

Hypertension in Pregnancy

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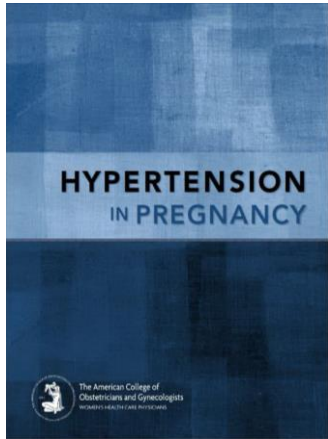
Director of Maternal Fetal Medicine

Bryan Health

Who is this talk for?

- Outpatient nurses
 - They are primary educators of our patients
- Physicians
 - So they understand what the nurses are being told

What are we talking about?



ACOG PRACTICE BULLETIN

Clinical Management Guidelines for Obstetrician-Gynecologists

NUMBER 203

Committee on Practice Bulletins—Obstetrics. This Practice Bulletin was developed by the American College of Obstetricians and Gynecologists' Committee on Practice Bulletins—Obstetrics in collaboration with Alex Vildieff, MD, MPH; Jimmy Espinoza, MD, MSc; Hyagriv Simhan, MD; and Christian M. Pettker, MD.

Chronic Hypertension in Pregnancy

Chronic hypertension is present in 10%–15% of pregnant women (1) and may result in significant maternal, fetal, and neonatal morbidity and mortality. The rate of maternal chronic hypertension increased by 67% from 2000 to 2009, with the largest increase (87%) among African American women. This increase is largely secondary to the obesity epidemic and increasing maternal age (1, 2). The trend is expected to continue.

The purpose of this document is to clarify the criteria used to define and diagnose chronic hypertension before or during pregnancy, to review the effects of chronic hypertension on pregnancy and vice versa, and to appraise the available evidence for management options. The purpose of these revised best practice recommendations is to provide a rational approach to chronic hypertension in pregnancy based on new research data and relevant pathophysiologic and pharmacologic considerations.

Background

Chronic Hypertension: Definition and Diagnosis

Chronic hypertension in pregnancy is defined as hypertension diagnosed or present before pregnancy or before 20 weeks of gestation. Hypertension that is diagnosed for the first time during pregnancy and that does not resolve in the typical postpartum period also is classified as chronic hypertension (3). Traditionally, the criteria for hypertension in pregnancy under this definition are a systolic blood pressure of 140 mm Hg or more, a diastolic blood pressure of 90 mm Hg or more, or both. In general, it is recommended that a diagnosis of hypertension requires at least two determinations at least 4 hours apart, although on occasion, especially when faced with severe hypertension, the diagnosis can be confirmed within a shorter interval (even minutes) to facilitate timely therapy.

Recent recommendations from the American College of Cardiology (ACC) and the American Heart Association

(AHA) have changed the criteria for diagnosing hypertension in adults (4). These recommendations include classifying blood pressure into four categories: 1) normal (systolic blood pressure less than 120 mm Hg and diastolic blood pressure less than 80 mm Hg); 2) elevated (systolic blood pressure of 120–129 mm Hg and diastolic blood pressure less than 80 mm Hg); 3) stage 1 hypertension (systolic blood pressure of 130–139 mm Hg or diastolic blood pressure of 80–89 mm Hg); and 4) stage 2 hypertension (systolic blood pressure of 140 mm Hg or more or diastolic blood pressure of 90 mm Hg or more). These changes were made to assist in clinical and public health decision making and reflect data to suggest modifiable long-term cardiovascular risk even in the elevated and stage 1 hypertension ranges (5). Importantly, the recommendations now suggest beginning treatment in nonpregnant adults with risk factors for current or future cardiovascular disease in patients with stage 1 hypertension (systolic blood pressure of 130–139 mm Hg or diastolic blood pressure of 80–89 mm Hg) (6). Thus, obstetric care providers may see an increase in patients classified as hypertensive based on these ACC/AHA definitions. For these patients, it is reasonable to continue to manage the

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(Replaces Practice Bulletin No. 202, December 2018)

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INTERIM UPDATE: The content of this Practice Bulletin has been updated as highlighted for removal (as necessary) to include (limited, focused editorial corrections to) paterlet counts, diagnostic criteria for preeclampsia (Box 2), and preeclampsia with severe features (Box 3).

