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KEY ADVANCES
CLINICAL POLICY ALERT

Emergency Department Evaluation and Management of Hypertensive Disorders of Pregnancy

Reconfirmed July 2025

Gestational hypertension and preeclampsia: ACOG Practice Bulletin, Number 222. Obstet Gynecol. 2020;135(6):e237-e260. doi:10.1097/AOG.0000000000003891. PMID: 32443079. https://pubmed.ncbi.nlm.nih.gov/32443079/ (1)

Policy Recommendations and Focus Points in bold

What is the optimal treatment for women with gestational hypertension, preeclampsia, or eclampsia?

Definitions and Diagnostic Criteria

Diagnostic Criteria for Gestational Hypertension
Systolic blood pressure ≥ 140 mmHg OR diastolic pressure ≥ 90 mmHg on two measurements, at least 4 hours apart, after 20 weeks of gestation, in a woman with previously normal blood pressure.

All patients with gestational hypertension should be screened for severe features that would automatically qualify them for preeclampsia with severe features (see below).

Diagnostic Criteria for Preeclampsia
Systolic blood pressure ≥ 140 mmHg OR diastolic blood pressure ≥ 90 mmHg, on two measurements, 4 hours apart, after 20 weeks of gestation, in a woman with previously normal blood pressure.

-OR-

Systolic blood pressure ≥ 160 mmHg OR diastolic blood pressure ≥ 110 mmHg. (Severe hypertension can be confirmed within a short interval (minutes) to facilitate timely antihypertensive therapy).

AND either:

a) Proteinuria: 300 mg or more per 24-hour urine collection or protein creatinine ratio of 0.3 or greater or dipstick reading of 2+ or greater
b) One or more of the following in the absence of proteinuria: thrombocytopenia, renal insufficiency, impaired liver function, pulmonary edema, or headache not otherwise explained and unresponsive to medication

Diagnostic Criteria for Preeclampsia *with* Severe Features
The presence of ANY of the following features in a patient with gestational hypertension or preeclampsia meets the definition of preeclampsia with severe features:

- Systolic blood pressure ≥ 160 mmHg, diastolic blood pressure ≥ 110 mmHg on two measurements at least 4 hours apart (unless treated before second measurement)
- Platelets: thrombocytopenia (< 100 x 10^9/L)
- Liver function: impaired liver function without other cause; liver enzymes greater than twice normal levels
- Renal insufficiency: > 1.1 mg/dL or doubling of the previous creatinine level
- Pulmonary edema
- Headache without other identified cause and unresponsive to medication
- Visual disturbances

Eclampsia
Eclampsia is the convulsive manifestation of the hypertensive disorders of pregnancy defined by new-onset tonic-clonic, focal, or multifocal seizures in the absence of other causative conditions.

Patient Management Recommendations:

Level A Recommendations

Magnesium sulfate should be used for the prevention and treatment of seizures in patients with severe gestational hypertension and preeclampsia with severe features or eclampsia. Although optimal dosage has not been established, the following regimens for intravenous (IV) and intramuscular (IM) magnesium administration have been promulgated:

- IV administration: 4-6 g magnesium sulfate over 20-30 minutes, followed by 1-2 g/h infusion
- IM administration: 10 g IM (5 g in each buttock) followed by 5 g every 4 hours (the medication can be mixed with 1 mL of 2% lidocaine to mitigate the pain with IM injection)

For patients with gestational hypertension or preeclampsia without severe features at or beyond 37 0/7 weeks of gestation, delivery rather than expectant management upon diagnosis is recommended.

Level B recommendations (see below)

Delivery is recommended when severe gestational hypertension or preeclampsia with severe features is diagnosed at or beyond 34 0/7 weeks of gestation, after maternal stabilization or with labor or prelabor rupture of membranes. Delivery should not be delayed for the administration of steroids in the late preterm period.

Antihypertensive treatment should be initiated expeditiously for acute-onset severe hypertension (i.e., systolic blood pressure of 160 mmHg or greater or diastolic blood pressure of 110 mmHg or greater, or both) that is confirmed as persistent (15 minutes or more). The available literature suggests that antihypertensive agents should be **administered within 30-60 minutes of the diagnosis**. However, it is recommended to administer antihypertensive therapy as soon as reasonably possible after the criteria for acute-onset severe hypertension is met. (2)

If IV access is available, either labetalol or hydralazine may be used for acute control of hypertension. Hydralazine may be administered IM, but IV is preferred. Oral nifedipine can be used if IV access cannot be obtained.

The expectant management of preeclampsia with severe features before 34 0/7 weeks of gestation is best accomplished in a setting with resources appropriate for maternal and neonatal care. Because expectant management is intended to provide neonatal benefit at the expense of maternal risk, expectant management is not advised when neonatal survival is not anticipated. **During expectant management, delivery is recommended at any time in the case of deterioration of maternal or fetal condition.**

Oral medication (labetalol or nifedipine) can be administered for expectant management. (3)

What is the optimal treatment for eclampsia?

