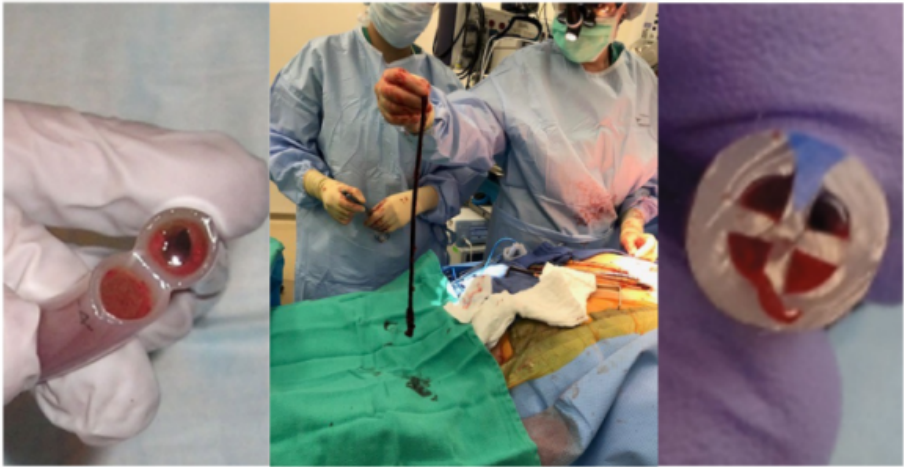


Find a partner & share your experience with chest tubes



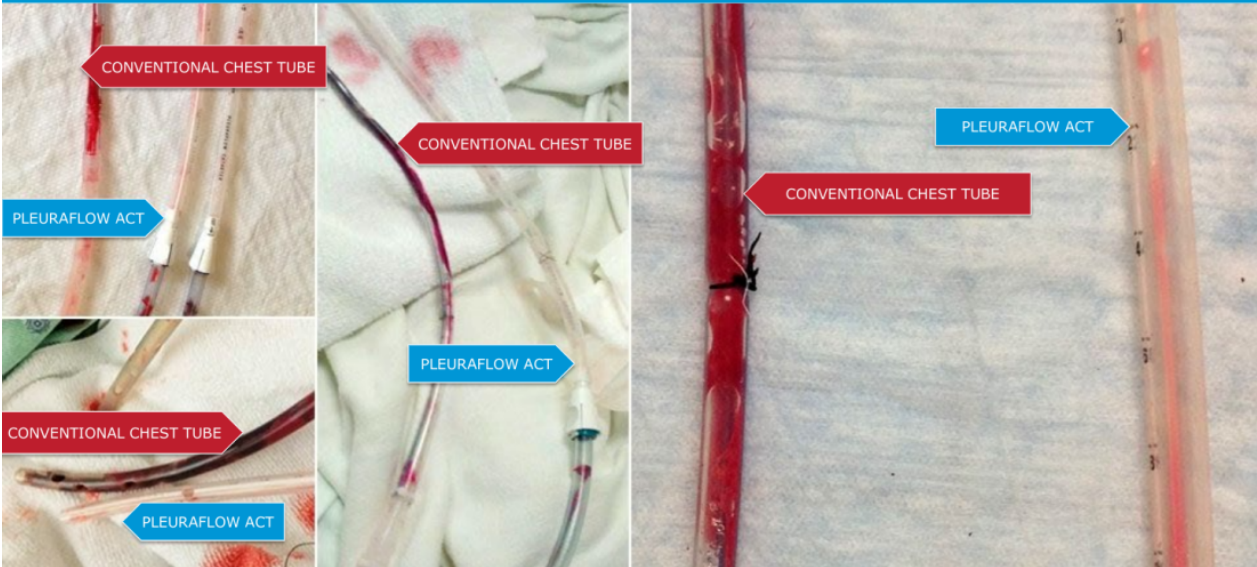
# CHEST TUBES CLOGGING – A FAMILIAR PROBLEM



