

Realizing the Value of Minimally Invasive Surgery

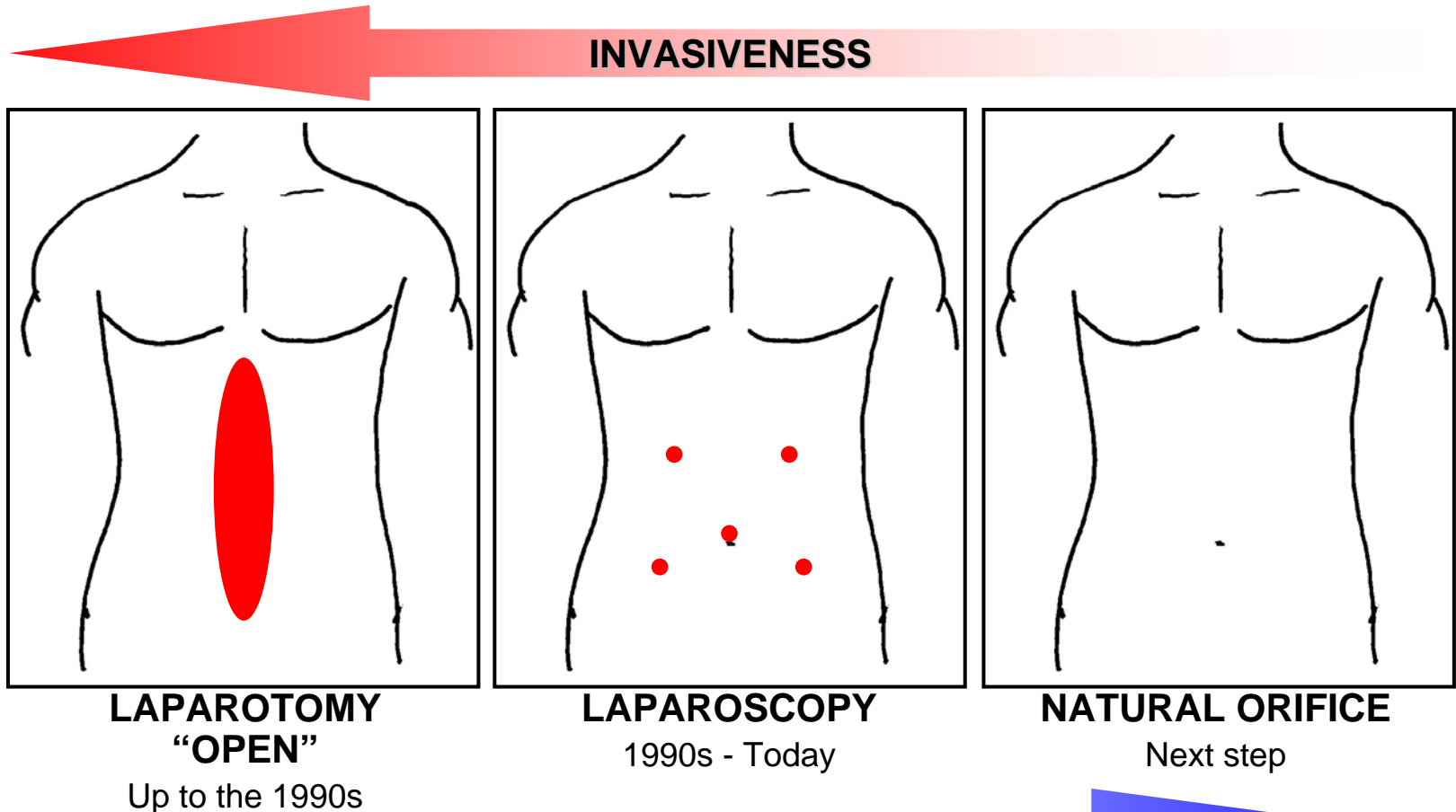
Ethicon Endo-Surgery
a Johnson & Johnson Company

October 2, 2007

Minimally
Invasive
Procedures

Feel Better
Sooner

The surgical standard practice has been evolving to become less invasive



Minimally Invasive Procedures
Feel Better Sooner

Overview:

