SCENARIO ONE:

Aims:

- To increase confidence in assessing the patient with reduced conscious level;
- To highlight the importance of adopting a systematic approach when assessing an acutely unwell palliative care patient;
- To revise the management of hypoglycaemia including Glucagon and IV Dextose;
- To reinforce the importance of effective leadership of a clinical team

Learning Objectives:

- By the end of the session the candidate will be able to:
    - List the treatment options for hypoglycaemia;
    - Perform an ABCDE assessment of a patient with reduced level of consciousness;
    - Re-evaluate if a chosen treatment plan is not fully effective;
    - Make an on-going plan for management of regular diabetes medications
    - Utilise a team effectively

Hypoglycaemia Patient History

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You are a 57 year old man with pancreatic cancer that was diagnosed 8 weeks ago following several months of back pain. The cancer was diagnosed when you were admitted to hospital after a particularly bad episode of pain and at the same time they diagnosed diabetes and told you that this was related to your cancer. You are due to see the Oncologists again next week when they are going to decide whether to offer you chemotherapy, which you would like to have if it is offered. The doctors at the hospice have talked to you about resuscitation and you have told them that you want to be resuscitated and have full active treatments. You have been told they can't cure your cancer but feel very hopeful that they will find something that will.

You were experiencing abdominal pain at home for the last few weeks despite your painkiller doses being increased and your Macmillan Nurse suggested coming to the hospice. You were admitted 3 days ago. You are independent and able to look after yourself on the ward. You woke up today but haven't felt quite right and you mentioned this to the nurses. You didn't feel like eating breakfast or lunch but gave yourself your normal insulin doses. You've not really been eating very well for several weeks and have lost a lot of weight. You have no other symptoms if asked. You have never had any previous hypoglycaemic episodes.

When the doctor comes to assess you, initially you are very drowsy and don't answer their questions. If they rub your chest you would mumble. This is because you have a low blood sugar.

If you are given a glucose drip, after 5 minutes you should begin to give one word answers to questions you are asked. After a further 2 minutes, you will be fully alert and start to ask the doctor what has happened.

If you are given an injection of Glucagon, after 5 minutes you will start to give one word answers to questions but after a further 2 minutes you start giving random non-sensical words in answer to questions. When you are given a glucose drip you will start to come round.

Past Medical History if asked: high blood pressure for which you have been taking Ramipril for several years; arthritis in your left knee from playing football when you were younger

Drug History if asked: no known allergies. You aren't sure of all your tablet names but you did give the doctor a list when you were admitted- could they look in the notes to find out?

Social History if asked: working as a telephone engineer until 2 months ago, currently on sick leave. You are divorced and live alone in a flat. You have a son from your marriage who is 25 but you haven't really had any contact with him for 15 years. Your next of kin is your sister Mabel.

Facilitator Instructions:

In this scenario the patient has hypoglycaemia (see patient history script). The delegate will be told that the patient has been less well this afternoon and they will be asked to assess him by the nurse. The medical notes and drug charts will be available for them to review if they wish.

The aim of this scenario is for the candidate to perform a systematic assessment of a patient with a reduced conscious level, which should incorporate checking the patient's blood glucose. The drug charts available should also prompt the candidate to consider hypoglycaemia. When they detect this low BM, they should initiate appropriate initial management and utilise their clinical team efficiently ie the nurse in the scenario.

The only treatment options that will be available will be 20% Dextrose or Glucagon or Glucogel. If the candidate asks for any other hypoglycaemia treatment, they will be told that the hospice hasn't got any in stock.

This patient has little glycogen stored in liver so does not have a significant/ sustained response to Glucagon if this is given as the initial treatment. The candidate will need to recognise this and switch to IV Dextrose to "revive" the patient.

Candidate Briefing at start:

Please tell the delegate that they are working in the hospice doing a weekend ward round and that they should enter the bay and the nurse will give them further instructions. They should respond to the clinical scenario as they would in real life and request additional information or resources if required. Please ask the rest of the group to watch the scenario, as they will be asked to give feedback in the debriefing.

