SOCIÉTÉ CANADIENNE DE THORACOLOGIE | CANADIAN THORACIC SOCIETY

CTS SCIENTIFIC PROGRAM 2023

Monday October 9, 2023, 07:15 – 14:00

Held in conjunction with CHEST Annual Meeting

Room 324, Hawai'i Convention Center, 1801 Kalākaua Ave, Honolulu, HI 9681

Program Chair: Dr. Christopher A Hergott

Session 1	Asthma, COPD and Non-CF Bronchiectasis: A Breathtaking Review – Canadian Thoracic Society (CTS)
07:15 – 07:35	**Physical Activity in Asthma** *Brianne Philipenko, MD, FRCPC, University of Saskatchewan, Saskatoon, SK*

Physical activity limitation is an important indicator of poor asthma control in guidelines. Reduced exercise capacity is often attributed to uncontrolled airway inflammation; however, patients with asthma have been shown to demonstrate several possible mechanisms of limitation. Now that biologic therapy in asthma has greatly improved the ability to suppress airway inflammation in many patients with severe asthma, another avenue to explore is non-pharmacologic therapy to improve exercise tolerance. This talk will explore the current evidence behind physical activity recommendations in the asthma population, with a focus on severe asthma. At the end of this session, participants will be able to:

1. Identify mechanisms of exercise limitation in asthma,
2. Summarize the effect of aerobic training as a non-pharmacologic intervention in asthma,
3. Describe the effects of biologic therapy on exercise capacity in severe asthma.

Dr. Brianne Philipenko is an Assistant Professor in the Division of Respirology at the University of Saskatchewan. She did her medical training at the University of Saskatchewan followed by her respirology training at the University of Calgary. She then did an additional fellowship in severe asthma at the University of Calgary. Severe asthma remains her primary clinical and research area of interest.

07:35 – 07:55	**Remote Monitoring Platforms, Wearable Technologies and Exacerbations of COPD** *Bryan Ross, MD, FRCPC, MSc, McGill University, Montreal, QC*

COPD is the third-leading cause of death and exacerbations of COPD (ECOPDs) are a leading cause of hospitalization. The new 2023 GOLD ECOPD definition/classification criteria depend, in part, on physiological changes including in respiratory rate (RR), heart rate (HR) and oxygen saturation (SpO2). Supported by our evolving understanding of ECOPDs, rapid advances in technology, stressors placed on the 'traditional' in-person care model (both pandemic- and non-pandemic-related), and unprecedented 'buy-in' from all relevant stakeholders, this presentation seeks to summarize active clinical research in the field of remote patient monitoring (RMP) solutions geared specifically towards the large and growing COPD patient population. At the end of this session, participants will be able to:

1. List the challenges faced by the 'traditional' healthcare model relating to chronic disease monitoring and management,
2. Summarize the influencing forces, the potential benefits, and the ongoing obstacles regarding the use of remote monitoring platforms in clinical practice,
3. Cite active research specifically focused on remote patient monitoring applications in COPD.

Dr. Bryan Ross is a Respirologist at the MUHC, Assistant Professor at McGill University, and Clinician-Scientist at the RI-MUC in Montreal. After an M.Sc. in Physiology at McGill, Dr. Ross completed his undergraduate medical training and core internal medicine residency at the University of Toronto, followed by respirology residency at the University of Alberta. He then completed a clinical fellowship in COPD and pulmonary rehabilitation, and finally an M.Sc. in Epidemiology at McGill. He has major clinical and educational interests in pulmonary rehabilitation. His research addresses determinants and management of COPD, particularly exacerbations, with an emphasis on physiology and epidemiology.

