Patient Safety in OB/GYN: Current Trends
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Objectives
• At the conclusion of this talk
  • Comprehend the underlying rationale for the increasing emphasis on patient safety
  • Understand organizational initiatives that can be adopted to create a culture of patient safety
  • Be familiar with evidence regarding particular steps that can be adopted in obstetric and gynecologic care to improve patient safety

To Err is Human
• Published by IOM in 1999
  • 44,000 - 98,000 deaths/yr due to medical errors
  • Costs $17 – 29 billion annually
  • 8th leading cause of death
Why do errors occur?

- System problems not reckless behavior
  - Medication errors
  - Communication problems
- Lack of teamwork
- Gaps in discharge problems
- OR process

Crossing the Quality Chasm

- IOM Follow-up 2001 recommendations
  - Need for change in culture from “blaming” individuals to identifying system problems that contribute to errors
  - Standardize terminology and communication practices
  - Utilize technology for constraints and force functions
  - Develop protocols and checklists to standardize processes
  - Reduce reliance on memory

Concerns in Obstetrics and Gynecology

- Increasing maternal mortality
  - 28/100,000 livebirths
  - 60th in the world
  - Severe maternal morbidities far more common
Bad stuff happens sometimes...but...

- Distinguish medical errors from underlying medical condition
- Medical error—Institute for Healthcare Improvement
  - Unintended injury contributed to by medical care (or lack of appropriate care) that requires additional monitoring or treatment
    - Preventable
    - Non-preventable

Creating a Culture of Safety

- Focus on improving outcomes and avoiding adverse events
- Traditional Approach
  - Blame provider committing act
- Modern Approach—Systems Thinking
  - Create systems that anticipate errors
    - Prevent or catch them before causing harm

Wachter, Understanding Patient Safety

Creating a culture of safety

- Encourage a culture of safety
  - Potential for systemic errors
  - Encourage disclosure and discussion
  - Leadership buy-in

ACOG COMMITTEE OPINION

Patient Safety in Obstetrics and Gynecology
Key elements of safety culture

- Teamwork
- Clear communication
- Openness about errors
  - Opportunities to learn and improve system
  - Not just errors, but near misses also

“Just” culture

- Competent people make mistakes
  - Console
  - Second victim—guilt, doubt
- Unhealthy norms may develop
  - Shortcuts
  - Counsel and coach
- Zero tolerance for reckless behavior

Creating a culture of safety

- Safe medication practices
  - Prescribing
  - Administration
- Reduce surgical errors
  - Right patient, right site, right procedure
    - Universal protocol
    - Time out
    - Surgical site marking
Creating a culture of safety

- Improve communication
  - Healthcare providers
  - SBAR
  - Handoffs
- Patients
  - Instructions
  - Disclosure
  - Partnership

Rarely one failure leads to error or harm

- Failures at multiple levels of protection
  - Production pressures
  - Steep authority gradients
  - Culture of low expectations
- Reason’s Swiss Cheese model
  - Shrink the holes and add layers

Error terminology

- Slips
  - Automatic, unconscious tasks
  - Occur during multitasking
  - Lapses in performance of automated task when trying to handle new input
- Mistakes
  - Conscious behavior
  - Incorrect choice
  - Insufficient knowledge, experience, information
  - Wrong treatment due to diagnostic error
Which is a greater threat? Slips or Mistakes?

- Slips
  - Much of what we do in healthcare is automatic
    - Checking for allergies before prescribing
    - Check an ID before a procedure or medication administration
    - Line insertion/flushing
    - Intraoperative steps

Prevention of slips

- Create redundancy and cross checks
  - Checklists
  - Surgical site marking
  - Universal precautions
  - Readback
- Standardization
  - Reinforces correct procedure

Using technology to enhance safety

- Forcing functions
  - Engineering solutions to decrease probability of human error
- Examples
  - Smart pumps
  - PCA
  - Connectors for epidurals vs. Ivs
  - CPOE
High Reliability Organizations (HRO)

- Complex functions
- Little room for error
- Devastating effects if error occurs
  - Commercial aviation
  - Nuclear plans
  - Nuclear submarines
- Does Healthcare fit here?

Becoming a HRO in healthcare

- Preoccupation with failure
  - High risks/high stakes recognition
- Commitment to resilience
  - Detect and respond to threats
- Sensitive to operations
  - Attentive to issues at the front line and respond in a timely fashion
- Deference to expertise
  - Diminish authority gradient
- Reluctance to simplify
  - Deep dive for system problems

Team Training—what is it in healthcare?

- Crew Resource Management in Healthcare
  - Improving communication
  - Cohesive environment
  - Verbalization of concerns
  - Address errors in non-judgmental fashion
  - Tools to enhance
    - Situational awareness
    - Debriefing
    - Time outs
- Team STEPPS
Teamwork in Healthcare

“teamwork can make average people great; lack of teamwork can result in errors even by the most talented…”

- Leader of the team not captain of the ship
- Mutual respect
- Team vs group—interdependency

Quality and Safety in Women’s Healthcare, ACOG

Does it improve outcomes?

