



Maternity Education Program

Pre-eclampsia/ Eclampsia

Facilitator Resource Kit

Maternity Education Program

The resources developed for MEP (Maternity Education Program) are designed for use in any Queensland Health facility that care for patients/women who are pregnant/birthing or postnatal. Each resource can be modified by the facilitator and scaled to the needs of the learner as well as the environment in which the education is being delivered, from tertiary to rural and remote facilities.



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Pre-eclampsia/Eclampsia – Facilitator Resource Kit

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An electronic version of this document is available via <https://csds.qld.edu.au/mep>.

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Who is this resource kit for?

This resource kit provides healthcare workers with knowledge and skills on assessing and managing a pre-eclampsia toxæmia (PET) and subsequent eclampsia.

Target audience

Midwifery and medical staff providing maternity care

Duration

45 mins – including simulation and debrief (15 mins for set up not included)

Group size

Suited to small groups (6 – 8)

Learning objectives

By the end of the session the learner should be able to:

- Identify the clinical features of PET and perform correct investigations to confirm the diagnosis of PET.
- Recognise and respond to a clinically deteriorating patient.
- Implement management of PET and eclampsia including hypertension and seizures.

Facilitation guide

1. Provide Participant Resource Kit to the learner.
2. Utilise the PowerPoint and videos to assist learners prior to the session.
3. Utilise 2D pictures to demonstrate the correct positioning of a pregnant woman.
4. Allow learners to apply actions in a simulated PET/ eclampsia case.
5. Conduct group debrief following simulation.

Supporting documents

1. Participant Resource Kit
2. 2D pictures
3. List of further readings
4. PET/Eclampsia flow diagram
5. Drug guide and observation during therapy
6. PET/Eclampsia simulation



Overview

Pre-eclampsia (PET) is diagnosed in pregnancy when hypertension is associated with one or more accompanying features. These can be neurological symptoms such as a persistent headache, visual disturbances, stroke, convulsions; impaired kidney or liver function; fetal growth restriction; placental abruption; pulmonary oedema and haematological involvement¹.

Pre-eclampsia is a progressive disorder that worsens as pregnancy continues. Delivery of the baby is the definitive treatment, which is followed by resolution, generally over a few days but sometimes it may take longer for full recovery. Decisions about the management of PET around timing of delivery and type of birth e.g., induction/caesarean section or continuation of the pregnancy are based on the maternal and fetal factors such as gestational age.

In Australia studies have estimated the incidence of pre-eclampsia is 3.0–3.3% overall, early onset pre-eclampsia < 34 weeks the incidence is 0.4% and onset ≥34 weeks of pre-eclampsia is 2.4%¹.

Significant pre-eclampsia is associated with serious maternal morbidity and very rarely, with death. The number of deaths is low but prompt management and treatment can further reduce these numbers.

Women with significant pre-eclampsia are more likely to have a caesarean section and are also more at risk of stillbirth or neonatal death. Neonatal complications associated with pre-eclampsia are low Apgar scores, small for gestational age, acute

respiratory distress syndrome and postpartum neonatal hypoglycaemia².

Pre-eclampsia is rarely associated with eclampsia. Eclampsia is a life-threatening condition for the mother but with improved detection and treatment of pre-eclampsia progression to eclampsia is uncommon. All maternity staff should be able to identify and manage eclampsia effectively.

Obstetric emergency is any clinical situation involving a maternity patient where immediate medical/ midwifery assistance is required.

Further readings and resources

Hypertension disorders of pregnancy

Author Queensland Clinical Guidelines

Link https://www.health.qld.gov.au/_data/assets/pdf_file/0034/139948/g-hdp.pdf

Pre-eclampsia and High Blood Pressure During Pregnancy

Author The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG)

Link <https://ranzco.org.au/womens-health/patient-information-resources/pre-eclampsia-and-high-blood-pressure-during-pregn>

Pregnancy Care Guideline on the Risk of pre-eclampsia

Author Australian Government Department of Health

Link <https://www.health.gov.au/resources/pregnancy-care-guidelines/part-d-clinical-assessments/risk-of-pre-eclampsia>

Guideline on “Hypertension in pregnancy: diagnosis and management”

Author National Institute for Health and Care Excellence (NICE)

Link <https://www.nice.org.uk/guidance/ng133>



Emergency Management

Management of eclampsia

Flowchart on the management of eclampsia by Queensland Government, Queensland Maternity and Neonatal Clinical Guidelines



Flowchart on the management of hypertension by Queensland Government, Queensland Maternity and Neonatal Clinical Guidelines



