

ViSiGi 3D™ vs. Bougie Dilator for Sleeve Gastrectomy Calibration

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ViSiGi 3D vs Bougie Dilator for Sleeve Gastrectomy Calibration

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Introduction

Bariatric surgical procedures are rapidly becoming some of the most commonly performed in the field of general surgery. The laparoscopic sleeve gastrectomy is gaining popularity as an effective weight loss tool. Sleeve gastrectomy involves resection of 70% of the stomach leaving a narrow tube referred to as a “sleeve” (Fig. 1). The sleeve gastrectomy helps patients lose weight in two ways: the first being restricting volume of oral intake and the second being reduction in the “hunger hormone” ghrelin by removal of the gastric fundus where the hormone is produced. The calibration of the sleeve has traditionally been accomplished with the use of a weighted bougie dilator (Fig. 2). The surgeon then staples along the edge of the dilator to create the sleeve. A new alternative for calibration is the ViSiGi 3D suction calibration system (Fig. 3).

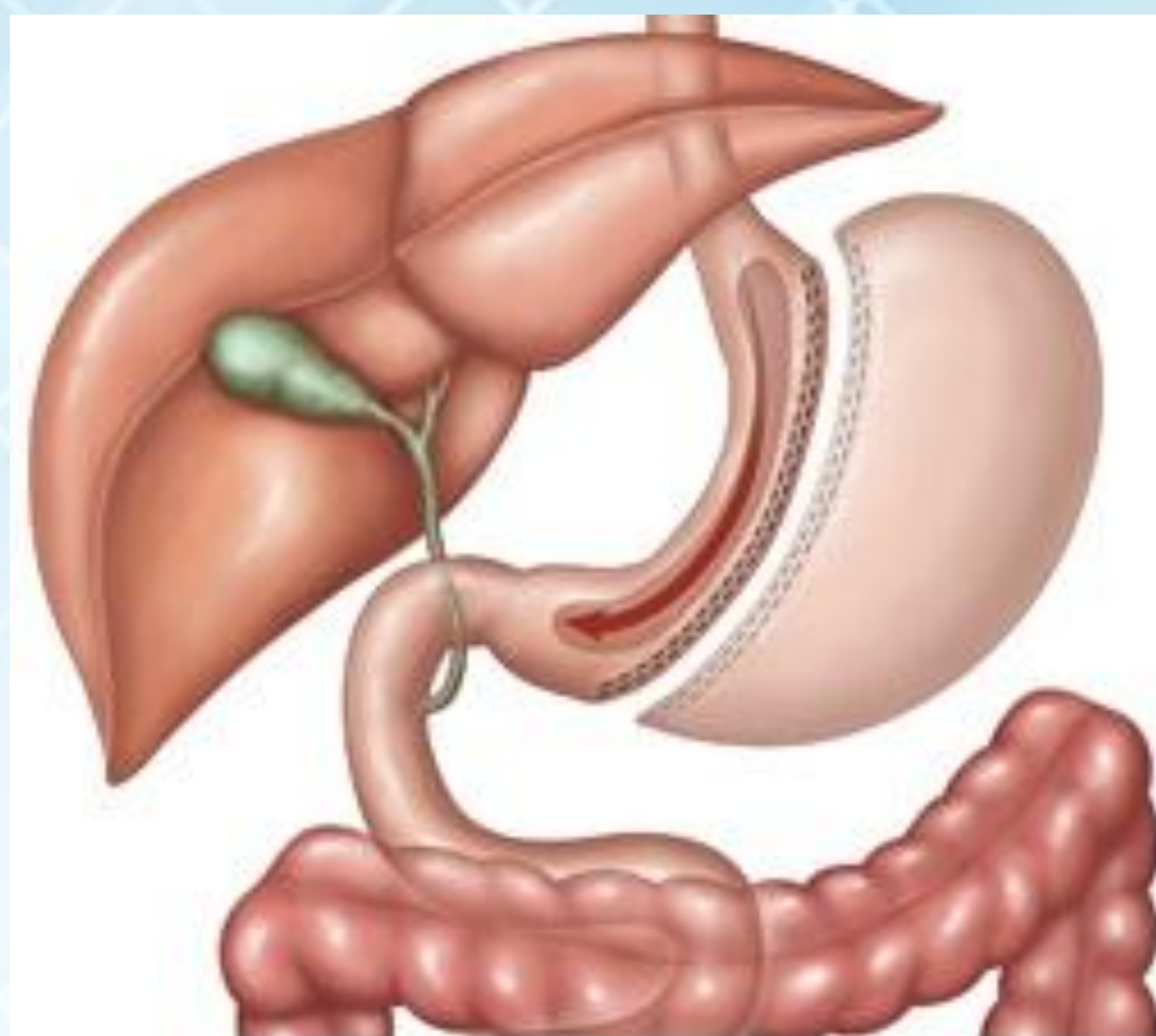


Fig 1. Diagram of sleeve gastrectomy

Methods

This project was an IRB approved retrospective chart review that allowed us to collect various data points on patients to compare and contrast the effectiveness of the two methods of calibration. The first cohort consisted of the first 100 patients that had a sleeve gastrectomy at LVHN using the ViSiGi 3D suction calibration device. The second cohort of patients consisted of the most recent 100 sleeve gastrectomies in which a standard bougie was used. The data points were collected using the EHMR system and the were put into a database format using Microsoft Excel. In addition to creating a comparative database for the two calibration methods a general bariatric database was also created that will record 113 different data points on all future bariatric procedures and will be used for continuous quality improvement.

