Maternal Hypertension Initiative Teams Call
Readiness & Reporting/Systems Learning

June 27, 2016
12:30 – 2:30 pm
Overview

• HTN Initiative Overview & Education Plan
• Face-to-Face Recap
• 11 Steps for Getting Started & Implementation Checklist
• Data
  • Review data
  • Data Q&A
  • Baseline data
  • Data collection strategies
  • AIM Quarterly data collection
• Next Steps

Clinical Education – Drills Debriefs, & Simulations
  • Dr. Sherry Jones, Melissa Claudio, Samantha Schoenfelder
• NY ACOG DII Teams – Checklists
  • Komal Bajaj, MD MS-HPEd - Montefiore Medical Center
• Team Talks
  • Roma Allen, MSN, RNC-OB – NorthShore University HealthSystem Evanston
• 4th Annual Conference
• Communications Update
• Questions
GOALS
What are we trying to accomplish?

• Early recognition of hypertension and correct diagnosis during and after pregnancy

• Reduce time to treatment of severe range blood pressure, 160/110(105)

• Deliver not too early and not too late

• Provide patient education and appropriately timed follow up

• Implementation of evidence based protocols
BP ≥ 160/110 (105)

Need To Treat*

*BP persistent 15 minutes, activate treatment algorithm with IV therapy ASAP, < 30-60 minutes
ILPQC HTN Initiative
Goal & Measures

Goal: Reduce preeclampsia maternal morbidity

<table>
<thead>
<tr>
<th>IL Measure</th>
<th>Type</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe Maternal Morbidity</td>
<td>Outcome</td>
<td>20% reduction</td>
</tr>
<tr>
<td>No. of women with severe maternal morbidities (e.g. Acute renal failure, ARDS, Pulmonary Edema, Puerperal CNS Disorder such as Seizure, DIC, Ventilation, Abruption) / No. pregnant &amp; postpartum women with new onset severe range HTN</td>
<td></td>
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</tr>
<tr>
<td>Appropriate Medical Management in under 60 minutes</td>
<td>Process</td>
<td>100%</td>
</tr>
<tr>
<td>No. of women treated at different time points (30, 60, 90, &gt;90 min) after elevated BP is confirmed / No. of women with new onset severe range HTN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debriefs on all new onset severe range HTN* cases</td>
<td>Process</td>
<td>100%</td>
</tr>
<tr>
<td>Discharge education and follow-up within 10 days for all women with severe range HTN, 72 hours with all women with severe range HTN on medications</td>
<td>Process</td>
<td>100%</td>
</tr>
</tbody>
</table>

Severe range HTN: ≥160 systolic / ≥110(105) diastolic per hospital standard

*New onset severe range HTN: first episode of persistent severe range HTN (lasting >15 minutes) in a hospitalization (ER, L&D, or other inpatient setting), can be chronic HTN, gestational HTN, preeclampsia and/or postpartum diagnosis.
GETTING STARTED
HTN Face-to-Face Update

- Monday, May 23rd from 9:30 am – 3:30 pm
- 288 attendees, 303 registered, 101 hospitals – 95% attendance rate!
- Storyboard session
- Implementation cafés
11 Steps to getting started with the ILPQC Maternal HTN Initiative

1. Initiate monthly team meetings & make plans to be on ILPQC monthly team calls
2. Develop ILPQC data collection strategies (baseline/ongoing)
3. Complete the Data Use Agreement
4. Submit the AIM Baseline Survey and Implementation Checklist
5. Diagram your process flow for severe HTN management
6. Identify opportunities for improvement
7. Review Toolkit Binder for resources
8. Develop your first PDSA with your team
9. Outline 30, 60, 90 day implementation plan
10. Identify strategies for implementing debriefs
11. Ask for help and celebrate small successes
AIM: Baseline Survey & Implementation Checklist

• Captures a snapshot of your team’s starting point and provides
  • Valuable initial assessment for your team and
  • Information that ILPQC will use to provide you quality improvement support: https://www.surveymonkey.com/r/AIMbaselinesurvey

• If you haven’t already, please designate one team member to complete the baseline survey!
Baseline Implementation Checklist

- 14 item assessment of what bundle components hospital has in place, appended to AIM Survey
- Complete at:
  - Implementation Baseline (May 2016)
  - Quarterly for the duration of the initiative
- Responses highlight opportunities:
  - For change at the hospital level
  - For QI support and resources at the collaborative level
- Baseline results reveal opportunities for change across the board

Implementation checklist adapted from the tool developed by IHI for implementation of the AIM bundles in Louisiana.
Highlights from Results: “Most Wanted List”

The following bundle components are needed in 50% or more of hospitals based on approximately 74 hospitals reporting:

- **Readiness**
  - Standard protocols for ID and tx of severe HTN (50%)
  - Process for timely id, triage, and eval across hospital (65%)
  - Needs for protocol/process for timely ID much greater in triage/ER (70-80%)

- **Recognition & Prevention**
  - Facility wide standards for patient education (78%)

- **Response**
  - Facility wide standard protocols and checklist and escalation policies for management and treatment (86%)
  - Support plan for patients, family, and staff (86%)

- **Reporting & Systems Learning**
  - Monitoring of quality outcomes and process metrics (78%)
## HTN Education Plan for OB Teams Calls

<table>
<thead>
<tr>
<th>Call Date</th>
<th>Topic</th>
<th>Team Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 27</td>
<td>Readiness and Reporting - Drills, Simulation, and Debriefs</td>
<td>Sherry Jones, Melissa Claudio, Sam Schoenfelder</td>
</tr>
<tr>
<td>12:30 – 2:30 pm</td>
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<tr>
<td>July 25</td>
<td>Recognition - Accurate BP Measurement &amp; Diagnosis</td>
<td>Heather Stanley Christian, Soti Markuly, Debbie Schy, Mona LaGrand, Sam</td>
</tr>
<tr>
<td>12:30 – 1:30 pm</td>
<td></td>
<td>Schoenfelder, Robbin Uchison</td>
</tr>
<tr>
<td>August 22</td>
<td>Response - BP Medication and Treatment Algorithms</td>
<td>Jim Keller, Angelique Rettig, Felicia Fitzgerald, Deena Layton, Roma Allen</td>
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<tr>
<td>12:30 – 1:30 pm</td>
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<tr>
<td>September 26</td>
<td>Response - Timing of Delivery</td>
<td>Jim Keller, Deena Layton, Sue Fulara</td>
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<td>12:30 – 1:30 pm</td>
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<tr>
<td>October 24</td>
<td>Response - Patient Education/Engagement and Postpartum Follow-up</td>
<td>Angelique Rettig, Debbie Schy, Roma Allen</td>
</tr>
<tr>
<td>12:30 – 1:30 pm</td>
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DATA
## Data Entry Status

