



Perinatal Services BC
An agency of the Provincial Health Services Authority

Group B Streptococcus in the Perinatal Period

**Practice Resource for
Health Care Providers**

September 2014



Practice Resource Guide: GROUP B STREPTOCOCCUS IN THE PERINATAL PERIOD

Summary

The information attached is the summary of the recommendations from three recent evidence-based guidelines for the prevention and treatment of group B streptococcus (GBS) in pregnancy. Permission to reprint these recommendations has been provided courtesy of the Society of Obstetricians and Gynecologists of Canada, June 2014. Also included are four treatment algorithms from the Centre for Disease Control (CDC) and one from the Canadian Pediatric Society Guideline **Management of the Infant at Increased Risk for Sepsis**.

SUMMARY

Group B streptococcus (GBS) remains a leading cause of serious neonatal infection despite great progress in perinatal GBS disease prevention in the 1990s. Colonization with group B streptococcus in pregnancy is between 10% to 30% of women. GBS infection is associated with significant neonatal morbidity and mortality. In Canada, 1% to 2% of neonates born to colonized women develop early onset GBS disease.

Clinical Note: Neonatal Group B Streptococcal disease is reportable to the local medical health officer under the Communicable Disease Regulations of the Public Health Act in BC. The case definitions followed by BC Centre for Disease Control can be found in the document **Case Definitions for Communicable Diseases under National Surveillance**. (Note: although the document has been archived, it is still available through this link.)

1. The updated 2013 SOGC guideline **The Prevention of Early-Onset Neonatal Group B Streptococcal Disease**¹ is consistent with the recommendations from the 2010 CDC practice guidelines. There are 8 recommendations made by the SOGC Infectious Diseases Committee:
 - Offer all women screening for colonization with group B streptococcus at 35 to 37 weeks gestation, including women with planned cesarean delivery.
 - Provide intravenous antibiotic prophylaxis for group B streptococcus at the onset of labour or rupture of membranes to 1) any woman positive for GBS by vaginal/rectal swab done at 35 – 37 weeks gestation 2) any woman with a neonate previously infected with GBS 3) any woman with documented GBS bacteriuria in the current pregnancy.
 - Provide all women who are less than 37 weeks gestation and in labour or with ruptured membranes with IV GBS antibiotic prophylaxis for a minimum of 48 hours unless there has been a negative vaginal/rectal swab or rapid nucleic acid-based test within the previous 5 weeks.
 - Treat all women with intrapartum fever and signs of chorioamnionitis with broad spectrum intravenous antibiotics targeting chorioamnionitis and including coverage for group B streptococcus, regardless of group B streptococcus status and gestational age.
 - Request antibiotic susceptibility testing on group B streptococcus-positive urine and vaginal/rectal swab cultures in women who are thought to have a significant risk of anaphylaxis from penicillin.

¹ Money, D., and Allen, V. 2013. The prevention of early-onset neonatal group B Streptococcal disease. *J Obstet Gynaecol Can* 35(10): e1–e10.

- If a woman with pre-labour rupture of membranes at 37 or greater weeks' gestation is positive for group B streptococcus by vaginal/rectal swab culture screening, has had group B streptococcus bacteriuria in the current pregnancy, or has had a neonate previously affected by group B streptococcus disease, administer intravenous group B streptococcus antibiotic prophylaxis. Immediate obstetrical delivery (such as induction of labour) is indicated, as described in the *Induction of Labour* guideline published by the Society of Obstetricians and Gynaecologist in September 2013.
- At 37 weeks' or greater gestation, if group B streptococcus colonization status is unknown and the 35 to 37 week culture was not performed or the result is unavailable and the membranes have been ruptured for greater than 18 hours, administer intravenous group B streptococcus antibiotic prophylaxis.
- If a woman with pre-labour rupture of membranes at less than 37 weeks' gestation has an unknown or positive group B streptococcus culture status, administer intravenous group B streptococcus prophylaxis for 48 hours, as well as other antibiotics if indicated, while awaiting spontaneous or obstetrically indicated labour.

Clinical Note: Antibiotic sensitivity testing is important to request as up to 20% of isolates are resistant to clindamycin and erythromycin.

Clinical Note: Neonatal Sepsis continues to be a significant cause of perinatal morbidity and mortality in the term and preterm infant. ANY infant with clinical signs suggestive of infection (temperature instability, tachycardia, poor peripheral perfusion and respiratory distress) should be treated immediately following a prompt full diagnostic evaluation.*

* Barrington, K.J. 2007. Management of the infant at increased risk of sepsis. *PaediatrChildHealth* 12(10): 893–898

2. SOGC published a clinical practice guideline in May 2012 titled **Management of Group B Streptococcal Bacteriuria in Pregnancy**² with the following recommendations:
 - Treatment of any bacteriuria with colony counts greater than or equal to 100,000 CFU/mL in pregnancy is an accepted and recommended strategy and includes treatment with appropriate antibiotics.
 - Women with documented group B streptococcal bacteriuria (regardless of level of colony-forming units per mL) in the current pregnancy should be treated at the time of labour or rupture of membranes with appropriate intravenous antibiotics for the prevention of early – onset neonatal group B streptococcal disease.
 - Asymptomatic women with urinary group B streptococcal colony counts less than (<) 100,000 CFU/mL in pregnancy **should not be treated** with antibiotics for the prevention of adverse maternal and perinatal outcomes such as pyelonephritis, chorioamnionitis or preterm birth.
 - Women with documented group B streptococcal bacteriuria should not be re-screened by genital tract culture or urinary culture in the third trimester as they are presumed to be group B streptococcal colonized.

² Allen, V.M., and Yudin, M.H. 2012. Management of group B streptococcal bacteriuria in pregnancy. *J Obstet Gynaecol Can* 34(5): 482–486.

3. Key changes in the 2010 CDC **Prevention of Perinatal Group B Streptococcal Disease**³ include the following:

- Expanded recommendations on laboratory methods of the identification of GBS
- Clarification of the colony-count threshold required for reporting GBS detected in the urine of pregnant women
- Updated algorithms for GBS screening and intrapartum chemoprophylaxis of women with preterm labour or preterm rupture of membranes
- A change in the recommended dose of penicillin-G for chemoprophylaxis
- Updated prophylaxis regimes for women with penicillin allergy
- A revised algorithm for management of newborns with respect to risk for early-onset GBS disease

3 Center for Disease Control & Prevention. 2010. Prevention of Perinatal Group B Streptococcal Disease. *MMWR* 59(RR-10): 1–36.

Appendices

These algorithms are sourced from the Center for Disease Control & Prevention. 2010. Prevention of Perinatal Group B Streptococcal Disease. *MMWR* 59(RR-10): 1–36.

Appendix 1 Algorithm for screening for group B streptococcal (GBS) colonization and use of intrapartum prophylaxis for women with preterm labour (PTL)

Appendix 2 Algorithm for screening for group B streptococcal (GBS) colonization and use of intrapartum prophylaxis for women with preterm premature rupture of membranes

Appendix 3 Recommended regimens for intrapartum antibiotic prophylaxis for prevention of early-onset group B streptococcal (GBS) disease

Appendix 4 CDC Algorithm for secondary prevention of early-onset group B streptococcal (GBS) disease among newborns. See explanations at the end of the algorithm for accepted variation on discharge.

The algorithm below is sourced from Barrington, K.J. 2007. Management of the infant at increased risk of sepsis. *PaediatrChildHealth* 12(10): 893–898.

Appendix 5 CPS algorithm for the management of newborn babies who may be at risk for neonatal sepsis

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