



Hyperbaric Safety Presentation

JANUARY 2026



SERENAGROUP



Introduction:

**Janell Brookes, RRT/HBO Safety Director
Cleveland Clinic Akron General**

I have been in Hyperbaric Medicine for 1 year and I am a Registered Respiratory Therapist of 11 years. I have worked ER to ICU, home care, and Pediatrics. I am currently the Safety Director for HBO at Cleveland Clinic Akron General.



Topic Introduction

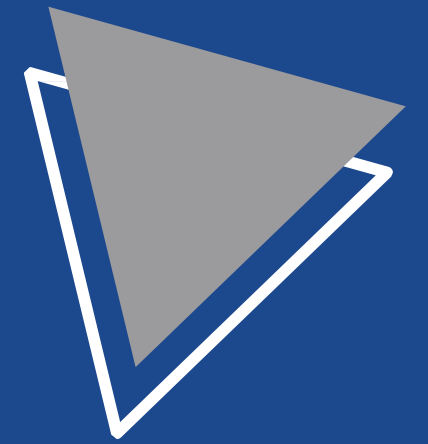


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PICC Lines/Port Caps/Drains

We are going to be discussing Lines and Drains, specifically PICC Lines, Ports and Caps (normally what we see the most of in HBO) and safety with these lines, ports, and drains. PICC Lines and Ports are important because these are how patients receive their antibiotic treatments, and other high priority medications – in HBO, we are dealing with severe infections including down to the bone and these lines are essential and best practice with hyperbaric treatment. It is also important to eliminate/minimize risks of infection.

Common Lines and Drains seen in HBOT



PICC Line

A PICC Line is a peripherally inserted central catheter.

Common Uses:

Cancer Treatments- Chemotherapy

Liquid Nutrition- TPN

Infection Treatments- Antibiotics

The highest risk of a PICC Line is INFECTION!

Inspect/Assess the site for any redness, swelling, or heat. Ask your patient if they are having any pain. Report any signs of infection to the attending provider.

Ports

Small medical device placed under the skin (usually in the chest, arm, or abdomen).

Common Uses:

Cancer- Chemotherapy

Infection- IV antibiotics

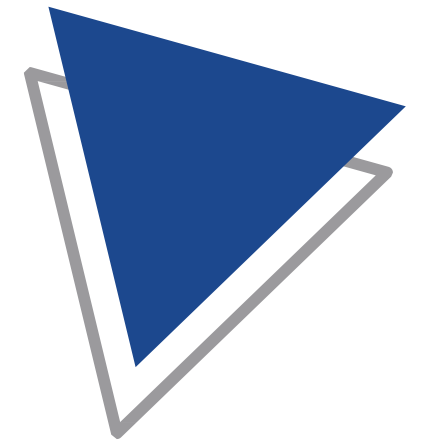
Dialysis- Kidney failure

Same risk of infection as the PICC Lines- Assess the site on the patient and look for any signs of infection. Report concerns.

Foley Catheter

A foley catheter is a tube placed to empty urine from the bladder. These should be emptied and output recorded prior to placing patient in the hyperbaric chamber for treatment session. After the foley bag is emptied, make sure to clamp the line back – this prevents urine from escaping the bag. Please do not place the foley bag on a patient's upper body – the foley should be placed lower by the patient's legs to ensure proper drainage away from the body.

Key Components



Health

Any line or tubing in place puts the patient at an increased risk for infection. Keep areas as sterile as possible to eliminate these risks as these lines and tubing are a direct route into a patient's system.

Safety

Ensuring proper care of lines and tubing is performed to minimize risks of infection and prevent harm to the patient. We also must ensure safety of the devices and the hyperbaric chamber during HBOT.

Environment

Properly ensure lines and tubing are secured in place to prevent dislodgement from patient moving around in the chamber. We also must lay catheter bags in an area that can drain and not cause harm to the patient's skin.

