ORLANDO HEALTH®

1414 Kuhl Ave.
Orlando, Florida 32806
321.843.7000

Type of Policy:	**PATIENT CARE**	Category:	**PROVISION OF CARE, TREATMENT AND SERVICES (PC)**

Title:	***MANAGEMENT OF HYPERTENSIVE DISORDERS IN PREGNANCY AND POSTPARTUM***	Policy #:	**2376**
		Replaces #:	Women's Services Process #0400
Page:	3 of 4	Developed By:	Women's Services Policy and Procedures Committee, OB Committee
Issue Date:	**8/22**	Approved By:	Patient Care Executive
Revision Dates:	6/23		KEdmondson MSN, RN, NEA-BC

I. PURPOSE:

This policy outlines the nursing management of patients who have a hypertensive disorder during pregnancy and postpartum period. It includes special considerations for management of patients on antihypertensive medications and management of eclampsia. Severe hypertensive disorders of pregnancy are associated with high rates of maternal/fetal morbidity and mortality.

II. DEFINITIONS:

When used in this policy these terms have the following meanings:

A. Postpartum: the period immediately after birth and up to 6 weeks after delivery.

B. Hypertension in pregnancy/postpartum period: refers to two (2) blood pressure (BP) readings of systolic greater than or equal to (≥)140 or diastolic greater than or equal to (≥) 90, taken at least four (4) hours apart. If systolic BP greater than or equal to (≥)160 and/or if diastolic BP ≥110, refer to the hypertensive emergency protocol.

C. Hypertensive Emergency: acute onset, two severe blood pressure readings of greater than or equal to (≥) 160 systolic and/or greater than or equal to (≥) 110 diastolic taken fifteen (15) minutes apart, requiring urgent antihypertensive therapy.

D. Preeclampsia: a hypertensive disorder of pregnancy characterized by vasospasm and endothelial damage, which may impact the cardiovascular, renal, hematological, neurologic, and hepatic systems as well as the uteroplacental unit. It is of unknown etiology.

E. Eclampsia: the occurrence of seizures in a patient with pre-eclampsia or coma not attributed to any other cause. Eclampsia is a life-threatening emergency and requires proper care to avoid compounding morbidity and mortality.

F. Hypertension in Pregnancy/Pre-eclampsia related common laboratory tests: hemoglobin, hematocrit, lactate dehydrogenase (LDH), aspartate aminotransferase (AST), alanine transaminase (ALT), platelet count, coagulation studies, protein/creatinine ratio, serum creatinine.

III. POLICY:

It is the policy of Orlando Health that:

A. All pregnant and postpartum patients shall be evaluated for hypertensive disorders upon arrival or admission to the hospital.

B. Triaging and prompt management for blood pressures of greater than or equal to (≥) 160 systolic or greater than or equal to (≥) 110 diastolic must be provided to decrease risk of stroke and cerebral edema.

C. Management of a hypertensive emergency during pregnancy and postpartum period should include the use of the OB Severe Hypertension/Pre-Eclampsia Focused order set as indicated by provider.

IV. PROCEDURE:

A. Notify the provider for:

1. New-onset repeated blood pressures 15 minutes apart ≥140 systolic and/or ≥90 diastolic.

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2. Repeated blood pressure ≥ 160 systolic or ≥ 110 diastolic (taken 15 minutes apart)3. New or worsening complaint of any of the following: headache, visual changes, right upper quadrant (RUQ) or epigastric pain.
4. Abnormal Hypertension in Pregnancy/Pre-eclampsia related laboratory values.

B. Any patient who does not meet the criteria for continuation of pregnancy may be delivered by either induction of labor or cesarean section as directed by the OB provider. Conditions that may require immediate delivery include:
1. Eclampsia
2. Hemolysis, Elevated Liver Enzymes, Low Platelet Count (HELLP) Syndrome
3. Pulmonary edema
4. Severe thrombocytopenia
5. Coagulopathy

C. Admission:
1. Assess maternal vital signs to include:
   a. Measure middle arm muscle circumference in centimeters and document in medical record with the cuff size used.
   b. Blood pressure using an appropriately sized blood pressure cuff with the patient sitting or in the upright position with the patient's arm at the level of the heart.
   c. Respiratory rate, heart rate, temperature, and oxygen saturation.
2. Assess for absence or presence of:
   a. Headache
   b. Visual changes
   c. Right upper quadrant or epigastric pain
   d. Nausea/vomiting
3. Assess upper or lower deep tendon reflexes.
4. Auscultate lung sounds noting presence of any adventitious sounds.
5. Assess for generalized edema and significant, rapid weight gain.
6. Monitor fetal heart rate and uterine activity continuously if viable fetus is present unless otherwise ordered.
7. Prepare to obtain intravenous (IV) access as ordered by provider.
8. Prepare to administer medications to lower blood pressure and prevent seizure activity.
9. Prepare to monitor Intake and Output.
10. Prepare to assess Hypertension in Pregnancy/Pre-eclampsia related laboratory values as ordered.
11. Ensure oxygen and suction equipment are present and functioning.
12. Implement measures to decrease stress level, such as provisions of a quiet environment and low lighting.
13. Provide emotional support and the opportunity for patient/family to verbalize questions, concerns and/or fears.

