



ALLIANCE FOR INNOVATION
ON MATERNAL HEALTH



Sepsis in Obstetric Care

Element Implementation Details



Sepsis in Obstetric Care

Element Implementation Details

Readiness — Every Unit

Readiness Element	Key Points
Inter- and intradepartmental protocols and policies can include:	Identifying a readily available multidisciplinary team to assist with the care for people experiencing obstetric sepsis or suspected sepsis. This team may differ in composition from facility to facility due to available resources but will be the same team for a variety of OB emergencies across bundles. This team might include expertise in: This team might include expertise in: • Obstetrics • Maternal Fetal Medicine • Anesthesiology • Emergency Medicine • Critical Care Medicine • Infectious Disease • Nursing Leadership • Internal and/or Family Medicine • Respiratory therapy
	Implementing rapid response protocol for the unstable patient. Sepsis protocol should include institution-specific processes to do the following: • Antimicrobial initiation within 1 hour • Fluid resuscitation • Vasopressor initiation, as needed • Evaluation of source (cultures), severity of end organ injury • Need for higher level of care (such as ICU) Prioritization of laboratory results Create institution-specific solutions to coordinate and escalate care as necessary



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Readiness — Every Unit (continued)

Readiness Element	Key Points
Inter- and intradepartmental protocols and policies can include:	Implementing a process to ensure timely acquisition and administration of antimicrobials. • Once the diagnosis of sepsis is suspected, broad-spectrum antibiotics tailored to the most likely source should be initiated within the first hour after diagnosis • Additional antimicrobials, as appropriate (such as antifungal or antiviral agents) • Coordinate with Pharmacy services to provide dosage, preparation, and delivery of antibiotics once ordered to meet one hour timeline
	Creating a protocol for sepsis evaluation/management. Including provider bedside evaluation to direct subsequent care (such as frequency of vital sign measurement, need for source control). Including integrating a standardized EMR order set. Order set may include: • Frequency of vital sign monitoring • Laboratory testing to detect end organ injury • Antimicrobial selection • Fluid administration
	Establishing a system for scheduling the postpartum care visit and any necessary immediate specialty care visit or contact (virtual or in-person visit) prior to discharge.



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Readiness — Every Unit (continued)

Readiness Element	Key Points
Multidisciplinary education on obstetric sepsis to all clinicians and staff that provide care to pregnant and postpartum people	Clinical and non-clinical staff education should emphasize: • Life-threatening pregnancy and postpartum complications • Early warning signs • Sepsis signs and symptoms other than fever • OB sepsis protocol Clinical and non-clinical staff education should be directed to: • Front desk staff for all units • Labor and Delivery units including triage, antepartum, and postpartum • Urgent Care/Emergency Departments • Intensive care units • Outpatient clinics At a minimum, education occurs at orientation, whenever changes to the processes or procedures occur or every two years.
Evidence-based criteria for sepsis assessment, including obstetric-specific criteria	When a patient contacts an entry point (such as clinic or triage) with symptoms possibly related to infection, have a pre-hospital risk assessment to determine next steps to direct care. Utilize a sepsis screening tool on presentation and throughout hospitalization to identify patients who may be developing sepsis to prompt further investigation: • Use a non-pregnancy adjusted tool for early pregnancy (<20 weeks) and greater than 3 days postpartum because higher pregnancy thresholds may not be met at those stages to avoid missing patients • Use a pregnancy-adjusted tool for pregnancy and immediate postpartum if > 20 weeks and within 3 days postpartum Utilize an obstetric-specific assessment tool (such as Sepsis in Obstetrics Score or CMQCC criteria) to assess for higher acuity of care (such as ICU or stepdown).



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Readiness — Every Unit (continued)

Readiness Element	Key Points
Non-hierarchical communication	Given the challenge of identifying sepsis in pregnant and postpartum patients, concerns of any team member should be taken seriously with a high level of suspicion for sepsis. Create an environment where patients feel comfortable bringing up concerns and have a pathway if the patient is not feeling heard.

Recognition & Prevention — Every Patient

Recognition Element	Key Points
Evidence-based measures to prevent infection	Infection prevention measures should be instituted: • Prenatal screening for infection (such as for asymptomatic bacteriuria) • Peripartum antibiotic indications (such as for PPROM, GBS prophylaxis) • Cesarean delivery infection prevention (such as for prophylactic antibiotics, vaginal cleansing during labor or with ruptured membranes)
Recognize and treat infection early to prevent progression to sepsis	Routine screening for asymptomatic bacteriuria (to prevent maternal progression to pyelonephritis), group B streptococci colonization and sexually transmitted infections during prenatal care (to prevent fetal infection). Early treatment of intra-amniotic infection has both maternal and fetal benefit and the criteria for treatment have been published by ACOG.
Consider sepsis on a differential diagnosis even in the absence of fever	Even in patients who have died from obstetric sepsis, fever was not always present. Absence of temperature abnormalities does not rule out sepsis. Personnel in various units and care settings who do not regularly care for pregnant patients may not recognize the signs and symptoms of sepsis in pregnant and postpartum people. To avoid delays in recognition, diagnosis, and treatment, collaborate across all units to have standard obstetric-specific screening and consultation as needed.



