

Station title: Patient with vomiting and abdominal pain
Station duration: 8 mins
Station number: Endocrine

Student Instructions

Station No

Final MB

Background information to station:

You are a Foundation doctor working in the Emergency Department.

This 23 year old woman has vomiting and abdominal pain.

Her biochemistry results are adjacent to these instructions and are also inside the station.

Specific student instructions:

1. Please take a relevant history to establish the diagnosis and the precipitant.
2. At the '2 minutes left' warning, or sooner, the examiner will ask you to summarise your findings and will ask you a further 3 questions.

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Examiner Instructions

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Station author: Dr Malihah Mohamad

Assessment outcome:

This station assesses the student's ability to:

1. Take a focused history in patient with diabetes and recognise presentation of Diabetic Ketoacidosis (DKA).
2. Summarise their findings and answer questions related to investigation and management of DKA.

Background information to station:

The student is playing the role of a Foundation doctor working in the Emergency Department. A 23 year old woman presents with vomiting and abdominal pain. Her biochemistry results are outside and inside the station. The student is asked to take a relevant history to confirm the diagnosis and the cause.

At the '2 minutes warning' bell, or sooner, please ask the following questions:

- (a) **Please summarise your findings**
- (b) **This patient has diabetic ketoacidosis, can she be discharged home?**
- (c) **Which investigations should this patient have?**
- (d) **What is your management plan?**

Potential area (s) of serious concern:

Feels it is safe to discharge the patient

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Marking sheet *G = Good, A = Acceptable, P = Poor*

| DETAIL / question | MARK | WEIGHTING |
|--|----------------|-----------|
| 1. Overall introduction including identification of self and patient (Name & role, purpose of encounter, confirms patient's agreement) | G A P | 2 1 0 |
| 2. Rapport & professional manner (shows interest, respect, concern, appropriate body language, closure) | G A P | 2 1 0 |
| 3. Attention to infection control throughout | G P | 1 0 |
| 4. Starts with an open question | G P | 1 0 |
| 5. Asks about duration of vomiting, severity, haematemesis, nausea, constant/intermittent? G:3 ;A:2; P:0-1 | G A P | 2 1 0 |
| 6. Asks about duration, severity, nature of abdo pain, ever before?. exacerbating/relieving factors, radiation of pain. G:4; A: 3;P:0-2 | G A P | 2 1 0 |
| 7. Associated symptoms: sweating; feeling anxious; tiredness; thirst; diarrhoea; constipation G:4; A:2-3:P:0-1 | G A P | 2 1 0 |
| 8. Screen for possible precipitants of DKA: Infection – screens for chest/abdo/urinary/bowel/neuro infective signs G: 3; A:2; P 0-1 | G A P | 2 1 0 |
| 9. Asks about any recent insulin dose change; insulin non-compliance or omitting dose; menstruation or emotional upset/stressors; Alcohol excess or binging | G A P | 2 1 0 |
| 10. PMH G: specifically ask re-autoimmune conditions (e.g. thyroid/coeliac disease) A: general; P:not done | G A P | 2 1 0 |
| 11. Complications from diabetes; previous DKA hospital and ICU admissions; macrovascular: cardiac/renal/liver; microvascular: eyes/nerves G:3; A:2;P: 0-1 | G P | 4 2 0 |
| 12. Usual diabetes control: Frequency of glucose checks; recent HbA1c, usual glucose reading G: 2; A:1; P:0 | G A P | 2 1 0 |
| 13. Drug History G: including recreational drugs & Allergies | G A P | 2 1 0 |
| 14. Social History: Alcohol, smoking & living circumstances/job G:2; A:1 | G P | 1 0 |
| 15. Examiner to ask, Please summarise your findings G: logical and succinct; A: some omissions; P: incorrect diagnosis | G A P | 4 2 0 |
| 16. This patient has diabetic ketoacidosis, can she be discharged home? G: No, it is a medical emergency | G P | 1 0 |
| 17. Which investigations should this patient have? Baseline and then regular blood tests including BM, ketones/U+E/VBGs. Infective screen including WCC/CRP, CXR, urine dip G:4; A:3; P:0-2 | G A P | 2 1 0 |
| 18. What is your management plan? DKA protocol; IV insulin and IVF G: 3; A:2; P:0-1 | G A P | 2 1 0 |
| SP Rating: SA: Strongly agree; A: Agree; JA: Just Agree; N: Neutral; D: Disagree | SA A JA N D | 4 3 2 1 0 |
| Global mark: E: Excellent; V: Very good; P: Pass; B: Borderline; F: Fail | E V P B F | 5 4 3 2 1 |

Total score /40 (excluding Global Mark)

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Simulated Patient Instructions

Station No

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This station assesses the student's ability to take a focused history for a diabetic patient and able to recognise DKA.

Background information to station:

You are a 23 year old woman with a history of type 1 diabetes mellitus. You have a one day history of vomiting and abdominal pain. You feel very unwell.

How the role should be portrayed:

You are worried and very tired. Your speech is slightly slurred. You are able to answer all questions.

First sentence if student starts with an open question: I feel so sick, doctor please help me.

- Patient's Name: Isabelle Montpellier
- DoB: 13/08/1998
 - HPC: Started vomiting around 3am, was just back from a night out with friends. 8x episodes of vomiting. Food/water, no blood. Abdominal pain, central no radiation. Bowel opened a day before. No diarrhoea. Feels terrible. No other symptoms.
 - PMHx: T1DM (on Tresiba at night) nothing else. Diagnosed when was 17 years old. No previous hospital admissions. No diabetic complications
 - Meds: Tresiba 40 units at night. No other meds, no drug allergy.
 - SHx: smokes 10/day, had been out drinking with friends a day before – had 6 glasses of beer. An art student. Lives with a house-mate, no kids. No illicit drugs

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- Had been compliant to insulin but missed her dose when out drinking with friends. Usually good at checking glucose, 3-4 times a day (glucose 6-8 usually) HbA1c if asked 52mmol/L. Didn't checked her glucose when out with friends.



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Blood results:

Isabelle Montpellier
13/08/1998
H+C: 390 238 3674

U+E:

Na: 135 (135-145)
K 3.8 (3.5 -5.4)
Urea 10 (2.5-7.8)
creat 90 (59 -104)
eGFR >60 (<60)

ABG:

pH 7.20 (7.35- 7.45)
pO₂ 12 (10-13)
pCO₂ 4 (4.7- 6)
HCO₃ 13 (22-26)
lactate 1.2 (0.2-1.8)
ketones 4 (<0.6)
glucose 27 (<11)



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Site Co-ordinator Instructions

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Equipment check list:

- Blood results; U+E and ABG (outside and inside station)
- Couch
- Female SP
- 2 chairs
- Handwash