

## MANTIS™ CLIP

Colorectal cancer is the third most common cancer in the United States and the second leading cause of cancer-related death.<sup>1</sup> Colonoscopy with polypectomy has been estimated to reduce mortality from colorectal cancer by 53% through the detection and removal of precancerous colorectal polyps. With the growing number of advanced endoscopic resection techniques, select **malignant polyps can now be managed endoscopically** rather than surgically. Compared with surgery, endoscopic resection of malignant colorectal polyps is more cost effective and associated with lower morbidity.<sup>1</sup>

Among the adverse events of endoscopic resection of colorectal polyps there are **bleedings**. Risk factors for bleeding include larger polyp size, pedunculated lesions with thick stalks, polyp location in the right hemi-colon, use of anticoagulation, and comorbid conditions such as cardio vascular or kidney disease.<sup>1</sup>

Clipping appeared to **reduce bleeding** after removal of large and proximal lesions.<sup>7</sup>

Newer devices for defect closure include clips such as the **MANTIS™ clip**<sup>1</sup>

### ANCHOR, MOBILIZE AND CLOSE

Placement of this clip follows three sequential steps: **anchor, mobilize and close (AMC)**. Using the "AMC approach", the anchor pronged clip is opened and closed at the margin of the defect. With the closed clip, the edge is then mobilized to approximate the contralateral side. The clip is then reopened and closed to bring together both edges prior to deployment<sup>2</sup>

### ACHIEVING EFFECTIVE CLOSURE

The Mantis™ clip is a variation of conventional through-the-scope (TTS) clips designed for closure of large defects.<sup>2</sup>

This clip has sharp angulated prongs at the end of the arms meant to anchor onto tissue, limit the slippage, and facilitate a secure grasp on defect margins before approximation. The prongs at the end of the clip are designed for an **effective closure**.<sup>2</sup>

### PHYSICIAN CONTROLLED 1:1 ROTATION

The device enables faster, more accurate placement through 1 to 1 physician controlled rotation<sup>3</sup>, has a working length of 235 cm, and can be inserted through a 2.8 mm working channel. The ability to rotate the clip permits precise placement.<sup>2</sup>

### TRUGRIP ANCHOR PRONGS

The proprietary TruGrip™ anchor prongs, coupled with a physician-controlled rotation feature, are designed to deliver unique tissue span and manipulation capabilities.<sup>5,6</sup> This allows users to capture and connect healthy tissue and provide precision placement and limited slippage during mobilization, for a potentially workaround-free closing experience<sup>5,6</sup>

### EASE OF USE

For physicians who are used to conventional clipping, MANTIS is designed to offer a familiar experience with repositionability, staged deployment, tactile feedback, and physician-controlled rotation. MANTIS is designed to feel similar to conventional clips for apposition and closure functionality.<sup>3,5,6</sup>

### THIRD SPACE ENDOSCOPY

**Third-space endoscopy (TSE)** is a subspecialty in interventional endoscopy that exploits the submucosa as a working space for the management of various gastrointestinal diseases. Over recent years, TSE has emerged as a viable alternative to surgery for the treatment of various conditions.<sup>2</sup>



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The concept of TSE is an extension of the principles of endoscopic submucosal dissection (ESD), in which dissection under direct visualization is accomplished by fluid injection and expansion of the virtual submucosal space <sup>2</sup>

