

AMU Diabetes hypoglycaemia

LEARNERS	
PROGRAMME/COURSE/SCENARIO	Diabetes / hypoglycaemia scenario
SPECIALITY	Medical
ROLE(S)	Keep staff in normal role
COMPOSITION: UNI/MULTI/INTERPROFESSIONAL	Multi-professional, nurse, HCA, doctor, pharmacist
LEARNING OBJECTIVES	
<p>TECHNICAL</p> <ul style="list-style-type: none"> • Demonstrate initial assessment ABCDE • Identify signs and symptoms of hypoglycaemia • Demonstrate recognition of hypoglycaemia from recorded BM • Document BM correctly and escalate hypoglycaemia result to clinical staff • Demonstrate understanding of potential cause of hypoglycaemia • Recognise inappropriate management of hypoglycaemia. • Discuss differential diagnosis • Discuss use of Gluco-boost and Lucozade • Describe when to use IV glucose over oral glucose • Demonstrate safe use of I/V glucose • Demonstrate understanding of BM result • Communicate / recognise need to check BM every 15 mins for at least 45 mins or until BMS normal to relevant team member • Recognise the need to refer to DSN • Describe need to eat i.e. toast once able or if NBM GKI 	<p>NON-TECHNICAL</p> <ul style="list-style-type: none"> • Develop team working skills • Develop good communication • Confident use of equipment • Demonstrate calling for help • Utilise SBAR for hand over
PREPARATION, ROOM AND EQUIPMENT SET UP	

INTRODUCTION TO MANIKIN AND ROOM REQUIRED?	YES
MANIKIN SET UP:	Live Patient sat in side room as have history of D and V. Patient is in own clothes. Glass of empty milk is on bedside table with sugar in the bottom.
ROOM SET UP (<i>Ward, Theatre, ITU</i>):	Room need to look like ward side room, with bedside table, chair and table and patient monitor
MONITOR SET UP:	RR 20 SATS 95% HR 115 BP 110/70 Temp 36.9
DRUGS AND PROTOCOLS REQUIRED:	Fluids, blood gas, drug Kardex with Insulin and antibiotics prescribed, IV cannula, BM machine fake BM result if gas not asked for
ESSENTIAL MEDICAL EQUIPMENT:	Oxygen mask, fluids, syringes, blood bottles, Gluco –boost, Lucozade and I/V dextrose 20%, 10%, Bag of fluids. Infusion pump for IV glucose. Medication chart. Inpatient diabetes guidelines (e-access).
TYPE OF DEBRIEF REQUIRED	Facilitator to assist discussion around ABCDE and differentials diagnosis. Diabetes nurses to then provide teaching session on management around hypoglycaemia.
FACULTY ROLES REQUIRED TO RUN SCENARIO (<i>which, behaviour, clues</i>)	
<ul style="list-style-type: none"> • Controller and voice of mannequin – N/A • Phone operator for met call • Facilitator – Nurse • Smots viewing room 	
SETTING THE SCENE AND HANDOVER	
<p>BRIEF TO CANDIDATES: From facilitator Becky Jones 12/06/93 0123456A Situation 24 year female, who is in a side room with D and V. Background She has previous a history of well controlled type 1 diabetes. Fluids have been started to support the D and V. Patient felt clammy and dizzy earlier so sugar and milk were given. Assessment Airway clear and patent Breathing resp rate was 20 Circulation HR was 110 and BP was 110/70 Disabilities BM 3.3mmol earlier Exposure Temp 36.9 Recommendation can you go in to make a repeat assessment</p>	
EXPECTED SCENARIO COURSE AND TRIGGERS	

(summary of clinical progression of the simulated patient)

- Brief to live actor: you are a V on the AVPU scale. You are able t talk but are confused and want to sleep. You will reject any oral treatment.
- Referred into AMU by GP as severe D and V.
- Expect ABCDE rather than set of observations as patient is unwell.
- No oxygen is required as airway is clear
- IV fluids are running as history of D and V
- During D assessment patient is V on AVPU and BM is 2.5mmol. this prop will be on BM machine or facilitator to fill in this blank in scenario
- **Trigger 1** BM 2.5 expected call for help and attempted administration of oral glucose source.
- The Live patient will refuse this when tried. Saying “leave me alone let me sleep” in slurred speech confused fashion.
- **Trigger 2** Refusal of oral glucose. Expected escalation for help or for I/V glucose to be prescribed.
- Once I/V glucose is started correctly scenario to be ended

PATIENT PARAMETERS CHANGES FOR ON THE FLY CONTROL

INITIAL VITALS SIGNS: TRIGGER FOR TREATMENT

RR 20 SATS 95%RA HR 110 BP 110/70 Temp 36.9

VITAL SIGNS DISPLAYED

Not initially

ACTIONS TO TRIGGER CHANGES

CHANGE IN PARAMETERS:

1. Trigger: BM 2.5mmol confusion

Patient Rejects Oral glucose

RR 20 SATS 95% HR 110 BP 110/70

2. Trigger: Rejection of Oral glucose

RR 20 SATS 95% HR 110 BP 110/70

3.

4.

EXIT STRATEGIES:

Nurse directs care and demonstrates all techniques to staff

EVALUATION AND OUTCOMES

TYPE OF EVALUATION REQUIRED

Written

WHERE THE LEARNING OUTCOMES MET

YES/NO

IF NO HOW CAN THE SCENARIO BE IMPROVED TO ENSURE THAT THEY ARE MET	
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John Jones
 03/11/83
 012345A

Notes		Value(s) above reference range	Value(s) below reference range	Default value(s)	Calculated value(s)	Estimated value(s)
Blood Gas Values						
pH	7.25	kPa	[7.350 - 7.450]			
pCO ₂	4.0	kPa	[4.5 - 6.0]			
PO ₂	20.8	kPa	[11.3 - 13.3]			
Acid Base Status						
cHCO ₃ ⁻ /P ₅₀	18	mmol/L				
cBase/Bic	-4.5	mmol/L	[-3.0 - 3.0]			
Electrolyte Values						
cK ⁺	4.0	mmol/L	[3.4 - 5.5]			
cNa ⁺	140	mmol/L	[136 - 146]			
cCa ²⁺	1.25	mmol/L	[1.15 - 1.30]			
cCa ²⁺ (7.4)c	1.25	mmol/L				
cCl ⁻	101	mmol/L	[94 - 107]			
Metabolite Values						
cBil	4.5	mmol/L	[3.9 - 5.8]			
cLac	4.0	mmol/L	[0.5 - 2.0]			
Oxygen Status						
cHb	145	g/L	[130 - 180]			
sO ₂	97	%	[85.0 - 100.0]			
p50 _a		mmHg				
pO ₂ /sA _{1a}		%				
P ₅₀ /sA _{1a}		%	[0.0 - 1.5]			
PCO _{Hb}		%	[0.0 - 1.5]			
p50(s)H _a		mmHg				
P ₅₀ (s) _a		%				
PO ₂ /Hb		%				
Hct _c		%				

