COVID-19 Community of Practice for Ontario Family Physicians

Sep 20, 2024

Dr. Ronald Grossman Dr. Tasha Stoltz



Managing Respiratory Illness in Kids & COPD





Managing Respiratory Illness in Kids & COPD

Moderator:

 Dr. Ali Damji, Division Head, Primary Care, Trillium Health Partners and Family Physician, Credit Valley Family Health Team, Mississauga, ON

Panelists:

- Dr. Ronald Grossman, Toronto, ON
- Dr. Tasha Stoltz, Kitchener, ON

Host:

• Dr. Jobin Varughese, Brampton, ON

The COVID-19 Community of Practice for Ontario Family Physicians is a one-credit-per-hour Group Learning program that has been certified for up to a total of 32 credits.

Land Acknowledgement

We acknowledge that the lands on which we are hosting this meeting include the traditional territories of many nations.

The OCFP and DFCM recognizes that the many injustices experienced by the Indigenous Peoples of what we now call Canada continue to affect their health and well-being. The OCFP and DFCM respects that Indigenous people have rich cultural and traditional practices that have been known to improve health outcomes.

I invite all of us to reflect on the territories you are calling in from as we commit ourselves to gaining knowledge; forging a new, culturally safe relationship; and contributing to reconciliation.

Changing the way we work

A community of practice for family physicians during COVID-19

At the conclusion of this <u>series</u> participants will be able to:

- Identify the current best practices for delivery of primary care within the context of COVID-19 and how to incorporate into practice.
- Describe point-of-care resources and tools available to guide decision making and plan of care.
- Connect with a community of family physicians to identify practical solutions for their primary care practice under current conditions.

Disclosure of Financial Support

This CPD program has received in-kind support from the Ontario College of Family Physicians and the Department of Family and Community Medicine, University of Toronto in the form of logistical and promotional support.

Potential for conflict(s) of interest: N/A

Mitigating Potential Bias

- The Scientific Planning Committee has full control over the choice of topics/speakers.
- Content has been developed according to the standards and expectations of the Mainpro+ certification program.
- The program content was reviewed by a three-member national/scientific planning committee.

Planning Committee: Dr. Mekalai Kumanan (OCFP), Dr. Ali Damji (DFCM), Dr. Eleanor Colledge (DFCM), Dr. Harry O'Halloran, Julia Galbraith (OCFP), Pavethra Yogeswaran (OCFP), Marisa Schwartz (DFCM)

Previous webinars & related resources:

https://www.dfcm.utoronto.ca/covid-19-community-practice/past-sessions



Dr. Ronald Grossman – Panelist

Professor, Department of Medicine, Respirology, University of Toronto



Dr. Tasha Stoltz – Panelist Pediatrician, Kitchener, ON



Dr. Jobin Varughese – Host

President-Elect, Ontario College of Family Physicians Family Physician, Brampton, ON

Speaker Disclosure

- Faculty Name: **Dr. Ronald Grossman**
- Relationships with financial sponsors:
 - Grants/Research Support: N/A
 - Speakers Bureau/Honoraria: Ontario College of Family Physicians, Astra Zeneca, Covis, GSK, Merck, Organon, Pfizer, Regeneron, Sanofi, Valeo
 - Advisory Boards: Avir Pharma, Covis, GSK, Merck, Moderna, Organon, Pfizer, Regeneron, Sanofi, Valeo
 - Others: N/A

- Faculty Name: **Dr. Tasha Stoltz**
- Relationships with financial sponsors:
 - Grants/Research Support: N/A
 - Speakers Bureau/Honoraria: Ontario College of Family Physicians
 - Membership on advisory boards: N/A
 - Others: McMaster University (Regional Education Lead Undergraduate Pediatrics)

