The Effects of Minimally Invasive Surgery

on the Future of Perioperative Nursing

By Darlene Stuttard, R.N.

Who would have predicted 10 years ago, that we would be performing hysterectomies, nephrectomies and bowel resections using a laparoscopic technique? To accurately predict the future of Perioperative nursing, as it relates to the ever changing aspects of Minimally Invasive or Mininal Access surgery, is a difficult task. Looking to the future, one must be receptive, yet scrutinizing, towards many controversial and innovative ideas. Minimal Access surgery has proven to be a viable alternative to the traditional open surgical methods. In the beginning, many surgeons and nurses were skeptical about this modality but over the last three years, patient benefits and anticipated surgical outcome have been well documented. With the technological advances in instrumentation and equipment, and the establishment of training and preceptorship programs, Minimal Access surgery has proven to be the way of the future; to date we have only seen the tip of the iceberg.

Hospitals world-wide must be prepared to institute the changes needed to implement Minimal Access surgery. Now more than ever, it is vital for the nursing and medical staff to work together as a team. With the inception of the international "wellness" programs and Minimally Invasive surgery, many new concepts in patient care have been implemented. Many of the issues to be addressed are a direct result of how Minimally Invasive surgery has affected, and will continue to affect, the health care system and the role of the perioperative nurse.

I hope the issues I am going to discuss will be thought provoking as well as a source of many new ideas for debate. While some of these ideas have already been tested in the United States, the concepts for Canada and many other countries, remain very much in the future.

In Canada we have experienced many changes in the health care system. The present economic times, the increase in health care costs and the decline in the value of the Canadian dollar has resulted in the reorganization of hospital services. These changes have included an increase in nursing lay-offs, closing of hospital beds and in some communities, closing of entire hospitals.

The concept of Standardization and Rationalization of services has also become the norm for todays health care system in Canada. Acute care facilities are beginning to use the same sutures, Orthopedic prosthesis, mechanical stapling equipment, and other medical and surgical supplies and equipment. Personal preference in product choice is no longer an option for doctors and nurses. Instead, products are being limited to what is deemed "clinically acceptable" by Materials Management committees.

The trend towards "centres of excellence" has also become a reality in Canada. The concept of designating specialities to each hospital has proven financially efficient due to the decreased costs of training, staffing, supplying and equipping a centralized location. Because of government cuts to hospital funding and reduction in staff, many of the nursing programs such as pre and post op visits, will be either cancelled, dramatically cut back, or designated to other than perioperative nurses. While health care agencies and hospital management realize they are required to provide safe standards of nursing care: adequate funding for these programs is not available.

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Trends in Patient Care

With the rapid advance in technology and the onset of Minimally Invasive surgery, it is estimated that perhaps 80% of the surgical procedures will be provided on an outpatient basis by the year 2000.[1] "What is now a trend towards less invasive, less radical surgery whenever possible will be a way of life in the 21st century."[2] Programs such as separate day surgery or ambulatory units and short stay units have become a viable alternative in Canada. These units have placed a demand on the health care system to continue to provide high quality patient care at the lowest possible cost.

The types of ambulatory surgery units being used are:

1. Hospital Controlled Integrated Units

These units are located within inpatient operating suites in hospitals and are the most common because they use existing facilities, personnel and equipment. They also pose minimal financial risk to hospitals.[3]

2.Hospital Controlled Autonomous Units

These separate units located within a hospital, do not share the expensive overhead of an inpatient suite, but do provide the advantages and financial savings of freestanding units.[4]

3. Hospital Satellite Units

These autonomous units are sponsored by a hospital, but located away from the hospital site.[5]

4. Freestanding Ambulatory Surgical Centres

These centres are autonomously operated and completely independent, both geographically and administratively, of other health care facilities.[6]

With the exception of the satellite unit, Canada presently uses all of these systems with much success. Our surgeons and physicians have not yet felt the competiveness or the need to open private centres in Canada, and therefore the freestanding outpatient units are rarely found among the provinces. The more acceptable practice is to direct patients towards a hospital setting. As long as the government supports this practice, freestanding outpatient units or other prototype systems, will remain a way of the future for Canada.

