

CENTESE

THORACIC POSTOPERATIVE MANAGEMENT

TOP 5 THORACIC DIGITAL DRAINAGE ANSWERS GUIDE

Objective Assessment,
Earlier Ambulation, Shorter Tube
Duration, and More: The Top 5
Questions About Thoraguard®
Intelligent Chest Tube
Management in Thoracic Surgery



Safeguard patient recovery.
CONTINUOUSLY.

This document answers the questions you may have about digital drainage with **Thoraguard** following thoracic surgery, from its objective monitoring to the ways it can financially benefit your organization.

96%

96% of Thoraguard users reported better display of clinically relevant information, including the rate of air leak compared to other chest drainage systems used in thoracic surgery.¹

1 How does digital chest tube management with Thoraguard differ from traditional systems?

Developed to optimize cardiothoracic recovery, Thoraguard is the newest and most advanced intelligent chest tube management system.

- Objective and continuous air leak measurement enables superior clinical decisions
- Integrated suction source regulates suction at the chest and facilitates rapid ambulation in any setting
- Real-time fluid measurement and display with hourly trends
- Decision assist functionality helps bring consistency to air leak assessment and chest tube management

STUDIES DEMONSTRATE THAT WHEN COMPARED TO LEGACY SYSTEMS, DIGITAL CHEST DRAINS RESULT IN:¹⁻³



**SHORTER
POSTOPERATIVE
LENGTH OF STAY**



**SHORTER CHEST
TUBE DURATION**



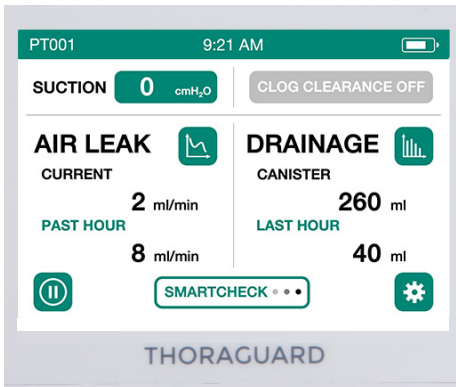
**REDUCED
COMPLICATIONS**



**LOWER COST
OF CARE**

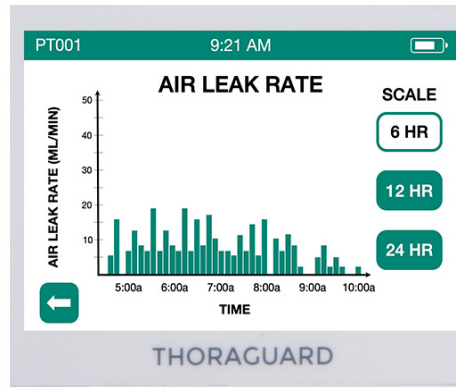
2 How does Thoraguard provide a more objective assessment of air leaks?

Thoraguard provides objective measurement and continuous, real-time monitoring for air leak and drainage trends