Minimally Invasive Surgery

Minimally invasive procedures have proven to be as effective as conventional surgery, with demonstrated:

- Shorter length of stay (LOS) in the hospital
- Less overall complications
- Quicker recovery / Quicker return to work and to normal activities
- Less scarring
- Less pain
- Reduced infection rates

Overview:

Minimally Invasive Surgery

The impact from a cost perspective is obvious:

- **Direct cost:**
 - Shorter LOS and reduced hospital resources
 - Less post procedure pain = less Rx. and physical therapy
- **Indirect costs:**
 - Quicker return to normal activities
 - reduced absenteeism
 - improved presenteeism

R.O.I. is immediate

Quality of Laparoscopy v. Open

- Major complications occur in less than 1 percent of laparoscopic procedures
- Laparoscopy and lap assisted techniques have become common in the United States and in certain procedures have replaced open techniques
- Several factors make minimally invasive abdominal surgery an appealing alternative to traditional procedures due to:
 - Shorter hospital stays
 - Less Pain
 - Less Scarring
 - Earlier return to activities of daily living in many cases

1. American Journal of Infectious Control – Special Article, 2004;32:470-85.

2. Domino, J. Frank, MD, Doggett, G. Linda, et al. Guiding The Patient Through Minimally Invasive Surgery American Academy of Family Physicians, February 2006.

3. Source: Roumm AR, Pizzi L, Goldarb N, et al. Minimally invasive: minimally reimbursed? an examination of six laparoscopic surgical procedures. Surgical Innovation 2005; 12(3):261-287

Medical Society Support

– American Society of Colon and Rectal Cancer

- “Laparoscopic colectomy for curable cancer results in equivalent cancer related survival to open colectomy when performed by experienced surgeons.”

– National Comprehensive Cancer Network

- “The NCCN guidelines recommend laparoscopic colectomy as an option because clinical trials have shown (...) as good a procedure as abdominal colectomy.”

– The American Society of Breast Surgeons

- Percutaneous Needle Biopsy for Image Detected Breast Abnormalities
- “Image guided percutaneous needle biopsy is the diagnostic procedure of choice for image-detected breast abnormalities. It should be readily available to all patients with image-detected lesions.”

Type of MIP's & Adoption Rates

Cholecystectomy	91%
Reflux Surgery	70%
Gastric Bypass (Bariatric)	68%
Breast Biopsy	60%
Hysterectomy	41%
Colectomy	25%
Hemorrhoidectomy	12%

Source: Data on file at EES

There is opportunity for further MIP adoption

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Meta-Analysis Summary

- Summary of 112 articles on MIP vs. open surgical procedures:
 - Prospective, randomized comparative trials
 - Systematic review or meta-analysis
 - Prospective, non-randomized comparative trials
 - Retrospective, observational studies
- Measures included
 - Length of stay in the hospital
 - Return to Normal Activities
 - Return to Work

