

Background

Universal culture- based group B streptococcus (GBS) screening was offered to eligible women since 2012.

Study design

Objective: to compare the incidences of early and late onset neonatal sepsis, including group B streptococcus (GBS) and Escherichia Coli (E.Coli) before and after implementation of universal screening.

Design: Retrospective cohort study

Who were involved?

460552 women attending routine antenatal service from 2009 to 2020.

Setting: Eight public hospitals with obstetric services under the Hospital Authority and 31 Maternal and Child Health Centres (MCHC) under Department of Health in Hong Kong

Methods

Total maternity, births, GBS screening tests, GBS isolated in maternal genital tract, neonatal sepsis with positive blood or cerebrospinal fluid were retrieved from clinical and laboratory database of the Hospital Authority using clinical data analysis and reporting system (CDARS) and clinical system of MCHCs.

What we found

318740 women had universal culture-based screening, of which 63767 women (20.0%) were screened positive

The incidences of both early and late onset neonatal sepsis reduced significantly from 2012, including those caused by GBS.

There was no change in the incidence of early onset E.coli sepsis, while the incidence of late onset E.coli sepsis reduced.



Conclusions

Universal culture-based GBS screening in Hong Kong has been successful in prevention of early and late onset neonatal sepsis, including those caused by GBS.

E.coli has become more common than GBS in early neonatal sepsis, although the incidence remained similar.

