Driving Obstetrical Excellence Through a Council Structure

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Learning Objectives

- Describe how implementation of a multidisciplinary OB Quality Council may enable health systems to improve patient safety and quality

- Discuss how a quality dashboard may be used to identify system wide opportunities for improvement and standardization of care

- Describe how simulation and education may be used to facilitate the rollout of patient safety initiatives across a health system
Hartford HealthCare

- 5 general hospitals
- 2 psychiatric hospitals
- 80 ambulatory sites
- 17 behavioral health locations
- Outpatient rehabilitation locations
- Home Care
- 7 skilled nursing and assisted living facilities
- 2800 Physicians
- >500 Employed Physicians
- Clinically Integrated Network
- Revenue: $2.5 billion
- Inpatient discharges: 90,000
- Emergency Room visits: 382,000

HHC Obstetrics Landscape

Mothers-to-be know best:

- In 2015, we delivered 7,485 babies.
The Challenge: We are a Young Healthcare System Experiencing Rapid Growth

The question:
How do you move a large organization to eliminate unnecessary variation, achieve clinical consensus and reduce cost?

Our Promise: The Five Ones
We Began the Council Structure to Realize this Goal
Councils 1.0: We Began this Work Four Years Ago

Began in clinical areas with good relations and hospital based
Expanded council to include representation across the continuum of care
Enhanced the inter-council relationship and support

First effort to drive clinical performance within our system
Second focus was standardization to reduce cost
System-wide programs with defined clinical scope and the associated management structure to coordinate care, improve quality and act as a vehicle for growth

Council Structure

• The OB departments of Hartford Healthcare (HHC):
  – Five hospital system
  – Notable variability among cultures, policies, protocols, processes, standardization of care and best practices.

• Goal:
  – Develop system standards and best practice guidelines to to mitigate risk, improve patient outcomes and decrease cost
Establishing a Council

- Council leaders demonstrate ability to develop and support consensus
- Identification of team members and accountabilities
- Letter of invite sets the stage
- Charter drives the focus

Clinical Councils 2.0: Driving Change from the System Level to Hospitals

- All councils have an Executive Sponsor
- Requires attention to "clinical governance"
- System policies/procedures/guidelines
- Hospital Medical Executive Committees adopt work of Councils – work becomes a “consent agenda” approval
- Increased efficiency and decreased “time to market” for new policies and procedures

The work of the councils is no longer optional
Obstetrics Network Quality Council Instituted to Drive Quality Improvement

- Formed in January 2014
- Multidisciplinary team (includes MFM and Neonatology Services)
- Dashboard helped to identify practice gaps, development of standard quality metrics
- Driving improvements through identification of standard best practices
- Sharing of successful projects and then deploying system-wide
- Identification of lessons learned from events and development of strategies to mitigate risks

Setting the Council’s Strategic Agenda

- Prioritized our focus
  - Accomplished through brainstorming sessions

- Consensus priorities:
  - Clinical Standardization
  - EPIC Order Sets & Readiness
  - Risk Management & Simulation Education
  - Supply Reduction

- You can do anything, but not everything.
  - David Allen
To Drive Improvement, a Baseline Assessment is Required

- We don’t know what we don’t know.
- What key metrics will drive patient outcomes?
- What are best practices nationally?
- How do we stand as a system and as individual facilities?

Identifying Gaps
Developing Consensus
Implementing Standardized Approaches
Tracking Outcomes
Identifying our Gaps – Where did we start?

NATIONAL ASSESSMENT
Rising rates of maternal morbidity and mortality
- One of the few developed nations with increasing maternal mortality rate
- Estimated maternal mortality rate per 100k live births for 48 states and Wash DC increased by 27% 2000-2014
- 23.8/100k (excluding TX and CA)

SELF ASSESSMENT
- 5 Oxytocin protocols
- 5 VTE assessment standards
- 2/5 PPH response plans
- 2/5 Severe htn guidelines
- 1/5 Maternal early warning standard
- 1/5 Standardized shoulder dystocia documentation
- Individualized labor and Cat II management
- Individualized order sets
- 3 Fetal monitoring platforms


- Oxytocin Policy and Checklists
- Severe Hypertension Guidelines
- Hemorrhage Response Guidelines
- VTE Assessment and Prophylaxis Guidelines
- System Wide Epic Order sets
- Single fetal monitoring system
Developing Consensus: An opportunity...

CareConnect
A system-wide initiative of Hartford HealthCare, transforming the way we provide patient care.

1 Registration Health Record Standard of Excellence Bill Relationship

Developing Consensus – Maternal Safety Bundles

Obstetric Hemorrhage

- Prevention
  -省内
  -Reduce risk factors for obstetric hemorrhage through education and screening.
  -Implement standardized protocols for the management of obstetric hemorrhage.

