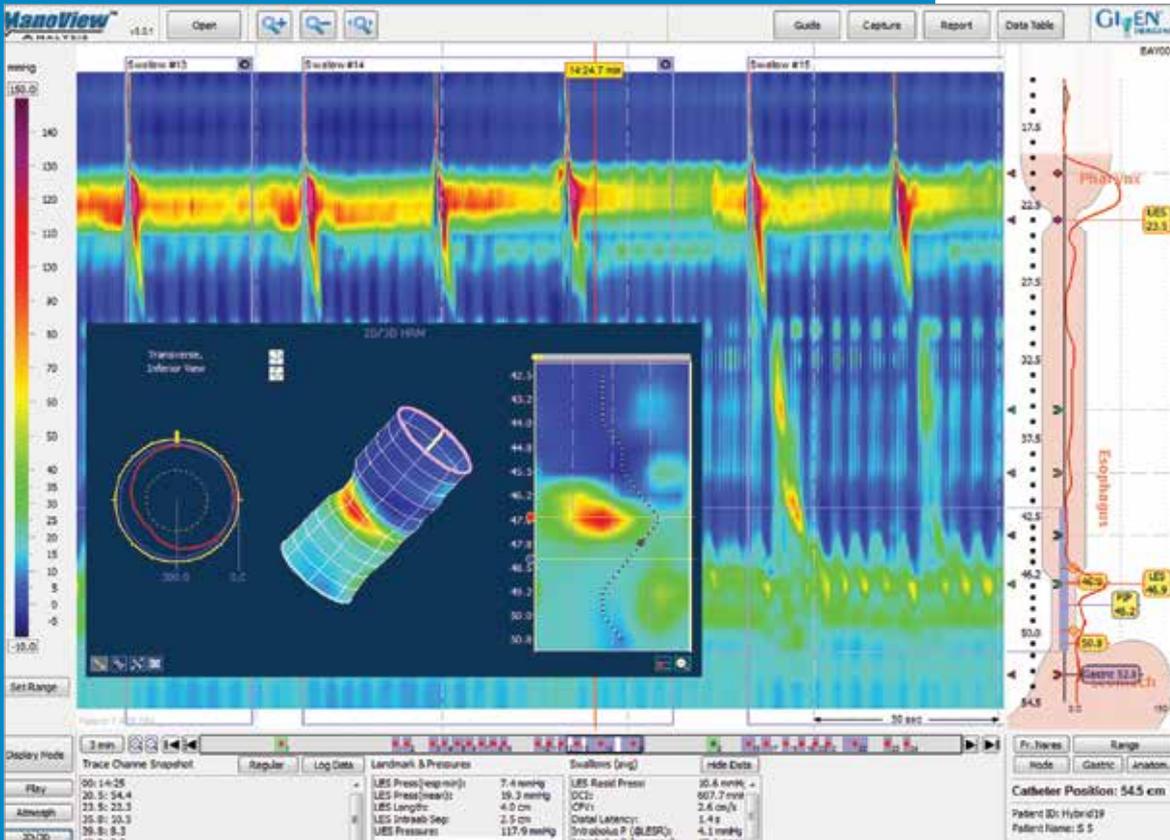


MANOSCAN™ ESO

HIGH RESOLUTION MANOMETRY



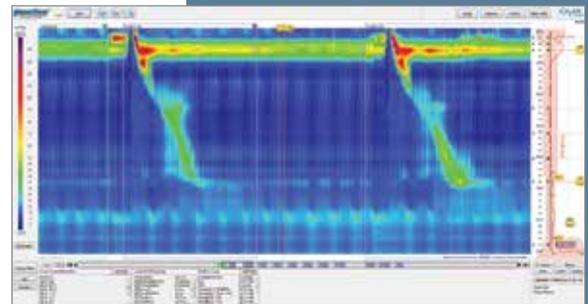


Normal Swallow with 3D Visualization

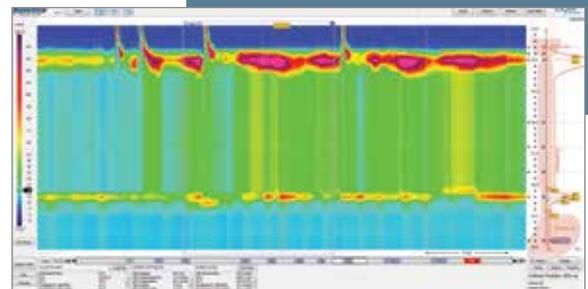
ManoScan™ ESO

ManoScan™ ESO provides a complete physiological mapping of the esophageal motor function, from the pharynx to the stomach, with a single catheter placement. This advanced diagnostic technology allows physicians to better diagnose conditions such as dysphagia, achalasia and hiatal hernias. The procedure is easier for the clinician to perform and is more patient-friendly than a conventional manometry.

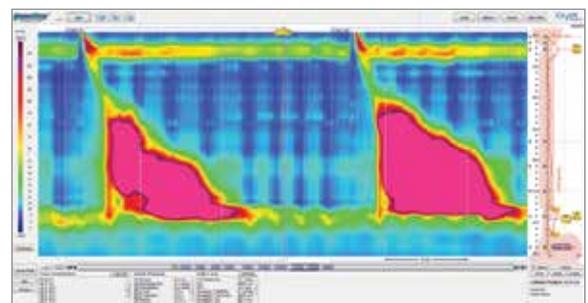
- The only system with automatic findings incorporated into the Chicago Classification algorithms
- HRM can precisely quantify the contractions of the esophagus and its sphincters²
- Most studies completed in 10 minutes or less and require minimal specialized training³