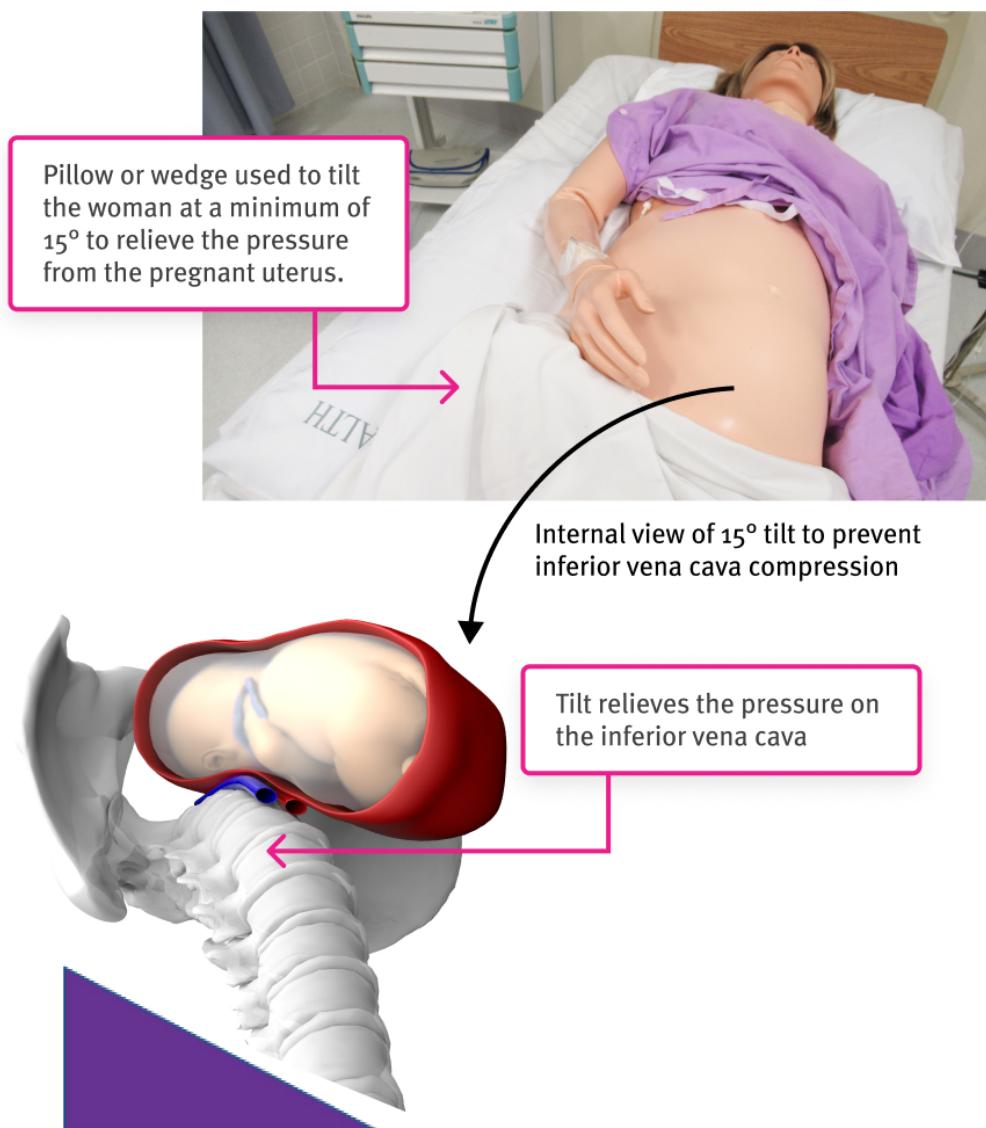
https://www.health.qld.gov.au/_data/assets/pdf_file/0024/144168/f-hdp-summary.pdf



Specific Management

Left lateral 15° tilt

Left lateral 15° tilt used during maternal resuscitation to prevent vena cava compression.



Manual displacement of the uterus



Medications for treatment of pre-eclampsia and eclampsia

View the table in PDF format via <https://bit.ly/3eLgB6A>.

Medications for treatment of pre-eclampsia and eclampsia			
<small>This table has been adapted from the Queensland Maternity and Neonatal Clinical Guidelines Hypertension disorders in pregnancy.</small>			
Drug/Product	Dose/Rate	Route	Additional information
Methyldopa	5-10mg cap/sig or 100mg tablet	Oral	Report after 10 minutes (if no change) Report after 45 minutes if no improvement *Should not be given if patient has had a stroke previously
Methyldopa acetate (Dobutinac)	5-10mg tablets (long-acting)	Intravenous bolus injection	Report 100mg doses - report up to max (long-acting) Report if maternal pulse systolic > 140mmHg *Report dose if longer than 30 minutes *Report dose if systolic blood pressure drops below baseline *Report dose if maternal pulse systolic > 140mmHg
Methyldopa acetate (long-acting)	5-10mg ampoule with 2x 1ml vials	intramuscular injection - using 1ml vial (long-acting)	Intramuscular injection is relatively slow acting and may take 10-15 minutes to take effect *Report dose if systolic blood pressure drops below baseline
Magnesium Sulphate	1000mg (10g) over 10 minutes (40g in 10 mins)	IV bolus	Intravenous infusion - using 1ml vial (long-acting)
Magnesium Sulphate	1000mg (10g) over 10 minutes (40g in 10 mins)	IV bolus	Intravenous infusion - using 1ml vial (long-acting)

