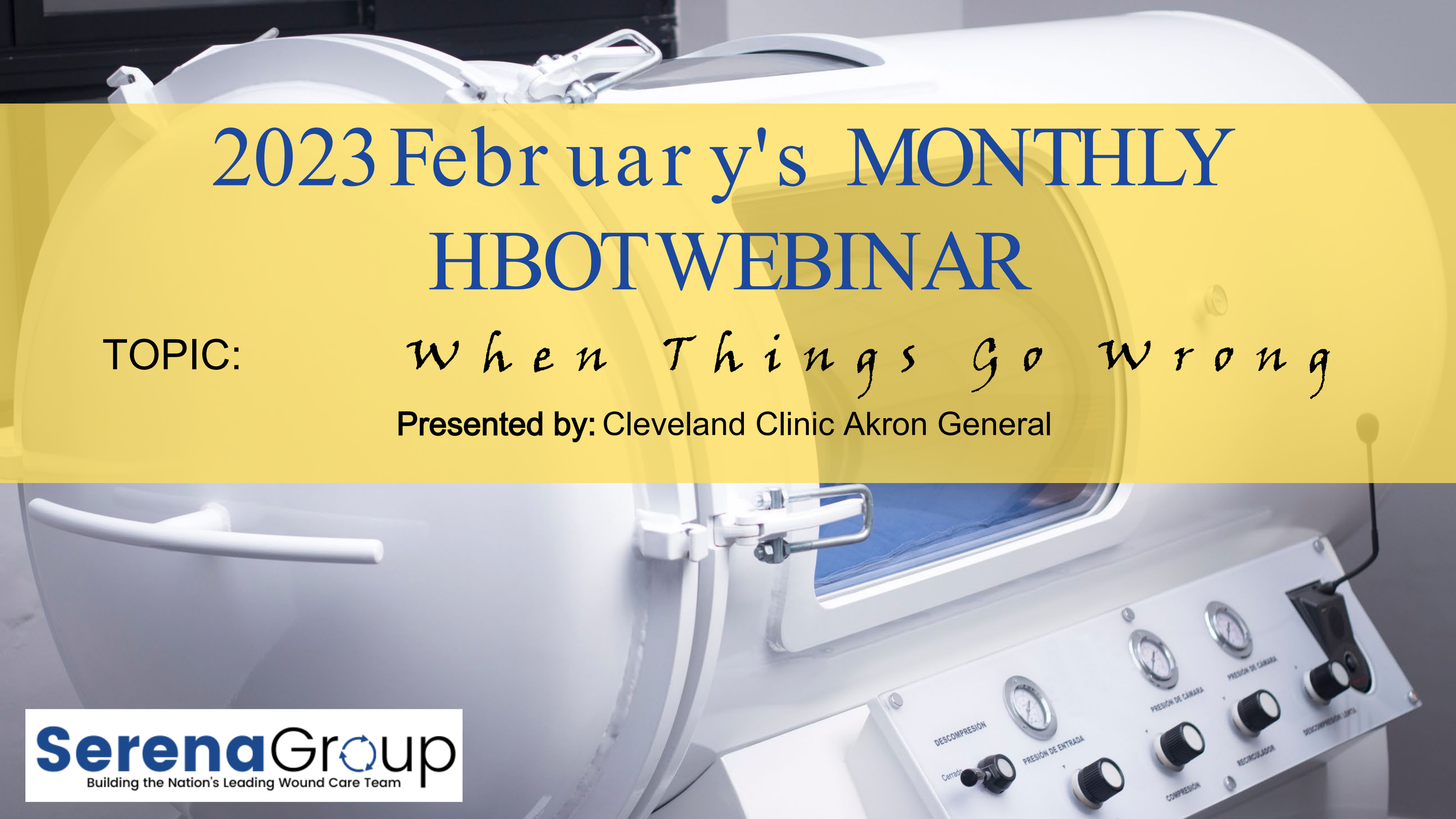


2023 February's MONTHLY HBOT WEBINAR

TOPIC: *When Things Go Wrong*

Presented by: Cleveland Clinic Akron General

SerenaGroup
Building the Nation's Leading Wound Care Team

Risks of critical vital signs

Elevated blood sugar: Increases oxygen consumption in mitochondria, resulting in cellular hypoxia.

Low blood sugar: Not enough glucose will cause the brain to not function properly, leading to seizure activity.

Elevated blood pressure: Increases the risk of blood clots and heart muscle damage creating Myocarditis and possibly Myocardial Infarction.