Speaker Disclosure

- Faculty Name: **Dr. Jobin Varughese**
- Relationships with financial sponsors:
 - Grants/Research Support: N/A
 - Speakers Bureau/Honoraria: Ontario College of Family Physicians
 - Others: Toronto Metropolitan University, School of Medicine (Interim Assistant Dean of Primary Care Education), William Osler Health System (Associate Vice President of Academics)
- Faculty Name: **Dr. Ali Damji**
- Relationships with financial sponsors:
 - Grants/Research Support: N/A
 - Speakers Bureau/Honoraria: Ontario College of Family Physicians
 - Others: N/A
- Faculty Name: Dr. Daniel Warshafsky
- Relationships with financial sponsors:
 - Grants/Research Support: N/A
 - Speakers Bureau/Honoraria: N/A
 - Others: N/A

How to Participate

• All questions should be asked using the Q&A function at the bottom of your screen.



• Press the thumbs up button to upvote another guest's questions. Upvote a question if you want to ask a similar question or want to see a guest's question go to the top and catch the panels attention.

😋 Q&A			
	All questions (1)	My questions	
Lee 01:54 PM			
Will there be a foll	ow-up session?		
6			Comment

• Please use the chat box for networking purposes only.





Dr. Ronald Grossman – Panelist

Professor, Department of Medicine, Respirology, University of Toronto



Dr. Tasha Stoltz – Panelist Pediatrician, Kitchener, ON

Exacerbations, especially those requiring hospitalization, are associated with increased mortality in COPD

The strongest predictor of a patient's future exacerbation risk is a history of exacerbations³



Preventing and treating exacerbations continues to be a management goal in COPD to help reduce risk^{4,5}



*Time to next exacerbation or death, whichever occurs first. COPD, chronic obstructive pulmonary disease. 1. Adapted from Soler-Cataluna JJ, et al. Thorax. 2005;60:925-931. 2. Adapted from Suissa S, et al. Thorax. 2012;67:957-963. 3. Hurst JR, et al. N Engl J Med. 2010;363:1128-1138. 4. GOLD. Global Strategy for the Diagnosis, Management and Prevention of COPD. 2020. Available from: goldcopd.org [accessed November 2019]. 5. Dang-Tan T, et al. Canadian Respir J. 2017;8184915.

Temporal Risk of Nonfatal Cardiovascular Events After COPD Exacerbation

N	Composite CVD	
	(adj. HR,95%CI) **	
	1.00 (reference)	•
198,205	1.84 (1.79-1.90)	•
198,205	3.19 (2.71-3.76)	H -
193,863	2.30 (1.94-2.73)	⊷
190,008	1.87 (1.69-2.06)	•
179,441	1.66 (1.55-1.78)	•
157,623	1.64 (1.48-1.81)	
146,448	1.84 (1.78-1.91)	•
	N 198,205 198,205 193,863 190,008 179,441 157,623 146,448	N Composite CVD (adj. HR,95%Cl) ** 1.00 (reference) 198,205 1.84 (1.79-1.90) 198,205 3.19 (2.71-3.76) 193,863 2.30 (1.94-2.73) 190,008 1.87 (1.69-2.06) 179,441 1.66 (1.55-1.78) 157,623 1.64 (1.48-1.81) 146,448 1.84 (1.78-1.91)

Rupture of fibrous cap exposes the thrombogenic plaque contents to circulating blood, triggering thrombus formation



Cumulative OCS dose and adverse outcome risk in an OCS cohort



CTS guidelines

COPD Pharmacotherapy 2023



¹Symptom burden encompasses shortness of breath, activity limitation, and impaired health status; ¹¹Individuals are considered at "Low Risk of AECOPD" if ≤1 moderate AECOPD in the last year (moderate AECOPD is an event with prescribed antibiotic and/or oral corticosteroids) and did not require hospital admission/ED visit. Individuals are considered at "Low Risk of AECOPD" if ≥2 moderate AECOPD or ≥1 severe exacerbation in the last year (severe AECOPD is an event with prescribed antibiotic and/or oral inhaled dual therapy is preferred over ICS/LABA inhaled combination therapy considered at "Link" is upderate AECOPD or ≥1 severe exacerbation in the last year (severe AECOPD is an event metapion downlaw with concomitant asthma. Therapy considered at "EOR DPD" or ≥1 severe rates of adverse events such as pneumonia. ICS/LABA inhaled combination therapy should be used in individuals with concomitant asthma. The 2017 CTS Position Statement on COPD Pharmacotherapy provides guidance on the assessment of patients who may have concomitant asthma; "Triple inhaled ICS/LAMA/LABA combination therapy (SITT), and not in multiple inhalers (see text), although we acknowledge that some patients continue to prefer separate inhalers; ¹Oral pharmacotherapies in this group include prophylactic macrolide, and PDE-4 inhibitor and muclylic agents for patients with chronic bronchitis.

