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Provider Education Program

Respiratory Care during COVID-19: What have we learned one year later

April 21, 2021

afhto association of family health teams of ontario

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Disclosure of Financial Support

The Provider Education Program has received financial support from the Ministry of Health as part of the Ontario government's Asthma Action Program.

- Potential for Conflict(s) of Interest:

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Learning Objectives

By the end of the session the participants will be able to:

- Align COPD management considerations in the midst of COVID-19 protocols and practice changes
- Identify innovative partnerships and team-based practice changes to serve people living with lung disease
- Recognize challenges of spirometry testing and interpretation in a virtual world – lessons learned and discussion on when to reopen spirometry in primary care
- Appreciate primary and community care services and resources from the Lung Health Foundation to support your clients

Part 1 Objectives:

1) To align COPD management considerations in the midst of Covid -19 protocols and practice changes.

2) To identify innovative partnerships and team-based practice changes to serve patients living with lung disease.

Credit Valley Family Health Team:

- Natalia Makeeva NP
- Rita Hanna RPh

Conflict of Interest

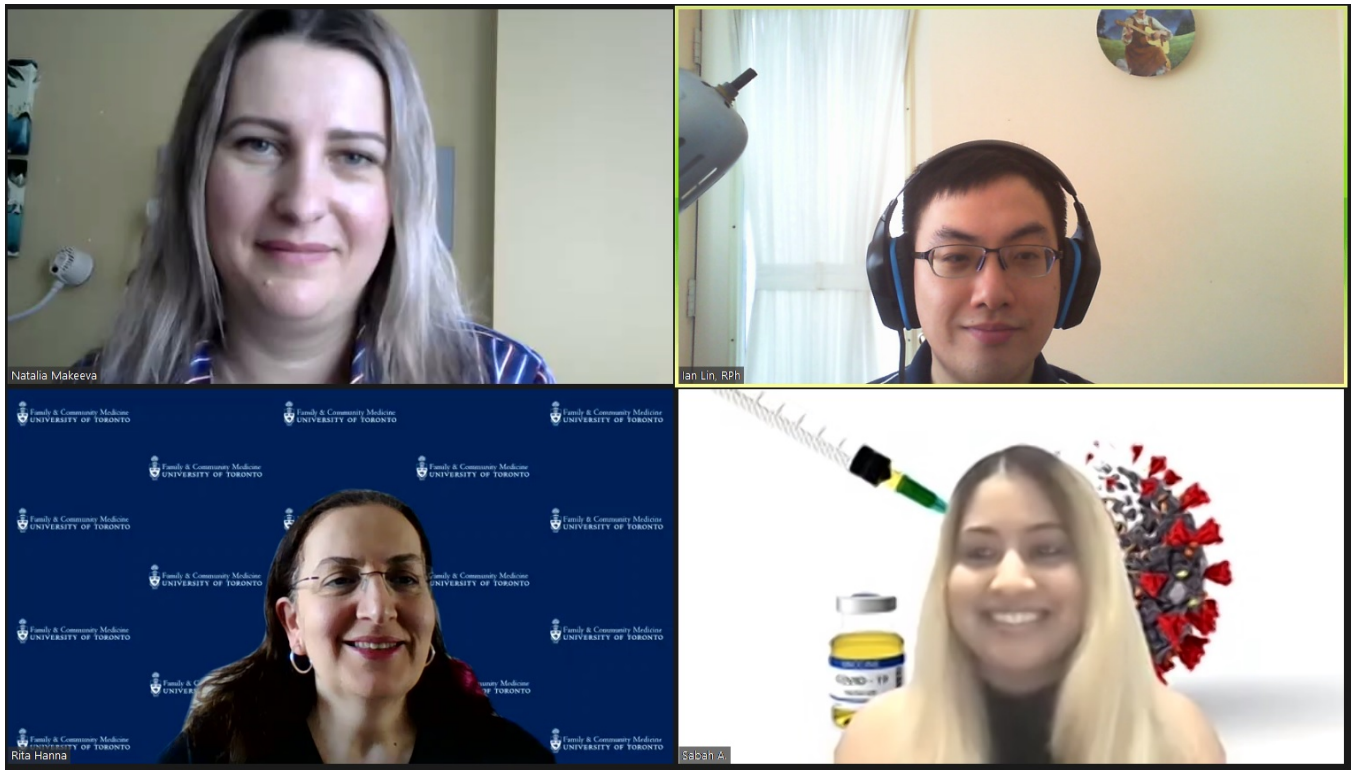
None

Lung Health/COPD Program

- The original plan was to re-launch the program on April 1, 2020.
- However, due to pandemic we needed to postpone to June 15, 2020.

COPD Team

- Sabah Ahmed RN
- Rita Hanna, RPh, CDE
- Ian Lin, RPh
- Natalia Makeeva NP, PHC



The Goals of the COPD Virtual Program

1) To identify & assess patients who are at risk of developing COPD complications as a result of health care avoidance during COVID 19
2) To optimize symptom relief
3) To prevent exacerbation (medication adherence, action plan, smoking cessation)
4) To provide educational/emotional support, and pharmaceutical management of COPD/ AECOPD during COVID 19 pandemic
5) To review co-morbidities (CV risk prevention, mood & anxiety)
6) To introduce and connect COPD patients to the program for ongoing support

Overview of Program Flow

We use the PCAP program manual as the framework for our COPD program

Program Flow - Identify & Assess Patients At Risk

1) We ran an AccuroEMR query and identified 114 patients with a COPD diagnosis. We excluded patients who were inactive or deceased.

2) We reviewed each patient's chart to confirm that patient has had a confirmed spirometry diagnosis.

