

Research and Innovation Friday, May 7, 2021

CSRT 2021 Virtual Conference

10:50 to 11:05 EDT (this session spans both streams)

HYBRID BILEVEL MASKS FOR ACUTE CARE

Presenters: Lindsay McFarland, RRT; Roger Chute, RRT

Industry Education Session by Canadian Hospital Specialties

Speaker Biography

Lindsay McFarland joined the ResMed team 2 years ago as Clinical Specialist for Western Canada and is based in Vancouver. Lindsay is a Respiratory Therapist with experience in hospital, homecare, and healthcare software.

Speaker Biography

Roger Chute has worked in various clinical roles as a Respiratory Therapist for over 25 years. For the past 9 years, Roger has been focused on the industry side of the profession, first with CAREstream Medical and now with CHS. Having worn several hats during this time, including product development and clinical specialist, Roger is one of two Product Managers for the Respiratory/Anesthesia portfolio at CHS.

Learning Objectives

A new thinking on bilevel masks – Maximizing Patient Comfort in a Cost-Conscious Environment

11:10 to 11:40 EDT

INNOVATION IN MECHANICAL VENTILATION: A NEW ROAD FOR RESPIRATORY THERAPISTS

Presenter: Edita Almonte, Msc, RRT-NPS

Speaker Biography

Edita Almonte is a Registered Respiratory Therapist and NBRC Neonatal—Pediatric Specialist with Master of Science degree in Health Care Administration. With 25 years of experience in Respiratory Therapy (Neonatal, Pediatric and Adult ICU) Emergency, Wards, Home Care, Pulmonary Function Test and Sleep Laboratory, and 10 years' experience as the Manager of Respiratory Therapy, Sleep laboratory and Neurodiagnostic Departments at Tawam Hospital, UAE. Her current role is Global Clinical Application Manager at Getinge Maquet Critical Care AB, Solna, Sweden, working on Servo ventilators. Edita is also an International Fellow of the American Association for Respiratory Care (AARC), and has presented twice at CSRT conferences and was the winner of the 2013 CSRT Poster Presentation contest in Niagara Falls.

Learning Objectives

- 1. To learn about the role of Respiratory Therapist in mechanical ventilation innovation and development of mechanical ventilator
- 2. To discuss the steps and procedure in research and development of new mode of ventilation for neonatal patients
- 3. To share the experience of developing new modes, features and design of mechanical ventilators with input from Respiratory Therapists, nurses, and physicians around the globe
- 4. To share the ramp up projects of ventilators during pandemic

11:45 to 12:00 EDT (this session spans both streams)

BOMIMED MANUFACTURING - OUR PROCESS AND CANADIAN RESPONSE TO THE PANDEMIC

Presenter: Brendan Guyot, MSc, PEng, Vice President of Operations, BOMImed

Industry Education Session by BOMImed

Speaker Biography

Brendan Guyot is the Vice-President of Operations at BOMImed where he has spent the past 5 years building a high-performance engineering team, developing new innovative manufacturing technologies, and strategically strengthening operations to better serve our customers.

Brendan holds a B.Sc. and M.Sc. in Mechanical Engineering from the University of Manitoba and has a unique background in Aerospace Engineering coupled with over 15 years of experience in the medical device industry.

He lives in Winnipeg with his wife, two boys, and Newfoundland dog.

Learning Objectives

Outline how our strategy to increase our manufacturing capabilities and capacity, along with new product development initiatives and facilities expansion projects have prepared us to handle the increased demands from the Canadian healthcare system due to the Covid-19 pandemic.

12:05 to 12:35 EDT

PEDIATRIC MECHANICAL VENTILATION PRACTICES BY CANADIAN RESPIRATORY THERAPISTS

Presenter: Shirley Quach, RRT, HBSc

Speaker Biography

Shirley Quach started her research endeavour as a research volunteer, at the Li Ka Shing Institute, St. Michael's Hospital and University of Toronto in 2011. As a Respiratory Therapist, she continues to pursue her passion in clinical research with a focus on respiratory care, at West Park Healthcare Center and Sick Kids Hospital. Currently, Shirley contributes to various respiratory and research committees, including the Ontario Respiratory Care Society's (ORCS) Editorial committee, ORCS Research and Fellowship committee, Canadian Respiratory Health Professionals (CRHP) Leadership Group and Respiratory Therapy Society of Ontario (RTSO) research interest group (Co-chair).