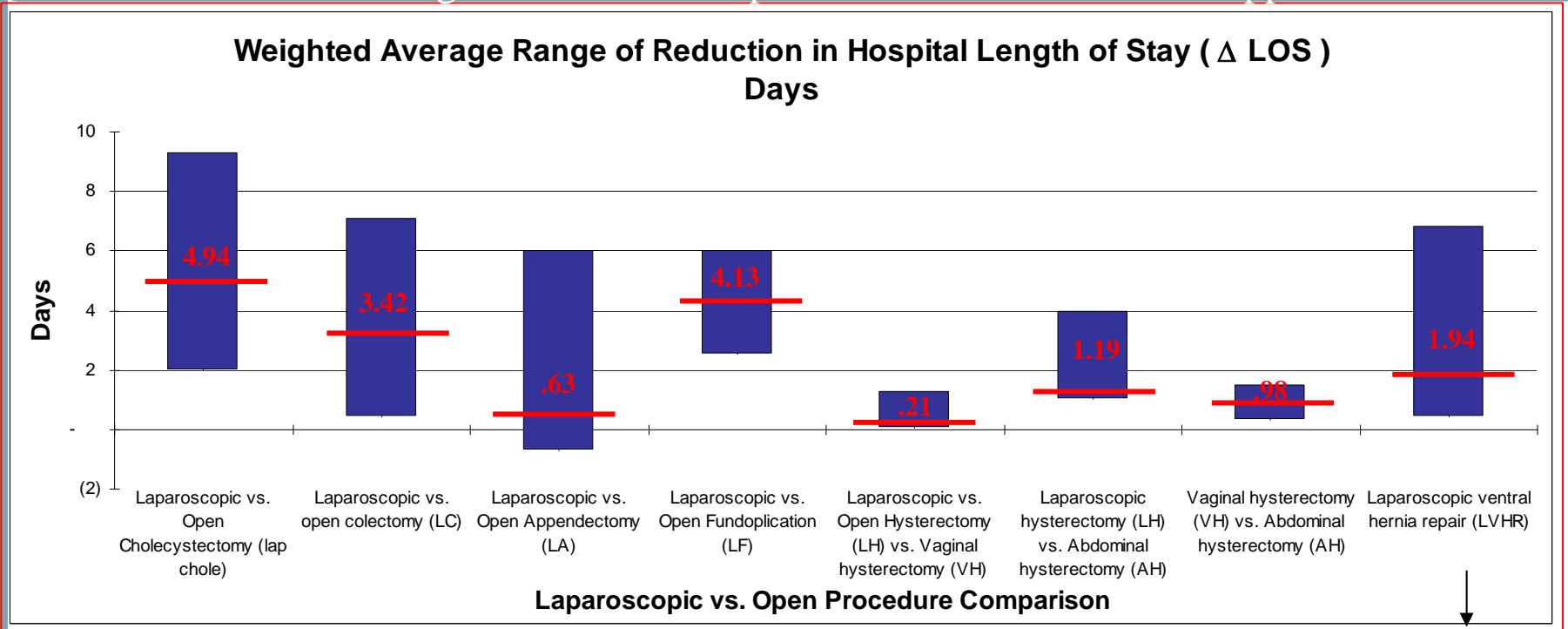
Source: An Examination of Six Laparoscopic Surgical Procedures

Adam Roumm¹, Laura Pizzi¹, PharmD MPH, Andrei Belsky, MD, Carrie Elwood¹ MPP, Neil I. Goldfarb¹, and Herbert Cohn, MD

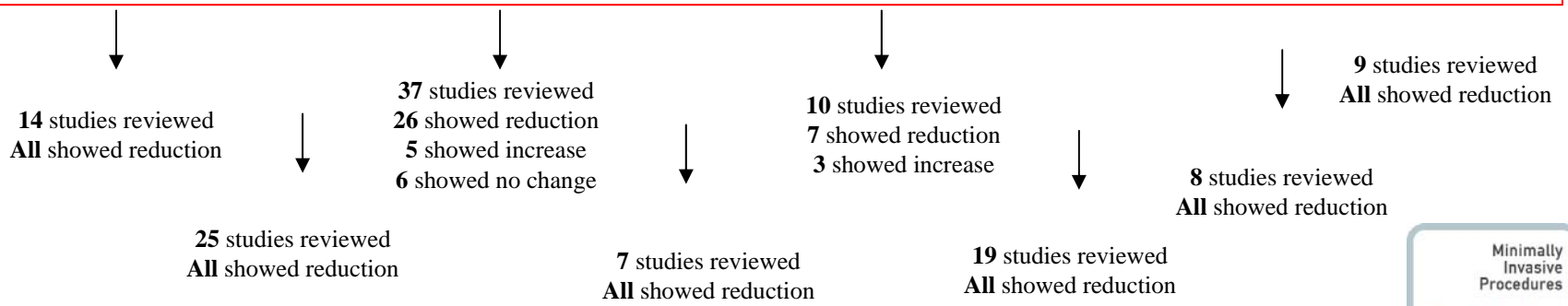


MIP Benefits – Length of Stay

In a retrospective review, the laparoscopic approach resulted in a decrease in the overall average LOS when compared with the conventional approach*