- Early Diagnosis
  -Prompt recognition and treatment of obstetric hemorrhage within 1 hour of onset.
  -Implement early intervention strategies to prevent complications.

- Rapid Response
  -Established a multidisciplinary team to provide prompt care.
  -Implement rapid response systems for obstetric hemorrhage cases.

- Patient Safety Bundle
  -Developed a set of evidence-based practices to reduce obstetric hemorrhage.
  -Implement bundled care strategies to improve outcomes.

Maternal Nephrology Thrombosis Prevention

- Prevention
  -Reduce the risk of thrombosis in pregnant women through early identification and proactive intervention.
  -Implement standardized protocols for the prevention of thrombosis.

- Early Diagnosis
  -Prompt recognition and treatment of thrombosis within 24 hours of onset.
  -Implement early intervention strategies to prevent complications.

- Rapid Response
  -Established a multidisciplinary team to provide prompt care.
  -Implement rapid response systems for thrombosis cases.

- Patient Safety Bundle
  -Developed a set of evidence-based practices to reduce thrombosis.
  -Implement bundled care strategies to improve outcomes.
Developing Consensus

HHC Culture

H&W Leadership Behaviors
A Commitment to Continuous Improvement

1. Be in the moment
2. Be authentic and humanistic
3. Volunteer discretionary effort constantly
4. Model high performance – desired behaviors that drive desired results
5. Respect and leverage separate realities
6. Be curious vs. judgmental
7. Look in the mirror first – be accountable
8. Have courageous conversations
9. Provide timely, clear and specific performance expectations and feedback
10. Teach, coach and mentor – spend at least half of your time developing others

Remember, “It’s about progress, not perfection!”

Center for Education, Simulation and Innovation
Implementing standardized care – HHC Safety and Quality Culture

- Infrastructure
  - CESI (Center for Education, Simulation and Innovation)

- Education
  - Wide spectrum of task, cognitive and communication programs focused on safety and quality initiatives

- Partnership
  - Medical Risk Management and CESI

Medical Risk Management and Simulation Education

- Collaborated with a MRM company to standardize risk-reduction curriculum

- Highly-engaging risk education programs which include live sessions, videos, and content specialty-specific based on actual malpractice cases.

- All education is managed through a cloud-based technology platform with measured results and post-program evaluation
Leveraging Simulation Education to help promote change- Two Examples

- HHC Shoulder Dystocia – Combined Risk Management/Simulation Education Program
- HHC Hemorrhage Response Guidelines and system wide combined risk management/simulation education program

Shoulder Dystocia and Post-Partum Hemorrhage Simulations: Driving Improvement Through Standard Approach

October 2013, focusing on themes of shoulder dystocia and documentation.

Implemented across system in late 2014, due to success of initial program.

November 2015, focused on themes of Postpartum Hemorrhage and communication

January 2016 Simulation Training began

May – July 2016 Web Modules and RiskBytes

September 2016 Post-Program Assessment and Compliance evaluation
Identifying Gaps

- Hundreds of providers at various levels (MD’s, RN’s, CNM’s)
  - Most attending physicians had never participated in simulation

- Curriculum
  - Varied from hospital to hospital

- Different levels and formats of continuing education
  - Educational silos – RN vs MD training
  - No multidisciplinary team training

- No standard approach to documentation
  - RN documentation separate from MD documentation
Program Elements and Timeline

- **Oct 2013**: Pre/Post-Test (12 questions/5 min).
- **Nov-Dec 2013**: Mock Cross Examination/Shoulder Dysxia (1 hour).
- **May-Jun 2014**: Web Module Documentation & Shoulder Dysxia (45 min).
- **Jul-Aug 2014**: 2 E-Learning Risk Alerts (5 min each).

**Adult Learning Theory:**
- Interactive
- Multiple Modalities and Exposures
- Focus on outcomes considered important to providers

Implementing a standard approach...

- Simulation program was impetus for development of clinical tool
- Immediate solution to incorporate into everyday practice
- Collaborative and consistent documentation RN/Provider
Developing Consensus

- Program developed by a multidisciplinary team of providers, nurses, simulation and risk management experts
- Developed and piloted at Hartford Hospital
- Results presented to OB Council and decision for system wide rollout of program
  - Physician and RN educator teams identified at each site
  - Train the trainer sessions
  - Due to time constraints not all hospitals were able to participate in the entire program

Simulation

- Participants took part in a one-hour simulation session
  - Introduction
  - Simulated event
  - Documented event
  - Debriefed
RESULTS

Evaluations

Simulation Evaluations (209 participants)
- Was the session worth your time? 100%
- Should simulation training be held annually? 100%
- Was the session relevant to your practice? 100%
- Will you change your practice as a result of what you learned? 80%