<table>
<thead>
<tr>
<th></th>
<th>Total Records</th>
<th># Teams with Data</th>
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<tbody>
<tr>
<td>Baseline (Oct-Dec 15)</td>
<td>240</td>
<td>22</td>
</tr>
<tr>
<td>January</td>
<td>60</td>
<td>13</td>
</tr>
<tr>
<td>February</td>
<td>121</td>
<td>21</td>
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<tr>
<td>March</td>
<td>150</td>
<td>18</td>
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<tr>
<td>April</td>
<td>111</td>
<td>17</td>
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<tr>
<td>May</td>
<td>198</td>
<td>24</td>
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<tr>
<td>June</td>
<td>33</td>
<td>8</td>
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<tr>
<td><strong>Overall</strong></td>
<td><strong>913</strong></td>
<td><strong>42</strong></td>
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Maternal HTN: Time to Treatment

ILPQC: Maternal Hypertension Initiative
Percent of Cases with New Onset Severe Hypertension Treated within 60 Minutes
All Hospitals, 2016

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</thead>
<tbody>
<tr>
<td>All Hospitals</td>
<td>54.4%</td>
<td>42.1%</td>
<td>58.1%</td>
<td>58.0%</td>
<td>62.4%</td>
<td>66.1%</td>
<td>55.2%</td>
<td>54.4%</td>
<td>54.4%</td>
<td>54.4%</td>
<td>54.4%</td>
<td>54.4%</td>
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<tr>
<td>Baseline (2015)</td>
<td>54.4%</td>
<td>54.4%</td>
<td>54.4%</td>
<td>54.4%</td>
<td>54.4%</td>
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Maternal HTN: Maternal Outcomes

ILPQC: Maternal Hypertension Initiative
Percent of Cases with New Onset Severe Hypertension with any Maternal OB Outcomes*
All Hospital, 2016

<table>
<thead>
<tr>
<th></th>
<th>Jan-16</th>
<th>Feb-16</th>
<th>Mar-16</th>
<th>Apr-16</th>
<th>May-16</th>
<th>Jun-16</th>
<th>Jul-16</th>
<th>Aug-16</th>
<th>Sep-16</th>
<th>Oct-16</th>
<th>Nov-16</th>
<th>Dec-16</th>
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</thead>
<tbody>
<tr>
<td>Baseline (2015)</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
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<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>All Hospitals</td>
<td>10.0%</td>
<td>15.0%</td>
<td>22.3%</td>
<td>14.0%</td>
<td>13.5%</td>
<td>13.1%</td>
<td>27.3%</td>
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</tbody>
</table>

*OB Hemorrhage with transfusion of ≥ 4 units, Intracranial Hemorrhage or Ischemic event, Pulmonary Edema, ICU admission, HELLP Syndrome, Oliguria, Eclampsia, DIC, Renal failure, Liver failure, Ventilation, Placental Abruption
Maternal HTN: Debriefs

ILPQC: Maternal Hypertension Initiative
Percent of Cases with New Onset Severe Hypertension with Debrief Completed
Hospital 3 & Select Comparisons, 2016 - 2017

<table>
<thead>
<tr>
<th></th>
<th>Jan-16</th>
<th>Feb-16</th>
<th>Mar-16</th>
<th>Apr-16</th>
<th>May-16</th>
<th>Jun-16</th>
<th>Jul-16</th>
<th>Aug-16</th>
<th>Sep-16</th>
<th>Oct-16</th>
<th>Nov-16</th>
<th>Dec-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Hospitals</td>
<td>3.3%</td>
<td>6.7%</td>
<td>9.9%</td>
<td>16.0%</td>
<td>22.5%</td>
<td>17.2%</td>
<td>48.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline (2015)</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
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*CMQCC found debriefs were the process measure most associated with improving hemorrhage outcomes*

Closing the loop and learning from the case
Baseline Data: All Hospitals

- Baseline data collection instructions – download from file box
- Data due date extended – July 31!
- Retrospective chart review for Oct-Dec 2015 using:
  - ICD-10 codes for Preeclampsia Diagnosis codes in L&D, ED, Triage, Antepartum, Postpartum (last tab of AIM SMM excel file - download here)
  - EMR searches/reports using keywords for pregnant/postpartum patients such as: chronic HTN, preeclampsia, eclampsia, superimposed preeclampsia, preeclampsia with severe features, systolic BP ≥ 160, diastolic BP ≥ 110(105), etc.
  - Delivery logs
  - Pharmacy records for Labetalol, Hyrdalazine, Nifedipine, and Magnesium Sulfate
Baseline Data: Level I & II

- If <5 patients are identified for Oct-Dec 2015, 2 options to expand baseline collection window:
  - Pull an additional 3 months of patients from Jan-Mar 2016. Enter these patients into REDCap with dates of Jan-Mar 2015 (use the same month and date, but enter 2015 as the year). This is to allow the REDCap reports to accurately calculate baseline data for the initiative.
  
  OR

- Pull an additional 3 months of patients from Jul-Sep 2015.
  - Use same criteria for charts from Oct-Dec 2015 EXCEPT use ICD-9 codes instead of ICD-10 codes (ICD-9 codes switched to ICD-10 codes in October 2015).
Data Q&A (1/2)

• Patients to include?
  • Pregnant/postpartum (6 weeks) with sustained (>15 mins) elevated systolic BP ≥160 and/OR diastolic BP ≥110(105)
  • Any inpatient location (L&D, triage, ED, antepartum, postpartum)
  • Include patients with chronic/gestational HTN

• How to handle maternal transports?
  • Transferred out:
    • Enter data into REDCap on any patients that meet criteria before they were transferred.
    • F/U with the receiving hospital to which the patient was transferred in order to obtain patient outcomes (diagnosis at discharge, patient education, follow-up appointments).
  • Transferred in:
    • Enter data into REDCap ONLY on patients that meet the above requirements at their facility.
    • If a patient has already been started on medications for elevated BP prior to arriving at your facility, do not complete a data form.
Data Q&A (2/2)

• Medications that count as HTN treatment?
  • Measure time to treatment from confirmatory BP for Labetalol, Hydralazine, Nifedipine
  • Do NOT measure time to treatment for Magnesium Sulfate – not an anti-hypertensive!