Gestational Hypertension and Preeclampsia

Hypertensive disorders of pregnancy constitute one of the leading causes of maternal and perinatal mortality worldwide. It has been estimated that preeclampsia complicates 2–8% of pregnancies globally (1). In Latin America and the Caribbean, hypertensive disorders are responsible for almost 26% of maternal deaths, whereas in Africa and Asia they contribute to 9% of deaths. Although maternal mortality is much lower in high-income countries than in developing countries, 16% of maternal deaths can be attributed to hypertensive disorders (1, 2). In the United States, the rate of preeclampsia increased by 25% between 1987 and 2004 (3). Moreover, in comparison with women giving birth in 1980, those giving birth in 2003 were at 6.7-fold increased risk of severe preeclampsia (4). This complication is costly: one study reported that in 2012 in the United States, the estimated cost of preeclampsia within the first 12 months of delivery was \$2.18 billion (\$1.03 billion for women and \$1.15 billion for infants), which was disproportionately borne by premature births (5). This Practice Bulletin will provide guidelines for the diagnosis and management of gestational hypertension and preeclampsia.

Background

Risk Factors

A variety of risk factors have been associated with increased probability of preeclampsia (Box 1) (6–12). Nonetheless, it is important to remember that most cases of preeclampsia occur in healthy multiparous women with no obvious risk factors. Although the precise role of genetic-environmental interactions on the risk and incidence of preeclampsia is unclear, emerging data suggest the tendency to develop preeclampsia may have some genetic component (13–16).

Definitions and Diagnostic Criteria for Hypertensive Disorders of Pregnancy

Preeclampsia (With and Without Severe Features)

Preeclampsia is a disorder of pregnancy associated with new-onset hypertension, which occurs most often after 20 weeks of gestation and frequently near term. Although often accompanied by new-onset proteinuria, hypertension and other signs or symptoms of preeclampsia may present in some women in the absence of proteinuria (17). Reliance on maternal symptoms may be occasionally problematic in clinical practice. Right upper quadrant or epigastric

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INTERIM UPDATE



The American College of Obstetricians and Gynecologists

ACOG COMMITTEE OPINION

Number 767

(Replaces Committee Opinion Number 692, September 2017)

Committee on Obstetric Practice

This Committee Opinion was developed by the American College of Obstetricians and Gynecologists' Committee on Obstetric Practice in collaboration with committee members Susan F. D'Silva, MD, and Ann E. Berlin, MD, MSc, MPE.

INTERIM UPDATE: This Committee Opinion is updated as highlighted to align with the American College of Obstetricians and Gynecologists' guidance on gestational hypertension, preeclampsia, and chronic hypertension in pregnancy.

Emergent Therapy for Acute-Onset, Severe Hypertension During Pregnancy and the Postpartum Period

ABSTRACT: Acute-onset, severe systolic hypertension, severe diastolic hypertension, or both can occur during the prenatal, intrapartum, or postpartum periods. Pregnant women or women in the postpartum period with acute-onset, severe systolic hypertension, severe diastolic hypertension, or both require urgent antihypertensive therapy. Introducing standardized, evidence-based clinical guidelines for the management of patients with preeclampsia and eclampsia has been demonstrated to reduce the incidence of adverse maternal outcomes. Individuals and institutions should have mechanisms in place to initiate the prompt administration of medication when a patient presents with a hypertensive emergency. Treatment with first-line agents should be expeditious and occur as soon as possible within 30–60 minutes of confirmed severe hypertension to reduce the risk of maternal stroke. Intravenous labetalol and hydralazine have long been considered first-line medications for the management of acute-onset, severe hypertension in pregnant women and women in the postpartum period. Although relatively less information currently exists for the use of calcium channel blockers for the clinical indication, the available evidence suggests that immediate release oral nifedipine also may be considered as a first-line therapy, particularly when intravenous access is not available. In the rare circumstance that intravenous bolus labetalol, hydralazine, or immediate release oral nifedipine fails to relieve acute-onset, severe hypertension and is given in successive appropriate doses, emergent consultation with an anesthesiologist, maternal-fetal medicine subspecialist, or critical care subspecialist to discuss second-line intervention is recommended.

