

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%)

Yes

Diagnosis is more likely to be asthma

No

COPD is confirmed

Determine severity

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:
[Pulmonary Function Laboratory at KHSC – HDH site](#)

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 ≥ 80% predicted, few symptoms and no previous AECOPD:

Prescribe either LABA (formoterol, salmeterol, indicaterol) or LAMA (tiotropium, 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 arrhythmias).

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 Acclidinium 400mcg BiD or umeclidinium 62.5 mcg 1 puff OD

Combination LAMA & LABA examples: Acclidinium 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).

Advanced therapies

Home Oxygen Therapy

Mortality benefit in patients with chronic hypoxia

Option 1

Oxygen for maintenance
use ≥ 15 hours/day

(i) $\text{PaO}_2 \leq 55\text{mmHg}$

or

(ii) PaO_2 56-59 mmHg but the patient has
pulmonary hypertension or raised hematocrit.

Option 2

Oxygen for exercise
capacity

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.

Vendors

Pulmonary Rehabilitation

Patients with **FEV₁ < 80%** who are **symptomatic despite inhaled 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 COPD Nurse Navigator.

Phone: 613 893 8430

Fax: 613 548 7803

Home oxygen vendors

- [InspiAIR](#)
- [VitalAire](#)
- [ProResp](#)
- [Linde](#)
- [Kingston Oxygen Home Healthcare Centre](#)

Pulmonary Rehabilitation

The FLA OHT is funding spots in 2024-2025 for virtual respiratory rehabilitation through Evolve Wellness Studio (referral form attached).

Chronic Obstructive Pulmonary Disease (COPD)

Integrated Care Pathway Referral

Please fax referral to: (613) 548-7803

Patient's Name: _____ Date of Birth (yyyy/mm/dd): _____

Address: _____ Postal Code: _____

Phone: _____ Referring Provider: _____

Referring Provider Phone: _____ Primary Care Provider: _____

Eligibility:

Pulmonary function test consistent with COPD, demonstrating FEV1 / FVC <70% post bronchodilator OR radiographic evidence of emphysema on CT, **AND**:

- poor symptom control despite optimal therapy,
- or**
- one or more exacerbations requiring prednisone and antibiotics in the past 12 months,
- or**
- one or more emergency department visits or hospital admission within the past 12 months

For all referrals, please attach:

- current medical history
- medication list
- pulmonary function test

Services Provided:

Patients will be seen by a COPD Educator and may also be assessed by a Respiriologist if required.

- Self-management education
 - Pathophysiology of COPD
 - Role of medications, prescribed dosing, adherence
 - Device technique
 - Trigger avoidance and reduction
 - Identification of exacerbations
 - Use of a COPD Action Plan
 - Smoking / cannabis / vaping cessation
 - Breathing and pacing techniques
- Medication optimization and diagnostics as required
- COPD Action Plan development
- Referrals to smoking cessation, exercise therapy, others as needed

Contact information for COPD Nurse Navigator:

Phone: (613) 893-8430 **Fax:** (613) 548-7803

Signature: _____ Date (yyyy/mm/dd): _____

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EVOLVE
AT BELLEVILLE

with us

Referred by: _____ Date: _____

intro to

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Name: _____

DOB: _____ Phone #: _____

Email: _____

Address: _____

Respiratory Diagnosis: _____

FEV1: _____ Supplement O2: Y/N

O2 Titration Order: >92 88-92

other: _____

Notes:



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