



Preeclampsia Information Packet
for Medical Staff Approval

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Preeclampsia

Early Recognition/Management

Criteria for Diagnosis

Chronic Hypertension

- BP \geq 140/90
- Identified prior to 20 weeks gestation
- Persists >12 weeks postpartum
- Use of antihypertensive medications before pregnancy
- Assessment- has patient had high blood pressure before? For how long? Are they taking BP medication at home?

Superimposed Preeclampsia or Eclampsia on Chronic Hypertension

- New onset in a woman with hypertension prior to 20 weeks
- Sudden increase in proteinuria if already present in early gestation
- Sudden increase in BP
- Development of HELLP syndrome
- Development of headache, Scotomata, or epigastric pain
- Note the word "SUDDEN." (Sudden onset of new symptoms or changes.)

Gestational Hypertension

- BP 140/90 WITHOUT proteinurea occurring after 20 weeks gestation
- May evolve to preeclampsia
- Retrospective diagnosis

Preeclampsia

- Occurring after 20 weeks gestation
- BP \geq 140/90
- Proteinuria 0.3 grams protein or higher in a 24 hr urine
- +1 per dipstick
- Protein/Creatinine ratio $>$ 0.3mg/dl

Eclampsia- Ahhhhh!!

- Presence of new onset grand mal seizures in a pregnant woman with preeclampsia
- New onset seizures 48-72 hours postpartum

Severe Preeclampsia

- BP 160/110
- Oliguria of less than 500ml in 24hrs
- Pulmonary Edema or cyanosis
- Visual disturbances
- Epigastric/right upper quadrant pain
- Impaired liver function
- Thrombocytopenia
- Renal insufficiency

HELLP Syndrome

- Hemolysis Elevated Liver Enzymes Low Platelets

Nursing Assessments

- Accurate blood pressure measurement
- Visual disturbances
- Epigastric pain assessment
- Intake and output
- Proteinuria
- Lung sounds
- Edema and reflexes
- Headache

Blood Pressure

- Accurate Cuff Size
- Width 40% of circumference
 - Encircle 80% of arm
- Patient Position
- Semi Fowlers with arm at heart
 - Sitting with feet flat



Visual Changes

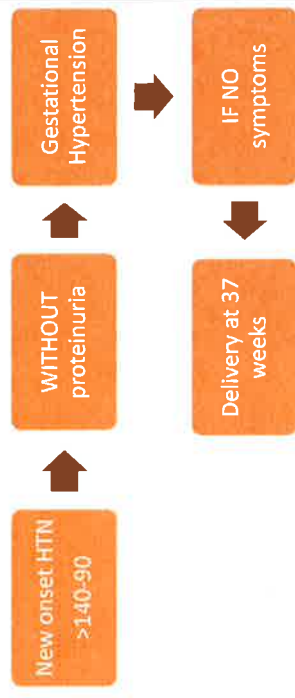
- Double vision?
- Blurred vision?
- Seeing spots?