While the free standing units appear to be very popular, and have continued to grow in numbers in the U.S.A., Linda Groah, the Director of Surgery, Kaiser Medical Center, San Francisco, feels that, "The trend towards constructing free-standing outpatient centres will be reversed. Instead, hospitals will build ambulatory surgical facilities that have a separate entrance, waiting room and recovery room but will use the hospital's main ORs."[7] This idea appears to be more realistic and would likely gain the support of Canadian hospitals, the medical profession and government officials. The advantages of this concept would include the fact that surgeons would have access to hospital supplies, equipment and trained personnel as well as having immediate medical access, should a complication occur. A major concern for nurses in the setting up of freestanding units, is that all patients have a right to receive the same high standard of nursing care as provided in a hospital setting.

Other cost efficient developments in Canada include the introduction of Pre Admission Assessment programs, Short Stay Surgical units and Same Day Surgical units. With these new systems patients scheduled for surgery are admitted as outpatients to the Pre Admission clinic any time from the morning of, to two weeks prior to their scheduled surgery date. It is the responsibility of the patient's family doctor or surgeon, to arrange for the patient's surgical consent, history and physical, and the results of any tests performed prior to the patient's arrival to the clinic. All pre admission testing can then be evaluated on this visit and any additional laboratory and radiology tests, E.C.G. and any consultations that are required, are performed at this time. This process has virtually eliminated cancellations from the O.R. slate those patients who were not medically fit for surgery or who should have been admitted to the hospital as an inpatient.

The nursing assessment process begins upon admission to the clinic. The patients and their families are given instructions on the preoperative and postoperative needs of the patient. Teaching videotapes and the postoperative teaching aids are also shown and discussed at this time. The patients who go through Saskatoon City Hospital's Pre Assessment program, arrive at the hospital two to three hours before their surgery. Following surgery they are admitted to the Short Stay Unit which is open from 0730 Monday until 1600 hrs. Friday. Those patients who are unable to be discharged on the Friday, are then transferred to another surgical ward which can meet their needs. The interim stay unit or short stay surgical unit in the United States operate in a similar fashion to Canada's short stay units, although in the U. S., they only allow a maximum of stay of 72 hours.[8] These programs are still relatively new to Canada, but with careful monitoring and revisions, they will continue to improve as positive methods of delivering health care. Over the past year, patients who have been processed through this system have been very pleased with the results; the staff are also very enthusiastic about its potential. Other systems for delivery of patient care being used in the United States are:

1. The 23-hour Unit or Observation Unit

These units are designed to monitor patients for a period of less than 24 hours. Although these units are located within the hospital setting, they are considered outpatient units for billing purposes. These units also provide the medical and nursing staff with an opportunity to access the patient's records with regards to the possibility of hospitalization or discharge.[9]

2. Hospital Associated Hotels

These hotels are usually freestanding and owned by non hospital developers. They provide special services such as discounted rates, transportation and special diets for individuals designated by the hospital. These hotels are especially useful for patients who live a fair distance from the hospital and require postoperative attention before returning home. Some of these programs require that another person reside in the hotel with the patient. [10]

3. Recovery Care Centres

"These centres permit freestanding surgical facilities to take on surgical patients who are relatively healthy yet need up to 72 hours to recover. The recovery centres meet patient needs in a comfortable environment at a reduced cost."[11]

Surgery and the Elderly

"As the number of people more than 75 years of age increases, the demands on ambulatory day surgery, operating room, and PACU nurses will increase."[12] Studies have been shown that patients over the age of 75 require one third more surgery than any other age group and an increasing number of these very elderly patients are now using ambulatory surgical units. [13] These units are not only cost-effective but they also "reduce the risk of patient exposure to hospital pathogens, decrease patient anxiety, and allow family and friends to be present during their preoperative and postoperative periods."[14] To address the special needs of the elderly undergoing surgery, nurses who specialize in Geriatric nursing should either be hired to work on or collaborate with nurses who work in these units.