AECOPD, acute exacerbation of COPD; CAT, COPD assessment test; COPD, chronic obstructive pulmonary disease; ED, emergency department; FEV₁; forced expiratory volume; ICS, inhaled corticosteroid; LABA, long-acting ß2-agonist; LAMA, long-acting muscarinic antagonist; mMRC, Modified Medical Research Council; PDE4, phosphodiesterase-4 inhibitor, SABDprn, short-acting bronchodilator as needed.

IMPACT – Study results

FF/UMEC/VI significantly reduced moderate/severe exacerbations and hospitalization



642

1,671 1,228

4,134 3,554 3,133 2,838 2,620 2,410 2,250 2,120 2,004 1,823 1,823 1,729

FF/UMEC/VI 4,151 3,758 3,408 3,186 2,954 2,752 2,614 2,457 2,324 2,216 2,085 1,988 1,919 1,419

Cl, confidence interval; FF, fluticasone furoate; NNT, number needed to treat; RR, risk reduction; UMEC, umeclidinium; VI, vilanterol. Adapted from Lipson DA, et al. N Engl J Med. 2018;378:1671–1680.

FF/VI

IMPACT – All-cause mortality



CI, confidence interval; FF, fluticasone furoate; UMEC, umeclidinium; VI, vilanterol. Adapted from Lipson DA, et al. N Engl J Med. 2018;378:1671-1680.

Persistence of triple therapy for the treatment of COPD

- Retrospective cohort study
- N = 3,134
- Median persistence was 181 days
 for SITT and 135 days for MITT
- Estimated persistence at 1 year was 33% for SITT compared with 18% for MITT



Simplifying treatment for your patients

GOLD 2024	CTS 2023
<text></text>	Triple inhaled LAMA/LABA/ICS therapy, in a single inhaler triple therapy (SITT), is favoured over multiple inhalers, because of potential increased benefits, increased adherence and reduced chance of errors in inhaler technique

CTS, Canadian Thoracic Society; DPI, dry powder inhaler; GOLD, Global Initiative for Chronic Obstructive Lung Disease; ICS, inhaled corticosteroid; IRR, incidence rate ratio; LABA, long-acting beta2-agonist; LAMA, long-acting muscarinic antagonist; MDI, metered-dose inhaler; SMI, soft mist inhaler. Bosnic-Anticevich S, et al. Int J Chron Obstruct Pulmon Dis 2017; 12: 59–71, published under CC BY-NC 3.0 license, available at: https://creativecommons.org/licenses/by-nc/3.0/;

Boshic-Anticevich S, et al. Int J Chron Obstruct Pulmon Dis 2017; 12: 59–71, published under CC BY-NC 3:0 license, available at: <u>https://creativecommons.org/licenses/by-hc/3:0/;</u> Bourbeau et al. *Can J Respir Crit Care Sleep Med.* 2024. Global Initiative for Chronic Obstructive Lung Disease (GOLD). Available at: <u>https://goldcopd.org/2024-gold-report/</u>.

