

Child Health BC Pediatric Sepsis Clinical Care Algorithm

Sepsis is a **MEDICAL EMERGENCY**; Early Recognition and Treatment is Imperative for Survival



Provincial Health Services Authority



0 MINUTES



RECOGNITION

- Looks sick or toxic
- Critical heart rate
- Fever greater than 38°C or less than 36°C
- Poor perfusion/purpura/petechiae
- Altered mental status: confusion, lethargy or irritability
- Identified risk factors
- PEWS score increased by 2 or more



Refer to: [Provincial Pediatric Sepsis Guideline](#) for detailed instructions for intervention and care

FIRST 5 MINUTES



IMMEDIATE ACTIONS



- Notify Most Responsible Practitioner
- Attach cardiorespiratory monitoring
- Initial assessment (HR, RR, BP, Temp, SpO₂, Capillary Refill and LOC)
- Assess airway and administer oxygen to maintain saturations above 92%



Hypotension is a late and often terminal sign in pediatric septic shock

FIRST 60 MINUTES



ESTABLISH VASCULAR ACCESS, OBTAIN LAB WORK & ADMINISTER ANTIBIOTICS

- Secure IV/IO access
- Collect blood cultures
- Measure lactate
- Administer antibiotics IV/IO. IM if delayed access



If intravenous (IV) access is not secured within 5 minutes or after two attempts, use intraosseous (IO) access. In situations where rapid IV access may be difficult, IO access should occur concurrently with IV attempts to minimize delay to vascular access

FLUID ADMINISTRATION

- Administer Sodium Chloride 0.9% 10-20 mL/kg over 20-30 minutes
- Reassess response
- Prevent and treat hypothermia
- Check for and correct low glucose
- Check for and correct low calcium



Excessive fluid resuscitation can be harmful. Continually monitor for signs of fluid overload (e.g. increased work of breathing, crackles on auscultation, hepatomegaly or signs of cardiogenic shock).



PICU consultation should be considered if a total of more than 40mL/kg of fluid is required.

ONGOING CARE

- Reassess patient at a minimum of every 15 minutes (HR, RR, BP, Temp, SpO₂, Capillary Refill and LOC)
- Administer dextrose containing maintenance fluids

PEDIATRIC CONSULTATION:



Consult local Pediatrician on-call; or CHARLIE via Zoom or phone; or higher level of care center via PTN

CONSULT PICU VIA PTN FOR:



- Considerations of intubation and ventilation
- Selection and initiation of vasoactive medications
- Prior to steroid initiation
- Prior to administration of blood products

LIST OF ABBREVIATIONS

BP = Blood Pressure

CHARLIE = Child Health Advice in Real-time Electronically

HR = Heart Rate

IM = Intramuscular

IO = Intraosseous

IV = Intravenous

LOC = Level of Consciousness

PICU = Pediatric Intensive Care Unit

PTN = Patient Transfer Network

RR = Respiratory Rate

SpO₂ = Serum Pressure Oxygen

MONITOR

**IV ACCESS
LACTATE
BLOOD WORK
ANTIBIOTICS**

FLUIDS

REASSESS

Adapted from Queensland Paediatric Sepsis Program, Children's Health Queensland Australia 2020 & Translating Emergency Knowledge for Kids 2018.