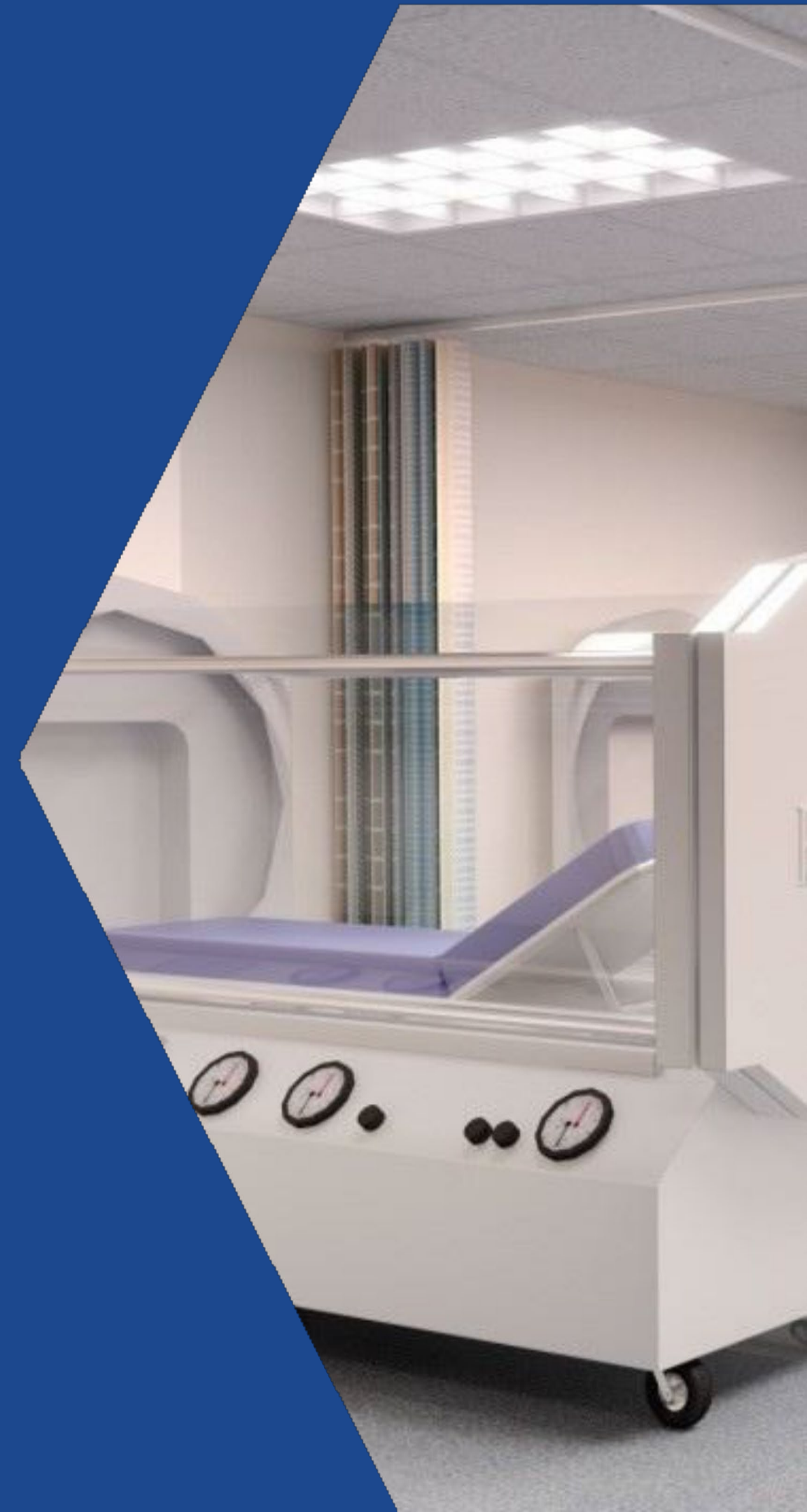


Procedure for Drains and Tubing

Use proper hand hygiene and PPE: Wear clean, unused medical gloves during all stages of drain care. Wear a mask and eye protection if there's risk for splash.

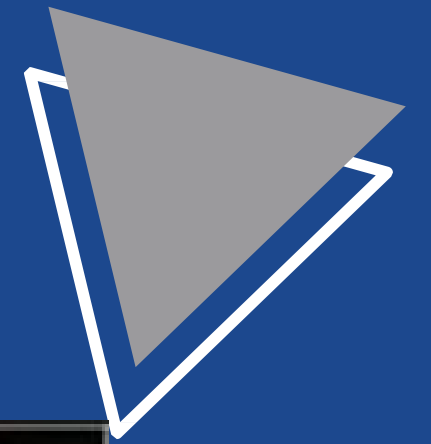
Any device with an air-filled space is at risk of shrinking during treatment, losing its purpose. Devices with an inflated balloon should have the air removed and replaced with saline.

Any device that uses velcro to secure or hold the collection bag or any tube in place needs to be removed. The device or bag can be secured with an HBOT safe measure such as tape.



