Maternal Hypertension Initiative

March Action Period Call
Baseline Data Review
Severe Hypertension Identification & Management
March 26, 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. Please do not put your phone on hold as music will play.
- 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

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Updates &amp; Questions</td>
<td>12:05 – 12:10</td>
</tr>
<tr>
<td>Baseline Data Review &amp; Updates</td>
<td>12:10 – 12:30</td>
</tr>
<tr>
<td>Severe HTN Identification &amp; Management, Team Share</td>
<td>12:30 – 12:50</td>
</tr>
<tr>
<td>Q &amp; A</td>
<td>12:50 – 1:00</td>
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</tbody>
</table>
Maternal HTN
Updates & Questions

Coaching call lessons learned
- Which patients are included
- Identification of patients
  • E.g. Who’s not included?
- Treatment protocols
  • Website protocols/ACOG are examples
Baseline Data Review & Updates
Why This Matters

- Setting your SMART aim
- Measurement Strategy
- Key Driver Diagram
- Testing Changes via PDSA cycles
Aim: Reduce by 20% 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 inequity gap in severe maternal morbidity in patients with preeclampsia/eclampsia

**Primary Drivers**

- 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

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

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

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

**Secondary Drivers**

- 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 hypertension cases
- Establish process for multidisciplinary systems reviews on all severe maternal hypertension cases admitted to the ICU

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**Maternal Hypertension Driver Diagram**
## Baseline Data

<table>
<thead>
<tr>
<th>Measure Type</th>
<th>Measure</th>
<th>Source</th>
<th>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. Severe Maternal Morbidity (SMM) | IT report | Quarterly basis:  
- January-March 2020  
- April-June 2020  
- July-September 2020  
- October-December 2020  
- January-February 2021 |
| Outcome      | O3. SMM (excluding transfusion codes) | IT report | |
| Outcome      | O4. SMM among Preeclampsia Cases | IT report | |
| Outcome      | O5. SMM among Preeclampsia Cases (excluding transfusion codes) | IT report | |

Find data collection 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.
## Data Reporting Frequency

<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></td>
</tr>
<tr>
<td>Outcome</td>
<td>O3. SMM (excluding transfusion codes)</td>
<td></td>
</tr>
<tr>
<td>Outcome</td>
<td>O4. SMM among Preeclampsia Cases</td>
<td></td>
</tr>
<tr>
<td>Outcome</td>
<td>O5. SMM among Preeclampsia Cases (excluding transfusion codes)</td>
<td></td>
</tr>
<tr>
<td>Process</td>
<td>P1. Time to treatment of persistent severe HTN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>– within 60 min/60-120 min/&gt;120 min/no meds given</td>
<td></td>
</tr>
<tr>
<td>Process</td>
<td>P2. Follow-up appointment scheduled within 7-14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>– yes/no/unknown</td>
<td></td>
</tr>
<tr>
<td>Process</td>
<td>P3. Patient education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>– yes/no/unknown</td>
<td></td>
</tr>
</tbody>
</table>

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Due on the last day of the following month

March data due April 30, 2021
## Data Reporting Frequency

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<thead>
<tr>
<th>Measure Type</th>
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<th>Reporting Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process</td>
<td>P3. Provider education - % who completed education</td>
<td>Quarterly</td>
</tr>
<tr>
<td></td>
<td>P4. Provider education - % who completed education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P5. Unit drills - # of OB drills, topics</td>
<td></td>
</tr>
</tbody>
</table>

Due a month after quarter ends

Jan-March 2021 quarter due
April 30

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<thead>
<tr>
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<th>Reporting Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural</td>
<td>S1. Severe HTN/Preeclampsia policies and procedures for pregnant and postpartum patients</td>
<td>Once per initiative</td>
</tr>
<tr>
<td></td>
<td>S2. Debriefs</td>
<td>yes/no/ in progress</td>
</tr>
<tr>
<td></td>
<td>S3. Multi-disciplinary case review protocols</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S4. Patient/Family/Staff Support Resources and Protocols</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S5. Severe HTN/Preeclampsia bundle processes (i.e. order sets, tracking tools) integration into hospital’s EHR system</td>
<td></td>
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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.
Data Collection

