

CMQCC Obstetric Serious Infection / Sepsis Evaluation Flow Chart

Vital Signs/WBC Screening

Concerning Maternal Signs/Symptoms*

Step 1 - Initial Screen for Serious Infection:

- Oral temp <36C (96.8F) or ≥38C (100.4F)
 - Heart rate >110 bpm
 - Respiratory rate >24 breaths per min
 - WBCs >15,000/mm³ or <4,000/mm³ or >10% bands
- Suspected Serious Infection if any 2 of 4 criteria met**
Perform Bedside Sepsis Evaluation within 30 min (by RN, CNM, or MD/DO)
(if <2 criteria continue to monitor)

- These pregnancy adjusted screen criteria should be used ≥20 weeks gestation and ≤72 hours postpartum
- At other times use standard non-pregnancy adjusted screen criteria

Step 2 - Bedside Sepsis Evaluation:

- Assess for:
- Patient and family concerns/symptoms
 - Alternative diagnoses (e.g. hemorrhage, preeclampsia)
 - Infection possibility and potential source
- In the absence of any alternative diagnosis, proceed to Action*

Criteria for End Organ Injury (EOI) in Pregnancy

(only one needed to dx Sepsis)

Clinical Criteria for EOI:

- **CNS:** Appears: Toxic, Confused, Agitated, Unresponsive
 - **Hypoxia:** O₂ requirement, O₂Sat<92%
 - **Oliguria:** <60ml/2hrs
- ### Laboratory criteria for EOI:
- **Platelets:** <100 x10⁹/L
 - **Bilirubin:** >2mg/dL
 - **Creatinine:** ≥ 1.2 mg/dL or doubling of creatinine

Step 2 - Action:

- Start source-directed antibiotics **within 1 hour**
- Give 1-2L of IV fluids over **1-2hrs**
- Increase VS monitoring **Q30min**
- Evaluate for End Organ Injury (EOI) with Clinical criteria and Basic Labs (CBC, Comprehensive Metabolic Panel, Lactate). See side panel for criteria
- As appropriate, send studies to identify source of infection

Lactic Acid (a measure of severity of infection rather than a true EOI):
 >2mmol/L (no labor); >4mmol/L (in labor, but DO NOT collect in the 2nd stage or within 1hr of delivery)

Action: This group remains at high risk for sepsis. Continue antibiotics and maintenance fluids, VS Q30min until normal, bedside reevaluation if VS worsen.

Screen-positive Infection but **NEGATIVE** for all EOI Criteria defines **SERIOUS INFECTION**

≥1 EOI Criterion **POSITIVE** defines **SEPSIS**

Action: Broad spectrum antibiotics, increase fluids to 30ml/kg (ideal BWt) within 3hrs, coags, blood cultures, escalation of care (e.g. Sepsis in Obstetrics Score), and repeat lactate Q2hrs for trends.

ELEVATED LACTATE ONLY in Labor

Action: Lactate ≥4mmol/L, in setting of infection and a positive screen is quite concerning even if EOI negative. Repeat lactate Q2hr for trends until improving. Continue antibiotics and VS Q30min until return to normal, bedside reevaluation if VS worsen or If Lactate does not decline. Consider additional fluids.

SEPTIC SHOCK:
 Definition: Vasopressor requirement to maintain MAP >65 mm Hg (despite adequate fluid load) AND a Lactate >2 in setting of infection

Action: Recommend ICU admission, treatments as above for Sepsis.

*This is often the pathway for outpatient care. Example tools: Urgent Maternal Warning Signs®; POST-BIRTH Warning Signs®