**Characterization of Group B Streptococci (GBS) colonizing pregnant women in Belgium, 2018: antimicrobial susceptibility profile and distributions of capsular-types, pili-types and sequence-types.**

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**Background:** To update the knowledge of key epidemiological features of group B streptococcus (GBS) colonizing pregnant women’s vagina and/or rectum is important in the process of development of a vaccine to prevent GBS neonatal disease. As in 2013, the Belgian National Reference Center *Streptococcus agalactiae* (NRC) renewed in 2018 an epidemiological surveillance study.

**Materials/methods:** GBS strains isolated frompregnant women’s vagino-rectal swabs were sent to the NRC between October 2017 and March 2018 by laboratories of the Belgian sentinel network and of Luxembourg. Five isolates were expected per laboratory. For each strain, the capsular-polysaccharide (CPS) type and the pili-type were determined by multiplex-PCR. The antimicrobial susceptibility testing was performed according to EUCAST criteria by disk-diffusion and broth-microdilution. Multiple-Locus Sequence-Typing (MLST) was performed on serotype III strains and the gene hvgA was detected by PCR.

**Results:** A total of 228 strains of GBS have been sent from 46 laboratories. Serotype III, Ia and V were the 3 predominant serotypes, representing 25%, 23.7% and 23.7% of the cases, respectively, followed by serotype II in 14.47% of the cases. All GBS strains expressed at least one of the three pili proteins, with the couple PI1, PI2a being predominant (51.75%). All strains remained susceptible to penicillin. The resistance rates to erythromycin and clindamycin were 27.63% and 24.56%, respectively. Among these macrolides/lincosamides resistant GBS, the constitutive resistance phenotype was predominant (56.06%) and ErmB and ErmTr were the most frequent detected genes, in 37.88% and 27.27% of cases, respectively. The most prevalent sequence-type among serotype III GBS was ST17 in 40.35% of cases.

**Conclusions:** Among GBS isolated from colonized pregnant women in Belgium in 2018, we observed, compared to our previous 2013 data, an increase of serotypes Ia and V, being now practically equal to serotype III. On the other hand, pili distribution and MLST profiles among type III strains were quite similar. All the strains remained totally susceptible to penicillin and the resistance rate to macrolides and lincosamides was stable compared to 2013.