D. Acute management of hypertensive emergency:

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1. Continuous external fetal monitoring is required for those patients receiving IV antihypertensive medications.
2. Target blood pressure: Once the blood pressure has reached a target level then commence maintenance regimen aiming to maintain systolic blood pressure less than (<)160 and diastolic blood pressure less than (<)110.
3. Blood pressures should not be decreased more than 15% during the first hour. Repeat blood pressure every fifteen (15) minutes when using IV Hydralazine and IV Labetalol until threshold blood pressures are obtained.
4. Repeat blood pressure every twenty (20) minutes while utilizing oral Nifedipine IR.
5. Once threshold blood pressures are obtained repeat blood pressures every fifteen (15) minutes x 1 hour, every thirty (30) minutes x 1 hour and every hour x four (4) hours.
6. Patients requiring greater than or equal to (≥) 3 consecutive doses of IV antihypertensive or the blood pressure does not meet threshold by one (1) hour should be admitted to a higher level of care.
7. At Winnie Palmer Hospital (WPH) Rapid Response should be notified of any patient requiring management for a hypertensive crisis.
8. Monitor fetal heart rate and uterine activity continuously if viable fetus is present unless otherwise ordered.
9. Observe for signs and symptoms of placental abruption or impending delivery.

E. Eclampsia:

1. The clinical course for eclamptic seizures develops quickly in stages: General vagueness, twitching, facial congestion, deepening loss of consciousness, and seizures.
2. Pull emergency call bell to alert other staff members of emergency.
3. Notify charge nurse, attending provider and anesthesiologist/nurse anesthetist (CRNA) immediately.
4. Protect the patient's airway and minimize the risk of aspiration by placing patient on her side.
5. Apply oxygen at ten (10) Liters (L) via non-rebreather mask or fifteen (15) L via open oxygen mask.
6. Insert IV if one is currently not placed, preferably two.
7. Prevent maternal injury by providing close observation and padding the side rails.
8. IV Magnesium Sulfate is the drug of choice for seizure prophylaxis and treatment of eclamptic seizures.
9. Be prepared to assist with intubation of the patient in the event of apnea, severe respiratory depression or loss of airway reflexes.
10. Blood pressure control should be managed as for a hypertensive crisis.
11. Monitor fetal heart rate and uterine activity continuously if viable fetus is present.
12. Observe for signs and symptoms of placental abruption or impending delivery.
13. Additional consultation by maternal fetal medicine, anesthesia, cardiology, hematology, and/or neurology or any other sub-specialties are strongly considered if any hematologic, cardiac, pulmonary, or persistent neurological symptoms are present.
14. Request consultations when the patient needs a higher level of care.

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F. Patient/Family Communication:
   1. A support person will be available to offer support and act as a liaison between family and the care team during a hypertension emergency.
   2. Support staff may include: Care Management team (chaplain services, Clinical Social Services), nursing and medical staff.

G. Debriefing is completed when:
   1. Hypertensive crisis episode resolves with readily available care team members or;
   2. Failure to resolve hypertensive crisis with completion of one medication modality as noted in the hypertension algorithm or;
   3. Patient is transferred to a higher level of care or;
   4. After emergent delivery

V. DOCUMENTATION:

A. As appropriate in the comprehensive health record.
B. Use form 1263-131978- *Obstetrical Debriefing Checklist* as a guide for a debriefing. Not part of the medical record.

VI. REFERENCES:

A. American Academy of Pediatrics/American College of Obstetricians and Gynecologists. (2017). *Guidelines for Perinatal Care* (8th e. d.). Library of Congress Cataloging-in-Publication Data, Elk Grove Village, IL.
B. The Joint Commission. (2022). *Hospital accreditation standards*: PC. 01.02.01-PC.01.03.01. Oakbrook, IL. Joint Commission Resources.
C. CMQCC Hypertensive Disorders of Pregnancy Toolkit, Improving Health Care Response to Hypertensive Disorders of Pregnancy Toolkit, November 2021.
D. Gestational hypertension and preeclampsia. ACOG Practice Bulletin No. 222. American College of Obstetricians and Gynecologists. Obstet Gynecol 2020;135:e237–60.
E. Patient Care Policy # 2375, *Obstetrical and Postpartum Care of the Patient Outside of the Obstetrical Care Unit.*
F. Patient Care Policy #2360, *Administration of Obstetrical Magnesium Sulfate*.

VII. ATTACHMENTS:

A. OB/Postpartum Hypertension Emergency Algorithm, one page.

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Attachment A **– OB/Postpartum Hypertension Emergency Algorithm**