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SCAN ME

Observation management hypertension/pre-eclampsia

View the table in PDF format via <https://bit.ly/35hZhm>.

Observation management of hypertension/pre-eclampsia		
<small>This table was adapted from the Queensland Maternity and Neonatal Clinical Guidelines Hypertension disorders in pregnancy.</small>		
Measurement	Quintiles of systolic blood pressure	Frequency
All patients	<ul style="list-style-type: none"> Blood pressure Resting pulse 	≥ 1 systolic blood pressure measurement every 4 hours for all women with pre-eclampsia
Initial blood pressure		*Guideline cuts: Blood pressure ≥ 140 mmHg systolic blood pressure ≥ 90 mmHg diastolic blood pressure
Initial pulse		Measurement of pulse
Initial heart rate		Guideline cuts: ≥ 140 mmHg systolic blood pressure ≥ 90 mmHg diastolic blood pressure
Post-treatment (at onset)	<ul style="list-style-type: none"> Blood pressure Resting pulse Co-systole 	≥ 1 systolic blood pressure measurement every 4 hours for all women with pre-eclampsia
Post-treatment (one observation done)	<ul style="list-style-type: none"> Blood pressure Resting pulse Co-systole 	≥ 1 systolic blood pressure measurement every 4 hours for all women with pre-eclampsia
Initial heart rate		Guideline cuts: ≥ 140 mmHg systolic blood pressure ≥ 90 mmHg diastolic blood pressure
Initial pulse		Measurement of pulse
Hypertension (multiple observations)	<ul style="list-style-type: none"> Blood pressure Resting pulse Co-systole BP cuff 	≥ 1 systolic blood pressure measurement every 4 hours for all women with pre-eclampsia
Initial heart rate		Guideline cuts: ≥ 140 mmHg systolic blood pressure ≥ 90 mmHg diastolic blood pressure
Initial pulse		Measurement of pulse
Deep breaths (reflexes)		Observation of reflexes (deep breathing, rectal softening, etc.)
Hypertension (multiple observations done)	<ul style="list-style-type: none"> Blood pressure Resting pulse Co-systole BP cuff 	≥ 1 systolic blood pressure measurement every 4 hours for all women with pre-eclampsia
Initial heart rate		Guideline cuts: ≥ 140 mmHg systolic blood pressure ≥ 90 mmHg diastolic blood pressure
Initial pulse		Measurement of pulse
Deep breaths (reflexes)		Observation of reflexes (deep breathing, rectal softening, etc.)
BP measurement		Guideline cuts: ≥ 140 mmHg systolic blood pressure ≥ 90 mmHg diastolic blood pressure
Rectal softening (reflexes)		Observation of rectal softening

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SCAN ME

Hypertensive disorders of pregnancy – Queensland Clinical Guidelines

View the presentation in PDF format via <https://bit.ly/3pfmmOX>.

The screenshot shows a presentation slide from the Queensland Clinical Guidelines. The title is "Hypertensive disorders of pregnancy". Below the title is the subtitle "Clinical Guideline Presentation v2.0". There is an image of a document titled "GUIDELINES". A small box in the bottom left corner says "45 minutes Towards CPD Hours". The Queensland Health logo is in the bottom right corner.

**Deep tendon reflex exam technique – Stanford Medicine**

During diagnosis of preeclampsia, testing of deep tendon reflexes is performed, in preeclampsia the reflexes tend to become 'brisk' hyperreflexia. In combination with other signs and symptoms this can be used as a diagnostic tool of the condition. If magnesium sulphate ($MgSO_4$) treatment is used then regular deep tendon reflex testing is used to detect early signs of $MgSO_4$ overdose, leading to hyporeflexia and central nervous system depression.

Below is a demonstration of how to perform deep tendon reflex testing. Watch the online video via <http://stanford.io/2UfM8UY>.

