

# 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/mm<sup>3</sup> or <4,000/mm<sup>3</sup> 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:

- **Hypotension:** SBP <85 mmHg or MAP <65 mmHg or SBP decrease >40 mmHg
- **Hypoxia:** Mechanical or non-invasive ventilation (e.g. CPAP, BiPAP)
- **Oliguria:** <60ml/2hrs
- **CNS:** Appears Toxic, Confused, Agitated, Unresponsive

#### Laboratory criteria for EOI:

- **Bilirubin:** >2mg/dL
- **Creatinine:** ≥ 1.2 mg/dL
- **Coags:** Plts <100,000, or INR >1.5, or aPTT >60 sec (PT and aPTT may not be routinely collected in OB)

### 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

**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**

**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 Q3-4hr 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.

**Lactate:** >2mmol/L (no labor); >4mmol/L (in labor, but **DO NOT** collect in the 2nd stage or within 1hr of delivery). In Sepsis-3, Lactate is a measure of severity rather than an indicator of end-organ injury.

**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.

### 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®