• What to do with repeat patients?
  • 1st hospitalization
    • Patient meets criteria: fill out data form
    • Patient does not meet criteria: do not fill out data form
  • 2nd hospitalization
    • Patient meets criteria: fill out a data form – every new hospitalization should be counted!
    • Patient does not meet criteria: do not fill out data form
# Data Collection Process

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Form</th>
<th>Content</th>
<th>Timeframe</th>
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</thead>
<tbody>
<tr>
<td>Monthly</td>
<td>Severe HTN Data Form</td>
<td>Bedside and Chart Review</td>
<td>January 2016 (Wave 1) May 2016 (Wave 1 &amp; 2)</td>
</tr>
<tr>
<td>Quarterly</td>
<td>Short Implementation checklist</td>
<td>Opportunities for improvement</td>
<td>June 2016 Sept 2016 Dec 2016 March 2017 June 2017 September 2017 December 2017</td>
</tr>
<tr>
<td></td>
<td>AIM Report 3 items Y/N</td>
<td>Education Unit Drills</td>
<td></td>
</tr>
<tr>
<td>Annual</td>
<td>AIM Report 5 items Y/N</td>
<td>EHR Family Support Debriefs</td>
<td>December 2016 December 2017</td>
</tr>
<tr>
<td></td>
<td>Discharge data with IDPH</td>
<td>SMM Rates</td>
<td></td>
</tr>
</tbody>
</table>

Launch Today!
AIM Quarterly Data

- New form has been added to all REDCap users with access to Severe HTN Data Form
  - New form labeled “ILPQC AIM Quarterly Measures”
- Only one submission per hospital required!
- Please complete by July 15th for Q2 2016 (Apr-Jun 2016)
  - Due the 15th of the month after the quarter has ended (e.g. Apr-Jun 2016 due July 15th)
- Complete once per quarter through December 2017
  - ILPQC will remind you each quarter to submit AIM Quarterly Measures!
Next Steps

• Submit AIM Baseline Survey if you have not completed one for your hospital
• Submit baseline data by July 31\textsuperscript{st}
• Submit “ILPQC AIM Quarterly Measures” in REDCap by July 15\textsuperscript{th}
• Continue/begin submitting monthly maternal hypertension data
• Next call is Monday, July 25\textsuperscript{th} from 12:30 – 1:30 pm
• Email info@ilpqc.org with any questions!
REPORTING/SYSTEMS LEARNING RESOURCES: DRILLS, SIMULATIONS, AND DEBRIEFS
Simulation and Drills

MELISSA CLAUDIO
DR. SHERRY JONES
SAMANTHA SCHOENFELDER
What is Simulation

“Simulation is a ‘technique,’ not a technology, used to replace or amplify real experiences with guided experiences that evoke or replicate substantial aspects of the real world in a fully interactive manner”.

What are Drills?

A real-time exercise that involves actual mobilization and use of personnel and material resources

Providers practice applying their skills and knowledge in the same setting they would manage a real situation

Often used to practice emergencies

**The terms simulation and drills are often used interchangeably and the tools share similarities**
Benefits of Simulation/Drills

Studies demonstrate that simulation-based obstetric team training improves team’s performance and may improve perinatal outcomes

Improve team communication

Opportunity to experience a critical event without risk to a patient

Opportunity to explore environmental threats

Promotes teamwork

Promotes clinical confidence

WHY should we use Drills and Simulation?

To familiarize every team member with a protocol/policy and management plan

Allows team members to review (and remember) unit protocols

Helps identify correctable systems issues

Allows staff to practice important team-related skills

Allows team members to practice effective crisis communication

Training using drills may allow for faster and improved response to emergent situations, thereby potentially maximizing patient outcomes

SOURCE: ATKINS K, FAHEY J. COUNCIL ON PATIENT SAFETY IN WOMEN’S HEALTH CARE. SAFETY ACTION SERIES: CONDUCTING DRILLS ON HYPERTENSION IN PREGNANCY. SEPTEMBER 17, 2015. HTTP://WWWSAFEHEALTHCAREFOREVERYWOMAN.ORG/SAFETY-ACTION-SERIES.PHP
Simulation/Drill Methodology

**IN SITU (DRILLS ARE ALWAYS IN SITU)**
- Your unit
- Your usual work areas
- Where the events usually occur

**NOT INSITU**
- Simulation lab
- Off-site institutions
Getting Started

Identify your resources
- Educators
- Committed nursing and physician staff members
- Equipment

Identify your learning objectives

Identify your goals

Ensure your scenarios will meet your objectives and goals

Create or identify a scenario for your simulations

Test your scenario

Implement

Evaluate (ex. Staff surveys, Outcomes data, pre- and post-data, etc.)
Simulation/Drill Guidance Tool

Create a simulation/drill guide for the team trainers

Your guide can include key teaching points for the simulation/drill

Keeps education uniform

Maintains the same message for all staff

Do not make changes during the simulations/drills

Adjustments can be made after the simulations/drills are completed

Communicate changes to staff
Scenarios for the Hypertension Initiative

Hypertensive emergency
Preeclampsia
Eclampsia
Stroke

**May be simple or complex**

Resources for sample scenarios are provided at the end of this presentation and in your ILPQC Team Binder.
Common Errors in Managing HTN to focus Simulation/Drill Scenarios

- Failure to initiate antihypertensive medication
- Failure to give adequate type/amount of anti-HTN medication
- Failure to initiate magnesium sulfate
- Failure to transfer woman to higher level of care
- Failure to recognize severity of disorder
- Moving to delivery without adequate maternal stabilization

SOURCE: ATKINS K, FAHEY J. COUNCIL ON PATIENT SAFETY IN WOMEN'S HEALTH CARE. SAFETY ACTION SERIES: CONDUCTING DRILLS ON HYPERTENSION IN PREGNANCY. SEPTEMBER 17, 2015. HTTP://WWW.SAFEHEALTHCAREFOREVERYWOMAN.ORG/SAFETY-ACTION-SERIES.PHP
Simulation Structure

Components of a simulation
- Planning
- Pre-brief
  - Begins prior to simulation
- Simulation
  - Chosen process
  - Identify supplies and equipment needed
- Debrief
  - Occurs shortly after simulation
- Evaluation
- Build a sustainability plan
  - Prior to getting started
Planning your Simulation/Drill

What simulator are you going to use?
- Patient actress
- Task trainer
- Hybrid
- Mannequin

How are you going to provide data and simulate equipment? (ie. VS, lab results, emergency response systems, etc.)

What participants and roles do you need?

What equipment and supplies do you need?
Planning your Scenario: Example

**State 1**
- Patient with s/s preeclampsia w/severe features

---

**State 2**
- Patient Seizes
- Patient Does Not Seize

---

**State 3**
- Seizure resolves and does not recur
- Seizure recurs
- Pressure severe range

---

**State 4**
- Pressures rise to severe range
- Scenario Ends
- S/S hypoxemia
- Seizures resolve

---

SOURCE: ATKINS K, FAHEY J. COUNCIL ON PATIENT SAFETY IN WOMEN'S HEALTH CARE. SAFETY ACTION SERIES: CONDUCTING DRILLS ON HYPERTENSION IN PREGNANCY. SEPTEMBER 17, 2015. HTTP://WWW.SAFEHEALTHCAREFOREVERYWOMAN.ORG/SAFETY-ACTION-SERIES.PHP
Planning: Examples of Goals

Teams will improve their response to hypertensive events
Teams will communicate better during hypertensive events
Teams will respond in a timely fashion to signs of preeclampsia
Teams will be able to efficiently evaluate a patient presenting with seizures
Teams will effectively manage a patient who is actively seizing
Planning: Examples of Objectives