Patient Management Recommendations:

Level A recommendations

Magnesium sulfate (IM or IV) should be used for the prevention and treatment of seizures in women with severe gestational hypertension and preeclampsia with severe features or eclampsia.

Level B recommendations (none specified)

Level C recommendations (none specified)

What is the management of acute complications for preeclampsia with hemolysis, elevated liver enzymes, and low platelet (HELLP) syndrome?

Patient Management Recommendations:

Level A recommendations (none specified)

Level B recommendations (none specified)

Level C recommendations (see below)

It is recommended that women with gestational hypertension in the absence of proteinuria are diagnosed with preeclampsia if they present with any of the following severe features: thrombocytopenia (platelet count <100 $\times$ 10^9/L); impaired liver function, as indicated by abnormally elevated blood concentrations of liver enzymes (to twice the upper limit of normal concentration); severe persistent right upper quadrant or epigastric pain and not accounted for by alternative diagnoses; renal insufficiency (serum creatinine concentration >1.1 mg/dL or a doubling of the serum creatinine concentration in the absence of other renal disease); pulmonary edema or new-onset headache unresponsive to acetaminophen and not accounted for by alternative diagnoses; or visual disturbances.

For HELLP syndrome, treatment of preeclampsia as otherwise specified plus supportive care is recommended. There is insufficient evidence to support use of corticosteroids in this condition.

American College of Obstetricians and Gynecologists' Committee on Practice Bulletins—Obstetrics. ACOG Practice Bulletin No. 203: chronic hypertension in pregnancy. *Obstet Gynecol.* 2019;133(1):e26-e50. doi:10.1097/AOG.0000000000003020. PMID: 30575676 (4)

How is chronic hypertension distinguished from superimposed preeclampsia?

Level A recommendations (none specified)

Level B recommendations (none specified)

Level C recommendations (see below)

In cases of diagnostic uncertainty in discriminating transient blood pressure increases in chronic hypertension from superimposed preeclampsia, particularly with severe-range blood pressures, initial surveillance in the hospital setting is recommended.

Workup should include evaluation of hematocrit, platelets, creatinine, and liver function tests, as well as assessment of new-onset proteinuria. Serum uric acid may be a helpful marker. Elevated hematocrit (indicating hemoconcentration), thrombocytopenia, hyperuricemia, new-onset or worsening proteinuria, elevated serum creatinine, and elevated liver transaminases are more indicative of preeclampsia than chronic hypertension and, from a practical point of view, the practitioner should first consider preeclampsia.

Fetal well-being should be assessed as appropriate with fetal heart rate monitoring and sonography.

Serial blood pressure assessment over 4 to 8 hours can be helpful in discriminating acute and serious increases in blood pressure from transient hypertension.

What treatment should be used for pregnant women with chronic hypertension, and what are the goals of treatment?

Level A recommendations (none specified)

Level B recommendations (see below)

