Sir Charles Gairdner Emergency Department Obstetric Guidelines

Hypertension in Pregnancy

Definition

1. Systolic BP greater than or equal to **140mmHg** and/or
2. Diastolic BP greater than or equal to **90mmHg**

Severe Hypertension in pregnancy

1. SBP greater than or equal to 170mmHg and/or
2. DBP greater than or equal to 110mmHg

This represents a level of BP above which the risk of maternal morbidity and mortality is increased.

Gestational hypertension

- New onset of hypertension arising after 20 weeks gestation
- No additional maternal or fetal features of preeclampsia
- Resolves within 3 months postpartum

Chronic hypertension

- Essential
  - BP greater than 140/90 mmHg preconception or prior to 20 weeks without an underlying cause
    Or
  - BP less than 140/90 entering pregnancy on antihypertensives
- Secondary Hypertension due to:
  - chronic kidney disease
  - renal artery stenosis
  - systemic disease with renal involvement (e.g. DM, SLE)
  - endocrine disorders (e.g. phaeochromocytoma, Cushing's syndrome and primary hyperaldosteronism)
  - coarctation of the aorta

Investigations

The following investigations should be performed in all women with new onset hypertension after 20 weeks gestation:

- Spot urine Protein Creatinine Ratio
- FBP
- UEC
- LFTs
- Ultrasound assessment of fetal growth, amniotic fluid volume and umbilical artery Doppler assessment (if US not available then discuss with KEMH for transfer)

If features of preeclampsia are present, additional investigations should include:

- Urinalysis for protein and urine microscopy on a carefully collected MSU
- If there is thrombocytopenia or a falling haemoglobin, investigations for disseminated intravascular coagulation and / or haemolysis are indicated:
  - AST, ALT, LDH, uric acid

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Emergency Treatment of Hypertension in Pregnancy

Antihypertensive treatment should be commenced in all women with SBP ≥170 mm Hg or a DBP ≥110 mm Hg because of the risk of intracerebral haemorrhage and eclampsia.

Medication	Dose	Route	Onset of Action
Nifedipine *1st Agent of choice	10mg IR tablet (Max 40mg)	Oral	30-45 mins. Repeat after 45 mins if response inadequate
Labetalol *Agent of choice for IV administration	20-80mg (Max 80mg)	IV bolus over 2 mins Repeat every 10mins PRN	Max effect usually within 5 mins
Hydralazine	5-10mg (max 20mg)	IV bolus over 2 mins	20 mins May be repeated after 20 mins

**Note: BP should not be allowed to fall below a level of 140/80

Indications for transfer to KEMH

- All preterm pregnancies with severe pre eclampsia, eclampsia or HELLP syndrome
- All pregnancies complicated by eclampsia or HELLP syndrome
- Any pregnancy in which the health care provider believes his/her health care facility would be unable to manage the complications of hypertension in pregnancy