- VA Hospitals—Surgical Team Training, Neily et al, 2010
  - 50% reduction in risk-adjusted mortality
- MedTeams—Emergency Departments, Morey et al, 2002
  - Reduction in errors 30% to 4%
  - Reduction in adverse outcome score 6% to 4.5%

Protocols vs. Checklists—what is the purpose?

- Augment memory
- Limit chance of human error
  - Especially with fatigue, stress, distraction
- Performance of critical tasks same every time
  - Baseline expectation of actions
- Protocols—precise plans of action for specific scenario
- Checklists—aids to ensure completeness
- NOT TO PRECLUDE JUDGEMENT or NEEDED INDIVIDUALIZATION
Types of variation and contribution to outcomes

- Necessary clinical variation
  - Patient or setting related

- Unexplained clinical variation
  - Process of care variation
  - Increased rates of error

Checklists: Are they useful?

- Not just going down a list
- Reflect a change in culture
  - Parallel to aviation with expectation of discipline
  - Follow prudent procedure
  - Working with others
  - Relinquish autonomy
- Insertion into error prone process as strategy to improve outcomes

Surgical Checklists: Reduce morbidity and mortality

- Multiphase process
  - Sign in
  - Time out
  - Sign out
- Morbidity 11% → 7%
- Mortality 1.5% → 0.8%

Haynes et al, NEJM, 2009
Protocols and Checklists

- Standardization in obstetrics—Kirkpatrick & Burkman, 2010
  - Improves care
  - Reduces cost
  - Reduces medical liability
  - Reduces variation
- Adoption of one appropriate specific management plan results superior to random equivalent approaches—Clark et al, 2013

Protocols and Checklists

- Guide to management that will apply to most patients
  - Not one size fits all
  - Adapt to local setting
- Does not always require level 1 evidence to implement
  - If not followed, document rationale

ACOG Patient Safety Checklists

- ACOG website
  - C/S
  - TOLAC
  - Magnesium
  - Shoulder dystocia
  - IOL
Evidence for Protocols and Checklists

- PP hemorrhage Protocol
  - More rapid use
  - Pharmacologic agents
  - Procedural interventions
  - Decrease in ICU admissions
- Oxytocin and hypertension checklists
  - Decrease maternal morbidity

Emerson et al, 2015; Shields et al, 2015; Clark et al, 2007; Clark et al, 2011

Triggers

- Prospective
  - Identifies event that warrants further action
  - Facilitates timely intervention
  - Early warning systems—Mhyre et al, 2014
- Retrospective
  - Indicates a potential adverse event
  - QI monitoring

Anora et al, 2015

Utility of EWS—National partnership for maternal safety

- Reduced mortality and serious morbidity
- Hemorrhage
- Hypertensive crisis
- Sepsis
- VTE
- Heart failure
- Single parameter vs. score

Mhyre et al, 2014
Successful implementation requirements

- Protocols for
  - Notification of clinician
  - Standardized evaluation plan
  - Re-evaluation of patients
  - Recognition that some false-alarm do occur

Bundles—Institute for Healthcare Improvement

- Sets of evidence-based independent interventions
  - Implementation as a whole
  - Synergism improves outcomes
  - Central line insertion paradigm
- IHI Oxytocin and Labor Induction Bundle
  - GA assessment
  - FHR interpretation
  - Pelvic assessment
  - Tachysystole recognition and treatment

How-to Guide: Prevent Obstetrical Adverse Events

- Implementation
- Training
- Measurement
- Feedback
- Recognition
- Synergism
- Central line insertion paradigm
- IHI Oxytocin and Labor Induction Bundle
  - GA assessment
  - FHR interpretation
  - Pelvic assessment
  - Tachysystole recognition and treatment
Simulation in Obstetrics and Gyencology

- Acute emergencies
- Procedures
- Associated with:
  - Error reduction
  - Enhanced communication
  - Improvement in outcomes

Merlen et al, 2010; Deering and Rowland, 2013; Phipps et al, 2012

Simulation in Obstetrics and Gyencology

- Not a stand alone
- Part of comprehensive patient-safety program
- Does not have to all be high-fidelity
  - Communication techniques
  - Reinforces practice expectations
Outpatient safety matters too

- Greater challenge—less structure, oversight
- Checklists for outpatient care
  - Screening
  - Immunization
- Tracking and reminder systems
  - Loop closure
- Office surgery and procedures
  - Anesthesia safety
  - Competency

Quality and Safety in Women’s Healthcare, ACOG; Erickson et al, 2010

Outpatient Safety—Patient-centered medicine

- Partnering with patients
  - Shared decision making with patient participation and collaboration
  - Respect patient perspective and choices
  - Share information accurately to enable
- Patient non-adherence contributes to >50% of adverse outcomes

Gandhi et al, 2003; Quality and Safety in Women’s Healthcare, ACOG

Quality Improvement and Patient Safety

- If you don’t measure it, you can’t improve it
- Impossible to focus on everything
  - Prioritize based on trends or severity of problems
- Dedicate the resources
  - Measurement
  - Education
  - Implementation
Summary

• While “safety” seems to be a buzzword in modern medicine, the problem is real and something we have to strive for.
• Establishing a culture of safety and moving towards functioning like a high reliability organization will lead to improvements in patient safety.
• There are numerous resources and organizations focused on safety in women’s healthcare and it is just a matter of finding the right way to bring these tools into your setting.