3) We then provided a list of COPD patients to each MRP to help us identify the most vulnerable patients.

Program Flow – Before the First Visit

Prior to the first virtual appointment, we review the patient's chart to identify:

- Date of COPD diagnosis
- Current and previously used medications
- Immunization record
- Co-morbidities
- Name of Respirologist

Program Flow – First Visit

After an initial chart review, Sabah RN or Natalia NP initiates a first visit.

The goal of the first visit is to:

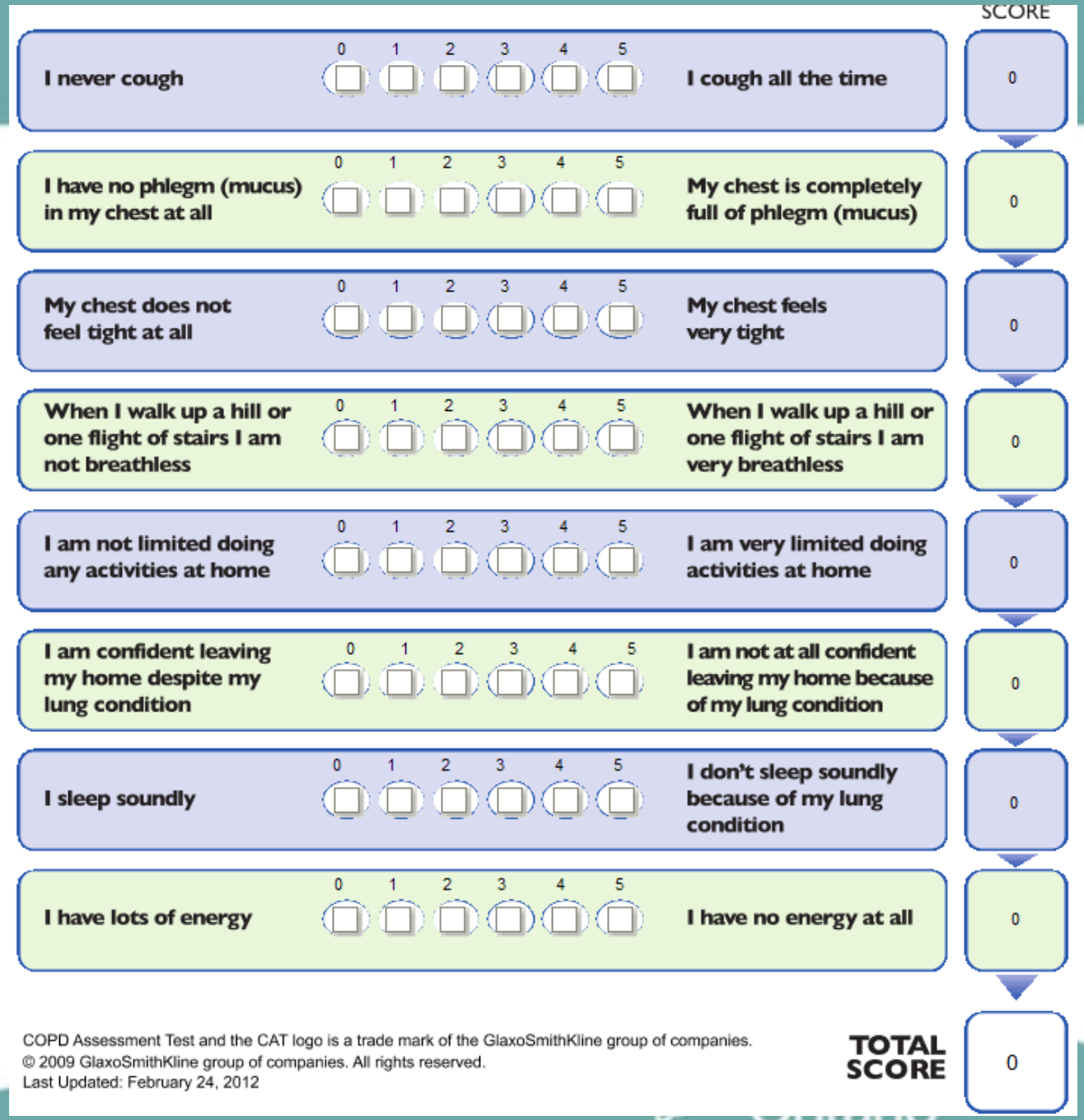
- To provide a brief introduction to COPD program
- To assess symptoms
- To assess management of COPD (MRC, CAT score, PHQ9)
- To assess medication compliance
- To address patient's concerns
- Arrange immunization if not up to date
- Connect with the pharmacist for further education:
    1. Medication review
    2. Smoking cessation counselling
    3. Proper use of inhaler device
- To introduce/review COPD action plan

