Maternal Hypertension Initiative

Action Period Call – Collecting and Entering Data
February 26, 2021
Welcome!

• Attendees are automatically muted to reduce background noise (please double check that you are muted!)
• 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 designated times to answer questions
• Slides will be available at www.alpqc.org
• We are now recording!
• 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!
<table>
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<tr>
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<th>Session</th>
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<td>Maternal HTN Data Collection</td>
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<td>12:25 – 12:30</td>
<td>Baseline Data</td>
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<td>12:30 – 12:40</td>
<td>Data Portal</td>
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<td>12:40 – 12:50</td>
<td>Q &amp; A</td>
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<td>12:50 – 12:55</td>
<td>Team Talks</td>
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<td>12:55 – 1:00</td>
<td>Next Steps</td>
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Maternal HTN Updates

- **Reminders**
  1. Submit Team Roster
  2. Complete Baseline Survey
  3. MOD Breaking Through Bias Training
  4. Coaching Calls
Participating Hospitals

1. Baptist Medical Center East
2. Brookwood Baptist Medical Center
3. Coosa Valley Medical Center
4. Crestwood Medical Center
5. D.W. McMillan Memorial Hospital
6. DCH Regional Medical Center
7. East Alabama Medical Center - Opelika
8. Flowers Hospital
9. Huntsville Hospital
10. Jackson Hospital
11. Madison Hospital
12. Marshall Medical Center North
13. Medical West Hospital
14. Mobile Infirmary Medical Center
15. Monroe County Hospital
16. North Baldwin Infirmary
17. Northport
18. Princeton Baptist Medical Center
19. RMC - Anniston
20. Russell Medical
21. Southeast Health
22. St. Vincent's Birmingham
23. Thomas Hospital
24. UAB
25. USA Children's & Women's
Maternal HTN Data Collection
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

Readiness
Develop & implement standard processes for optimal care

Recognition & Prevention
Educate, identify, assess

Respond
Timely treatment of severe hypertension

Change Systems
Foster a culture of safety and improvement

Maternal Hypertension Driver Diagram

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

Secondary Drivers

- 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

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

Model for Improvement

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What change can we make that will result in improvement?

- Setting your SMART aim
- Measurement Strategy
- Key Driver Diagram
- Testing Changes via PDSA cycles
3 Types of Measures

**Outcome**
1. Identify whether changes are leading to improvement in the health status of patients
   a. How is the system performing?
   b. What is the result?

**Process**
1. Identify changes to processes of care that can affect outcome measures
2. Are parts/steps in the system performing as planned?
3. Are we on track in our efforts to improve the system?

**Structural**
1. Examine infrastructural capacity, systems and processes.
2. Along with process measures, assist healthcare providers in identifying areas of QI
## Data Reporting Frequency

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

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<th>Measure Type</th>
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<th>Reporting Frequency</th>
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<tbody>
<tr>
<td>Process</td>
<td>P3. Provider education - % who completed education</td>
<td>Quarterly</td>
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<tr>
<td></td>
<td>P4. Provider education - % who completed education</td>
<td></td>
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<td></td>
<td>P5. Unit drills - # of OB drills, topics</td>
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<tr>
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<th>Reporting Frequency</th>
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<tbody>
<tr>
<td>Structural</td>
<td>S1. Severe HTN/Preeclampsia policies and procedures for pregnant and</td>
<td>Once per initiative</td>
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<tr>
<td></td>
<td>postpartum patients – yes/no/in progress</td>
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<td>S2. Debriefs– yes/no/in progress</td>
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<td></td>
<td>S3. Multi-disciplinary case review protocols – yes/no/in progress</td>
<td></td>
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<td></td>
<td>S4. Patient/Family/Staff Support Resources and Protocols – yes/no/in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>progress</td>
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<td></td>
<td>S5. Severe HTN/Preeclampsia bundle processes (i.e. order sets, tracking</td>
<td></td>
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<tr>
<td></td>
<td>tools) integration into hospital’s EHR system – yes/no/in progress</td>
<td></td>
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# Baseline Data

<table>
<thead>
<tr>
<th>Measure Type</th>
<th>Measure</th>
<th>Source</th>
<th>Measurement Period</th>
</tr>
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</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 |
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
Maternal HTN Definition

Persistent severe hypertension defined as $\geq 160$ systolic or $\geq 110$ diastolic twice within 15 minutes antepartum or postpartum

**Excluding:**

- Readings during pushing
- $>20$ min after epidural
- or in the presence of another known etiology for elevated BP (e.g. sickle cell pain crisis, chemotherapy, etc.)