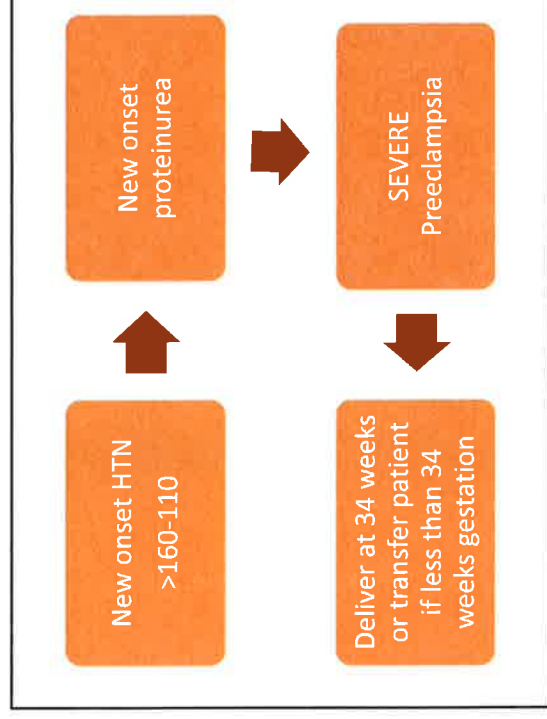
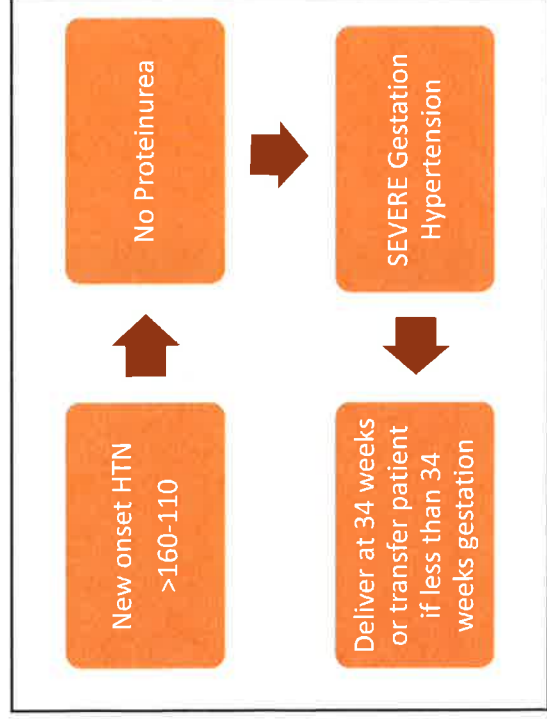
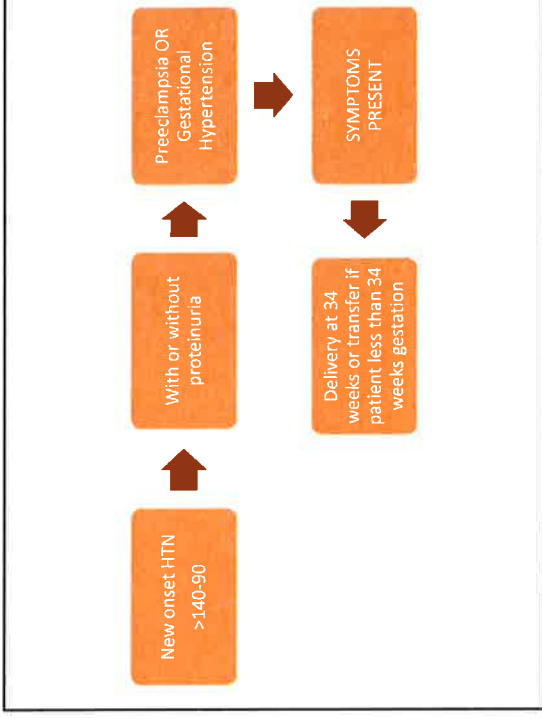
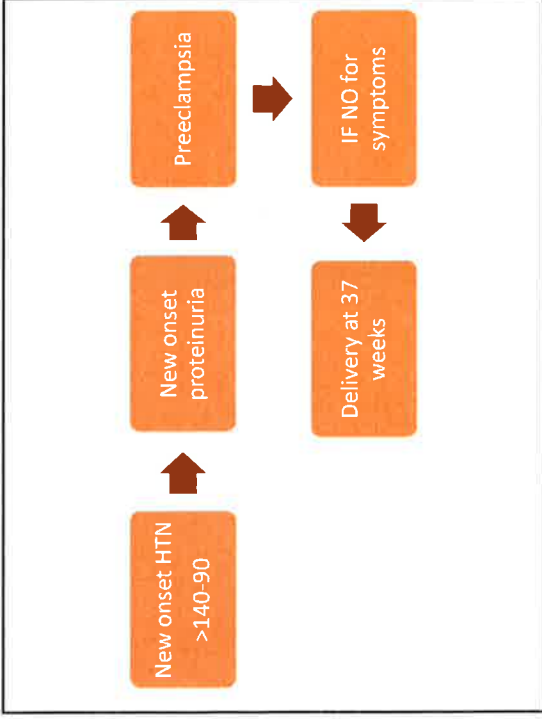
Epigastric pain

- Are you having any abdominal pain?
- Any upper right sided abdominal pain?
- Any heart burn?
- Heaviness in chest?

ASSESS	NORMAL (GREEN)	WORRISOME (YELLOW)	SEVERE (RED)
Awareness	Alert/oriented	•Agitated/confused •Drowsy •Inappropriate •Midline shift	•Unresponsive
Headache	None	•Mild headache •Nauseal vomiting	•Unrelieved headache •Focal neurological deficits
Vision	None	•Blurred or impaired	
Swollen BP	100-139	140-159	≥160
Diastolic BP	60-89	90-109	≥100
HR	61-110	111-129	>130
Respiration	12-20	30-35	>35 or <8
CO2 Sat (%)	Absent	Present	Present
Q2 Sat (%)	>95	91-94	≤90
Pelvic Abdomen or Chest	None	•Nausea, vomiting •Abdominal pain	•Nausea, vomiting •Abdominal pain •Abdominal rigidity •Distended bladder
Fetal Signs	•Category I •Reactive NST	•Category II •IUGR	•Category III •Nonreactive NST
Urine Output	≥50	30-49	<30 (in 2 hrs)
Proteinuria	Trace	•≥ +1 [†] •≥300mg/24 hours	
Platelets	>100	50-100	<50
AST/ALT	<70	>70	>70
Creatinine	<0.8	0.9-1.1	>1.2
Maggestrum sulfate Toxicity	•DTR +1 •Respiration ≥8-20	•Depression of patellar reflexes	•Respiration <12

