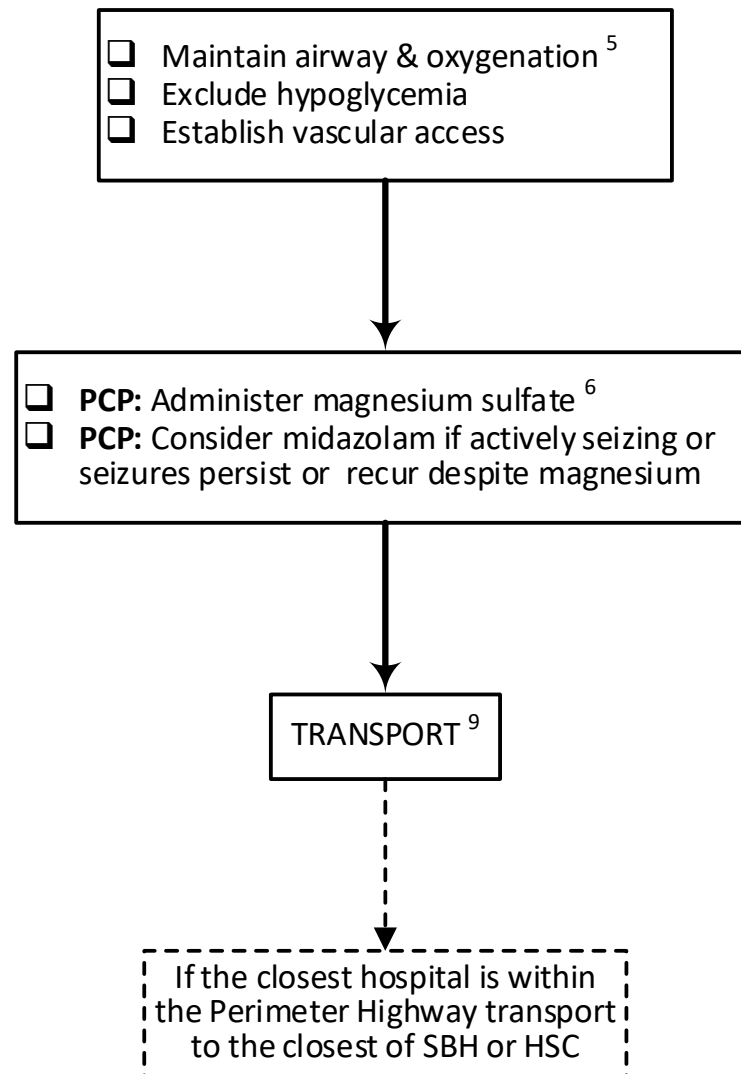| ![Shared Health Soins communs Manitoba logo]	**D09 - PREECLAMPSIA & ECLAMPSIA**
	MATERNAL & NEWBORN CARE
Version date: 2023-07-11	Effective date: 2024-02-13 (0700)

☐ Maintain airway & oxygenation [5]
☐ Exclude hypoglycemia
☐ Establish vascular access

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☐ **PCP:** Administer magnesium sulfate [6]
☐ **PCP:** Consider midazolam if actively seizing or seizures persist or recur despite magnesium

↓

TRANSPORT [9]

⇣

If the closest hospital is within the Perimeter Highway transport to the closest of SBH or HSC

IDENTIFIER:	**EMR:** EMR only	**PCP:** PCP & ICP	**ICP:** ICP only	None - All providers

QRG: OBSTETRICAL FACILITIES
(*) Paramedics should call ahead to confirm that normal obstetrical services are currently available.

- Bethesda Regional Health Centre (Steinbach)
- Boundary Trails Health Centre (Winkler)
- Brandon Regional Hospital
- Dauphin Regional Health Centre
- Health Sciences Centre (Winnipeg)
- Lake of the Woods District Hospital (Kenora, ON) *
- Neepawa Health Centre
- Portage District General Hospital (Portage La Prairie)
- Selkirk Regional Health Centre (Selkirk)
- St. Anthony's General Hospital (The Pas)
- St. Boniface Hospital (Winnipeg)
- Thompson General Hospital
- Yorkton Regional Health Centre (Yorkton, SK) *

QRG: MAGNESIUM SULFATE DOSING [7]		
PREECLAMPSIA	ECLAMPSIA TREATMENT / RECURRENT SEIZURE(S)	
	NO PRIOR PROPHYLAXIS	PRIOR PROPHYLAXIS
SEIZURE PROPHYLAXIS - 4 gm <u>over 15 min</u>	- 4 gm over 10 min - Repeat 2 gm over 5 min up to twice if seizures persist or recur	- 2 gm over 5 min - Repeat 2 gm over 5 min <u>once</u> if seizures persist or recur

INDICATIONS
- Known or suspected preeclampsia or eclampsia

CONTRAINDICATIONS
- Signs of magnesium toxicity [7]

NOTES

1. Obstetrical emergencies are fortunately rare but can be very stressful. Be prepared and call early for assistance or intercept. Consult on-line medical support (OLMS) at any time.

2. For the purposes of this care map, **preeclampsia** will be assumed on the basis of one or more of the following.
   - Severe hypertension
   - Systolic blood pressure > 160 mmHg on two readings
   - Diastolic blood pressure > 110 mmHg on two readings
   - Severe headache or visual disturbance (eg. photopsia, scotomata; blindness)
   - Severe and persistent epigastric or right upper quadrant abdominal pain

3. For the purposes of this care map, **eclampsia** will be assumed based on the occurrence of new onset seizures in the absence of other causative conditions (eg. hypoglycemia, head trauma, epilepsy, stroke) even without pre-existing eclampsia.

4. Pre-eclampsia and eclampsia can occur at any time between 20 weeks gestation and up to 6 weeks post-partum.

5. Due to profound anatomic and physiologic changes, **managing the airway and ensuring adequate ventilation can be extremely difficult in near term pregnant patients**. Monitor airway and respiratory function closely after midazolam and/or magnesium administration.

6. Magnesium sulfate is the treatment of choice for the treatment of *eclamptic seizures.* Midazolam in conjunction with magnesium may cause respiratory muscle weakness and hypoventilation and should be used with caution.

7. Magnesium doses in excess of 8 grams in an hour may result in magnesium toxicity**.** Loss of deep tendon reflexes is the first sign of *magnesium toxicity.* Other manifestations include slurred speech, decreased level of consciousness, decreased muscle tone, and hypoventilation. Calcium gluconate or calcium chloride may be given to counteract magnesium toxicity. Hyporeflexia or respirations less than 12 per minute are contraindications to giving further magnesium sulfate.

8. If delivery occurs, there is a high probability of newborn compromise due to asphyxia. Be prepared to provide newborn resuscitation.

9. The preferred destination is an obstetrical facility where staff will have expertise and resources to manage eclampsia (QRG). However, if the transport time is excessive initial care may have to be provided at a non-obstetrical facility. Ensure pre-arrival notification.

LINKS

D03 - NEWBORN CARE & RESUSCITATION
M24 - MAGNESIUM SULFATE
M26 - CALCIUM CHLORIDE

APPROVED BY

EMS Medical Director	EMS Associate Medical Director

VERSION CHANGES (refer to X04 for change tracking)

- Identifier legend at bottom of flow chart replaces work scope statement in header