Coughing, Sneezing and Wheezing: Respiratory Infections in Children

Tasha Stoltz, MD FRCPC Consultant Pediatrician Grand River Hospital, Kitchener



- Review pathophysiology of common pediatric respiratory infections
 - URTI
 - Croup
 - Bronchiolitis
 - Pneumonia
 - Pertussis
- Discuss approach to diagnosis and evidence-based treatments
- Review some prevention strategies for severe respiratory illnesses

Upper Respiratory Tract Infections

- Symptoms: sneezing, stuffy/runny nose, headache, sore throat, cough
- Cause: always viral
- **Diagnosis:** clinical
 - NPS not necessary
- Treatment: supportive



• No role for PO/inhaled/intranasal steroids, inhalers, or antibiotics

Croup

- Acute-onset upper airway obstruction secondary to viral infection
- 6 months 3 years of age
- Symptoms: barky cough +/- stridor
- Rule out: bacterial tracheitis, epiglottitis, retropharyngeal abscess, anaphylaxis, foreign body aspiration

anna

• Toxic-appearing, drooling, dysphagia -- NOT croup

Croup

- Diagnosis: clinical
 - NPS, CXR/lateral neck XR NOT necessary
- Treatment: Dexamethasone 0.6 mg/kg PO x 1
 - No antibiotics
- To ED if:
 - Stridor or WOB at rest, biphasic stridor
 - Hypoxia or cyanosis
 - Drooling or dysphagia
 - Lethargy or distress

References: Acute management of croup in the emergency department (Canadian Pediatric Society)



Bronchiolitis



- Viral LRTI in children <2 years
- Cause: any virus, including RSV
- Symptoms: fever, cough and rhinorrhea, wheeze, crackles, +/respiratory distress
- Rule out: asthma, pneumonia, foreign body aspiration

Table 4		
Groups at higher risk for severe disease		
Infants born prematurely (<35 weeks' gestation)		
<3 months of age at presentation		
Hemodynamically significant cardiopulmonary disease		
Immunodeficiency		

References: Bronchiolitis: Recommendations for diagnosis, monitoring and management of children one to 24 months of age (Canadian Pediatric Society)

Bronchiolitis



- Diagnos is: clinical
 - X-rays not necessary for diagnosis, usually non-specific only if severe or alternate diagnosis suspected
 - Labs, NPS not necessary
- Treatment: supportive
 - Hydration, nasal suctioning?
 - No evidence for SABA, steroids, antibiotics, antivirals
- To ED if any concerns about RR, WOB, SpO2, mental status, apneas or hydration
- Symptoms usually peak on day 5 of illness

Bacterial pneumonia

- Cause: Strep pneumo mostly
 - Atypicals (M. pneumoniae, C. pneumoniae in older children)
- Symptoms: fever, cough, appears 'sicker', +/- respiratory distress
 - Focal crackles (not wheeze) on examination
- Diagnosis:
 - CXR: focal lobar consolidation or worse (parapneumonic effusion, empyema, abscess, etc)
 - Atypical pathogens can have bilateral infiltrates
 - NPS, labs are not indicated for outpatients

Bacterial pneumonia

- **Treatment:** Amoxicillin 90 mg/kg/day divided TID x 5 days
- Improvement usually within 48 hours of antibiotics
- Repeat C X R is not necessary if there is clinical improvement
- To ED if any concerns about RR, WOB, SpO2, mental status, apneas or hydration

Pertussis

- Cause: Bordetella pertussis
- Symptoms: cough, inspiratory "whoop", post-tussive emesis
 - In infants apneas, gasping, cyanosis, severe respiratory distress
 - Catarrhal stage (1-2 weeks)
 - Paroxysmal stage (2-8 weeks)
 - Convalescent stage (weeks-months) "the cough of 100 days"
- Complications: pneumonia, apneas, seizures

Pertussis

- Diagnosis: Nasal swab for PCR
 - Labs will show leukocytosis and lymphocytosis
 - CXR usually normal/non-specific
 - "Probable pertussis" as per CDC case definition:
- Treatment: Macrolides
 - Treat if <3 weeks from symptom onset or around high-risk individuals
- Critically ill children or infants <4 months should be hospitalized
- Notify PH, chemoprophylaxis for certain close contacts

