

OSCE

Candidate information

A junior doctor comes to you having assessed a 16 year old female with vomiting, lethargy, polyuria and polydipsia. Her BGL is 30 mmol/L. She has never been diagnosed with diabetes before. The doctor has just performed an ABG and seeks your assistance.

You are to analyse and interpret the ABG, explaining your findings to the junior doctor.

You are then to advise the junior doctor on appropriate management for the patient.

Domain	%
Medical expertise	50
Prioritisation and decision making	20
Communication	
Teamwork and collaboration	
Leadership and management	
Health advocacy	10
Scholarship and teaching	20
Professionalism	

Diabetes

Actor information

Start with, "Hello, you must be the consultant. Can you please take me through the patient's ABG?"

You are a competent, reasonably knowledgeable intern, but lack the experience to interpret ABGs confidently.

Questions you should ask if relevant issues are not already covered:

- Is there respiratory compensation?
- What is the anion gap?
- Why is the Na low, and the K high?
- Remind me about the Aa gradient please?
- So, how do we treat this girl?

Marking:

- Acidemia
- HAGMA with ketoacidosis
- AG of 26
- Adequate respiratory response
- Minor (probably insignificant) rise in Aa gradient
- Delta ratio is 1.4, suggesting a pure HAGMA
- Needs NS resuscitation, insulin infusion 0.1units/kg/hr max 6, close K and glucose monitoring
- Concurrent glucose infusion if BGL 15 or lower
- Watch fluid status carefully
- Seek and treat possible trigger, eg infection
- Education of patient and family re illness and implications

	Mark
Interprets ABG appropriately	2
Clearly states management of DKA – fluids, K, insulin	2
Explains reason for low Na	2
Explains need to elicit causes of DKA (eg infection)	1
Explains need to educate family re illness/implications	1
Mentions possibility of pregnancy/drug use in this paediatric patient	1
Teaches clearly, appropriate manner to junior doctor	1

ABG

FiO2 21%

pH 7.10

pCO2 29

pO2 100

HCO3 14

Na 130

K 5.0

Cl 95