



Has your patient developed an air leak?

A Quick Reference Guide

Teleflex®

Check for Tidaling*

- Assess for fluctuations or tidaling in the water seal or air leak meter chamber
- The water level should rise during inspiration (negative) and fall during expiration (positive) in a spontaneously breathing patient
- If the patient is on mechanical ventilation, the fluctuation pattern will be reversed
- If there is no tidaling (fluctuations in the water-seal chamber with respiratory effort), the tubing may be occluded by a clot or kink, or the lung may be fully re-expanded

Check for Air Leaks*

- Bubbles are seen in water-seal or air leak meter chamber
- Tidaling is absent or less obvious
- Determine the type of air leak

*NOTE: Temporarily disconnect suction to correctly assess for tidaling and air leak. You may need to wait a few minutes after taking the patient off suction to assess.

Determine the Type of Air Leak

Starting at the chest tube insertion site, momentarily clamp off the tubing with a boot (or padded) clamp. Does the air leak meter stop bubbling?

YES: The leak originates from inside the patient

NO: The leak originates somewhere in the system

1. Patient Air Leak

- Assess at frequent intervals** (i.e., every 4 hours) to evaluate progression or resolution
- Disconnect suction. Observe during natural respiration and instruct patient to cough. This forces expiration, during which air usually leaves the pleural space
- Assess and document degree of air leak using the Pleur-evac® Air Leak Meter: 1 (low) to 7 (high)
- Notify physician of new or increased air leak

**Frequency should be decided by local protocol or treating physician.

2. System Air Leak

- Continue the clamping process down the tubing at 8–12 in. (20–30 cm) intervals until you find the origin of the leak
- Tighten all connections
- Tape connection between patient drainage tube and thoracic catheter



For proper connection between patient drainage tube and thoracic catheter, refer to Association of Critical-Care Nurses procedure manual.¹

- If air leak is in the chest drainage system, replace the system

1. Weigand D. *AACN Procedures Manual for Critical Care*. 6th Edition. Elsevier. 2011.

Properly Read the Pleur-Evac® Air Leak Meter



- Observe bottom of air leak meter chamber
- Note how many columns are bubbling
- Document the highest column with bubbles. For example, air leak bubbling in column 7 equals air leak 7

Always refer to the Instructions for Use packaged with each unit.

For additional information, along with other educational materials, please contact Customer Support 877-886-3487.

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