

274 Postpartum day of discharge associated with readmission in preeclampsia with severe features

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OBJECTIVE: To determine if the number of days in hospital postpartum after the diagnosis of preeclampsia with severe features is associated with postpartum readmission.**STUDY DESIGN:** This was a nested case control study of all patients with severe preeclampsia at an academic medical center from 2013 to 2017. The primary outcome was readmission within six weeks of discharge. The primary exposure was day of postpartum discharge in patients with preeclampsia with severe features. Controls were randomly selected from the patients who had been diagnosed with preeclampsia with severe features without readmission in a 2:1 ratio. ANOVA and logistic regression were utilized for comparisons.**RESULTS:** Of the 18,645 deliveries over this time period, 950 were complicated by preeclampsia with severe features. Of these deliveries, 39 were readmitted. The median gestational age on admission was 37 weeks and one day. Readmitted patients were more likely to be discharged earlier than those who were not readmitted (2 vs. 3 days, $p=0.039$). This association was attenuated when mode of delivery was controlled for (aOR=3.98, $p=0.046$).**CONCLUSION:** Discharge three days after delivery in individuals diagnosed with preeclampsia with severe features is associated with fewer readmissions. Postpartum day of discharge was also an independent predictor of readmission when controlling for mode of delivery.**275 Efficacy of continuous monitoring of maternal temperature during labor using wireless axillary sensors**Natalie Meirowitz^{1,2}, Robert Koppel¹, Debra Potak¹, Stephanie Augustine¹, Nahae Kim¹, Barry Weinberger¹¹Cohen Children's Medical Center, Northwell Health, New Hyde Park, NY, ²Zucker School of Medicine at Hofstra/Northwell, Hempstead, NY**OBJECTIVE:** The methods historically used to quantify the risk of neonatal early-onset sepsis (EOS) have very low specificity, leading to overtreatment. Newer multivariate predictive models have higher specificity, but their sensitivities are not known. In any model, the best predictor of EOS is maternal fever, but standard obstetrical practice is to measure oral temperature (Tpo) only intermittently. Therefore, it is possible that risk may be overestimated (detection of spurious or procedure-related spikes) or underestimated (missed spikes). Continuous measurement of maternal temperature (Tco) during labor may enable better EOS risk assessment based on patterns and duration of fever. Our objectives were to determine the feasibility of measuring Tco using Bluetooth-enabled wireless sensors, quantify the correlation between Tpo and Tco, and determine the efficacy of Tco for identifying fever during labor.**STUDY DESIGN:** Women (≥ 18 years old, $n=90$) were recruited in labor at ≥ 35 weeks gestation with ≤ 6 cm cervical dilation. A LifeTemp sensor (Isansys Lifecare) was placed in the axilla for the duration of labor, with a masked tablet in proximity for data storage. Clinical management was based on routine clinical measurements.**RESULTS:** No women withdrew or reported discomfort from the sensors. When concurrent temperature pairs (Tpo/Tco) with Tco \leq 35.5°C were excluded, Tco correlated with Tpo ($r=0.56$), with a mean difference of 0.3°C (mean Tpo 37.0, Tco 36.7, $n=178$ pairs). Concordance of Tco with fever $\geq 38.0^\circ\text{C}$ by Tpo was low (40% PPV, 98.4% NPV, kappa 0.35). Specifically, 6 isolated fevers by Tpo (38.1-38.6°C) were not seen by Tco. Conversely, Tco detected 6 fevers (38-39.5°C, for 19-76 mins) that were not known by Tpo. No infants had culture-confirmed EOS.**CONCLUSION:** Wireless continuous temperature measurements are feasible during labor. While issues of probe adherence were noted in 26% of patients, this is not likely to be an obstacle when temperatures are unmasked during real-time clinical monitoring. Some single measurements of fever by Tpo are not associated with elevations of Tco, suggesting that "fever" by Tpo can be spurious or procedure-related. Importantly, Tco detects epochs of fever that are missed by Tpo. We speculate that continuous temperature monitoring during labor provides a more accurate risk assessment for EOS.**276 Safety in should dystocia: implementation of an injury prevention program improves completeness of documentation**

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OBJECTIVE: Shoulder dystocia (SD) is a rare, unpredictable, and unpreventable obstetric emergency which can result in physical injury or death. Documentation is a key part of the safety strategies recommended by most major organizations. Standardized documentation helps to ensure critical information is available for risk assessment, informing providers about the events, and counseling about future risks. However, research assessing the effect of strategies such as checklist use is limited. Our objective was to assess completeness of documentation following implementation of a SD training program.**STUDY DESIGN:** Retrospective case series of SD cases from 9/2015-7/2018 at an urban university hospital. A departmental training model including pre-learning, skills sessions for providers and nurses, team-based simulation, and team debriefing was implemented. A review of SD documentation guidelines was part of the training. SD cases were evaluated in 4 time periods: 1) pre-intervention 9/1/2015-12/31/2015, 2) limited focus on documentation 1/1/2016-8/31/2017, 3) intensive focus on documentation 9/1/2017-4/30/2018, and 4) post-intervention 5/1/2018-7/31/2018. Primary outcome was the completeness of documentation of all guideline items. Secondary outcomes included completeness of documentation of core items, maternal and neonatal characteristics, use of secondary maneuvers, and duration of SD. Statistical analyses was performed using Chi-square, ANOVA, and the Kruskal-Wallis test.**RESULTS:** 95% of OB providers & nurses completed training. The SD rate was: 3.1% in period 1, 2.8% in period 2, 4.6% in period 3, and 3.5% in period 4 ($p=0.043$). Characteristics of the SD were similar during all time periods except signs of brachial plexus injury at delivery which were more common in period 3 ($p=0.043$; Table). There was a significant improvement in completeness of documentation of all items from 81% in periods 1 and 2 to 88% in period 3 ($p<.001$) but no additional improvement in period 4 (Figure). Limiting the analysis to documentation of core items, documentation improved period over period from 89% in period 1 to 95% in period 4 ($p<.001$)