ROYAL HOSPITAL FOR WOMEN

Approved by
Patient Care Committee

CLINICAL POLICIES, PROCEDURES & GUIDELINES

5/2/09

SEVERE AND/OR URGENT HYPERTENSION IN PREGNANCY GUIDELINE

1. OPTIMAL OUTCOMES

- To reduce blood pressure (BP) to within safe parameters
- Prevent end organ damage to mother or baby

2. PATIENT

- Woman with severe or urgent hypertension (HT) ≥ 20 weeks gestation or within early post partum period
  - Urgent HT systolic BP ≥ 170, diastolic BP ≥110
  - Severe HT systolic BP ≥ 160, diastolic BP ≥100

3. STAFF

- Registered Midwives
- Student Midwives
- Medical staff

4. EQUIPMENT

- Mercury sphygmomanometer with cuff of appropriate size
- Cardiotocograph (CTG)
- 16 gauge IV cannula
- Antihypertensive medication
- Normal-saline intravenous infusion

5. CLINICAL PRACTICE

- Measure blood pressure, ensuring the diastolic blood pressure (BP) is recorded at the phase V Korotkoff sound
- Recheck to confirm
- Enquire about symptoms of pre-eclampsia
- Notify RMO/ private obstetrician for immediate review of patients with new severe or urgent HT
- Notify Obstetric physician; urgently for patients with refractory hypertension, routinely for all cases of severe hypertension

Severe hypertension

- Begin antihypertensive treatment usually with oral treatment (see Table 1) All women on oral antihypertensive treatment should have prn antihypertensive medication prescribed in the event their BP rises above agreed target
- Refer to table 2 if woman is in labour/nil by mouth
- Consider medical review
- Recheck BP every 30-60 minutes until stable or according to drug treatment protocol

Table 1. Oral antihypertensive drug treatment in pregnancy

DRUG	DOSE
Methyl dopa Clonidine	250-750 mg tds 75-300 µg tds
Labetalol Oxprenolol	100-400 mg 8 hourly 20-160 mg 8 hourly
Nifedipine	20 mg bd to 60 mg SR bd
Prazosin Hydralazine	0.5-5 mg 8 hourly 25-50 mg 8 hourly

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SEVERE AND/OR URGENT HYPERTENSION IN PREGNANCY GUIDELINE cont'd

Urgent hypertension

- Treat urgent HT immediately (see Table 2) and refer to appropriate medication policy
- Continue or commence administration of regular oral antihypertensive therapy and supplement with additional therapy as required
- Recheck BP to ensure response every 5-10 minutes as per the medication policy
- Assess for other features of severe preeclampsia ie clinical, urine, bloods
- Consider administration of Magnesium Sulfate for eclampsia prophylaxis

Table 2. Treatments for urgent/severe hypertension

	DOSE	ROUTE	Onset of action
NIFEDIPINE	20 mg tablet	Oral	30-45 mins, repeat after 45 mins
HYDRALAZINE	10 mg	IV bolus	20mins, repeat after 20 mins as per protocol
LABETALOL	20 mg	IV bolus over 2 mins	5 mins, repeat after 15 mins

- Commence continuous electronic fetal monitoring (CTG)
- Repeat doses of chosen medication or change to infusion until systolic <155 mm Hg and diastolic <100 mmHg as per medication policy
- Continue CTG monitoring until BP stabilises
- Use IV Hydralazine or Labetalol if in labour
- Care for antenatal women in Delivery Suite; care for post natal women in ACC.
- Consider delivery in antenatal patients with urgent HT.

6. HAZARDS/SUB-OPTIMAL OUTCOMES

- Eclampsia
- Cerebral haemorrhage
- Encephalopathy
- Placental abruption
- Fetal distress
- Hypotension
- Maternal death

7. DOCUMENTATION

- Observation chart.
- Integrated notes
- Medication chart
- CTG recording sticker

8. EDUCATIONAL NOTES

- Reducing SBP by 20-30mmHg and DBP by 10-15mmHg should protect the mother from cerebral haemorrhage without causing fetal distress. Greater falls in blood pressure may lead to a decrease in placental perfusion and fetal distress.
- The use of N/Saline 250ml prior to the administration of IV anti-hypertensives to lower blood pressure reduces the risk of sudden hypotension (see individual drug protocols).
- Women with hypertension in pregnancy remain at risk for severe hypertension in the early post partum period

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9. RELATED POLICIES/ PROCEDURES/GUIDELINES

- IV Hydralazine
- IV Labetalol
- Magnesium Sulfate for eclampsia
- Blood pressure measurement on a pregnant woman
- Obesity in pregnancy
- Eclampsia management of
- Intrapartum care of women with pre-eclampsia

10. REFERENCES

- Lowe SA, Brown M, Dekker G, Gatt S, McLintock C, McMahon L, Mangos G, Moore MP, Muller P, Paech M, Walters B. Guidelines for the management of hypertension in pregnancy 2008. www.somanz.org.au
- Pairman, S., Pincombe, J., Thorogood. C. & Tracey, S (2006). Midwifery, Preparation for Practice. Churchill Livingstone