Clinical Practice Guidelines: Obstetrics/Pre-eclampsia

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Date	April, 2016
Purpose	To ensure consistent management of pre-eclampsia.
Scope	Applies to Queensland Ambulance Service (QAS) clinical staff.
Health care setting	Pre-hospital assessment and treatment.
Population	Applies to all ages unless stated otherwise.
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Pre-eclampsia

April, 2016

Pre-eclampsia is defined as a multisystem disorder that only occurs during pregnancy after 20 weeks gestation and up to 1 month post-partum.[1] Pre-eclampsia is diagnosed by either a:

- systolic blood pressure (SBP) ≥ 140 mmHg and/or
- diastolic blood pressure (DBP) ≥ 90 mmHg plus one or more of:
  - neurological problems
  - proteinuria
  - renal insufficiency
  - liver disease
  - haematological disturbances
  - foetal growth restriction.

Pre-eclampsia and eclampsia are leading causes of perinatal and maternal morbidity and mortality. They can lead to placental abruption, DIC, cerebral haemorrhage, hepatic failure and acute renal failure.

HELLP syndrome is considered a variant of severe pre-eclampsia (**H**aemolysis, **E**levated **L**iver enzymes and **L**ow **P**latelets)

Risk factors for pre-eclampsia:[2]

- primigravida
- history of pre-eclampsia
- gestational hypertension
- extremes of maternal age
- renal disease
- diabetes
- obesity
- family history
- multiple pregnancies

The key principle to pre-hospital management of this condition is supportive care and the prevention of eclampsia, with the latter defined as the occurrence of one or more seizures superimposed on a history of pre-eclampsia. If eclampsia develops, the focus of management is to terminate any seizures in order to prevent maternal and any subsequent foetal hypoxia.

Clinical features

Clinical features can include:

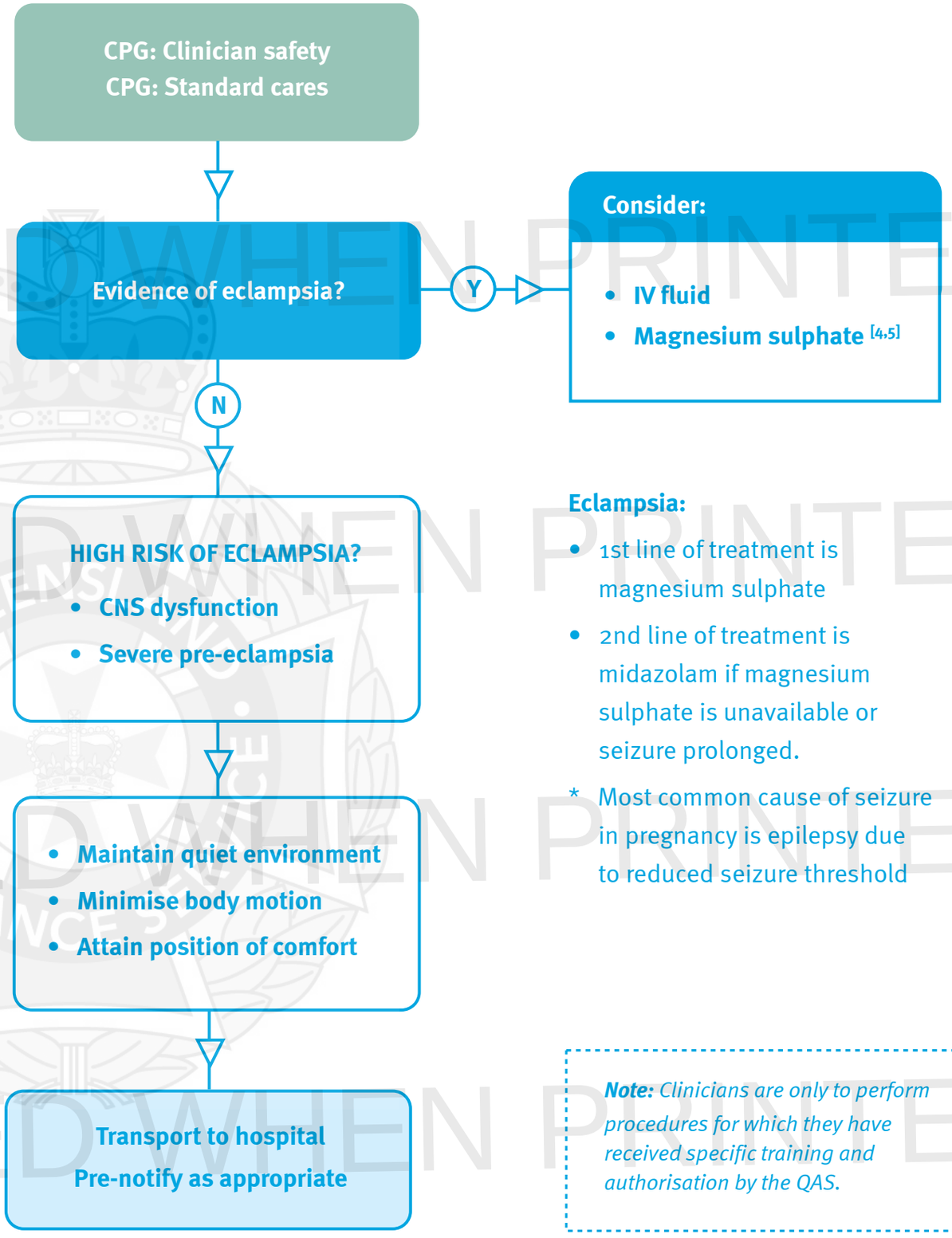
- ***Neurological***
  - headache
  - visual disturbance
  - seizure
  - hyperreflexia
  - clonus
- ***Respiratory***
  - acute pulmonary oedema
- ***Cardiovascular***
  - hypertension
  - generalised oedema
- ***Gastrointestinal***
  - epigastric pain, RUQ tenderness
  - nausea and/or vomiting
- ***Jaundice***

Risk assessment

- fluid administration should be conservative due to the risk of pulmonary oedema
- patients suspected or diagnosed with severe pre-eclampsia are considered high risk of eclampsia

Definitive care

The cure for pre-eclampsia is delivery of the placenta; therefore continued gestation post-diagnosis is based on a balance between potential maternal morbidity and continued foetal development, with both patients requiring close surveillance. Drug therapy often includes anti-hypertensive drugs and antenatal corticosteroids to accelerate foetal lung maturation.[3]



Eclampsia:

- 1st line of treatment is magnesium sulphate
- 2nd line of treatment is midazolam if magnesium sulphate is unavailable or seizure prolonged.

* Most common cause of seizure in pregnancy is epilepsy due to reduced seizure threshold

Note: *Clinicians are only to perform procedures for which they have received specific training and authorisation by the QAS.*