot.nhs.uk sections on lung disease and breathlessness.