Step 1: **Start** with ICD-10 Codes*

Step 2: Inclusion Criteria

Step 3: Collect Measures

Step 4: Enter Data Into Data Portal

*Find ICD-10 codes on our website at [www.alpqc.org/initiatives/htn/](http://www.alpqc.org/initiatives/htn/), under the “Data Resources” menu
Step 2: Inclusion Criteria

- Pregnant (delivery admission)/Postpartum patients with persistent elevated BP ≥160 systolic or ≥110 diastolic

- Any inpatient location: L&D, triage, ED, antepartum, postpartum

- Include patients with chronic/gestational HTN

- Maternal transfers:
  - Transferred out: Transferring hospital should enter data into portal on any patients that meet criteria before they were transferred.
  - Transferred in: Receiving hospital should enter data into portal 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.
P1: Time to Treatment of Severe HTN

❖ Aim to report data for all patients with persistent severe HTN

❖ If unable to report for all patients, you may select sample:
  1. Facilities with <200 births/yr : sample of 5 charts/month
  2. Facilities with >200 births/yr : sample if 10 charts/month

❖ If sampling, it is critical that you pull patients randomly in order to avoid selection bias.
  ➢ You may use random calculator at https://www.random.org/
Step 3: Collect Baseline Measures

Excel Data Entry Tools

ALPQC Maternal Hypertension Initiative
BASELINE Outcome Measures Form

Instructions: Use this document to help collect baseline outcome data for the Maternal Hypertension Initiative. Add your IT department to generate a report for the measures below.

See "HTN Outcome Measures Coders" and "Baseline Data Collection Instructions" on our website under the "Data Resources" menu.

Targeted Quarterly reviews last quarter only; gives February 2021
January - March 2020
April - June 2020
July - September 2020
October - December 2020
January - February 2021

For more information on baseline data collection for other ALPQC Outcome Measures, see the "baseline measures" report.

Note: Any patient identified as Hispanic or Black, even from the portal or database, in any of the above groups, will be shared with the social/ethnic group.

Have over cells below to see exact wording of measures by social/ethnic group.

Denotes required field.

O2. Severe Maternal Morbidity (SMM)

Denominator: Total number of patients during the baseline, excluding maternal and neonatal mortality.

Numerator: Among the denominator, excluding maternal and neonatal mortality.

P Specific time period:

O3.

ALPQC Maternal Hypertension Initiative BASELINE Process Measure Form

Instructions: Use this document to help you track the number of patients with persistent (more than 15 minutes) severe hypertension.

Aim to collect for all patients with persistent severe hypertension.

If unable to complete for all cases in a month and you choose to do a sample, it is critical that you pull patient charts randomly to avoid selection bias.

If you choose a sample:

Use a random calculation like this: https://www.random.org.

The random number is 200/90, so you would select 2.22 patients/month.

Large facilities (>200 births/month) should round up.

Baseline process measures may be used to evaluate the performance of the team:

"Persistent severe hypertension defined as >90/60 dipped no more than 15 minutes apart in a question or if positive, excluding readings during auscultation may be included in the process of another form using the measured BPMs (e.g., ankle pulse, chin, and thoracic)." Severe values do not need to be consecutive.

"Patients can be divided by race and ethnicity. Using CDC’s NH-ESRD Phase II, includes all patients 18+ with a race and ethnicity. (See guidelines for determining race and ethnicity)."

"Non-Hispanic Whites: Includes all patients with white as their race and "All races" for their ethnicity."

"Black or African American: Includes all patients with black as their race and "All races" for their ethnicity."

"Hispanic/Latino: Includes all patients with hispanic or latino as their race with "All races" for their ethnicity."

"Other races/ethnicities: Includes all patients with other race/ethnicity values."

"Unknown/Not listed: Includes all patients with an unknown/other race/ethnicity value."

Have over cells below to see exact wording of numerators/denominators by racial/ethnic group.

Denotes required field.

