CANADIAN
Operating Room Nursing Journal
Volume 7, Number 4, September, 1989

NO TEMPER TANTRUMS

Disposable barrier products offer effective barrier properties . . .
But at a cost . . .

Now . . . effective barrier properties are available in reusable products
and at a much lower cost.

GORE-TEX™ barrier Surgical Gowns and Drapes . . . an environmentally conscious alternative to traditional barrier products.

Lac-Mac Limited, 425 Rectory Street, London, Canada N5W 3W5
(519) 432-2616 or (313) 982-3730

GORE-TEX barrier is a trademark of W.L. Gore & Associates, Inc.

CANADIAN Operating Room Nursing Journal

Volume 7, Number 4, September, 1989

Published by Health Media Incorporated

EDITORIAL STAFF

Managing Editor: Frank Fagan
Legal Writers: Lorne Rozovsky
Fay Rozovsky
Production : Betty Skien

EDITORIAL BOARD

Judith Wheeler, R.N.
O.R. Supervisor,
Hotel Dieu Hospital,
Perth, New Brunswick

Carol Lenox, R.N., B.Sc.N.,
Nurse Clinician, O.R., R.R.
Mississauga Hospital,
Mississauga, Ontario

Regina Leonard, R.N., B.Sc.N.,
O.R. Supervisor
Red Deer Regional Hospital
Red Deer, Alberta

ADVERTISING STAFF

Ron Forster
Publisher & Advertising Manager

Canadian Operating Room
Nursing Journal
214 Merton St. Suite 202
Toronto, Ontario M4S 1A6
(416) 481-2244

Subscription Rates:	1 Year	2 Year
Canada	$14.00	$22.00
United States	$20.00	$30.00
Other Countries	$24.00	$38.00
Single copy orders		$4.00

I.S.S.N. 0712-6778
Second Class Mail Reg. No. 5934

Feature Articles

04 Sanctioned medical acts in the O.R.

Certain acts or tasks of a technical assistance nature during operative procedures have been sanctioned for delegation to operating room nursing personnel (R.N.s, registered nursing assistants, technicians, etc.). Although in this submission, only the Province of Ontario is considered, the underlying principles that see certain acts delegated, are basically the same and remain unchanged in all provinces. These principles are examined.

By Theresa Markowski

12 Inappropriate surgical behaviour in the OR

The next time an operating room nurse encounters unacceptable behaviour by a surgeon or anyone else associated with the surgical team, there is a right way and a wrong way to go about documenting and reporting the incident. The journal's legal writers examine the appropriate action that should be taken when an incident occurs in the O.R.

By L.E. and F.A. Rozovsky

15 Anaesthetic risks in pregnant patients

Maternal health as well as fetal health are jeopardized when a pregnant patient is admitted to the O.R. This submission discusses the special considerations that must be taken for the pregnant surgical patient, focusing on aspects prior to labour and delivery.

By Janet Nelles

Departments

Calendar of Events 30
Classified 14, 21, 23, 24
O.R. News .... 20 - 28
General Journal Information 30
Alberta OR Conference 26

Sanctioned medical acts in the operating room

By Theresa Markowski, R.N.

Operating room nursing has become a highly technical area requiring special training and education. Once this preparation has been achieved, on-going instruction is necessary in order to maintain the required levels of knowledge, skill and judgement.

Through planned nursing interventions and actions, surgical patients are assured quality care when undergoing surgery. Operating room nurses are responsible for providing a safe, efficient and caring environment, one in which the surgical team can function and in which the outcome for the patient can be as positive as possible.

It is essential that registered nurses and registered nursing assistants/O.R.Ts. in the operating room practice within the ethical, moral and legal standards of practice for the profession.

Nursing models

The functions of the nurse in the operating room are based on a "Conceptual Nursing Model. These functions are organized so as to be consistent with the nursing process. The nurse functions within the Health Disciplines Act, the Standards of Nursing Practice for Registered Nurses and Registerd Nursing Assistants, the College of Nurses of Ontario or related organization in the various provinces, and the International Council of Nurses (ICN) Code: Ethical Concepts Applied to Nurses.

The following qualifications are those which a registered nurse coming to the operating room must develop beyond the minimal level. They are considered essential to the interest of the patient and to the effective functioning of the team:

a) ability to demonstrate technical competence;
b) ability to plan and organize work for self and other members of the nursing team;
c) ability to supervise nursing team members;
d) ability to identify the legal implications of nursing practice in the operating room;
e) ability to identify situations requiring change and, to be a changing agent;
f) ability to identify and meet educational needs for self and others;
g) ability to work effectively with a variety of workers and disciplines.

