Confirmation of COPD Diagnosis

If a patient presents with respiratory symptoms or you suspect respiratory disease ask patient about the following:

- Shortness of breath at rest or on exertion,
- Activity limitation,
- Cough,
- Sputum production,
- Frequent respiratory tract infections,
- Smoker (current or past)

Screen smokers or ex-smokers over 40 years old who answer “YES” to any question below:

1. Do you cough regularly?
2. Do you cough up phlegm regularly?
3. Do even simple chores make you short of breath?
4. Do you wheeze when you exert yourself or at night?
5. Do you get frequent colds that persist longer than those of other people?

COPD Diagnosis and Management Algorithm for Primary Care

COPD Suspected

Confirm Diagnosis with Spirometry

Airflow limitation:
Post-bronchodilator FEV1 < 70% predicted
FEV1/FVC = forced expiratory volume in 1 second/FVC = forced vital capacity

History/Risk Factors:
History: smoking, occupational, medical, family
Second-hand smoke exposure
Symptomatic shortness of breath at rest or on exertion, activity limitation, cough, sputum production (amount, colour, consistency), wheezing, chest tightness

Assess for COPD:
- Physical examination
- History and risk factors
- Assessment for comorbidities

COPD Assessment Test (CAT): www.caonline.ca

CTCT severity score (symptom burden and the risk of future exacerbations)
Mild CAT < 10, Moderate 10-20, Severe > 20

Consider a patient with FEV1 < 80% predicted

COPD NOT CONFIRMED

Differential Diagnosis
- Asthma
- Cardiovascular or pulmonary vascular disease
- Obstructive sleep apnea
- Severe deconditioning
- Anemia
- Interstitial lung disease
- Neuromuscular disease
- Bronchodilators
- Tuberculosis

Consider Referral to Specialist
- Not certain of the diagnosis
- Symptoms not proportional to level of airway obstruction
- Accelerated decline of lung function (FEV1 declines 80 ml or more per year over a two-year period)
- Symptom onset at a young age (< 40 years)
- Suspect alpha-1-antitrypsin deficiency
- Not responding to therapy
- Severe or recurring exacerbations
- Moderate to severe disease

Patient Assessment & Monitoring

Assess Severity (Refer to Pharmacological Management figure below for definitions):

- Modified Medical Research Council (mMRC) dyspnea scale:
  - mMRC 0: I get no breathlessness with strenuous exertion
  - mMRC 1: I get SOB when hurrying on the level or walking up a slight hill
  - mMRC 2: I get breathless more than other people of the same age on the level, or stop for breath when walking at my own pace
  - mMRC 3: I stop for breath after walking 100 meters or after a few minutes

- CTS severity score (symptom burden and the risk of future exacerbations)
  - Mild CAT < 10, Moderate 10-20, Severe > 20

SABD = short-acting bronchodilator
LABA = long-acting bronchodilator
SABA = short-acting beta agonist
SAL = inhaled corticosteroid
SFC = fixed combination of an inhaled corticosteroid and a long-acting bronchodilator
HFA = hydrofluoroalkane

Follow-up Care:
- Follow-up post discharge from hospital
- Schedule regular follow-up care

End of Life Care
- Advanced Care Planning

Pharmacological Management

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Non-Pharmacological Management

COPD Education - provide or refer to program/Certified Respiratory Educator (CRE)
- Smoking cessation (https://lunghealth.ca/content/dam/cre/programs/cre-portal/webpages/)
- Pulmonary rehabilitation
- Digital patient education (https://lunghealth.ca/lung-disease/ia-to-asthma/how-to-helpful-manag-

Self-management education with written action plan
- Identify and reduce/removerisk factors
- Acute exacerbation recognition and treatment
- Managing dyspnea, energy conservation
- Barriers to management or special considerations such as medication adherence, cultural barriers, financial issues, lack of support, language, nutritional assessment

Exercise: Pulmonary Rehabilitation
- Refer patients for pulmonary rehabilitation within 1 month of hospital discharge for acute exacerbation of COPD
- Encourage all COPD patients to be active
- Include community-based exercise programs
- COPD patient information (https://lunghealth.ca/wheres-your-lunghealth)

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End of Life Care
- Advanced Care Planning

Revisions: Primary Care Program: https://lunghealth.ca/clinical-guidelines/

References:

Influenza (annually) & Pneumococcal Vaccinations (https://biolinx.tv/)

Long-Term Oxygen Therapy can improve survival and function in appropriately chosen, stable COPD patients with chronic hypoxemia (PaO2 < 55 mmHg or lower), or when PaO2 is less than 60 mmHg in the presence of bilateral arterial azotemia, right heart failure or hematocrit > 56%.

Acute Exacerbation of COPD Treatment:
- Oral/parenteral steroids (mild – moderate AECOPD)
- Antibiotics in patients with purulent exacerbations
- Increased short-acting bronchodilator (SABA)
- Oxygen therapy to maintain oxygen saturation at 88% - 92%