Recommendations and Conclusions

The American College of Obstetricians and Gynecologists makes the following recommendations and conclusions:

- Introducing standardized, evidence-based clinical guidelines for the management of patients with preeclampsia and eclampsia has been demonstrated to reduce the incidence of adverse maternal outcomes.
- Pregnant women or women in the postpartum period with acute-onset, severe systolic hypertension, severe diastolic hypertension, or both require urgent antihypertensive therapy.
- Close maternal and fetal monitoring by a physician and nursing staff are advised during the treatment of acute-onset, severe hypertension.
- After initial stabilization, the team should monitor blood pressure closely and institute maintenance therapy as needed.
- Intravenous (IV) labetalol and hydralazine have long been considered first-line medications for the

management of acute-onset, severe hypertension, or both require urgent antihypertensive therapy. Close maternal and fetal monitoring by a physician and nursing staff are advised during the treatment of acute-onset, severe hypertension. After initial stabilization, the team should monitor blood pressure closely and institute maintenance therapy as needed. Intravenous (IV) labetalol and hydralazine have long been considered first-line medications for the

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OBSTETRICS & GYNECOLOGY

APRIL 2022- DRAFT

Society for Maternal-Fetal Medicine Statement: Antihypertensive therapy for mild chronic hypertension in pregnancy: The CHAP Trial

Society for Maternal-Fetal Medicine (SMFM); Publications Committee

Center for Maternal Fetal Care



Why use this?

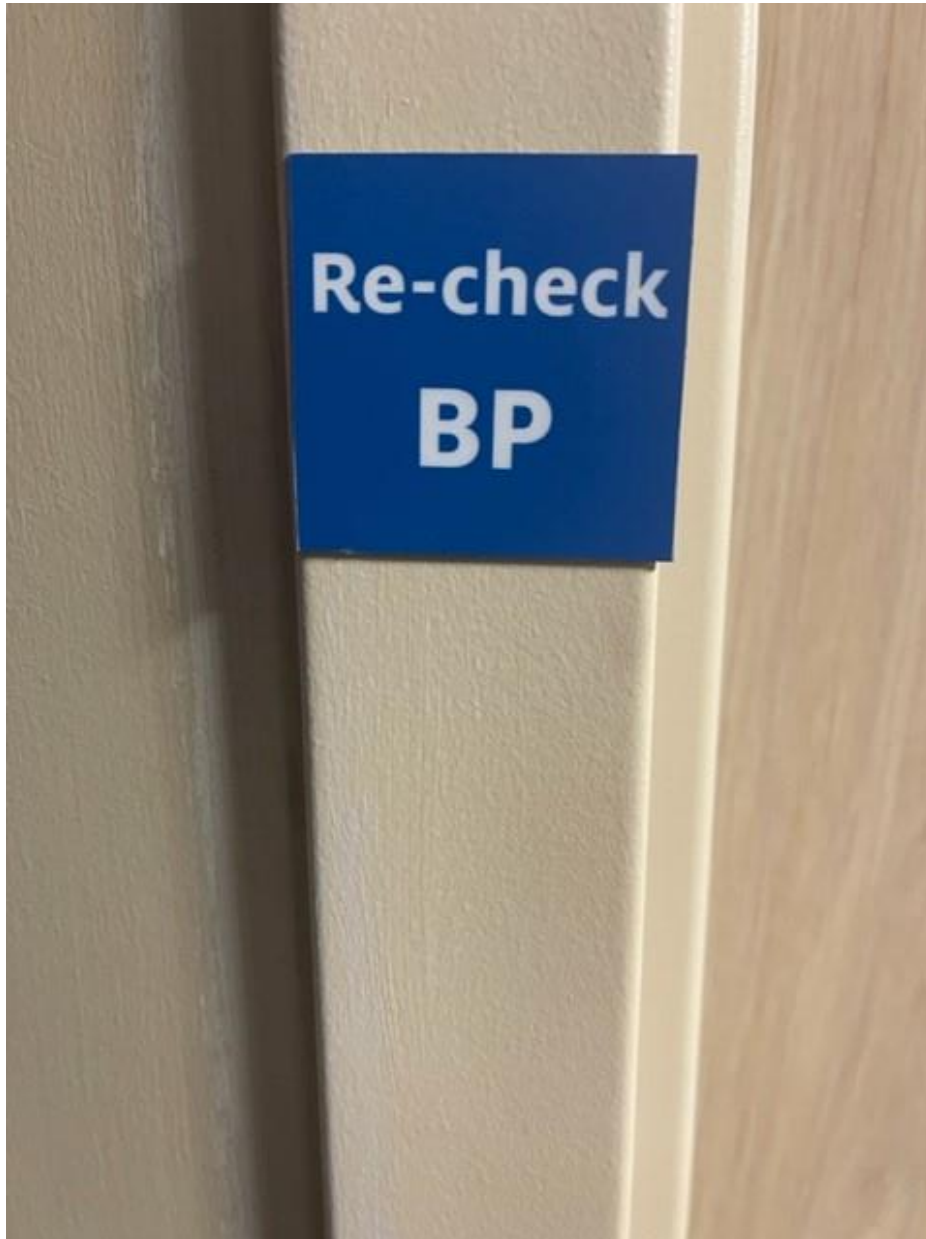
- ACOG/SMFM publications, gold standard
- 2013 Task force summary and recommendations
- Ask if you want a copy – 100 pages
 - Executive summary 10 pages
- Cookbook
- Updates
 - ACOG Practice Bulletins
 - ACOG Committee Opinion
 - **SMFM statement April 2022 CHAP Trial**