CAT Score

Medical Research Council Dyspnea Scale

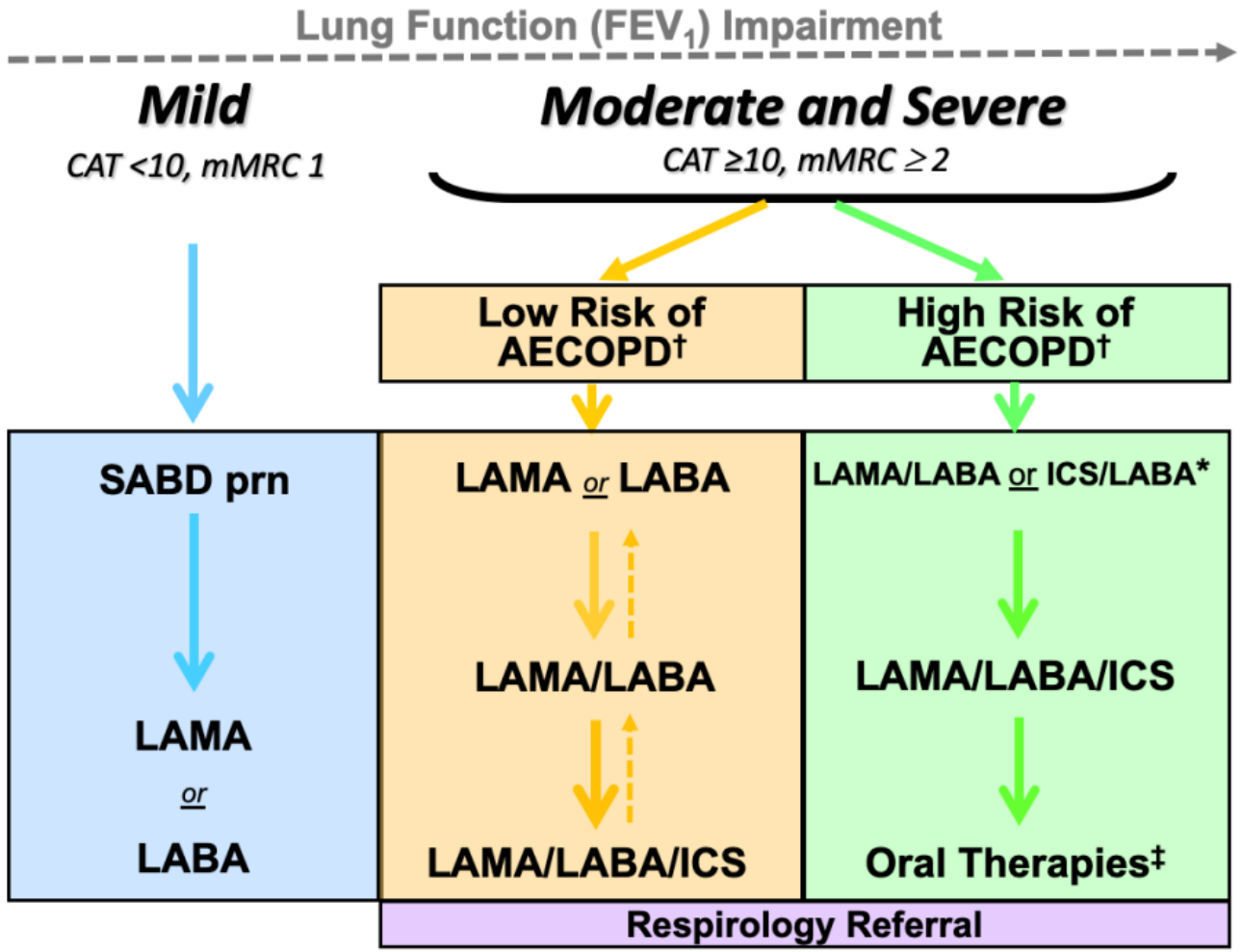
Grades	Level of Shortness of Breath (SOB) due to Activity
1 ☐	SOB during exercise severe
2 ☐	Breathlessness when quickly going up on a level and walking up a short hill
3 ☐	Walks slower than individuals of the same age on the level OR stops to take a breath while walking at own pace on the level
4 ☐	Stops to take a breath after walking 100 yards (equivalent to about a football field)
5 ☐	Too SOB to leave the house or SOB while dressing

MRC Scale



			SCORE
I never cough	0 1 2 3 4 5	I cough all the time	0
I have no phlegm (mucus) in my chest at all	0 1 2 3 4 5	My chest is completely full of phlegm (mucus)	0
My chest does not feel tight at all	0 1 2 3 4 5	My chest feels very tight	0
When I walk up a hill or one flight of stairs I am not breathless	0 1 2 3 4 5	When I walk up a hill or one flight of stairs I am very breathless	0
I am not limited doing any activities at home	0 1 2 3 4 5	I am very limited doing activities at home	0
I am confident leaving my home despite my lung condition	0 1 2 3 4 5	I am not at all confident leaving my home because of my lung condition	0
I sleep soundly	0 1 2 3 4 5	I don't sleep soundly because of my lung condition	0
I have lots of energy	0 1 2 3 4 5	I have no energy at all	0
		TOTAL SCORE	0