Post-viral cough

- Manage expectations
- Cough can last 4-6 weeks post-viral infection
- No investigations unless associated with other features or >6 weeks in otherwise healthy children
- No evidence for SABA, inhaled/intranasal/PO
 steroids
- Avoid exacerbating factors (eg smoke, allergens)
- Avoid OTC cough suppressants, especially in children <6 years
- Honey can be used >1 year of age
- Humidifiers

Prevention: COVID-19 Vaccine

- Children \geq 5 years:
 - Primary series *should* be recommended
 - COVID-19 XBB.1.5 mRNA vaccine should be used single dose, two doses if immunocompromised
 - If previously received a non-XBB.1.5 vaccine, they should get one of the XBB.1.5 vaccine
- Children 6 months -4 years:
 - Those at high risk for severe illness *should* be vaccinated, everyone else *may* be vaccinated
 - Consider local epidemiology, risk of exposure, high-risk contacts
 - Two doses of Moderna or three doses of Pfizer XBB.1.5 vaccine additional dose if immunocompromised

Post-acute Sequelae of SARS CoV-2 (PASC)

- ~10-20% of cases of COVID-19 infection
- Can involve:
 - Persistent symptoms and complications of COVID-19 infection
 - Exacerbation of underlying conditions
 - Postinfectious conditions
 - Neurodevelopmental conditions

References: Post-Acute Sequelae of SARS-COV-2 in Children (American Academy of Pediatrics)

Prevention: RSV Prophylaxis

- Transition from Palivizumab (Synagis) to Nirsevamib (Beyfortus)
- RSVpreF (Abrysvo) available for pregnant women 32-36 weeks GA
- NOT a vaccine "antibody medication" "immune prevention treatment" etc

Prevention: RSV Prophylaxis

• Beyfortus eligibility criteria:

- Born in 2024 prior to RSV season
- Born during 2024/2025 RSV season
- Up to 24 months of age who remain vulnerable to severe disease through their second RSV season
 - CLD/BPD
 - HD-significant CHD, CHF, pHTN
 - Severe immunodeficiency
 - Down syndrome
 - CF with respiratory involvement and/or growth delay
 - Neuromuscular disease
 - Severe congenital airway anomalies

References: Respiratory Viruses and Immunizations (Provincial Council for Maternal and Child Health)

Prevention: RSV Prophylaxis

- Side effects: rash, injection site reaction, pyrexia
- Administration:
 - In hospital to newborns born during the season
 - PCP/PH for out-of-season infants
 - Can be given with routine vaccines
 - PCP/Peds/Hospital for second season infants

CEP Tools: Chronic obstructive pulmonary disease (COPD)

CTS: How to properly use an inhaler

E2P AI Learning Centre Clinical Tools OHTs Academic Detailing About Us Conn

🛗 JAN 2024

Chronic obstructive pulmonary disease (COPD)

🔁 Current 🛛 🚣 2161 Downloads

Introduction

Chronic obstructive pulmonary disease (COPD) is a serious, life-long condition. With early diagnosis, lifestyle changes and proper management however, people can have a good quality of life. This tool is designed to support family physicians and primary care nurse practitioners in identifying and managing COPD in adult patients.

Academic detailing

For the most up-to-date information on this topic, Ontario family physicians and nurse practitioners can have a free, personalized academic detailing visit. <u>Sign up</u> today!

How to properly use an inhaler

Tutorial Videos – Learn how to use inhalers/puffers properly

English - Adults and children: Lung Health Foundation

French - Children: Sainte-Justine - Mother and Child University Hospital Center

French – Adults: Canadian Lung Association

YouTube videos

1. How to use a MDI

English:

French:

https://cep.health/clinicalproducts/chronic-obstructivepulmonary-disease/

https://cts-sct.ca/covid-19/how-toproperly-use-an-inhaler/

CEP New Tool: 2024-2025 RSV Prevention Program for infants in Ontario

2024-2025 RSV Prevention Program for infants in Ontario

Search Content $\, {\sf Q} \,$

This resource was created with information from and in collaboration with the Chief Medical Officer of Health to support primary care through Ontario's new RSV Prevention Program for infants in the 2024-2025 RSV season.