Learning Objectives

- 1. To review the common pediatric mechanical ventilation RT-practices in Canada
- 2. To compare the Canadian RT practices to the European Society Pediatric and Neonatal Intensive Care

12:50 to 13:50 EDT

A REVIEW OF SUBGLOTTIC SECRETION DRAINAGE (SSD) TECHNOLOGY: USE, EVIDENCE, AND ADHERENCE

Presenter: Dr Katie Bull

Industry Education Session by Medtronic

Speaker Biography

Dr Katie Bull is a Clinical Research Manager for Respiratory Interventions business at Medtronic. Katie is a Registered Nurse with a Master's degree in Nursing from University of Missouri-Columbia and a Doctorate in

Education from Concordia University – Portland. Her experience spans clinical nursing, academia, and most recently, in the medical device industry. Her research expertise includes respiratory care with an emphasis on adherence to evidence-based practice.

Learning Objectives

- 1. Review SSD technology devices, purpose, and types
- 2. Review of SSD guidelines and evidence landscape
- 3. Explore barriers and solutions to evidence-based practice adoption specific to SSD

13:55 to 14:25 EDT

WHAT VALUE DO RRTs ADD? A COLLABORATIVE RESEARCH INITIATIVE

Presenters: Roberta Dubois, RRT, MA, FCSRT; Rena Sorensen, RRT, CAE, MSc, FCSRT

Speaker Biography

Roberta Dubois is the Provincial Practice Director for Respiratory Therapy in Alberta Health Services. Roberta is a Registered Respiratory Therapist. She earned her Respiratory Therapist credential from the Northern Alberta Institute of Technology and her Master of Arts in Health from Royal Roads University. Roberta is a Surveyor with Accreditation Canada and a Fellow of the Canadian Society of Respiratory Therapists. She has over 20 years of clinical experience, primarily in critical care and home care. Her leadership experience spans the healthcare continuum in operations and practice. Main areas of interest are practice excellence, collaborative leadership, and value-based healthcare.

Speaker Biography

Rena Sorensen is the Professional Practice Lead for Rural Community Respiratory Therapists in central zone with Alberta Health Services. Rena practiced as a frontline therapist for over a decade in ICU, Emergency, acute care as well as community care. After getting her Masters in Respiratory Science, Rena has spent the last decade in leadership in the non-profit realm and now back with the public health system. She has a passion for stakeholder engagement and knowledge translation, specifically in the rural setting. Rena lives on a farm and you will find her with her husband and 2 kids on the ski hill in the winter, and in her vegetable garden in the summer.

Learning Objectives

- 1. To better understand the activities that RRTs value; To understand the mechanisms through which RRTs add value to the health system
- 2. To understand the impact of collaborative, RRT-led initiatives on practice at the provincial level

14:40 to 15:25 EDT

STUDENT RESEARCH AND INNOVATION

Speakers: Lynae Cooper, BSc, SRT; Aaron LeSouder, SRT; Annalise Woertman, SRT

Speaker Biography

Lynae Cooper completed her BScHK at the University of Ottawa where she was introduced to the respiratory therapy profession through a peer. Currently a 3rd year student of the Fanshawe College Respiratory Therapy program, she has been involved in many opportunities offered by the program and affiliated organizations. Lynae has been part of the Respiratory Therapy Student Federation each year of her studies, this year as council president. In second year, she was afforded the opportunity to be a student member of the CRTO Council.

Outside of the program, she volunteers as a patient partner with Huron Perth Healthcare Alliance as well as participates on the Community Living Stratford's outreach program.

Learning Objectives

- 1. Describe characteristics bacteriophages and brief history of their discovery
- 2. Discuss the method of action of phage therapy
- 3. Discuss current applications and areas of research for phage therapy

Speaker Biography

Aaron LeSouder is a third year Respiratory Therapy student at Fanshawe college. Throughout his time at Fanshawe college, he has become more passionate about the field of Respiratory Therapy. Having prior manufacturing experience working in a machine shop in Stratford Ontario, Aaron has decided to combine the two and build a one-of-a-kind, educational test lung.

