Implementation of Evidence Based Consensus Practice Guiding the Use of Oxytocin

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Background
- Oxytocin is associated with adverse events and malpractice
- Hyper-stimulation has been implicated
- Clinicians do not agree on the definition of hyper-stimulation
- Hyper-stimulation is now being seen as a national issue
- An external perinatal safety review identified wide variance in provider practice regarding the use of oxytocin for induction of labor

Aim
- Achieve 90% adherence to a literature-based, consensus-driven standardized approach to the use of oxytocin for labor induction
- Within 4 months of implementation of a written standard order set
- Maintaining the gain at 2 years post development of the protocol
- With continuation of 90% adherence following the implementation of CPOE and an electronic standardized order set

Measurement
- Outcome
  - The adherence to a literature-based standard approach to oxytocin use
- Process
  - Use of a standard order-set which facilitated adherence to the protocol
  - Communication (paper vs. computer)
  - Education efforts
- Balancing Measurement
  - Maximum oxytocin dose
  - Time from when oxytocin was initiated to time of delivery (hrs)
  - C/S: Section rate; Apgar scores

Assumptions/Benefits/Risks/Barriers
Assumptions:
- Healthcare providers will want to collaborate and adhere to the literature
- Many health care providers find protocols restrictive
- This project involved providers across competing provider groups with varied alliances to other institutions and practices

Benefits:
- Introduction of a standardized practice can be monitored and modified
- In producing a standardized paper form or electronic order system, an error in these documents could cause a systematic error in prescribing

Methods
- A modified Delphi Technique was used to gain consensus amongst 35 physicians from divergent city-wide practices
- The technique used to accomplish this consensus building was to hold a semiannual evening event during which physicians gathered to review the literature and, through iterative discussions, build consensus
- Structured communication technique
  - Originally developed outside of medicine
  - Systematic/interactive method bringing divergent expert opinions closer
  - Traditionally, experts answer questionnaires in two or more rounds
- After each round presentation of:
  - An anonymous summary of the experts’ opinions
  - Reasons, they provide for their judgments
  - Existing literature about the issue

Next round, experts answer the same questions with:
- The new knowledge of the opinions of their colleagues
- Any objective information that exists

Generally during this process the range of the answers decreases and the group will converge toward a consensus

For the purposes of this project:
- Twenty questions were asked about elements of oxytocin use
- A 5-point Likert scale was used in response to survey questions
- Venue: a semiformal evening social occasion
- Participants were allowed to answer the questions at their leisure

The group was seated for dinner, a presentation displaying:
- The questions and pertinent literature
- Distribution of participants answers

The process was repeated in a structured communication technique
- Using this process answers were distributed in real time
- Illustrating the divergences within the group
- Comparing how opinions correlated with the clinical evidence

Closing of the Event

Guidelines have value:
- Helping the nursing staff carry out the obstetric provider’s intentions
- Providing protection in case of a lawsuit
- When nurses and OB’s/FP’s/CNM’s work together to write a protocol/guideline, it has a higher likelihood of being successfully followed
- It is acceptable and appropriate for an OB/FP/CNM to write an order which is then implemented by the bedside nurses/CNM protocol, provided that the explanation for this change is documented in the medical record

Results (Measurements)

Measures were compared:
- Prior to implementation of standardized approach (June 2006)
- Within four months of implementation (February 2007)
- For continued quality assurance measured two years later (May 2008)
- With transition from standardized order set to computer-based, system wide order set, assurance of a uniform practice was lost (August 2011)
- The CPOE was modified to support the evidence-based, consensus-driven practice developed through this project (July 2013)

Discussion

- The goal of this QI project was to create a consensus-driven, literature based protocol to guide the use of oxytocin
- This was accomplished using a modified Delphi Technique to help build camaraderie, a sense of shared purpose and a respect for the literature
- This goal was accomplished, but barriers presented over time
- The utility of ongoing QI measurements after “completion” of a project are demonstrated
- Dropping rates of compliance acted as a trigger to re-evaluate the process
- By revising the process several times, the last measurement showed 100% compliance with improvement in all balancing measures
- Statistical analysis has not been applied to this work