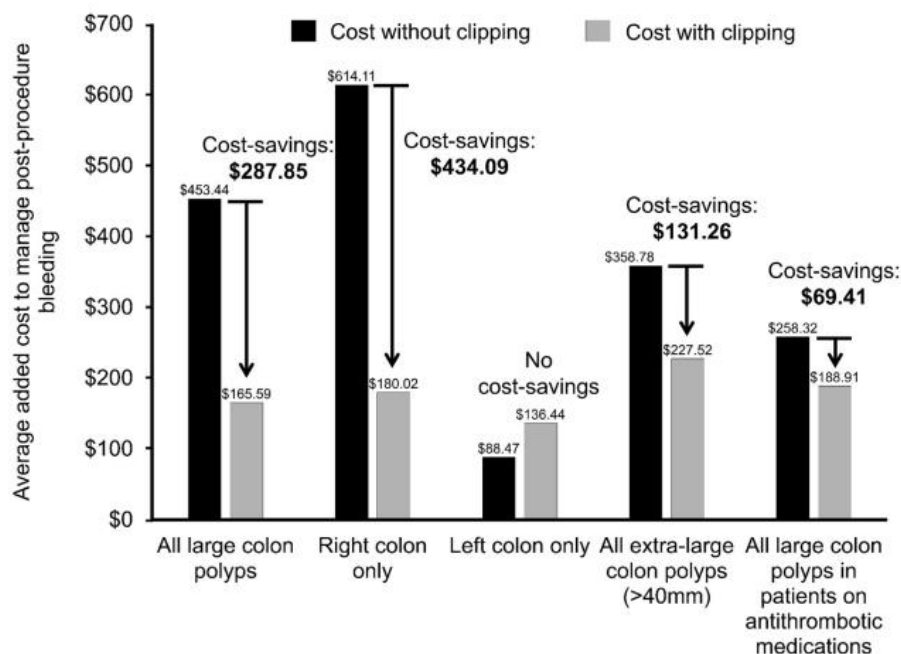
**Mantis has contributed to the exponential growth in the use of TSE** as a new device aimed to improve the efficacy of these procedures <sup>2</sup>

### COST EFFECTIVENESS

A **decision-analytic model** was constructed to predict health care costs based on whether routine prophylactic clip closure was attempted to close a submucosal defect after complete endoscopic resection of a large (20-mm) colon polyp with one of several programmatic clinical strategies.

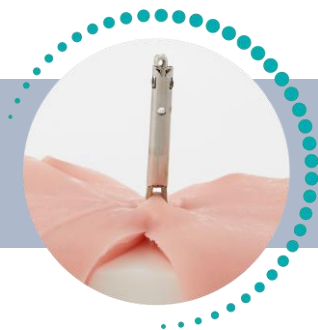
In particular a **budget impact analysis** was performed in order to evaluate the expected cost savings to payers and the like lihood of cost savings to gastroenterology practices by incorporating prophylactic clip closure to reduce the risk of postprocedure bleeding in managing large colon polyps, using Medicare cost data and CMS billing codes to outline the general model.

Clip closure after EMR of a large right-sided polyp resulted in a **70.7% risk reduction in postpolypectomy bleeding** compared with no clip closure. **Cost savings with clip closure were \$434.09** for a **large right sided polyp** and **\$287.85** in all **large colon polyps**. <sup>4</sup>



However, performance of high-quality polypectomy varies widely among endoscopists based on many factors, from exposure during fellowship to continuing education once in practice. <sup>3</sup>

The decision to use a particular device depends on many factors, such as endoscopist and nursing comfort, equipment availability, performance limitations, and anatomic considerations such as the location of the complication. <sup>3</sup>



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### BIBLIOGRAPHY

- 1 Natalie Wilson et al, Endoscopic Recognition and Resection of Malignant Colorectal Polyps, Techniques and Innovations in Gastrointestinal Endoscopy, 2023, 385-398
- 2 Dennis Yang et al, Novel devices for third-space endoscopy procedures, Digestive endoscopy, 2024, 521 – 532
- 3 Wang TJ et al, Choosing the right through-the-scope clip: a rigorous comparison of rotatability, whip, open/close precision, and closure strength (with videos). Gastrointestinal Endoscopy. 2019, 77-86
- 4 Eric D. Shah et al, Routine Prophylactic Clip Closure Is Cost Saving After Endoscopic Resection of Large Colon Polyps in a Medicare Population, Gastroenterology, 2020, 1164 – 1166
- 5 Report of MANTIS Defect Closure Study
- 6 DF DV Report MANTIS
- 7 Marco Spadaccini et al, Prophylactic Clipping After Colorectal Endoscopic Resection Prevents Bleeding of Large, Proximal Polyps: Meta-analysis of Randomized Trial, Gastroenterology, 2020, 148 – 158

**CAUTION:** The law restricts these devices to sale by or in order of a physician. Indications, contraindications, warnings, and instructions for use can be found at [www.IFU-BSCI.com](http://www.IFU-BSCI.com). Products shown for INFORMATION purposes only and may not be approved or for sale in certain countries. This material is not intended for use in France. 2024 Copyright © Boston Scientific Corporation or its affiliates. All rights reserved.

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