- HIS/HL7 compatible to support "meaningful use" requirement



Hiatal Hernia



Achalasia Type II

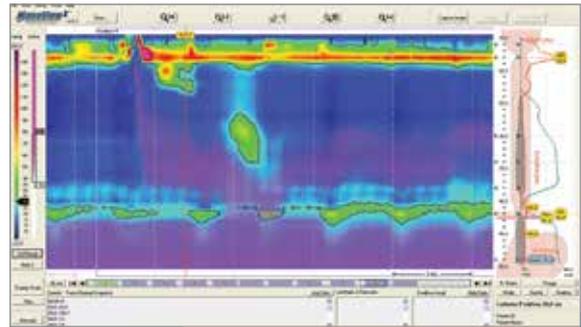


Achalasia Type III

ManoScan™ ESO Z

ManoScan™ ESO Z provides circumferential assessment of bolus movement as well as physiological mapping of the esophageal motor function, from the pharynx to the stomach, with a single catheter placement.

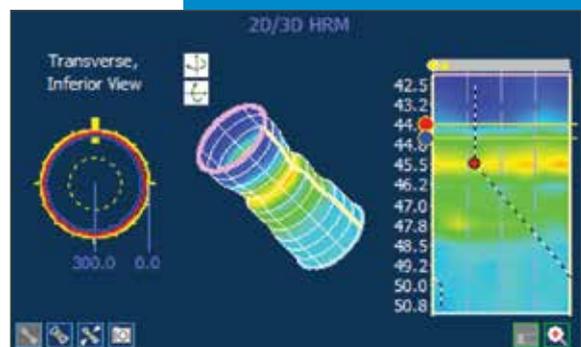
- The incorporation of impedance measurements with HRM maps improves the device's ability to predict the success or failure of bolus movements through the esophagus
- This technology aids physicians in better understanding the causes of dysmotility, such as achalasia, dysphagia and reflux



Bolus Escape

ManoScan™ ESO 3D

Allows 3D visualization of the esophagogastric junction (EGJ), including radial EGJ pressures, length measurement and symmetry. The ManoScan™ ESO 3D system provides information useful for the assessment of EGJ physiology.