- Severe values **do not need to be consecutive.**
  - *Ideally confirmatory BP will occur within 10-15 minutes, but facilities should also include cases with severe range BP separated by $>15$ minutes. However,*
  - *The treatment clock starts at first BP*
  - *For further guidance, see “AIM FAQ Treatment of Severe Hypertension” on our website under Toolkit – Respond: Timely Treatment of Severe Hypertension*
Step 2: Inclusion Criteria

- Pregnant/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.
Process Measure 1: Time to Treatment of Severe HTN

Retrospective chart review on all patients with persistent severe HTN at your facility using:

- ICD-9/10 codes for Preeclampsia Diagnosis codes
  - Download “HTN Outcome Measures Codes” here, under the Data Resources menu

- EMR searches/reports using keywords for pregnant/postpartum patients
  - E.g., chronic HTN, preeclampsia, eclampsia, superimposed preeclampsia, preeclampsia with severe features, systolic BP $\geq 160$, diastolic BP $\geq 110$, etc.

- Delivery logs

- Pharmacy records for Labetalol, Hydralazine, Nifedipine, and Magnesium Sulfate

Use of at least two methods recommended
P1: Time to Treatment of Severe HTN

Identifying baseline data may require collaboration with:

- IT/EMR staff
- ED
- Pharmacy
- Billing/Coding department
If you are unable to collect data on all patients with persistent severe HTN, you may select a:

1. Sample of 5 charts/month for facilities with <200 births/yr
2. Sample if 10 charts/month for facilities with >200 births/yr.

- 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: Baseline Data Collection – P1 - Time to Treatment of Severe HTN

1) Time period
   • December 2020
   • January 2021
   • February 2021

2) Population:
   • All patients
   • Hispanic/Latino
   • NH American Indian/Alaska Native
   • NH Asian
   • NH Black/African American
   • NH White
   • Other
   • Unknown

Baseline:
Due March 31, 2021

Find data collection forms, including ICD-10 codes, and baseline data collection instructions on our website at www.alpqc.org/initiatives/htn/, under the “Data Resources” menu.
Step 3: Baseline Data Collection – SMM Outcome Measures

- Data Source: IT report with ICD-9/10 codes provided
- Measures O3 and O5 (excluding transfusion codes) are priority

1) Time period - **Quarterly**
   - January – March 2020
   - April – June 2020
   - July – September 2020
   - October – December 2020
   - January – February 2021

2) Population: (NH: Non-Hispanic)
   - All patients
   - Hispanic/Latino
   - NH American Indian/Alaska Native
   - NH Asian
   - NH Black/African American
   - NH White
   - Other
   - Unknown

Baseline:
Due March 31, 2021

Note: patients who selected Hispanic and Asian would be entered as Hispanic/Latino

Find data collection forms, including ICD-10 codes, and baseline data collection instructions on our website at www.alpqc.org/initiatives/htn/, under the “Data Resources” menu.
Collect Baseline Measures

Excel Data Entry Tool
Enter Data Into Data Portal

Data Portal Overview
Q&A

- Please feel free to un-mute and ask questions
- You may also enter comments or questions in the "chat" box (with Everyone selected)
Team Talks

UAB
Next Steps
Keys to Success

- Meet with your team regularly!
  - Members to have in your QI team: physician champion, nurse champion, data champion, other team member if available including ED, anesthesiology.
- Team activities
  - Work on your team Aim and 30-60-90 Day Plan
  - Data collection implementation
  - Monthly meetings to review your data, identify opportunities for improvement, plan and discuss PDSA cycles, etc. to drive QI
  - Develop process flow diagram for different settings at your hospital and discuss opportunities for improvement
  - Protocol/policy review
  - Debriefs/case reviews
  - Start your first PDSA cycle!
    - Samples and template on our website under “Key Documents”
Keys to Success

- Attend monthly calls
  1. We will review education topic, review data, discuss QI strategies for implementation, and you’ll hear from peer teams sharing progress, barriers and lessons learned

- Submit data regularly into data portal
  1. You will be able to track your progress across time and compare to other hospitals in initiative
Next Steps

- March of Dimes Breaking Through Bias 1-hr online training
  - Email eguillaumet@uab.edu to sign up your team
  - If already signed up: complete training before March 31

- Submit Team Roster

- Complete Maternal HTN Baseline Survey

- Coaching Calls

- Baseline Data Due March 31
Thank You

Next Call: Wednesday, March 26 at 12:00 PM