

How deviations from STAN guidelines contribute to operative delivery for suspected fetal distress.

Massoud M, Bloc F, Gaucherand P, Doret M.

Hospices Civils de Lyon, Hopital Femme-Mère-Enfant, Department of Gynecology and Obstetrics, Bron, France; Université Lyon1, Lyon, France.

OBJECTIVE: To evaluate how deviations from STAN guidelines contribute to operative delivery for suspected fetal distress in a high-risk population.

STUDY DESIGN: This retrospective cohort study was conducted in a tertiary referral center with about 3000 deliveries a year. During the study period, STAN usage rate was 15.2%. All consecutive patients monitored with STAN who had an operative delivery for suspected fetal distress were included in the index group. Patients who delivered spontaneously or had an operative delivery for any reason other than suspected fetal distress were included as controls. Case review was performed by three referent obstetricians for STAN technology blinded to neonatal outcomes. Main outcome was agreement between decision made and decision recommended by STAN clinical guidelines. Secondary outcomes were reasons explaining guideline deviation and ST event to birth interval in cases with a significant ST event.

RESULTS: Eighty-three patients were included in each group. Decision made was consistent with STAN clinical guidelines in 124 patients (74.7%): 50 patients (60.2%) in the index group and 74 patients (89.2%) in the control group ($p < 0.05$). Among these patients, no fetal metabolic acidosis was reported. Decision made was not consistent with STAN labor management guidelines in 42 patients (24.3%): 33 patients (39.8%) in the index group and 9 (10.8%) in the control group ($p < 0.05$). Including ST event to birth interval, interventions were outwith STAN clinical guidelines in 51.4% of patients with suspected fetal distress. CTG misclassification was involved in over 75% of cases.

CONCLUSION: STAN guideline deviations contribute to an increased operative delivery rate in patients with suspected fetal distress and normal neonatal outcomes. Guideline deviations are more frequent in patients with suspected fetal distress than in controls. CTG misclassification was the leading cause of guideline deviation. STAN guideline deviations may contribute to alter STAN specificity.