Respiratory Syncytial Virus (RSV) is a major cause of illness among infants and young children. Among children under two, there were **3,850** hospitalizations during the 2022-2023 RSV season. Ontario's RSV Prevention Program for infants is changing and expanding to provide more protection to infants during the 2024-2025 RSV season and to reduce impact on system capacity.¹ The RSV Prevention Program will begin when product supply is available in October. While there are variations each year, active RSV season is generally between November – March.²

Expand All

https://tools.cep.health/tool/rsv-preventionprogram-for-infants/

PCMCH: Respiratory Viruses and Immunizations

Perinatal & Newborn Health

Initiatives & Guidelines

2SLGBTQIA+ Inclusivity in Perinatal

Disability and Pregnancy

Care

Early Pregnancy Loss in the Emergency Department

Fetal Fibronectin Testing

Hyperbilirubinemia Screening: Clinical Pathway Handbook Respiratory Viruses and Immunizations

UPDATE: New PCMCH Resources on RSV Prevention for Infants and High-Risk Children

PCMCH is pleased to share two new fact sheets on the prevention of RSV in infants and high-risk children. These resources provide valuable information and guidance to parents and healthcare providers to support the fall 2024 launch of the expanded infant and high-risk children RSV prevention program in Ontario.

• Fact Sheet for Healthcare Providers (English | French)

This fact sheet is intended for healthcare providers to support them in understanding the recent changes associated with the expansion of Ontario's RSV prevention program for infants and high-risk children and how the program impacts their care of perinatal and paediatric patients.

 Fact Sheet for Parents and Expectant Parents (English | French)
 This fact sheet is intended for parents and expectant parents to support them in learning more about RSV and what options are available to protect their children against RSV.

https://www.pcmch.on.ca/respiratoryviruses-and-immunizations/

OCFP supports for Mental Health, Addictions and Chronic Pain

Mental health, addictions and chronic pain are challenging conditions. Find information to support the care you give patients – in a way that also considers your wellbeing.

Community of Practice Join upcoming sessions:

Integrating AI and technology into family medicine (October 23rd)

Peer Connect Mentorship

Receive tailored support to skillfully respond to mental health issues, address substance use disorders, and chronic pain challenges in your practice.

RECENT SESSIONS

May 17	Infectious Disease and Practical Tips for Practice Management & AI	Dr. Daniel Pepe Dr. Alon Vaisman Dr. Ali Damji
June 7	Infectious Disease and Management of Obesity	Dr. Daniel Warshafsky Dr. Neil Naik
June 21	Infectious Disease Updates, Managing Alcohol Use & Practical Tips for a Restful Summer	Dr. Daniel Warshafsky Dr. Jennifer Wyman Dr. Joan Chan
July 26	Infectious Disease: Circulating Seasonal Illnesses & Important Vaccine Updates	Dr. Daniel Warshafsky Dr. Zain Chagla
September 6	Preparing for Fall & Practice Management	Dr. Daniel Warshafsky Dr. Darrell Tan Dr. Chase McMurren

Previous webinars & related resources:

https://www.dfcm.utoronto.ca/covid-19-community-practice/past-sessions

Accessing Previous Sessions and Self Learning

Previous webinars & related resources https://www.dfcm.utoronto.ca/covid-19-community-practice/past-sessions

Questions?

Webinar recording and curated Q&A will be posted soon <u>https://www.dfcm.utoronto.ca/covid-19-community-practice/past-sessions</u>

Our next Community of Practice: Oct 18, 2024

Contact us: <u>ocfpcme@ocfp.on.ca</u>

Visit: <u>https://www.ontariofamilyphysicians.ca/tools-resources/covid-19-</u> <u>resources</u>

The COVID-19 Community of Practice for Ontario Family Physicians is a one-credit-per-hour Group Learning program that has been certified for up to a total of 32 credits..

Post session survey will be emailed to you. Mainpro+ credits will be entered for you with the information you provided during registration.