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Recognition & Prevention — Every Patient (continued)

Recognition Element	Key Points
Assessment and documentation for pregnancy	Consider an Urgent Care and Emergency Department protocol to ask all reproductive aged patients if they are pregnant, could be pregnant, or have been pregnant within the last 6 weeks (42 days) to assess for obstetric-specific causes and consideration of an obstetric-specific screening tool.
Patient education	Patient education should focus on pregnancy and postpartum complications and early warning signs, including sepsis signs and symptoms other than fever. May include: • Whom to contact with medical concerns, ideally stratified by severity of condition or symptoms • Review of warning signs/symptoms • Reinforcement of the value of outpatient postpartum visits • Have a pathway if the patient is not feeling heard All education provided should be: • In appropriate lay terminology • Aligned with the postpartum person's health literacy, culture, language, and accessibility needs • Include the patient's designated support network for all teaching with patient permission (or as desired)



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Response — Every Event

Response Element	Key Points
Facility-wide standard protocols and policies for assessment, treatment, and escalation of people with suspected or confirmed obstetric sepsis Standard protocols and policies can include:	Utilization of a standardized order set for sepsis evaluation/management. Prioritization of laboratory results to assist in identifying severity and potential source. Activation of a rapid response team for the unstable patient. • Identify champions for each type of care team member [Physicians (Obstetrician, Anesthesiologist, Emergency Medicine, Critical Care Medicine), advanced practice providers, nurses, RRT representative, pharmacy representative] to serve as a leader for dissemination of new processes • Consider creation of an obstetric sepsis alert that notifies RRT, pharmacy, and the laboratory to prioritize bedside collaboration, antibiotic dosing and delivery, and laboratory processing Administration of antibiotics within one hour after diagnosis of sepsis. Performance of source control using the least invasive means if the source of infection, such as an abscess, is identified. • In cases requiring source control (such as D and C, abscess drainage, or laparotomy), communication to the operating room management or interventional radiology about the urgency of access to the operating room or interventional radiology suite is key



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Response — Every Event (continued)

Response Element	Key Points
Facility-wide standard protocols and escalation policies for post-stabilization management of people with sepsis Standard protocols and escalation policies can include:	Transfer of care to an appropriate facility per the Levels of Maternal Care Obstetric Care Consensus. Level 1 refers to the ability to provide basic care; Level 2, specialty care; Level 3, subspecialty care; and Level 4, regional perinatal health care centers. Level 3 centers, by definition, have a medical or surgical ICU that accepts pregnant or postpartum patients. Level 2 centers may also have ICU capabilities for pregnant and postpartum patients. Institutions should categorize their level of care and ICU capabilities for pregnant and postpartum patients. If ICU services are not available, the nearest transfer center should be identified and process for transfer should be determined. Initiation fetal surveillance and maternal management strategies. • Prompt maternal antimicrobial treatment and/or source control combined with supportive and resuscitative measures leads to stabilization of both mother and the fetus in the majority of cases • Consideration of antenatal steroids (for fetal lung maturity) in appropriate cases • Fetal heart rate tracing surveillance should be individualized based on gestational age and maternal status
Team communication among units involved in the care coordination for patients with sepsis	Care coordination for patients with sepsis to understand diagnoses, treatment plans, delivery planning (as appropriate), and follow up care must occur across units and amongst multidisciplinary team members. Consider having neonatal resuscitation equipment availability in the ICU, designated operating room location in case of urgent cesarean delivery, and appointing a representative from each team to disseminate communication. Communication can include, but is not limited to, OB/GYN, ICU, NICU, and Anesthesiology.



Sepsis in Obstetric Care Element Implementation Details

Response — Every Event (continued)

Response Element	Key Points
Comprehensive post-sepsis care, including screening and proper referrals for post-sepsis syndrome	Assess patients for post-sepsis syndrome, which is characterized by fatigue, cognitive decline, mobility issues, pain, weakness, depression, anxiety, and post-traumatic stress disorder. Assessment and proper referrals to the following but not limited to occupational therapy, physical therapy, speech therapy, pain clinics, and psychiatry.

Reporting and Systems Learning — Every Unit

Reporting Element	Key Points
Multidisciplinary case review	Consider utilizing a debriefing form or a checklist to ensure all options and treatments have been reviewed and discussed. Multidisciplinary case review should: • Identify all sepsis cases, • Determine adherence to sepsis response protocols, • Determine whether instances of bias may have impacted care (i.e., race, ethnicity, socioeconomic status, insurance status, etc.), and • Identify and implement ways to make system improvements. Findings from reviews should be shared with all associated staff and involved facility stakeholders. Emphasize process mapping to identify systemic gaps, identifying trends and opportunities, and implementing interventions to address them and measuring improvements.
Ongoing patient communication	It is important to identify a process for communicating with the patient and their identified support network throughout their treatment process. When patients are hospitalized, there should be an identified provider who is responsible for managing the overall coordination.



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Respectful, Equitable, and Supportive Care — Every Unit/Provider/Team Member

Respectful Care Element	Key Points
Inclusion of the patient as part of the multidisciplinary care team	Patient support networks may include non-familial supports, such as doulas and home visitors, who, with the postpartum person's permission, should be welcomed when any visit is planned.
Open, transparent, and empathetic communication	Inclusion should involve: • Establishment of trust • Informed, bidirectional shared decision-making • Patient values and goals as the primary driver of this process Communication should be: • Aligned with the person's health literacy, culture, language, and accessibility needs • Include a designated support person for all teaching with patient permission (or as desired)
Bias mitigation	Each unit should have training in providing respectful and equitable care. Units should consider providing patients with an opportunity to provide feedback on whether they experienced bias in their care and review comments with staff to promote self-awareness and eliminate biased care.

These materials were developed with support from the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of a cooperative agreement with the American College of Obstetricians and Gynecologists under grant number UC4MC28042, Alliance for Innovation on Maternal Health. The contents do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, or the U.S. Government. For more information, please visit [HRSA.gov](https://www.hrsa.gov).

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