



CLINICAL PRACTICE GUIDELINE

Group B Streptococcal Disease

This document should be read in conjunction with the [Disclaimer](#)

INTRAPARTUM Quick Reference Guide

All women at 35-37 weeks gestation are to be offered screening for GBS via a LVS and a rectal swab.

Provide intrapartum antibiotics for women with:

- A positive culture
- A previous infant with GBS disease regardless of present culture
- Symptomatic or asymptomatic GBS bacteriuria of any count in current pregnancy

Intrapartum antibiotic regimen:

Loading dose

IV [Benzyl penicillin](#) 3g

Maintenance

IV Benzylpenicillin 1.8g every four hours until birth

Where the woman is allergic to Penicillin with no history of anaphylaxis/ angio-oedema/respiratory distress or urticaria

LOADING DOSE

IV [cefazolin](#) 2g

MAINTENANCE DOSE

IV cefazolin 1g every 8 hours until delivery

WHERE THE WOMAN IS ALLERGIC TO PENICILLIN WITH A HISTORY OF anaphylaxis/ angio-oedema / respiratory distress or urticaria and the isolate is known to be clindamycin susceptible

[Clindamycin](#) 900mg every 8 hours until delivery

If the woman is at high risk of anaphylaxis and if the isolate is known to be resistant to clindamycin

[Vancomycin](#) 25mg/kg up to 1.5g 12 hourly until delivery (as per standard vancomycin loading doses in Therapeutic guidelines: antibiotic)

IF THE WOMAN IS AT HIGH RISK OF ANAPHYLAXIS ANGIO-OEDEAM / RESPIRATORY DISTRESS AND SUSCEPTIBILITIES OF THE ISOLATE ARE UNKNOWN

Vancomycin 25mg/kg up to 1.5 g 12 hourly until delivery (local susceptibility rate 100%)

Where the woman is allergic to both penicillin and clindamycin

Vancomycin 25mg/kg up to 1.5g 12hourly until delivery.

Consult with the microbiologist on call if vancomycin is unsuitable.

Special Notes

- **These recommendations are for GBS colonisation only and do not apply to women with overt sepsis.**
- **To achieve maximum preventative effect, the first dose of antibiotics should be administered at least four hours prior to birth.**

Background Information¹

Group B streptococcus (GBS) emerged as the leading cause of early onset neonatal sepsis in the late 1970's. Approximately 15-25% of women will be asymptomatic carriers of Group B streptococcus of which, if left untreated, 1 in 200 will have neonates that will develop neonatal sepsis.

The use of intrapartum prophylaxis with antibiotics (penicillin) given to women at risk of transmission of GBS to their newborns, prevents early onset sepsis and is cost effective. In Australia, intrapartum chemotherapy has led to a decline in the incidence of early onset GBS disease in the past decade. The incidence of late onset GBS infection (7 – 89 days) remains unchanged.

Intrauterine infection of the fetus occurs due to ascending GBS. Fetal aspiration of infected amniotic fluid can lead to stillbirth, neonatal pneumonia, or sepsis. Neonates can become infected during the passage of birth, although the majority who are exposed become colonised on their skin or mucous membranes, but remain asymptomatic. Urinary tract infections caused by GBS complicate 2%-4% of pregnancies. It is recommended that women with GBS UTI in pregnancy be treated with intrapartum chemoprophylaxis because the neonate is at increased risk for early onset GBS infection.³

GBS isolates can be assumed to be 100% susceptible to penicillin, amoxicillin, cefazolin and vancomycin. Clindamycin susceptibility varies between countries. In Australia GBS resistance to clindamycin has increased, local resistance rates according to KEMH data in 2015 was approximately 28%(up from 5% in 2013).

New evidence suggests the CDC vancomycin dose of 1g 12 hourly may not provide effective antimicrobial levels in mother or baby. Standard loading doses as per Therapeutic Guidelines; Antibiotic have been recommended in the KEMH guideline.

Penicillin administered to a woman with no history of β - lactam allergy has a risk of anaphylaxis of 4: 10,000 to 4: 100,000. Mortality is rare in a fully medically staffed hospital setting. Any morbidity associated with anaphylaxis is greatly offset by reduction in incidence of neonatal and maternal sepsis.

