Towards a Belgian Consensus for Prevention of Perinatal Group B Streptococcal Disease

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Belgian GBS Key Steps

- 1985, A thesis at University of Liege
- 1985-1994 Several local studies
- Since 1995, Belgian GBS reference laboratory
- 1998-2000, Regional surveys and multi-centric studies
- 2001, “Consensus” meeting
- End 2001, “Guidelines” by Belgian Associations of Gynecologists and Obstetricians
- June 2002, Working group appointed by Ministry of Health
- End 2002, Expected launch of Belgian guidelines
In 1999

**Total population**: 10,213,752

**Births**: 114,276

**> 65 years**: 1,697,453

*INS, Ministère des affaires économiques, 2000*
Belgian Epidemiology

Occurrence of pathogens in neonatal (0-28 D) septicemia and meningitis (ISP Lab.Network)

% 40

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<th>Year</th>
<th>GBS</th>
<th>E.coli</th>
<th>S.epi</th>
<th>CNS</th>
<th>S.aureus</th>
<th>S.pneumoniae</th>
<th>Listeria</th>
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Neonatal GBS Early Onset Disease
Belgian Background in 2001

- 1999-2001, EOD:LOD = 4:1
- Meningitis: 10%
- Mortality > 14%
- Incidence
  - 1985: 3/1000 live births
  - 1990: 3/1000 live births + 4/1000 likely cases
  - 1999, estimated: 2/1000
- 60% EOD had NO maternal risk factor
- Prenatal screening, vagina/rectum: 13-25%
Prevention of neonatal GBS EOD
From where are we coming?

2 mail surveys:
- French Community, 1998-1999
  P.Melin, 40th ICAAC, #1746, 2000
- Flemish Community, 1999
  L.Mahieu, 2000, J Obst Gyn; 5:460-4
Practices Related to Prevention of Neonatal GBS EOD

Objective of surveys: to measure “GBS” practices
- Evaluation by comparison to CDC 1996 guidelines
- As baseline before national expert consensus guidelines

Design
- Setting
  - French Community (Fr) and Flemish Community (Fl)
- Participants
  - All obstetric departments supervisors (Fr), all obstetricians (Fl and Fr) and all microbiologists (Fr)
- Mail survey, November 1998-March 1999
Practices related to Prevention of Neonatal GBS EOD in Belgium

Questions related to
- Demographic data
- Knowledge of neonatal GBS disease
- Attitudes and practices related to screening and intrapartum prophylaxis
  - Swabs, timing, proportion of women screened, RF, IAP (who, timing, regimen), laboratory processing

Main outcome
- Proportion of hospital policy and individual practice according CDC 1996 guidelines
Obstetricians’ Compliance with CDC guidelines - Approaches

- Screening-based: 90% (44% French C., 56% Flemish C.)
- Preterm: 58% (36% French C., 22% Flemish C.)
- ROM>18h: 91% (36% French C., 55% Flemish C.)
- Fever: 94% (57% French C., 37% Flemish C.)
Obstetricians' Compliance with CDC guidelines - Screening

![Bar charts showing compliance with CDC guidelines for screening at 35-37 weeks and other times for French and Flemish C.](chart.jpg)
Compliance with CDC guidelines

- Intrapartum antibioprophylaxis:
  - Penicillin as first choice ~ 20% 
  - Dosage and schedule: frequently inadequate
  - In Northern Belgium: 15% oral route

- Prenatal screening:
  - Rarely use of selective broth

- Geographical differences

- OB with < 10 years practice: the bests

- Hospital policy (Fr.C), total agreement: 30%

- Lack of partners' coordination
Perinatal Group B Streptococcal Diseases Towards a Belgian Consensus

Invited attendance:
Obstetricians
Neonatologists
Medical microbiologists
Infectious disease specialists

Foreign invited speakers:
S. Schrag, CDC, USA
D. Davies, Calgary, Canada
B. Brodeur, Laval, Canada
M. de la Rosa, Granada, Spain

Supported by professional associations

November 17, 2001
“Towards a Belgian consensus” - Program

- Worldwide and Belgian GBS burden
- Guidelines for prevention
  - Comparative cost-effectiveness of different approaches
  - Successes and adverse effects
- Management of neonates with risk factors for GBS disease
- Microbiology, logistic and special problems
- Vaccine perspective
- Belgian survey
- Interactive session
“Towards a Belgian consensus”
Interactive session

- Voting and discussion panel
- Demographic data
- Data about their current policy
- To reach a consensus
  - Cut-off $\geq 80\%$ of agreement
Support for universal prenatal GBS screening-based approach: 93%

Support for Penicillin G as the 1st choice: 92%

Integration of selective postnatal antibioprophylaxis for neonates at high risk: 79%

Ready for an intrapartum rapid screening-based approach when available: 47%
“Towards a Belgian consensus” Follow-up

◆ Belgian Ministry of Health
  ◆ A GBS working group appointed
    ◆ Drafting of recommendations for the prevention of perinatal GBS disease
    ◆ Expected deadline: end 2002

◆ European workshop
  ◆ GBS neonatal disease prevention, Granada, November 2002
Belgian Challenge =
To prevent annually > 200 cases of neonatal GBS EOD

Co-organizers of “Consensus” meeting
Gerda Verschraegen, Univ. Gent
Ludo Mahieu, Univ. Antwerpen
Geert Claeys, Univ. Gent

Collaborators, Univ. Liege
Jean-Michel Foidart
Patrick De Mol
Myriam Schmitz
Isabelle Heinrichs

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