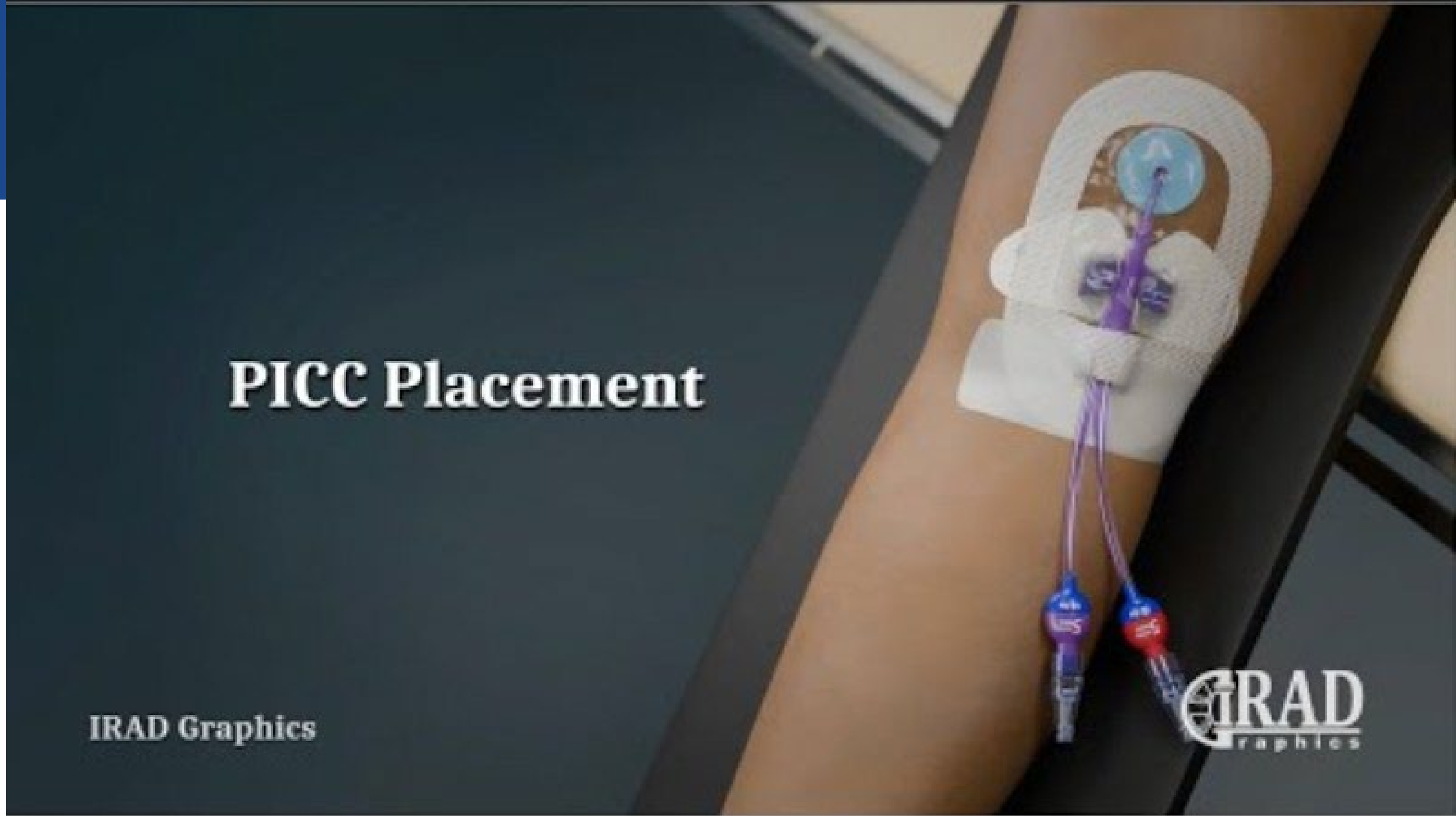
PICC Line Overview

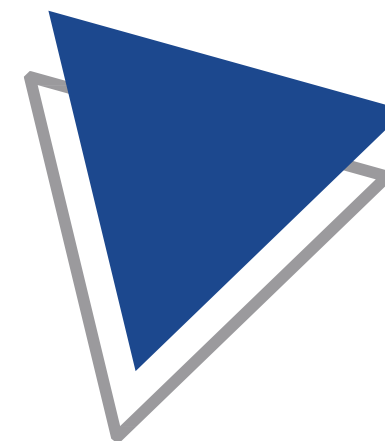
What is a PICC Line?



