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ON MATERNAL HEALTH

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**Severe Hypertension in Pregnancy  
Patient Safety Bundle (2022)**

*Element Implementation Details*



# Severe Hypertension in Pregnancy Patient Safety Bundle (2022) Element Implementation Details

Further details are offered here to support implementation of the Severe Hypertension in Pregnancy Bundle.

## Readiness — Every Care Setting

Readiness Element	Key Points
Care Setting	<p>All care settings potentially including:</p> <ul style="list-style-type: none"> <li>• Labor and Delivery Units</li> <li>• Freestanding Birthing Centers</li> <li>• Emergency Departments</li> <li>• Urgent Care</li> <li>• Critical Care</li> <li>• Primary Care/Ob-Gyn Office</li> <li>• Other Outpatient Settings</li> </ul>
Medications	<p>Medications should be stocked and immediately available in obstetric units (AP, L&amp;D, PP), the Emergency Department, and in other areas where patients may be treated. Recommended medications include:</p> <ul style="list-style-type: none"> <li>• Magnesium sulfate</li> <li>• Oral nifedipine, immediate release (acceptable first-line medication)</li> <li>• Intravenous hydralazine</li> <li>• Labetalol</li> </ul>
Interprofessional and interdepartmental team-based drills	<p>Facilitate drills with simulated patients and timely debriefs that emphasize:</p> <ul style="list-style-type: none"> <li>• All elements of the facility severe hypertension emergency management plan</li> <li>• Patient-centered, empathetic, trauma-informed care</li> </ul>
Referral resources and communication pathways	<p>Ensure that:</p> <ul style="list-style-type: none"> <li>• Maternal and neonatal transfer protocol is in place</li> <li>• Hospitals/prenatal care sites should implement resource mapping to identify local resources and support services so that this information is available to providers and other care team members to optimize referrals.</li> </ul> <p>Consider providing blood pressure cuff, education materials, and information on who to call for concerns for patient to take home</p>



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## Readiness — Every Care Setting (continued)

Readiness Element	Key Points
Trauma-informed protocols and bias training	<p>Ensure that:</p> <ul style="list-style-type: none"> <li>• Every clinical setting, health system, and providers are welcoming and inclusive of all people no matter backgrounds, race, ethnicity, gender, social class, language, ability, and other personal or social identities and characteristics.</li> </ul> <p>Recognize that:</p> <ul style="list-style-type: none"> <li>• Some of the identities above may be marginalized and to care for people in an intersectional manner is to treat the patient as a whole person and acknowledge all the identities that might impact equitable, supportive, and quality care.</li> </ul>

## Recognition & Prevention — Every Patient

Recognition Element	Key Points
Obtain and assess labs while listening to and investigating patient symptoms	<p>Recommended labs include, at minimum:</p> <ul style="list-style-type: none"> <li>• Proteinuria</li> <li>• CBC with platelet count</li> <li>• Serum creatinine</li> <li>• LDH</li> <li>• AST</li> <li>• ALT</li> </ul>
Screening for community support needs and resources provided	<p>Screening should include:</p> <ul style="list-style-type: none"> <li>• Medical needs</li> <li>• Mental and behavioral health needs</li> <li>• Substance use disorder needs</li> <li>• Structural and social drivers of health</li> </ul>



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## Recognition & Prevention — Every Patient (continued)

Recognition Element	Key Points
Patient Education	<p>Should include:</p> <ul style="list-style-type: none"> <li>• Who to contact with medical and mental health concerns, ideally stratified by severity of condition or symptoms</li> <li>• Review of warning signs/symptoms</li> <li>• Reinforcement of the value of outpatient postpartum follow up</li> <li>• Summary of delivery events and treatments used</li> <li>• Information about future pregnancies and hypertension risk</li> </ul> <p>Can include:</p> <ul style="list-style-type: none"> <li>• Patient support network in receiving relevant resources and education</li> </ul> <p>All provided resources should align with the pregnant or postpartum patient's:</p> <ul style="list-style-type: none"> <li>• Health literacy</li> <li>• Cultural needs</li> <li>• Language proficiency</li> <li>• Geographic location and access</li> </ul>

## Response — Every Event

Response Element	Key Points
Standardized, facility-wide protocols	<p>Should include:</p> <ul style="list-style-type: none"> <li>• Onset and duration of magnesium sulfate therapy</li> <li>• Advance preparation for seizure prophylaxis and magnesium toxicity</li> <li>• Notification of physician or primary care provider if systolic pressure is 160 mm Hg or more or diastolic pressure is 110 mm Hg or more for two measurements within 15 minutes</li> <li>• Monitoring cases of borderline severe hypertension (150 to 159 mm Hg systolic and/or 105-109 mm Hg diastolic) closely for progression to severe hypertension.</li> <li>• Initiating treatment within 60 minutes of verification after first severe range blood pressure reading, assuming confirmation of persistent elevation through a second reading.</li> <li>• Escalation measures for ongoing observation and management</li> </ul>



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## Response — Every Event (continued)

Response Element	Key Points
Postpartum follow-up visit	<p>Discharging facility or obstetric provider should schedule postpartum follow-up (either in-person appointment or phone call) within 3 days of discharge date. This visit should include:</p> <ul style="list-style-type: none"> <li>• Blood pressure check</li> <li>• Discussion of signs and symptoms of worsening hypertension</li> <li>• Who to contact if signs and symptoms continue</li> <li>• Information about where to go, such as urgent care facility or Emergency Department, if signs and symptoms worsen</li> </ul>
Trauma-informed support for patients and identified support network	<p>Discussions regarding birth events, follow-up care, resources, and appointments should be provided verbally and, ideally, in a written clinical summary that aligns with the person’s health literacy, culture, language, and accessibility needs.</p>

## Reporting and Systems Learning - Every Unit

Reporting Element	Key Points
Multidisciplinary Case Review	<p>Reviews may assess and/or identify:</p> <ul style="list-style-type: none"> <li>• Alignment with standard policies and procedures</li> <li>• Appropriate updates to standard policies and procedures for future events</li> <li>• Other opportunities for improvement, including identification of discriminatory practices and opportunities to improve respectful, equitable and supportive care.</li> </ul> <p>Consistent issues should be reported via established pathways</p>



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### Respectful, Equitable, and Supportive Care — Every Unit/Provider/Team Member

Respectful Care Element	Key Points
Open, transparent, and empathetic communication with pregnant and postpartum people and their identified support network	<ul style="list-style-type: none"> <li>• Establish and/or maintain a mechanism for patients, support network, and staff to identify inequitable care and episodes of miscommunication or disrespect.</li> <li>• Develop plan to address reported cases of inequitable care, miscommunication, or disrespect</li> </ul>
Inclusion of the patient as part of the multidisciplinary care team	<ul style="list-style-type: none"> <li>• Establishment of trust</li> <li>• Informed, bidirectional shared decision-making</li> <li>• Patient values and goals as the primary driver of this process</li> </ul>
<p>As Black, Indigenous, and Hispanic people experience maternal mortality and severe maternal morbidity at disproportionately higher rates because of systemic racism, but not race itself, it is necessary to mitigate bias by having a high index of suspicion for a contributing clinical condition, such as severe hypertension, in these populations.</p>	
<p>Patient support networks may include nonfamilial supports, such as doulas and home visitors, who, with the postpartum person's permission, should be welcomed when any teaching or planning is provided.</p>	

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