Research has confirmed that more births occur during periods of a full moon, likely related to shifts in barometric pressure.

1. True
2. False
Cognitive Dissonance

Cognitive dissonance is the emotional discomfort human beings feel when we are forced to hold two competing or contradictory thoughts in our minds at the same time.

Our brain will automatically “help” us by soothing us with internal dialogue designed to decrease the discomfort…including internal dialogue that justifies bad behavior, mistakes, and poor choices.
“Metacognition”

- refers to thinking about thinking—that is, reflecting on the thought processes that led to a particular diagnosis or decision to consider whether biases or cognitive short cuts may have had a detrimental effect. (AHRQ Patient Safety glossary)
- in short, it is cognitive awareness, and improves our ability to “think outside the box” and avoid snap judgments that may be incorrect, even dangerous
Figure 2.

Swiss Cheese Model

Goal Conflicts and Double Binds

Incomplete Procedures  Mixed Messages  Inadequate Training
Regulatory Narrowness  Production Pressures  Attention Distractions
Responsibility Shifting

Deferred Maintenance

Latent Failures

Triggers

The World

Institution
Organization
Profession
Team
Individual
Technical

DEFENSES

Nurse MD

Accident

Modified from Reason, 1991 © 1991, James Reason
What are some of the “holes”?

- There are other many cognitive biases that affect clinicians, we’ve discussed cognitive dissonance already, let’s talk about a few more.
- Effective & safe practice requires knowledge of these potential impediments to clinical judgment, and a mutual awareness of their potential effects on decision-making.
Bandwagon Effect

- The tendency to do or believe things because many other people do or believe the same.
- Related to the concepts of groupthink, herd behavior & manias.
- Many common birth practices are related to this bias.
Selective attention

- The ability to focus so completely on a task that you completely block out any input unrelated to the task.
- Can be both helpful & harmful.
- Dangers with selective attention can be decreased or eliminated with proper teamwork approaches that promote situational awareness.
Other Impediments

- “Status Quo Bias” – the tendency for people to like things to stay relatively the same.
- “Outcome Bias” – the tendency to judge a decision by its eventual outcome instead of based on the quality of the decision at the time it is made.
And the list goes on..

- “Projection Bias” – the tendency to unconsciously assume that others share the same or similar views, knowledge, or beliefs.
- “Bias Blind Spot” – the tendency not to compensate for one’s own cognitive biases.
Do Clinicians Address Error?

- JCAHO found communication failure to be the most frequent cause of perinatal mortality & morbidity (Sentinel Event #30, July, 2004)
- How comfortable are clinicians when it comes to addressing concerns about teamwork & competency?
- Let’s take a look…
From “Silence Kills”

- 53% of nurses were concerned about a peer’s competence, yet only 12% had discussed it.
- 34% of nurses were concerned about a doctor’s competence, less than 1% had spoken about it.
- These held true even when direct harm had been witnessed.
From “Silence Kills”

- 81% of doctors were concerned about a nurse's competence, yet only 8% had discussed it.
- 68% of doctors were concerned about a peer’s competence, less than 1% had spoken about it.
- These held true even when direct harm had been witnessed.
And what about mistakes and disruptive behavior in the clinical setting where you work?

- Answer the next few questions quickly, and more importantly, answer them honestly
- Let’s see how this group compares with the rest of the United States
- Again, use the clickers and answer the following:
I have made mistakes in clinical practice

1. Yes
2. No
I have witnessed intimidating behavior during clinical practice

1. Yes
2. No
I have remained passive during an episode of intimidating behavior

1. Yes
2. No
The Really Bad News: JCAHO Sentinel Event Alert # 40

- Published July 9, 2008 & titled “Behaviors that undermine a culture of safety”
- Found that 40% of clinicians have “kept quiet or remained passive” during questionable events rather than confront a “known intimidator”
- Found that intimidating behavior was not limited by gender, and that it occurred both between & within disciplines
Perhaps at this point you are saying to yourself: “Interesting, but what does any of this have to do with fetal monitoring?”
Good question…