CTS Guidelines



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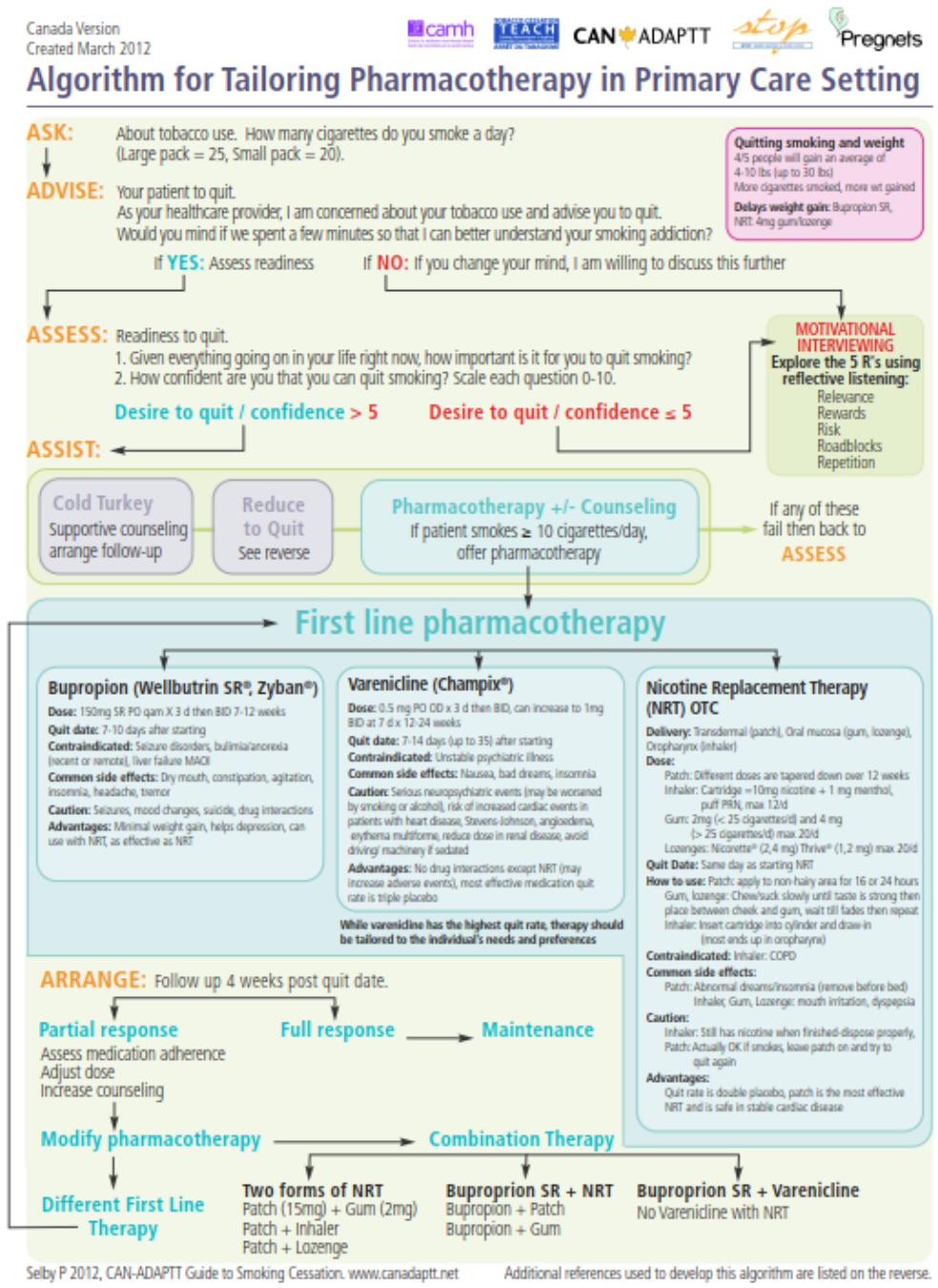
Équipe de Santé Familiale • Family Health Team

Smoking Cessation

- Time for change
- 5A (Ask, Advise, Assess, Assist and Arrange)
- Offer Pharmacotherapy
- Support



Program Flow – Second Visit

- 2nd appointment is booked with RPh or NP in 4-6 weeks
- The goal of this appointment is to reassess symptom management if any changes to medications were made during an initial appointment AND to develop COPD Action Plan
- If patient expresses interest in developing and using an Action Plan, a Rx will be faxed to patient's pharmacy.

Note:

1. *Patients are advised to contact MRP/NP within 2 days of starting action plan medications to manage AECOPD.*
2. *Patients should be reassessed within 1-2 weeks after each AECOPD.*

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Action Plan

My Symptoms	I Feel Well	I Feel Worse	I Feel Much Worse URGENT
I have sputum.	My usual sputum colour is: _____	Changes in my sputum, for **at least** 2 days. *Yes* ☐ *No* ☐	My symptoms are not better after taking my flare-up medicine for 48 hours.
I feel short of breath.	When I do this: _____ _____ _____	OR More short of breath than usual for **at least** 2 days. *Yes* ☐ *No* ☐	I am very short of breath, nervous, confused and/or drowsy, and/or I have chest pain.

My Actions	Stay Well	Take Action	Call For Help
	I use my daily puffers as directed.	If I checked 'Yes' to one or both of the above, I use my **prescriptions** for COPD flare-ups.	I will call my support contact and/or see my doctor and/or go to the nearest emergency department.
	If I am on oxygen, I use _____ L/min.	I use my daily puffers as usual. If I am **more** short of breath than usual, I will take ____ puffs of _____ up to a **maximum** of ____ times per day.	**I will dial 911.**
		I use my breathing and relaxation methods as taught to me. I pace myself to save energy.	**Important information:** I will tell my doctor, respiratory educator, or case manager **within 2 days** if I had to use any of my flare-up prescriptions. I will also make follow-up appointments to review my COPD Action Plan twice a year.
		If I am on oxygen, I will increase it from ___ L/min to ___ L/min.	

Notes:

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Action Plan - Prescription

Prescriptions for COPD flare-up (Patient to take to pharmacist as needed for symptoms)

These prescriptions may be refilled two times each, as needed, for 1 year, to treat COPD flare-ups. Pharmacists may fax the doctor's office once any part of this prescription has been filled.

Daffy (RICK) Duck — Patient's Name

1958-Mar-01 — Patient Identifier (e.g. DOB, PHN)

1. (A) If **the colour** of your sputum **CHANGES**, start antibiotic Clavulin Dose: 875mg #pills: 10
How often: twice daily for #days: 5 days

(B) If the first antibiotic was taken for a flare-up in the **last 3 months**, use this different antibiotic instead:
Start antibiotic _____ Dose: _____ #pills: _____
How often _____ for #days: _____

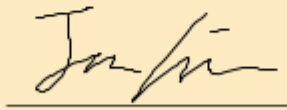
AND / OR

2. If you are **MORE short of breath** than usual, start prednisone 40mg Dose: _____ #pills: 5
How often: daily for #days: 5 days

Once I start any of these medicines, **I will tell** my doctor, respiratory educator, or case manager within **2 days**.