Patient Selection

With the increase in the types of surgery which can now be performed on an outpatient or same day basis, the process of selecting patients for this type of service is crucial to the patient's surgical outcome. "A number of individual factors also must be taken into account in patient selection. These include the patient's: age; general physical and mental condition; anaesthetic risk; attitude toward having such an operation on an ambulatory basis; and social and family situation."[15]

The Role of the Perioperative Nurse

The current and future trends in ambulatory surgery has created and will continue to create a dramatic impact on the role of the perioperative nurse in patient teaching, discharge planning, pain management and crises intervention. Realistically, "The nurse-patient contact is now reduced to a minimum. Preoperative teaching, family and patient counselling, and recovery must be completed within a few hours instead of a few days. The role of the nurse as patient advocate has grown in order to improve quality care and maintain public credibility.''[16] In lieu of the present and future economic constraints placed upon the hospitals, the role of the perioperative nurse in patient teaching, or as the patient's advocate, may need to undergo considerable evaluation and change.

During a round table discussion on OR Nursing in the 1990s, these comments were made regarding the future of perioperative nursing:

1. Linda Groah: "I would encourage the staff nurse to look to nursing for leadership. Nurses must unite if they are going to be a vital force in the future of the health care delivery system." [17] 2. Peggy Camp: "The OR nurse is going to be located outside of the operating room in the future. As the technology moves into areas like endoscopy and radiology, OR nurses will bring excellent skills and a new dimension in terms of their ability to assure that the sterile technique is followed during the procedure. In the past, we've not looked at OR nurses as having any place outside of the operating room, so I see the OR nurse becoming much more visible and active in other service areas."[8]

Unless OR nurses are taken out of the operating room and are hired in other OR related areas, such as the pre assessment units, the patient's preoperative and postoperative teaching will be done by ward nurses and possibly other non-nursing personnel. Should this occur, the perioperative nurse must realize

that the patient's total care may become multidisciplinary in nature. "It is important that OR nurses be willing to share their knowledge and expertise with the staff nurse and with each other and to be more open and collaborative as part of the profession."[19]

To maintain our professional standards for patient care, we may need to assume more responsibility in the educational process of these health care professionals. We must relay which information is pertinent to the patient's physical and psychological well being as it relates to his surgical experience. In other words, "the perioperative nurse assists colleagues in building and maintaining competencies necessary to provide safe, effective care to patients. This obligation may be fulfilled informally through role modeling, acting as a resource and mentor, or formally by serving as a preceptor or instructor in the clinical setting."[20]

Preoperative Assessment Tool

There have been many studies done and many articles written on the effectiveness of perioperative patient teaching and its effect on the patients postoperative outcome. Perioperative nurses can help the patient create positive attitudes towards surgery by offering them reassurance and support, and by sharing as much information with the patient and the patient's family or friends, as possible. "To prepare the patient for surgery, education must begin in the physician's office. It is particularly important for the physician's staff to understand the same-day surgery process and to be active supporters of that process. An important function of the physician's office staff is to promote the concept of wellness as opposed to illness. This philosophy must be emphasized by all health care professionals who have contact with the patient."[21]

The concept of perioperative and postoperative visits to the patient's home is an interesting phenomenon which is not yet practiced in Canada. Unfortunately, Canada's difficult geographic regions and shortage of available nursing staff as well as finances would prohibit this practice. The intent of this program is excellent, and with it ..."begins patient teaching, care planning, and discharge planning at home, thus saving time on the day of admission, increasing the accuracy of the information, and improving quality. These programs create a positive image for the hospital, enhance the public's perception of the nursing profession, increase job satisfaction for nurses, and improve continuity of care."[22]