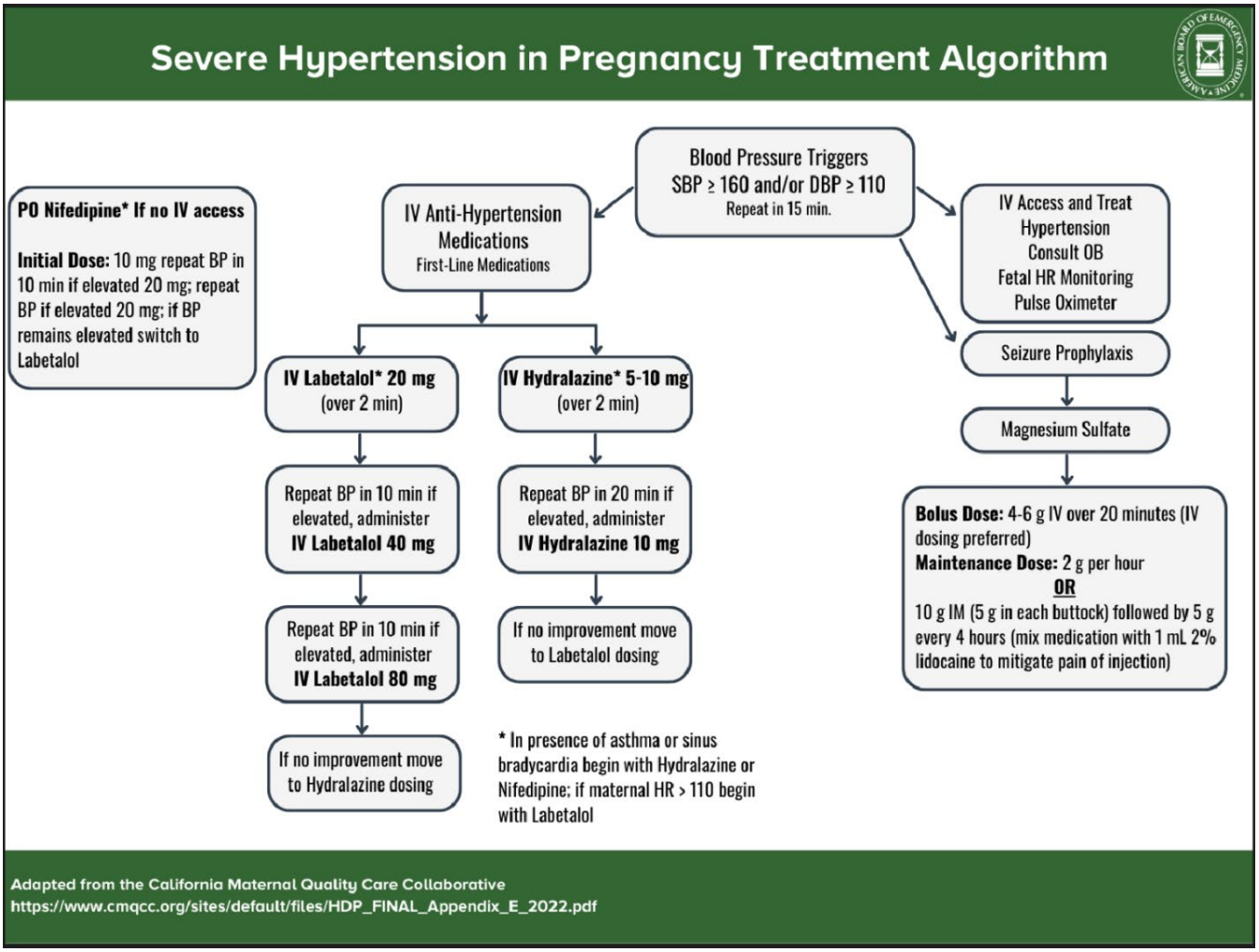
Antihypertensive treatment should be initiated expeditiously for acute-onset severe hypertension (i.e., systolic blood pressure of 160 mmHg or greater or diastolic blood pressure of

110 mmHg or greater, or both) that is confirmed as persistent (15 minutes or more). The available literature suggests that antihypertensive agents should be **administered within 30-60 minutes of the diagnosis**. However, it is recommended to administer antihypertensive therapy as soon as reasonably possible after the criteria for acute-onset severe hypertension are met.

Women with severe acute hypertension that is not controlled with traditional chronic antihypertensive regimens or women who develop superimposed preeclampsia with severe features should be delivered upon diagnosis at 34 0/7 weeks of gestation or more. Because of the significant maternal–fetal and maternal–neonatal morbidity, **immediate delivery** after maternal stabilization is recommended if any of the following are present at any gestational age in **women with superimposed preeclampsia: uncontrollable severe hypertension, eclampsia, pulmonary edema, disseminated intravascular coagulation, new or increasing renal insufficiency, placental abruption, or abnormal fetal testing.**

Level C recommendations (see below)

It is recommended to maintain blood pressure levels for pregnant women with chronic hypertension treated with antihypertensive medications at or above 120 mmHg but below 160 mmHg systolic and at or above 80 mmHg but below 110 mmHg diastolic.



References:

1. Gestational hypertension and preeclampsia: ACOG Practice Bulletin, Number 222. *Obstet Gynecol*. 2020;135(6):e237-e260. doi:10.1097/AOG.0000000000003891. PMID: 32443079
2. Bernstein PS, Martin JN Jr, Barton JR, Shields LE, Druzin ML, Scavone BM, Frost J, Morton CH, Ruhl C, Slager J, Tsigas EZ, Jaffer S, Menard MK. Consensus bundle on severe hypertension during pregnancy and the postpartum period. *J Midwifery Womens Health*. 2017;62(4):493-501. doi:10.1111/jmwh.12647. PMID: 28697534
3. California Maternal Quality Collaborative. https://www.cmqcc.org/sites/default/files/HDP_FINAL_Appendix_E_2022.pdf
4. American College of Obstetricians and Gynecologists' Committee on Practice Bulletins—Obstetrics. ACOG Practice Bulletin No. 203: chronic hypertension in pregnancy. *Obstet Gynecol*. 2019;133(1):e26-e50. doi:10.1097/AOG.0000000000003020. PMID: 30575676

Clinical findings and strength of recommendations regarding patient management were made according to the following criteria:

Level A recommendations
Recommendations are based on good and consistent scientific evidence.

Level B recommendations
Recommendations are based on limited or inconsistent scientific evidence.

Level C recommendations
Recommendations are based primarily on consensus and expert opinion.

Resources for additional learning:

CritCases 9 Pre-Eclampsia and Preterm Labor – Time Sensitive Management
Core EM : Episode 113 – Preeclampsia + Eclampsia

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