Debrief:

You will watch the scenario with the group; you will not be expected to control SimMan. After the scenario has run, the facilitator should debrief the candidate with the group. This should focus on the strengths and weaknesses of both the management of the patient and the team, ensuring that all the group are happy with the management of hypoglycaemia.

You should be looking for the delegate to:

- Approach safely and check for patient response
- Perform a systematic assessment of a patient with reduced consciousness eg ABCDE
- Looks at drug charts
- Recognises the hypoglycaemia as cause of reduced conscious level
- Gives clear instructions to nurse including doses and prescriptions, requests for ob's and BM
- Selects appropriate treatment doses:
    - A: 75mls 20% Dextrose IV or B: 150ml 10% Dextrose IV or C: 25mls 50% Dextrose IV (avoid if possible due to irritation) or D: 1mg Glucagon IM
- Obtains IV access to give Dextrose

- Gives oral long acting carbohydrate when patient is able to take this
- Makes on-going plan for the insulin

GUIDANCE:

http://www.diabetes.org.uk/Documents/About%20Us/Our%20views/Care%20recs/Joint%20British%20Diabetes%20Societies%20Inpatient%20Care%20Group%20-%20The%20Hospital%20Management%20of%20Hypoglycaemia%20in%20Adults%20with%20Diabetes%20Mellitus.pdf

SimMan instructions:

Patient is slumped in bed and does not respond to voice. Would mumble if sternal rub performed but not his eyes. He will have no IV access/ syringe drivers in place.

A drug chart will be available at the end of the bed which will have his regular medications including MST 100mg BD which will have been increased from 80mg BD the previous day. He will have Oramorph 30-40mg PRN prescribed and will have had 3 doses in the last 12 hours. In addition there will be an insulin chart which shows his last BM was 6.3 and he had 20 units of Mixtard 30 at that time.

1) Initial settings:

A: Patent airway, no groaning, mumbles if sternal rub

B: Chest clear, equal bilateral air entry. RR 14. Sats 95% on air.

C: HS 1+2+0. JVP not raised. BP 115/76. Pulse 80 bpm.

D: Pupils equal and reactive to light. Not pinpoint.

GCS: Eyes 1 Verbal 2 Motor 4

Plantars downgoing

Blood glucose 1.7

E: Abdomen soft, no rashes or bleeding. Temp 36.4C

2) *If gives treatment for low BM (Glucagon or IV Dextrose), after 5 minutes, settings should change to:*

A: Patent, gives one word answers to questions

B: Chest clear, equal bilateral air entry. RR 14. Sats 96% on air.

C: HS 1+2+0. JVP not raised. BP 115/76. P 84 bpm.

D: Pupils equal and reactive to light. Not pinpoint.

GCS: Eyes 3 Verbal 4 Motor 6

Plantars downgoing

Blood glucose 3.4

E: Abdomen soft, no rashes or bleeding. Temp 36.4C

Further 2 minute later:

3A) if IV Dextrose was given, settings should change to:

A: Patent, talking spontaneously & asking what's happening

B: Chest clear, equal bilateral air entry. RR 14. Sats 96% on air.

C: HS 1+2+0. JVP not raised. BP 115/76. P 84 bpm.

D: Pupils equal and reactive to light. Not pinpoint.

GCS: Eyes 4 Verbal 5 Motor 6

Plantars downgoing

Blood glucose 10.1

E: Abdomen soft, no rashes or bleeding. Temp 36.4C

3B) if IM Glucagon was given

A: Patent, says non-sensical words to questions

B: Chest clear, equal bilateral air entry. RR 14. Sats 96% on air.

C: HS 1+2+0. JVP not raised. BP 115/76. P 84 bpm.

D: Pupils equal and reactive to light. Not pinpoint.