3



# PLEURAFLOW ACT MAINTAINS CHEST TUBE PATENCY



ACTIVITY

# PLEURAFLOW ICU TRAINING WORKSHEET



SYSTEM & COMPONENTS



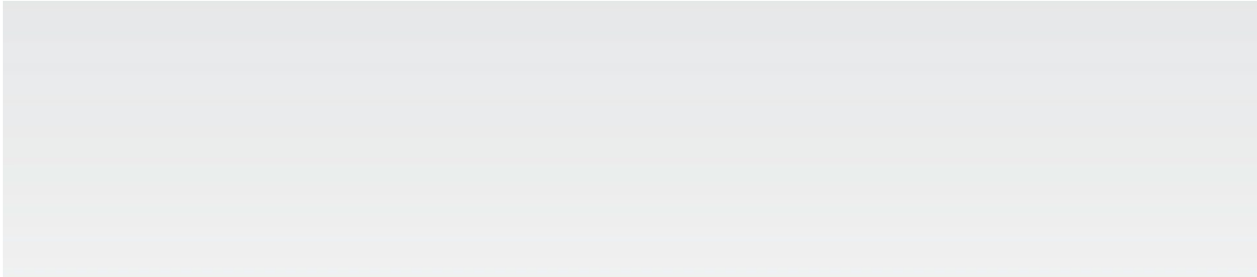
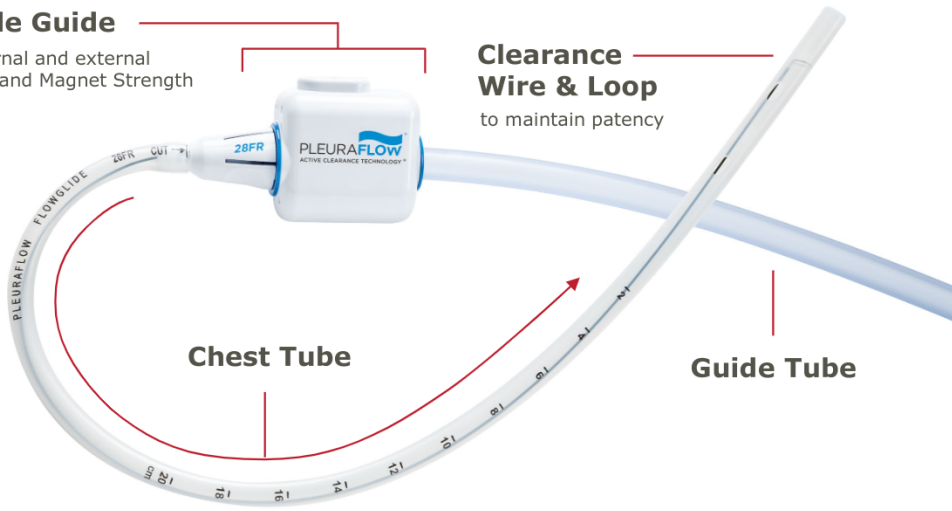
# THE PLEURAFLOW ACTIVE CLEARANCE SYSTEM

## Shuttle Guide

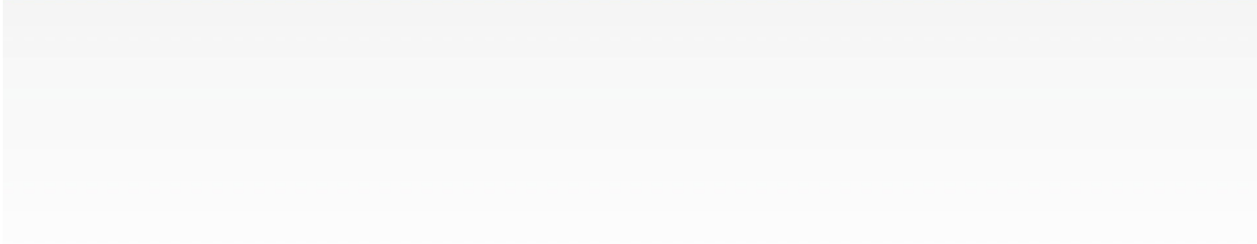
with internal and external magnets and Magnet Strength Button

## Clearance Wire & Loop

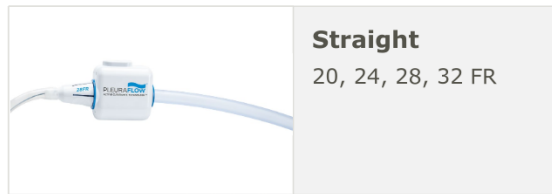
to maintain patency



# PleuraFlow System Overview



## AVAILABLE IN VARIOUS SIZES & CONFIGURATIONS



### **Straight**

20, 24, 28, 32 FR



### **Right Angle (RA)**

24, 28, 32 FR



### **Long (XDL)**

20, 24 FR

As with selection and placement of any chest tube, care must be taken to ensure that the tube drainage eyelets remain contained within the chest cavity for the duration of application.



