POLICY

Women with severe hypertension require blood pressure (BP) monitoring to detect both ongoing and resistant severe hypertension as well as hypotension following antihypertensive medication administration. Severe hypertension is defined as a sBP of ≥160 mm Hg and/or a dBP of ≥110 mm Hg based on the average of at least 2 measurements, taken at least 15 minutes apart using the same arm.

Applicability: Blood pressure monitoring of women with severe hypertension occurs throughout the Maternal Gyn Program.

PROCEDURE

1.1 Assemble Required Equipment
- Automatic Blood Pressure (BP) Machine OR
- Manual Manometer
  - Use the Korotkoff phase V (disappearance of Korotkoff sounds) to designate the diastolic BP.
- Correct Blood Pressure Cuff
  - Select the appropriate BP cuff size. The length should be about 1.5X the circumference of the arm.
  - The white lines on the cuff should overlap
- Fetal Heart Monitor (If applicable)
  - Monitor FHR (as gestational age allows) as per Electronic Fetal Monitoring policies (WW.04.04 & WW.05.08)

1.2 Preparation and Assessment
1) Assess the following as a baseline:
   - BP in mmHg (millimetres mercury)
   - Pulse (P), Respiration (R)
   - State of consciousness and sedation (Wilson Scale)
   - Symptoms of preeclampsia—headache, visual disturbances, right upper quadrant or epigastric pain.
   - Signs of preeclampsia—Oxygen saturation (<97%), presence of proteinuria
   - Blood work—hematologic, renal and hepatic function.
2) Position the woman sitting with her arm at the level of her heart
3) For the first reading, take the BP measurements with both the mercury / manual manometer and the automatic BP machine.
   - Ensure BP machine is accurate (both sBP and dBP readings within 5 millimetre (mm) of the mercury / manual manometer readings)
   - Note: If the automatic BP machine is not accurate DO NOT use it
4) If systolic BP is ≥160 mmHg OR the diastolic BP is ≥110 mmHg:
   - Repeat BP in 15 minutes using the same arm
   - If BP is consistently higher in one arm, the arm with the higher values should be used for all BP measurements. If BP is still above these parameters, notify the most responsible obstetrical care provider immediately.

1.3 Initial Treatment of Severe Hypertension
- For women with severe hypertension, antihypertensive therapy is used to keep sBP <160mmHg and dBP <110mmHg.
- If sBP is ≥ 160 and/or dBP is ≥110 mmHg on two occasions more than 15 minutes apart, Registered Nurse to administer Nifedipine 5 mg bite and swallow (as per prescriber's orders) and contact the primary care provider immediately.
- Initiate Prescriber's Orders: OB Patients Presenting with Hypertension: Initial Assessment
Based on initial assessment of blood work and other assessments, initiate the most appropriate corresponding order to set to further manage hypertension:

- OB Hypertensive Disorders Antepartum Order Set
- OB Hypertensive Disorders Intrapartum for Delivery Suite only Order Set
- OB Hypertensive Disorders Postpartum Order Set
- Repeat blood work when clinically indicated.

Consider eclampsia prophylaxis. Refer to policy Magnesium Sulfate Administration: Seizure Prevention-Woman (WW.08.14).

When pre-eclampsia is suspected, restrict intravenous fluid intake to 80cc/hr to minimize the risk of pulmonary edema.

**1.4 Monitoring following administration of an antihypertensive agent used for treatment of severe hypertension**

**Maternal BP, Pulse, and Respirations**

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the first hour</td>
<td>Every 15 minutes x 4</td>
</tr>
<tr>
<td>In the second hour</td>
<td>Every 30 minutes x 2</td>
</tr>
<tr>
<td>For the third and fourth hours</td>
<td>Every 1 hour x 2</td>
</tr>
<tr>
<td>Thereafter, while in Delivery Suite</td>
<td>every hour</td>
</tr>
<tr>
<td>Thereafter, if stable while on Antepartum or Postpartum</td>
<td>every 4 hours while awake</td>
</tr>
</tbody>
</table>

Review the vital signs at least every 6 hours with the primary obstetrical care provider.

**Fetal Health Surveillance (If applicable)**

- Continuously monitor the fetal heart rate (as gestational age allows) for at least one hour (consider the peak effect of the selected antihypertensive agent) unless FHR is atypical or otherwise directed by the attending physician.

**1.5 Postpartum Considerations**

- If woman is on antenatal antihypertensive therapy, consider reordering medication postpartum.
- BP peaks on days 3-6 postpartum.

**DOCUMENTATION**

- Maternal Clinical Pathway
- Special Clinical Record
- Medication Administration Record
- Interprofessional Progress Notes
- Fetal Monitor Label (If applicable)
- Prescriber’s Orders –
- OB Patients Presenting with Hypertension: Initial Assessment
- OB Hypertensive Disorders Antepartum Order Set
- OB Hypertensive Disorders Intrapartum for Delivery Suite only Order Set
- OB Hypertensive Disorders Postpartum Order Set
REFERENCES

ALARM Manual 2016 SOGC

APPENDIX

Treatment of Elevated Blood Pressure Postpartum