Laparoscopic vs. Open Procedure Comparison



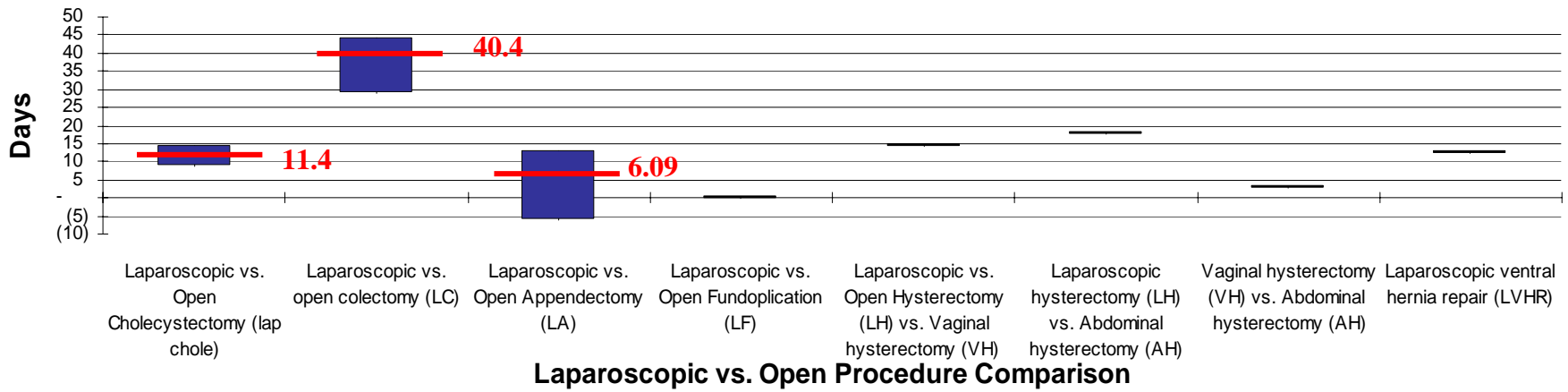
*Roumm AR, Pizzi L, Goldarb N, et al. Minimally invasive: minimally reimbursed? an examination of six laparoscopic surgical procedures. Surgical Innovation 2005; 12(3):261-287.



MIP Benefits – Return to Normal Activities

In a retrospective review, the laparoscopic approach resulted in a decrease in the overall average RTNA compared to the conventional approach *

Weighted Average Range of Reduction in Return to Normal Activities (Δ RTNA) Days



Laparoscopic vs. Open Procedure Comparison

↓
 2 studies reviewed
 All showed reduction

↓
 2 studies reviewed
 All showed reduction

↓
 14 studies reviewed
 11 showed reduction
 2 showed increase
 1 showed no change

↓
 No studies reviewed

↓
 1 study reviewed
 1 showed reduction

↓
 1 study reviewed
 1 showed reduction

↓
 1 study reviewed
 1 showed reduction

↓
 1 study reviewed
 1 showed reduction

* Roumm AR, Pizzi L, Goldarb N, et al. Minimally invasive: minimally reimbursed? an examination of six laparoscopic surgical procedures. Surgical Innovation 2005; 12(3):261-287.