Low blood pressure: Shock!

Critical vital signs – Our Response

- When pre-treatment vitals are out of range, it ’s important to notify the overseeing physician before administering treatment so they can determine if treatment is safe today.
- Important topics of discussion with the patient should include:
  - When/what did you last eat?
  - Did you take your medication today?
  - What is a normal number for you?

Prohibited items protocol

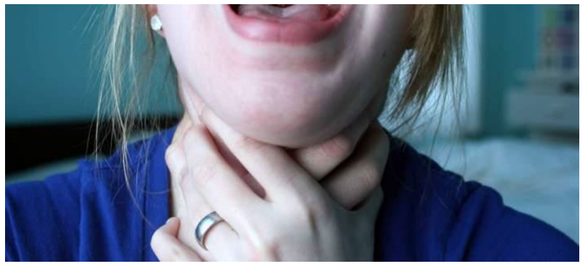
Battery operated devices - Batteries can combust under pressure.

I.E. watches, hearing aids, cell phones, IPads, E-Readers, CGM devices, insulin pumps

Combustibles - Chemical compounds that are explosive under pressure.

I.E. hair products, oils, lotions, make-up, nail polish, cologne, deodorant, creams, ect

Choking Hazard – Items located in the mouth may become a hazard
I.E dentures, partials, food, candy, gum, ect.



No Prostheses, jewelry (unless covered by tape), hair pieces, reading material, warming devices, tissues, matches, lighters, cigarettes, glasses, or non-battery-operated devices.

BUT, WHY NOT?? Due to fire or scratching the acrylic.

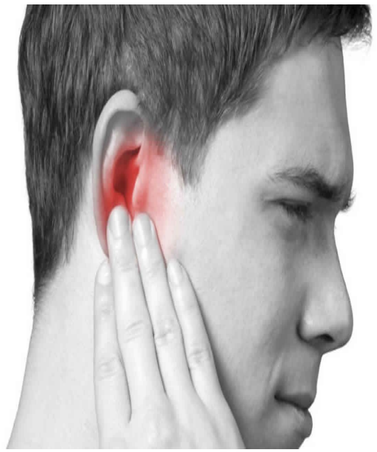
Prohibited items - Our response

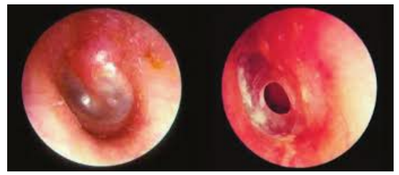
- All implanted devices must be cleared by manufacture with proper documentation.

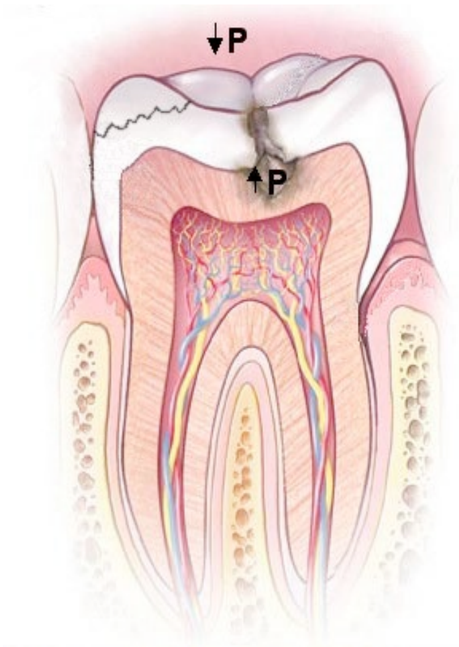
- Of course, there are possible exceptions to every rule. Please see Policy HM.403.0 for the Exception to Protocol on Prohibited Items in HBO form. Submit completed form to:
  - HBO Safety Director
  - Treatment Provider
  - Matt, national safety director.

