RISK
CASE STUDY

Case: Induction and Augmentation and the "Crash" C-Section

Abstract:

A young low risk maternal patient underwent a 'crash' c-section due to abnormal fetal heart rate (FHR) patterns. Failure to discontinue IV oxytocin and poor interprofessional communication practices were identified as contributing factors.

Key Words:

Obstetrics

Acute Care

Interprofessional Communication

Monitoring

High Alert Medication

IV Oxytocin

Induction and Augmentation

Fetal/Patient Deterioration

Case summary:

A young maternal patient presented to the local hospital for the birth of her second child. Considered a low-risk patient, the patient had an unremarkable medical history, and a normal pregnancy absent of any noted complications.

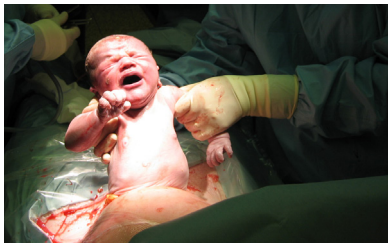
One hour following the patient's admission to the obstetrics unit, the patient's FHR pattern fluctuated between atypical and abnormal; the nurse also noted decelerations. The nurse proceeded to increase the patient's intravenous fluids (IV), change the patient's position and continued to increase the rate of IV oxytocin.

One hour later, the patient began to push. The nurse continued to increase the patient's IV oxytocin throughout. After forty minutes of pushing, the nurse called the attending family physician to assess. Following the assessment, the family physician instructed the patient to rest – oxygen and fluids were administered, with several position changes initiated.

Half an hour after the assessment, the nurse consulted the program leader to assess the patient, as result of ongoing concerns related to the FHR pattern. Shortly thereafter, the family physician returned to the patient's room and ordered the discontinuation of the oxytocin infusion. Ten minutes later, the nurse initiated fetal scalp stimulation and paged the family physician. Upon reviewing the fetal heart strip, the decision was made to proceed with a 'crash' c-section.

The infant was born with Apgars of 1 and 4 at 1 and 5 minutes. Diagnosed with severe hypoxic ischemic encephalopathy, the infant was transferred to a paediatric care facility.

Medical legal findings:



Expert review of the case was critical of the care provided to the maternal and fetal patients, noting that IV oxytocin should have been discontinued by nursing following the identification of abnormal FHR patterns. A review of the patient's chart revealed that the obstetrician who had initially admitted the patient to the obstetrics unit had ordered that the oxytocin infusion be discontinued once pushing commenced. Experts were critical of the involved nurse and family physician's failure to comply with the obstetrician's order. Experts also questioned whether the nurses relayed the degree of urgency necessary when communicating the fetal status to the patient's obstetrical primary care provider.

RISK
CASE STUDY

Case: Induction and Augmentation and the "Crash" C-Section

Reflections:

Reflecting on your practices as well as your facility's monitoring and induction/augmentation policies, procedures and processes:

1. IV oxytocin is a high-alert medication as identified by the Institute for Safe Medical Practices (ISMP). Further, the mismanagement of induction/augmentation medication is the fourth highest ranked risk (by claims costs) for hospitals as identified by HIROC.
    - Describe what is considered a 'high-alert' medication? Names some examples of high-alert medications.
    - Describe some of the system issues and practitioner errors involving IV oxytocin? What are some effective strategies to reduce such issues/errors? Have such strategies been widely adopted and integrated into day to day practice across your unit/program?
2. Reflecting on your local policy/protocol, do nurses and midwives require a physician order/consult to turn down or turn off IV oxytocin? Discuss whether practitioners are professionally accountable for accepting and instituting an order, including increasing the rate of IV oxytocin infusion, in the presence of contraindications (e.g. abnormal fetal heart rate patterns).
3. Why is a bedside assessment by the ordering/consultant physician encouraged before accepting or instituting an order for IV oxytocin? Is the routine practice of verbal orders for IV oxytocin acceptable? Is your program's culture permissive of routine verbal orders for IV oxytocin?
4. Discuss the specific steps/action staff and learners should take if they disagree with the clinical decision/recommendation of the most responsible practitioner or consultant (for example, recommendation to increase the rate of infusion in the presence of ongoing atypical and abnormal fetal heart rate patterns)? Discuss the concepts of 'escalation', 'chain of command' and 'culture' as they related to patient safety.
5. Describe your program oxytocin-dosing protocol (who, what, why, when and how). Discuss the benefits of adopting a standardized oxytocin protocol.

Date last reviewed: October 2017