Obstetric Emergencies: Risk Reduction In the OR
How To Take A Team of Experts

Risk Reduction In the OR
Turn Them Into An Expert Team

Categories of Root Causes

• Communication issues topped the list of identified root causes 72%.
• 55% of the organizations cited organizational culture as a barrier to effective communication and teamwork including:

Preventing maternal and neonatal death and injury during delivery:

Communication issues topped the list of identified root causes 72% of the organizations cited organizational culture as a barrier to effective communication and teamwork including:
Cultural Roadblocks to Making the OR Safer

• Hierarchy and intimidation
• Failure to function as a team
• Failure to follow the chain-of-communication.

Root Causes Identified by Hospitals Experiencing These Events:

• Necessary personnel not being available when needed.
• Pre-operative assessment being incomplete.
• Deficiencies in credentialing and privileging.
• Inadequate supervision of house staff.
• Inconsistent post-operative monitoring procedures.
• Failure to question inappropriate orders.

“The single biggest problem with communication is the illusion that it has taken place.”

George Bernard Shaw
Patient Profile

- 37 yo G₂ P₁ @ 38 weeks
- Twins
- SVE 1.5/1.5/soft/mid
- Started on Pitocin.

02:40 - 16:38

After failing to progress for most of the day she quickly becomes complete.

16:38 The patient is moved to the operating room for delivery...1650: With 2 pushes Twin A delivers. vaginally, A 2650 gram female Apgars 9/9

1700: Ultrasound-Twin B is a footling breech. SVE is done. Pt. is 4 cm -5 station
- Version
- AROM, with clear fluid
- FSE, IUPC
- Pitocin is restarted @ 22 mu/mln.
17:15: A new team assumes care

17:20 IUPC placed.

17:30 Supervising MD arrives in the OR and confers with the primary OB.

17:35: A decision is made to turn off the Pitocin due to the late decelerations and dropping baseline. SVE: 4-5 cm

17:35

17:50 Supervising MD consents the patient for a C/S in the event one is needed.

17:50

What is the biggest risk factor for this fetus?

1. The repetitive decelerations?
2. Arrival of a new team?
18:10: The anesthesiologist in the OR is asked to come to assist with an instrumental delivery in an adjoining labor room. He leaves the OR @ 18:15.

18:28: 18 minutes later the anesthesiologist returns. Informed decision for C/S. Room is noisy and the FHR monitor’s volume has been turned down. He faintly hears the FHR drop then listens as it recovers over the next 3 minutes.

18:35: The surgical tech tells the OB to scrub. On the way out the door the OB tells the anesthesiologist he needs a surgical block. The anesthesiologist refills his syringes and prepares to top off the epidural. He notices that the atmosphere in the room is becoming increasingly tense and people’s voices are rising. But he doesn’t investigate further.

18:40: 5 minutes later The obstetrician returns from scrubbing and asks if he can cut. Surprised the anesthesiologist says; “I just re-dosed the epidural you can’t cut for 6 more minutes.”
Obstetrician: “Were you aware that the patient needed a surgical block?”
Anesthesiologist: “Yes.”

Obstetrician: “Are you aware that the patient has been having a fetal bradycardia since I left the room to scrub. Stunned the anesthesiologist says “No.”

18:41 Anesthesia asks the OB: “Do you want to switch to a General.” OB: “Not yet”, let’s wait for the epidural.

18:43 Terbutaline .25mg

18:46 Decision GA
18:51 Incision
18:53 Birth

Significant Acidosis?
1. A. Yes
2. B. No
3. C. Maybe
Birth Profile

• 18:54 Boy
• Apgars 3/7/8.
• Cord Gases
  • CUA: 6.88/103/19/-12.8
  • CUV: 6.93/88/21/-13

Despite the acidosis, the large respiratory component indicated by the pco2 of 103 was rapidly eliminated with some PPV and the baby was vigorous at 5 minutes. Probable both gases are arterial.

Lessons Learned

• Have a Plan. Communicate it to everyone. Don’t be afraid to state the obvious. “We’re having a bradycardia”
• Use closed looped communication
• Be aware of the impact of non-verbal cues: “Not only what you say it’s what you do.”
• Ask questions when something violates your sense of “typicality”.

