Use of Oximeter in Clinical Assessment of Infants at Birth in Low Risk Deliveries after Home Birth in the Netherlands.

Background
Objective assessment of infant’s condition at birth by oximeter is now recommended in resuscitation guidelines. However, midwives supervising home birth in primary care still use color and count heart rate for evaluation.

Aim
To evaluate the additional value of an oximeter when assessing term infants after birth in a home birth setting.

Methods
During ten months 27 midwives supervising (home) births used a Masimo oximeter directly after birth for ten consecutive minutes. Data were obtained concerning outcomes, interventions, usefulness, applicability and decision-making.

Results
During the study period the oximeter was used in 153 uncomplicated births in primary care. Only one infant received supplemental oxygen and one infant received bag and mask, which was the only hospital referral after birth. The majority of midwives (88%) found the oximeter easy to use, but in their clinical judgment was not influenced by the use of the oximeter (in 97 % of births). In 5 cases (3%), the midwife felt uncertain about the infant’s condition and the oximeter gave reassurance in all cases and it was decided not to refer. Forty percent of midwives indicated to use the monitor again if they had one available and in case of suboptimal neonatal condition, all midwives would use it.

Conclusions
It is feasible to use an oximeter during low-risk deliveries at home or in hospital, but was not considered an important contribution for evaluation in majority of the cases. However, midwives would prefer the availability of this device in case of sub-optimal neonatal condition.