

GROUP B STREPTOCOCCAL DISEASES IN NEWBORNS

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How common is GBS disease in newborns ?



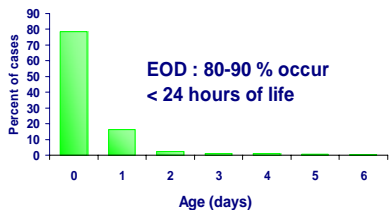
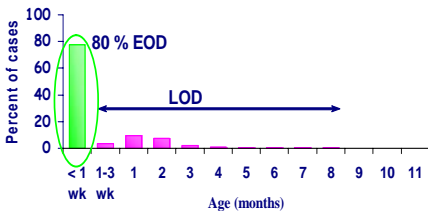
Group B Streptococcus (GBS) is the most common cause of life-threatening infection in newborn babies.

In Belgium, each year up to 250-300 babies aged up to 3 months develop serious GBS infection and sadly, even with the best medical care, around 30 of those sick babies will die as a result and a few others will have long term neurologic sequelae. Premature babies are more at risk of getting GBS infection, but most babies who become sick from GBS are full-term. Yet most of these infections are preventable if women in known higher-risk situations are given antibiotics during labour.

Etiologic agent

Group B streptococcus (GBS) or *Streptococcus agalactiae* is a very common bacteria found in gastrointestinal and genital tracts of humans. Around 25% of healthy pregnant women may carry the bacteria at any time; most of them have no symptoms. Any woman can get the bacteria and possibly infect her baby.

When & how does GBS disease affect newborns ?



Early Onset Disease EOD

Vertical materno-fetal transmission.

Ascending spread from vagina, upon passage in birth canal

- Obstetric factors:
 - Prolonged rupture of membranes,
 - Preterm delivery,
 - Intrapartum fever
- GBS bacteriuria
- Previous infant with GBS disease



Sepsis
Meningitis
Pneumonia

Late Onset Disease LOD

Horizontal transmission

Hand Hygiene

Infants aged 1 week – 3 months

- Bacteremia
- Meningitis
- Septic arthritis, osteomyelitis
- Cellulitis, etc

How does GBS disease affect pregnant women ?

◆ Colonization

Asymptomatic, dynamic, duration and density unpredictable

Culture needed to know GBS carriage

◆ Infections

Urinary tract infections, sepsis, chorioamionitis, endometritis, and stillbirth

Can GBS neonatal disease be prevented ?

◆ YES, most EOD in newborns can be prevented

By giving antibiotics intra-venously

During labor or when water breaks

To women who were tested GBS positive at the end of pregnancy

Also to any pregnant woman who had a baby in the past with GBS disease, or who had a GBS bacteriuria during this pregnancy.

◆ Immunisation of women during or before pregnancy should be the most promising, durable and cost-effective strategy for prevention of both EOD and LOD, and peripartum maternal diseases.

But vaccines are still in development or ongoing clinical trials in healthy adults.

REFERENCES

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- ◆ Guideline from the Belgian Health Council, 2003 (SHC 7721): Prevention of perinatal group B streptococcal infections http://www.health.fgov.be/CSH_HGR/