patient who comes to the maternity ward with any of the following diagnoses should be assessed by the midwife and seen by the resident doctor.

Classification

- Chronic hypertension (Presence of hypertension before pregnancy)
- Coincidental hypertension (Hypertension is discovered for the first time during pregnancy)
- Gestational hypertension / Pregnancy Induced Hypertension (PIH) (Pregnancy related hypertension without proteinuria or edema)
- Preeclampsia (hypertension 140/90, proteinuria >300mg/24h, edema of upper body)
- Eclampsia (preeclampsia + convulsion)
- Chronic hypertension with superimposed Preeclampsia / Eclampsia

Initial evaluation

1. Brief history and physical
   a. Patient’s conscious level
   b. Heart and lungs auscultation
   c. Abdominal examination
   d. Upper body edema
   e. Deep tendon reflex (DTR)
   f. Fundoscopy
   g. Pelvic examination for cervical evaluation and fetal presentation
   h. Determination of gestational age (history and abdominal exam, US)
   i. Fetal well-being (biophysical profile BPP) - CTG, US

2. Laboratory (Call the results to the doctor)
   a. Blood for QBC inc platelets, LFTs, Bleeding time, Blood Group & Save
   b. Urine for dipstix (protein and leucocytes)

3. Tentative diagnosis - Plan management according to diagnosis

Chronic hypertension (most favorable prognosis)

- Continue to treat BP with anti-hypertensive drugs as necessary (BP >= 160/110)
  May be treated as outpatient if mother and baby otherwise normal.

Coincidental hypertension is difficult to distinguish from gestational hypertension

- Treat with anti-hypertensive drugs only if BP > 160/110.
  May be treated as outpatient if mother and baby otherwise normal.
Severe Preeclampsia (BP $\geq 160/110$, proteinuria ++, symptomatic) and Eclampsia

- Admit and call the doctor immediately
- If unconscious or fitting, place in recovery position and check:
  - Airway: assess, maintain patency, give oxygen
  - Breathing: assess, protect airway, ventilate if required
  - Circulation: evaluate pulse and BP, if absent start CPR, left lateral tilt, deliver immediately.
- Start IV fluid (RL or NS) slowly (85ml/hour = 1000ml over 12 hours)
- Insert Foley catheter and monitor output every hour (aim for 30ml/hour)
- Keep accurate fluid input/output record. Start eclampsia observation sheet.
- Give MgSO4 to prevent or to stop convulsions. See protocol below. (If the convulsion is not stopping, consider adding diazepam, consider other diagnoses eg meningitis, epilepsy, intracerebral bleed)
- Treat hypertension **only** if it is over 160/110 (Hydralazine, Nifedipine, Labetalol – see protocol below). Aim for BP around 130-140/90-100.
- Start steroids if gestation less than 34 weeks (8mg Dexamethasone IM every 8 hours for 4 doses or 12mg Betamethasone every 12 hours for 2 doses)
- Plan delivery: aim for vaginal delivery where possible and start induction of labour with misoprostol 25 micrograms PV (see Induction protocol).
- Continue close observation for 48 hours after delivery (Convulsions may take place for the first time after delivery).

**Magnesium Sulfate Protocol**

1. Give 4g IV slowly over 15 minutes.
2. Start IV infusion by adding 20g MgSO4 to 1000ml Ringers and give 2g/h (100ml/h). Watch for symptoms and signs of fluid over load (Regular chest auscultation for pulmonary oedema, fluid input/output charting).
3. Watch and monitor DTR (should be weakly present) and Respiratory Rate.
4. MgSO4 may be given in much larger doses, until patient convulsion, agitation and hyperreflexia is under control.
5. Side effects of MgSO4 are flushing, nausea/vomiting, respiratory depression, arrhythmias, slurred speech, drowsiness – DO NOT Give MgSO4 if
   1. DTR becomes absent
   2. Respiratory Rate less than 15 breaths per minute
   3. Urine Output less than 30ml/hour
6. If there are symptoms and signs of MgSO4 toxicity, the antidote is Calcium Gluconate. Give 1g (10ml of 10%) IV over 10mins.
7. Continue MgSO4 for 24 hours after delivery.
Protocol for Management of Hypertension in Pregnancy

**Hydralazine Protocol**

- Give 5mg IV over 10 mins and wait 30 mins before repeating the dose if needed. Further 5mg boluses can be given IV, up to 15mg.
- Once BP stable, consider an infusion of 10mg/hour.

**Nifedipine Protocol**

- Give 10mg orally (avoid sublingual) every 8 hours.

**Labetolol Protocol**

- Give 20mg IV over 10 mins and wait 30 mins before giving a further dose of 20mg or 40mg as necessary.
- Once BP stable, consider an infusion at 40mg/hour.