Recommendations

- Quality of evidence
 - Low, Moderate, High
- Strength of recommendations
 - Qualified, Strong

How to Properly take a Blood Pressure?

- “the optimal measurement of BP is made with patient comfortably seated, legs uncrossed, and the back and arm supported, so that the middle of the cuff on the upper arm is at the level of the right atrium (midpoint of the sternum). The patient should be instructed to relax and not talk during the measurement procedure; ideally, 5 minutes should elapse before the first reading is taken. If elevated on initial assessment, the BP measurement should be repeated after several minutes to attempt to eliminate spuriously elevated BP determinations.”



Center for Maternal Fetal Care



Basics BP

- “It is worth noting that measurement of the BP taken in the upper arm with the woman in the left lateral position will falsely lower BP readings because the blood pressure cuff will be above the heart when these readings are made.
THIS APPROCH IS DISCOURAGED”
- Right size cuff
 - small cuff will give high BP
- **BP >140/90 abnormal**
 - This is hard for generalist
- SBP > 160 or DBP > 110 needs treatment or repeated in 15 min

Classifications of Hypertensive Disorders

- Chronic Hypertension
- Gestational Hypertension
- Preeclampsia – Eclampsia
- Chronic Hypertension with Superimposed Preeclampsia

White Coat Hypertension

- If patient has 3 documented BP's at home/work that are normal AND you checked their cuff against the office cuff and it was close
- I will still follow very closely but will cautiously not treat unless home BP goes up
- Scan home BP's in chart, for documentation
- Still do extra ultrasounds, etc

HTN

- SBP
 - 140 or greater: mild
 - 160 or greater: severe
- DBP
 - 90 or greater: mild
 - 110 or greater: severe
- 4 hours apart unless, severe to aid in giving BP meds, 15-20 min

Chronic Hypertension

- Elevated BP prior to pregnancy
- Before 20 weeks

Chronic Hypertension

- Baseline CBC, CMP, protein 24 vs pr/cr ratio
- Look for secondary and refer
 - Resistant HTN, $K^+ < 3$, $cr > 1.1$, strong family hx kidney disease
- Home BP monitor
 - If suspected “white coat HTN” before meds started
- No diet, salt, exercise restrictions
- ~~Medication SBP ≥ 160 , DBP ≥ 105~~
 - ~~Goal 120/80-105~~
 - ~~Don't RX lower values unless other end organ disease~~
 - ~~Labetalol, nifedapine, methyldopa~~

SMFM/ACOG New Recommendations

- Prior recommendations based on previous studies/meta analysis' failing to show benefit of treating mild hypertension and possible increased risk of IUGR
 - Many included preeclampsia and Gestational Hypertension in studies
 - Although did show prolongation of pregnancy
 - Europe has treated Mild Chronic Hypertension for a long time
- New recommendation based on new study
 - Treatment for Mild Chronic Hypertension During Pregnancy NEJM May 12, 2022
 - Chronic Hypertension and Pregnancy (CHAP) Consortium

