



2023 MONTHLY HBOT WEBINAR

TOPIC: Diabetes Management

Diabetes Management

Diabetic patients need to manage their blood glucose level. The level needs to be at least 110 mg/dL before they go in the hyperbaric chamber, unless otherwise stated by the attending physician. The ideal minimum pre-treatment number is 120 mg/dL. It is also important to make sure their blood glucose is not too high.



Glucose levels

Maximum numbers vary but encourage the patient to try to keep their blood glucose level under 180 mg/ dL at all times unless otherwise suggested by the patient's healthcare professional. As a hyperbaric technician, always ask diabetic patients if and what they ate prior to coming in.



Glucose Levels

It is also important that as the hyperbaric technician, you ask the patient if they took their medications. Both the patient's diet along with the medications they are taking can significantly impact the patient's blood glucose levels and help you to anticipate and prevent hypoglycemic events.



Hypoglycemia

Hyperbaric can lower the patients blood glucose significantly as a metabolic response, so it is important to make sure levels are high enough to prevent any drop in glucose from becoming a hypoglycemic medical emergency inside the chamber. Also, account for the 2- hour treatment, in which the patient will be without food.



Hypoglycemia symptoms may include:

- Diaphoresis
- Fatigue
- Lightheadedness
- Shakiness
- Nausea/vomiting
- Confusion
- Unresponsiveness
- Anxiety
- Seizures



Procedure

1. Take patient's blood glucose level upon arrival/before treatment. If the patient's glucose is 110 mg/dL or higher, but still normal, continue with treatment **IF** the attending physician is comfortable with the level. If their glucose level is lower (not a critical low= follow hospital policy), consider glucose administration.
2. Follow your hospital protocol for hypoglycemia management. This could be the administration of Glucerna, Juven, fruit juice, glucose tablets, etc.

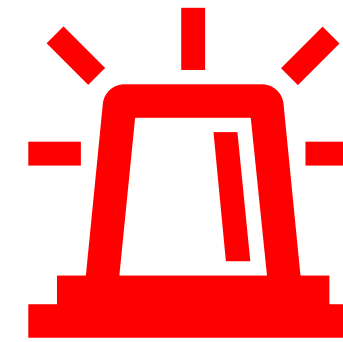


Procedure (Continued)

3. Recheck the patient's blood glucose 15+ minutes after administration. If it is lower than the initial level, the attending physician may refuse the patient's treatment for the day for safety concerns of a hyperglycemic event. If the glucose has elevated above 110 (or the number your attending physician is comfortable with) continue with hyperbaric treatment. If the glucose has risen but not as high as it needs to be, with your physician's approval you may repeat glucose administration and/or another 15+ minute recheck if the schedule allows.



Important Things to Note:



- The patient has put in a lot of effort to attend treatment that day, be understanding and patient. Do what you can to safely accommodate the patient, but if treatment is unsafe, we will educate the patient and try again tomorrow.
- If you do have to discharge the patient for the day due to hypoglycemia, what actions can we take to prevent this from happening in the future? Have the attending provider discuss the dangers of hypoglycemia or hyperglycemia and hyperbaric. Also, the provider can discuss their medications and diet. Support that conversation by providing the patient with education on nutrition and managing their diabetes during hyperbaric (both of these patient education handouts are on the SerenaGroup Member's Portal). Are there other local resources for this patient such as a diabetes educator?
- Do you know what the patient had to eat before coming in for treatment today? Do you know if they took their hyperglycemic medications/insulin? As a clinician, these simple questions can alert you to red flags. If a patient did not eat because they were running late but still took their insulin, we can anticipate that their blood glucose level is trending down rather unsafely. Putting them in the chamber could cause a serious hypoglycemic event!



Quiz



Question 1: Name 5 symptoms of hypoglycemia



- 1.
- 2.
- 3.
- 4.
- 5.

Answer 1



- Diaphoresis
- Fatigue
- Lightheadedness
- Shakiness
- Nausea/vomiting
- Confusion
- Unresponsiveness
- Anxiety
- Seizures

Question 2:



A diabetic patient is on treatment 15 and has never had issues with confinement anxiety but is now 1 hour into treatment and presenting with anxiety symptoms. His blood glucose was 125 mg/dl upon arrival. What might be your first 3 steps?

Answer 2



1. You have already performed a rapid assessment to note that the patient is not okay whether for anxiety or another medical reason so you will start to **abort the treatment**.
2. **Contact the provider** and give them the facts. (patient does not have a history of anxiety, hid blood glucose level today was 125 pre-treatment, patient stated he took his medication and ate today, etc.) They should report to the chamber room for assessment.
3. Upon removal from chamber, **check blood glucose level**.

Question 3



TRUE OR FALSE?

All hospital protocols for hypoglycemia management/prevention are the same.



Answer 3



NO, every hospital may be different! Always follow your facility's protocol.



**THANK
YOU**



Next Month



July Hyperbaric Safety Webinar



Topic: What can and cannot go into the chamber?



Presenter: The Woodlands



Date: 7/18/2023, 12 pm est.



Housekeeping Items

- **FOLLOW UP FROM LAST MONTH:** Air breaks - SerenaGroup's recommended protocol is 2.4 ATA for 90 minutes with one 10 minute air break (15-45-10-45-15). It is important that patients receive 90 MINS AT PRESSURE, this does not include travel time. If you were doing 40-10-40 did you discuss this with the medical director? Do you need assistance with this conversation?
- **FOLLOW UP FROM LAST MONTH:** Summer heat is already here! The temperature outside should not have any significant impact on the Oxygen's temperature coming into the chamber. However, your patients may feel approximately 10 degrees warmer inside the chamber versus the chamber room. So, if you keep the chamber room at 70 degrees, it is not uncommon for the real feel temperature in the chamber to be 80 degrees. Put on your SerenaGroup fleece and keep your chamber rooms cool ❄️
- Defining "delayed" in delayed radiation injuries. Acute radiation injuries aren't indications for HBOT.
- UHMS approved indications vs. CMS approved indications. What do I need to know for my clinic?



Round Table Discussion





See you next month

Have a Safe Independence Day!