Team will be able to elicit and recognize the signs of preeclampsia with severe features

Participants will be able to initiate magnesium sulfate prior to the onset of eclamptic seizures

Participants will be able to administer anti-HTN medications to control severe range blood pressure within 30 minutes of diagnosis

When ordering anti-HTN medications, providers will use closed-loop communication

SOURCE: ATKINS K, FAHEY J. COUNCIL ON PATIENT SAFETY IN WOMEN'S HEALTH CARE. SAFETY ACTION SERIES: CONDUCTING DRILLS ON HYPERTENSION IN PREGNANCY. SEPTEMBER 17, 2015. HTTP://WWW.SAFEHEALTHCAREFOREVERYWOMAN.ORG/SAFETY-ACTION-SERIES.PHP
The Pre-Brief (Simulation only)

“Table-top” exercise, provides an opportunity to review

Lay out goals to be met during the simulation

Conduct behaviors as if the event is real

Introduction of the scenario
  ◦ Become familiar with the environment
  ◦ Introduce to confederates and their role in the scenario

Opportunity for Q&A prior to getting started

Remind staff this is not a test, no one will be graded

Opportunity for a walk thru of any new expectations of the work-flow
Simulation/Drill: Go Live

Have observers and annotators present for the simulation

Announce when your simulation begins

No interference from anyone outside of the scenario

The simulation should continue from start to finish regardless of performance

May want to record the simulation and use this for feedback during the debrief

Announce when the simulation ends
Debriefing

Invaluable opportunity to learn from the experience
Reinforce areas of the drill that went well
Discuss areas needing improvement
Share lessons learned
Highlight systems issues to allow for concrete planning for potential solutions
Sustainability Plan

Develop a plan during your planning stage
Easy to get lost and forgotten
Create a schedule for drills/simulations
Schedule meetings/emails for check-in
Keep communication of the team ongoing
Assign who will be responsible for running the simulations
Potential Challenges

Scheduling/Timing

Difficulty in addressing identified systems issues

Discomfort with debriefing

Incorporating additional services (ie. Lab, Anesthesia, consultants, etc.)
Wrap-Up

Simulation is all about learning

It can be a fun learning and teaching experience!

It's about an open experience – Remember! No one is being tested

Have resources

Plan ahead

Develop your simulation/drill

Develop a sustainability plan

Roll out!
Remember.....
Simulation Resources

Objectives and Goals
Council on Patient Safety in Women’s Health Care

Simulation Content
Using Simulation: Team STEPPS Training
You can create your own scenarios, but why re-create the wheel?

Scenario resources

- CMQCC Preeclampsia Toolkit:
  https://www.cmqcc.org/resources-toolkits/toolkits/preeclampsia-toolkit

- ACOG simulation – Eclampsia:
  http://www.acog.org/About-ACOG/ACOG-Departments/Simulations-Consortium/OB-GYN-Simulations-Curricula

- Journal of the Society for Simulation in Healthcare
  http://journals.lww.com/simulationinhealthcare/Fulltext/2013/06000/Preeclampsia_in_the_Delivery_Suite___A_Simulation.9.aspx#
Debriefing
Definition

- **de·brief**
  - To question someone, typically a soldier or spy
  - Details about a completed mission or undertaking
  - Synonyms: cross-examine, interview, interrogate, question, probe, examine, grill or pump
Why Debrief?

1. Staff identify ways to improve patient care and outcomes.
   a. Crew Resource Management: Blend technical and human skills to support safe and efficient patient care.

2. Learning is relevant and timely, focused on actual patient care events.

3. Debriefing elicits learner-centered feedback.
   a. Self-reflection and discovery.
   b. Enhanced retention of learned ideas.
Four Es

- Debriefer encourages conversation about patterns of behavior by asking learners to describe the events that happened, the emotions around these events, potential alternative viewpoints to empathize and explanations for actions and emotions.

Mayville 2011
## ILPQC Process Measure

<table>
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<tr>
<th>IL Measure</th>
<th>Type</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe Maternal Morbidity</td>
<td>Outcome</td>
<td>20% reduction</td>
</tr>
<tr>
<td>No. of women with severe maternal morbidities (e.g. Acute renal failure, ARDS, Pulmonary Edema, Puerperal CNS Disorder such as Seizure, DIC, Ventilation, Abruption) / No. pregnant &amp; postpartum women with new onset severe range HTN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate Medical Management in under 60 minutes</td>
<td>Process</td>
<td>100%</td>
</tr>
<tr>
<td>No. of women treated at different time points (30,60,90, &gt;90 min) after elevated BP is identified / No. of women with new onset severe range HTN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debriefs on all new onset severe range HTN cases</td>
<td>Process</td>
<td>100%</td>
</tr>
<tr>
<td>Discharge education and follow-up within 10 days for all women with severe range HTN, 72 hours with all women with severe range HTN on medications</td>
<td>Process</td>
<td>100%</td>
</tr>
</tbody>
</table>
**SEVERE HYPERTENSION DATA FORM**

**Topic:** Maternity service team review and document sequence of events, successes with and barriers to swift and coordinated response to preeclampsia with severe features.

**Goal:** Reduce time to treatment (<60 minutes) for new onset severe hypertension (≥160 systolic OR ≥110 diastolic) with preeclampsia or eclampsia or chronic/gestational hypertension with superimposed preeclampsia (include patients from triage, L&D, Antepartum, PP, ED) in order to reduce preeclampsia morbidity in Illinois.

**Instructions:** Complete within 24 hrs. after all cases of new onset severe hypertension (≥160 systolic or ≥110 diastolic) event in pregnancy up to 6 wks postpartum. Debrief should include primary RN and primary MD to identify opportunities for improvement in identification and time to treatment of HTN.

**Date:**
- GA at Event (weeks & days) OR # Days PP:
- Patient Location (check all that apply) □ Triage □ L&D □ Postpartum □ Antepartum □ PP □ ED

**Maternal Age:** Height:_________ Current Weight:_________

**Diagnosis:** □ Chronic HTN □ Gestational HTN □ Preeclampsia
- Superimposed Preeclampsia □ Postpartum Preeclampsia □ Other _________

**PROCESS MEASURE (P1): Medical Management**

<table>
<thead>
<tr>
<th>Time: hr:min</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP reached ≥160 or diastolic ≥110 (sustained &gt;15 min)</td>
<td>First BP med given</td>
</tr>
<tr>
<td>BP reached &lt;100 and diastolic BP &lt;110</td>
<td></td>
</tr>
</tbody>
</table>

**Medications (check all given)**
- Labetalol
- Hydralazine
- Nitroglycerin
- Magnesium Sulfate
- Magnesium Sulfate Bolus: □ 4g/mu □ 6g/mu □ Other
- Magnesium Sulfate Maintenance: □ 1g/mu □ 2g/mu □ 3g/mu □ Other
- Anxiolytics (f<34 wks): □ Partial Course □ Complete Course □ Not Given