Key Points

1. All antenatal women should be offered screening at 35 – 37 weeks gestation for rectovaginal GBS colonisation via a combined low vaginal and anorectal swab. Culture results are less predictive of status at term if performed at earlier gestations. This swab can be clinician collected or patient self – collected.
2. Screening results are current for 5 weeks.³
3. GBS culture results are not available for 24 – 48 hours; cultures are not useful in the initial management of labour with an unknown current status.
4. Adequate intrapartum chemoprophylaxis is defined receipt of β lactam (penicillin, amoxicillin or cefazolin) antibiotics for ≥ 4 hours prior to birth.¹ There is less data for the efficacy of Clindamycin or Vancomycin prophylaxis⁴
5. Among women with penicillin allergy, clindamycin sensitivity testing should be requested at the time of screening culture.
6. When it is impractical or inappropriate to collect swabs for assessment of GBS colonisation, then assessment for risk factors strategies should be initiated, and chemoprophylaxis commenced as required.³
7. Because of the association of heavy colonisation with early onset neonatal disease, intravenous antibiotic prophylaxis for group B streptococcus should be provided at the onset of labour or rupture of the membranes.⁶ Women who are GBS positive should be advised to come to the hospital earlier rather than later when labour commences and immediately when their membranes rupture.
8. Intrapartum prophylactic **antibiotics should be given** for women with:
 - a positive GBS culture
 - symptomatic or asymptomatic GBS bacteriuria (and of any count) during pregnancy
 - a history of a previous neonate with early onset GBS disease regardless of the present culture result.^{2,3} Rescreening is not required in the current pregnancy.²
 - GBS positive with ruptured membranes before caesarean section.
 - an unknown culture or current status at the time of labour and any of the following
 - gestation ≤ 37 weeks
 - membranes are ruptured ≥ 18 hours
9. Intrapartum **antibiotic prophylaxis is not required** for women:
 - Caesarean birth performed before the onset of labour on a woman with intact amniotic membranes, regardless of GBS colonisation status or gestational age. Caesarean section prophylaxis is still required.
10. Women undergoing induction of labour should commence prophylactic IV antibiotics at ARM / establishment of labour or ROM. Antibiotics do not need to be commenced at insertion of Foley's catheter or prostaglandins.

Risk factors for neonatal GBS sepsis

These include:

- a positive maternal culture for GBS within 5 weeks of birth
- a previous neonate with early onset GBS disease regardless of a present culture
- symptomatic or asymptomatic GBS bacteriuria regardless of count during the current pregnancy
- an unknown culture result, or no screening in pregnancy and any of the following are present –
 - the onset of premature labour < 37 weeks gestation
 - rupture membranes for ≥ 18 hours
 - an intrapartum fever of ≥ 38° C. Significant intrapartum fever requires consideration of broader spectrum therapy such as amoxicillin 2g IV 6 hourly, metronidazole IV 500mg 12 hourly and gentamicin 5mg/kg once a day. Amoxicillin provides GBS coverage in this regimen.

Collecting swabs GBS screening

See [Clinical Guidelines Low Vaginal, High Vaginal, Endocervical and Rectal swabs](#).

Method of Swab Collection

1. Women may collect their own GBS swabs following appropriate instruction.⁸ The midwife or doctor should perform swab collection when there are any language or communication difficulties.
2. For the single-swab method, the lower one third of the vagina is swabbed circumferentially with a cotton swab that is then inserted through the anal sphincter, 2cm into the rectum, and rotated 360 degrees.¹ A two swab technique can be used.
3. Clindamycin susceptibilities should be requested where there is a known history of Type 1 (immediate onset reactions occur within 1 hour of administration of the medication) penicillin allergy or if it is unclear from the history whether it is a type 1 or type 2 (7-10 days after treatment starts) allergy.

Management of GBS positive women with pre-labour Rupture of Membranes at Term

See [Clinical Guidelines Prelabour rupture of membranes at term](#). Known carriers of GBS with pre-labour rupture of membranes at term should commence antibiotics immediately and induction commenced within 6 hours.

Management of a Woman Presenting with Preterm Rupture of Membranes (PROM) with unknown GBS status

Obtain vaginal and rectal GBS swabs for culture. Commence prophylaxis antibiotics (oral erythromycin) as per the preterm prelabour rupture of membranes guideline, See Clinical Guidelines '[Prelabour premature rupture of membranes medical and](#)

[midwifery management](#) If the patient labours, switch antibiotic regime to IV penicillin as per preterm labour guideline.

WOMEN IN FAMILY BIRTH CENTRE AND COMMUNITY MIDWIFERY PROGRAM

The midwife will:

- confirm the woman has no penicillin allergy
- obtain the order for antibiotics from the medical practitioner
- insert an intravenous cannula and commence antibiotics as per recommendations for prophylaxis and medical practitioners orders.

Management of a Newborn at Risk of GBS Sepsis

See [Sepsis: Septic Calculator - Assessment of Early-Onset Sepsis in Infants > 35 Weeks](#)
[Septic Screening Procedures- Neonates](#)



Related WNHS policies, procedures and guidelines

[Clinical Guidelines Low Vaginal, High Vaginal, Endocervical and Rectal swabs](#)

[Clinical Guidelines Pre-labour Rupture of Membranes at Term](#)

[Sepsis: Septic Calculator - Assessment of Early-Onset Sepsis in Infants > 35 Weeks](#)

[Septic Screening Procedures- Neonates](#)

Keywords:	Group B streptococcal disease, GBS, swabs, neonatal, sepsis, benzylpenicillin, clindamycin		
Document owner:	Obstetrics, Gynaecology and Imaging Directorate		
Author / Reviewer:	Evidence Based Clinical Guidelines Co-ordinator		
Date first issued:	October 2001		
Last reviewed:	June 2016	Next review date:	June 2019
Endorsed by:	OGCCU Management Committee	Date:	8.6.2016
Standards Applicable:	NSQHS Standards: 1  Clinical Care is Guided by Current Best Practice 4-  Medication Safety; 5-		

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