CHAP study

- 2408 women with CHTN, < 23 weeks, < 160/100
- Open label, multicenter, randomized
- Either treat BP to < 140/90 or standard care < 160/105
- Treatment could be labetalol, nifedipine xl (amlodipine or methyldopa also acceptable)
- Primary outcome composite preeclampsia with severe features (up to 2 wks pp), med indicated preterm birth < 35 weeks, abruption, iufd, neonatal death
- Safety outcome SGA (<10% for sex)
- Secondary outcomes Serious maternal CV outcomes and Severe neonatal morbidity

CHAP study (cont)

- Treatment group better primary outcome better
 - 30.2% vs 37.0% aRR 0.82; 95%CI, (0.74-0.92), number to treat 14.7
- Treatment group had lower frequency of preeclampsia with severe features
 - 23.3% vs. 29.1%, aRR 0.80; 95% CI, (0.70-0.92)
- Treatment group had lower risk Medically indicated preterm delivery < 35 weeks
 - 12.2% vs. 16.7%, aRR 0.73; 95% CI, (0.60- 0.89)
- Safety measure – SGA – no difference
 - aRR 1.04; 95% CI, (0.82-1.31)

CHAP study (cont)

- Treatment group significant reduced incidence of severe hypertension
 - 36.1% vs 44.3%, RR 0.82; 95% CI, (0.74-0.90)
- Treatment group significant reduced incidence preeclampsia with or with out severe features
 - 24.4% vs. 31.1%, RR 0.79; 95% CI, (0.69-0.89)
- Treatment group significant reduced incidence preterm birth < 37 weeks
 - 27.5% vs 31.4%, RR 0.87; 95% CI, 0.77-0.99
- Treatment group significant reduced incidence low birth weight neonates
 - 19.2% vs 23.1%, RR 0.83; 95% CI, (0.71-0.97)

CHAP study (cont)

- SMFM Recommends treatment with antihypertensive therapy for mild chronic hypertension in pregnancy to a goal of BP <140/90
- Patients with treated chronic hypertension should continue established antihypertensive therapy during pregnancy or change to a regimen compatible with pregnancy to achieve this treatment goal
 - Ie no ACE-I or ARB's

Gestational Hypertension

- New HTN after 20 weeks
- Normalize Postpartum

Preeclampsia-Eclampsia

- After 20 weeks
- New onset HTN + Proteinuria
- Or HTN +
 - Plt < 100k
 - Elevated LFTs (2 times normal or > 72 AST/ALT)
 - New renal disease Cr >1.1 or doubling baseline
 - Pulmonary edema
 - CNS/visual disturbances

Proteinuria

- 300mg in 24 hr specimen
- 0.3 protein/creatinine ratio
- +2 on random dipstick (not recommended)

Eclampsia

- Seizure not related to epilepsy
- Often preceded by HA/hyper-reflexia
 - But not always

Severe Features of Preeclampsia (Any)

- SBP \geq 160 or DBP \geq 110 –
 - 4 hrs apart on bedrest (unless meds started)
- Platelets < 100K
- Elevated LFTs 2x normal
- Severe RUQ or epigastric pain
 - not relieved by meds/no other etiology
- Progressive renal diagnosis
 - Cr \geq 1.1 or doubling
- Pulmonary edema
- New onset CNS or visual disturbances

Risk Factors

- Primiparity
- Prior preeclampsia
- CHTN and/or Chronic Renal Disease
- Thrombophilia
- Multiple Gestation
- IVF
- Family History Preeclampsia
- Obesity
- SLE
- AMA > 40

Prevention – Low dose ASA

ACOG/SMFM 2018

81mg (some people use 150mg)

Start 12-28 weeks(preferably before 16)

Any one

- Prior hx preeclampsia
 - esp. < 34 wks, severe, more than one pregnancy, poor outcome
- Multiple Gestation
- CHTN
- DM type I and II
- Renal disease
- Autoimmune disease SLE, APA

Prevention – Low dose ASA

ACOG/SMFM 2018

If 2 or more

- Nulliparity
- Obesity (BMI > 30)
- + Family Hx (mom or sister)
- Poor socioeconomic status (African American, low income)
- AMA
- Personal risk factors: low birthweight/SGA, previous adverse outcome, more than 10 year pregnancy interval

Prevention – nothing else recommended

- No screening – ie: labs, uterine artery Doppler
- No other vitamins/supplementantation
- No salt restriction
- No bedrest

