

Focus On

Meningitis and Group B Streptococcal Disease

- Group B streptococci (GBS), also called streptococcus agalactiae, can cause serious disease. The term 'group B' refers to the presence of a particular antigen found on the surface of the bacterium.
- GBS is usually associated with disease in the newborn (neonatal) period and it is the most common cause of life threatening illness during this time. Septicaemia, meningitis and pneumonia are the most frequent problems. It is the commonest cause of bacterial meningitis in the newborn.
- GBS infections in the newborn can be divided into two types:
 - Early onset disease (EOD) - occurs during the first two days of life and usually presents as pneumonia or septicaemia. The mother's genital flora is the source of infection in these cases. The infant is either infected in the uterus or during birth.
 - Late onset disease (LOD) - occurs between the second and 90th day of life, although most disease is seen by the age of one month. LOD usually presents as meningitis, with or without septicaemia. In these cases the infant is infected after birth.
- The most likely cause of LOD is direct contact. The bacteria can be carried on the hands of the carer and transferred to the infant. If the infant is pre-term this can occur in hospital through hand contact or contaminated equipment.
- A recent UK study of severe GBS disease in infants <90 days of age showed an incidence of 0.8 per 1000 live births. Approximately 70% of the cases occurred within the first 6 days of life (CDR Weekly Volume 12 no. 16). There are around 700 babies each year in the UK who develop GBS infections, of which approximately 100 have meningitis.
- Many people carry GBS in their bodies without becoming ill. The bacteria normally colonise the gastrointestinal tract and skin of approximately 30% of men and women. They also form part of the normal genital flora of approximately 25% of women of childbearing age. Carriage is usually temporary and occurs without symptoms.
- GBS in infants is treated with intravenous antibiotics. It is recommended that infants with meningitis receive antibiotics for 14 days. This may be longer depending on the progress of the infant. Supportive therapy is equally important, requiring 24 hour skilled nursing and medical care.
- Around 10-20% of infants who develop GBS will die. The highest fatality rate occurs during EOD (15%). Approximately 5% of babies die from LOD.

- As many as 20% of infants who develop GBS meningitis are left with permanent disability. This can include hydrocephalus, cerebral palsy, epilepsy, hearing impairment and sight problems.