2-1 Eclampsia v.1

Tonic clonic seizure in a pregnant or recently pregnant woman with known / suspected or undiagnosed pre-eclampsia. The seizures typically self-terminate after 1–2 minutes, however the woman may remain drowsy afterwards

START

❶ **Call for help** (obstetrician, midwife, anaesthetist, +/- neonatal team)
- **Ask:** "who will be the team leader?"
- **Team leader assigns** checklist reader and scribe
- **Request eclampsia drug box**

❷ **Airway & breathing**
- Position woman in left lateral (recovery) position
- If airway obstructed ➔ perform head tilt/chin lift or jaw thrust
- Start oxygen at 15 L/min via reservoir mask (titrate to SpO_2 95-98%)

❸ **Circulation**
- Start continuous monitoring: SpO_2, respiratory rate, 3-lead ECG and blood pressure
- Insert wide bore IV access
- Take bloods: FBC, U&E, clotting, LFTs, blood glucose, venous blood gas
- If IV fluids are running ➔ stop fluids
- Insert urinary catheter, document fluid balance

❹ **Check for and treat seizures**
- Give IV magnesium sulfate bolus and infusion (**Box A**)
- Protect woman from trauma. Do not restrain
- If recurrent or prolonged seizures, consider other diagnoses (**Box B**)
- Check blood glucose
- Check neurology

❺ **Check for and treat hypertension (Box C)**

❻ **Plan for birth (stabilise woman's condition prior to birth)**

❼ **Plan ongoing care in a suitable location**

Box A: Magnesium sulfate emergency regimen

Loading dose:
- 4 g magnesium sulfate IV over 5 minutes (8 mL (4 g) 50% $MgSO_4$ diluted to 20 mL with 0.9% saline)

Maintenance infusion:
- 1 g/hr magnesium sulfate IV infusion (20 mL (10 g) 50% MgSO4 diluted to 50 mL with 0.9% saline, infused at 5 ml/hr)
- If creatinine >90µmol/L start at 0.5g/hr and recheck Mg levels in 4 hrs

Recurrent seizures:
- 2 g magnesium sulfate over 5 minutes (4 ml (2 g) 50% $MgSO_4$ diluted to 10 ml with 0.9% saline)

Treatment for magnesium toxicity
- 1g calcium gluconate

Box B: Alternative diagnosis for seizure

Hypo/hyper glycaemia, hyponatraemia, epilepsy, hypoxia, hypercarbia, hypotension, intracranial bleed, cerebral vein thrombosis, space-occupying lesion, drugs.

Urgent CT/ MRI head if diagnosis remain uncertain

Box C: Treatment of severe hypertension

PO Labetalol (AVOID in women with asthma)
- 200 mg orally. Can repeat after 15–30 minutes
- Maintain with 200 mg orally TDS if good response

PO Nifedipine (if asthmatic, or labetalol is ineffective)
- 10 mg modified release orally
- Maintain with 10 mg BD if good response

IV Labetalol (5 mg/ml) (AVOID in women with asthma)
- Loading dose: 50 mg (10 mL) over 2 minutes. Can repeat every 5 minutes to a maximum of 4 doses (200 mg) if needed
- Maintenance: Start at 4 ml/hr; double rate every 30 minutes until BP controlled (max rate 32 ml/hr)

IV Hydralazine (1 mg/ml) (if nifedipine or IV labetalol ineffective)
- Loading dose: 5 mg (5 ml) over 15 min. Can repeat after 20 min
- Maintenance: start at 5 ml/hr titrate to response (max rate 18 ml/hr)