Initial Evaluation Gestational Hypertension/Preeclampsia

- Labs
 - CBC, CMP, 24 hr urine or pr/cr ratio,
- US
 - EFW, AFI, NST or BPP

Conditions Precluding Expectant Management -Maternal

- Uncontrollable Severe range HTN
- Persistent Headaches refractory to Rx
- Epigastric/RUQ pain refractory to Rx
- Visual/alter mental status
- Stroke/MI
- HELLP
- New or worsening renal function, Cr > 1.1 or 2x base line
- Pulmonary Edema
- Eclampsia
- Abruptio

Conditions Precluding Expectant Management -Fetal

- Abnormal Fetal Testing
- Fetal Death
- Fetus with out expectation for fetal survival at time of Dx (lethal anomaly, extreme prematurity)
- Persistent Reversed End-Diastolic Flow in the Umbilical Artery

Indications for Delivery

- 37 weeks
- Abruptio
- 34 wks with Severe features
 - Labor, srom
 - Oligo (AFI < 5cm, MVP < 2cm)
 - BPP 6/10

Continued Evaluation

- Daily kick counts
- US growth every 3 weeks, AFI/MVP weekly
- NST (BPP) weekly for GH, Twice weekly PE
- For GH need additional BP check weekly (2 total, can be home BP monitor)
- Inpatient or outpatient
- Call for HA, vision changes, epigastric pain, decreased FM, SBP > 160, DBP > 110
- Repeat labs weekly (once PE Dx no need to repeat urine)

BP meds

- For women with mild GH/PE ie BP < 160/110
- BP MEDS NOT RECOMMENDED!!!
 - This is different then chronic hypertension
 - To be discussed later

Delivery mild

- Not before 37 weeks without severe features/reassuring testing
- Delivery is recommended at 37 weeks for mild

Bedrest

- For GH and PE without severe features “it is suggested that strict bedrest not be prescribed”

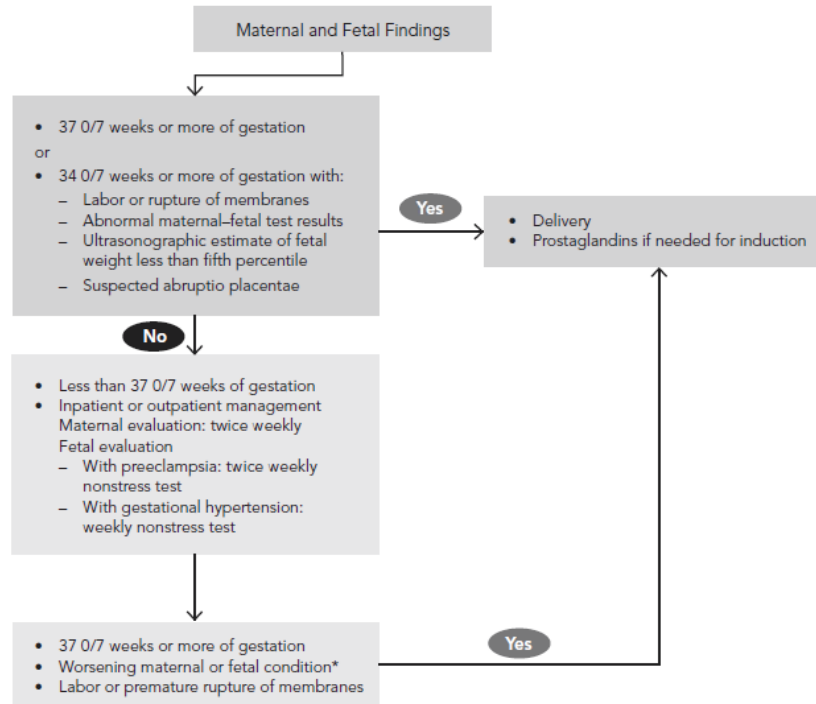


FIGURE 5-1. Management of mild gestational hypertension or preeclampsia without severe features. ↵

Management Mild

Magnesium Sulfate

- Not recommended SBP < 160, DBP < 110, no other features

BP meds for Severe HTN

- SBP \geq 160, DBP \geq 110 is recommended
- Labetalol, calcium channel blockers, Hydralazine
- This is realistically inpatient only
- Hypertensive protocol**
 - Hypertensive bundle
 - Our nurses can give first dose of nifedipine while contacting MD
 - NPQIC
- Labetalol 200mg orally BID
 - for early not planning to delivery
 - this is probably for MFM