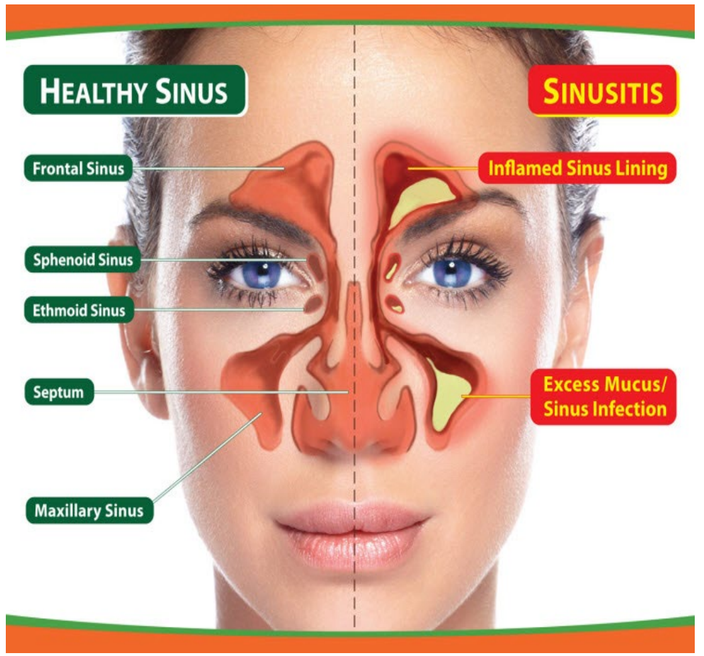
Signs and symptoms of danger - Barotrauma

Barotrauma: **The most common side effect.** This is an injury to a part of the body due to changes in barometric pressure. Most seen in the ear, sinus or teeth. This is very painful and can result in permanent damage.









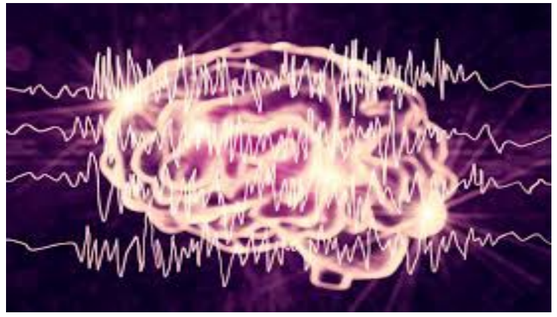
Barotrauma – our response

- 3 Strikes, you're out!
- If a patient starts to exhibit signs and symptoms of ear barotrauma, we will lower the current pressure by 2-3 PSI. Once some of the pressure has been relieved, we will attempt to walk the patient through ear clearing techniques. If the patient is able to equalize, we can repressurize the chamber and continue the treatment. We can do this up to three times before the patient treatment needs to be aborted. If the patient is not able to equalize at any time, treatment will be aborted.
- If this occurs we need to refer the patient to an ear nose and throat specialist. Or if we find the patient has severe barotrauma after a treatment it may be time to consider a referral to an ear nose and throat specialist.

Signs and symptoms of danger - seizures

Seizures can be a side effect of oxygen toxicity, low blood sugar, drug overdose, or the patient has a HX of Epilepsy or another seizure condition. What are we looking for; confusion, staring into space, twitching movement, or becoming emotional.

Without identifying these signs and symptoms patient may be rendered unconscious, aspirate on vomit or sputum, have permanent brain damage, and in worst case scenarios, cause death.



Seizur es – Our Response

- Seizures are a large part of why it is important for us to maintain eye contact with patients while in the chamber. Seizures are not always easily noticed so it takes our focus to identify and treat patients in the event of a seizure.
- If a patient begins seizing in the chamber, we are to notify the attending physician immediately. Once the patient's seizure has come to a stop and the patient is postictal and no longer breath -holding, we can begin surfacing the patient to treat them better.
- Transfer to an emergency department for further care via your facility protocol.
- Notify your supervisor and national safety director of the adverse event.
- Document the event in the patient ’s chart.
- Report the safety event with the hospital per their protocol.

External Elements: Severe Weather

Sometimes Mother nature is NOT having it and will throw some curve balls our way. While we have no control over the weather, we have full control over our chambers. ***What do we do???***

We will decompress chamber at a safe rate. If danger is imminent, the rate may be increased. Remove patient from chamber and prepare for evacuation.

Static Electricity:

What's the worst that can happen?

With everything in working order, nothing.

Without proper inspections.....

Patient grounding straps – Strap that attaches to the patient

Visually inspected daily and tested weekly.

Chamber grounding cord – Cord that is plugged into the wall and to the chamber.

Visually inspected daily.

Grounding Drag chain – Chain that drags from the bottom of the cot

Visually inspected daily.

Anti-static floor – special floor wax/buffing compound to reduce static

Humidifier – increases the moisture in the chamber room


BE THE REASON
NOBODY GOT HURT TODAY


QUIZ

Question 1

The only reason a patient has a seizure in the chamber is because of a HX of Epilepsy.

True or False

Answer 1

FALSE

Question 2

Patients are permitted to take only an Ipad into the chamber for entertainment purposes only.