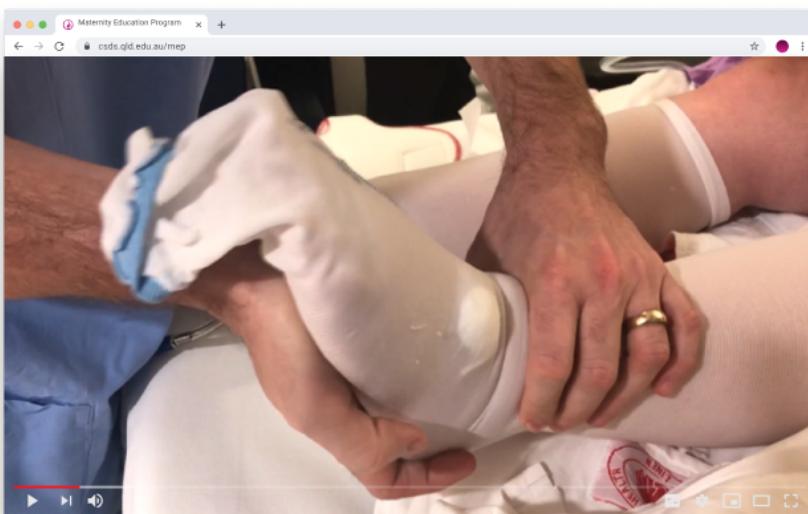
The screenshot shows a video player window. The title is "Deep Tendon Reflexes (Stanford Medicine 25)". It features a video frame where a doctor in a white coat is demonstrating the reflex test on a patient's arm. The video player has standard controls at the bottom: play/pause, volume, and progress bar. Above the video are "Watch later" and "Share" buttons. The URL "cds.qld.edu.au/mep" is visible in the address bar.



Clonus demonstration

Clonus is a set of involuntary and rhythmic muscular contractions and relaxations. Clonus is a sign of certain neurological condition and can be associated with preeclampsia. Clonus causes large motions that are usually initiated by a reflex. Studies have shown that clonus beats frequency range from three to eight on average (normal = 5 beats) and may last a few seconds to several minutes. The term is from the Greek for "violent, confused motion".

The following video clip demonstrates clonus in a pregnant woman with preeclampsia. Watch the online video via <https://bit.ly/2lrZKdg>.





Simulation Event

This section contains the following documents:

1. Pre-simulation briefing poster
2. Immersive in-situ scenario
3. Physical resources
4. Human resources
5. Simulated patient script information
6. Handover card
7. Additional information
8. Stage 1 – Initial assessment
9. Stage 2 – Ongoing management
10. Stage 3 – Resolution

Pre-simulation Briefing

Establishing a safe container for learning in simulation.



Clarify objectives, roles and expectations

1

- Introductions.
- Learning objectives.
- Assessment (formative vs summative).
- Facilitators and learners' roles.
- Active participants vs observers.



2

Maintain confidentiality and respect

- Transparency on who will observe.
- Individual performances.
- Maintain curiosity.

3

Establish a fiction contract

Seek a voluntary commitment between the learner and facilitator.

- Ask for buy-in.
- Acknowledge limitations.

4

Conduct a familiarisation

- Manikin/simulated patient.
- Simulated environment.
- Calling for help.

5

Address simulation safety

Identify risks.

- Medications and equipment.
- Electrical or physical hazards.
- Simulated and real patients.

Note: Adjust the pre-simulation briefing to match the demands of the simulation event, contexts or the changing of participant composition.

Adapted from Rudolph, J., Raemer, D. and Simon, R. (2014). Establishing a Safe Container for Learning in Simulation. *Simulation in Healthcare: Journal of the Society for Simulation in Healthcare*, 9(6), pp.339-349.

Scenario

Type	Immersive in-situ scenario
Target audience	Obstetric medical staff and midwives
Overview	<p>Assessment area: Emergency department or birth suite.</p> <p>An antenatal woman presenting with raised blood pressure and feeling unwell.</p> <p>Situation: Presentation from her GP with a history of x2 raised BP's at antenatal visit today, 36/40 weeks pregnant.</p> <p>Background:</p> <ul style="list-style-type: none"> • 34-year-old G1P0, 36/40 gestation, until date low risk pregnancy • Hb 110 @ 28/40 • A Pos • GBS Negative • All other serology NAD • Allergies – Nil • Medical history- seasonal asthma • USS 20 weeks - NAD <p>Assessment: BP at the GP 150/95: 156/100: no urine tested</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • Full AN assessment • Urine PCR • Bloods • CTG
Learning objectives	<p>Participants are required to:</p> <ul style="list-style-type: none"> • Identify the clinical picture of PET and perform correct investigations to confirm the diagnosis of PET. • Recognise and respond to a clinically deteriorating patient. • Implement management of PET and eclampsia including hypertension and seizures.
Duration	Pre-brief: 10 minutes Orientation: 5 minutes

