



Maternal Hypertension Initiative Charter

ALPQC Project Leadership		
Project Lead	Dr. Brian Brocato	brianbrocato@uabmc.edu
Project Manager	Evelyn Coronado-Guillaumet	eguillaumet@uab.edu
Project Resources Committee	Data portal: Rosemary Blackmon	rblackmon@alaha.org
	Data portal: Margaret Borders	mborders@alaha.org
	Consumer Representative: Britta Cedergren	bcedergren@marchofdimes.org
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Problem Statement

Hypertensive disorders of pregnancy (HDPs) are among the leading causes of severe maternal morbidity and mortality in the United States and Alabama and have been on the rise in recent years. HDPs are preventable if caught and treated appropriately. Although updated guidelines are available through ACOG, AIM, and APEC, screening for and treatment of HDP does not occur consistently across labor and delivery units in a timely manner.

Rationale

Women arrive at hospitals for routine, urgent, and emergency pregnancy-related care. These interactions are critical times to ensure that women are screened for HDP and that appropriate responses are initiated. Conducting QI to educate staff, update protocols, and improve rates of screening will lead to the desired outcome by reducing severe maternal morbidity (SMM).

Expected Outcomes and Benefits

We expect this project will lead to improvements in readiness, recognition, response and reporting of severe hypertensive disorders among pregnant women, with the ultimate outcome of decreasing rates of SMM and maternal mortality related to HDP. Beyond improvements in maternal safety, reducing the burden of HDP has the potential to reduce healthcare costs, as found in a 2012 U.S. study that reported preeclampsia costs an estimated \$1 billion nationally within the first 12 months of delivery.

Project Description

The Maternal Hypertension Initiative will help participating hospital teams make breakthrough improvements in inpatient safety through a redesign of processes to standardize evidence-based tools and guidelines related to severe hypertension in pregnancy. This includes developing and implementing protocols and practices related to identification, management and safe discharge of women with severe hypertension. Hospitals will embark on this initiative with other Alabama birthing hospitals, consisting of iterative cycles of testing and implementation of changes, monthly webinars with participating hospitals will be conducted to review performance data, for hospitals to share successes and challenges in implementing the [Alliance for Innovation on Maternal Health \(AIM\) Severe Hypertension in Pregnancy Bundle](#), and to identify areas in need of improvement.



Project Aim

The aim of the Maternal Hypertension Initiative is to reduce by 20% severe maternal morbidity from preeclampsia/eclampsia among pregnant and postpartum patients in participating facilities by April 2022.

Our key goals are to:

- Improve timely treatment of severe hypertension
- Increase the proportion of patients receiving preeclampsia discharge education and follow-up appointments within 7-14 days
- Narrow the Black-White inequity gap in SMM in patients with preeclampsia/eclampsia

Following are the measures we will use to monitor progress toward our aim:

Structure Measures	The measures we want to use to track clinical protocols and organization.	
	<ol style="list-style-type: none"> 1. Develop evidence-based Severe HTN/Preeclampsia policy and procedure that provides a unit-standard approach to identification and management of Severe HTN/Preeclampsia. 2. Establish a system to perform regular formal debriefs after cases with major complications 3. Establish a process to perform multidisciplinary systems-level reviews on all cases of severe maternal morbidity (including women admitted to the ICU, receiving ≥4 units RBC transfusions, or diagnosed with a VTE). 4. Develop resources/protocols to support patients, family and staff through major OB complications. 5. Integrated into your hospital’s EHR system some of the recommended Severe HTN/Preeclampsia bundle processes (i.e. order sets, tracking tools). 	
Process Measures	The measures that will tell us if the system is performing as planned to affect the outcome measure.	
	<ol style="list-style-type: none"> 1. Time from confirmation of severe hypertension at facility to treatment with medication. 2. Follow-up appointment scheduled within 7-14 days for all women with severe hypertension. 3. Education to patients and families on the signs and symptoms of severe hypertension/preeclampsia during hospitalization and after discharge. 4. Role-specific education to all nurses and providers who treat pregnant/postpartum patients about the hospital’s severe hypertension/preeclampsia procedure. 5. Conduct drills at least annually to determine system issues as part of ongoing QI efforts. 	
Outcome Measures	The measures we ultimately want to affect as a result of this project.	
	<ol style="list-style-type: none"> 1. Number of cases with persistent severe hypertension. 2. Severe maternal morbidity. 3. Severe maternal morbidity (excluding transfusion codes). 4. Severe maternal morbidity among Preeclampsia cases. 5. Severe maternal morbidity (excluding transfusion codes) among Preeclampsia cases. 	
Data Reporting		
Monthly:*	<ul style="list-style-type: none"> • Baseline Data: Due March 2021** • Initiative data: Due April 2021 (For March 2021) 	*Aim to report by end of the month **Baseline data from: a) Time to treatment (Measure P1): Dec2020-Feb2021 b) SMM (Measure O2-O5: April 2020-2021)



Framework

This initiative takes the structure of the Institute for Healthcare Improvement's (IHI) Breakthrough Series Collaborative. A Breakthrough Series (BTS) Collaborative is a systematic approach to health care quality improvement in which organizations and staff test and measure practice innovations and share their experiences in an effort to accelerate learning and widespread implementation of best practices. Your experience will involve working together with hospital teams from across Alabama who share the same goals.

