



Maternal Hypertension Initiative

Hospital Team Toolkit

Decreasing blood pressure through rapid recognition and treatment has been shown to decrease maternal morbidity and mortality. This guide is being provided to help your team establish protocols, processes and education to ensure women with hypertension/preeclampsia are identified quickly and managed well to avoid further complications.

The toolkit primarily utilizes the AIM Bundle produced by ACOG and the Council on Patient Safety in Women's Health Care. In addition, there are links to the Joint Commission's Perinatal Safety requirements. We recognize that each hospital is unique and not all of these factors need to be addressed in every facility. Therefore, it is important to use this toolkit to determine what might be relevant to your facility.

Step 1 – Gather your QI team:

- Your team should contain at least one physician champion, one nurse champion and one data champion (someone with access to medical charts).
- Even better if you can ensure representation from the following: obstetrics, emergency department, anesthesiology, nursing laboratory and pharmacy.

Step 2 – Identify gaps, goals and next steps:

- Review the toolkit/checklist as a team to:
 - understand best practices
 - identify current gaps & determine action steps needed
 - Assign someone to be responsible for championing and managing each action
- Identify an area for a pilot
- Set goals for improvement
- Develop protocols, or tweak existing ones, to meet goals

Step 3 – Ensuring success

- Determine method for gathering data to monitor project success
- Establish QI team meeting schedule (may be bimonthly at first and then monthly)
- Commit to participate in monthly ALPQC project webinars



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ALPQC Maternal Hypertension Initiative Project Checklist *(adapted from The Joint Commission [Standards for Perinatal Safety](#))*

Action and Resources	Current Assessment <i>(Select one)</i>	Responsible Person
1. Develop written evidence-based procedures for measuring and remeasuring blood pressure. These procedures include criteria that identify patients with severely elevated blood pressure.		
<p>Need to identify women with severe range hypertension – Ensure process for timely triage and evaluation of pregnant and postpartum women with hypertension including ED, OB, and outpatient areas (Triage in ED).</p> <p>Types of Hypertension Definitions (of severe hypertension and hypertensive emergency) Preeclampsia Early Recognition Tool</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Need to educate on existing policies <input type="checkbox"/> Need to improve existing policies <input type="checkbox"/> Need to develop a policy 	
<p>Need standard protocol for measurement and assessment of BP and urine protein for all pregnant and postpartum women</p> <p>Again, utilize Preeclampsia Early Recognition Tool. Tips for taking accurate blood pressures:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Guidance from California Collaborative on Accurate Blood Pressure Measurement (e.g. positioning, size of cuff) <input type="checkbox"/> Standardize use of blood pressure devices on all units <input type="checkbox"/> Regularly calibrate blood pressure devices (at least annually, if not more often) <input type="checkbox"/> Ensure appropriate cuff size – width of bladder 40% of circumference and encircle 80% of arm <input type="checkbox"/> Blood Pressure Visual for Best Practice & Blood Pressure Checklist 	<ul style="list-style-type: none"> <input type="checkbox"/> Need to educate on existing policies <input type="checkbox"/> Need to improve existing policies <input type="checkbox"/> Need to develop a policy 	
2. Develop written evidenced-based procedures for managing pregnant and postpartum patients with severe hypertension/preeclampsia.		



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<p>Determine when to treat – Ensure protocols include current criteria for initiating treatment for both severe hypertension and hypertensive emergencies (When To Treat)</p> <p>Tip: Continue to monitor patients who don't meet criteria (see #5)</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Need to educate on existing policies <input type="checkbox"/> Need to improve existing policies <input type="checkbox"/> Need to develop a policy 	
<p>Ensure appropriate treatment – Protocols need to cover use of first-line and second-line therapies. See ACOG recommendations below:</p> <p>Seizure Prophylaxis -</p> <ul style="list-style-type: none"> • Magnesium Sulfate <p>First-Line Therapies -</p> <ul style="list-style-type: none"> • Intravenous Labetalol • Intravenous Hydralazine • Oral Nifedipine <p>Second-Line Therapies - If patient fails to respond.</p> <p>Tip: Work with pharmacy to standardize medication order sets and have medications readily available in the areas where patients initially present (either in ED or OB triage area). Ideally, the medications would be bundled in the Pixus machine.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Need to educate on existing policies <input type="checkbox"/> Need to improve existing policies <input type="checkbox"/> Need to develop a policy 	



