
Towards a European consensus for prevention of GBS neonatal diseases: old and new tools.

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Group B streptococcus (GBS) remains worldwide a leading life-threatening pathogen in neonates causing severe invasive bacterial infections. Since the end of the 1990s, various strategies for prevention of the early onset neonatal disease have been implemented and have evolved. When a universal antenatal GBS screening-based strategy is used to identify women who are given an intrapartum antimicrobial prophylaxis, a substantial reduction of incidence up to 80% has been reported in the USA as in other countries including European countries. However recommendations are still a matter of debate due to challenges and controversies on how best to identify candidates for prophylaxis and to drawbacks of intrapartum administration of antibiotics. In Europe, some countries recommend either antenatal GBS screening or risk-based strategies, or any combination, and others do not have national or any other kind of guidelines for prevention of GBS perinatal disease. Furthermore, accurate population-based data of incidence of GBS neonatal disease are not available in some countries and hamper good effectiveness evaluation of prevention strategies.

To facilitate a consensus towards European guidelines for the management of pregnant women in labor and during pregnancy for the prevention of GBS perinatal disease, a conference was organized in 2013 with a group of experts in neonatology, gynecology-obstetrics and clinical microbiology coming from European representative countries. The group reviewed available data, identified areas where results were suboptimal, where revised procedures and new technologies could improve current practices for prevention of perinatal GBS disease.

The key decision issued after the conference was to recommend intrapartum antimicrobial prophylaxis based on a universal intrapartum GBS screening strategy using a rapid real time testing. However further validation of this kind of tests used « at the bedside » as a point of care test performed by midwives is mandatory. Given challenges, limitations and potential complications of maternal intrapartum prophylaxis, an alternative approach is still needed. Maternal immunization against GBS is an attractive alternative for the prevention of not only EOD and LOD but also

stillbirths and maternal diseases. Development of a group B streptococcal vaccine is the most promising approach for the prevention of severe GBS neonatal disease through transplacental delivery of antibodies directly from immunized mothers. It may likely become the most effective and sustainable long-term preventive strategy.

References

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