True or False

Answer 2

FALSE

Question 3

Grounding Drag Chains are part of our fire safety requirements.

True or False

Answer 3

TRUE

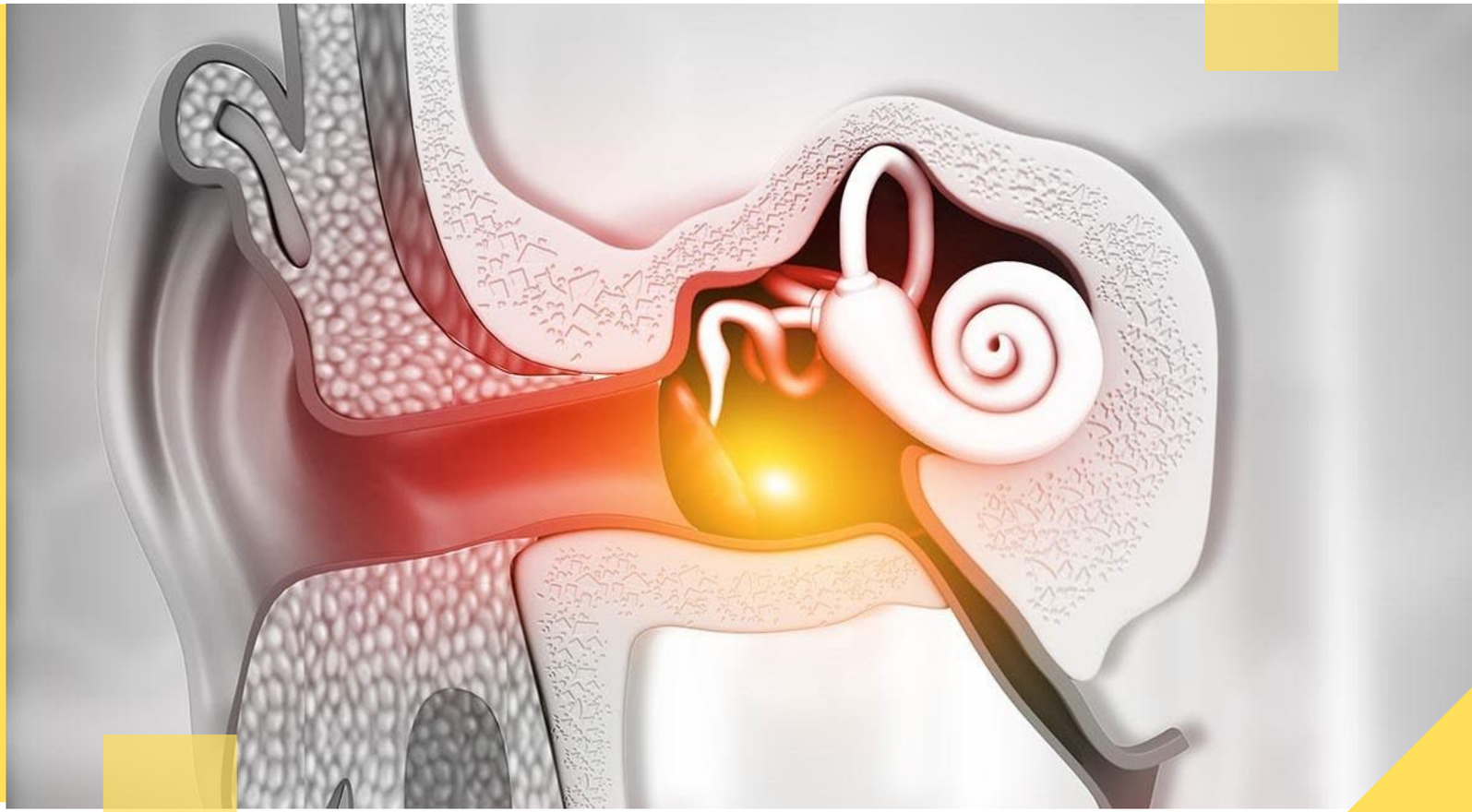
THANK YOU


DESCOMPRESION
PRESIÓN DE ENTRADA
PRESIÓN DE CAMARA
PRESIÓN DE CAMARA
RECIRCULADOR
COMPRESIÓN

UP NEXT:

CHI Health

Topic: Barotrauma



SerenaGroup

Building the Nation's Leading Wound Care Team

Round Table Discussion

Housekeeping!

