COPD – diagnosis and long-term management

Key Facts:

- Chronic obstructive pulmonary disease (COPD) is a disease of smokers and those who are frequently in smoky or polluted air
- It is the third leading cause of death in the world (WHO, 2019)
- **It is easily missed**: people present with infections but see different health workers each time and the pattern of frequent infections is missed
- **Smoking cessation is the most important treatment** for COPD and reduces mortality

Clinical presentation COPD

Think 'Could this be COPD?' if >35y and smoker/ex-smoker OR exposed to smoky or polluted atmospheres who present with:

- Chronic cough
- Regular sputum production
- Breathlessness and/or wheeze, especially with activity
- Repeated chest infections (needing treatment)

Exclude asthma and other differentials (see table p2)

Diagnosis & investigations

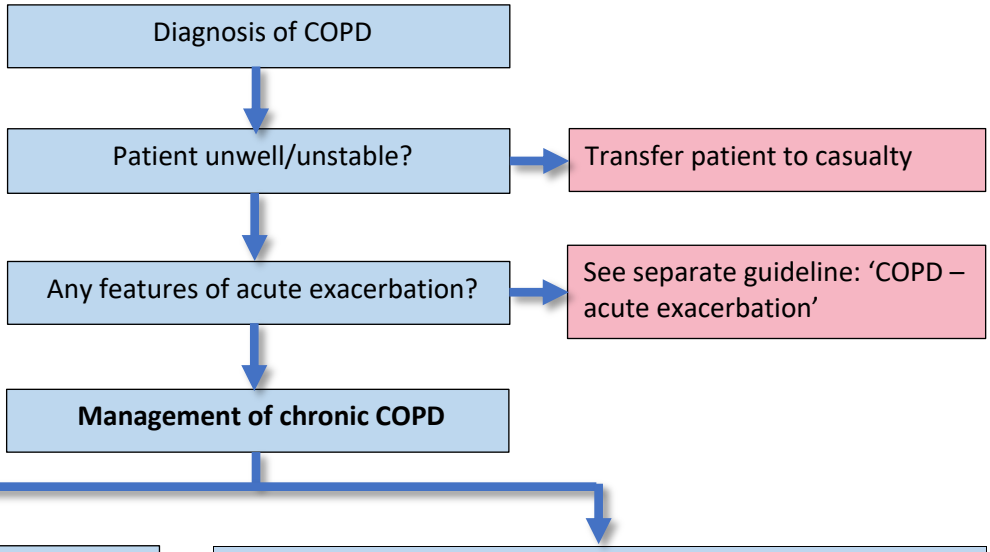
- Spirometry is the gold standard to confirm the diagnosis, but not available in Kijabe
- If no access to spirometry, make a **clinical diagnosis based on clinical features as outlined in this table**
- CXR essential to exclude TB and other causes

Other causes of chronic cough

Intrathoracic:
Asthma; Lung cancer; TB; Bronchiectasis; LVF; Interstitial lung disease; Idiopathic cough
Cystic fibrosis
Extrathoracic:
Chronic allergic rhinitis, post-nasal drip syndrome, upper airways cough syndrome, GERD, medication e.g. ACEi

Management of COPD

- Seek OPD consultant advice before escalating to step 3
- A spacer device should always be used with an aerosol/MDI inhaler
- Check inhaler/spacer technique before escalating to the next step (see separate protocol on inhalers)



Non-pharmacological management of COPD

- Smoking cessation and/or stop exposure to biomass fuels
- Physical activity: patients should be encouraged to increase their level of physical activity
- Vaccination: Influenza vaccination is recommended for all patients with COPD; pneumococcal vaccination is recommended for patients >65yrs, and in younger patients with comorbid conditions including chronic lung or heart disease
- Long-term Oxygen Therapy for severe resting hypoxemia: room air oxygen saturation ≤ 88%, or ≤ 89% with cor pulmonale or signs of tissue hypoxia
- Early referral for palliative and end of life care

Pharmacological management of COPD

	Symptoms	Suggested treatment
Step 1	Mild symptoms: breathless with strenuous exercise	Short-acting bronchodilator as needed SABA preferred e.g. salbutamol (SAMA is alternative)
Step 2	More symptomatic: breathless with moderate exercise	Add LABA or LAMA if available. If not, use ICS+LABA Salbutamol reliever as needed
***Step 3**	More symptomatic: breathless with mild exercise	Combination LABA+LAMA If still symptomatic, try LABA+ICS+LAMA

Bronchodilators available in Kijabe pharmacy			
Class	**Drug**	**Type of inhaler**	**Dose**
SABA (Short acting beta-agonist)	Salbutamol 100mcg	aerosol, metred dose inhaler	200mcg as needed
SAMA (short acting muscarinic antagonist)	Ipatropium 20mcg	aerosol, metred dose inhaler	40mcg as needed
ICS (Inhaled corticosteroid)	Beclomethasone 100mcg	aerosol, metred dose inhaler	200-400mcg twice daily
ICS+LABA (Inhaled corticosteroid and long-acting beta-agonist)	Budesonide + Formoterol 200+6 or 400+6 Budesonide + Formoterol 160/4.5mcg	aerosol, metered dose inhaler dry powder, Turbohaler *(difficult to use if severe COPD)*	Low dose: 200-400mcg/day Medium dose: 400-800mcg/day High dose: >800mcg/day

References:
NCD Clinical Guide 2021, 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 by contacting PCI: https://pci-360.com*)
Chronic Obstructive Pulmonary Disease: Diagnosis and Management (AFP 2017)
UpToDate 2021: Chronic obstructive pulmonary disease (Definition, clinical manifestations, diagnosis, and staging)
2017 Global Initiative for Chronic Obstructive Lung Disease pocket guide