

## **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
- Stop Anti-hypertensives initially and recheck BP in one wk
- If BP 160 / 110 mm Hg, then start  
Labetolol 200-2400 mg orally in two or three divided doses  
Nifedipine 30 to 120 mg qd as sustained release tablet

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

Second line Tx:  
Alpha-methidopa 250-3000 mg orally in two or three divided doses  
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 32 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

BP  $\geq$  160/110

Pulmonary edema

Creat > 1.1 or 2 x pt's normal Creat

LFTs 2x normal

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 36 weeks start testing with NST/AFI weekly
- If FGR, then add Doppler q week

Prenatal visits: Every 4 weeks until 32 weeks, then every 2 weeks until 36 weeks, then weekly

Delivery: > 37 weeks

Addressograph

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