Risky Business?

50% of all adverse events occur:
• Emergency Departments
• Intensive Care Unit
• Labor and Delivery
• Operating Room
Patients At Risk: JCAHO

- Patients- with specific problems- older, lack prenatal care, complicated social situations, with a difficult intrapartum course, account for a large % of neonatal morbidity and mortality
- Many of these patients have a complicated FHR tracing during labor.
- When these patients get in trouble many of them end up in the OR for surgical or assisted deliveries

Optimal Maternal-Fetal Rescue Times?

- Difficult to predict
- Situation/Diagnosis Dependent
- Generally 12-17 minute window rescue
- More time spent front end-less time OR for rescue

Maternal and Fetal Risk Factors + Intrapartum Complications Are the “Variable”

The Efficiency of the OB Team, “Event to Delivery Time” Is the “Constant.”

Failure To:

- Respond in a time frame in keeping with the urgency of the situation
- Ensure adequate maternal and fetal surveillance
- Recognize significant changes in maternal and/or fetal condition
- To communicate the urgency
- Failure To Rescue
- Happens In OR

James Reason, Human Error
What Do We Need To Do

Reduce Risk In the OR

- Develop consistent, reliable processes for the things we can anticipate.
- Focus on improving our ability to respond to and manage the unexpected.

Patient Profile

- 20 yo G1 P0 @ 39 2/7 weeks
- Admitted following SROM
- Meconium
- Develops chorioamnionitis
- Pitocin augmentation.
- IUPC Amniinfusion
- Epidural

08:30

08:35

08:43

08:50

08:44: Pitocin off. Midwife informed of recurred decels. SVE midwife: Complete
08:55: 11 minutes later, the Chief resident in room. Order: Restart Pitocin allow to “labor down”.

09:10: 15 minutes later the Midwife is in room, orders Pitocin off.

Do we have a Plan?

- 08:44 Pit off
- 08:55 Pit on
- 09:10 pit off

When people aren’t working together they work around each other-patient safety compromised.

09:35: Supervising MD leaves 09:39

09:35: Supervising MD in room. Plan push with every other UC. Will be back in an hour.
09:55: Midwife and junior resident in room.

In OR 10:12

Attending called 10:17

Chief resident uncertain about forceps vs. vacuum delivery, Asks “did anyone call the attending.”

17 minutes after minimal-absent variability was observed.
Birth 10:37

Birth
- female forcep assisted
- Apgar scores 2/4/5
  - Cord Gases:
    - CUA: 6.82/97/15/-16
    - CUV: 6.89/86/14/-14

Lessons Learned
“No Assumptions”

How To Make Sure Everyone Is On the Same Page
- Here’s what I think we face.
- Here’s what I think we should do.
- Here’s why.
- Here’s what we should keep our eye on.
- Now talk to me. Do you have any questions?

Karl Weick 1983
Can We Make Obstetric Care Safer?

“In virtually every case where patients are harmed, somebody knows there’s a problem but they can’t get the rest of the team focused on fixing it.”
Michael Leonard, MD

Roadmap to Reducing Risk In the OR

- Multidisciplinary work groups
- Leadership Engagement – clinical and senior
- Commitment to Effective collaborative teamwork and communication
- Be able to show people what’s in it for them - Make their day simpler, safer, easier and more predictable

Application Outside of the Hospital Environment

SBAR

S: Hi Honey, this is your wife Jill. The trash in the kitchen is piling up and stinks.
B: It's been piling up for several days now and is unable to remove itself without assistance.
A: I think the trash needs to be taken out and I believe it's becoming a SAFETY ISSUE.
R: I suggest you take it out now.

Close the Loop

Darling I understand the trash has become a safety issue. I am going to take it out immediately. I'll let you know when I've accomplished my assignment.
It’s Not Enough
To Have A Team of
Experts

Have To Have An Expert Team?

For information about the Video Series Situational Awareness In FHR Monitoring

Send you name, email address, hospital or clinic affiliation to:
Michael Fox at:
perinatal@consultant.com