Maternal Hypertension Initiative

April Action Period Call
April 23, 2021
Welcome!

• Please type your name and institution you represent in the chat box and send to “Everyone”.
• Please also do for all those in the room with you viewing the webinar.
• Thank You
Welcome!

• Attendees are automatically muted to reduce background noise.
• You may enter questions/comments in the “chat” box during the presentation. We will have Q&A session at the end.
• Slides will be available via email and at www.alpqc.org
• We are now recording
Agenda

Maternal HTN Updates  12:05 – 12:10
Data Measures & Portal Review  12:10 – 12:25
Team Talks  12:25 – 12:50
Q & A  12:50 – 1:00
Next Steps  1:00
Maternal HTN Updates

- Baseline data submission
- MOD BTB Training – extension through April 30
- Data use agreements
- Monthly data reporting: March data due April 30, 2021
Data Measures & Portal Review
Why This Matters

- Setting your SMART aim
- Measurement Strategy
- Key Driver Diagram
- Testing Changes via PDSA cycles
Aim: Reduce by 10% severe maternal morbidity in pregnant and postpartum patients with preeclampsia/eclampsia by April 2022.

Key Goals:
- Increase timely treatment of severe hypertension
- Increase proportion of patients receiving discharge education on preeclampsia & follow-up appointments
- Narrow the Black-White disparity gap in severe maternal morbidity in patients with preeclampsia/eclampsia

Readiness
Develop & implement standard processes for optimal care

- Develop standards for maternal early warning signs, monitoring, treatment
- Develop and implement protocols for timely triage, evaluation, management, escalation and transport
- Rapid access to medications

Recognition & Prevention
Educate, identify, assess

- Educate staff on best practices and unit protocols
- Conduct drills of protocols
- Identify and assess for severe HTN

Respond
Timely treatment of severe hypertension

- Treat within 60 minutes every pregnant and postpartum patient with severe hypertension
- Educate and support patients and staff after severe maternal event

Change Systems
Foster a culture of safety and improvement

- Respectful Care
- Huddles, debriefs, multi-disciplinary reviews

Primary Drivers
Secondary Drivers
Change Ideas

- Develop standard order sets, protocols, checklists, algorithms for early warning signs, diagnostic criteria, timely triage, monitoring and treatment of severe HTN. Integrate into EHR
- Identify champions for timely triage in OB, ED and outpatient areas. Develop and pilot process for timely triage
- Ensure rapid access to IV and PO anti-hypertensive medications with guide for administration and dosage (e.g. standing orders, medication kit, rapid response team). Simulate medication procurement, with pharmacy representative
- Develop and implement system plan for escalation and transport with appropriate consultation. Pilot process

- Educate OB, ED, and anesthesiology providers and nurse on recognition and diagnosis of severe HTN
- Perform regular simulation drills of protocols with debriefs
- Implement system to identify pregnant/postpartum patients in all hospital departments
- Execute protocol for measurement, assessment, and monitoring of BP and urine protein for all patients
- Develop standards for patient-centered education meeting health literacy, language needs. Test education tools

- Execute protocol for appropriate management in 60 mins
- Ensure understanding of communication & escalation procedures (e.g. implementing rapid response team)
- Provide patient-centered discharge education
- Implement protocol for patient follow-up in 7-14 days for all severe HTN patients

- Establish systems to accurately document patient self-identified race/ethnicity, primary language
- Provide staff-wide education on implicit bias with focus on timely and impactful clinical response
- Develop process to support partnership and interaction in patient education (i.e. “teach-back” method)
- Establish huddles to prepare for high risk patients, regular debriefs after all severe hypertensive cases
- Establish process for multidisciplinary systems reviews on all severe maternal hypertension cases admitted to the ICU
Severe Maternal Morbidity (SMM)

- A range of serious pregnancy complications that result in significant short-term or long-term consequences to a woman’s health.

