AIMS

- To monitor maternal and fetal wellbeing.
- To detect any deterioration in maternal and/or fetal condition in a timely manner such that appropriate action can be instigated to achieve the best possible outcome.
- To reduce maternal and fetal morbidity and mortality.

KEY POINTS

- There is no good evidence to support a policy of strict bed rest in hospital for women with mild or moderate pre eclampsia¹.
- The consultant shall approve the woman’s plan of care and these actions documented².
- Women admitted with hypertensive disorders of pregnancy shall be reviewed by a senior registrar or consultant at least daily (including weekends and public holidays)³.

Mild to moderate pre eclampsia can deteriorate quickly to severe pre eclampsia or eclampsia over a period of hours or days. It is therefore crucial that midwives understand the pathophysiology, investigations, and pharmacological management of pre-eclampsia⁴.

- For management of:
  - Severe pre eclampsia.
  - Eclampsia see Clinical Guidelines,
## PROCEDURE
### ADDITIONAL INFORMATION

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### Admission

See **antenatal admission** for admission procedure.

### Maternal assessment

#### Blood pressure:

Check manually and record 4 hourly.

- **Clinical Guideline Measuring Blood Pressure**
- Notify the medical officer immediately when:
  - the systolic BP is ≥ 160 mmHg
  - the diastolic BP is ≥ 105 mmHg
  - there is a sudden sharp rise in BP
  - The reportable BP level recorded in the woman’s medical records is reached.

Regular assessment of BP is required to detect any rise early so that appropriate treatment may be instigated. Automated blood pressure readings may only be considered once the blood pressure is stable.

Although BP recordings of 160/105 are the standard values for notification, a reportable value specific for a woman may be recorded in her notes. It is essential to check each woman’s notes for this value.

#### Urinalysis:

Check and record dipstick proteinuria daily.

Notify the medical officer of increasing proteinuria.

Increasing vascular damage results in increasing proteinuria. This is indicative of a worsening of maternal condition.

#### Abdominal Examination

Inspect the abdomen daily for discomfort or tenderness or pain.

Report any abnormalities.

Discomfort or tenderness can be a sign of placental abruption.

Upper abdominal pain is highly significant and indicative of HELLP syndrome associated with fulminating (rapid onset) pre-eclampsia.
1.4. **Assess for complications**

Assess the woman 4 hourly for, and report immediately any of the following signs and symptoms:

- a sharp rise in blood pressure
- headache which is usually severe, persistent and frontal in location
- drowsiness or confusion
- visual disturbances, such as blurring of vision or blindness
- diminished urinary output ± increase in proteinuria
- upper abdominal pain ± nausea and vomiting
- hyper-reflexia
- sustained clonus

**Note:** Commence CTG immediately if any sudden deterioration of maternal condition or fetal heart rate abnormalities on auscultation.

Any of these signs and symptoms with or without hypertension and proteinuria indicates a worsening of maternal condition and may be indicative of impending eclampsia.

- Headaches, drowsiness and visual disturbances are caused due to cerebral vasospasm.

- due to renal failure

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### 1.5 Maternal laboratory investigations

Discuss with the woman's medical officer the need for and the frequency of laboratory evaluations (See Clinical Guideline Medical Management - Baseline Assessments).

Reduced kidney perfusion is indicated by proteinuria, reduced creatinine clearance and increased serum creatinine and uric acid.

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### 2 Fetal assessment

#### 2.1 Fetal movement:

Assess and record 4 hourly.

Report any decrease in the amount of fetal movements or any change to the usual pattern of movements.

Pre eclampsia is associated with reduced maternal placental blood flow. This may result in intrauterine growth restriction and fetal hypoxia manifested by a decrease or change in fetal movements.

#### 2.2 Fetal heart rate:

Assess and record BD.

Report any abnormalities to the medical officer promptly.

Appraises fetal well being.

Fetal heart rate aberrations may indicate fetal distress and a need for further assessment

#### 2.3 Cardiotocography (CTG)

Discuss the frequency of CTGs with the medical officer.

Antepartum cardiotocography is essentially an assessment of immediate fetal condition.

Consult Clinical Guideline Medical Management for KEMH recommended frequency.
### Overnight observations
- Check and record maternal and fetal observations 4 hourly. However if the woman is sleeping, and has been stable for 48 hours, omit the 2400 and 0400 observations.
- Observe for signs and symptoms of Pre Eclamptic Angina\(^6\) (PEA).

Pre Eclamptic Angina\(^6\) (PEA) is experienced typically as a severe pain that begins **at night**, usually maximal in the low retrosternum or epigastrium, constant and unremitting for 1–6 hours. It may radiate or be confined to the right hypochondrium or back. The liver is tender on palpation. The pain may precede the diagnosis of preeclampsia by 7 days or more and may be the only abnormality on presentation such that preeclampsia is not suspected. Recognition of this characteristic symptom will lead to earlier diagnosis of preeclampsia in atypical cases, with the potential to avoid maternal and perinatal morbidity and mortality\(^6\).

### Antihypertensive Therapy
Administer antihypertensives as prescribed.

For maintenance treatment the drugs of choice are **Methyldopa**, **Labetolol** and **Nifedipine**.

Consult Clinical Guideline **Medical Management**.

### Corticosteroids
If preterm birth between 24 and 34 weeks gestation is anticipated, discuss the need for corticosteroid administration with the medical officer.

Deterioration in either maternal or fetal condition may necessitate preterm birth. **Antenatal corticosteroid therapy** substantially reduces neonatal morbidity and mortality in preterm infants through maturation of fetal lungs and through decreasing the risk of intraventricular haemorrhage\(^9\).

### Education
6.2 Provide information on and discuss the following as appropriate:
- gestational hypertension and/or pre-eclampsia
- the woman's plan of care
- caesarean section
- preterm birth
- Special Care Nursery (SCN)
- method of feeding
- ensure MR 212 education is complete

Where there are knowledge deficits, education can improve understanding, reduce anxiety, promote a sense of control and enhance the woman’s ability to cope with the situation.

Refer to KEMH **Breastfeeding Policy**

### 6.3 Repeat information as needed.
Arrange visits to HIRS and SCN

Anxiety interferes with cognitive functioning and the ability to assimilate information.
### 7. Social circumstances and support

Consider referrals to the following specialists and services as appropriate:
- Aboriginal Liaison Officer
- Activities coordinator
- Dietitian
- Parent Education
- Physiotherapist
- Psychological Medicine
- Neonatologist
- Social Work
- Diabetes Educator

### 8. Documentation:

Ensure Stork data is updated and baby notes are completed and filed (in a plastic sleeve) at the front of the woman's medical record behind the MR 004.

Baby notes include:
- Labour and Birth Summary (MR 230.01) name tag in a clear neonatal arm band
- Neonatal history (MR 410)
- Care of neonate (MR 425)

Vitamin K and Hepatitis B signed consent forms.

Notes are prepared in case of an emergency birth.
REFERENCES (STANDARDS)


National Standards – 1 Clinical care is Guided by Current Best Practice
Legislation - Nil

Related Guideline / Policies – Hypertension In Pregnancy
Other related documents – Nil

RESPONSIBILITY

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