Presentation Evaluations (58 participants)
- Was the session worth your time? 50%
- Should the presentation be held annually? 90%
- Was the session relevant to your practice? 50%
- Will you change your practice as a result of what you learned? 90%
Shoulder Dystocia Documentation Audit - 2016

Table 2: Pre and Post Template Implementation Average Scores by Question (10)

<table>
<thead>
<tr>
<th>Template Implementation Timeline = Number of charts reviewed = Analytic Type =</th>
<th>Pre 48</th>
<th>Post 38</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of delivery?</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>Time of delivery of head?</td>
<td>96%</td>
<td>100%</td>
</tr>
<tr>
<td>Time of delivery of body?</td>
<td>96%</td>
<td>100%</td>
</tr>
<tr>
<td>Method of prenatal delivery?</td>
<td>86%</td>
<td>96%</td>
</tr>
<tr>
<td>Follow-up of labor?</td>
<td>83%</td>
<td>92%</td>
</tr>
<tr>
<td>How SSI identified?</td>
<td>78%</td>
<td>80%</td>
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<tr>
<td>Time of overhead call for help?</td>
<td>85%</td>
<td>92%</td>
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<tr>
<td>Time patient was instructed to keep head of baby down?</td>
<td>75%</td>
<td>85%</td>
</tr>
<tr>
<td>Time maneuver #1 was performed?</td>
<td>56%</td>
<td>92%</td>
</tr>
<tr>
<td>Time maneuver #2 was performed?</td>
<td>41%</td>
<td>65%</td>
</tr>
<tr>
<td>Time maneuvers #3 was performed?</td>
<td>37%</td>
<td>70%</td>
</tr>
<tr>
<td>Time maneuvers #4 was performed?</td>
<td>56%</td>
<td>79%</td>
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<td>Time maneuvers #5 was performed?</td>
<td>30%</td>
<td>71%</td>
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<td>Time maneuvers #6 was performed?</td>
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<td>Time maneuvers #7 was performed?</td>
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<td>80%</td>
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<td>Time maneuvers #8 was performed?</td>
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<td>80%</td>
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<tr>
<td>Providers present?</td>
<td>53%</td>
<td>83%</td>
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<tr>
<td>APGR at 1 minute?</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>APGR at 5 minutes?</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Cord gas results?</td>
<td>88%</td>
<td>88%</td>
</tr>
<tr>
<td>Cord pH results?</td>
<td>75%</td>
<td>75%</td>
</tr>
<tr>
<td>Apgar survival?</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Diagnosis of patient performed?</td>
<td>75%</td>
<td>75%</td>
</tr>
<tr>
<td>Documentation of patient's family?</td>
<td>75%</td>
<td>75%</td>
</tr>
<tr>
<td>Date of discharge/transfer?</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>Time of discharge/transfer?</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>Signature of primary provider?</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>Date of nursing note?</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>Time of nursing note?</td>
<td>75%</td>
<td>75%</td>
</tr>
<tr>
<td>All data presented in chart (or only one document)</td>
<td>83%</td>
<td>83%</td>
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Shoulder Dystocia Documentation Audit

Average % Score, By Hospital

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Pre-Program Audit</th>
<th>Post-Program Audit</th>
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<tr>
<td></td>
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Pre-Program Audit

Post-Program Audit

Confidential and Proprietary Information
Hartford Hospital Audit Results

<table>
<thead>
<tr>
<th>Documentation Element</th>
<th>Baseline</th>
<th>Post Implementation</th>
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</thead>
<tbody>
<tr>
<td>Timing of delivery of head</td>
<td>63%</td>
<td>93%</td>
</tr>
<tr>
<td>How dystocia identified</td>
<td>78%</td>
<td>100%</td>
</tr>
<tr>
<td>Timing of call for help</td>
<td>50%</td>
<td>81%</td>
</tr>
<tr>
<td>Communication with patient</td>
<td>40%</td>
<td>75%</td>
</tr>
<tr>
<td>Identification of anterior shoulder</td>
<td>53%</td>
<td>75%</td>
</tr>
</tbody>
</table>

Lessons learned

- Improvements in shoulder dystocia documentation observed in all system hospitals except one
- Consistent use of the documentation template resulted in improved documentation
- Documentation template inconsistently utilized at some system hospitals
Opportunities

- Audit results will be shared with providers in department grand rounds and business meeting
  - Discuss vulnerabilities
  - Barriers

- Shoulder dystocia template built into our EHR
  - Mandatory fields to be completed by physicians and RN’s

- Repeat audit will be performed after Epic Go-Live is completed system wide

Post-Partum Hemorrhage: Improving maternal outcomes with multidisciplinary collaboration