Another assessment tool being used to assist the perioperative nurse in patient teaching is the preoperative and postoperative telephone call. This system is especially effective when a lack of nursing resources is present. Preoperatively, the nurse is provided with a written format of questions to be asked and information to be provided to the patient. While some of this information will be standard, other information should be specific to the patient's needs, age, and surgical procedure.[23]The postoperative phone call is vital to the nursing staff in that it allows for patient feedback to a job well done.[24] It also identifies areas in which problems have occurred or need to be addressed and resolved. Saskatoon City Hospital is presently using a written postoperative questionnaire, which patients are asked to complete prior to discharge from the hospital.

Pain Management

During discussions with my Canadian colleagues on Minimally Invasive surgery, there is a general consensus that patients undergoing this type of surgery are not receiving adequate postoperative sedation. Because this is not considered major surgery in the traditional sense, and because many of these patients are having surgery on an outpatient or same day basis, physicians tend to feel that large amounts of sedation are not required. While it is true that some patients do have a high pain threshold, it should not be assumed that Minimal Access surgery is not painful. In a recent paper published in the OR Manager, federal guidelines were issued in March, 1992 which state, "Patients having surgery should receive more aggressive pain management before, during and after surgery than is conventionally given."[25] The guideline calls for more patient involvement in treatment decisions and for more team-work between care-givers and patients.[26] In other words, the patient should be given information on the types of pain management available postoperatively and the choice of which therapy will be used.[27]

Advanced Laparoscopic surgery, such as Bowel Resections, Thorascopic Lobectomies and Laparoscopic Nephrectomies, necessitate the use of 30 mm trocars or small muscle splitting incisions to remove the specimen or to perform the bowel anastomosis. These incisions and the prolonged insufflation of the abdominal or peritoneal cavity, as well as the insertion of chest tubes, or other catheters postoperatively, constitute the criteria for "acute" pain and require appropriate sedation. Some patients will require only a mild analgesia, while narcotic sedation is often required for a short period of time, especially for those patients having advanced Minimal Access surgery.

Staffing in the O.R.

There has been an on-going debate as to what the future will hold for operating room nurses. In years past, many OR's in Canada made the move towards an all Registered Nursing complement. In doing so, they eliminated the need for OR technicians. Due to budget restraints, many hospitals in Canada, have now had to re-assess their staff mix and provide one operating room technician per theatre, if possible. It is interesting to note that many discussions in the U.S.A. also question the future of OR staffing. In 1990, Linda Groah stated, "It is going to be very important for the nurse managers to identify the role of the OR nurse versus the technician and to carve out a role for the technician. "[28]

Past AORN President, Mark L. Phippen, in one of his President's Messages stated that "Unlicensed assistive personnel have a role in the delivery of patient care, and it affirms that assistive personnel should be used in a manner that assures appropriate delegation of nursing functions and adequate direction and supervision."[29] He also feels that perioperative nurses must be accountable for the quality of care given in the OR by developing nursing policies, procedures and other standards of nursing practice, while the technicians on the other hand, "fulfil the roles of scrub people and assistant circulators."[30] In his closing remarks, he adds, "Perioperative nurses must consider the effect of economic restraints and the nursing shortage on the surgical services they provide. Assistive personnel have a place in nursing, and technicians have a place in perioperative nursing. Perioperative nurses must determine how highly skilled technicians/ technologists can complement nurses' work, not complicate it."[31]

Educational Component

It has been suggested that because Minimal Access surgery is becoming more technical and less invasive, the demands on the OR staffs expertise has risen dramatically. Many of my peers in Canada also have a preconceived notion that Minimally Invasive surgery is technically more challenging than open surgery for the OR team. When we trained numerous surgeons, OR nurses and technicians in Minimal Access surgery at Saskatoon City hospital, the most common comment from the nursing staff was, "this surgery can be very boring"; it did not offer them the challenge they expected. There was a time when a good scrub nurse was able to hold a retractor with one hand and hand- off instruments, wring out lap sponges and tear open a suture package with the other hand. The mark of a good scrub nurse today is learning how not to become sea sick from watching the T.V. monitors, and still pretend to be interested and alert after a 10-hour Total Colectomy.