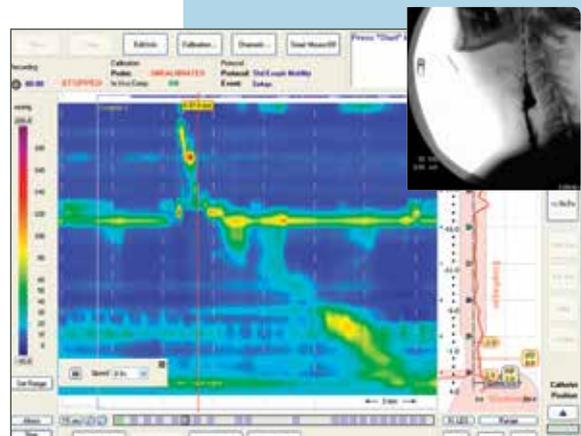


Esophageal 3D HRM

ManoScan™ V

The ManoScan™ video module works in conjunction with high resolution manometry to allow for synchronized, simultaneous video and pressure collection, providing a previously unseen diagnostic picture. When used with the ManoScan™ ESO, this module pairs pressure mapping with real-time video visualization of swallow coordination.

- Fluoroscopic studies can provide complementary information to HRM in order to confirm diagnosis and treatment
- Provides tremendous potential for pharyngeal biofeedback retraining in stroke victims and cancer patients



Pharyngeal Manometry with Fluoroscopy

Full Featured Workstation

- Portable trolley system
- LCD flat panel touchscreen with articulating arm
- Modular data acquisition controller
- Windows®-based operating system
- LAN connection and WiFi enabled
- Integrated catheter auto-calibration system
- Large lockable wheels
- Patient isolation transformer
- High speed quality printer

ManoView™ Software

ManoView™ software provides an intuitive suite of manometry study tools, enabling physicians to effectively identify motility disorders.

- Advanced tools yield precise measurements and comprehensive data analysis
- Anatomical profile display includes graphical pointers to identify landmarks including LES, UES and PIP
- eSleeve function instantly measures and ensures sphincter barrier pressures are correctly recorded, despite movement of the LES/EGJ during swallowing
- High resolution and conventional displays provide versatile and complete motility visualization
- ManoView™ software can be installed on any Windows®-based computer, enabling clinicians to review studies remotely



“ManoScan™ significantly enhances esophageal diagnostics, simplifies interpretation, improves patient acceptance and should lead to greater utilization in the surgical practice.”

Jeffery H. Peters, MD
Chairman, Department of Surgery
University of Rochester, New York

ManoScan™ HRM Catheters

ManoScan™ HRM catheters incorporate the very latest advancements in sensing technology

- With 36 channels providing 432 points of measurement, the ManoScan™ ESO catheter provides the highest resolution of any available manometry catheter
- All sensors are circumferential
- 36 pressure channels spaced 1 cm apart create a pressure image from pharynx to stomach
- 18 impedance channels in ManoScan™ ESO Z catheters display bolus transition from pharynx to stomach
- 96 3D channels (in ManoScan™ ESO 3D catheters) provide 3-dimensional EGJ visualization
- Small diameter (2.7 mm) catheters available

ManoScan™ ESO Z Catheter

ManoShield™ Disposable Catheter Sheath

Our single-use sanitary catheter sheath is intended to prevent gross contamination of the catheter and reduce cleaning efforts

- Serves as a disposable protective outer cover that should be removed and discarded immediately after procedure
- Reduces contamination exposure to staff and equipment post-procedure
- Improves the patient experience, providing a low-friction outer surface to aid with esophageal catheter intubation and increased patient comfort
- Meets CDC recommendations to use a probe cover or condom to reduce the level of microbial contamination when one is available⁵



ManoShield™ Sheath & Accessories

References

¹ Bansal A, Kahrilas PJ. Has high-resolution manometry changed the approach to esophageal motility disorders? *Curr Opin Gastroenterol.* 2010;26(4):344-351.

² Kahrilas PJ. Esophageal motor disorders in terms of high-resolution esophageal pressure topography: what has changed? *Am J Gastroenterol.* 2010;105(5):981-987.

³ Kwiatek MA, Pandolfino JE, Kahrilas PJ. 3D-high resolution manometry of the esophagogastric junction. *Neurogastro Motil.* 2011; 23(11):e461-469.

⁴ Rutala WA, Weber DJ and the Healthcare Infection Control Practices Advisory Committee (HICPAC). *Guideline for Disinfection and Sterilization in Healthcare Facilities.* 2008 Centers for Disease Control (CDC).