9

## ACTIVITY PLEURAFLOW ICU TRAINING WORKSHEET



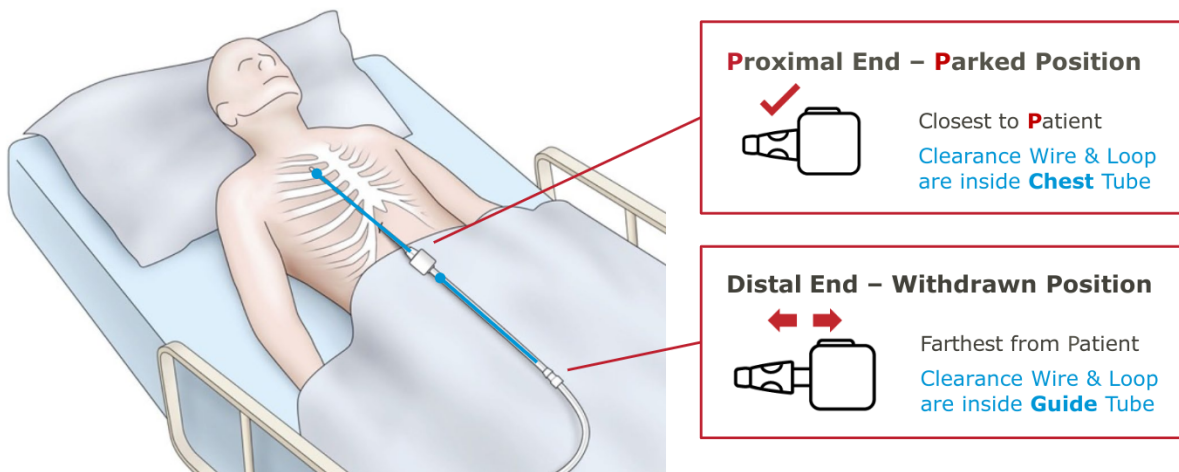
# PLEURAFLOW ICU TRAINING WORKSHEET

1. The PleuraFlow ACT System is comprised of a \_\_\_\_\_ and \_\_\_\_\_ .
2. The Guide Tube houses the Clearance Wire & Loop which is advanced and retracted within the Chest Tube. (True or False)
3. The purpose of the Clearance Wire & Loop is to minimize or prevent occlusions with clot within the Chest Tube. (True or False)
4. The Shuttle Guide connects with the Clearance Wire & Loop via a magnetic system which enables movement of the Clearance Wire & Loop on the inside of the Guide Tube and Chest Tube by moving the Shuttle Guide on the outside. (True or False)

11



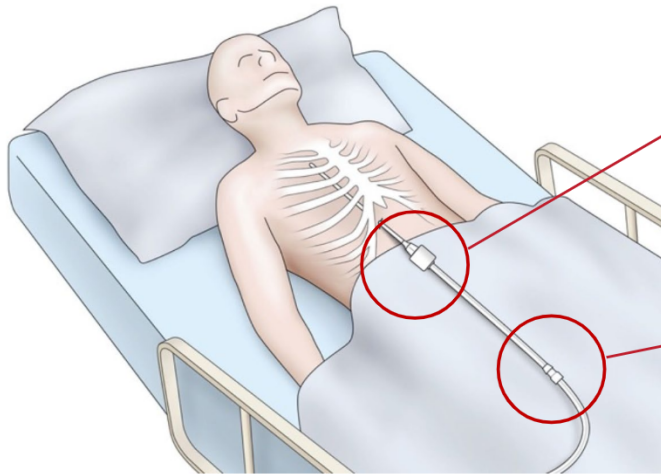
## PLEURAFLOW SYSTEM IN USE



12



# PLEURAFLOW SYSTEM IN USE

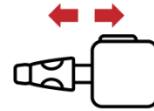


## Patient at Rest



Parked  
Position

## Patient in Motion



Fully  
Withdrawn  
Position

13



# ACTIVITY PLEURAFLOW ICU TRAINING WORKSHEET



## PLEURAFLOW ICU TRAINING WORKSHEET

5. The Proximal End is the end \_\_\_\_\_ to the patient.
6. The \_\_\_\_\_ is the end furthest from the patient.
7. When the Shuttle Guide is at the proximal end of Guide Tube (Clearance Wire & Loop are within the Chest Tube) it is in the \_\_\_\_\_ Position.
8. When the Shuttle Guide is at the distal end of Guide Tube (Clearance Wire & Loop are within the Guide Tube) it is in the \_\_\_\_\_ Position.

15



## PLEURAFLOW ICU TRAINING WORKSHEET

9. Complete the following with regards to Patient Ambulation:

When the Patient needs to be moved (from the bed, from a chair, walking), you should \_\_\_\_\_ the Shuttle Guide to retract the Clearance Wire & Loop into the Guide Tube.

When the Patient is at rest (in bed – supine/raised, or in a chair), the Shuttle Guide should be in the \_\_\_\_\_, with the Clearance Wire & Loop in the Chest Tube.