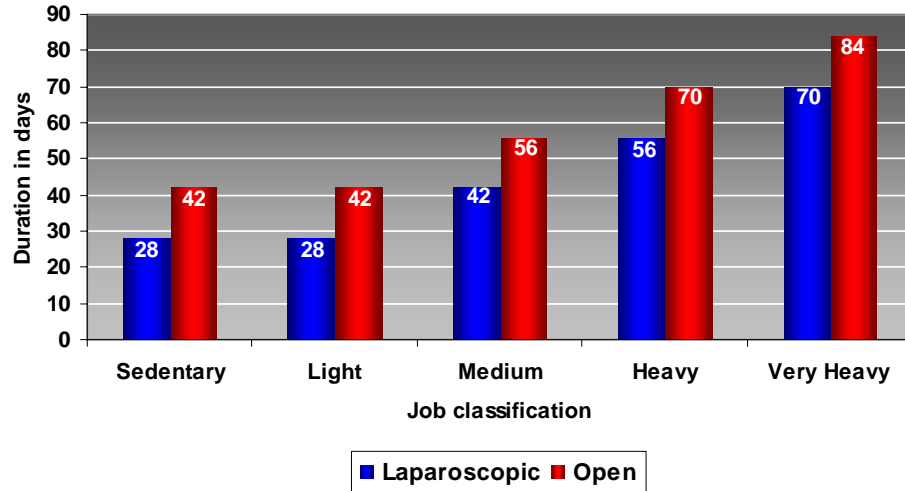


MIP Cost Impact: Short Term Disability

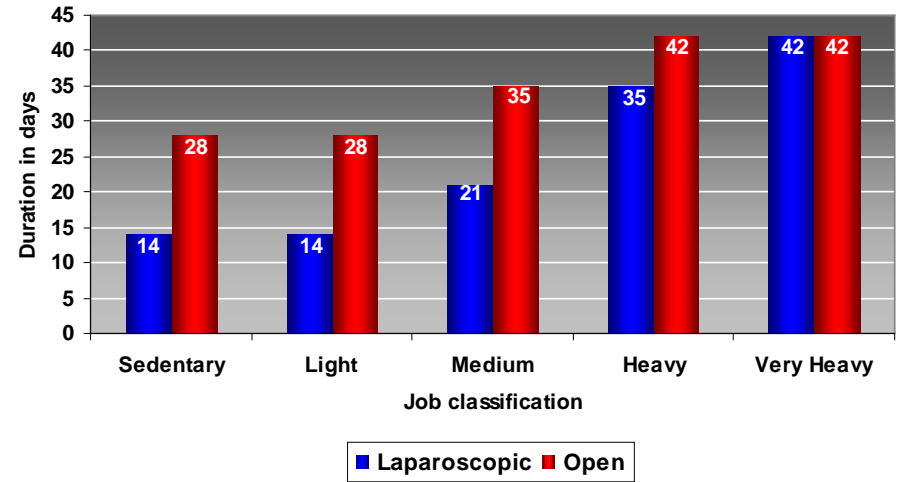
MIP gets employees back to work sooner

- Cost savings through earlier return to work
- Improved presenteeism and decreased absenteeism

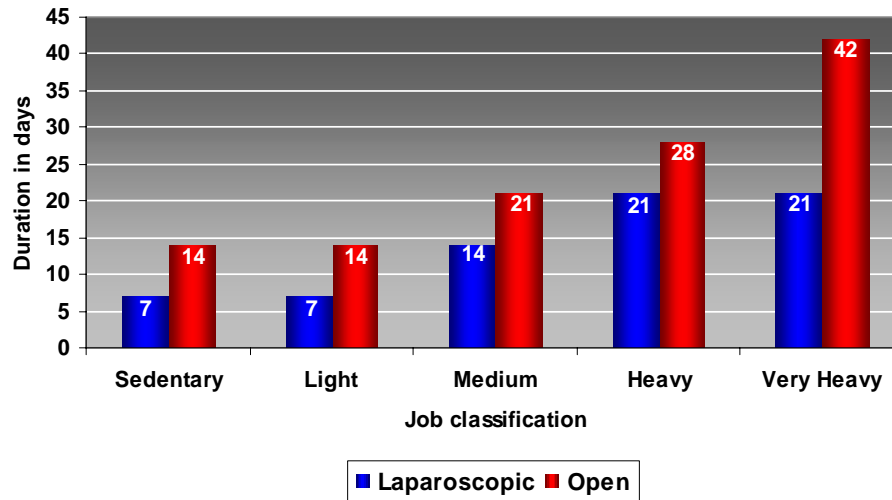
HYSTERECTOMY Optimum Length of Disability



