Minimally Invasive Surgery (MIS) Remains at the Intersection of Quality and Care
The value of MIS is clear—surgical patients spend fewer days in the hospital, and hospitals benefit from lower overall expenditures, admission rates and drug expenditures as compared to open surgery. The Medtronic Guided Training program connects surgeons with expert faculty and training institutions, when training has been identified as a barrier to MIS adoption, to provide thorough training including mentorship, direct observation, assisting, and its eventual performance.

The Medtronic Health Systems Advantage team of industry professionals works with health systems to deliver turnkey solutions that enable sustained change management—both inside and outside of the operating room. Our Guided Training Health Systems Advantage team works closely with clinicians and providers to safely and effectively develop MIS capabilities within the health system—translating to improved clinical outcomes, market share and revenue.

Medtronic Guided Training Approach and Program Structure
Guided training is a surgical training approach to facilitate the safe development of a skill set which cannot be performed unaided. A guided training model is believed to be among the most effective methods for transferring safe MIS skills from trainer to trainee.

Guided Training Process
- Educational Needs Assessment
- Trainee Identification/Selection
- Pathway Development
- Guided Training
- Independent Cases
- Adoption Data Collection/Analysis

The Guided Training Team delivers:
- Surgeon training expertise
- Dedicated procedural focus
- Instructional design
- Established KOL relationships
- Proven adoption performance

FY14 Open to MIS Course Performance Data

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Total % Not Responding</th>
<th>Total % Not Adopting</th>
<th>Total % Adopting</th>
<th>Average Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorectal</td>
<td>18.94%</td>
<td>90%</td>
<td>84%</td>
<td>145</td>
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<tr>
<td>Gynecology</td>
<td>96.67%</td>
<td>90%</td>
<td>18%</td>
<td>29.65</td>
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<tr>
<td>Hernia-Open to MIS Inguinal</td>
<td>49%</td>
<td>90%</td>
<td>18%</td>
<td>28.22</td>
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<tr>
<td>Hernia-Open to MIS Ventral</td>
<td>20%</td>
<td>83%</td>
<td>83%</td>
<td>41.70</td>
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<tr>
<td>Liver</td>
<td>6%</td>
<td>14%</td>
<td>21%</td>
<td>64%</td>
</tr>
<tr>
<td>Thoracic</td>
<td>6%</td>
<td>14%</td>
<td>21%</td>
<td>6%</td>
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</table>
## Guided Training Overview

<table>
<thead>
<tr>
<th>Course Characteristics</th>
<th>Preceptorship</th>
<th>Proctorship</th>
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<tbody>
<tr>
<td></td>
<td>Scrubbed</td>
<td>Un-Scrubbed</td>
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<tr>
<td>Faculty/Trainee Ratio</td>
<td>1:1 – 1:5</td>
<td>1:1</td>
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<tr>
<td>Trainee Experience</td>
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<td>HIGHER</td>
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<tr>
<td>Trainee Role</td>
<td>OBSERVE</td>
<td>PERFORM</td>
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<tr>
<td>Faculty Role</td>
<td>PERFORM</td>
<td>ASSIST</td>
</tr>
</tbody>
</table>

## Guided Training Format

### One-to-One vs. Hub & Spoke

**Single Site**
- **Proctor**
- **Trainee**
- **Independent Cases**

**Single Site or Network**
- **Proctor**
- **Trainee**
- **Independent Cases**

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**Transform challenges into opportunities. Contact Medtronic Health Systems Advantage.**

The Medtronic Health Systems Advantage team delivers comprehensive solutions to identify and address a broad set of clinical, operational and economic matters that translate to improved quality of outcomes and increased value for providers, payers and employers.

Backed by deep clinical and surgical expertise and an understanding of the hospital environment, the Medtronic Health Systems Advantage team ensures credible and accurate diagnosis and implementation for sustained change management. The team is committed to collaborating with customers for long term, tangible benefits and shared results.

Medtronic is the global leader in medical technology - alleviating pain, restoring health, and extending life for millions of people around the world.
References

1. Benjamin P. Crawshaw, MD; Hung-Lun Chien, MPH; Knut M. Augestad, MD, PhD; Conor P. Delaney, MD, PhD. Effect of Laparoscopic Surgery on Health Care Utilization and Costs in Patients Who Undergo Colectomy. JAMA Surg. 2015; March 25 (online)