	<p>Simulation: 15 mins Debrief: 15 mins Total: 45 mins (add 15 minutes for set up)</p>
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Physical resources

Room set up	Standard assessment room/area/birth suite room
Simulator/s	Simulated patient with a pregnant abdomen <i>or</i> Manikin (including software)
Simulator/s setup	<p>If working with a simulated patient - simulated patient sitting in bed in her outdoor clothes with a pregnant abdomen of 32-week size (small for dates).</p> <p>If using a manikin - full manikin semi recumbent in bed in her outdoor clothes with a pregnant abdomen of 32-week size (small for dates).</p>
Clinical equipment	Standard assessment/ birth suite room set up
Access	Nil
Other	Pregnancy Health Record, chart and relevant paperwork for emergency management

Human resources

Faculty	x2 Facilitators (Obstetric Reg/ Consultant and midwife with debriefing experience) to take on roles of scenario lead and primary debriefer
Simulation Coordinators	If using a manikin – x1 SimCo for manikin set up and control
Confederates	Midwife as support person Facilitator to provide handover
Other	Midwife x1 is present in the simulation room to receive the handover. The other midwives and doctors are outside the room, to be called in as needed.

Simulated patient script information

You are Sarah. You attended your routine 36/40 appointment with your GP today. You have just finished work at the end of last week and you have been really tired. Over the weekend you had a headache on and off and you thought it was due to the heat and excessive tiredness, as you have not been sleeping well.

You have not got much of an appetite as you have had lots of indigestion. You've felt the baby moving well but it has been a little quieter today, but you have been anxious since seeing your GP. Your partner is at work and you haven't called him yet as you did not know what was going to happen, plus you don't want to worry him.

You did have a couple of slightly raised blood pressure readings at the last GP visit, but they settled at home when you monitored them.

Can you have some Panadol for your headache? Plus, the lights are really bright could those be turned down a little? You are a bit 'jittery' when touched.

Allow the RMO to put in a cannula and take bloods then you can fit, the fit needs to last as long as you can do it (approx. 60 sec).

Come around after the fit but be very drowsy.

Handover card

i	Introduction	This is Sarah this is ... <staff name>
S	Situation	Sarah presented from her GP at 36/40 with two (2) episodes of raised BP at his surgery today.
B	Background	<ul style="list-style-type: none">• 34-year-old G1Po, 36/40 gestation, until date low risk pregnancy.• Hb 110 @ 28/40• A Pos• GBS Negative• All other serology NAD• Allergies – Nil• Medical history- seasonal asthma• USS 20 weeks – NAD
A	Assessment	BP at the GP 150/95: 156/100: no urine tested.
R	Recommendation	<ul style="list-style-type: none">• Full AN assessment• Urine PCR• Bloods• CTG

Additional information

Name	Sarah West
Age	34 years old
Sex	Female
Weight	78 kg
Allergies	Nil known
Medications	Ventolin seasonal asthma
Medical/Surgical	Asthma
Social History/Employment	Retail assistant
Partner's name	Brad
Pregnancy history	G1P0
Blood Group	A Pos antibodies Neg
Hb	110 – 28 weeks
Serology	Neg
Rubella	Immune
GBS	Unknown
USS 20 weeks	Anterior high placenta non praevia

State 1: Initial assessment				
Vital signs		Script	Details	Expected actions
RR	14	Sarah: Just arrived from her GP, she appears anxious about her BP. Has a frontal headache which has been going on for a few days.	I) Introduction: This is Sarah this is ... <staff name> (S) Situation: From GP with a history x2 ↑BP at A/N visit today @ 36/40 weeks. (B) Background: 34-year-old G1Po. 36/40 gestation. Low risk pregnancy. Hb 110 @ 28/40: A Pos: All other serology NAD: GBS Negative Allergies – Nil: Medical history- seasonal asthma: USS 20 weeks – NAD.	<input type="checkbox"/> Introduce self, finds out history <input type="checkbox"/> Take maternal Obs.; perform abdominal palpation <input type="checkbox"/> Auscultate fetal heart <input type="checkbox"/> Enquire about headache & other symptoms <input type="checkbox"/> Ask about antenatal history <input type="checkbox"/> Notify MO/team leader <input type="checkbox"/> Explain to Mum <input type="checkbox"/> Ask for help <input type="checkbox"/> Ask for PET box to come into room
SPO ₂	98%	Can I have Panadol and the lights turned down?	(A) Assessment: BP at the GP 150/95 156/100 no urine tested.	
BP	150/95 5 mins 155/105		(R) Recommendations: Full AN assessment: Urine PCR: Bloods: CTG	
HR	96			
Temp	36.6°C			
Consciousness sedation score	Alert			
FH	130 normal variability			
PV loss	Nil			
BGL	If taken 7 mmol			