Let's Go Through the Motions





Preeclampsia without Severe Features (MILD)

Antepartum	<ul style="list-style-type: none"> • Vital signs q 4 hours • Lung sounds q 4 hours • LOC, Edema, headache, visual changes, epigastric pain q 8 hours • Fetal Heart Tones per high risk policy (q 30 minutes) • Intake and output q hour
Intrapartum	<ul style="list-style-type: none"> • Vital signs q 60 minutes • Lung Sounds q 4 hours • LOC, Edema, headache, visual changes, epigastric pain q 8 hours • Fetal Heart Tones per high risk policy (q 15 minutes until complete dilation then q 5 minutes) • Intake and output q hour
Postpartum	<ul style="list-style-type: none"> • Vital signs q 4 hours • Lung sounds q 4 hours • LOC, Edema, headache, visual changes, epigastric pain q 8 hours • Intake and output q hour with shift totals

Severe Preeclampsia Intrapartum and Postpartum for Women on Magnesium Sulfate

During Magnesium Sulfate Loading Dose	<ul style="list-style-type: none"> • Vital signs q 5 minutes • Continuous pulse ox
During Magnesium Sulfate Maintenance Dose	<ul style="list-style-type: none"> • Vital signs q 30 minutes • Lung sounds q hr hours • Reflexes, edema, headache, visual changes, epigastric pain q hour • Continuous pulse ox for intrapartum, for postpartum- check with vital signs

Post Eclamptic Seizure and Mag Sulfate Toxicity

- Vital Signs q 5 minutes until stable- minimum of 1 hour

ECLAMPSIA!!!

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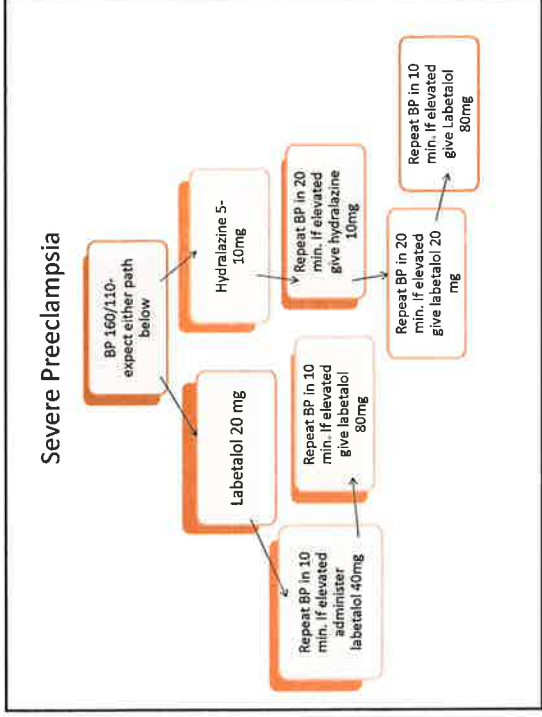
    graph TD
      A[Call for HELP!] --> B[Turn patient to left side, open and maintain airway, Vital signs]
      B --> C[Magnesium Sulfate 4-6 gram over 15-20 minutes followed by 2 gram/hr maintenance dose]
      C --> D[If patient seizes again after mag Sulfate maintenance dose:]
      D --> E[Maintain airway, oxygen, and give 2nd loading dose of mag sulfate - 2 grams over 5 minutes]
      E --> F[If patient has recurrent seizure after 2nd mag bolus consider, versed, ativan, valium, dilantin]
  
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Resolution of Seizures

- Maintain magnesium sulfate for 24 hours after the last seizure or after delivery, (whichever is later.)
- Assess for any signs of neurologic injury

PRIMARY ANTIHYPERTENSIVES

- Labetalol 20mg IV
- Hydralazine 5-10mg IV
- Indicated within 1 hour of BP 160/110!
- To target BP 140-160/90-110.