GCS: Eyes 3 Verbal 3 Motor 5

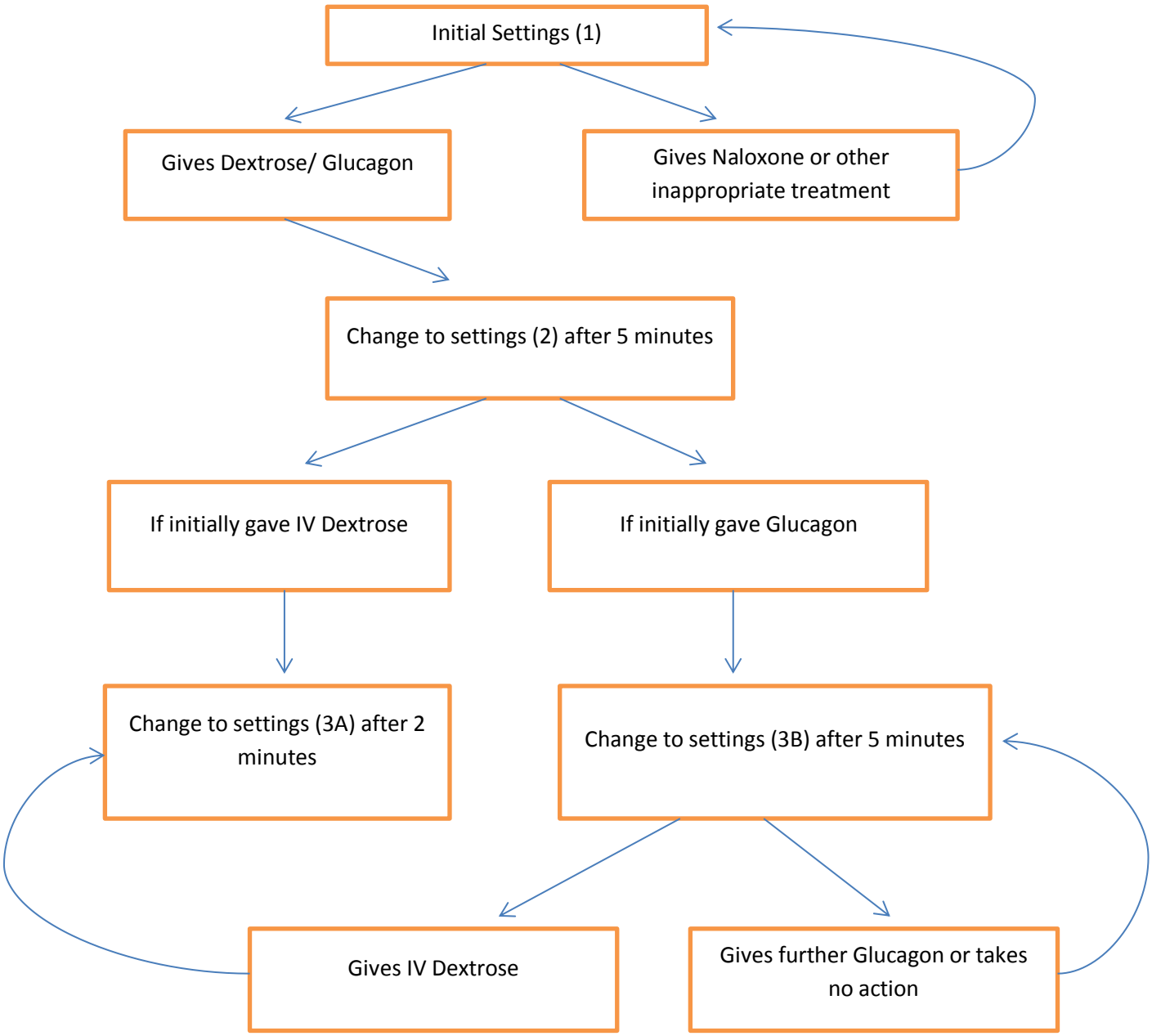
Plantars downgoing

Blood glucose 2.7

E: Abdomen soft, no rashes or bleeding. Temp 36.4C

If the candidate does not treat the low blood glucose or gives an incorrect treatment e.g. Naloxone:

SimMan remains unchanged from initial settings


Initial Settings (1)
Gives Dextrose/ Glucagon
Gives Naloxone or other inappropriate treatment
Change to settings (2) after 5 minutes
If initially gave IV Dextrose
If initially gave Glucagon
Change to settings (3A) after 2 minutes
Change to settings (3B) after 5 minutes
Gives IV Dextrose
Gives further Glucagon or takes no action