- Identification of opportunities

- HHC Guidelines based on national best practice recommendations

- Leveraged education/simulation to support implementation
Identifying Gaps

- Rising rates of maternal morbidity and mortality
  - PPH is one of the most preventable causes of maternal mortality
    - Avoid Delay and Denial

- No system standards for recognition or management of hemorrhage
  - Vulnerability = Failure to rescue

- Variability in resources at each hospital
  - Tertiary care center vs community hospitals

Implementing a standardized approach – PPH Education

- Curriculum designed by a multidisciplinary team of nurse and physician members of the OB Council
  - Representation from each hospital in system

- Risk management education:
  - Failure to Rescue
  - Proactive communication with patients about risk of PPH across the care continuum
  - Documentation of informed consent or informed refusal discussions and decisions

- PPH curriculum/goals for all participants:
  - Demonstrate effective team response to PPH
  - Recognize stages of hemorrhage and mobilize response teams
  - Utilize checklists to improve team response
  - Facilitate directed team debriefing post event
PPH Education Timeline

- **October 2015**: Pre-Test Survey
- **December 2015**: Risk Rounds
- **February 2016**: RiskByte TBD Simulation Training
- **April 2016**: Spotlight
- **July 2016**: RiskByte
- **August 2016**: Post-Test Survey

**Obtaining Buy In**

- Support from administration – communication about program came from Chief of Department / Chief Medical Officer of system

- Participation Incentives:
  - Employed Providers: part of annual performance reviews
  - Non employed Providers: 6% premium credit if entire program was completed
  - Nurses: paid for their time

**Adult Learning Theory:**
- Interactive
- Multiple Modalities and Exposures
- Focus on outcomes considered important to providers
RESULTS

PPH/Communication Compliance

<table>
<thead>
<tr>
<th></th>
<th>Providers</th>
<th>Nurses</th>
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<tbody>
<tr>
<td>Pre-Test</td>
<td>73%</td>
<td></td>
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<tr>
<td>Risk Rounds</td>
<td>88%</td>
<td>87%</td>
</tr>
<tr>
<td>Simulation</td>
<td>67%</td>
<td></td>
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<tr>
<td>Web Module (Spotlight)</td>
<td>57%</td>
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</tr>
<tr>
<td>RiskByte 1</td>
<td>94%</td>
<td>98%</td>
</tr>
<tr>
<td>RiskByte 2</td>
<td>73%</td>
<td>91%</td>
</tr>
<tr>
<td>Post-Test</td>
<td>39%</td>
<td>73%</td>
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### Readiness

<table>
<thead>
<tr>
<th>Item</th>
<th>Baseline Sept 2015</th>
<th>Current</th>
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</thead>
<tbody>
<tr>
<td>Hemorrhage Cart</td>
<td>4/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Hemorrhage Med Kit</td>
<td>4/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Stage Based Response Team</td>
<td>2/5</td>
<td>4/5</td>
</tr>
<tr>
<td>MTP or emergency release protocol</td>
<td>2/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Unit Education on response plan</td>
<td>1/5</td>
<td>4/5</td>
</tr>
<tr>
<td>Unit drills/Debrief</td>
<td>3/5</td>
<td>3/5</td>
</tr>
</tbody>
</table>

### Recognition

<table>
<thead>
<tr>
<th>Item</th>
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</thead>
<tbody>
<tr>
<td>Hemorrhage Risk Assessment for all patients</td>
<td>2/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Cumulative Blood loss for PPH patients</td>
<td>1/5</td>
<td>4/5</td>
</tr>
<tr>
<td>Active Management of 3rd stage policy</td>
<td>3/5</td>
<td>5/5</td>
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</table>

### Response

<table>
<thead>
<tr>
<th>Item</th>
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<th>Current</th>
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<tbody>
<tr>
<td>Unit Standard Stage based hemorrhage response plan with checklist</td>
<td>1/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Support Programs for patient family and staff</td>
<td>0/5</td>
<td>0/5</td>
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<tr>
<td>Huddle for high risk and post event debriefs</td>
<td>2/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Multidisciplinary review of serious PPH</td>
<td>2/5</td>
<td>5/5</td>
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</table>

### Report

<table>
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<tr>
<th>Item</th>
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<th>Current</th>
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<tbody>
<tr>
<td>Monitor outcomes in QI improvement committee</td>
<td>2/5</td>
<td>5/5</td>
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</tbody>
</table>

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### Identifying Gaps, Developing Consensus, Implementing Standardized Care

**Tracking Outcomes**
The Council Development is Key to Success

- Strong leadership
- Team members from across the patient continuum
- Transparency of data
- Accountability of the council to decrease variation and drive improvement
- Celebration of success