Dr. Ian Lin — Doctor's Name

(905) 813-3853 — Doctor's Fax

 — Doctor's Signature

License

Date

Optimize Symptom Control

- Inhaler Technique
- Medication Adherence
- Bronchodilators
- Adequate Supply of relievers meds

- Inhaler device videos: youtube or https://lunghealth.ca/lung-disease/a-to-z/asthma/how-to-use-an-inhaler/

- The inhaler device choice will depend on:
  - ✓ Patient's ability (hand strength, cognition, eye sight, hearing)
  - ✓ Patient's Age and Preference
  - ✓ Multiple devices
  - ✓ Access and Cost

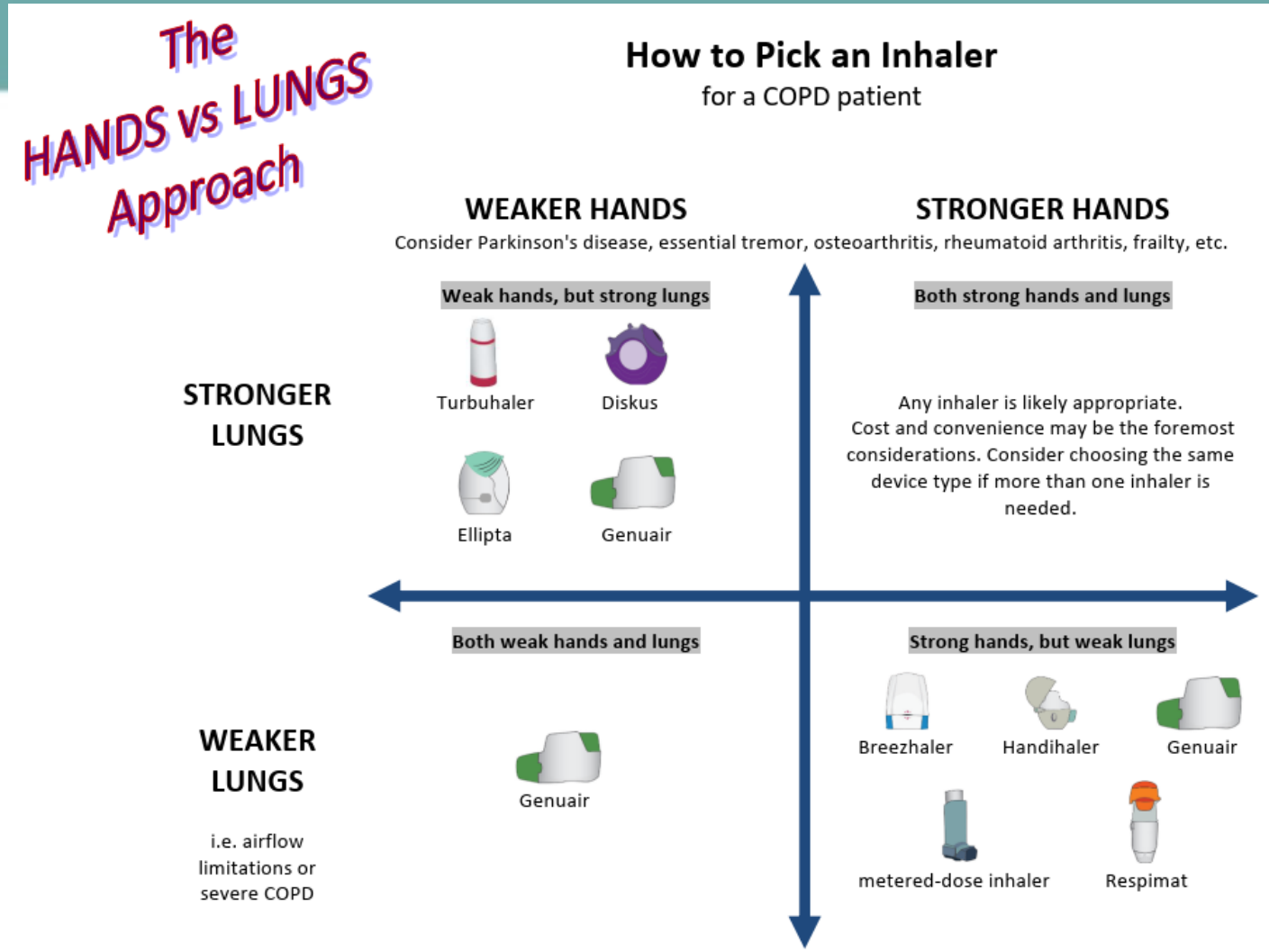
Optimize Medications

How to pick an inhaler?

2 factors:

1-Capability of patient's hands

2-Max inspiratory effort of patient's lung.