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<p>Monitoring Blood Pressure and Labs Monitoring Change of Status</p> <p>Have a plan for complications and escalation (Consultation Triggers)</p> <p>Tip: Need to have phone number readily available for closest MFM consult and/or referral.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Need to educate on existing policies <input type="checkbox"/> Need to improve existing policies <input type="checkbox"/> Need to develop a policy 	
<p>Postpartum Surveillance – Need to have a plan for inpatients and outpatients</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Need to educate on existing policies <input type="checkbox"/> Need to improve existing policies <input type="checkbox"/> Need to develop a policy 	
<p>Other helpful information:</p> <p>Minimal requirements for standard process starting with initial presentation at your hospital:</p> <ul style="list-style-type: none"> • Notification of physician or primary care provider if systolic BP \geq 160 or Diastolic BP \geq 110 for two measurements within 15 minutes apart • After the second elevated reading, treatment should be initiated ASAP (ideally within 60 minutes of verification) • Process must include timing for use of magnesium sulfate therapy • Process for escalation measures for those unresponsive to standard treatment • Describe manner and verification of postpartum follow up within 7 to 10 days of birth • Describe postpartum education <p>Hypertensive Emergency Checklist Eclampsia Checklist ED Postpartum Preeclampsia Checklist</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Need to educate on existing policies <input type="checkbox"/> Need to improve existing policies <input type="checkbox"/> Need to develop a policy 	



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3. Provide role-specific education to all staff and providers who treat pregnant/postpartum patients about the hospital's evidence-based severe hypertension/preeclampsia procedure. At a minimum, education occurs at orientation, whenever changes to the procedure occur, or every two years.		
<p>Ensure appropriate education for all staff – Training should occur at initial hiring and in annual competency training.</p> <p>Be sure to include: OB staff ED staff Other staff (such as outpatient clinics)</p> <p>PowerPoint Presentation from ACOG</p> <p>E-modules from ACOG (scroll to bottom of page for modules)</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Need to educate on existing policies <input type="checkbox"/> Need to improve existing policies <input type="checkbox"/> Need to develop a policy 	
4. Conduct drills at least annually to determine system issues as part of ongoing quality improvement efforts. Severe hypertension/preeclampsia drills include a team debrief.		
<p>Ensure drills/simulations conducted for all staff</p> <p>Several simulations from ACOG: Eclampsia Simulation Scenario Overview Eclampsia Drill Clinical Scenario Eclampsia Drill Assessment Tool</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Need to educate on existing policies <input type="checkbox"/> Need to improve existing policies <input type="checkbox"/> Need to develop a policy 	
5. Review severe hypertension/preeclampsia cases that meet criteria established by the hospital to evaluate the effectiveness of the care, treatment, and services provided to the patient during the event.		
<p>Develop criteria and frequency for reviewing severe cases and understanding ways to improve.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Need to educate on existing policies <input type="checkbox"/> Need to improve existing policies <input type="checkbox"/> Need to develop a policy 	



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<p>Tool from Illinois PQC to debrief and evaluate severe range cases - PHEW Debriefing Tool</p>		
<p>6. Provide printed education to patients (and their families including the designated support person whenever possible).</p>		
<p>Develop protocol for patient Discharge Planning and Follow-Up</p> <p>What patients need to know – Prenatal and Postpartum Patient Counseling or Education</p> <p>Helpful Patient Video</p> <p>Fact sheet from American Organization of Nurse Executives (scroll down to “Save your Life Handouts”)</p> <p>Patient Education Pamphlets sold by the Preeclampsia Foundation</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Need to educate on existing policies <input type="checkbox"/> Need to improve existing policies <input type="checkbox"/> Need to develop a policy 	