**Adverse Neonatal Outcome:**
- Date:
- NICU/SCN admission □ IUFD □ Other _________
- None

**OB Complications (check all that apply):**
- Date:
- OB Hemorrhage with transfusion of ≥4 units of blood products
- Intracranial Hemorrhage or Ischemic event
- Pulmonary Edema □ ICU admission □ HELLP Syndrome
- Oliguria □ Eclampsia □ DIC
- Renal failure □ Liver failure □ Ventilation
- Placental Abruption □ Other □ None

**PROCESS MEASURE (P2): Discharge Management**

A. Discharge Education: Education materials about preeclampsia given?
   - YES □ NO

B. Discharge Management: Follow-up appt scheduled within 10 days (for all women with any severe range hypertension/preeclampsia)
   - YES □ NO
   - Was patient discharged on meds?
     - YES □ NO
     - If YES, was follow up appointment scheduled in <72 hours?
       - YES □ NO

**COMMENTS about Medical Management, Monitoring, Discharge**

**Opportunities for improvement to reduce time to treatment (identification severe HTN to treatment goal <60 minutes): Debrief**

**Debrief Participants:** Primary MD: □ YES □ NO Primary RN: □ YES □ NO

**TEAM ISSUES**

<table>
<thead>
<tr>
<th>Went well</th>
<th>Needs improvement</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognition of severe HTN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessing situation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision making</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teamwork</td>
<td></td>
<td></td>
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<tr>
<td>Leadership</td>
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</tbody>
</table>

**SYSTEM ISSUES**

<table>
<thead>
<tr>
<th>Went well</th>
<th>Needs improvement</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTN medication timeliness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation (intra-, inter-hospital transport)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support (in-unit, other areas)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Med availability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any other issues:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Essential Elements of the ILPQC HTN De-brief

Who?
- 1-on-1 nurse and physician de-brief

What?
- Identify issues and barriers with treatment of HTN

When?
- As close to the event of severe range HTN as possible

How?
- In person or over the phone

Why?
- To make improvements in the treatment of severe range HTN
Potential Challenges

Availability of the physician or nurse
  ◦ Will it be more difficult to de-brief at night? During the day?

Time

Discomfort with a new process
Feedback
Giving information or input to an individual or team with the intention of modifying future behavior

INSTRUCTOR, SUPERVISOR, etc.

STAFF

Debriefing
Facilitating a structured form of feedback that allows individual and team reflection to understand issues and discuss areas for improvement

FACILITATOR

STAFF
Debrief - Acute Obstetrical Emergencies

- Root causes analyses link poor organizational culture and communication to poor obstetrical outcomes such as perinatal death and injury (Birnbach & Salas, 2008).
- Debriefing after acute clinical events is a highly regarded tool used for team building that has a positive impact on teamwork (Provonost & Sexton, 2005).
- Physician Partners support and participation: Anesthesia, OB, MFM and Neonatology/Pedi
Many additional benefits

- Clearer understanding for all
- Identification of future pitfalls
- Reinforces lessons learned through experience
- May decrease anxiety of experience
- Improves group dynamic and functioning
- Eases transition back into normal work duties
All day, every day

☐ Every resuscitation
☐ Every code
☐ Every family conflict
☐ Every difficult encounter
☐ Maybe even some of the easy ones
In fact....

- Debriefing is a critical component to continuous quality assessment and improvement
- Necessary for new staff
- Equally necessary for seasoned staff
- Useful in long term retention
- Necessary for long term job satisfaction
- Should be employed every day
Building a culture of safety

1. Identify opportunity to debrief
2. Interdisciplinary team debrief
3. Capturing, implementing, and tracking action items
4. Improve systems, communication, and education
Elements of Debriefing

- **Emotions**
  - How did staff feel about the patient event?

- **Analysis**
  - What was done well?
  - What are some areas for improvement?

- **Application**
  - How can patient care be improved next time?

- **Summary**
  - What are the main take away points?
Debrief Checklist (example)

Identify what went well (Check if yes, describe)
- Communication went well
- Teamwork went well
- Leadership went well
- Decision-making went well
- Assessing the situation went well
- Other

Briefly Describe:

Identify opportunities for improvement: “human factors” (Check if yes, describe)
- Communication needed improvement
- Teamwork needed improvement
- Leadership needed improvement
- Decision-making needed improvement
- Assessing needed improvement
- Other

Briefly Describe:

Identify opportunities for improvement: “non-human factors” (Check if yes, describe)
- Equipment issues
- Supply issues
- Medications issues
- Inadequate support (with in-unit or other areas of the hospital)
- Delay in blood products availability
- Delays in transporting the patient
- Other

Briefly Describe:
Debrief Tool Example – Page 1

Obstetric Team Debriefing Form

Remember: Debriefing is meant to be a learning experience and a way to address both human factors and systems issues to improve the response for next time. There is to be no blaming/finger-pointing.

Type of event: ___________________________  Date of event: _________________

Location of event: _________________________

Members of team present: (check all that apply)

☐ Primary RN  ☐ Primary MD  ☐ Charge RN  ☐ Resident(s)
☐ Anesthesia personnel  ☐ Neonatology personnel  ☐ MFM leader  ☐ Patient Safety Officer
☐ Nurse Manager  ☐ OB/Surgical tech  ☐ Unit Clerk  ☐ Other RNs

Thinking about how the obstetric emergency was managed,

Identify what went well: (Check if yes)

☐ Communication
☐ Role clarity (leader/supporting roles identified and assigned)
☐ Teamwork
☐ Situational awareness
☐ Decision-making
☐ Other: _____________________________

Identify opportunities for improvement: “human factors” (Check if yes)

☐ Communication
☐ Role clarity (leader/supporting roles identified and assigned)
☐ Teamwork
☐ Situational awareness
☐ Decision-making
☐ Other: _____________________________

Identify opportunities for improvement: “systems issue” (Check if yes)

☐ Equipment
☐ Medication
☐ Blood product availability
☐ Inadequate support (in unit or other areas of the hospital)
☐ Delays in transporting the patient (within hospital or to another facility)
☐ Other: _____________________________

Safe Motherhood Initiative

*From ACOG DII Website
Obstetric Team Debriefing Form

For identified issues, fill in table below

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>ACTIONS TO BE TAKEN</th>
<th>PERSON RESPONSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>
Debriefing Resources


IMPLEMENTING DRILLS, SIMULATIONS, AND DEBRIFS
Debriefs

Barriers:

• Buy-in
• Time constraints
• Staffing issues
• Physician is absent
• Fear of blame

Opportunities

• Engage physician in the value of a debrief after ever severe range hypertension case
  • Maternal morbidity and mortality statistics
  • Reference use of debriefing in for other clinical situations
• Use checklists as tools
Debriefs