By RxFiles

Program Flow – Third Visit

- 3rd visit and follow up appointments
- Between 3-6 months and then follow up as needed
- If a new medication is added, a patient can be seen earlier

After each interaction with a patient, the MRP will be notified. We will send a brief message with an update

Typical COPD program day

- Note: half day programming
- Contacting patients to schedule and to conduct virtual consultations
- Program development & administrative tasks
- Weekly team meetings on Zoom
  - Case discussions
    - Pharmaceutical & non pharmaceutical management of symptoms
    - Develop action plans
    - Address any other patient-specific concerns
  - Program planning
    - Discuss ideas for continuous program improvement

Patient Education (Living Well with COPD)

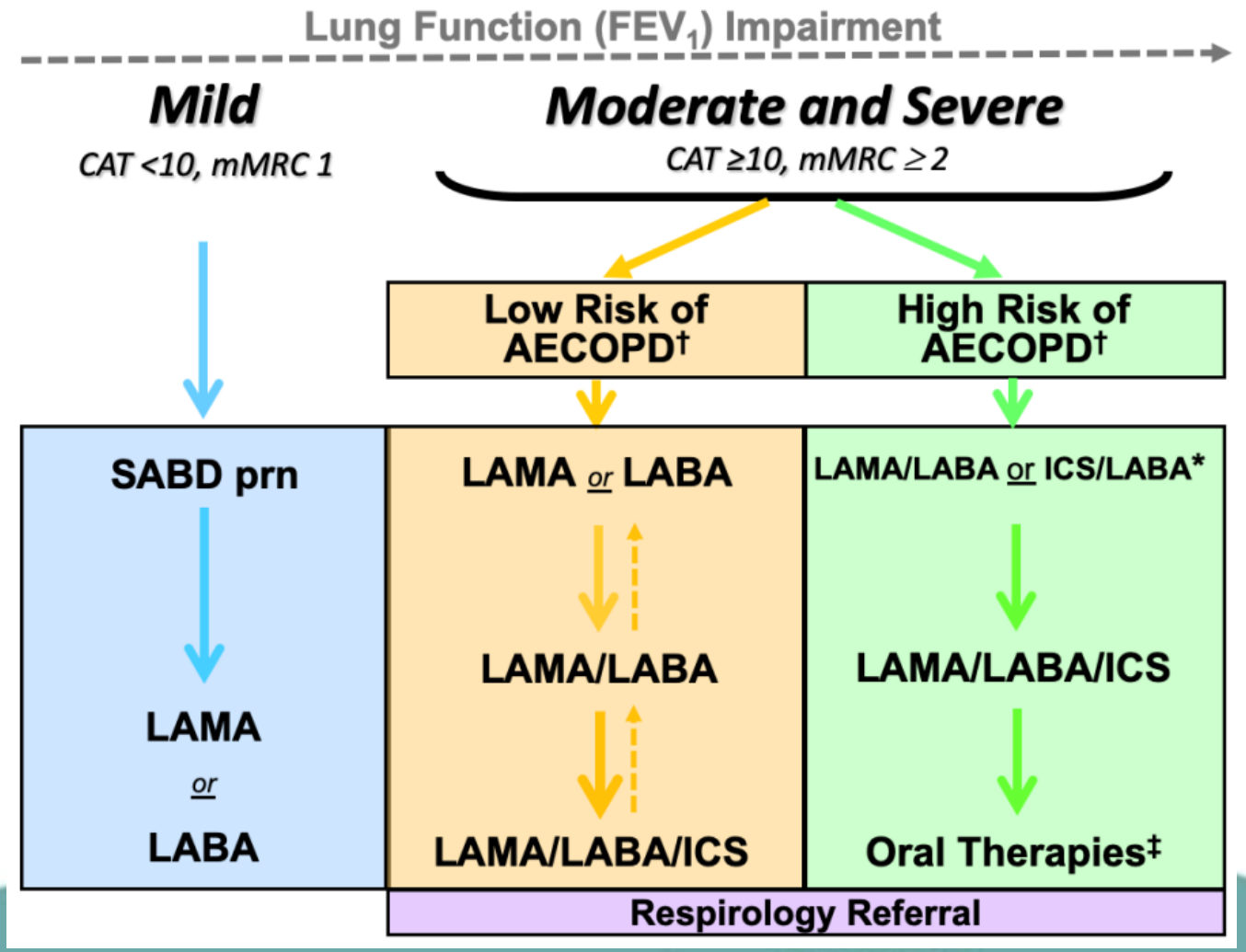
1. Managing breathing and saving energy
2. Control of dyspnea
3. Airway clearance
4. Energy conservation
5. Healthy diet: if patient gained weight due to inability to exercise or loss weight due to progression of COPD- advise referral to Dietician
6. Good sleep
7. Leisure activities
8. Stress and anxiety
9. Vacation/Planning of trips

When to Refer to a Specialist

Moderate to severe COPD

Defined as:

- CAT ≥ 10
- mMRC ≥ 2



Challenges

Clinical Assessment

- Cannot do in person assessment
- Lack of objective evaluation (no spirometry)

Resources

- Half day programming

Patient

- Patient may deny diagnosis despite symptoms
- Issues with adherence to medications, or with proper administration with devices

Communication

- Additional steps needed to provide the same level of education
  - Youtube Videos vs In-Person
- Harder to reach out to patients
  - Hard of hearing
  - Lack of technological proficiency
  - Lack of internet
- No dedicated COPD phone line (*application in progress)
- Communication challenges with specialists

Success

- Program launched in July 15, 2020
- 9 months have passed since then
- We identified **114 patients** with a COPD diagnosis
- We assessed 51 patients (48%)
- We had 302 interactions:
  - telephone consultations
  - case discussions
  - follow-ups (med review/smoking cessation/admin/Rx renewals)
- We had 4 exacerbations (3.5%) reported by patients (none were related to COVID)
- Out of 51 patients we saw, 13 (25.5%) were smokers
- All 13 smokers were asked if they were interested in smoking cessation counselling - 5 patients agreed (38.5%) to participate in the Smoking Cessation program

