

MILWAUKEE'S FROEDTERT HOSPITAL

Laparoscopic Surgery Improves Outcomes While Reducing Overall Costs

In the continuing debate over the best way to manage the healthcare system over the coming decades, little attention has been paid to the role that advanced medical knowledge and technology play in improving patient outcomes and lowering overall costs of patient care. Facilities such as Froedtert Hospital, staffed by physicians from the Medical College of Wisconsin, are on the leading edge of developing such treatments.



Minimally-invasive surgery such as laparoscopy is performed with precision instruments designed to fit through tiny (one-quarter inch) incisions. The surgical team views the operating area by way of a laparoscope, which is a tube with telescopic lens.

A graphic example of the impact that new knowledge and technology can have in improving outcomes and lowering costs is presented in the dramatic change in gall bladder surgery techniques.

There was a time, not so long ago, when gall bladder surgery was a major undertaking and meant a week or more in the hospital. Lengthy—and expensive—recovery was required, mostly because of the extensive nature of the open surgery required to remove the organ.

But over the course of the last five years, a minimally-invasive type of

surgery has been successfully pioneered and widely adopted for gall bladder removal. Such “laparoscopic” surgery only requires four incisions, each one-quarter inch in length. In contrast, open surgery to remove the gall bladder normally involves a seven-inch incision through several layers of tissue.

The tiny incisions used in laparoscopic surgery accommodate the insertion of

advanced video equipment and surgical instruments. In a way, the laparoscopic surgery team creates a small video studio—complete with miniature lights and camera—inside the patient. During the operation, an image of the surgical area is conveyed to video monitors in the operating room. The laparoscopic surgeon uses the monitors to view the surgical area.

Because the instruments used in laparoscopic surgery are so small, delicate manipulation and technique are a necessity. Specialized training and

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Memorial Lutheran Hospital

Froedtert Memorial Lutheran Hospital is a 294-bed acute care, teaching facility of the Medical College of Wisconsin and all staff physicians are faculty members of the Medical College. Froedtert is a member of Horizon Healthcare, a southeastern Wisconsin healthcare delivery system.

extensive experience are required to develop such skills, according to Dr. Constantine Frantzides, Associate Professor at the Medical College of Wisconsin and a pioneer in the development of laparoscopic surgery techniques.

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As Dr. Frantzides explains, “In these operations, there are several logistics that you don’t have to face during open surgery. For one, you’re using long instruments requiring a different hand-to-eye coordination. The surgeon watches the instruments on a two-dimensional monitor and must learn to mentally convert the images to three dimensions, to interpret shadow and the touch of an instrument—to gain a perception of depth. It’s a skill that’s acquired through practice.”

The importance of experience extends to the complete surgical team, explains Dr. Frantzides. “Having an experienced surgical team is very important. The person who operates the laparoscope (fiber-optic tube fitted with telescopic lens) needs a steady hand, and must be

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