The surgical supply companies have made tremendous progress in developing new and better instrumentation and equipment which will enhance each of the new procedures. In collaboration with many of the surgeons, the companies will continue to experiment and develop instruments and equipment as the vision for future Minimally Invasive surgery unfolds. It can be argued that while the technology of these instruments and equipment has progressed, the basic principles of Endoscopic surgery have not changed since we began performing video Arthroscopies and Gyne Laparoscopic surgery. We have perhaps made this method of surgery very glamorous, but in doing so, have intimidated the OR staff in the process. Continual inservice programs will allow an easy transition for the staff into all types of Minimally Invasive surgery.

Looking into the Future

1. "Hospitals performing outpatient surgery and same day surgery will introduce a "pick up and tuck in" service to compete with other hospitals. This service will pick up patients at home the morning before surgery and return them after discharge accompanied by an RN. The RN will be available during the night and visit the patient the following day."[32]

2. "Hospitals will introduce focused-care centres, which conveniently include an operating room (OR), medical records, pharmacy, physical therapy room, X-ray facility, and laboratory on the same floor. A patient will be admitted, cared for, and discharged without transferring to another unit. This set up will be particularly effective for patients undergoing trauma, orthopedic, cardiac, pediatric, or gynecologic procedures."[33]

3. Video Room Surveillance

The new surgical suite at Poudre Valley Hospital in Fort Collins, Colorado has installed fixed video cameras in each OR which allow nurses to check the room

status on monitors at the control desk. For patient confidentiality, the cameras are located in the room so that the monitor does not show the patient's face.[34]

4. Video Pathology

The pathology communication system ..."transmits a video of the actual operative site to the pathology lab. While a surgeon is taking a specimen or biopsy for a frozen section, the pathologist can view the operative site and the frozen section area via the video. Once the pathologist finishes the frozen section slides, he can communicate back to the surgeon, by video and voice, what the slides show and what the pathology looks like."[35] This system is now being used in the OR suite at St. Vincent Medical Center, Toledo, Ohio.

5. Filmless Radiology

This innovative, yet very expensive, new prospect can store all radiology images in computerized form, including x-ray, CT scans, MRIs, and ultrasound. "The system can send the images from an archive to computer workstations in the same building and across long distances."[36] This technology now means the radiologists will read the films on a TV screen, instead of the traditional view boxes.

6. Overhead X-Ray Tubes

Rather than equipping ORs with portable X-ray machines, overhead X-ray tubes can be installed, which will enable two adjacent rooms to share the same generator.[37] While this system is more expensive than portable X-ray machines, it is a more convenient method.

7. Patient Teaching Aids

In the future, patients will receive written instruction by facsimile machines, broadcasting programs over cable television channels, or using self-instruction computer programs.[38] They may also receive preoperative teaching videos prepared by perioperative nurses to view in their homes.[39] All "routine preoperative teaching will include guided imagery for all patients over the age two."[40]

8. Waste

"Society's concern with the environment will be heightened, and all medical waste will be considered contaminated. The public will demand complete elimination of contaminated waste."[41]

9. Re-Cycle

Due to the increasing incidents of AIDS, Hepatitis and other infectious diseases, many of the products that are now being used in the hospital are disposable. These items are not only expensive to use but have also caused many discussions on how to dispose or recycle the end products. Many manufacturing companies have looked into the feasibility of having the hospitals return their own products for re-use. Perioperative nurses should become pro-active with their communities endeavours on re-cycling and collaborate with their medical colleagues on the re-cycling of hospital products. THINK GREEN!