Participating in a Collaborative is an excellent foundational tool to creating long-term success, helping hospitals accelerate work that is underway and plan for meaningful progress over time.

Teams will embark on this project with other Alabama birthing hospitals focused on the same aim and objectives. We will achieve our aim via engaging in iterative cycles of testing and implementation of changes in the [HTN Toolkit](#), measuring progress toward meeting our goals, and sharing lessons learned, with various forms of support along the way. The overall framework of the collaborative is as follows:

Learning Sessions

Learning Sessions are in-person or virtual meetings bringing together participating hospital teams and expert faculty to exchange ideas in real time. Faculty experts present a vision for ideal care and specific changes, based on the Change Package (Toolkit), that when applied locally will significantly improve the hospital's performance. The teams also learn the [Model for Improvement](#), which enables them to test these powerful change ideas locally by conducting [Plan-Do-Study-Act cycles](#)—this way teams reflect on, learn from, and refine tests before successfully implementing changes in their unit.

During learning sessions, team members also learn from one another as they share successes, barriers, and lessons learned during the learning sessions.

Action Periods

Between Learning Sessions, participating hospitals will engage in Action Periods that provide the time for maximal learning—this is when teams implement changes and receive support from ALPQC and peers. The goals of the Action Periods are to support teams in their improvement work, build collaboration and shared learning, and assess collaboration and progress.

Actions Periods will include the following:

- *PDSA Cycles:* Teams implement site-specific tests of change in alignment with the collaborative's and their team's aim
- *Monthly Reporting:* ALPQC developed a monthly reporting system, including assessment using a 0-5 scale, to collect and review progress on implementation tasks from each hospital, reflect on lessons learned during that month, and plan for the next month. The ALPQC team will review each report submitted by teams monthly to provide feedback.



- *All-Teams Conference Calls:* Hospital teams are to participate in monthly, one-hour calls on different change topics related to the work. These calls are led by ALPQC project faculty and feature opportunities for team learning and highlighting successes in the collaborative.
- *Shared Learning and Communication:* Between meetings and conference calls, teams can communicate with each other on a shared electronic workspace. This will be a place where teams can also access project resources, report measures, and share their work.

Expectations for participation in the HTN Collaborative:

The ALPQC Team will:

- Include a project lead, improvement advisor and coordinator, data portal resources, and faculty who have expertise in the subject matter and improvement methods.
- Provide information on Maternal HTN, application of evidence-based practices to improve care, and quality improvement methods for structure, process and outcome improvement.
- Provide guidance, feedback and resources to teams throughout the course of the project.
- Facilitate communication to keep teams connected to the faculty and each other.

Participating Hospitals Expectations:

- Form your hospital team consisting of at least one physician champion, one nurse champion, one pharmacy champion, and a data champion (someone with access to medical charts).
- Set a team aim related to the Collaborative's aim stated above. Note that the aim can change/broaden throughout the course of the project.
- Complete pre-work activities to prepare for the learning sessions and action periods, including reviewing the [HTN Toolkit](#) and filling out the checklist inside the toolkit.
- Actively participate in learning sessions and monthly action period calls to share learning and results.
- Conduct tests of change in alignment with the aim and, after successful testing and adaptation, implement changes in your unit. Report Plan-Do-Study-Act (PDSA) cycles monthly to ALPQC.
- Report data measures and narratives by the end of each month for the duration of the project.



Opportunities for Spread

In the work of IHI and other states over many years, some important lessons have emerged about promoting and sustaining the spread of improvement over time, including:

- The development of an explicit tracking plan so senior leaders can quickly assess the progress made during spread of the changes, and readily intervene to help when the spread plan is not performing as planned
- The development of a spread infrastructure (training, communication methods, reviews of progress)
- The assessment of groups and individuals for readiness to adapt and adopt the changes before deployment
- The expectation that other sites will want to customize the changes
- Senior leaders decide on the level of desired spread (the number of areas to which applicable changes are spread) and establish a schedule for spread (the tempo and order of spread)
- Senior leaders make the work visible and give it high priority

The strategy for rapid spread within participating hospitals is an integral part of the collaborative that is fueled by participating hospitals documented successes, engages senior leaders, and allows for local adaptation and customization.