Figures

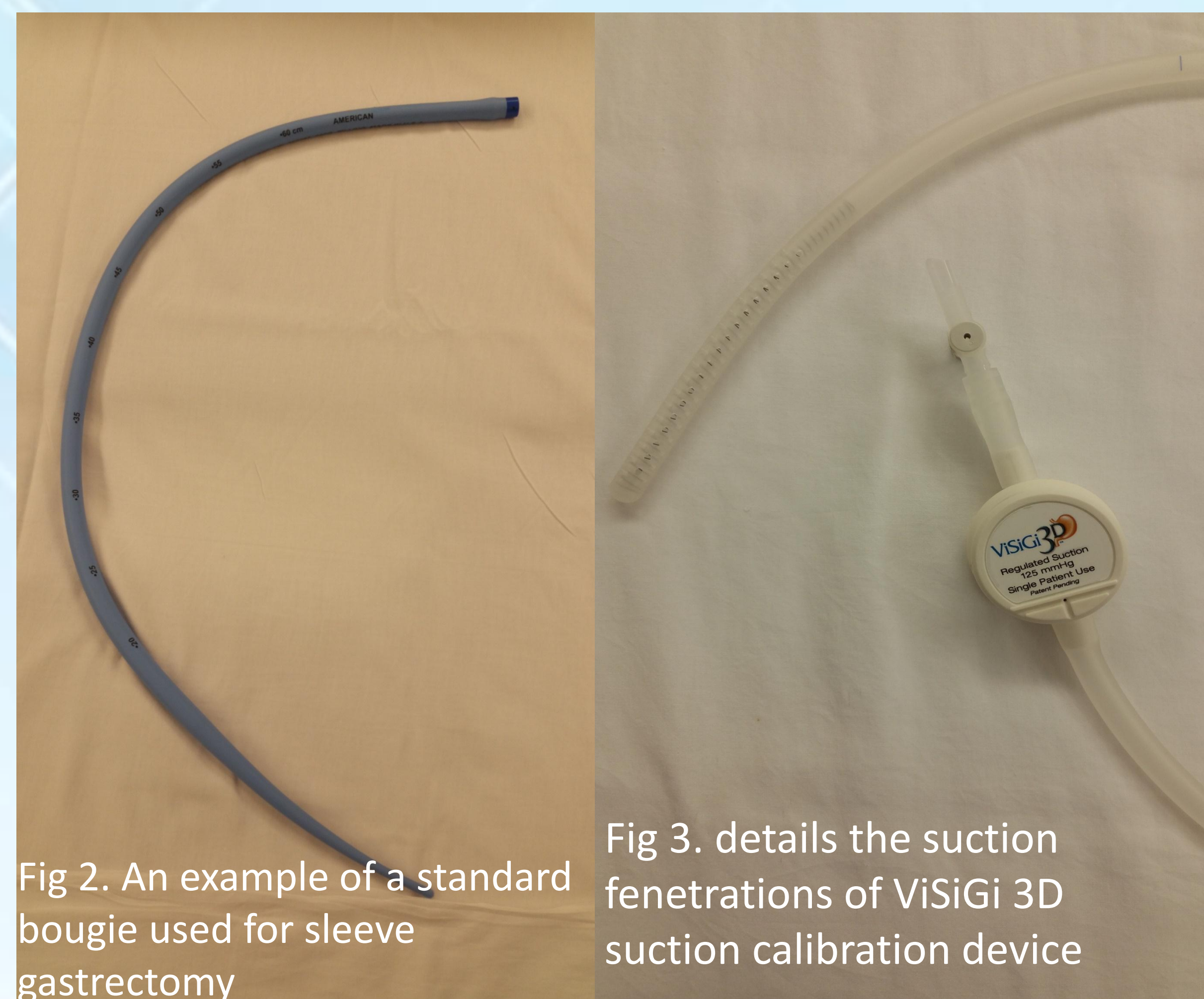


Fig 2. An example of a standard bougie used for sleeve gastrectomy

Fig 3. details the suction fenestrations of ViSiGi 3D suction calibration device

Results

IRB approval for statistical analysis was not obtained in time to analyze the data collected. Therefore there are no results to date.

Discussion

There are several early impressions that the surgeons have made since using the ViSiGi 3D suction calibration device that we hope to see verified by statistical analysis and these are:

1. Decreased staple load fires
2. Decreased length of procedure
3. Decrease in overall length of stay
4. Decreased 30 day readmissions
5. All of the above should decrease overall cost more than the additional cost of the ViSiGi 3D

If statistical analysis confirms one or more of the above, the ViSiGi 3D may become the new standard of care at LVHN.

Conclusion

This project is a promising start to a strong quality improvement project using the ViSiGi 3D suction calibration device as well as laying the ground work for the creation of an all-encompassing bariatric database to be used for continuous quality improvement.

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