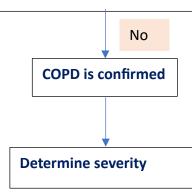
When to suspect COPD:

- Chronic and progressive dyspnea
- Recurrent wheeze
- Chronic cough
- Recurrent respiratory infections
- Risk factors including exposure to tobacco smoke

Diagnosis requires spirometry demonstrating post-bronchodilator FEV1/ FVC ratio <0.7 (or LLN). Spirometry in Kingston

Is the airflow obstruction reversible with bronchodilators (FEV1 improves by ≥200ml AND ≥12%)

Diagnosis is more likely to be asthma



Mild: FEV1≥80% predicted	Consider referring to a respirologist if not
	responding to treatment as outlined below
Moderate: FEV1 50-80% predicted	Consider referring to a respirologist if
	symptomatic or FEV1<70%, document GOC
	discussion
Severe: FEV1 30-49% predicted	Patient should be seen by a respirologist,
	document GOC discussion
Very Severe: FEV1<30%	Patient should be seen by a respirologist,
	document GOC discussion

Assessing symptoms – Consider:

COPD Assessment Test (CAT)

MRC grade

Refer your patient:

<u>Pulmonary Function Laboratory</u> at KHSC – HDH site

Created Date: 18-03-2024 Version Date: 25-07-2024

Initiating treatment for COPD

Preventative measures

For all COPD patients

Vaccinations: Pneumococcal vaccine, yearly influenza vaccine, yearly covid vaccine, Herpes Zoster vaccine Smoking cessation: Counselling, nicotine replacement (STOP program), Bupropion, Varenicline resources Advanced care planning: Discuss and document goals of care and wishes in the event of an exacerbation COPD action plan:

- For increased dyspnea, cough: prednisone 40mg po daily x 5 days and
- If fever or green/brown sputum: **add antibiotics** ex: Amox-Clav 875mg BiD x 5-7 days, Levofloxacin 750mg po daily x 5-7 days; Moxifloxacin 400mg po daily x 5-7 days.
- COPD action plan template

Pharmacological treatment for COPD

Stable COPD management

If FEV1 \geq 80% predicted, few symptoms and no previous AECOPD:

Prescribe either LABA (formoterol, salmeterol, indicaterol) or LAMA (tiopropium, aclidinium, umeclidinium, glycopyrrolate).

If FEV1 <80% predicted and stable COPD without exacerbations but patient has significant symptom burden: Prescribe both LABA AND LAMA or a combination product with both ingredients.

If FEV1 <80% predicted and stable COPD without exacerbations but patient has significant symptom burden despite taking LAMA & LABA:

Add inhaled steroid by switching to a LAMA/LABA/ICS combination puffer. In addition to triple inhaled therapy consider referring to pulmonary rehabilitation, which can improve symptoms considerably.

If FEV1 < 80% and the patient is taking LAMA/LABA/ICS and has had either 2 AECOPD within the last year or 1 AECOPD that sent them to the ER or to hospital admission:

Add azithromycin 250mg OD (consider risk of hearing impairment and QT prolongation with arrythmias).

Inhaler examples

LABA examples: Salmeterol Diskus 50mcg 1 puff BiD (LU 391) or Olodaterol 2.5mcg/puff 2 puffs OD or Oxeze Turbuhaler 6mcg inhaled Bid or 12 mcg inhaled BiD or Foradil 12 mcg inhaled BiD.

LAMA examples: Spiriva Respimat 2.5 mcg/puff 2 puffs OD *or* Aclidinium 400mcg BiD or umeclidinium 62.5 mcg 1 puff OD

Combination LAMA & LABA examples:

Aclidinium 400mcg & Formoterol 12 mcg 1 puff BiD (LU 459) *or* Olodaterol 2.5 mcg & tiotropium 2.5 mcg 2 puff once daily or umeclidinium 62.5 mcg & vilanterol 25 mcg 1 puff OD (LU 459).

Combination LABA/LAMA/ICS examples:

Trelegy Ellipta (fluticasone 100mcg/umeclidinium 62.5 mcg/vilanterol 25 mcg) 1 puff OD (LU 567) or Breztri Aerosphere (budesonide 160mcg/glycopyrrolate 9mcg/formoterol 4.8 mcg) 2 puffs BiD (LU 638).

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Advanced therapies

Home Oxygen Therapy Mortality benefit in pat

Mortality benefit in patients with chronic hypoxia

Option 1

Oxygen for maintenance use ≥ 15 hours/day

(i) **PaO2** ≤ **55mmHg**

or

(ii) PaO2 56-59 mmHg but the patient has pulmonary hypertension or raised hematocrit.

Option 2

Oxygen for exercise capacity

Vendors

Significant **improvement in exercise tolerance** with the addition of oxygen, in a patient whose **SpO2 falls to <85% with exercise**.

Often, there is no improvement with added oxygen because dyspnea relates to the respiratory mechanics and not to low oxygen saturation.

Pulmonary Rehabilitation

Patients with **FEV1 < 80%** who are **symptomatic despite inhaler treatment** should be referred to pulmonary rehabilitation.

Teaches breathing techniques, nutrition, self-management, behavioral interventions, psychological support and improves exercise capacity.

Find local programs here

Recent hospitalization for AECOPD?

The patient should be seen in person by PCP within 7 days of discharge

Referral to pulmonary rehabilitation should be considered

If referred, pulmonary rehabilitation should commence within one month of hospital discharge.

Palliative approaches to care for patients with COPD

It is important to have and document a detailed GOC discussion w/ the patient, including:

- patient wishes in the event of deterioration in respiratory status medical management + symptom relief vs. symptom relief only
- consideration of hospitalization vs. management in the community
- patient wishes for resuscitative measures including non-invasive ventilation, intubation and ventilation, and CPR (in the event of cardiorespiratory arrest)

Consider low dose oral opioids for refractory dyspnea – e.g. kadian 10 mg PO daily, or morphine 2.5 mg TID-QID

Resources

Spirometry sites in Kingston and surrounding area

Click on the link to find information and referral form

- Pulmonary Function Laboratory at KHSC HDH site
- Kingston Respiratory Services
- Lennox and Addington County General Hospital (Outpatient Services)
- KCHC Regional Lung Health Program

Spirometry is also offered by the KHSC Nurse Navigator.

Phone: 613 893 8430 Fax: 613 548 7803

Home oxygen vendors

- InspiAIR
- <u>VitalAire</u>
- ProResp
- Linde
- <u>Kingston Oxygen Home Healthcare Centre</u>

Created Date: 18-03-2024 Version Date: 25-07-2024