

## **PROBLEM: Hypertensive Disorders in Pregnancy**

### **Chronic HTN**

**Definition:** Mild: SBP  $\geq$ 140-159 mm Hg, DBP  $\geq$  90-109 mm Hg  
Use of anti-HTN medications before pregnancy

Severe: SBP  $\geq$ 160 mm Hg DBP  $\geq$ 110 mm Hg  
Onset of HTN before the 20<sup>th</sup> week of gestation and persists 42 days postpart.

#### Medications

- ASA 65-85 mg po once a day after 12 – delivery
- Continue anti-hypertensives (except ACE inhibitors)
- If BP 140 / 90 mm Hg, then start  
Labetalol 100-2400 mg orally in two or three divided doses  
Nifedipine 30 to 120 mg qd as sustained release tablet  
Hydralazine 10-25 mg qid orally

Labs: Baseline – Cr, CBC, LFTs, spot total P/Cr ratio

#### Second line Tx:

Alpha-methyldopa 250-3000 mg orally in two or three divided doses  
HCTZ 12.5 – 25 qd orally  
Avoid ACE Inhibitors

#### Ultrasound

- 8-10 weeks initial
- 20-22 weeks anatomy
- 28-32 weeks growth, then every 4 weeks

#### Monitoring

- Kick counts
- Controlled no meds: No testing
- Controlled on meds: Start 36 w, NST / AFI q wk
- Not controlled on meds: 2x NST with weekly AF once Dx'd

Prenatal visits: Every 4 weeks until 28 weeks, then every 2 weeks until 36 weeks, then weekly

Delivery: No meds 39-40 wks / Controlled on meds 39- 40 wks / Difficult control > 37 wks

### **Pre-eclampsia**

**Definition:** SBP  $\geq$  140 mm Hg or DBP  $\geq$  90 mmHg, upright following a 10 minute rest (Repeat in 4 hours to confirm dx)  
Total P/Cr  $\geq$  0.3, or  $\geq$ 300 mg of protein in a 24 hour urine specimen, or 2+ on urine dipstick  
After 20 wks EGA  
Can convert from GHTN without proteinuria if develops severe features  
If Total P/C is 0.15 - 0.29, then obtain 24 urine PROT

#### Monitoring

- Kick counts
- NST 2x/wk and AF q week at Dx
- U/S every 3-4 weeks

#### Labs:

- Baseline – CBC, Cr, AST/ALT
- PLt ct, Cr, LFTs q wk

Prenatal visits: weekly and check BP twice a week

Delivery: > 37 weeks

### **Pre-eclampsia with severe features**

**Definition:** SBP  $\geq$  160 mmHg or DBP  $\geq$  110 mmHg on 2 occasions on bedrest  
Total P/Cr  $\geq$  0.3, or  $\geq$ 300 mg of protein in a 24 hour urine specimen, or 2+ on urine dipstick  
Can convert from GHTN without proteinuria if develops severe features

#### Severe Features

Cerebral or visual changes  
Pulmonary edema  
LFTs 2x normal

BP  $\geq$  160/110  
Creat > 1.1 or 2 x pt's normal Creat  
Thrombocytopenia, platelets <100,000

Plan: Admit for Delivery. Magnesium sulfate in active labor with careful fluid management (3,000 cc Total Intake /24 hrs)  
If < 34 weeks start steroids –see Guideline for details. Low dose ASA with subsequent pregnancies

### **Chronic HTN with superimposed Pre-eclampsia**

Management for pre-eclampsia as outlined above

Delivery:

- > 37 weeks for superimposed pre-eclampsia
- If severe features < 34 weeks start steroids –see Guideline for details.

### **Gestational HTN**

**Definition:** BP  $\geq$  140/90 without proteinuria after 20 weeks  
HTN does not persist beyond 12 weeks postpartum  
Can convert to severe preeclampsia without proteinuria if develops severe features

Labs: Baseline – Cr, LFTs, CBC, Total P/Cr ratio

Management: Same as preeclampsia without severe features, except:  
-obtain urine Preeclampsia screen q visit  
-weekly NST/AFI

#### Ultrasound

- 20-22 weeks
- 28-32 weeks, then every 4 weeks

#### Monitoring

- Kick counts
- At Dx p 32 weeks testing with NST/AFI weekly
- If FGR, then add Doppler q week

Prenatal visits:

- At GHTN Dx p 32 wks: visit and antenatal testing q wk
- GHTN prior to 32 wks: Individualize visit interval

Delivery: > 37 weeks

Addressograph

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