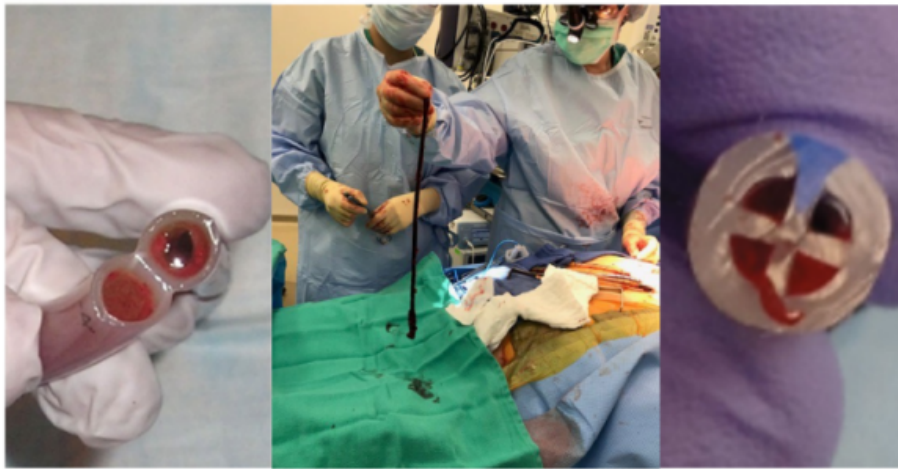


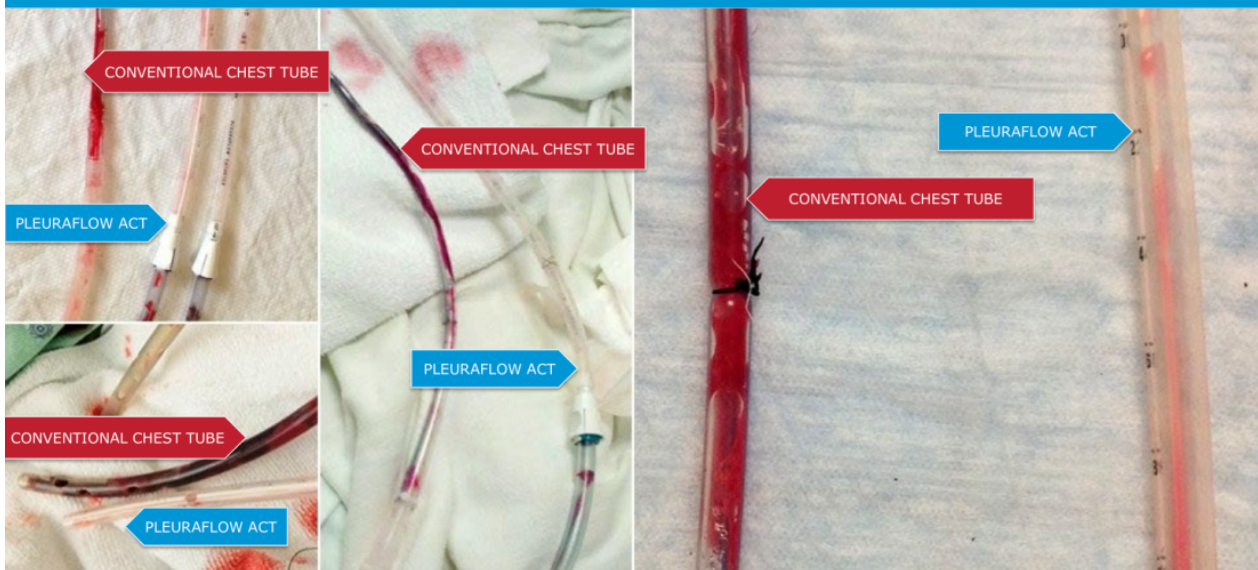
CHEST TUBES CLOGGING – A FAMILIAR PROBLEM



