PREVENTION OF PERINATAL GROUP B STREPTOCOCCAL INFECTIONS

GUIDELINES FROM BELGIAN COUNCIL OF HYGIENE, 2003

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Group B Streptococcus (GBS) is the most common cause of life-threatening infection in newborn babies. In Belgium, each year up to 200-250 babies aged up 6 days develop serious GBS infection, early onset diseases (EOD). Even with the best medical care, around 20-25 of those sick babies will die as a result and a few others will have long term neurologic sequelae.

SUMMARY

Intrapartum antimicrobial prophylaxis (I.V.)

Based on universal prenatal screening at 23-37 weeks gestation

A risk-based approach limited to women with unknown GBS status at time of labor

Highly effective at preventing GBS EOD in newborns from women at risk of transmitting GBS

Main goal

To prevent 70 to 80 % of GBS EO cases

Secondary

To reduce peripartum maternal morbidity

Gyneco-Obstetricians
Pediatricians
Laboratory microbiologist
Labor/delivery Ward

Adhesion to a common protocol is a key of success.
Multidisciplinary collaboration is mandatory

Recto-vaginal GBS screening culture at 35-37 weeks of gestation
For ALL pregnant women

Unless patient had a previous infant with GBS invasive disease
Or GBS bacteriuria during this pregnancy
Or delivery occurs < 37 weeks' gestation

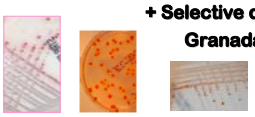
- **GBS Neg** → Intrapartum prophylaxis **NOT** indicated
- Not done / Incomplete or unknown GBS result → ! Facultative ! Intrapartum rapid GBS test
  - Negative → ≥ 1 Risk factor : - intrapartum fever ≥ 38°C - ROM ≥ 18 hours
    - if NO → Intrapartum prophylaxis **NOT** indicated
    - if YES → INTRAPARTUM PROHYLAXIS INDICATED
  - Positive → INTRAPARTUM PROHYLAXIS INDICATED
- **GBS POS** → INTRAPARTUM PROHYLAXIS INDICATED
- **if YES** → INTRAPARTUM PROHYLAXIS INDICATED

Crucial conditions to optimize SCREENING

❖ WHEN	**35-37 weeks**
❖ WHO	**ALL the pregnant women**
❖ Specimen	**Vaginal + rectal swab(s)**
❖ Collection	**WITHOUT speculum**
❖ Transport	**Transport/collection device (non nutritive medium: Amies/Stuart)**
❖ Request form +	**To specify prenatal « GBS » screening** ***expected address for delivery***

Prenatal screening : laboratory procedure

❖ **Culture media** **Selective enrichment broth (Lim broth)**
+ Selective differential agar
Granada agar or StrepB ID agar



❖ **Qualitative results : POSITIVE or Negative screening**

Intrapartum prophylaxis (Intra venous)

Penicillin G
5 millions U, IV initial dose, then 2,5 millions U IV every 4 hours until delivery.

Ampicilline
2 g IV initial dose, then 1 g IV everye 4 h until delivery.
Acceptable alternative , but broader spectrum, potential selection of R bacteria

If penicillin allergy :

Patients at low risk for anaphylaxis
Cefazolin, 2 g IV initial dose, then 1g IV every 8 h until delivery.

Patients at high risk for anaphylaxis
Clindamycin , 900 mg IV every 8 hours until delivery

Other topics of the guidelines

- **Threatened premature delivery**
- **Planned C-section in GBS carrier**
- **Management of newborns**
  - Symptomatic newborns
  - Asymptomatic newborns
    - At « low risk »
    - At « high risk » of infection
- **Duration of therapy**

Challenges

◆**To implement universal screening in all health care settings**

By promoting use of the 2003 Belgian guidelines for prevention of GBS perinatal diseases

◆**To monitor adverse consequences of increased use of antibiotics**

REFERENCES

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

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