16





# SYSTEM FUNCTION & USE

17



PleuraFlow Active Clearance **Guide Tube**

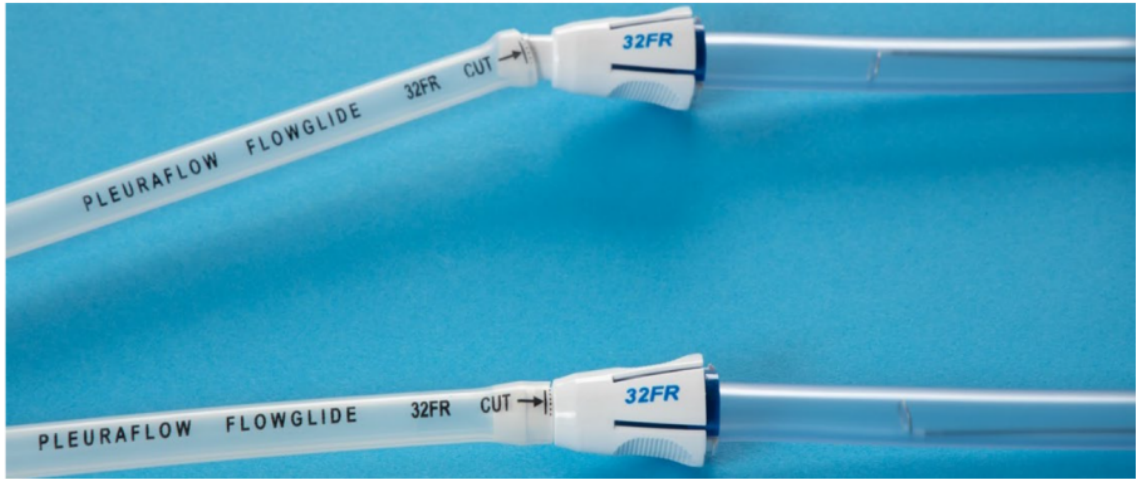


PleuraFlow **Chest Tube**



18





To assemble, connect Chest Tube to proximal end of Guide Tube.  
Ensure **straight & flush connection**.

19

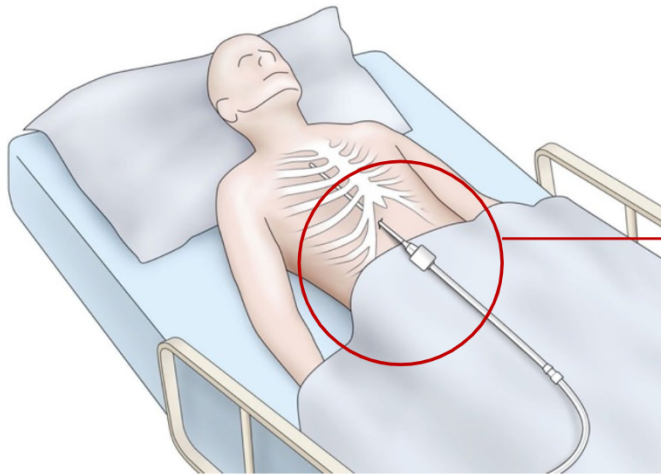


Move Clearance Wire & Loop into Parked Position.  
Ensure **a slow and steady motion**.

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# WHEN PATIENT ARRIVES IN THE ICU



**Parked Position**



if not in Parked position,  
contact OR and inquire

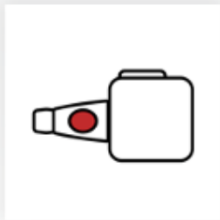
21



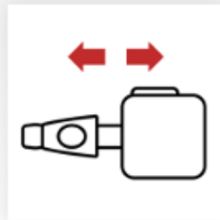
## S-W-A-P



**S**queeze



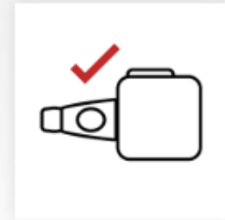
**W**ithdraw



**A**ssess



**P**ark



EXERCISE  
ACTUATE THE DEVICE



**Don't Wait.**

**Actuate.**



## ICU RECOMMENDED ACTUATION SCHEDULE

Phase	Timing	Frequency	Cycles/Hour
Early Bleeding	0-8 Hours	Every 15 Minutes*	4 per hour
Slowed Bleeding	8-24 Hours	Every 30 Minutes*	2 per hour
Serosanguineous Drainage	> 24 Hours	Every Hour*	1 per hour

\* This should be repeated as necessary to keep the tube patent and free of any occlusions.

