

Overview of the scenario	Management of diabetic ketoacidosis in antenatal patient
Learners	Multidisciplinary obstetric team; obstetricians, anaesthetists, midwives. Diabetic medical / obstetric team Obstetric physicians
Suggested clinical learning outcomes	Knowledge of effects of DKA on both mother and baby Diagnostic indicators for DKA (1) Ketonaemia >3.0mmol/L 2) Hyperglycaemia >11mmol/L or known diabetes 3) Acidaemia bicarbonate<15mmol/L and / or pH<7.3) Management of acute presentation of DKA
Suggested non-clinical learning outcomes	Software: Local guidelines for management of DKA in pregnancy are available, including recommended treatment targets, fluid resuscitation and frequency of monitoring requirements Hardware: Availability of blood gas machine Availability of blood ketone monitor Environment: Consider where it is best to manage this case? With 1:1 care, hourly bloods and full monitoring Teamworking: Ensure goals for management of DKA are clear for the whole team Involve specialist teams to assist management – diabetic teams / general medical teams Clear handover to new members of the team Closed loop communication at all times
Scenario	The overview of the scenario is a known type 1 diabetic patient who goes into DKA as a result of an infection. You could combine this scenario with a Covid 19 simulation if it would help to practise that too. Otherwise the sepsis could be triggered by a UTI. 32 year old, P1, 30 weeks pregnant presents to triage with vomiting and headache. She gives a vague history of increased urinary frequency 2 days ago and since then has become increasingly unwell with headache and lethargy. Her blood sugars are high which is what has brought her to triage. She has reduced her insulin dose as she was not eating anything, Observations HR 130, BP 100 / 75 RR 30bpm saturation 99% on air. BM 22 mmol/L pH 7.2 Lactate 3 Capillary ketones 5.0mmol/L

	Urinary ketones +++++, leucocytes and nitrites present
<p>Debrief topics</p> <p>Following your simulation, consider how you will disseminate crucial learning points with the wider MDT.</p>	<p>How was the initial management of DKA?</p> <p>Did you have access to a blood ketone machine?</p> <p>Were you aware of the treatment goals for managing DKA, including the target speed of improvement of biochemical parameters?</p> <p>If you had this case again, is there anything that you would do differently?</p>