- Pre-auth tracking forms
- Humidity levels in your chamber rooms

B. ***Engineering Requirements***

1. The temperature in the room should be maintained for the comfort of the patient during set-up of the treatment and for personnel operating the equipment. Humidity should be maintained at 50-60% to minimize the build-up of static electricity.

Patient Name: _____

SerenaGroup Hyperbaric Oxygen Therapy Checklist

Hyperbaric Oxygen Therapy - Eval, Criteria and Pre-Treatment Checklist (Refer to either NCD 20.29 or regional LCD for correct ICD 10 codes)

Consult must be done, and each Pertinent Criteria below MUST be clearly described in Hyperbaric Evaluation (for Intellicure, located in Impression Tab)

Actinomycosis

Need	Prolonged administration of antibiotics
Need	Must document that disease is refractory to antibiotics and surgery.
Need	Documentation of actinomyces israelii infection

Crush Injuries and Suturing of Severed Limb

*** RE-EVAL after 12 treatments**

Need	Documentation of loss of function, limb or life being threatened
Supports	TCOM <30 mm/Hg

Diabetic Foot Ulcers (regardless of Grade)

***RE-EVAL Q 30 Days - Must show signs of measureable improvement to continue past 30 days**

Need	Documentation of Type I or Type II diabetes with lower extremity diabetic wound
Need	Documentation of Wagner III or higher
Need	Documentation of standard wound care for 30 days with no measureable signs of healing.

Standard wound care must include all the following:

Need	Vascular Assessment and correction of issue
Need	Optimization of glucose & education
Need	Optimization of nutritional status & education
Need	Debridement by any means to remove devitalized tissue
Need	Maintenance of a clean moist wound bed
Need	Appropriate offloading
Need	Treatment to resolve infection
Support	ABI >.6

Diabetic Ulcer Wagner III

Need	Documentation of one or more: Osteitis, Osteomyelitis, Tendonitis, Abscess, Pyarthrosis

Diabetic Ulcer Wagner IV

Need	Documentation of Wet or Dry gangrene of the toes or forefoot

Diabetic Ulcer Wagner V

Need	Documentation of gangrene involving entire foot

YES	No	
		Absolute Contraindications NOTE- Can't Treat until corrected
		Untreated Pneumothorax
YES	No	**Relative Contraindications Note- Does not preclude treatment**

Acute Peripheral Arterial Insufficiency

Need	Documentation of sudden occlusion of a major artery-Which:
Need	Vascular study to confirm i.e. CTA/MRA/Arteriogram
Need	Revascularization Candidate Yes / No

*** If NO: reason in Hyperbaric evaluation note**

Supports	In Chamber TCOM to show response to O2 w/ 1st TX

Acute Traumatic Peripheral Ischemia

Need	Documentation of loss of function, limb, or life threatened (i.e. injury that compromises circulation)
Supports	TCOM <30 mm/Hg, LUNA, SPP/PVR

Gas Gangrene- A48.0

*Adjunct to antibiotic therapy & surgery

Need	Clinical sign and symptoms
Supports	X-ray findings

Progressive Necrotizing Infections

Need	Documentation of laboratory reports that confirms the diagnosis of progressive necrotizing infection
Need	Culture or gram stain that confirms diagnosis of Meleney Ulcer

Skin Graft/Flap Failure

Need	Documentation of graft date
Need	Documentation of compromised state of graft site

Complications of reattachment Extremity or Body Part

Need	Documentation of flap date
Need	Documentation of compromised state of flap site

Chronic Refractory Osteomyelitis

Need	Definitive evidence condition is chronic and unresponsive to conventional therapy i.e. ABX and wound care
Need	Definitive imaging (i.e. MRI, X-ray, Bone Scan) and bone culture with C&S
Need	Failed antibiotic regimen of at least 6 weeks
Need	Bone debridement (when possible)

Osteoradionecrosis

Need	Documented date and anatomical site of prior radiation treatments include number of treatments
Need	Diagnosis from referring physician
Need	Plan to or documented debridement/resection of Non-viable tissue if present in conjunction with antibiotics

Soft Tissue Radionecrosis-Late Effects of Radiation

Need	Documented date and anatomical site of prior radiation treatments, including number of treatments and cumulative dosage (i.e. Gray, centi-gray, ray, etc.) treatments include number of treatments
Need	Documentation of treatment with conventional therapy

# of New/Active HBO Patients	24
# of New HBO Pts with HBO Checklist Completed	24
% of New/Active HBO Pts with Approved HBO Form Completed	100%

HBO Conversion Rate
Rolling 12 Months