07:55 – 08:15	**Overview of the Current Landscape of Non-Cystic Fibrosis Bronchiectasis** *Christina Thornton, MD, PhD, FRCPC, University of Calgary, Calgary, AB*
	This session will give a brief overview of the etiologies and workup of patients presenting with NCFB as well as highlight evidence-based management and novel therapeutics. At the end of this session, participants will be able to: 1. Summarize the workup in the initial presentation of NCFB. 2. Prescribe non-pharmacological and pharmacological therapy in NCFB. 3. Describe novel therapeutics undergoing clinical trials currently and in the future for NCFB. **Dr. Christina Thornton** is an adult respirologist in the Division of Respirology, Departments of Medicine and Microbiology, Immunology and Infectious Diseases at the University of Calgary, Canada. Dr. Thornton is a clinician scientist specializing in cystic fibrosis and bronchiectasis. She completed the MD/PhD program at the University of Calgary as part of the Leaders in Medicine program. She completed her internal medicine residency followed by respirology fellowship at the University of Calgary in 2021. Dr. Thornton then went on to the University of Michigan where she completed a postdoctoral fellowship in advanced microbiome community analysis in cystic fibrosis patients. She is now an assistant professor at the University of Calgary. Dr. Thornton runs a research lab with the key interests around the role of polymicrobial infections at times of clinical stability and pulmonary exacerbation in suppurative lung disease. Her long-term career aspirations include development of a Canadian Bronchiectasis database for clinical data and sputum biobanking to better understand the role of the lung microbiome in these patients.
08:15 – 08:30	**Break**
Session 2	**Canadian Thoracic Society (CTS) 2023 Honorary Lecture: Helping Kids Live Their Best Lives Using Respiratory Technology**
08:30 – 09:30	**CTS 2023 Honorary Lecture: Helping Kids Live Their Best Lives Using Respiratory Technology** *Sherri Katz, MDCM, FRCPaC, MSc, University of Ottawa, Ottawa, ON*
	This talk will highlight the challenges of sleep disordered breathing diagnosis in children and will discuss novel predictors of obstructive sleep apnea in this population. The role and evidence for respiratory technologies including non-invasive ventilation and lung volume recruitment for airway clearance in children will also be reviewed. At the end of this session, participants will be able to: 1. Review the limitations of diagnostic tools for sleep disordered breathing in children 2. Examine predictors of sleep disordered breathing in children 3. Assess outcomes of non-invasive ventilation in children 4. Examine the role of lung volume recruitment therapy for children with neuromuscular disease **Dr. Sherri Katz** received her medical degree from McGill University. Following completion of Pediatrics residency and Pediatric Respirology Fellowship at the Hospital for Sick Children/University of Toronto (2002), as well as training in Pediatric Sleep Medicine, she completed a Clinician-Investigator Program and Master of Science at the University of Toronto (2006). Dr. Katz has worked as a Pediatric Respirologist and Clinician Investigator at CHEO since September 2003. She is appointed as a Senior Scientist at the CHEO Research Institute in 2017 and has served as the Division Head of Pediatric Respirology at CHEO since 2018. Dr. Katz also holds an appointment as Full Professor of Medicine at the University of Ottawa and is cross-appointed at their School of Epidemiology, Public Health and Preventative Medicine. Dr. Katz's clinical care primarily focuses on sleep disordered breathing, home mechanical ventilation and complex respiratory care. Her research interests are informed by her clinical practice and primarily focus on the use of assistive respiratory technologies for children with chronic diseases, particularly neuromuscular disease, and obesity. Her research also evaluates predictors and novel diagnostic modalities for pediatric sleep disordered breathing, pediatric home mechanical ventilation and long-term outcomes of chronic lung disease. Dr. Katz also serves in administrative leadership capacities on several national and international committees related to Pediatric Respirology and Home Mechanical Ventilation. Currently, she is the chair of the Home Mechanical Ventilation and Neuromuscular Disease Section of the American College of Chest Physicians.
09:30 – 10:30	**Break**

