Influenza viruses are a significant source of morbidity and mortality every fall and winter. The last several months of 2009 have been particularly demanding on families and healthcare providers with the emergence of a new influenza A H1N1 strain, to which a large percentage of the general population lacks immunity.

"As a result, we have seen a surge of pediatric patients presenting to healthcare providers across North America" says Dr. Rini Jain, a Senior Fellow in the Emergency Department. "Many of these children present with mild illness but, nevertheless, are at a high risk of complications." In this context, it is important to know the advantages, risks, and indications for the use of antiviral medications such as oseltamivir" adds Dr. Jain.

Two review papers on H1N1 and its treatment were published by the ED team at BC Children's. "When given in the first 48 hours of illness, oseltamivir has been found to cause a clinically significant reduction in the incidence of pneumonia and otitis media in patients with influenza illnesses" says Dr. Jain, one author of the papers. "The most common adverse effect from the medication is vomiting, with other side effects being much less frequent."

An interim order released by Health Canada approved oseltamivir for use in children under the age of 1 year, so as to target one of the highest risk groups for complications. With the availability of this medication and the need for early treatment to derive any benefit, it is important for healthcare providers to use their clinical acumen and available guidelines from Health Canada to determine which children would most benefit from treatment.


Innovations in Acute Care and Technology Cluster

The ED continues to be part of the Innovations in Acute Care and Technology cluster in the Child and Family Research Institute (CFRI) and to contribute to its work. Basic, clinical, and population health researchers in anesthesia, cardiology, critical care, emergency, and surgical specialties aim to enhance the quality of care for children. They evaluate service delivery, address improved pain management, investigate molecular and cellular physiology in health and disease, study global health, and develop new technologies. Dr Quynh Doan is the Emergency representative in iACT and recently Dr Geoffrey Hung received a grant from iACT.

A Message from the Research Director

Despite a heavy clinical load with increased patient acuity and volume, and unique challenges such as the H1N1 epidemic, the Emergency Team was able to continue and succeed in providing evidence through research. 2009 was a fruitful year in establishing research by Faculty and trainees, and provided us with new information that is translated to bed-side care.

Dr. Ran Goldman
Division Head, Research Director
Division of Pediatric Emergency Medicine
Configuring Electronic Templates

In 2006 an application to the Innovation funding arm of the Ministry of Health was successful in obtaining funding to support design and implementation of the basic elements of an Emergency Department Information System (EDIS). The project was funded on the basis of a partnership with Vancouver Island Health Authority (VIHA) who already used the CERNER system. A team from the Emergency Department worked with the Provincial Health Services Authority (PHSA) Clinical Information project team and also closely collaborated with VIHA.

“We were also fortunate to be approached by the Simon Fraser University (SFU) who were interested in undertaking a research study with us throughout the design work,” says Vicky Crompton, Program Manager at the Emergency and co-author of a new study on the topic. “The initial phase was to create a triage and tracking system which would serve as a basis to apply further systems.”

The action research study undertaken with SFU looked at how we balance the dynamics of corporate standardization with the unique contexts of practice which demand a localized version of any shared application. The design work was complex and fraught with boundary negotiation. The individuals involved in the design team were invited to co-author future publications. The research was embraced by the team and resulted in a recently published paper titled “Boundary factors and contextual contingencies: configuring electronic templates for healthcare professionals”.

“The benefit of working with the SFU team who attended most of the design meetings as part of the team” says Vicky “was that they added a fresh perspective that increased our critical thinking around some issues. Furthermore, they also challenged set ways of being.”

Today, two years later, the Emergency department uses the triage and tracking board as if it has always been a part of our practice. “It is not without its ‘glitches’ but ultimately has triaged and identified patients as if it has always been a part of our practice. “It is not without its ‘glitches’ but ultimately has been better designed due to the research aspect of the design team,” adds Vicky.

Boundary factors and contextual contingencies: configuring electronic templates for healthcare professionals. Bjørn, P; Burgoyne, S; Crompton, V; MacDonald, T; Pickering, B; Munro, S. European Journal of Information Systems. 2009; 18(5):428-441

2009 was a very fruitful year for research in the Emergency. Here are the 22 papers published:


Dehghani N. Aspirated Foreign Bodies in Children: BC Children’s Hospital Emergency Room Protocol. BCMJ.

Dehghani N. Ingested Foreign Bodies in Children: BC Children’s Hospital Emergency Room Protocol. BCMJ.


Phillips B: Opposites Attract: A Case of magnet ingestion. CJEM


Shefrin A, Goldman RD: Use of dexamethasone and prednisone in acute asthma exacerbations in pediatric patients. Canadian Family Physician.

Goldman RD: Pediatric fatalities associated with over the counter (nonprescription) cough and cold medications. KiDrug Alert.

Bjørn, P; Burgoyne, S; Crompton, V; MacDonald, T; Pickering, B; Munro, S. Boundary factors and contextual contingencies: configuring electronic templates for healthcare professionals. European Journal of Information Systems.