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## ACTIVITY PLEURAFLOW ICU TRAINING WORKSHEET



## PLEURAFLOW ICU TRAINING WORKSHEET

10. Complete the words that correspond to each letter of an Actuation "S-W-A-P":

S \_\_\_\_\_

W \_\_\_\_\_

A \_\_\_\_\_

P \_\_\_\_\_

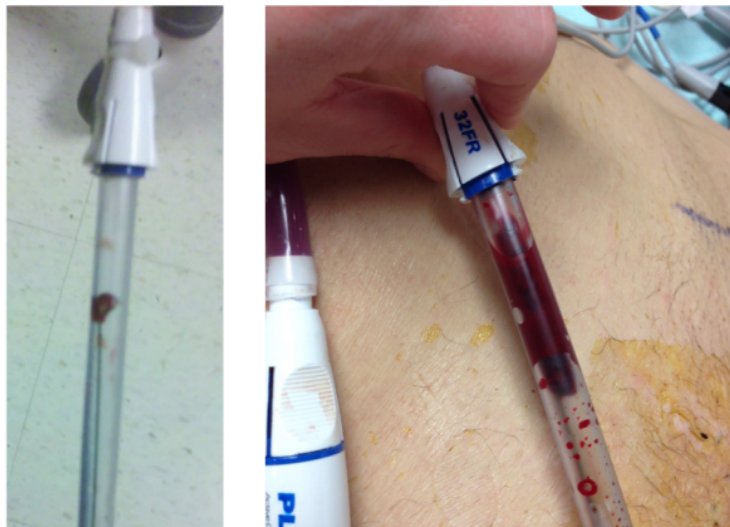
11. Complete the recommended Actuation Schedule:

Phase	Timing	Frequency
Early Bleeding	0-8 Hours	
Slowed Bleeding	8-24 Hours	Q30 min (2/hr)
Serosanguineous Drainage	> 24 Hours	Q60 min (1/hr)

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## CLOT CAN FORM ON CLEARANCE WIRE & LOOP



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# Dislodging Clot



**ACTIVITY**  
**PLEURAFLOW ICU**  
**TRAINING WORKSHEET**



# PLEURAFLOW ICU TRAINING WORKSHEET

12. Complete the following with regards to dislodging excessive clot:

- Clot may be seen adherent to the Clearance Wire & Loop during the process of clearing the Chest Tube. This is \_\_\_\_\_ and to be expected.
- If obstructive clot begins to accumulate, you should: \_\_\_\_\_ the Chest Tube or Guide Tube where the clot is accumulating, or you should \_\_\_\_\_ the Clearance Wire through the Chest Tube or Guide Tube while advancing the Shuttle Guide.

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## Magnetic Safety Release – Decoupling

32





# Magnetic Safety Release - Decoupling



## EXERCISE MAGNETIC SAFETY RELEASE - DECOUPLING



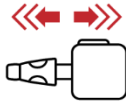
# MAGNETIC SAFETY RELEASE – DECOUPLING COMMON CAUSES IN THE ICU

1



**Inadequate actuation frequency**  
leading to clot formation

2



**Actuation motion done too quickly**  
go slow and steady

3



**Kinks, bends, or constriction**  
consider repositioning patient

35



## Magnet Strength Button



## ACTIVITY

# PLEURAFLOW ICU TRAINING WORKSHEET



## PLEURAFLOW ICU TRAINING WORKSHEET

13. Decoupling is the separation of the internal and external magnets, disabling movement of the Clearance Wire & Loop. This can occur due to kinks, bends or chest tube constriction. (True or False)
  
14. During Actuation, if additional magnetic strength is needed, depress and hold the shuttle guide magnet strength button. (True or False)



## ADDITIONAL CONSIDERATIONS

**SILICONE  
INTOLERANT**

Contraindicated for patients with a history of intolerance to implantable silicone materials



Do not place the Shuttle Guide within 15 cm (6 inches) of an implanted pulse generator such as pacemakers or implanted defibrillators



The PleuraFlow System is **NOT** MRI Compatible

**LATEX  
FREE**

The PleuraFlow System is Latex Free

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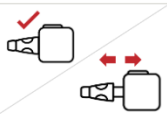




## Guide Tube Removal



For educational purposes only. Please follow your hospital's protocol.

## PLEURAFLOW SYSTEM – ICU KEY TAKEAWAYS

-  Don't Wait. Actuate. Q15 – Q30 – Q60
-  Parked position when the patient is at rest.  
Withdrawn when the patient needs to be moved.
-  Dislodge clots with a tap, flick, or squeeze.
-  The Shuttle Guide Magnet Strength Button provides additional magnetic coupling strength.

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