- Calculated:
  - 21 SMM indicators and corresponding ICD diagnosis and procedure codes used to identify delivery hospitalizations with SMM

## Baseline Data

<table>
<thead>
<tr>
<th>Measure Type</th>
<th>Measure</th>
<th>Source</th>
<th>BASELINE Measurement Period</th>
</tr>
</thead>
</table>
| Process      | P1. Timely treatment of Severe Hypertension | IT report, chart review | Monthly basis:  
  - December 2020  
  - January 2021  
  - February 2021  
  Note:  
  - Baseline: in aggregate (numerator/denominator)  
  - Initiative: individual patient level |
| Outcome      | O2. SMM | IT report | |
| Outcome      | O3. SMM (excluding transfusion codes) | IT report | Quarterly basis:  
  - January-March 2020  
  - April-June 2020  
  - July-September 2020  
  - October-December 2020  
  - January-February 2021 |
| Outcome      | O4. SMM among Preeclampsia Cases | IT report | |
| Outcome      | O5. SMM among Preeclampsia Cases (excluding transfusion codes) | IT report | |
Severe Maternal Morbidity, 1993 - 2014

Rate of SMM per 10,000 delivery hospitalizations in the U.S.

For every maternal death, 100 women experience SMM

### Codes for ALPQC Maternal Hypertension Initiative Outcome Measures

<table>
<thead>
<tr>
<th>Measure #</th>
<th>Measure Name</th>
<th>Denominator</th>
<th>Numerator</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>#2</td>
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<td></td>
<td></td>
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<tr>
<td>#3</td>
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<tr>
<td>#4</td>
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<tr>
<td>#5</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

#### Measure #1

**Description**: All patients diagnosed with preeclampsia, severe preeclampsia or eclampsia during pregnancy, regardless of race or ethnicity.

**Denominator**: All patients diagnosed with preeclampsia, severe preeclampsia, or eclampsia during pregnancy, regardless of race or ethnicity.

**Numerator**: All patients diagnosed with preeclampsia, severe preeclampsia, or eclampsia during pregnancy, regardless of race or ethnicity.

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#### Measure #2

**Description**: All patients diagnosed with severe maternal morbidity.

**Denominator**: All patients diagnosed with severe maternal morbidity during pregnancy, regardless of race or ethnicity.

**Numerator**: All patients diagnosed with severe maternal morbidity during pregnancy, regardless of race or ethnicity.

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#### Measure #3

**Description**: All patients diagnosed with severe maternal morbidity, including maternal mortality.

**Denominator**: All patients diagnosed with severe maternal morbidity, including maternal mortality during pregnancy, regardless of race or ethnicity.

**Numerator**: All patients diagnosed with severe maternal morbidity, including maternal mortality during pregnancy, regardless of race or ethnicity.

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#### Measure #4

**Description**: All patients diagnosed with severe maternal morbidity, excluding transfusion.

**Denominator**: All patients diagnosed with severe maternal morbidity, excluding transfusion during pregnancy, regardless of race or ethnicity.

**Numerator**: All patients diagnosed with severe maternal morbidity, excluding transfusion during pregnancy, regardless of race or ethnicity.

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#### Measure #5

**Description**: A combination of codes for severe maternal morbidity.

**Denominator**: A combination of codes for severe maternal morbidity, regardless of race or ethnicity.

**Numerator**: A combination of codes for severe maternal morbidity, regardless of race or ethnicity.

---

**ICD-10 Codes**:

- **Delivered Preterm After LSCS (ICD-10):** C67.75
- **Other Outcome Code:** C06.9, C67.75, C67.89

**Exclusions for Deliverations**:

- **Term Delivery:** C67.89
- **Not Delivered by LSCS:** C06.9, C67.75

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**ICD-9 Codes**:

- **Delivered Preterm After LSCS (ICD-9):** 765.45
- **Other Outcome Code:** 645.5

**Exclusions for Deliverations**:

- **Term Delivery:** 645.5
- **Not Delivered by LSCS:** 645.5

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**ICD-8 Codes**:

- **Delivered Preterm After LSCS (ICD-8):** 765.45
- **Other Outcome Code:** 645.5

**Exclusions for Deliverations**:

- **Term Delivery:** 645.5
- **Not Delivered by LSCS:** 645.5

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**ICD-7 Codes**:

- **Delivered Preterm After LSCS (ICD-7):** 765.45
- **Other Outcome Code:** 645.5

**Exclusions for Deliverations**:

- **Term Delivery:** 645.5
- **Not Delivered by LSCS:** 645.5

---

**ICD-6 Codes**:

- **Delivered Preterm After LSCS (ICD-6):** 765.45
- **Other Outcome Code:** 645.5

**Exclusions for Deliverations**:

- **Term Delivery:** 645.5
- **Not Delivered by LSCS:** 645.5

---

**ICD-5 Codes**:

- **Delivered Preterm After LSCS (ICD-5):** 765.45
- **Other Outcome Code:** 645.5