State 2: Ongoing management				
Note: Midwives working with the Drug Therapy Protocol (DTP) drug management can alter the medications to suit the environment.				
Vital signs		Script	Details	Expected actions
RR	22	Sarah – headache is not improving, looks ‘jittery’ – restless in bed. Once the cannula is in then she starts fitting.	RMO present to put in a cannula and takes some blood. 5 minutely BP. Fit commences: <ul style="list-style-type: none">• Lasts about 20 – 30 sec self-resolving.• FH – deceleration during fit but recovers with post seizure over shot.	<input type="checkbox"/> Declare emergency <input type="checkbox"/> Call for help <input type="checkbox"/> DRABC <input type="checkbox"/> Facial O ² – 15 L via rebreather <input type="checkbox"/> Left tilt <input type="checkbox"/> Commence MgSO ⁴ bolus <input type="checkbox"/> 2 nd IV line <input type="checkbox"/> Call consultant
SPO ₂	97%			
BP	180/115 (see Obs. below)			
HR	110			
Temp	NR			
Consciousness	Alert			
Sedation score				
FH	146 – reduced variability During fit: LOC deceleration ↓ 80 recovered after fit to 165 bpm			
PV loss	Nil			
BSL	If taken 6.8 mmol			

QMEWT Observations (use during Stages 2 and 3)

Time		5 mins	10 mins	15 mins
RR	Post Eclamptic Fit	22	20	18
SPO ²		94%	96%	97%
O ₂ Flow		15L	2L NP	0L
BP/ART		180/115 MET call	155/100	140/90
HR		110	120	106
TEMP				37°C
GCS Consciousness		Sleepy Groggy	Sleepy	Awake
FH		165 post fit recovery	155 ↓ variability	150
Q-MEWT Score		E	8	5

State 3: Resolution				
Vital signs		Script	Details	Expected actions
RR	16	Sarah – very sleepy but talking, asking what happened.	Maintaining own airway. CTG deceleration improved to a relatively normal CTG.	<input type="checkbox"/> Recap on management <input type="checkbox"/> Consider BP control if BP not settling <input type="checkbox"/> Continue 5 minute Obs. <input type="checkbox"/> Neurological Obs. <input type="checkbox"/> Reassure the patient and tell her what has happened <input type="checkbox"/> Contact the next of kin <input type="checkbox"/> Discuss diagnosis – review available bloods and urine <input type="checkbox"/> Consider delivery – what method <input type="checkbox"/> Make a plan of care: <ul style="list-style-type: none"> • MgSO⁴ • Possible hydralazine • Bishop score or C/S • 1:1 care in birth suite or transfer to tertiary unit
SPO ₂	100%			
BP	140/90			
HR	106			
Temp	37°C			
Consciousness sedation score	Sleepy but talking			
FH	150 bpm normal trace			
PV loss	Nil			
BSL	N/A			



Supporting Resources

This section contains the following supporting documents that will be essential in the delivery of this learning package:

1. Manikin set-up guide
2. Laboratory reports
3. Ultrasound scan report
4. CTG on admission
5. CTG trace eclampsia/post eclampsia
6. Simulation debriefing poster
7. Debriefing guide

More resources can be downloaded from our website.



Fetal position in utero



May require padding with towels or soft form for a more uniform feel

36 week Emergency Admission**DATE:****PATIENT:****DOB:****LABORATORY REPORT****PAGE: 1****REF:**

Test	Result	Comment
Group and Antibody Screen		
Group	A Rh (D) Positive	
Antibody	Negative	
		Nil
Expires in 7 days		

36 week Emergency Admission**DATE:****PATIENT:****DOB:****LABORATORY REPORT****PAGE: 1****REF:**

Test	Result	Reference	Comment
Haemoglobin	126 g/dL	13.7-17.7g/dL	
WCC	16.0	3.9-10.6 x 10 ⁹ /L	
Platelets	101	150-440 x 10 ⁹ /L	
Haematocrit	0.40	0.39 – 0.52	
RCC	4.95	4.50 – 6.0x10 ¹² /L	
MCV	93 fL	80 – 100 fL	
Neutrophils	(83%) 9.15	2.0 – 8.0x10 ⁹ /L	
Lymphocytes	(10%) 1.18	1.0 – 4.0x10 ⁹ /L	
Monocytes	(6%) 0.62	0.1 – 1.0x10 ⁹ /L	
Eosinophils	(0%) 0.01	<0.60x10 ⁹ /L	
Basophils	(0%) 0.03	<0.20x10 ⁹ /L	

36 week Emergency Admission
DATE:
PATIENT:
DOB:

