



*Manitoba Health, Seniors and Active Living (MHSAL) supports reporting and learning from patient safety events. The focus of a patient safety review is to closely look at the health care system that surrounds and interacts with those giving and receiving care. The goal is to identify risks to patient safety and recommend the most effective ways to minimize risk and improve the delivery of healthcare.*

## **Patient Safety Learning Advisory**

### **Pediatric Sepsis**

#### **Summary:**

A child presented multiple times to various medical facilities over the course of a week with ongoing signs and symptoms of rhinosinusitis for ~two weeks in duration.

A delay in treatment for bacterial rhinosinusitis further progressed to sepsis affecting the brain (Meningitis) and heart (Endocarditis) requiring hospitalization and surgical intervention to repair the heart.

#### **Keywords: Pediatric Sepsis**

This review is based on a single event.

#### **Findings of the Review:**

The child had signs and symptoms of an ongoing viral illness over a period of ~14 days with variable periods of exacerbation and improvement compounded by analgesia usage that may have potentially masked the degree of severity of patient presentation/illness of early sepsis.

There were multiple emergency department visits with limited diagnostic investigation to determine a differential diagnosis of viral rhinosinusitis versus bacterial rhinosinusitis its severity and course of treatment.

Antibiotics for viral illness is discouraged according to the World Health Organization - Antimicrobial Stewardship Program (limit use of antibiotics to prevent antibiotic resistance organisms) which may have further led to a delay in prescribing antibiotics in the early phase of illness. Viral rhinosinusitis versus bacterial rhinosinusitis is difficult to

differentiate in the early phase of illness due to the same presentation of signs and symptoms.

The Pediatric Transport Resource was not utilized/accessed during the emergency department visits. The information regarding this resource had been communicated 2 years prior in a memo and was unknown to all staff currently working in the department.

**System Learning:**

Recommend a consultation with the Provincial Pediatric Clinical Team to confirm that a reassessment of a pediatric revisit within 24h at an emergency department is best practice.

If outcome of above confirms that reassessments are best practice, then proceed with recommending patients 0-17 years of age returning to an emergency department within 24h should be flagged in the electronic system (EDIS).

If outcome of above confirms that reassessments are best practice, inform clinical providers that investigative diagnostic testing/advice should occur in collaboration with the Pediatric Transport Resource.

Recommend bringing the differential diagnosis of viral versus bacterial rhinosinusitis in children to the Regional Medical Advisory Committee (RMAC) to raise awareness of recommended treatment/non-treatment as a learning opportunity.

Create a poster and place in all emergency departments to raise awareness of the Pediatric Transport Resource process including phone numbers for advice/transport.

**Date of Posting:**