

Pulse Oximetry in Healthy Newborns after Midwifery Supervised Uncomplicated Home Births; Use of International Accepted Percentiles

Smit M., Ganzeboom A., Dawson J., Pas A.T. *Arch Dis Child* 2012;97:A492-A493.

Background

Percentiles of oxygen saturation as a function of time from birth in uncompromised infants born at term are now defined. However, in these percentiles infants born after assisted deliveries (ventouse, forceps), by cesarean, after augmentation of labour, or epidural analgesia were also included.

Aim

To evaluate if international accepted percentiles of neonatal oxygen saturation and heart rate values are applicable in infants born after non-intervention vaginal deliveries.

Methods

During ten consecutive months, 27 midwives in the Leiden region used a Masimo pulse oximeter and perform measurements directly after birth infants born after non-intervention vaginal deliveries. Data was stored and analyzed using the skewness-median-coefficient of variation (LMS) method.

Results

During the study period oximetry was recorded in 101 births. Percentiles of oxygen saturation and heart rate are shown in figure 1 and 2. The percentiles are comparable to the international accepted values, except for the first 3 minutes for oxygen saturation and the first minute for heart rate.

Conclusions

The accepted percentiles for heart rate and oxygen saturation are applicable to infants born after a non-intervention vaginal birth, but caution should be taken in the first three minutes as oxygen saturation is higher.

