Global Access to Spirometry Program (GASP) - Establishing a Spirometry Lab and Asthma Education Program in a Resource-Challenged Community

Presenters: Carmen Rempel, RRT, CRE; Dr. Robert Levy, MD FRCPC

August 31, 3:00 PM Eastern

Session Abstract

Asthma is a common disease affecting up to 10-15% of adults and children worldwide which results in frequent visits to emergency rooms (ER), hospitalizations and mortality. Furthermore, asthma has important impacts on health resource utilization as well as having important social demands. International asthma guidelines are clear that optimal outcomes can be achieved by using a chronic disease management (CDM) model which includes accurate diagnosis with spirometry, treatment with basic maintenance medications including bronchodilators and inhaled corticosteroids, as well as ongoing self- management education and support. Guyana, a small, resource-challenged, English-speaking country in South America has an evolving public health system, however the approach to asthma management has been targeted episodic care with little attention to CDM principles. This results in frequent ER management as well as recurrent hospitalizations. Furthermore, no spirometry capacity existed prior to 2013.

The goal of this project was to establish a spirometry lab at Georgetown Public Hospital and develop capacity amongst the local nurses and physicians to perform and interpret spirometry and provide self- management education to their patients with asthma, thus optimizing health and health economic outcomes. The intention was to establish a self-sustaining program by enabling the Guyanese health care professionals to spread their knowledge to local Community Health Clinics and other regions in the country.

Since 2013, a team of BC RTs and respirologists have provided on-site and remote training, support and equipment to health care professionals in Georgetown. Several Guyanese physicians and nurses have now traveled to Canada and received additional training through the RespTrec© programs and teaching programs at hospitals in Vancouver. Spirometry is remotely reviewed by a respirologist and an RT in Vancouver. Financial support has been solely provided by Chiesi Foundation, and administrative support by the BC Lung Association.

This presentation will describe the process of establishing a spirometry and asthma education program in a resource-limited setting in a developing country, from bare walls and untrained personnel to a multi- room unit with over 12,000 patient visits and 1,900 spirometry performed by skilled nurses and doctors.

Session Objectives

1. To learn about the establishment of a unique spirometry and patient education program in a resource- challenged country.
2. To assess spirometry quality and diagnostic outcomes from the Guyanese facility.
3. To share the challenges faced by both the Guyanese and Canadian teams in establishing new referral and treatment patterns and a consistent supply of medicine, keeping quality control high while navigating staff turn-over, managing transfer of knowledge to outlying communities and maintaining focus and relationships in an ever-changing political landscape.

Speaker Biographies

Carmen Rempel is a Respiratory Therapist and Certified Respiratory Educator with Vancouver coastal Health in BC. She is currently part of the VGH COPD Transition Team that provides intensive case-management and post-hospital care in patients admitted with acute exacerbation of COPD.

Dr. Levy trained in Respiratory Medicine at McGill University. He is currently a Clinical Professor of Medicine in the UBC Respiratory Division and Medical Director of the BC Lung Transplant Program. He is Regional Department Head for Medicine at Vancouver Coastal Health and Providence Health Care. His major interests relate to physiologic and functional outcomes following lung transplantation, chronic disease management and health care delivery in resource challenged settings.