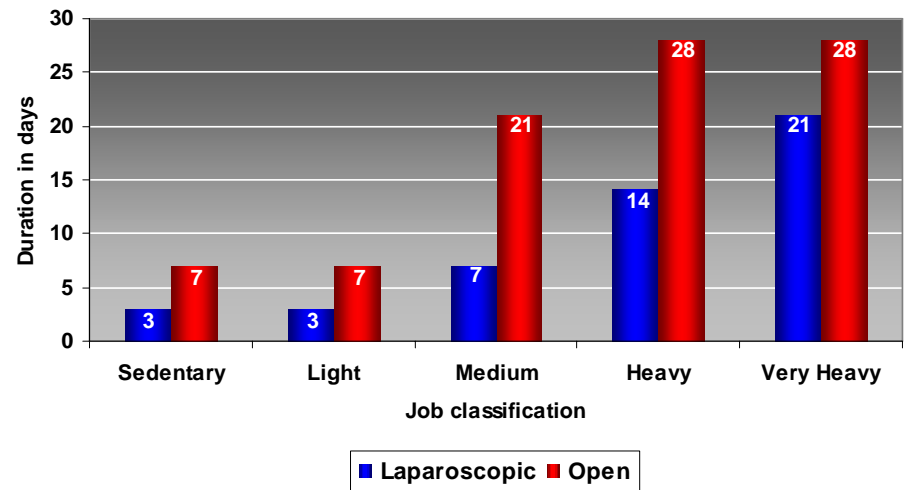
COLON RESECTION Optimum Length of Disability



CHOLECYSTECTOMY Optimum Length of Disability



APPENDECTOMY Optimum Length of Disability



Source: MDA Internet Duration Guidelines, The Reed Group - Medical Disability Advisor (<http://www.mdainternet.com>; accessed on 08/06/2006)

Feel Better
Sooner

Healthcare Company

<u>ACTIVE</u>		<u>Colon</u>		<u>Appe</u>
50,000 Lives	Direct Medical	\$8,585		\$4,299
	Absenteeism	\$6,240		\$704
	Presenteeism	\$2,039		\$13
		\$16,864		\$5,016
	# of Procedures for MIP Conversion	X 20		X 42
		\$337,280		\$210,672
<u>DEPENDENTS</u>				
75,000 Lives	Direct Medical	\$8,585		\$4,299
	# of Procedures for MIP Conversion	X 33		X 61
		\$281,588		\$262,239
Sub-Total		\$ 618,868		\$472,911
Total				\$1,091,779
Incremental Sales Needed to Offset				\$5,458,895

Realizing the Value of MIS An Employer's Perspective

Colorado Springs School District 11

March 22, 2005



WHY MIS?

Meets Institute of Medicine Quality

Criteria:

- ✓ **S – Safety**
- ✓ **T – Timely**
- ✓ **E – Effective**
- ✓ **E – Efficient**
- ✓ **P – Patient Centered**
- ✓ **E – Equity**

COPAYMENT INCENTIVES (for three procedures)

	<u>MIS</u>	<u>Open</u>
Inpatient	\$800	\$1,200
Outpatient	\$400	\$ 600

PROJECTED SAVINGS - OPEN TO MIS

June 2005 – May 2007

<u>Procedure</u>	<u>Total</u>
Colectomy	\$ 16,092
Hysterectomy - Lap	\$ 182,180
Cholecystectomy	<u>\$ 622,400</u>
TOTAL	\$820,672



MIPInfo.com

Home

Benefits of Minimally Invasive Procedures

Risks and Complications

Talking with Your Doctor

Get A Guide To MIP

Recommended Websites

MIP for Colon Surgery

MIP for Appendectomy

MIP for Ventral Hernia Repair

MIP for Hemorrhoid Surgery

MIP for Hysterectomy

MIP for Other Conditions

Find a Physician

in your area who can perform minimally invasive procedures. Select a surgical procedure from the drop down menu below:

Search by:

Select a Procedure



>>GO

minimally invasive procedures

Feel Better Sooner

- less recovery time
- less time in hospital
- less scarring
- less pain*

learn [more](#)

* When compared to conventional



Get a Brochure About MIP

Get a handy reference guide about MIP for you and your family. For more information, [click here](#).



Talk With Your Doctor About MIP

- Win for the Healthcare System
- Quality : Value : Lower Cost
- Alignment of incentives
- Patient education – options
- The Value of Choice

You May Be a Candidate for a Minimally Invasive Procedure

Most MIP patients experience less pain, shorter hospital stays, and less scarring than with traditional open surgery. Learn more about the [benefits of MIP](#).

Talk to your doctor about whether or not you are a candidate for a Minimally Invasive Procedure (MIP). Get a list of [questions to ask your doctor](#).

Get more information about MIP for a specific condition or procedure:

- [MIP for Colon Surgery](#)

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