3



PLEURAFLOW ACT MAINTAINS CHEST TUBE PATENCY



ACTIVITY

PLEURAFLOW ICU TRAINING WORKSHEET



SYSTEM & COMPONENTS



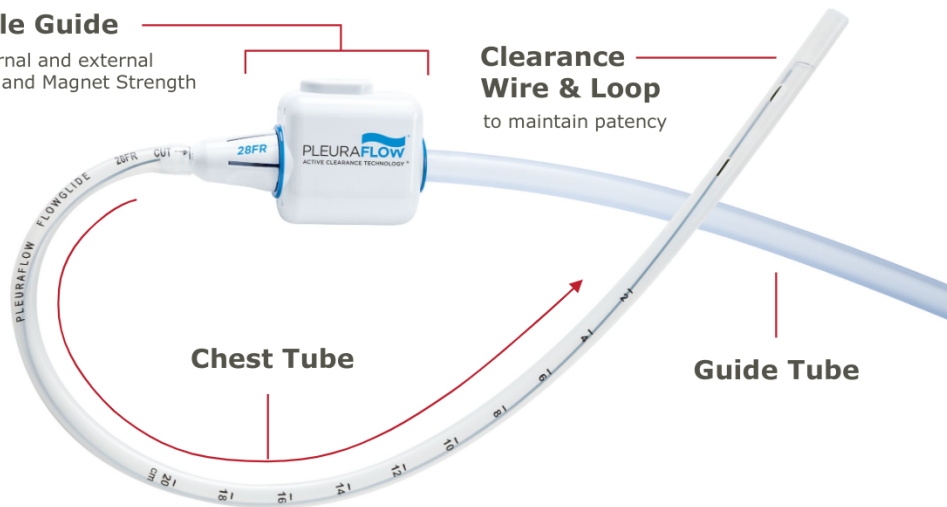
THE PLEURAFLOW ACTIVE CLEARANCE SYSTEM

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



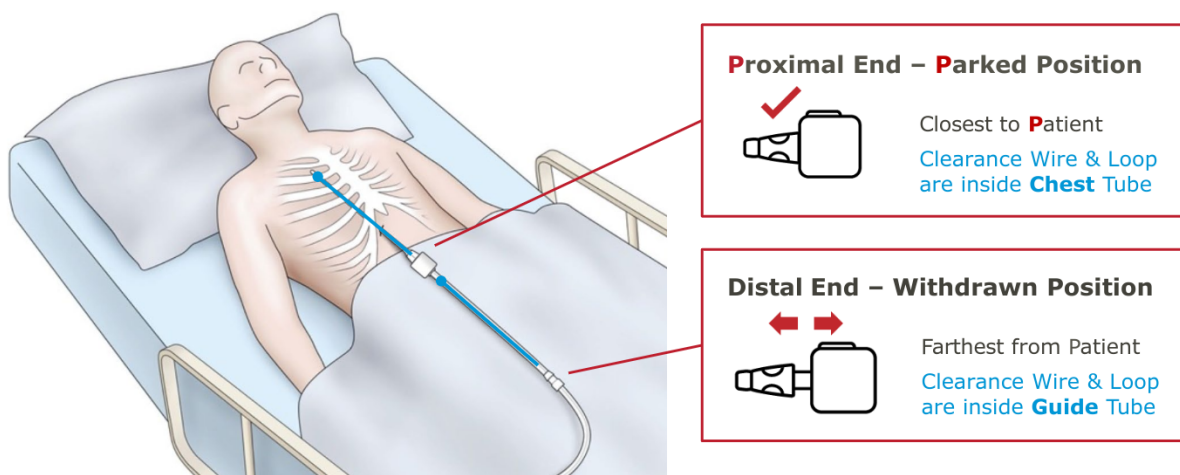
PLEURAFLOW ICU TRAINING WORKSHEET

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



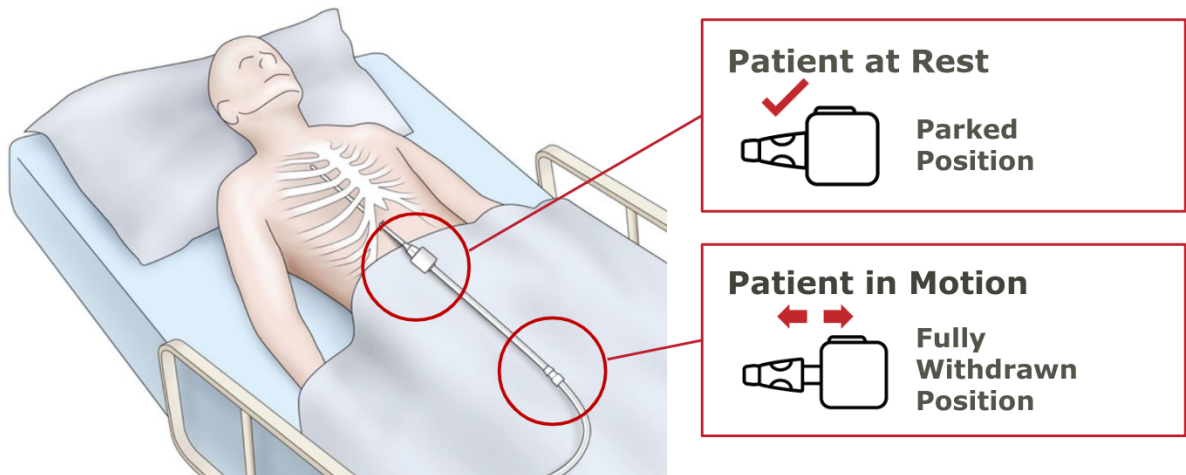
PLEURAFLOW SYSTEM IN USE



12



PLEURAFLOW SYSTEM IN USE



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**

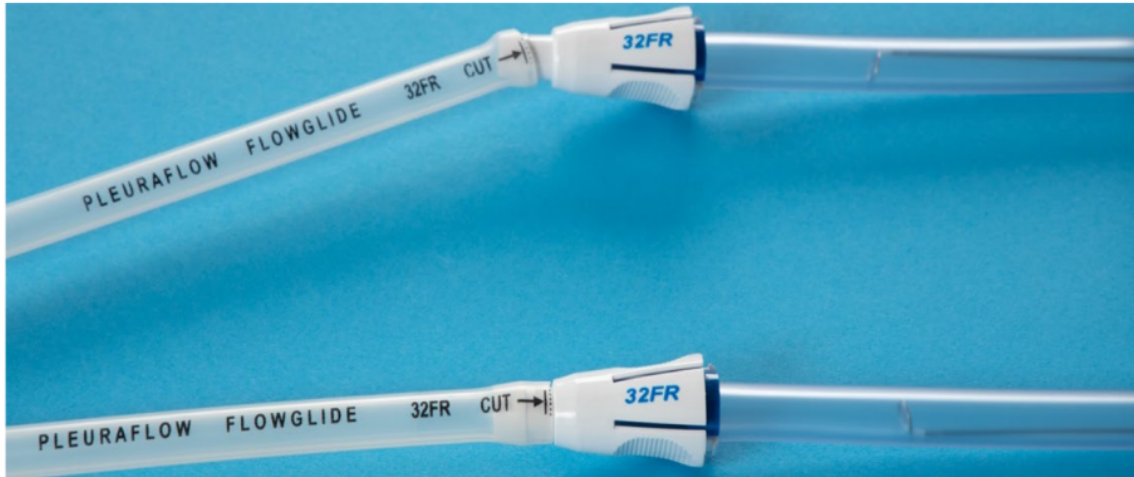


PleuraFlow **Chest Tube**



18





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



19