*Hypertensive protocols – Nifedipine** don't need IV*

Box 1. Sample Order Set for Severe Intrapartum or Postpartum Hypertension Initial First-line Management With Immediate-Release Oral Nifedipine*†

- Notify physician if systolic blood pressure (BP) is greater than or equal to 160 mm Hg or if diastolic BP is greater than or equal to 110 mm Hg.
- Institute fetal surveillance if undelivered and fetus is viable.
- If severe BP elevations persist for 15 minutes or more, administer immediate-release nifedipine capsules‡ (10 mg orally).
- Repeat BP measurement in 20 minutes and record results.
- If either BP threshold is still exceeded, administer immediate-release nifedipine capsules (20 mg orally). If BP is below threshold, continue to monitor BP closely.
- Repeat BP measurement in 20 minutes and record results.
- If either BP threshold is still exceeded, administer immediate-release nifedipine capsules (20 mg orally). If BP is below threshold, continue to monitor BP closely.
- Repeat BP measurement in 20 minutes and record results.
- If either BP threshold is still exceeded, administer labetalol (20 mg intravenously for more than 2 minutes) and obtain emergency consultation from maternal–fetal medicine, internal medicine, anesthesia, or critical care subspecialists.
- Give additional antihypertensive medication per specific order.
- Once the aforementioned BP thresholds are achieved, repeat BP measurement every 10 minutes for 1 hour, then every 15 minutes for 1 hour, then every 30 minutes for 1 hour, and then every hour for 4 hours.
- Institute additional BP timing per specific order.

Hypertensive Protocols - Labetalol

Box 3. Sample Order Set for Severe Intrapartum or Postpartum Hypertension, Initial First-line Management With Labetalol*

- Notify physician if systolic blood pressure (BP) measurement is greater than or equal to 160 mm Hg or if diastolic BP measurement is greater than or equal to 110 mm Hg.
- Institute fetal surveillance if undelivered and fetus is viable.
- If severe BP elevations persist for 15 minutes or more, administer labetalol (20 mg intravenously [IV] for more than 2 minutes).
- Repeat BP measurement in 10 minutes and record results.
- If either BP threshold is still exceeded, administer labetalol (40 mg IV for more than 2 minutes). If BP is below threshold, continue to monitor BP closely.
- Repeat BP measurement in 10 minutes and record results.
- If either BP threshold is still exceeded, administer labetalol (80 mg IV for more than 2 minutes). If BP is below threshold, continue to monitor BP closely.
- Repeat BP measurement in 10 minutes and record results.
- If either BP threshold is still exceeded, administer hydralazine (10 mg IV for more than 2 minutes). If BP is below threshold, continue to monitor BP closely.
- Repeat BP measurement in 20 minutes and record results.
- If either BP threshold is still exceeded, obtain emergency consultation from maternal-fetal medicine, internal medicine, anesthesia, or critical care subspecialists.
- Give additional antihypertensive medication per specific order.
- Once the aforementioned BP thresholds are achieved, repeat BP measurement every 10 minutes for 1 hour, then every 15 minutes for 1 hour, then every 30 minutes for 1 hour, and then every hour for 4 hours.
- Institute additional BP timing per specific order.

Hypertensive Protocols - Hydralazine

Box 2. Sample Order Set for Severe Intrapartum or Postpartum Hypertension Initial First Line Management with Hydralazine*

- Notify physician if systolic blood pressure (BP) is greater than or equal to 160 mm Hg or if diastolic BP is greater than or equal to 110 mm Hg.
 - Institute fetal surveillance if undelivered and fetus is viable.
 - If severe BP elevations persist for 15 minutes or more, administer hydralazine (5 mg or 10 mg intravenously [IV] for more than 2 minutes).
 - Repeat BP measurement in 20 minutes and record results.
 - If either BP threshold is still exceeded, administer hydralazine (10 mg IV for more than 2 minutes). If BP is below threshold, continue to monitor BP closely.
 - Repeat BP measurement in 20 minutes and record results.
- If either BP threshold is still exceeded, administer labetalol (20 mg IV for more than 2 minutes). If BP is below threshold, continue to monitor BP closely.
 - Repeat BP measurement in 10 minutes and record results.
 - If either BP threshold is still exceeded, administer labetalol (40 mg IV for more than 2 minutes) and obtain emergency consultation from maternal-fetal medicine, internal medicine, anesthesia, or critical care subspecialists.
 - Give additional antihypertensive medication per specific order.
 - Once the aforementioned BP thresholds are achieved, repeat BP measurement every 10 minutes for 1 hour, then every 15 minutes for 1 hour, then every 30 minutes for 1 hour, and then every hour for 4 hours.
 - Institute additional BP timing per specific order.

