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Inter- and intra-observer agreement of intrapartum ST analysis of the fetal electrocardiogram in women monitored with STAN.

Westerhuis ME, van Horen E, Kwee A, van der Tweel I, Visser GH, Moons KG.

Department of Obstetrics and Gynaecology, University Medical Centre Utrecht, Location Wilhelmina Children's Hospital, Utrecht, The Netherlands.
m.e.m.h.westerhuis@umcutrecht.nl

OBJECTIVE: The objective of this study was to quantify inter- and intra-observer agreement on classification of the intrapartum cardiotocogram (CTG) and decision to intervene following STAN guidelines. **DESIGN:** A prospective, observational study.

SETTING: Obstetrics Department of a tertiary referral hospital.

POPULATION: STAN recordings of 73 women after 36 weeks of gestation with a high-risk pregnancy, induced or oxytocin-augmented labour, meconium-stained amniotic fluid or epidural analgesia.

METHODS: Six observers classified 73 STAN recordings and decided if and when they would suggest an intervention. Proportions of specific agreement (Ps) and kappa values (Kappa) were calculated.

MAIN OUTCOME MEASURES: Agreement upon classification of the intrapartum CTG and decision to perform an intervention.

RESULTS: Agreement for classification of a normal and a (pre)terminal CTG was good (Ps range 0.50-0.84), but poor for the intermediary and abnormal CTG (Ps range 0.34-0.56). Agreement on the decision to intervene was higher, especially on the decision to perform 'no intervention' (Ps range 0.76-0.94). Overall inter-observer agreement on the decision to intervene was considered moderate in five of six observer combinations according to the kappa (Kappa range 0.42-0.73). Intra-observer agreement for CTG classification and decision to intervene was moderate (Kappa range 0.52-0.67 and 0.61-0.75).

CONCLUSIONS: Inter-observer agreement on classification of the intrapartum CTG is poor, but addition of information regarding fetal electrocardiogram, especially in case of intermediary or abnormal CTG traces, results in a more standardised decision to intervene.