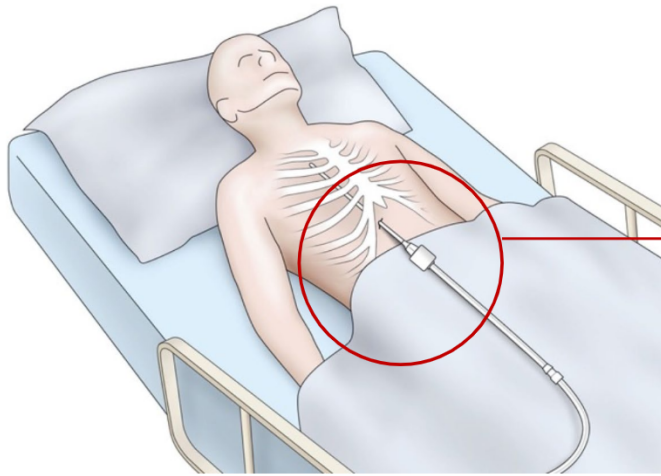


Move Clearance Wire & Loop into Parked Position.
Ensure **a slow and steady motion**.



20

WHEN PATIENT ARRIVES IN THE ICU



Parked Position



if not in Parked position,
contact OR and inquire

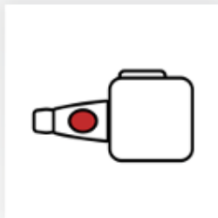
21



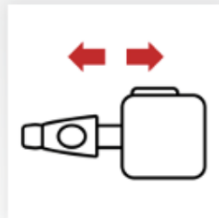
S-W-A-P



Squeeze



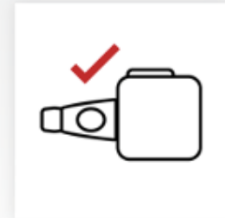
Withdraw



Assess



Park



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.

25



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 _____

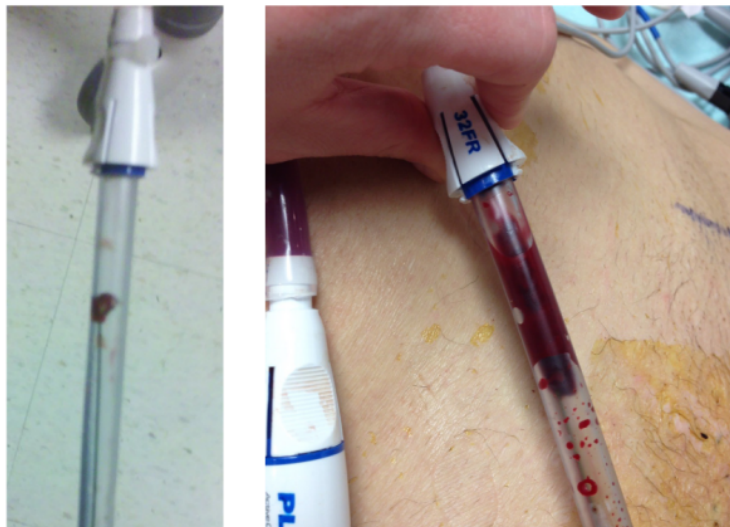
11. Complete the recommended Actuation Schedule:

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)

27



CLOT CAN FORM ON CLEARANCE WIRE & LOOP



28



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.

31



Magnetic Safety Release – Decoupling

32



Magnetic Safety Release - Decoupling



EXERCISE

MAGNETIC SAFETY RELEASE - DECOUPLING



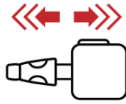
MAGNETIC SAFETY RELEASE – DECOUPLING COMMON CAUSES IN THE ICU

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


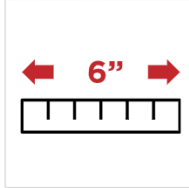



PLEURAFLOW ICU TRAINING WORKSHEET

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

	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

39


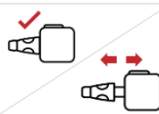




Guide Tube Removal



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.

41



42