stop labor) ,

Methyldopa

- Methyldopa is a centrally acting α:-receptor agonist, it is an oral agent. Methyldopa is the drug of choice for maintenance therapy. It has a minimal side effect & safe. Methyldopa has a long history of safe use in pregnancy, well tolerated .

- There is some concern regarding ability to control blood pressure (additional drug may be needed)

- Dosage - 500 - 3000mg PO in 2-4 divided doses per 24 hrs

- Other alternative (or supplementary) drugs for maintenance therapy. Include - nifedipine (PO), hydralazine (PO) or atenolol (50 - 100 mg PO once daily)

ii) ECLAMPSIA..

Management of Eclampsia

Treatment of eclampsia is symptomatic & consists of six aspects:

1. General measures
2. Control of convulsions (to stop ongoing convulsion & prevent repeated convulsion)
3. Correction of hypoxia & acidosis
   -by clearing airway & giving O_2 by mask at 6L/min
4. Blood pressure control & stabilization of the condition of the mother & fetus
5. Fluid balance & diuresis
6. Delivery & intra partum/post partum care

i.) General Measures in the Mx of Eclampsia

1. Set up IV line & maintain intravascular volume & replace ongoing losses; avoid overload (if not done already)
2. Position the patient on her side (left lateral) & in Trendelenburg (head down) position to reduce risk of aspiration of secretions, vomits or blood
3. Aspirate (suction) the mouth & throat as necessary & ensure open airway
4. Give oxygen by mask at 6 liters per minute
5. Avoid tongue bite by placing an airway or padded tongue blade between the teeth & protect the Woman from injury but do not actively restrain
6. Place an indwelling catheter to monitor urine output & urine test for protein (if not done already)
7. Observe vital signs, FHB & reflexes frequently & ascultate the lung bases

hourly for crepitation indicating pulmonary edema

8. If the pulmonary edema occurs, withhold fluids & administer a diuretic such as furosemide 40mg IV stat

The patient has to be kept in the "eclampsia room" (a specially designed quiet room (darkened room is no more used), with intensive care on a railed cot). An attendant must be always beside the patient.

Administration of prophylactic IV antibiotics is beneficial

i) <u>Anticonvulsant Therapy</u>

- Administer anticonvulsant drugs to stop the ongoing convulsion & prevent repeated attacks
- Be aggressive & avoid under treatment, to be successful
- Magnesium sulphate is the drug of choice in eclampsia

Magnesium sulfate schedules for severe pre-eclampsia and eclampsia

Loading dose

- Magnesium sulfate 20% solution, 4 g IV over 5 minutes.
- Follow promptly with 10 g of 50% magnesium sulfate solution, 5 g in each buttock as deep IM injection with 1 mL of 2% lignocaine in the same syringe. Ensure that aseptic technique is practiced when giving magnesium sulfate deepIM injection. Warn the woman that a feeling of warmth will be felt when magnesium sulfate is given.
- If **convulsions recur after 15 minutes**, give 2 g magnesium sulfate (50% solution) IV over 5 minutes.

Maintenance dose

- 5 g magnesium sulfate (50% solution) + 1 mL lignocaine 2% IM every 4 hours into alternate buttocks.
- Continue treatment with magnesium sulfate for 24 hours after delivery or the last convulsion, whichever occurs last.

Before repeat administration, ensure that:

- Respiratory rate is at least 16 per minute.
- Patellar reflexes are present.
- Urinary output is at least 100 ml over 4 hours.

Withhold or delay drug if:

- Respiratory rate falls below 16 per minute.
- Patellar reflexes are absent.
- Urinary output falls below 30 mL per hour over preceding 4 hours.

Keep antidote ready

- In case of respiratory arrest:

Assist ventilation (mask and bag, anaesthesia apparatus, intubation).

Give calcium gluconate 1 g (10 mL of 10% solution) IV slowly until respiration begins to antagonize the effects of magnesium sulfate.

Diazepam

Diazepam is an effective alternative, but it increases the risk of respiratory depression & newborn asphyxia, in babies who, may already be suffering from the effects of utero-placental ischaemia & pre term birth

- The effect may last several days

Diazepam schedule for severe Pre-eclampsia: & eclampsia

I) Intravenous administration

i) Loading dose

- .Diazepam 10 rng IV slowly over 2 minutes
- If convulsion recur, repeat loading dose

ii) Maintenance dose

- Diazepam 40 mg in 500 ml IV fluids (N/S or Ringer's lactate L) no of drops titrated to keep the woman sedated but arousable.

NB Maternal respiratory depression may occur when dose exceeds 30 mg /hr

- Diazepam may be given rectally when IV access is not possible.
- Peak levels are reached with in 10-20 minutes
- This is invaluable during transportation and at primary health care level.

Use loading dose of 20 mg followed by maintenance dose of≥ 10 mg/hr depending on the size of the woman and her clinical response.

- A urinary catheter or a 10 ml syringe can be used to install the drug in to rectum.
- Draw the drug in to a syringe remove needle, lubricate the barrel and insert the syringe in to the rectum to 1/2 of its length, discharge the content and leave the syringe in place holding the buttocks together for 10 minutes to prevent the expulsion of the drug.

ii. Anti Hypertensive Therapy

the therapeutic goal is to keep the diastolic blood pressure < 110 mm Hg & prevent cerebal hemorrhage

For drugs used as hypertensive medication refer back to management of severe pre-eclmapsia (use some drugs & doses).

iii. Fluid balance & diuresis

- Keeping strict input & output record is essential and determine serum electrolyte, if possible
- For unconscious patient, 5% DW (1000ml) & ringer's Lactate (500ml) are infused for maintenance of nutrition & fluid balance during 24hrs. (or alternatively urine output plus insensible loss of 700ml)
- Replace extra fluid loss through vomiting, diarrhea, sweating or blood loss
- Nothing by mouth is allowed (if unconscious); when the patient becomes conscious & can drink, oral feeding of fluid is started.
- Lasix 20mg IM is given for diueresis(especially after delivery)

iv) Delivery

- Delivery should take place as soon as the woman's condition has stabilized, regardless of the gestational age (delay will risk the lives of both the fetus & the mother)
- Eclamptics usually proceed to labor spontaneously while having convulsions

NB Delivery should occur within 24hrs of the onset of symptoms in severe pre-eclmapsia, & within 12 hrs of the onset of convulsions, in eclampsia. If vaginal delivery is not anticipated within this time limit, delivery should be by cesarean section.