Preeclamptic Box

- Must be kept at bedside at all times for any patient with any of the following:
- Gestational Hypertension
- Preeclampsia
- Severe Preeclampsia
- Superimposed Preeclampsia
- Includes- IV tubing, Mag Sulfate Bolus dose, Mag Sulfate maintenance dose, Labetalol, Hydralazine, Calcium Carbonate, (for mag toxicity)
- Located in the med room

PREGNANCY HYPERTENSIVE SET

Labs

<input checked="" type="checkbox"/> COMPLETE BLOOD COUNT (LAB) - STAT Today Now	Edit
<input checked="" type="checkbox"/> COMPREHENSIVE METABOLIC PANEL (LAB) - STAT Today Now	Edit
<input checked="" type="checkbox"/> URIC ACID (LAB) - STAT Today Now	Edit
<input checked="" type="checkbox"/> URINALYSIS (LAB) - STAT Today Now	Edit
<input checked="" type="checkbox"/> TOTAL PROTEIN 24HR URINE (LAB) - STAT Today Now	Edit
<input checked="" type="checkbox"/> CREATININE CLEARANCE,24 URINE (LAB) - STAT Today Now	Edit
<input checked="" type="checkbox"/> TYPE AND SCREEN (BBK) - STAT Today Now	Edit

Medications

<input checked="" type="checkbox"/> Labetalol Inj (Normodyne Hcl Inj) 20 MG IV once ONE	Edit
COMMENTS: Give over 2 minutes.	
<input checked="" type="checkbox"/> Labetalol Inj (Normodyne Hcl Inj) 40 MG IV prn ONE	Edit
DOSE INSTRUCTIONS: If blood pressure remains >160/110 10 minutes after initial 20 mg dose.	
COMMENTS: Give over 2 minutes.	

✓	Labetalol Inj (Normodyne Hcl Inj) 80 MG IV prn ONE	
DOSE INSTRUCTIONS: If blood pressure remains > 160/100 after 10 minutes of receiving 40 mg dose.		Edit
COMMENTS: Give over 2 minutes.		
✓	Labetalol Inj (Normodyne Hcl Inj) 80 MG IV prn ONE	
DOSE INSTRUCTIONS: If blood pressure remains > 160/110 after 10 minutes of administering the first 80 mg dose.		Edit
COMMENTS: Give over 2 minutes.		
✓	hydrALAZINE INJ (APRESOLINE INJ) 5 MG IV once ONE	
DOSE INSTRUCTIONS: Give if blood pressure remains >160/110 20 minutes after receiving INITIAL dose of Hydralazine (Apresoline).		Edit
COMMENTS: Give over 1-2 minutes.		
✓	hydrALAZINE INJ (APRESOLINE INJ) 5 MG IV once ONE	
COMMENTS: Give over 1-2 minutes.		Edit
✓	NIFedipine XL TAB (PROCARDIA XL TAB) 30 MG PO daily	Edit
✓	NIFedipine XL TAB (PROCARDIA XL TAB) 60 MG PO daily	Edit
✓	hydrALAZINE INJ (APRESOLINE INJ) 5 MG IV once ONE	
DOSE INSTRUCTIONS: If blood pressure reamins >160/110 20 minutes after receiving SECOND 5mg dose of Hydralazine (Apresoline).		Edit
COMMENTS: Give over 1-2 minutes.		

