Pediatric Sepsis Pathway

Consider sepsis or septic shock if a child has a suspected or proven infection and at least two of the following:
- Core temp <36 C or > 38.5 C
- Inappropriate tachycardia
- Altered mental state
- Reduced peripheral perfusion or prolonged capillary refill

Concern for sepsis/septic shock

Contact Angel One for transfer to Arkansas Children’s Hospital
1-800-ACH-HELP

Begin goal-directed therapy
shock reversal = normalized capillary refill (CR) <3 seconds

As the child is being prepared for transfer:
- Provide supplemental oxygen
- Obtain IV access
- Consider intraosseous line if unable to obtain IV after 2 attempts
- Administer 20ml/kg normal saline bolus IV
- Early administration of appropriate antibiotics - do not delay for labs/cultures
- Obtain blood and urine cultures if able

CR <3 seconds
- Monitor patient for worsening symptoms or recurrence of shock prior to transfer

CR >3 seconds
- Repeat 20 ml/kg normal saline bolus until capillary refill <3 seconds
- Reassess patient after every bolus
- Consider inotropes after 3rd bolus
- Call 1-800-ACH-HELP for critical care recommendations as needed

Antibiotics

Previously Healthy
(Please administer antibiotics in order of listing)
- No concern for intra-abdominal source = Ceftriaxone + Vancomycin
- Concern for intra-abdominal source = Ceftriaxone + Vancomycin + Metronidazole

Medically Complex
(Immunocompromised, CVC catheter, chronic medical condition)
(Please administer antibiotics in order of listing)
- No concern for intra-abdominal source = Cefepime + Vancomycin
- Concern for intra-abdominal source = Cefepime + Vancomycin + Metronidazole

Dosing Guidelines
Vancomycin: 15 mg/kg x 1 dose (max 1500 mg)
Ceftriaxone: 50 mg/kg x 1 dose (max 2 grams)
Cefepime: 50 mg/kg x 1 dose (max 2 grams)
Metronidazole: 10 mg/kg x 1 dose (max 500 mg)

Suggested Labs
- Blood/urine culture
- Glucose
- Lactate
- Procalcitonin or C-reactive protein (CRP)
- Ionized calcium
- BMP
- CBC
- Liver Function Tests

AGE | HEART RATE
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Preterm infants | 120-160
< 1 month term infants | 100-180
1 month – 1 year | 90-160
>1 year – 3 years | 80-140
>3 years – 5 years | 70-140
>5 years – 11 years | 65-110
Risk Factors for Pediatric Sepsis:

- Age <1 month
- Serious injury (e.g., major trauma, burns, penetrating wounds)
- Chronic debilitating medical condition
- Asplenia/Heterotaxy/Sickle Cell Disease
- Host immunosuppression
- Transplant
- Large surgical incision(s)
- Indwelling medical device (port, PICC line, dialysis catheter, PD catheter, VP shunt)
- Urinary tract abnormalities with frequent infection
- Recent surgery/invasive procedure/hospitalization
- Recent steroid use

Signs of Septic Shock:

- Tachycardia
- Bradycardia (rare)
- Hypotension (late sign)
- Cold, pale extremities
- Capillary refill time (CRT) >3 seconds or flash CRT
- Bounding or weak pulses
- Mottled skin
- Discrepancy between peripheral and central pulses
- Decreased urine output
- Dry mucous membranes
- Tachypnea, apnea (especially in infants), grunting, nasal flaring, hypoxia
- Sleepiness, lethargy, agitation, fussiness, acting abnormal per parents

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