**Exclusions for Deliverations**:

- **Term Delivery:** 645.5
- **Not Delivered by LSCS:** 645.5

---

**ICD-4 Codes**:

- **Delivered Preterm After LSCS (ICD-4):** 765.45
- **Other Outcome Code:** 645.5

**Exclusions for Deliverations**:

- **Term Delivery:** 645.5
- **Not Delivered by LSCS:** 645.5

---

**ICD-3 Codes**:

- **Delivered Preterm After LSCS (ICD-3):** 765.45
- **Other Outcome Code:** 645.5

**Exclusions for Deliverations**:

- **Term Delivery:** 645.5
- **Not Delivered by LSCS:** 645.5

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**ICD-2 Codes**:

- **Delivered Preterm After LSCS (ICD-2):** 765.45
- **Other Outcome Code:** 645.5

**Exclusions for Deliverations**:

- **Term Delivery:** 645.5
- **Not Delivered by LSCS:** 645.5

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**ICD-1 Codes**:

- **Delivered Preterm After LSCS (ICD-1):** 765.45
- **Other Outcome Code:** 645.5

**Exclusions for Deliverations**:

- **Term Delivery:** 645.5
- **Not Delivered by LSCS:** 645.5
### ALPQC Maternal Hypertension Initiative
#### BASELINE Outcome Measures Form

**Instructions:** Use this document to help collect baseline outcome data for the Maternal HTN Initiative. Add your tool department to generate a report for the outcomes below. See [HTN Outcome Measures Codebook](http://www.alpqc.org/_Initiatives/HTN/) and “Data Collection Instructions” on our website under the “Data Resources” menu.

Period of Activity: 128-week span of 36-month period

**Step 3: Collect Baseline Measures**

Excel Data Entry Tools

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#### ALPQC Maternal Hypertension Initiative

**BASELINE Process Measure Form**

**Instructions:** Use this document to help you track chart reviews of patients with persistent (lasting more than 15 minutes) severe hypertension.

**Baseline hypertension defined as: N0-90 mmHg and/or 170 mmHg or higher, excluding readings during augmentation, 120 mmHg or higher, in the presence of another known etiology for increased BP (e.g., stable chronic illness, diabetess, etc.).**

**Patient can be identified by:**

- Using ICD-10 Diagnostic Code 151.1 (Severe hypertension)
- Using ICD-10 Code C21 (Hypertension)

- Building your EHR triggers and ability to query for severe range BP’s

- Clearing pharmacy logs for antihypertensive medications that are a risk factor of severe HTN (e.g., treating high blood pressure with a nonprescription medication that is a risk factor of severe HTN)

### O2. Severe Maternal Morbidity (SMM)

| Denominator | Numerator | P | Total Tally
<table>
<thead>
<tr>
<th></th>
<th></th>
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<tbody>
<tr>
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<td>Hypertensive</td>
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<tr>
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</tr>
<tr>
<td>NH-Ind</td>
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<td></td>
<td></td>
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<tr>
<td>NH/Black</td>
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</tr>
<tr>
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<tr>
<td>All patients</td>
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</table>

### O3.

### P1. Time to Treatment – Baseline Data

<table>
<thead>
<tr>
<th>Denominator</th>
<th>Numerator: Time to treatment (October 31, 2021)</th>
<th>Totals</th>
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<tr>
<td>Non-Hispanic/Latina</td>
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<tr>
<td>Other race/ethnicity</td>
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<tr>
<td>Unknown race/ethnicity</td>
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</tbody>
</table>

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**www.alpqc.org/initiatives/htn/under “Data Resources”**
Step 4: Enter Data Into Data Portal

Data Portal Overview

Project: Maternal Hypertension Project

Select a topic:

**BASELINE Data**
- Enter baseline outcome data
- Select measurement period for baseline process data
- Enter baseline process data

**INITIATIVE Data**
- Step 1 – Enter monthly outcome data
- Step 2 – Select measurement period for monthly process data
- Step 3 – Enter monthly process data
- Step 4 – Take brief monthly self-assessment
- Quarterly Process Data
- Structural Measures – Once per initiative
- Create Reports

www.alpqc.org/initiatives/htn/
Team Talks

Dominique Holder, RN
Clinical Coordinator
Jackson Hospital
Team Talks

Allison Todd, MSN, RN
Manager Quality and Clinical Data
Rhonda Hamm, MSN, RN, RNC-NIC
WIS Quality Manager
UAB Medicine
ALPQC HTN Data Collection

By Allison Todd
How do I get a report from IT?