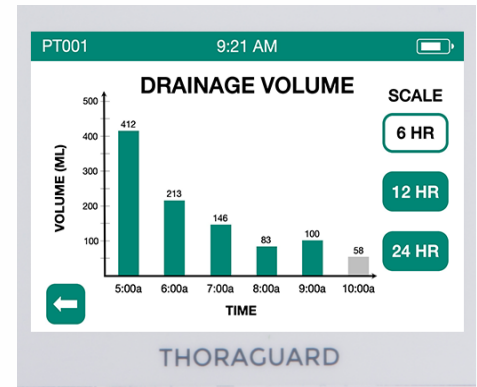
PRECISION AIR LEAK MANAGEMENT

- No rounding features
- True zero-leak calibration and setup



AIR LEAK TRENDS DATA

- Continuous trends monitoring with 6-, 12-, and 24-hour air leak data



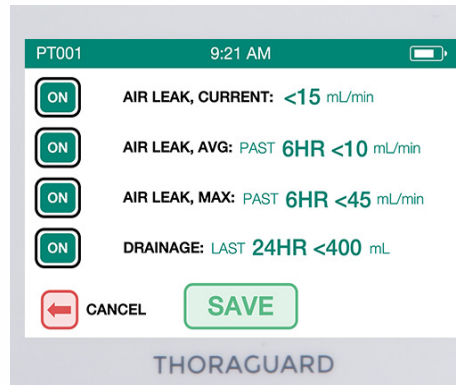
DRAINAGE VOLUME MONITORING

- Automatic chest tube clearance with drainage trend data



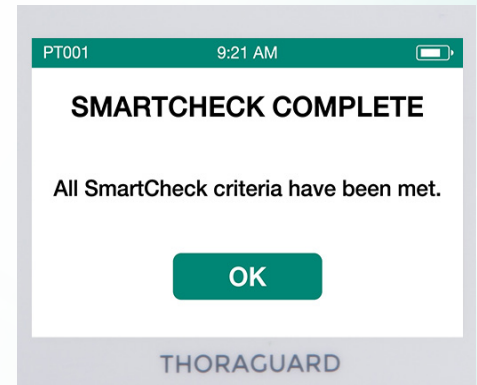
PLEURAL PRESSURE MONITORING

- Real-time intrapleural pressure assessment



SMARTCHECK™ DECISION ASSIST

- Real-time monitoring and alerts for current air leak rate, average air leak, air leak spikes, and drainage volume level
- User-defined chest tube assessment protocol ensures consistency and accuracy in assessment of fluid and air leak monitoring protocol



3 How does Thoraguard facilitate earlier ambulation?

Thoraguard's integrated suction source regulates suction to the chest and facilitates rapid ambulation in any setting.

Thoraguard allows users to set suction to their preferred suction level including:

- Continuous suction across a full range from 0–100 cmH₂O, including common levels, such as -10 cmH₂O, -20 cmH₂O, and -40 cmH₂O
- Physiologic pleural pressure at -6 – 8 cmH₂O
- 0 cmH₂O (0 applied suction) in line with conventional water seal settings

With battery-powered portability that allows the device to move with the patient, Thoraguard provides a quiet, convenient replacement to wall suction or other mobile suction devices and eliminates the need for additional tubing, which can pose a trip hazard and may constrain or prevent early ambulation.



4 What impact does Thoraguard have on the duration of chest tube placement?

Thoraguard has been shown to help reduce chest tube duration in centers where patients go from analog chest drains to Thoraguard.¹



Hospitals that switch from previous generations of digital drains to Thoraguard

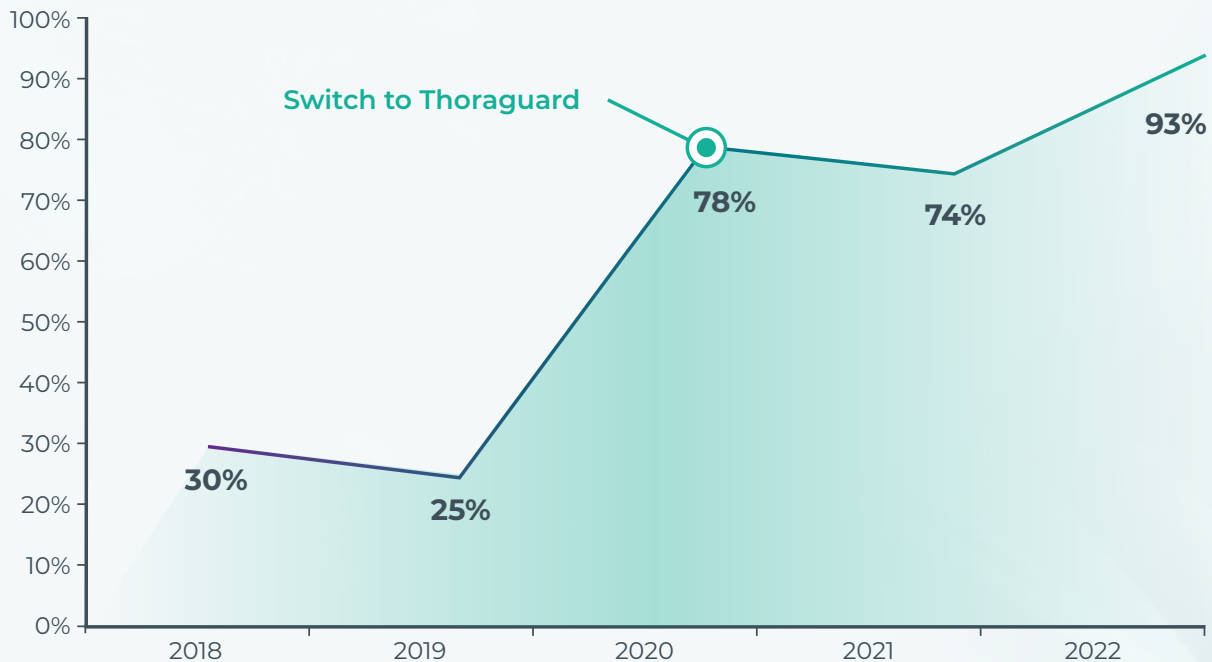
have been able to leverage Thoraguard's advanced functionality to further accelerate their chest tube removal times.²