Cause and Effect Diagram

Maternal Hypertension Initiative
Date: May 23, 2018 Face to Face Meeting

<table>
<thead>
<tr>
<th>Cause</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment</td>
<td></td>
</tr>
<tr>
<td>Process</td>
<td></td>
</tr>
<tr>
<td>People</td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td></td>
</tr>
</tbody>
</table>

- Equipment
  - Developing tool/checklist

- Process
  - Prioritizing
  - Operationalizing

- People
  - Staffing
    - Engaging weekend/night staff
    - Provider availability
    - Allowing for time
  - Buy-in
    - Providers

- Environment
  - Focus on successes and opportunities for change

- Management
  - Buy-in

Incorporating debriefs on all severe range HTN
Drills and Simulations

Barriers:
• Financial constraints
• No educator available
• No buy-in from providers or other departments
• Incorporating weekend/night staff
• Scheduling
• Keeping it real time

Opportunities
• Overhead call system to check response time
• Engage administrator for support
• Create a realistic scenario
• Create a simulation team to include a didactic component
• Use experience to implement change in practice
## Drills & Simulations

### Cause and Effect Diagram

<table>
<thead>
<tr>
<th>Cause</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equipment</strong></td>
<td></td>
</tr>
<tr>
<td>Access to simulators</td>
<td></td>
</tr>
<tr>
<td>Process</td>
<td></td>
</tr>
<tr>
<td>Scheduling</td>
<td></td>
</tr>
<tr>
<td>Space</td>
<td></td>
</tr>
<tr>
<td>Area of hospital</td>
<td></td>
</tr>
<tr>
<td>Admitting</td>
<td></td>
</tr>
<tr>
<td>People</td>
<td></td>
</tr>
<tr>
<td>Staffing</td>
<td></td>
</tr>
<tr>
<td>Engaging weekend/night staff</td>
<td></td>
</tr>
<tr>
<td>Educator availability</td>
<td></td>
</tr>
<tr>
<td>Allowing for time</td>
<td></td>
</tr>
<tr>
<td>Buy-in</td>
<td></td>
</tr>
<tr>
<td>Providers</td>
<td></td>
</tr>
<tr>
<td>Other departments</td>
<td></td>
</tr>
<tr>
<td>Developing didactic resources</td>
<td></td>
</tr>
<tr>
<td>Keeping it realistic</td>
<td></td>
</tr>
<tr>
<td>Scheduling</td>
<td></td>
</tr>
<tr>
<td>Buy-in</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td></td>
</tr>
</tbody>
</table>

Incorporating Drills and Simulations
Nancy Peterson, MSN, RNC-OB, PNNP, IBCLC
Director of Perinatal Outreach
Clinical Program Manager of CMQCC
Stanford University
READINESS RESOURCES: CHECKLISTS

Komal Bajaj, MD MS-HPEd
Associate Professor of Clinical Obstetrics & Gynecology and Women's Health
Department of Obstetrics & Gynecology and Women's Health
Albert Einstein College of Medicine
Montefiore Medical Center
SMI Checklist Experience

Komal Bajaj, MD, MS–HPEd
Peter S. Bernstein, MD, MPH
Conflict of Interest Disclosure Statement

We do not have any financial interests or other relationships with the industry relative to the topics being discussed.
Situation

- Checklists developed for use during emergencies
- Being used (or not used) to varying degrees
- We want to know more about them
  - Are people using them?
  - If so, how are they using them?
  - Are they helpful?
In Spring, 2015 queried statewide to see how hospitals are using the SMI Bundle checklists.

And the results are...
Are you aware of the checklists provided within the SMI bundles?

Answered: 75   Skipped: 0

Yes: 93.33%

No: 6.67%
Has a decision been made to implement the checklists in your hospital?

Answered: 75  Skipped: 0

- Yes: 69.33%
- No: 30.67%
If yes, which checklists have been implemented:

- Recommended Instruments: 69.23%
- Hemorrhage Stages 1-4: 66.67%
- Managing Maternal: 71.79%
- Severe Hypertension: 76.92%
- Eclampsia Checklist: 58.97%
- Emergency Department: 28.21%
Was your hospital SUCCESSFUL with checklist implementation?

Answered: 43  Skipped: 32

Yes 86.05% (37)

No 13.95% (6)
If checklists are not being implemented, explain why not:

• Policy/Protocol revision
  • bundles are in review, pending provider approval
  • need to reconcile hospital policy with SMI checklists

• Lack of time and manpower

• Checklist/Paperwork fatigue
  • burden of forms/mandatory checklists is high
  • possibility of checklists becoming just another box to check rather than a genuine tool
  • fear of taking providers away from time with patient to focus on checklist

• Navigating risk management and what role this tool plays in the chart
What barriers (if any) has your hospital encountered?

Most common responses included:
- Resistance to standardization
- Getting OB consensus
- Mass education/collaboration of the staff
- Time and competing priorities/initiatives
- Need to modify current workflows and practices
- EMR infrastructure, capabilities & workflow challenges
Assessment

- Some barriers and confusion seem to exist about checklist implementation
- Decided to study
  - Several large academic institutions in the Bronx
  - Opportunity to have large numbers of providers and staff pilot the checklists
  - Collaboration between New York City Health + Hospitals and Einstein–Montefiore
Validating obstetrical emergency checklists using simulation: a randomized controlled trial

36 interprofessional obstetric teams

Brief didactic on checklists followed by demonstration of checklist use

Teams completed 2 simulated obstetric emergencies (1 with a checklist, 1 without)

Teams debriefed on teamwork and skill components, as well as checklists
“I really like the idea of an emergency checklist”

Can this serve as a documentation tool?

This will aid in “speaking up”

I feel like I’m not “doing anything” when serving as the checklist reader
Eclampsia Checklist

# Persistent Seizure
- Neuromotor block and intubate
- Obtain radiographic imaging
- ICU admission
- Antihypertensive medications if SBP ≥ 160 or DBP ≥ 110
  - Labetalol (20, 40, 80 mg) over 2 minutes, escalating doses, repeat 10 mg in 5-60 minutes if no IV access; avoid in asthma or heart failure
  - Hydralazine (5-10 mg IV over 2 minutes, repeat in 20 minutes until blood pressure is reached
  - Repeat every 10 minutes during administration
- Maximum cumulative IV administered dose should not exceed 25 mg hydralazine or 230 mg labetalol in 24 hours

# After Seizure
- Assess neurologic status every 15 minutes
- PEC lab: CBC, Chem 7, LFT, U&O, PT, INR, Magnesium
- Foley catheter (4 hourly R&Ds) Report output = 30 ml/hour
- Strict ID (no less than every 3 hours), Report urine output to the clinician if < 30 ml/hr. Foley catheter should be placed if urine output is borderline or u/e output cannot be maintained, urine output should be utilized if the urine output is borderline or < 30 ml/hr

