



Pediatric  
Critical Care  
Learning

## PCCL Session: Summary Report and Resources

**PCCL session topic: "GAS FIGHTING: A case of Group A Strep septic shock"**

**Date: June 21<sup>st</sup>, 2024.**

### **Learning objectives:**

- Describe presentation, differential diagnosis, and acute management of septic shock.
- Discuss potential complications to consider in management of septic shock.
- Identify communication and coordination strategies to optimize patient care through ED, Pediatrics, Transport, and PICU.

### **Patient Demographics**

- A 16-year-old male, who is previously healthy, fully immunized (including COVID and influenza boosters) and on no regular medications.

### **History of Presenting Illness**

He presented with fever, chills and myalgias on day 1-4 of illness. The fever and chills resolved on day 6-9, but he had a persistent mild cough. On day 10 of illness (day of presentation to the emergency room) he had an acute onset of fever, chills, rigors, and nausea. He presented with non-bilious, non-bloody vomiting and right lower quadrant abdominal pain.

### **Key concepts/outcomes:**

-Utilize the updated pediatric sepsis pathway, which is available through the Child Health BC website and on PHSA SHOP (see link below).

-Early fluid resuscitation with frequent reassessment (q15 minutes). Provision of 10-20mL/kg over 5-30 minutes

- Excessive fluid resuscitation can be harmful. Consultation with PICU should occur via PTN if 40mL/kg of fluid is required without restoration of adequate perfusion.

-Epinephrine and norepinephrine can run through a peripheral line. As always, it is a balance of risks and benefits. If a child needs inotropic support and there is a good IV which is monitored, there is no contraindication to running these epinephrine or norepinephrine peripherally

-Rates of invasive Group A Strep infection have been increasing, and providers must be vigilant in look for and treating for possible Group A strep infections.

-The incidence of multisystem inflammatory syndrome (MIS-C) in children has decreased significantly from the peak early in the pandemic, with the majority of cases occurring in vaccine-eligible but unvaccinated children



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## Resources:

- Guidelines: The Child Health BC (CHBC) Provincial Pediatric Sepsis Recognition and Management Guideline and accompanying toolkit are for use with pediatric patients presenting to emergency departments (ED's) or urgent care centers in British Columbia:  
<https://www.childhealthbc.ca/clinician-resources/pediatric-sepsis-0>
- [C-05-07-60741 Pediatric Intensive Care Unit: Continuous Infusion Guidelines for Infants and Children \(healthcarebc.ca\)](#)
- [BC CDC on Invasive Group A Strep](#)
- [Report from the US CDC on MIS-C](#)

The resources shared throughout this session are for reference purposes only. Please consult your health authority leaders for guidance on adoption and use of these resources within your local context.

The advice provided during the PCCL sessions is not intended to replace the clinical judgment of the healthcare providers who are with the patient. While PCCL sessions may suggest recommendations, the final decisions regarding a child's care and treatment should always rest with the healthcare professionals involved in their care at both the referring and receiving centres.

If you need additional in the moment support refer to the [Provincial Real Time Virtual Support Pathways on CHBC website](#)