
Streptococcal infection – group B

Summary

- Group B streptococcal bacteria can cause a wide range of illnesses.
 - Between one and four out of every 1,000 newborns contract group B streptococcal disease (GBS disease) from their mothers during birth.
 - Some of the life-threatening complications of GBS infection in newborns include bacterial infection of the bloodstream (septicaemia), pneumonia and meningitis.
 - Many Australian maternity hospitals screen pregnant women for GBS infection to reduce the risk of GBS infection in newborn infants.
-

Group B streptococcal bacteria can cause a wide range of illnesses in susceptible people including newborns, the elderly and those with pre-existing medical conditions such as diabetes or cancer.

Out of every 1,000 newborns delivered vaginally, less than a third will become colonised with group B streptococci (GBS), and only one to four of those 1,000 will develop any illness from GBS. The rate of GBS disease is declining in Australia maternity hospitals, which is believed to be due to preventative screening programs and the use of antibiotics when required.

In most cases, pregnant women who are carriers of GBS shows no symptoms; they are usually not even aware that they are carrying the bacteria. Some of the life-threatening complications of GBS infection in newborns include bacterial infection of the bloodstream (septicaemia), pneumonia and meningitis. Many Australian maternity hospitals screen pregnant women for GBS infection to reduce the risk of GBS infection in newborn infants.

Symptoms of group B streptococcal infection

The signs and symptoms of GBS vary according to age, but can include:

- in non-pregnant adults – fever, headache, confusion, shortness of breath or cough (if pneumonia), a burning sensation when passing urine or frequent visits to the toilet to pass urine (if urinary tract infection), or red, swollen and painful skin (if cellulitis)
- in pregnant women – fever, abdominal swelling, uterine tenderness
- in newborns – shortness of breath or difficulty breathing, lethargy, low blood pressure
- in babies aged between one week and a few months – fever, lethargy, irritability, poor feeding, seizures.

Carriers of group B streptococcal infection

Some people are carriers of GBS, which means they harbour the bacteria but don't show any symptoms of the infection. Common sites on the body where GBS may be carried include the vagina, bladder, the rectal (anal or back) passage and throat.

Infection is usually short term. It is thought that around 12 to 15 per cent of Australian pregnant women carry GBS in their vagina. A small proportion (less than two per cent) of babies born to these carriers will develop GBS disease. The risk of GBS infection is higher among premature babies. This risk can be reduced by giving the mother intravenous antibiotics during labour.

Onset of group B streptococcal infection in babies

The two types of GBS disease that affect babies include:

- early-onset – the newborn shows signs of illness shortly after birth or within one to two days of birth. Early-onset GBS disease is the most common type
-

- late-onset – infants show signs of illness one week to several months after birth. This form of GBS disease is comparatively rare. Only around half of all babies with late-onset GBS disease contract the illness from their infected mothers. For the remainder of cases, the source of infection is unknown.

Diagnosis and treatment for group B streptococcal infection

GBS infection is diagnosed from specimens collected from blood, urine or spinal fluid. Vaginal swabs may be collected from pregnant women to determine if they are asymptomatic carriers of these bacteria.

The principal form of treatment for GBS is intravenous antibiotics, usually given in hospital. If the bacteria are found in a pregnant woman, intravenous antibiotics are given during the labour.

Screening methods for group B streptococcal infection

There is no standard screening procedure for GBS in Australia and the protocols vary from hospital to hospital. Some facilities screen only 'at-risk' pregnant women for GBS infection, while others screen all pregnant women at 35 to 37 weeks.

A recent Australian review of the published evidence reported lower rates of GBS disease among infants in hospitals where all pregnant women were screened for GBS. However, it acknowledged that there are advantages and disadvantages to each approach to screening. A recent statement from the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) listed both of the above approaches to GBS screening as being acceptable.

The main screening test is a swab of the vagina. A swab of the rectum (back passage) may also be taken. Research indicates that screening tests taken late in pregnancy are more reliable. For example, around 10 to 20 per cent of pregnant woman who have GBS-negative swabs at 28 weeks gestation are carrying the bacteria at the time of delivery.

Risk factors for group B streptococcal infection

If a pregnant woman is found to be a GBS carrier, the infection can easily be treated with intravenous antibiotics. Risk factors that may prompt your obstetrician to screen for GBS infection include:

- a GBS-positive swab in a previous pregnancy
- a previous baby with GBS infection
- pre-term labour
- rupturing of the membranes well before the onset of labour (18 hours or more)
- signs of infection around the time of labour or delivery (such as fever in the mother)
- prolonged labour.

For non-pregnant women and others, chronic diseases such as diabetes or cancer make you more vulnerable to getting GBS infection.

Where to get help

- Your doctor
- **NURSE-ON-CALL**. Tel. 1300 60 60 24 – for expert health information and advice (24 hours, 7 days)
- Your obstetrician or midwife
- Your maternity hospital.

This page has been produced in consultation with and approved by:

Department of Health and Human Services - RHP&R - Health Protection - Communicable Disease Prevention and Control Unit

Content on this website is provided for information purposes only. Information about a therapy, service, product or treatment does not in any way endorse or support such therapy, service, product or treatment and is not intended to replace advice from your doctor or other registered health professional. The information and materials contained on this website are not intended to constitute a comprehensive guide concerning all aspects of the therapy, product or treatment described on the website. All users are urged to always seek advice from a registered health care professional for diagnosis and answers to their medical questions and to ascertain whether the particular therapy, service, product or treatment described on the website is suitable in their circumstances. The State of Victoria and the Department of Health & Human Services shall not bear any liability for reliance by any user on the materials contained on this website.

For the latest updates and more information, visit www.betterhealth.vic.gov.au

Copyright © 1999/2019 State of Victoria. Reproduced from the Better Health Channel (www.betterhealth.vic.gov.au) at no cost with permission of the Victorian Minister for Health. Unauthorised reproduction and other uses comprised in the copyright are prohibited without permission.