10. Future Technology

"Genetic engineering, the restructuring or combining of cells, will be used to prevent genetic defects such as Tay-Sachs disease and sickle cell anemia. By the year 2000, genetic engineering may be effective against many kinds of retardation and behaviour disorders. Sometime around the end of the 21 st century, it may be possible to regenerate parts of the central nervous system, including even the spinal cord."[42]

"Skin and bone will be grown in the laboratory by taking cells from the patient and placing them in a controlled environment that will permit them to reproduce quickly. The tissue can then be used for grafts as an alternative to homografts and implants. Eventually, bone graphs and artificial joint implants will be obsolete."[43]

11. Computers

Computer technology is constantly changing and expanding its capabilities. In order for nurses to become a part of this evolution, computer training will be mandatory in the future. A new computer system called "intelligent computers will assist the perioperative nurse by providing an incredible knowledge base. In the future, computers with artificial intelligence (AI) will be capable of using expert surgical nursing knowledge bases; these computers will "sense" and "create" as well as reproduce images, recognize print and vocal sounds, and they will "understand" and "reason". These AI systems will simulate expert clinicians capable of applying judgement and logic to assist the perioperative nurse in caring for surgical patients."[44]

12. Robots

As perioperative nurses we want to believe that regardless of any new technology developed, the human element in patient care will always remain. While robots will never replace many of the nursing functions, they do have a place in the OR. By automating the work areas, robots can "provide meticulous cleaning of surgical rooms and areas, as well as washing instruments, assembling supplies and packs, and performing other repetitive tasks in the surgical suite."[45] They will also be developed to assist in retraction and to hold cameras. "The robots will be controlled by a circulating nurse".[46]

13. Staff Training

"In the year 2000, conventional classrooms for holding inservice instruction and staffdevelopment sessions may be replaced by six-foot-square cubicles. Continuing education may take place in franchised learning stores or private learning centres. In such learning centres, all instruction would be individualized. It could also be available where ever a computer terminal can be plugged in.

Unlike today, when instructors and learners in the OR must plan their instruction time around surgery schedules, formal instruction could be pursued at the learners own speed and scheduled around recreation, home activities, and work. Interested learners could contract for their education through learning centres in shopping malls, hospitals, libraries and multimedia centres, or in the individuals home. Learning would be individualized, fun and convenient."[47]

14. O.R. Attire and Set-Up

"Elaborate scrubbing rituals, gowning and gloving will soon be a thing of the past. Instead, OR nurses will step into custom-designed environmentally controlled jackets, complete with nonpenetrable hand coverings and hoods. Then they'll enter a special chamber that sterilizes with light. This procedure will eliminate waste."[48]

"Many of our tried-and-true rituals will be gone. For example, sponge and instrument counts will no longer be necessary because all incisions will be puncture or stab incisions just big enough for cameras and operating tools."[49]

15. Sterilization

"Faster, better sterilization methods will include a hand-held light bar, which will sterilize all instruments and equipment needed for an invasive procedure. Any time an instrument or person is suspected of being contaminated, a sweep of the light bar will handle the problem. This method will also be used to disinfect the patient's skin before invasive procedures."[50]

16. Documentation.

"All patient care will be recorded at the point of care with pocket-sized computers that use bar codes to collect data. Even arm bands will have bar codes that provide information. This system will help prevent errors."[51]

17. Trends in Surgery

"Open-heart surgery, including by-pass surgery will be performed endoscopically. The only exceptions will be some surgeries involving congenital defects. Gynecology surgery will move into the doctor's office, just as ophthalmic and plastic surgeries have already."[52]

"Surgical teams will use less-invasive procedures, which reduce patient trauma and shorten recovery time. For instance, in oncology, new therapies, especially photodynamic therapy, will limit the need for extensive cancer surgery. Refinements will be made in local anesthetics, catheters, lasers, microsurgical instruments, fibre-optic and ultrasound endoscopes, and percutaneous and extracorporeal devices."[53]