LABORATORY REPORT
PAGE: 2
REF:

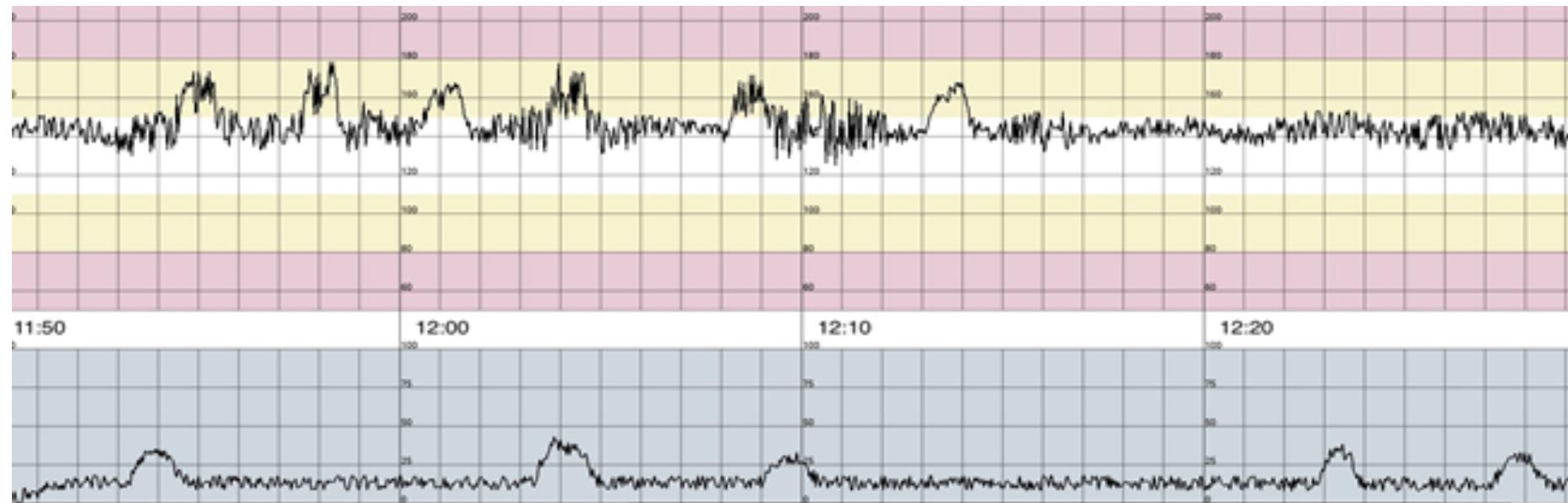
Test	Result	Reference	Test	Result	Reference
Sodium	134 L mmol/L	135–145 mmol/L	Urate	8.0 mg/dl	2.4 – 6.0 mg/dl
Potassium	4.2 mmol/L	3.5–5.2 mmol/L	Protein (total)	60 g/L	60–83 g/L
Chloride	104 mmol/L	95–110 mmol/L	Albumin	25L g/L	35–50 g/L
Bicarb.	28 mmol/L	18–26 mmol/L	Bilirubin (total)	20 umol/L	<20 umol/L
Anion Gap	8 mmol/L	4–13 mmol/L	Bilirubin (conj)	<4 umol/L	<4 umol/L
Glucose	4.0 mmol/L	3.0–7.8 mmol/L	Gamma GT	11 umol/L	<55 u/L
Urea	6.2 mmol/L	2.1–7.1 mmol/L	AST	48 U/L	<35
Creatine	86 H umol/L	32–73 umol/L	ALT	49 U/L	<45
Urea/Creat	63	40 –100	ALP	200 U/L	56 – 119
eEFG	>90 ml/min	>60 ml/min	Calcium	2.28 mmol/L	2.10–2.60 mmol/L
Phosphate	1.55 H mmol/L	0.75–1.50 mmol/L	Corr ca	2.47 mmol/L	2.10–2.60 mmol/L
Magnesium	0.76 mmol/L	0.70–1.10 mmol/L	OSM (calc)	283 mmol/L	270–290 mmol/L

36 week Emergency Admission
DATE:
PATIENT:
DOB:

LABORATORY REPORT
PAGE: 1
REF:

Test	Result	Reference	Comment
URINE			
Protein creatinine ratio	150 mg/mmol/L	< 30 mg/mmol/L	

CTG 1 on admission



CTG trace eclampsia/post eclampsia

CTG 2 during fit and post fit



Simulation Debriefing

Establishing a safe container for learning in simulation.



Reaction phase - “vent”

1

- How was that?
- How are you feeling?
- Any other initial reactions?
- Learners may reveal key areas that are important to them.



2

Description phase

- Clinical summary of the case.
- Can be shortened if it appears there is shared understanding of the case.