<input checked="" type="checkbox"/>	<input type="checkbox"/>	MAGNESIUM SULFATE 4 GRAM SET	
Diet			
<input checked="" type="checkbox"/>		NPO Except Ice Chips Diet (NUTR) - DIET Today @ Dinner	<input type="button" value="Edit"/>
Patient Interv.			
<input checked="" type="checkbox"/>		Insert Foley - OB Labor (PCI) Today Now .AS ORDERED	<input type="button" value="Edit"/>
<input checked="" type="checkbox"/>		Sequential Compression Device (PCI) Today Now .AS ORDERED	<input type="button" value="Edit"/>
<input checked="" type="checkbox"/>		Intake and Output-Physician Or (PCI) Today Now EVERY 1 HOUR	<input type="button" value="Edit"/>
<input checked="" type="checkbox"/>		OB Labor Vital Signs (PCI) Today Now Q5M	<input type="button" value="Edit"/>
<input checked="" type="checkbox"/>		OB Labor Vital Signs (PCI) Today Now Q30M	<input type="button" value="Edit"/>
<input checked="" type="checkbox"/>		OB Labor Vital Signs (PCI) Today Now EVERY 1 HOUR	<input type="button" value="Edit"/>
<input checked="" type="checkbox"/>		Monitor pulse oximetry (PCI) Today Now .CONTINUOUS	<input type="button" value="Edit"/>
<input checked="" type="checkbox"/>		Obtain weight (PCI) Today Now 06	<input type="button" value="Edit"/>
<input checked="" type="checkbox"/>		Call Physician for abnormal vi (PCI) Today Now .AS ORDERED	<input type="button" value="Edit"/>
<input checked="" type="checkbox"/>		Activity (PCI) Today Now EVERY SHIFT	<input type="button" value="Edit"/>
<input checked="" type="checkbox"/>		MESSAGE TO NURSING FROM DOCTOR (PCI) Today Now EVERY 1 HOUR Message: NURSING HOURLY ASSESSMENT	<input type="button" value="Edit"/>
<input checked="" type="checkbox"/>		MESSAGE TO NURSING FROM DOCTOR (PCI) Today Now EVERY SHIFT Message: STOP MAG SULFATE & GET STAT SERUM MAG LEVEL IF SIGNS OF TOXIC...	<input type="button" value="Edit"/>
<input checked="" type="checkbox"/>		MESSAGE TO NURSING FROM DOCTOR (PCI) Today Now EVERY SHIFT Message: Administer Magnesium Sulfate until 24 hrs after birth	<input type="button" value="Edit"/>
<input checked="" type="checkbox"/>		MESSAGE TO NURSING FROM DOCTOR (PCI) Today Now EVERY SHIFT Message: Notify MD of Renal Insufficiency (Serum Creatinine >1.2mg/dL)	<input type="button" value="Edit"/>

✓	MESSAGE TO NURSING FROM DOCTOR (PCI) Today Now EVERY SHIFT Message: Maintain Oxygen Saturation >96% if pregnant, >92% if not pregnant	Edit
✓	MESSAGE TO NURSING FROM DOCTOR (PCI) Today Now EVERY SHIFT Message: Continuous contraction monitoring	Edit
✓	Monitor Fetal Heart Tones (PCI) Today Now .CONTINUOUS	Edit
Medications		
✓	Magnesium Sulf 4 Gm/100 Premix (Magnesium Sulf 4 Gm/100 Premix) 4 GM IVPB once ONE COMMENTS: **GIVE OVER 20 MINUTES **USE IV PUMP ONLY **Discontinue Magnesium Sulfate infusion and obtain a STAT serum magnesium level in the following situations: hypotension, new onset loss of DTRs, respiratory depression, respiratory arrest, oliguria, shortness of breath, chest ...	Edit
✓	Magnesium Sulf 4 Gm/100 Premix (Magnesium Sulf 4 Gm/100 Premix) 2 GM IVPB .as ordered COMMENTS: **After 4 gram bolus, give 2 grams/hour continuous rate at 50 ml/hr. **Use IV pump only. **IV fluid intake not to exceed 125 ml/hour total all fluids. **Discontinue Magnesium Sulfate infusion and obtain a STAT serum magnesium level in the following situations: hypotension, new onset loss of DTRs, respiratory depression, respiratory arrest, oliguria, shortness of breath, chest ...	Edit
✓	Lr 1000 MI (Lactated Ringers 1000 MI) 1,000 ML IV 75 MLS/HR BOTTLE COMMENT: **IV fluids on IV pump only. **IV intake not to exceed 125 ml/hr total of all fluids.	Edit
✓	Calcium Gluconate (Calcium Gluconate) 4.65 MEQ IVP prn PRN (RESPIRATORY DEPRESSION) COMMENTS: IV Push over 3 minutes for respiratory depression. 4.65 meq=10 mls=1gm PI FASE HAV AVATI ARI F AT BFDSTDF.	Edit

<input checked="" type="checkbox"/>	<input type="checkbox"/>	MAGNESIUM SULFATE 6 GRAM SET	
Diet			
<input checked="" type="checkbox"/>		NPO Except Ice Chips Diet (NUTR) - DIET Today @ Dinner	<input type="button" value="Edit"/>
Patient Interv.			
<input checked="" type="checkbox"/>		Insert Foley - OB Labor (PCI) Today Now .AS ORDERED	<input type="button" value="Edit"/>
<input checked="" type="checkbox"/>		Sequential Compression Device (PCI) Today Now .AS ORDERED	<input type="button" value="Edit"/>
<input checked="" type="checkbox"/>		Intake and Output-Physician Or (PCI) Today Now EVERY 1 HOUR	<input type="button" value="Edit"/>
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<input checked="" type="checkbox"/>		Obtain weight (PCI) Today Now 06	<input type="button" value="Edit"/>
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