18. Ethical Dilemmas

"Ethical dilemmas will be a major concern of perioperative nurses as more intrauterine surgery and organ and tissue transplants are performed. One dilemma will be whether "do-not resuscitate" orders should be routinely rescinded when terminally ill patients undergo palliative surgery."[54]

19. Administrative Concerns

"Direct reimbursement for the RN first assistant will become a reality. Surgeons and RNs will become partners in private practice to care for surgical patients. Nurses will do the preoperative assessment and teaching, assist during surgery, and follow up with postoperative rounds, teaching, and care. The surgeon will be involved postoperatively only if complications arise."[55]

Summary

In light of the present economic times, perioperative nurses must set realistic and attainable goals for themselves. We must invoke practical and logical methods of maintaining, or improving, the standards of nursing care, given the limited governmental and hospital budgets. We must look to each other for guidance and support in order to unify our efforts to meet the future changes in the delivery of patient health care. Periop-

erative nurses must accept their constantly changing roles, and they must be prepared to meet these changes head on. Taking all of this into consideration, What do you think the future of perioperative nursing will be?

In an article in the *Nursing Administration Quarterly,* Colleen Harvey states that, "In a highly technical environment, the perioperative nurse will be the "high touch," human element required to maintain a high order of ethics and values and to advocate excellence in nursing care for the surgical patient. The perioperative nurse will institute and maintain standards for the quality of practice and for comprehensive, cost-effective care for each patient."[56]

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Laparoscopic Nissen Fundoplication

A Minimal Access Alternative

By Priscilla Troch, RN, BScN, and Helen Jansen, RN

Laparoscopic Nissen Fundoplication is fast becoming the preferred treatment for patients suffering from gastroesophageal reflux (GER) disease. Traditionally, correction of GER has been accomplished by an extensive invasive conventional "open" Nissen Fundoplication (Low, 1988). But, in the advent of laparoscopic surgery a successful repair of GER is now being achieved laparoscopically. GER is defined as the retrograde flow of gastric contents into the esophagus (Hunter, 1993). Although virtually everyone has experienced GER, the symptom of "heartburn" is masked by natural physiological reactions. It is suggested that GER afflicts some ten percent of the general population (Hunter, 1993; McKernan, Wolfe, & MacFadyen, 1992). Treatment of GER for many has been managed by the use of pharmaco-therapeutics in conjunction with lifestyle alterations (McKernan, Wolfe, & MacFadyen, 1992). There are those however that remain symptomatic despite prescribed therapy, and surgical intervention is then indicated. Nissen Fundoplication simply, is a procedure whereby the fundus of the stomach is wrapped around the esophagus to form a sphincter like band that will reduce/prevent the reflux of gastric contents into the esophagus. A laparoscopic approach to correction of GER offers patients an attractive alternative to life long drug therapy or a major transabdominal or transthoracic surgery (Bagnato, 1992).

Abstract

The preferred treatment of gastroesophageal reflux has traditionally been Nissen fundoplication. This involves an extensive abdominal or thoracic incision and subsequently results in patient discomfort, an extended recovery period, and increased overall costs. In the advent of laparoscopic advances surgical correction of symptoms of gastroesophageal reflux are now being offered through minimal access surgery. Increased patient satisfaction, decreased costs, and a quicker return to activities of daily living, suggest why laparoscopic Nissen fundoplication, (LNF) is fast becoming the preferred alternative to correction of gastroesophageal reflux disease. This article will review gastroesophageal reflux and describe one surgical method of laparoscopic correction. The role of the perioperative nurse and implementation of the nursing process regarding this surgical procedure will be highlighted.

Preoperative Preparation

In preparation for minimal access surgery the patient undergoes physiological tests of the gastrointestinal tract in order to obtain a thorough GI history

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