3

Analysis phase

Select which strategy is suited:

- Learner self-assessment - learner generates objectives
What went well/what would you change?
What well/did not go well and why?
- Focused facilitation - analyse performance related to objective

4

Summary phase

- Discuss take-home learning points
- Learner guided approach or
- Facilitator guided approach

Adapted from Eppich, W. and Cheng, A., 2015. Promoting Excellence and Reflective Learning in Simulation (PEARLS). Simulation in Healthcare: The Journal of the Society for Simulation in Healthcare, 10(2), pp.106-115.

Debriefing guide

Scenario objectives	<p>Participants are required to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Identify the clinical features of PET and perform correct investigations to confirm the diagnosis of PET. <input type="checkbox"/> Recognise and respond to a clinically deteriorating patient. <input type="checkbox"/> Implement management of PET and eclampsia including hypertension and seizures.
Vent phase	<p>Example questions:</p> <ul style="list-style-type: none"> • Initial thoughts of how the simulation went? • Acknowledge emotions (note body language and tone of participants).
What happened (phases)?	<p>Example questions:</p> <ul style="list-style-type: none"> • Tell us about your patient and what were your initial priorities? • What led to your decision to escalate management? • What clinical signs and symptoms led you to become concerned?
What was done well and why?	<p>Example question What could have been better at each phase?</p>
Relevance to experience	<p>Example question How would you transfer knowledge from today into your workplace?</p>
What has been learned?	<p>Example question What actions will you take to enhance your skills and knowledge post simulation?</p>
Transfer to clinical settings	<p>Example questions:</p> <ul style="list-style-type: none"> • What will you take away from this session? • Can you give an example of how you could apply new skills or knowledge gained during this session in your clinical setting?
Key moments	<ul style="list-style-type: none"> • Recognition of deterioration and eclampsia • Calling for HELP early • Correct positioning • Having key team members present • Preparing and planning for ongoing management

Acronyms and Abbreviations

Term	Definition
AN	Antenatal
BP	Blood pressure
C/S	Caesarean section
CTG	Cardiotocograph
DRABC	Danger: Response: Airway: Breathing: Circulation
FH	Fetal heart
GBS	Group B streptococcus
GP	General practitioner
Hb	Haemoglobin
MgSO ⁴	Magnesium sulphate
mmol	Millimole per litre
NAD	Nothing abnormal detected
Obs.	Observations
PCR	Protein creatinine ratio
PET	Pre-eclampsia
PHR	Pregnancy health record
USS	Ultrasound scan

References

This resource kit is inspired by the Optimus BONUS project of the Children’s Health Queensland’s “Simulation Training Optimising Resuscitation for Kids” service. To know more information about STORK and their Optimus project, visit their website at <https://bit.ly/3km1wcZ>.

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Appendix

This section contains the following supporting documents that will be essential in the delivery of this learning package:

- A. Pre-simulation briefing blank template
- B. Simulation debrief blank template

Pre-simulation Briefing Notes

Establishing a safe container for learning in simulation.



Clarify objectives, roles and expectations

1

- Introductions.
- Learning objectives.
- Assessment (formative vs summative).
- Facilitators and learners' roles.
- Active participants vs observers.

Maintain confidentiality and respect

2

- Transparency on who will observe.
- Individual performances.
- Maintain curiosity.

Establish a fiction contract

3

Seek a voluntary commitment between the learner and facilitator.

- Ask for buy-in.
- Acknowledge limitations.

Conduct a familiarisation

4

- Manikin/simulated patient.
- Simulated environment.
- Calling for help.

Address simulation safety

5

Identify risks.

- Medications and equipment.
- Electrical or physical hazards.
- Simulated and real patients.

Simulation Debriefing Notes

Establishing a safe container
for learning in simulation.



Crisis Resource Management Principles

1. Know your environment
2. Anticipate and plan
3. Call for help early
4. Take a leadership role
5. Communicate effectively
6. Allocate attention wisely & use all available information.
7. Distribute the workload & use all available resources.

Reaction phase - “vent”

- 1**
- How was that?
 - How are you feeling?
 - Any other initial reactions?
 - Learners may reveal key areas that are important to them.

Description phase

- 2**
- Clinical summary of the case.
 - Can be shortened if it appears there is shared understanding of the case.

Analysis phase

- 3**
- Select which strategy is suited:
- Learner self-assessment - learner generates objectives
- What went well/what would you change?
What well/did not go well and why?
- Focused facilitation - analyse performance related to objective

Summary phase

- 4**
- Discuss take-home learning points
 - Learner guided approach or
 - Facilitator guided approach

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Pre-eclampsia/Eclampsia – Facilitator Resource Kit

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