- And the short answer goes like this: according to the CDC, at least 85% of all women in the US have EFM applied during some or all of their labors, making it the single most common obstetric procedure in the US.
- Yet EFM education and practice varies widely among and within professional groups.
- Until we recognize our biases and work together to STANDARDIZE our approaches and deal with disruptive behaviors, patient safety will continue to be compromised.
Any questions so far?
Let’s test our EFM knowledge -

- These are just a few simple questions, none are trick questions.
- Some of these would be addressed in an EFM course, and many arise in depositions.
- Go with your first answer, don’t over-think, and if you are not sure, guess.
Absent variability is defined as…

1. 0-2 BPM
2. Less than 0-3 BPM
3. Less than 5 BPM
4. Undetectable
5. Zero
Parasympathetic stimulation …

1. Causes marked variability
2. Causes a decrease in FHR
3. Causes an increase in FHR
4. Has no effect on FHR
5. Results in marked variability
Question: Moderate variability is associated most specifically with the absence of

A. Acute fetal hypoxemia
B. Respiratory acidemia
C. Fetal metabolic acidemia
D. Fetal hypoxia
E. Fetal anemia
This arterial cord gas is obtained:

- pH 7.06
- pO₂ 10
- pCO₂ 70
- HCO₃ 15
- BE -16
This gas represents a …

1. Respiratory acidemia
2. Mixed acidemia
3. Metabolic acidemia
Late decelerations are an ominous sign

1. True
2. False
Question: FHR accelerations are highly predictive of the absence of

A. Fetal anemia
B. Acute fetal hypoxia
C. Fetal respiratory acidemia
D. Fetal metabolic acidemia
E. Fetal hypoxemia
The NICHD defines fetal tachycardia as:

1. FHR baseline $\geq 160$
2. FHR baseline $> 170$
3. FHR baseline $> 160$
4. FHR baseline above 160 in a term pregnancy
FHR variability requires an internal FSE to be accurately evaluated

1. True
2. False
Oxygen supplementation should always be used during intrauterine resuscitation attempts.

1. True
2. False
What is the *physiologic* cause of a late deceleration?

A. Metabolic acidemia  
B. Metabolic acidosis  
C. Transient hypoxemia  
D. Asphyxia  
E. Uteroplacental insufficiency
Scalp stimulation is used to...

1. Assess acid-base status
2. Resolve FHR decelerations
3. Both 1 & 2
Minimal FHR variability is defined as:

1. \( \leq 5 \text{ bpm} \)
2. 0-5 bpm
3. 2-6 bpm
4. 3-5 bpm
ACOG & AAP define significant metabolic acidemia as an arterial cord gas with:

1. pH <7, BD of 12 or more
2. pH <7.10, BD of 16 or more
3. pH <7, BE of -10 or more
4. pH <7.25, BE of -12 or more
Moderate FHR variability is defined as a range of:

1. 6-15 bpm
2. 5-25 bpm
3. >10 bpm
4. 6-25 bpm
Late decelerations always reflect fetal conditions:

1. Acidemia
2. Hypoxia
3. Hypoxemia
4. Acidosis
5. Metabolic acidemia
During hypoxemia, the fetus may revert to

1. Anaerobic metabolism
2. Hyper-oxygenation
3. Aerobic metabolism
4. Catalytic conversion
5. Catholicism
How did you do?

- Did the answers come easily?
- Did you correctly answer every one?***
- Do you think these are things anyone using EFM should know?

***If so, you are the first in 3 years and I think you deserve the day off!
Intrapartum EFM Management
Three Simple Questions

- What do I call it?
- What does it mean?
- What should I do about it?
Standardizing EFM for clinicians

- What do I call it?
  Standardized terminology: NICHD

- What does it mean?
  Standardized interpretation using the O2 pathway and differentials

- What should we do about it?
  Standardized management using a simple series of questions and evaluating the risk of developing fetal metabolic acidemia versus safely obtaining a vaginal delivery
Standardized Terminology

Progress in the standardization of intrapartum FHR definitions is reflected in the consensus support of the 1997 NICHD FHR definitions by:

ACOG – May & December 2005
AWHONN – May 2005
ACNM – December 2006

And in 2008 by the proceedings of the NICHD workshop, results published concomitantly by ACOG & AWHONN journals