Session 3	Furthering Our Understanding of Post PE Dyspnea and NIV in Neuromuscular Disease – Canadian Thoracic Society (CTS)
10:30 – 11:00	**Dyspnea Post Pulmonary Embolism: Neurophysiological Mechanisms and Implications for Therapy** *Devin Phillips, PhD, York University, Toronto, ON*
	Following pulmonary embolism (PE), a third of patients develop persistent dyspnea. This talk will review the causes of chronic activity-related dyspnea post pulmonary embolism and discuss emerging therapies. The focus will be patients with chronic thromboembolic disease without pulmonary hypertension. At the end of this session, participants will be able to: 1. Understand the neurophysiological constructs of dyspnea. 2. Summarize the mechanisms of activity-related dyspnea in patients post pulmonary embolism. 3. Discuss emerging evidence of treatments to reduce dyspnea in patients post pulmonary embolism. **Dr. Devin Phillips** is an Assistant Professor of Cardiorespiratory Physiology at York University in Toronto, Canada. Dr. Phillips' clinical research program focuses on better understanding the mechanistic link between pulmonary gas-exchange abnormalities, respiratory muscle dysfunction, perceived breathlessness, and exercise limitation in adults living with cardiopulmonary disease. Dr. Phillips is an expert in cardiopulmonary exercise test (CPET) interpretation and uses CPET as a prognostic research tool.
11:00 – 11:30	**Initiation and Beyond: Ongoing Titration and Management of Non-Invasive Ventilation in Neuromuscular Diseases** *Alex Nelson, MD, FRCPC, Dalhousie University, Halifax, NS*
	This talk will review long term management of patients with neuromuscular disease who require ventilatory support. The focus will be on refinement of non invasive ventilator settings and troubleshooting common problems. At the end of this session, participants will be able to: 1. Identify respiratory parameters and patient factors of interest for titration of non-invasive ventilation 2. Adjust device settings based on data downloaded from a non-invasive ventilator 3. Recognize causes of patient discomfort on non-invasive ventilation and link to solutions **Dr. Alex Nelson** is a graduate of Dalhousie Medical School, in Halifax, Nova Scotia. He completed his core internal medicine training at the University of Saskatchewan, before returning to Halifax to complete his training in Respirology and then Sleep Medicine. He currently works at the QEII Health Science Centre in Halifax where he splits his time between general respirology and sleep medicine, with an interest in respiratory care for patients with neuromuscular disease. He is an assistant professor at Dalhousie University and is actively involved in medical education. He chairs the competency for the Respirology Training Program and oversees the Respirology component for the second year of Dalhousie Medical School.
11:30 – 13:00	**Lunch Break**
Session 4	**Pro/Con Debate: Biologics Should be Used for All Patients Requiring ICS – Canadian Thoracic Society (CTS)**
13:00 – 14:00	**Pro/Con Debate: Biologics Should be Used for All Patients Requiring ICS** *Pro: Pierre Landry, MD, FRCPC, Dalhousie University, Halifax, NS* *Con: Krystelle Godbout, MD, FRCPC, Laval University, Quebec City, QC*
	This session will review in a lively debate the place of biologics in the treatment of asthma. Currently restricted mostly in severe asthma, evidence and rationale of their use in a broader population will be reviewed and discussed. At the end of the session, participants will be able to: 1. Select patients that will benefit from biologic therapies in asthma 2. Integrate the different factors to appropriately prescribe biologic therapies in asthma 3. Choose the most appropriate therapeutic option for severe asthma patients **Dr. Krystelle Godbout** is the head of the severe asthma clinic at the Heart and Lung Institute in Quebec City, Canada. She specialized in severe asthma in Newcastle (Australia) and has a one-year fellowship in occupational lung diseases. Despite her young age, Dr Godbout has already accumulated a fair amount of experience with the management of severe asthmatics. She is involved in numerous educational activities and committees to improve the care of asthmatics in Canada and perform research in the Asthma Innovative Research team, based in Quebec City. **Dr. Pierre Landry** is a community respirologist, intensivist and internist practicing in Dartmouth, Nova Scotia. While maintaining a diverse, community based general respirology practice, he also has a large severe asthma practice, and is active in the use of biologic medications to treat severe asthma. He is a member of the Departments of Medicine and Critical Care at Dalhousie University in Halifax, NS.
17:30 – 19:00	**CTS Members' Reception (*by invitation*)** Hilton Hawaiian Village Hotel (Headquarters), Coral Ballroom 1