Scenario 2: Challenging airway management		
Scenario: Airway management in pregnant patient with eclampsia	**Patient:** Queen Latifah 22 year old woman	**Simulator** SIMMAN Essentials
Case Summary: Queen Latifah is a nulliparous 22 year old obese woman who is 30 weeks pregnant. She has been sent into the emergency department from the GP as her BP is excessively high 175/110 and she is complaining of a headache, blurred vision and nausea. She had one seizure en route with NSW Ambulance. She has a seizure for 75 seconds (which goes through Phase 1 with facial twitching, then generalised seizure for 60 seconds). She remains very drowsy following the seizure. Her saturations are low and she is not maintaining her airway. She may have aspirated or have pulmonary odema. The team must devise a systematic approach in order to manage and secure the airway of this obese pregnant woman and call for obstetric and anaesthetic help early.		**Participant Briefing:** Queen Latifah, 22 year old woman 30 weeks pregnant, P0G1 Presented with severe hypertension, flashes of vision, headaches, right upper quadrant pain and nausea, ?eclampsia Seizure en route with NSW Ambulance HR 110, BP 175/110, Sats 95%, Afebrile

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Clinical Issues	Human factors / Non technical issues
Management of Seizures in pregnancy Special considerations in airway management in the pregnant patient Management of two patients – best outcome for foetus is optimal management of mother Logistical and resource management in the emergency department	Teamwork and leadership Knowing limitations and consulting widely Responsibility of 2 patients
Learning Objectives: To recognise difficulties in airway management in pregnant and obese patients To demonstrate modifications of airway management including RSI in context of this patient To consider management of mother to optimise outcome of foetus To demonstrate the ability to work in a team and utilise the available resources	
Faculty Actors: Faculty nurse is competent and proactive	
Patient Moulage: Foam padding over abdomen and breast area to simulate anatomical changes of pregnancy	

Equipment & Props:
EdWISE Airway box and extras Foam padding for moulage Hip wedge (either formal wedge or bag of saline for under the hip)

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Monitor: ED setup ECG SPO2 CO2 ready NIBP	**Investigations:** CXR – normal ABG – pH 7.30, PO2 60, PCO2 45, BE – 3, HCO3 22	Note - the pregnant patient baseline respiratory alkalosis.
Patient presentation	**Expected response by participants**	**Faculty /Actors Notes**
Initial Presentation Rhythm sinus HR 110 BP 175/110 RR 40 SPO2 90% Temp 37.2 Active seizure for 60 seconds during handover	Accept handover from nurse whilst beginning seizure management. Position patient with hip wedge. Airway support with preparation for intubation Call for assistance – Obstetrics, Anaesthetics, Senior ED support	Nurse – give handover as above, adding that patient is actively seizing (for 60 seconds only) and that she complained of right upper quadrant pain on arrival. Anaesthetic registrar – unable to attend will contact the consultant Obstetrics team – consultant en route, registrar unavailable
Progression HR 120 BP 190/115 RR 35 Sats 90% to 93% on O2 Moan to pain, nil further active seizure ETCO2 45 (high for pregnancy)	Consider diagnosis – eclampsia/HELLP Commence Magnesium (4-6g IV bolus over 15 minutes, followed by and infusion OR give 10g in the buttocks), consider diazepam or phenytoin RSI, with predicted difficulty – ensuring plan A, B and C articulated. Consider ramping, DSI, nasal prongs	Nurse – Prompt to call for advise if not already Phone advice can suggest Magnesium and RSI with positioning modifications or DSI. Manikin airway swollen, nurse to ensure foam “breasts and belly” remain in place.

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Recovery HR 110 BP 180/110 RR per set up	Care with ventilation settings (note respiratory alkalosis baseline) Continue with magnesium CTG monitoring Blood tests to be sent – FBC, EUC, D-DImer, LFTs, Uric Acid, ABG, G&H	

Debrief Guide	
Key clinical issues Management of eclamptic seizures - expected course and management, including investigations (bloods and CTG) Preparation and planning for difficult airway control Airway management, including Rapid Sequence induction in the pregnant patient.	**Key non technical issues** Co-ordinating and communicating with other hospital teams

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