Learning Objectives

- 1. To describe the planning and development of the test lung
- 2. To identify the uses of a test lung with transpulmonary pressure measurement capabilities
- 3. To discover improvements in the test lung design, to increase its educational capabilities

Speaker Biography

Annalise Woertman is a Hospital Unit Clerk working for the Foothills Medical (FMC) Intensive Care Unit. Annalise was able to take her skills to the classroom where she is currently a casual instructor for Bow Valley College teaching The Hospital Unit Clerk program to eager new students. Alongside these two successful careers, she is also a full-time student at SAIT with the desire to become a Registered Respiratory Therapist. Annalise is deeply passionate for the healthcare industry and won the FMC's Mount Robson Award in 2017 for Outstanding Patient and Family Center of Care.

Learning Objectives

1. To understand the effects, limitations, and outcomes of proning non-intubated, spontaneously breathing patients presenting with COVID-19

15:30 to 15:45 EDT (this session spans both streams)

TRANSPULMONARY PRESSURE AND ELECTRICAL IMPEDANCE TOMOGRAPHY: FRIENDS OR FOES

Presenter: Thomas Piraino, RRT, FCSRT, FAARC

Industry Education Session by Draeger

Speaker Biography

Thomas Piraino is a Registered Respiratory Therapist working as a staff therapist at Kingston General Hospital. He is a member of Dr. Laurent Brochard's research lab at The Centre of Excellence in Mechanical Ventilation, and a Lecturer (Adjunct) for the Department of Anesthesia Division of Critical Care at McMaster University. He has spoken at more than 50 conferences, and has more than 20 peer reviewed publications. He has also won a number of awards and recognition for his contribution to respiratory care. Additionally, he is the owner and lead developer for Keepr Web Apps. He is also working on his M.Sc. in Epidemiology.

Learning Objectives

This presentation will discuss the following:

- 1. The difference between global and regional respiratory measurements
- 2. Describe transpulmonary pressure measurements that provide regional information
- 3. Describe ways in which EIT and transpulmonary pressure measurements

15:50 to 16:35 EDT (this session spans both streams)

ONE DISH, ONE SPOON, AND YOU: AN RT'S GUIDE TO UNDERSTANDING AND BUILDING EQUITY, DIVERSITY AND INCLUSIVITY IN THE HEALTHCARE SECTOR

Keynote Presenters: Jeff Dionne, Past President, CSRT; Karen Schell, Past President, AARC

Speaker Biography

Jeff Dionne, RRT, is the Director of Leadership & Organizational Development at Unity Health Toronto. As a senior leader at Canada's largest faith-based healthcare organization and Past-President of the CSRT, Jeff offers a wealth of different and unique experiences as a Respiratory Therapist that he is excited to share during his session, in partnership with his AARC counterpart.

Speaker Biography

Karen Schell, DHSc, RRT-NPS, RRT-SDS, RPFT, RPSGT, AE-C, CTTS, currently serves as a classroom, simulation, Interprofessional Education, and clinical instructor in the Department of Respiratory Care Education and Diagnostic Science. In addition to the on-campus instruction, she is also an advisor for the on-campus program for respiratory therapists wanting to obtain a bachelor's degree.

Learning Objectives

- 1. Understand one's own implicit biases and its impact on the overall patient experience
- 2. Identify an RTs role in promoting equity, diversity, and inclusivity in the workplace
- 3. Examine strategies for building healthcare leadership capacity with an equity, diversity, and inclusivity lens

16:40 to 17:40 EDT (this event spans both streams)

TAKE A TRIP AROUND THE WORLD

Let's take a trip! That's right, we said it! Let's leave the country together for a short while and travel to Kenya, Ireland, and Argentina. While we may not be able to travel physically right now, we can still take you on a virtual trip and let you experience the culture and scenery of all three destinations.

In **Kenya** you'll be taken on tour through music to introduce you to the majesty of the Swahili language and the beauty of the nation.

Our **Ireland** trip will give you a little history, culture and craic! This fully interactive session, with loads of great views, chat, quizzes, Irish music, scary stories, culture & Irish craic. Leave behind what you thought you knew and join this adventure of Irish Fun Facts, One liners & Anecdotes.

Calling all wine lovers! You can plan to discover the **Argentine** Wine World in a fun way! Learn and laugh during this wine adventure! Argentine Wine...What makes it so special? How to pair it with food? Is there a world beyond Malbec? And although it's not a must, we invite you to enjoy a glass of Argentine wine or any wine you like during this fun and interactive class!