P1. Time to Treatment – Baseline Data

Denominator: Number of patients with persistent severe hypertension

Numerator: Time to treatment - denominator

Patient Chart # (Ensure a numeric id to help find data collection – no PI)

Patient needs requirements for persistent severe hypertension (Select Below)

Time is calculated with antihypertensive medication (Select Below)

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

Data Portal Overview

www.alpqc.org/initiatives/htn/
Severe Hypertension
Identification and Management
Aim: Reduce by 20% 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 inequity gap in severe maternal morbidity in patients with preeclampsia/eclampsia

**Primary Drivers**

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

- **Respond**
  - 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

**Secondary Drivers**

- Develop standard order sets, protocols, checklists, algorithms for early warning signs, diagnostic criteria, timely triage, monitoring and treatment of severe HTN. Integrate into EHR
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- Establish process for multidisciplinary systems reviews on all severe maternal hypertension cases admitted to the ICU
Severe Hypertension Monitoring, Validation, and Escalation

Amy McRae & Genevieve Mantell
Quality Management
USA Health Children’s & Women’s Hospital
Severe Hypertension
Readiness – Processes for Optimal Care

Brian Brocato
Assistant Professor, OBGYN – Maternal Fetal Medicine
Department of Obstetrics and Gynecology
UAB Medicine
Obstetric Lead, ALPQC
Readiness: Processes for optimal care

Triage/ Evaluation/Management/ Escalation

MEWS Protocol - Safe HealthCare for Every Woman - Patient safety MEWS

- Maternal Early Warning Signs
- Criteria where immediate action is required
  - Systolic Blood pressure >160, Diastolic Blood pressure >110
  - Hypertension with symptoms of non-remitting HA or dyspnea
- Physician should be notified/see patient/document condition and plan
- Anesthesia notified of condition
- “Huddle” with Charge RN, Primary RN, Anesthesia, OB Provider
- Plan for if conditions persist after corrective measures

www.alpqc.org/initiatives/htn/
Readiness: Processes for optimal care

Triage/ Evaluation/Management/Escalation
Readiness: Processes for optimal care

Triage/ Evaluation/Management/ Escalation

Readiness: Develop & Implement Standard Processes for Optimal Care

- ACOG Committee Opinion 767: Emergent Therapy for Acute-Onset, Severe Hypertension During Pregnancy and the Postpartum Period
- Maternal Early Warning Criteria Protocols and Resources – Council on Patient Safety on Women’s Health Care
- Emergency Department Guidance – FPQC
- Emergency Department Recognition and Treatment – CMQCC
- CMQCC Preeclampsia Toolkit
- Safety Action Series: Blood Pressure Basics
- 7 Simple Tips to Get an Accurate BP Measurement – AHA, AMA
- Accurate BP Measurement – OPQIC

www.alpqc.org/initiatives/htn/
Q&A

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

✓ March of Dimes Breaking Through Bias 1-hr online training
  ➢ Please complete training before next Wednesday, March 31

✓ Complete Maternal HTN Baseline Survey

✓ Please complete your data use agreement

✓ Continue running PDSAs!
  ➢ Samples and template on our website under “Key Documents”

✓ Baseline Data Due March 31
HTN Initiative Agenda

Learning Session 1
Webinar 1: Collecting & Entering Data

Learning Session 2
Webinar 2: Readiness - Severe HTN Identification & Management

Learning Session 3
Webinar 3: Recognition & Prevention

Webinar 4: Topic TBD

Webinar 5: Topic TBD

Webinar 6: Topic TBD

Webinar 7: Topic TBD

Webinar 8: Topic TBD

Year in Review

HTN Baseline Survey
Baseline Data Entry
Data Entry: Monthly Outcome and Process Measures, Structure Measures (once per initiative)

Deliverables

Hospital Actions
1) Team formation
2) Measurement strategy
3) Baseline data collection
1) Change package
2) Plan PDSAs
3) Data Entry
1) Change package
2) Plan PDSAs
3) Data Entry
1) Change package
2) Plan PDSAs
3) Data Entry
1) Change package
2) Plan PDSAs
3) Data Entry
1) Continue PDSAs
2) Data Entry

Process Measures
Process Measures
Process Measures
Process Measures

Thank You

Next Call: Friday, April 23 at 12:00 PM