Part 2 Learning Objectives

- Recognize challenges of spirometry testing and interpretation in a virtual world – lessons learned and discussion on when to reopen spirometry in primary care
- Appreciate primary and community care services and resources from the Lung Health Foundation to support your clients

Presented by:
Ashley Bain, RRT, CRE, Great Northern FHT and Sara Han, RRT, CRE, Lung Health Foundation

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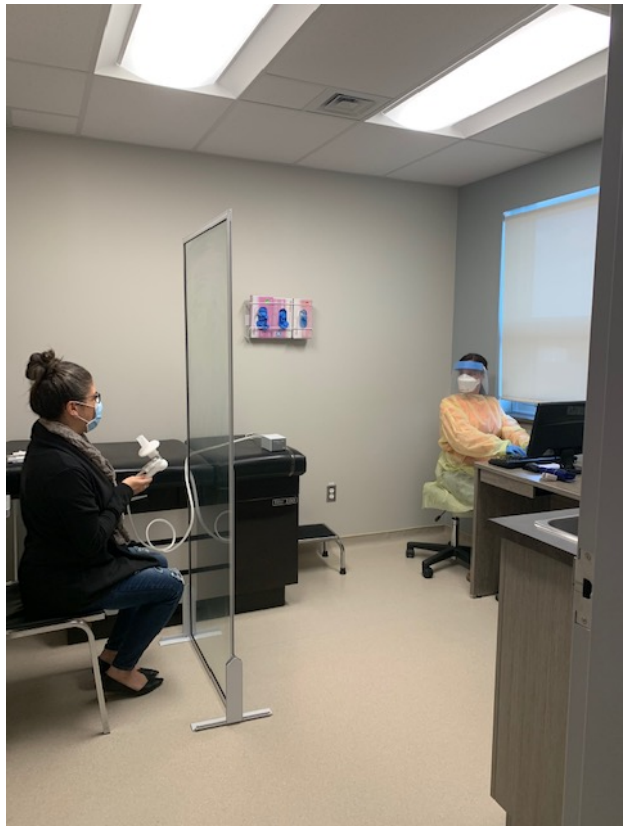

Safety Considerations During a Pandemic

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COVID-19 and Testing Challenges

- Asymptomatic individuals can be infectious
- Transmission through contact/droplet including exposure to a cough or sneeze
- Testing induces forceful coughing
- Testing involves prolonged and close physical contact
- AGMP classification and spirometry
- Additional considerations needed for risk assessment (e.g., pre-screening), PPE and environmental controls

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Using Evidence to Guide Recommendations for Resumption of Spirometry Testing in Primary Care

1. implementing pre-screening and risk assessment
2. PPE
3. environmental controls
4. equipment controls
5. local public health authority guidance

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1. Risk Assessment

- Implement pre-screening questionnaire prior to testing
- For patients who are deemed high-risk or from a high-risk community, testing should not be performed in primary care
- Delay testing on COVID-19 positive or suspected influenza or other URTI until they are considered recovered
- History taking completed in room separate from testing room
- Ensure benefits of testing outweigh risks

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2. PPE

- Follow droplet/contact precautions
- Full PPE: surgical mask, gown, gloves and face shield or goggles
- Ensure staff are educated on proper donning and doffing procedures

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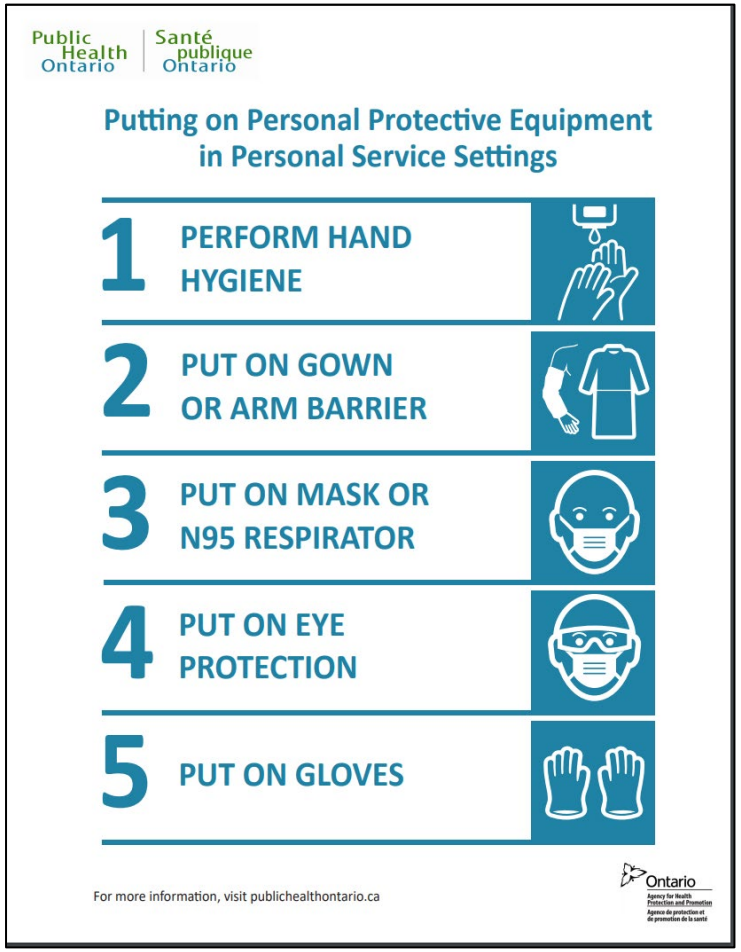

