REFERENCES FOR INTERLEUKIN-6 AND INTERLEUKIN-8 IN CORD BLOOD OF HEALTHY TERM NEONATES AND THEIR ASSOCIATION WITH STRESS-RELATED PERINATAL FACTORS

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**Background and aims:** Clinical signs of early-onset neonatal sepsis (EONS) are unspecific and the diagnostic procedure for the detection of EONS (measuring the concentration of C-reactive protein (CRP) in neonatal blood and the culture of blood) has severe restrictions and is therefore not ideal in the acute setting of EONS. As EONS is associated with serious morbidity and even mortality, prompt diagnosis and treatment is crucial. There is much interest in new markers that are able to rapidly detect EONS, such as interleukin-6 (IL-6) and -8 (IL-8). The goal of this study was to determine IL-6 and IL-8 values in cord blood of healthy term neonates, because reference values for automated assays are incompletely known.

**Methods:** Women were recruited from April 2012 to August 2012. 114 healthy term neonates were included in the study. Immediately after birth, venous cord blood (with a maximum of 7 ml) was collected.

**Results:** A mean value for IL-8 of 8.1 ± 3.0 pg/ml was found in cord blood of healthy term neonates, which apply to both vaginal delivery and caesarean section. Regarding IL-6, two values apply. For vaginal delivery, a median value of 3.3 pg/ml (range, < 2 to 9.53 pg/ml) was found, while for caesarean section, a median value of < 2 pg/ml (range, < 2 to 12.8 pg/ml) applies.

**Conclusions:** We propose a reference value of < 15 pg/ml for IL-8. For IL-6 we propose reference values of < 10 and < 13 pg/ml for vaginal delivery and caesarean section, respectively.