# Delivery Plan
- Ensure there is an appropriate plan for delivery

# Magnesium Toxicity
- Stop magnesium maintenance
- Calcium gluconate 1 gm (50% of total solution) IV over 1-2 minutes

# Postpartum
- Oral antihypertensive medication postpartum if SBP > 150/100
- Blood pressure monitoring is recommended 72 hours after delivery and for outpatient surveillance (e.g., visiting nurse evaluation) within 3 days and again 7-10 days after delivery or earlier if persistent symptoms

# Debrief
- Debrief with the whole obstetric care team and document following the debrief

Eclampsia CHECKLIST

- Call for Assistance
- Designate:
  - Team leader
  - Checklist reader/recorder
  - Primary RN
- Ensure side rails up
- Protect airway and improve oxygenation:
  - Maternal pulse oximetry
  - Supplemental oxygen (100% non-rebreather)
  - Bag-mask ventilation available
  - Suction available
- Continuous fetal monitoring (if appropriate)

Initial Medications
- Load IV: 4-6 grams 10% magnesium sulfate in 100 ml solution IV over 20 minutes
- Magnesium sulfate and pump labeled
- Magnesium sulfate 10 grams of 50% solution IM (3 grams in each buttock) if no IV access
- Magnesium sulfate maintenance 1-2 grams/hour continuous infusion
- Contraindications: pulmonary edema, renal failure, myasthenia gravis

Anticonvulsant Medications
- For recurrent seizures or when magnesium sulfate is contraindicated:
  - Lorazepam (2-4 mg IV x 1, may repeat x 1 after 10-15 minutes)
  - Diazepam (5-10 mg IV every 3-5 minutes to maximum dose 10 mg)
- Phenytoin (15-20 mg/kg IV x 1, may repeat 10 mg/kg IV after 20 minutes if no response; avoid with hypertension, may cause cardiac arrhythmias
- Ratsup (500 mg IV or orally, may repeat in 10 hours; dose adjustment needed if renal impairment

Example

MAGNESIUM SULFATE
- Contraindications: pulmonary edema, renal failure, myasthenia gravis
  - IV:
    - Load 4-6 grams 10% magnesium sulfate in 100 ml solution IV over 20 minutes
    - Label magnesium sulfate, connect to labeled infusion pump
    - Magnesium sulfate maintenance 2-3 grams/hour
  - IM:
    - 10 grams of 50% solution IM (5 g in each buttock)

Antihypertensive Medications
- For SBP ≥ 160 or DBP ≥ 110:
  - Labetalol (20mg, 40, 80 mg) over 2 minutes, escalating doses, repeat q 20 minutes; avoid in asthma or heart failure, can cause neonatal bradycardia
  - Hydralazine (5-10 mg IV over 2 minutes, repeat q 20 minutes until blood pressure is reached

Note:
- Maximum cumulative IV administered dose should not exceed 25 mg hydralazine or 230 mg labetalol in 24 hours

Anticonvulsant Medications
- For recurrent seizures or when magnesium sulfate is contraindicated:
  - Lorazepam (1-4 mg IV x 1, may repeat once after 10-15 minutes
  - Diazepam (Valium): 5-10 mg IV q 5-10 minutes to maximum dose 30 mg

Treatment & Work-up for Persistent Seizes
- Neuromotor block and intubate
- Obtain radiographic imaging
- ICU admission
- Consider anticonvulsant medications
When creating or modifying a checklist, consider:

- Does the creation/modification team have representation from all members of the team?
- Is the objective for the checklist clear and concise?
- Does it address critical safety steps that are at risk of being missed?
Structure and Flow

- Consider inclusion of items to improve communication or situation awareness
  - Ie: Announce Estimated Blood Loss

- Simple sentence structure and formatting

- Pick your font type, size, and colors carefully

Serif vs. Sans-Serif
Checklist Implementation
Mode of administration: Paper or Plastic?
- I-Pad or Touch Monitor
- Google Glass, etc.

Pilot with few teams and make additional changes/create super users

Roll-out requires a mixed methods approach
- Grand-Rounds
- In-Service/Demonstration
- Practice!

After implementation, the steering interprofessional team should continue observe use and make changes as needed

Reinforce through practice
# A Checklist for Checklists

## Development

- Do you have clear, concise objectives for your checklist?
- Is each item:
  - A critical safety step and in great danger of being missed?
  - Not adequately checked by other mechanisms?
  - Actionable, with a specific response required for each item?
  - Designed to be read aloud as a verbal check?
  - One that can be affected by the use of a checklist?
- Have you considered:
  - Adding items that will improve communication among team members?
  - Involving all members of the team in the checklist creation process?

## Drafting

- Does the Checklist:
  - Utilize natural breaks in workflow (pause points)?
  - Use simple sentence structure and basic language?
  - Have a title that reflects its objectives?
  - Have a simple, uncluttered, and logical format?
  - Fit on one page?
  - Minimize the use of color?
- Is the font:
  - Sans serif?
  - Upper and lower case text?
  - Large enough to be read easily?
  - Dark on a light background?
- Are there fewer than 10 items per pause point?
- Is the date of creation (or revision) clearly marked?

## Validation

- Have you:
  - Trialed the checklist with front line users (either in a real or simulated situation)?
  - Modified the checklist in response to repeated trials?
- Does the checklist:
  - Fit the flow of work?
  - Detect errors at a time when they can still be corrected?
  - Can the checklist be completed in a reasonably brief period of time?
  - Have you made plans for future review and revision of the checklist?

---

Please note: A checklist is NOT a teaching tool or an algorithm

http://www.projectcheck.org/checklist-for-checklists.html
The Emergency Manuals Implementation Collaborative (EMIC) fosters adoption and effective use of emergency manuals to enhance our patients’ safety. Our initial focus is perioperative care, while sharing our lessons with other fields of healthcare.

Our goals are to:
1. Provide a framework for clinicians and teams to train for, manage, debrief, and report critical events.
2. Embed the effective clinical use of emergency manuals into patient care.

American Society of Anesthesiologists (ASA) Annual Meeting
October 24-28, 2015
San Diego, California

The following sessions will be dedicated to emergency manuals at this year’s meeting:

**Title**: Safety Innovations for the L and D Unit: Creating a Vision for Leadership in Peripartum Medicine

**Date/Time**: Monday, Oct 26, 2015, 1:10 - 3:10 PM

**Session Number**: Panel PN 311

**Session Track**: OB

**Title**: Using Emergency Manuals in the OR: What is the Evidence and
Close The Loop With Participants
Team Talks

• Dina Kapogiannis, RNC-OB, RN lead – NorthShore Evanston
NorthShore University HealthSystem
Evanston Hospital

• Ann Newkirk, Director of Women’s Services
• Anita Little, Nurse Manager (High Risk Antepartum/Postpartum, Gynecology)
• Rachel Cordts, Nurse Manager (Labor and Delivery)
• Kimberly Spivey, Nurse Manager (Mother-Baby)
• Constandina Kapogiannis, RNC-OB, RN lead (High Risk Antepartum/Postpartum, Gynecology)
• Jackie Mortillaro, RN (Mother-Baby)
• Missy Raedle, RN (Labor and Delivery)
• Meira Gottesman, RN (Emergency Room)