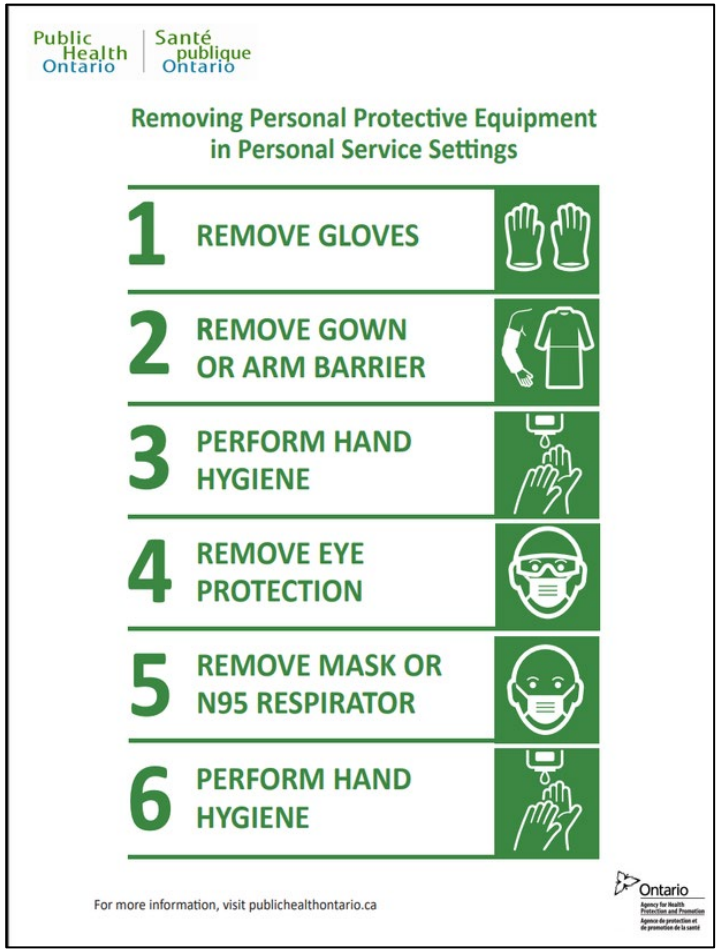

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3. Environmental Controls

- Physical distance (at least 2m) in waiting areas and staff work stations
- One-way walk flow
- Staggered appointment times
- Proper hand hygiene
- Designated testing rooms
- Sufficient time between patients to clean surfaces, don/doff PPE, recalibrate equipment, allow ventilation of room
- Patient should wear face/surgical mask when testing is not being carried out
- Proper signage in clinic indicating when testing is taking place

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4. Equipment Controls

- Consider tubing length to ensure physical distancing rules are followed between the patient and operator
- Ask patient to bring their own reliever inhaler for bronchodilator responsiveness testing
- Ensure the spirometer allows for attachment of in-line bacterial/viral filters that has proven high-efficiency

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5. Have a Plan in Place

- When planning to restart testing in your community, work with local public health authority
- All staff should be trained regarding the approved plan to minimize the risk of another outbreak

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Key Points

- Resumption of spirometry in primary care requires careful planning
- Benefits of doing spirometry testing should outweigh potential risks
- Plan must be easily adaptable and well communicated
- Do your research and reach out to others in a primary care setting

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References

The content used for this program is developed through incorporation of the following reference sources:

- Resumption of Pulmonary Function Testing During the Post Peak Phase of the COVID-19 Pandemic. A Position Statement from CTS and CSRT Stanojevic, S et al. July 2020
- Spirometry in Primary Care, Coates A. et al, Can Resp J, Jan-Feb 2013
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- Lung function testing during COVID-19 pandemic and beyond, Recommendation from ERS Group
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- Particle control reduces fine and ultrafine particles greater than HEPA filtration in live operating rooms and kills biologic warfare surrogate. Ereth et al. *Am J Infect Control*. 2020.
- Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1, Van Doremalen et al. N Engl J Med. 2020;
- Addressing Therapeutic Questions to Help Canadian Physicians Optimize Management for their Patients During the COVID-19 Pandemic, Licskai, C et al. April 2020
- Key highlights of the CTS's Position Statement on the Optimization of COPD Management during the COVID-19 Pandemic, Bhutani M et al, CHEST 2020

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The Lung Health Foundation is the credible and trusted organization for best practice guidelines on asthma and COPD.

The Primary Care Asthma Program (PCAP) provides evidence-based information, tools and resources to help in the diagnosis and management of the growing number of people living with chronic lung disease.

One-stop shop for resources, clinical practice tools, programs and supports for patients, and healthcare provider education.

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Opportunities to support providers implementing best practice	Opportunities to enhance patient self-management
• Clinical decision support tools (including integration within EMRs)*	• Patient support groups
• Continuing medical education – webinars and on-line e-modules	• Exercise programs – Fitness for Breath and COPD ConnEx (virtual)
• Spirometry tools to support best practice	• COPD home monitoring project
• Patient care management – LHF Certified Respiratory Educators to support workload	• LHF Certified Respiratory Educators providing telephone/virtual visits

*We update the tools to latest guidelines so you don't have to

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LHF primary and community care offerings

To implement any of our programs, tools or resources, please contact:

Sara Han, Provincial Coordinator, PCAP
shan@lunghealth.ca

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Continuing Medical Education

Workshops

- Focus on diagnosis and management of asthma and COPD
- Customized for your inter-professional healthcare team
- Virtual, small group learning opportunities

On-line E-Modules

- Spirometry
- COPD in Primary Care
- Emergency Department Asthma Care
- Asthma Action Plans (under review)
- Work Related Asthma (coming soon)

For more information contact us at pep@lunghealth.ca

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Thank you.
Questions?

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