



FAQ About Sepsis Risk Calculator Fields

Calculator Input	Value to be entered	Notes
Incidence of Early Onset Sepsis	Use local incidence if known. If not, use 0.5/1000 live births (CDC national incidence)	CASC-NEOS recommends that most Colorado hospitals use the CDC national incidence
Gestational Age	Gestational age at birth, in weeks and days	“Weeks” value range 34-43 “Days” value range 0-6
Highest Maternal Intrapartum Temperature	Enter the value and remember to choose “Fahrenheit” or “Celsius” for the temperature unit. Note: Maternal fever that occurs within 1 hour after delivery can be counted as the “highest intrapartum temperature” for the purpose of calculating the risk estimate at birth.	Value may be whole number or number with single decimal place <ul style="list-style-type: none"> Examples: 101, 101.0 and 101.5 are all acceptable entry values
ROM (hours)	Duration of time between rupture of membranes and birth, in hours.	Value may be whole number rounded to the nearest hour OR number with single decimal place <ul style="list-style-type: none"> Example: ROM time 4 hours and 30 minutes should be entered as 4.5 hours. Example: ROM time 4 hours and 55 minutes can be entered as 4.9 hours or as 5 hours
GBS	Enter maternal GBS screening result	
Type of Intrapartum Antibiotics	Choice must include the type of antibiotic given and duration of time prior to birth that first dose was given. GBS-specific antibiotics: <ul style="list-style-type: none"> ONLY penicillin G; ampicillin; or cefazolin given for the purpose of GBS prophylaxis. This should apply only to mothers who are GBS positive or GBS unknown. 	



- If erythromycin, clindamycin or vancomycin ALONE are given for GBS prophylaxis, choose “None or antibiotics given < 2 hours prior to delivery.” These medications do not reliably provide neonatal protection from GBS infection, although they may provide some protection to the mother.¹ **(Epic EMR users may find that the default Epic prompt has improper verbiage on this issue. Please contact CASC-NEOS for Epic team guidance if needed.)**

Broad-spectrum antibiotics:

Generally defined as two or more antibiotics given in combination for concern for intra-amniotic infection: ampicillin AND gentamicin, OR cefazolin AND gentamicin, OR clindamycin or vancomycin AND gentamicin. Alternative single agent regimens are: ampicillin-sulbactam (Unasyn), OR piperacillin-tazobactam, OR cefotetan, OR ertapenem.²

To determine the timing of broad-spectrum intrapartum antibiotic administration, compare the time of the administration of the second antibiotic in the combination, to the time of birth.

- **Example:** ampicillin is given at 2:00 PM; gentamicin is given at 3:30 PM. Birth is at 4:30 PM. Because the second antibiotic of the combination was given 1 hour prior to delivery, choose “None or antibiotics given < 2 hours prior to birth.”

One could consider choosing “GBS-specific > 2 hours prior to birth” but if that was not the **intent** of administering the antibiotics, and the actual intent was to administer ampicillin and gentamicin – the most conservative decision is to choose “None or antibiotics given < 2 hours prior to birth.”

- **Example:** ampicillin is given at 1:00 PM; gentamicin is given at 2:00 PM. Birth is at 4:30 PM. Because the second antibiotic of the combination was given 2.5 hour prior to delivery, choose “Broad-spectrum antibiotics given 2-3.9 hours prior to birth.”
- **Example:** ampicillin is given at 10:00 AM; gentamicin is given at 11:00 AM. Birth is at 4:30 PM. Because the second antibiotic of the combination was given >4 hours prior to delivery, choose



	<p>“Broad-spectrum antibiotics given < 4 hours prior to birth.”</p> <p><i>If a mother has been given BOTH GBS-specific antibiotics and broad-spectrum antibiotics due to concern for evolving chorioamnionitis/intraamniotic infection, record the most complete treatment.</i></p> <ul style="list-style-type: none"> ● Example: Mother is given ampicillin at 8:00 AM and 12:00 PM for GBS positive status. She develops a fever to 101F at 2:00 PM, and gentamicin is given at 3:00 PM. Ampicillin is given at 4:00 PM. Birth is at 4:30 PM. In this case, GBS-specific antibiotics were given > 4 hours prior to delivery, but broad-spectrum antibiotics were given only 1 ½ hours prior to delivery. In the calculator, choose “GBS-specific antibiotics given > 2 hours prior to birth.”
<p>Antibiotic Dosing</p>	<p>When empiric antibiotics are recommended by the SRC, draw a blood culture, and utilize ampicillin and gentamicin.^{1,3} Refer to <i>up to date published print or online references</i> for neonatal dosing.</p> <p>Example references include Lexicomp, Harriet Lane Handbook, and Neofax (online versions are typically accessed through hospital licenses or personal paid subscriptions).</p>
<p>This handout is based on an email communication from Dr. Puopolo via Vermont Oxford Network to VON Choosing Wisely Newborn Antibiotic Stewardship Collaborative members including Dr. Mary Laird of CPCQC in March 2018.</p> <p>*ACOG has recently provided guidance for antibiotic choice when there is concern for developing intraamniotic infection. Broad-spectrum antibiotics may be defined per this document.</p>	

References:

¹ Puopolo KM, Lynfield R, Cummings JJ, Committee on Fetus and Newborn, Committee on Infectious Diseases, Clinical Report: Management of Infants at Risk for Group B Streptococcal Disease. Pediatrics Volume 144, number 2, August 2019:e20191881.

² Committee on Obstetric Practice. Committee Opinion #712. Intrapartum Management of Intraamniotic Infection, Obstetrics and Gynecology, 2017 Aug;130(2):e95-e101. doi:10.1097/AOG.0000000000002236

³ Puopolo KM, Benitz WE, Zaoutis TE; Committee on Fetus and Newborn; Committee on Infectious Diseases. Management of Neonates Born at ≥35 0/7 Weeks' Gestation With Suspected or Proven Early-Onset Bacterial Sepsis. Pediatrics. 2018 Dec;142(6):e20182894. doi: 10.1542/peds.2018-2894. PMID: 30455