PICC Placement

IRAD Graphics





Foley Catheters



Permission/Consent from the patient was obtained for this recording

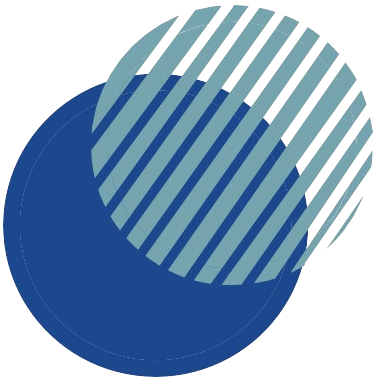


Permission/Consent from the patient was obtained for this recording.

Make sure patient knows how to “burp” their Ostomy pouch.



Permission/Consent from the patient was obtained for this recording



Associated Policy/Procedure

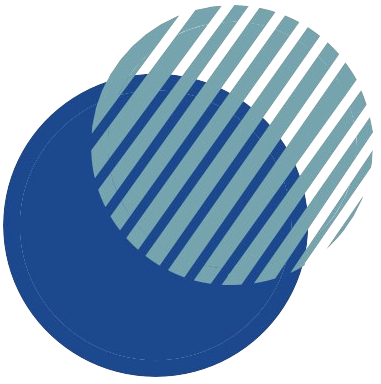
PICC (Peripherally inserted Central Catheters) need to be sealed, clamped, or capped in place.

Ostomy pouches – care is not part of HBO Technician's scope of practice. The patient or caregiver (home health nurse) should change the pouch prior to HBOT. Educate the patient on how to "burp" the pouch if the bag begins to inflate during HBOT – you want to prevent the pouch from popping.

Wound Vac Tubing- Disconnect the wound vac tubing. The dressing and attached tubing is safe to go in the chamber. Cover the open end of the tube with sterile gauze and tape to secure. Do not clamp tubing. Once HBOT is complete, reattach the Vac Tubing.

The procedure for proper handling of these lines and tubing is outlined in the Serena Group 2026 Hyperbaric Oxygen Therapy Center Policy and Procedures on pages 13-15.





Other Drains/Tubes you might see in HBOT

- Penrose Drains and Peritoneal Tubes
- JP Drains (aka Blake Drain/Jackson Pratt)
- Hemovac Drain
- Gastrostomy Tube (G-Tube) and Nasogastric Tube (NG Tube)
- Tracheostomy Tubes
- Wound Vac Tubing

Please refer to SerenaGroup's Hyperbaric Oxygen Therapy Policies for 2026 regarding Drains and Tubing on pages 13-15 of the Policy.





Conclusion

DRAIN PROCEDURE:

- **Use proper hand hygiene and PPE: Wear clean, unused medical gloves during all stages of drain care. Wear a mask and eye protection if there's risk of splash.**
- **Any device with an air-filled space is at risk of shrinking during treatment, losing its purpose. Such devices with an inflated balloon should have the air removed and replaced with saline.**
- **Any device that uses Velcro to secure or hold the collection bag or any tube in place needs to be removed. The device or bag can be secured with an HBOT safe measure such as paper tape.**
- **Follow manufacturer's instructions for individual devices.**
- **See SerenaGroup policy and procedure #519 for reference of drains and tubing in our hyperbaric centers.**



Any

Questions?

Round Table

- 'Safety Spotlights'
- Welcome Dr. Bohn, Medical Director of SerenaGroup
- Chain of command: If you have a question about hyperbaric, such as "can X go in the chamber?" please direct your question to Ally. If she does not have an answer for you, she will use resources to get you an answer ASAP. If she feels the question is medical in nature and needs to be reviewed by a physician and with a physician, she will arrange a conversation between Dr. Bohn, yourself, and your provider.
- Policies and Procedures for 2026 are in effect. Questions?
- Ally on leave starting after first week of February through the first week of March. Please contact Merriann DeTeso with any questions or problems.





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Thank You

Up Next:

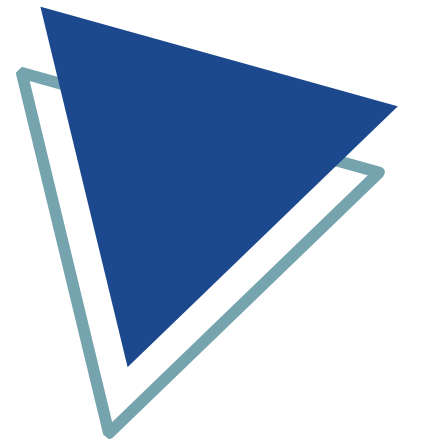


Armstrong County Memorial Hospital (ACMH)

When: February 4, 2026, at 12:15 pm eastern

Choose any topic!

Contact Info



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