Centers that embrace process improvement by utilizing continuous air leak monitoring to improve their chest tube removal times.

Safe, early removal of chest tubes results not only in improved patient comfort, but accelerated discharge for a shorter length of stay.

CHEST TUBES REMOVED WITHIN 12 HOURS FOLLOWING LUNG RESECTION



5 The investment in digital drainage seems too expensive and my hospital won't go for it. How does this reduce costs?

Thoraguard enables shorter chest tube duration, fewer complications, faster patient recovery, and reduces length of stay (LOS), which can lead to thousands of dollars in reduced LOS cost savings.³ Any up-front investment can frequently be recouped in the first 90 days of usage.


REDUCE CHEST
TUBE DURATION¹

> **-1 day**

REDUCE HOSPITAL
LENGTH OF STAY¹

> **-1 day**

By reducing LOS and the associated per-day costs, hospitals can save over **\$2,600 per in-patient day.**³



"I think there is a perception that digital drainage is too expensive, but the reality is that newer systems, like Thoraguard, have brought costs down considerably compared to legacy systems. When you factor in the potential for reducing LOS and cost of care, hospitals can't afford NOT to adopt digital drainage."

Michael Zervos, MD, Chief, Clinical Thoracic Surgery

Make the intelligent choice
to optimize your thoracic
surgery outcomes

THORAGUARD[®]

INTELLIGENT CHEST TUBE MANAGEMENT

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centese.com/thoracic-surgery



References:

1. Geraci TC, Sorensen A, James L, et al. Use of a novel digital drainage system after pulmonary resection. *J Thorac Dis.* 2022;14(9):3145-3153. doi:10.21037/jtd-22-574
2. McCormack AJ, El Zaeedi M, Geraci TC, Cerfolio RJ. The process and safety of removing chest tubes 4 to 12 hours after robotic pulmonary lobectomy and segmentectomy. *JTCVS Open.* 2023;16:909-915. doi:10.1016/j.xjon.2023.09.028
3. Patel C, Ruppert SD, Cao H, Fraser C, Laury T, Vaporciyan A. Use of a digital air leak detection device to decrease chest tube duration. *Critical Care Nurse.* 2023;43(6):11-21. doi:10.4037/ccn2023951

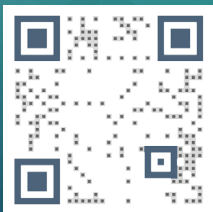
Indications for use: The Thoraguard System is indicated for use in aspiration and removal of surgical fluids, tissue, gases, bodily fluids or infectious materials. The Thoraguard System is indicated for all situations where chest drains are applied; especially for thoracic drainage in the pleural and mediastinal cavity in situations such as pneumothorax, after cardiac or thoracic surgery (post-operative), thorax injury, pleural effusion, pleural empyema or other related conditions. The Thoraguard System is intended for use on patients in appropriate care settings.

Caution: Federal (US) law restricts Thoraguard to sale by or on the order of a physician. Thoraguard is not cleared for use outside of the US.

BRING YOUR CHEST DRAINAGE
INTO THE MODERN ERA

THORAGUARD[®]

INTELLIGENT CHEST TUBE MANAGEMENT



Learn more about Thoraguard for
thoracic postoperative management at
centese.com/thoracic-surgery

Scan to learn more

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