COPD: management of acute exacerbations

Exacerbation of COPD - known diagnosis, increased sputum and/or increased DIB

Suspicion of exacerbation of COPD – no previous COPD diagnosis, but age >35y, smoker/ex-smoker or exposure to polluted atmosphere, history of frequent chest infections OR breathlessness/wheeze on exertion

Assess severity

- Check: Pulse, BP, RR, temperature, SpO2
- Look at: ability of patient to talk, colour, use of accessory muscles, peripheral oedema (suggests heart failure)

Management in ED if signs of danger

Manage breathlessness

Salbutamol via spacer - start with 10 puffs then 4-6 puffs every 2-4h
If very unwell use nebulised salbutamol, 5mg as needed
Ipatropium is an alternative but may not be as effective
Oral **prednisolone 30mg for 5 days**, no need to tail off dose
DO NOT use iv or IM steroids (no additional benefit)

Oxygen

Give low dose oxygen to **target SpO2 88-92%**
USE OXYGEN WITH CARE! - SpO2 >92% is associated with ↑risk of death

Investigations

Often not necessary if known COPD and diagnosis clear
CXR - if new presentation, atypical features (ankle swelling, weight loss, haemoptysis), diagnosis not clear
Other bloods (e.g. Hb) only as clinically indicated

If change in sputum colour or more sputum

AMOXICILLIN 500mg tds for 5 days OR DOXYCYCLINE 200mg first day then 100mg od for 6 days (7 days total)

- Discharge /admission depending on severity
- Arrange appropriate **follow up** depending on clinical need and social situation
- Give clear **safety netting advice** (return before arranged follow up appointment if deterioration of condition)
- See separate protocol for long-term management: **COPD: diagnosis and chronic management**

Further clinical assessment

COPD diagnosis

- Chronic cough (daily for at least 3 months without features of TB)
- Regular sputum production especially during wetter/colder season
- Breathlessness and/or wheeze, especially with activity
- Repeated chest infections needing treatment (3 or more in last 2 years suggestive)
- Supported by clinical and radiological findings

Differential diagnoses – look for the following which may suggest another disease:

- Recent onset (TB, heart failure, cancer?)
- Waking at night (asthma, heart failure?)
- Haemoptysis (TB, infections, lung cancer, pulmonary embolus, bronchiectasis?)
- Ankle swelling (heart failure?)
- Weight loss (TB, lung cancer)
- Frequent chest infections and constant productive cough (bronchiectasis?)
- Finger clubbing (lung cancer, bronchiectasis, TB?)
- Chest pain (cardiac, GI, MSK, lung cancer, PE)

Discuss with consultant if:

- Diagnostic uncertainty
- Considering admission

References:
NCD Clinical Guide 2021 COPD Primary Care International *(adapted for this context and location. PCI have not been involved in, nor hold responsibility for any adaptations. Original can be found at: https://ncd-training.org/open-source-clinical-guide/)*
Echevarria C, Steer J, Watson J, *et al. Emerg Med J* 2021; 38: 170-177