

BLOOD PRESSURE (BP) MEASUREMENT

Guidelines for Accurate BP Measurement

1. Manual measurement is the gold standard for measuring BP; however, a calibrated automatic cuff can be used.
2. Obtain the correct size cuff: width of bladder 40% of circumference and encircle 80% of arm.
3. Ensure the patient is sitting or in a semi-recumbent position with the back supported and the arm at heart level.
4. Patient needs to sit quietly for 5 minutes prior to measurement.
5. Free the bare upper arm of any restrictive clothing.
6. Patient's feet should be flat, not dangling from the examination table or bed, and legs uncrossed.



Key Actions

- Establish a maternal hypertension policy that includes guidelines for accurate BP measurement.
- Establish a process to document if a BP was not accurately obtained due to patient position, movement, etc.

Notes:

- *Minimize factors that decrease the accuracy of BP measurements, and be consistent: same arm, same position, and correct cuff size.*
- *Take BP measurements between contractions.*
- *If a severe-range BP is obtained during epidural placement, monitor to ensure BP returns to normal after the procedure.*

ACUTE ONSET RECOGNITION AND TREATMENT

SEVERE HYPERTENSION

Either SBP \geq 160 or DBP \geq 110

- Can occur during pregnancy or postpartum.
- Can present as new acute-onset, or in women with chronic hypertension who are developing superimposed preeclampsia with acutely worsening, difficult to control, severe hypertension.

HYPERTENSIVE EMERGENCY

Two severe BP values (\geq 160/110) taken 15-60 minutes apart.

Measurements do **NOT need to be consecutive.**

- If severe BP elevations persist for 15 min or more, begin treatment ASAP. Anti-hypertensive agents should ideally be administered by 30 minutes and not more than 60 minutes after the confirmation.
- If two severe BPs are obtained within 15 min, treatment may be initiated if clinically indicated.

Key Actions

- Establish a maternal hypertension policy that includes identification of a hypertensive emergency and treatment guidelines.
- Ensure all staff are trained on the maternal hypertension policy.
- Download the [Safe Motherhood Initiative App](#) to have current clinical guidance on Maternal Severe Hypertension at the tips of your fingers.

Safe
Motherhood
Initiative



The main goal is to provide treatment **ASAP once severe BP is confirmed.**

- One severe-range BP requires physician notification and the initiation of frequent BP measurements at a minimum of every 15 minutes for at least one hour
- Treatment for severe hypertension is low risk and not treating could result in severe consequences or death for the mother and baby.
- If there is any uncertainty about whether treatment is necessary, use appropriate clinical judgment and consult the patient's physician.

AIM TIMELY TREATMENT METRIC

<u>SHTN P1: Timely Treatment of Persistent Severe Hypertension</u>	
Denominator (D)	Pregnant and postpartum people with acute-onset severe hypertension that persists for 15 minutes or more, including those with preeclampsia, gestational or chronic hypertension.
Numerator (N)	Among the denominator, those who were treated within 1 hour with IV Labetalol, IV Hydralazine, or PO Nifedipine . The <u>1 hour is measured from the first severe range BP reading</u> , assuming confirmation of persistent elevation through a second reading.
Notes	Disaggregate by race and ethnicity, payor. Full measurement specifications can be found in this SMFM Special Statement



The AIM Timely Treatment metric is not a standard of care but rather is intended to guide Quality Improvement efforts.

- When timely treatment fallouts are identified, a chart review should be conducted to determine the cause and preventability of the fallout.
 - Did the care provided align with your maternal hypertension policy?
- The goal is to achieve >80% timely treatment; fallouts will happen so a 100% rate is not expected.



Key Actions

- Establish a process to consistently report the AIM timely treatment metric.
- Review fallouts to identify the cause and if process improvement is necessary.

For additional information and resources visit the [NPQIC Severe Hypertension in Pregnancy](#) website and the [AIM Severe Hypertension in Pregnancy patient safety bundle](#) website.

References:

- [CMQCC Improving Health Care Response to Hypertensive Disorders of Pregnancy Toolkit](#)
- [Safe Motherhood Initiative](#)
- [Society for Maternal-Fetal Medicine Special Statement: A quality metric for evaluating timely treatment of severe hypertension](#)
- [ACOG Practice Bulletin #203: Chronic Hypertension in Pregnancy](#)
- [ACOG Practice Bulletin #222: Gestational Hypertension and Preeclampsia](#)