Communication

• Submit a request for data: Monthly list of OB deliveries with coding
• Meeting with IT team:
  • Introduce ALPQC HTN project
  • Quality Initiative: local, state, and national level
  • De-identified aggregate reporting
  • Outcome measures and codes
  • Report testing
  • Production
ALPQC Data Resources

Key Documents

Data Resources

- HTN Outcome Measures Codes (updated 3/23/21)
- HTN Outcome Measures Codes: ICD-10 (4/7/21)
- HTN Data Collection Instructions BASELINE (updated 3/23/21)
- HTN Data Collection Form – BASELINE Outcome
- HTN Data Collection Form – BASELINE Process (updated 3/3/21)
- HTN Data Collection Form – Process Measures (updated 3/3/21)
- HTN Data Measures Form
- Data Entry How-To | Graph How-To
<table>
<thead>
<tr>
<th>Measure Name</th>
<th>Description</th>
<th>Codes</th>
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<tbody>
<tr>
<td>Measure B01</td>
<td>Severe Maternal Morbidity</td>
<td></td>
</tr>
<tr>
<td>Measure B02</td>
<td>Severe Maternal Morbidity (excl. transfusion codes)</td>
<td></td>
</tr>
</tbody>
</table>

**ALPCH-HTN Outcome Measures Codes**

<table>
<thead>
<tr>
<th>ICD-9 #1</th>
<th>ICD-9 #2</th>
<th>ICD-9 #3</th>
<th>ICD-9 #4</th>
<th>AIM-Denominator/Ref-enGrd/MedCodes</th>
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**UAB MEDICINE**
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<tr>
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<td>HEMMORHAGE_DIAGS</td>
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<tr>
<td>INCLUDE_DIAGS</td>
<td>READM_DISCHARGE_DATE</td>
</tr>
<tr>
<td>EXCLUDE_DIAGS</td>
<td>READM_PRE_ECLAMPSIA_DIAG</td>
</tr>
</tbody>
</table>
Of Note

Communication is the key with IT

• Introduce project
• Be available for questions
• Test report
• Be aware it is never 100%
Q&A

• Please feel free to unmute and ask questions
• You may also enter comments or questions in the ”chat” box
Next Steps

✓ Monthly data due April 30
  ➢ Please submit *baseline* data if have not done so already

✓ March of Dimes Breaking Through Bias 1-hr online training
  ➢ Please complete training before next Friday, April 30

✓ Submit data use agreement

✓ Continue running PDSAs!
  ➢ Samples and template on our [website](#) under “Key Documents”
## Monthly Data Reporting

<table>
<thead>
<tr>
<th>Measure Type</th>
<th>Measure</th>
<th>Reporting Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome</td>
<td>O1. Number of patients with persistent severe HTN</td>
<td>Monthly</td>
</tr>
<tr>
<td>Outcome</td>
<td>O2. Severe Maternal Morbidity (SMM)</td>
<td>Monthly</td>
</tr>
<tr>
<td>Outcome</td>
<td>O3. SMM (excluding transfusion codes)</td>
<td>Monthly</td>
</tr>
<tr>
<td>Outcome</td>
<td>O4. SMM among Preeclampsia Cases</td>
<td>Monthly</td>
</tr>
<tr>
<td>Outcome</td>
<td>O5. SMM among Preeclampsia Cases (excluding transfusion codes)</td>
<td>Monthly</td>
</tr>
<tr>
<td>Process</td>
<td>P1. Time to treatment of persistent severe HTN – within 60 min/ 60-120 min / &gt;120 min / no meds given</td>
<td>Monthly</td>
</tr>
<tr>
<td>Process</td>
<td>P2. Follow-up appointment scheduled within 7-14 days – yes / no / unknown</td>
<td>Monthly</td>
</tr>
<tr>
<td>Process</td>
<td>P3. Patient education – yes / no / unknown</td>
<td>Monthly</td>
</tr>
</tbody>
</table>

Find data forms, including ICD-10 codes, and baseline data collection instructions on our website at [www.alpqc.org/initiatives/htn/](http://www.alpqc.org/initiatives/htn/), under the “Data Resources” menu.

Due on the last day of the following month

March 1-31 data due April 30, 2021
Thank You

Next Call: Friday, May 28 at 12:00 PM