• Dr. Mark Neerhof OB/GYN, MFM (Physician lead)
• Dr. Patrick Schneider OB/GYN, MFM fellow
• Dr. Morris Kharasch, Emergency Room

• Karen Kelly, PharmD
• Ann Wild, HIT
NorthShore University HealthSystem
Evanston Hospital

- Level III
- 3400 births per year
- 550 NICU admissions
- 44 bed NICU
- 52 bed OB/Postpartum/Antepartum/Gynecological surgery

- Our team consists of Staff nurses, Nurse managers, Physicians, Pharmacy, and HIT

- Team Leader Constandina Kapogiannis, RNC-OB
  847-570-2813, ckapogiannis@northshore.org
• Started retrospective chart audits in February 2016 using ICD 10 codes and a pharmacy report

• Team members meet monthly before the scheduled team call

• Staff training began the week of March 14th
  – Bedside data form GO LIVE was March 17th
  – If unable to attend a training session self study done by the nurse using power point presentation
  – Unit champions to assist with training their own staff
• Weekly rounding on all units (Labor & Delivery, Mother-Baby, Emergency Department) to collect completed data forms and answer staff questions

• Each unit has either a clip board or a binder at the concierge desk to house the completed forms

• Blank forms are available in either the binder on the unit or a folder at the concierge desk based on unit preference
• Since February 2016
  – 54 records have been entered into REDCAP
    • (as of 6/13/16)
  – Combination of chart review and real time bedside data collection

• Baseline data from October, November, December 2015 entered as well
  – 16 records total
If start new BP medication (PO or IV) recheck BP every 15 to 30 minutes for an hour MD or CNM to evaluate pt

Recheck manually in 15 minutes & ask preeclampsia questions

Notify MD via text page

Orders received (labs, BP medication, recheck BP, etc.)

Send labs if applicable, follow through with other orders

Identify high BP via dynamap or manually

If start new BP medication (PO or IV) recheck BP every 15 to 30 minutes for an hour MD or CNM to evaluate pt

Remain on 3 Women’s or Transfer to another unit (L&D or 2Women’s)
Identify high BP via dynamap or manually

MD to reevaluate pt (if warranted)
Send labs (if warranted)

RN evaluated BP post treatment

Ask pt preeclampsia questions

Speak with MD regarding treatment (meds, rest, labs, etc.)

Notify MD of BP post treatment

Recheck BP in 15 minutes

Notify MD via text page

Remain on 2 Women’s or transfer to Labor and Delivery

HTN Algorithm High Risk Antepartum/Postpartum, Gynecology
**HTN Algorithm Labor and Delivery**

1. **Pt admitted to Labor and Delivery or Triage**
2. Send labs
   - CBC, CMP, uric acid, LDH, UA, urine PC ratio
   - Pt evaluated by MD or CNM
3. Identify high BP and ask pt preeclampsia questions
4. Orders received for preeclampsia labs
5. Talk to MD/CNM (Attending, resident, or Doc in the box)
6. Treatment based on labs and blood pressure
   - (BP meds IV or PO and/or Magnesium Sulfate infusion)
7. Reevaluate BP post treatment and order consults as needed (ISCU, MFM, Perinatal Family Support)
8. Recheck BP in 15 minutes
9. Talk to MD/CNM (Attending, resident, or Doc in the box)
10. Transfer to floor once stable or deliver if unable to control BP
11. Orders received for preeclampsia labs
12. Talk to MD/CNM (Attending, resident, or Doc in the box)
13. Treatment based on labs and blood pressure
   - (BP meds IV or PO and/or Magnesium Sulfate infusion)
14. Reevaluate BP post treatment and order consults as needed (ISCU, MFM, Perinatal Family Support)
15. Recheck BP in 15 minutes
16. Talk to MD/CNM (Attending, resident, or Doc in the box)
17. Transfer to floor once stable or deliver if unable to control BP

**Notes:**
- Identify high BP and ask pt preeclampsia questions.
- Orders received for preeclampsia labs.
- Talk to MD/CNM (Attending, resident, or Doc in the box).
- Transfer to floor once stable or deliver if unable to control BP.
In progress

• 30 day goal
  – Accurate BP measurement for all pts
  – Creation of a standard BP protocol for the entire hospital
  – Work with pharmacy to change wording on MAR regarding anti hypertensive medication

• 60 day goal
  – Discharge workflow
    • RN to attempt to ensure follow up in 7 days if not on medication or within 3 days if on medication
  – Postpartum education
    • Tear off sheets
• How were you able to engage the pharmacy to assist in this initiative???
  – No pyxis report available to us

• Thank you to all of the ILPQC staff for their support and encouragement

• Questions???

• Suggestions for improvement???
Team Talks – HTN Initiative

- Teams assigned an OB Teams Call – look for email from Kate
  - July
    - Northwest Community
    - Memorial Hospital of Carbondale
  - August
    - St. Anthony Hospital
    - HSHS St. Elizabeth
  - September
    - Advocate Sherman
    - Norwegian American
  - October
    - St. John’s
    - Silver Cross

- Generate discussion and learning through sharing
  - Good foundation for storyboard/poster presentations!

- Present 5-10 mins. on current QI work, including:
  - Implementation of the data form
  - Process for identifying opportunities for improvement
  - Organization of your team meetings
  - PDSAs testing strategies to
    - Reduce time to treatment
    - Incorporate debriefs
    - Implement changes to patient education processes
ILPQC 4th Annual Conference

• Save the Date – Thursday, November 3, 2016!
• Westin in Lombard, 8 am – 5 pm
• Speakers
  • Mary Dalton, ACOG NY Safe Motherhood Initiative
  • Mike Marcotte, OPQC – 17OHP, NAS, ANS
  • Bill Sappenfield, FPQC – HTN, Hemorrhage, Mother's Own Milk, results of the Golden Hour work
  • Munish Gupta, NeoQIC of Massachusetts – NAS, Human Milk, Maternal Morbidity, Prematurity Prevention, data for QI work
  • Julie Vasher, CMQCC – Reduce Primary Cesarean, HTN, Hemorrhage
  • Eleni Tsigas, Preeclampsia Foundation - Patient & Family Engagement
Communications

- campusCatalyst student group from Northwestern worked with ILPQC to develop contact management system with:
  - Master OB Teams database
  - MailChimp implementation
- Launch to OB Teams in June – no opt-in necessary, begin receiving email immediately!
  - Please add info@ilpqc.org to address book to avoid bounce backs!
- Teams can still email info@ilpqc.org – MailChimp used for mass communication from ILPQC to you
Q&A

• Ways to ask questions:
  • Raise your hand on Adobe Connect to ask your question by phone
  • Post a question in the Adobe Connect chat box
Contact

• Email info@ilpqc.org
• Visit us at www.ilpqc.org