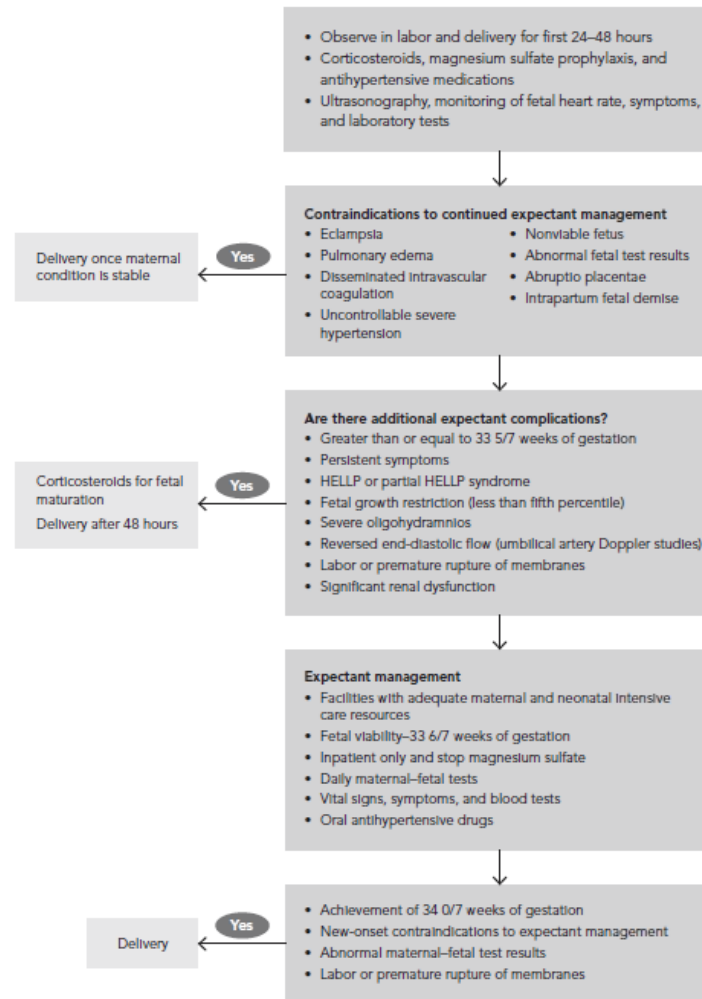


FIGURE 5-2. Management of severe preeclampsia at less than 34 weeks of gestation. ↵
 Abbreviation: HELLP, hemolysis, elevated liver enzymes, and low platelet count.

Management with Severe Features

Note inpatient only!!!

Chronic Hypertension with Superimposed Preeclampsia

- CHTN AND
- New onset proteinuria after 20 weeks
- Sudden severe exacerbation of HTN
 - Escalating doses
- Sudden other issues/“Severe Features”
 - Elevated LFTs (2x normal or > 72)
 - Low Plts $< 100K$
 - RUQ pain, Severe HA
 - Pulmonary Edema
 - Renal Disease (double cr or ≥ 1.1)
- Preeclampsia with or without Severe Features

Management CHTN with superimposed preeclampsia

- Similar to Preeclampsia

Post partum Hypertension

- All patients should have a post partum BP check with in 1 week
- Goal for BP post partum < 150/100(even in hospital)
- Meds Labetalol (starting dose 200mg BID, titrate up to 400mg TID or higher), Nifedipine XL [personally I start at 60mg daily or 60mg BID(max dose)]

Summary

- Important disease
- Help the doctor, don't let someone leave with severe BP, remember baby ASA
- Take BP the correct way
- Repeat BP if Diagnosis not known or if changing category
 - BP in severe range repeat/notify MD/DO/CNM if still severe or send to hospital, if BP in mild range and no history of Hypertension repeat if still elevated notify MD/DO/CNM, Preeclampsia or Gestational Hypertension don't need to repeat if mild range
- Take patient phone call seriously
 - Send to clinic within 24 hours, send to L&D, send to MFM

Questions?