Policy guidelines

Prior to June, 1981, acts in the practice of medicine which physicians could delegate to nurses were listed in the publication "Statement re: Policy and Procedures for Registered Nurses, Nursing and Technical Personnel." In June, 1981, this document was replaced by "Policy Guidelines re: Delegation of Acts in the Practice of Medicine." The new Policy Guidelines are a publication of the College of Physicians and Surgeons of Ontario (CPSO). They were prepared in co-operation with the College of Nurses of Ontario, the Registered Nurses Association of Ontario, the Ontario Hospital Association, and the Ontario Medical Association.[1]

Although only one province (Ontario) has been considered with regard to acts which have been sanctioned for delegation, and the documentation of such acts may vary from province to province, the underlying principles in relation to the practice of the act remain unchanged.

Standards

In the "Standards of Nursing Practice for Registered Nurses and Registered Nursing Assistants" published by the College of Nurses, nursing skills and guidelines are clearly defined:

1. Delegated medical acts (or special procedures) are acts which the College of Physicians and Surgeons has decided that physicians are permitted to delegate (under certain conditions);

2. Sanctioned Medical Acts are those delegatable acts which the College of Nurses has sanctioned for its registrants; that is, which the College of Nurses agree that its registrants may accept, if they receive appropriate additional training.[2]

3. Added nursing skills are acts in the practice of nursing for which the basic nursing program provides neither specific theory nor clinical practice. Registrants therefore cannot be expected to perform them without instruction and (at least at first) supervision.[3]

Maintaining competency

Since procedures designated as being appropriate for specially trained nursing personnel are not included in the curriculum of basic nursing programs, it must be expected that special instructions approved by the medical authorities will be provided for those persons selected and willing to meet the requirements to become competent.

For the protection of all involved, it is advisable that the clinical department(s), the department of nursing and the administration of the hospital jointly approve the implementation of sanctioned medical acts or added nursing skills, and establish a protocol to verify the competency of the specific individual. Provisions must be made for the nurse to develop the appropriate knowledge base and technical skills through formal, standardized educational programs, and to maintain competence if tasks are carried out on an irregular and infrequent basis.

Approved medical acts

In the interpretation of sanctioned medical acts as they apply to the surgical nurse, some acts have been approved for delegation to registered nurses and registered nursing assistants. They are listed below.

- **Technical assistance at operations**

The provision of the following technical assistance to a physician who is present in the operating room by a designated person in a hospital for a surgical operation designated by the medical authority:

- Place retractor
- Cauterize vessels, clip, and/or ligate vessels
- Irrigate operative site
- Apply force to bone-cutting instruments
- Insert and remove packing sponges
- Insert drains
- Suture subcutaneous tissue and close skin
- Cut tissue identified by physician[4]

Note: In the May, 1989 "College Communique," revisions by the CPSO in consultation with the CNO were made regarding Technical Assistance at surgical operations. Previously identified medical acts are no longer considered exclusively within the practice of medicine. They have, with the exception of "suture subcutaneous tissue and close skin,": been added to the added nursing skills list. The decision as to when the act will be performed will continue to require a physician's order and will be performed under direct supervision of the surgeon.

- **Responsibility and delegation**

Some hospitals may elect to have the nurse in the operating room carry out all or some of these tasks. The department of nursing and the physician will decide which technical tasks the nurse may practice and will authorize the nurse once competence has been achieved. If, however, there is no suitably qualified person available to carry out the act, the act may not be delegated. The College of Nurses emphasize two points in relation to this:

1. Delegation is individual.

A sanctioned medical act which an agency has approved for delegation, is not delegated to all nursing staff in that agency. It is delegated to specifically named individuals working in specific areas within the agency. Only those individuals would carry out the procedure and then, only after suitable training.

2. Responsibility is not delegated.

The carrying out of a delegated act upon a patient is jointly the responsibility of the physician who delegates the act, the person who carries it out, and the agency which permits the delegation.

The physician is responsible for delegating to a suitable person. If anything goes wrong, the physician must be able to demonstrate that he/she had good reason to believe that the person selected to carry out the act was properly prepared to do so.

The agency is responsible for selecting suitable people to carry out such delegated acts and for providing them with the necessary training or for re-

Sterile Custom Procedural Trays have been used in U.S. hospitals for the past decade. Now this advanced method of saving time, reducing risk and controlling costs is available to Canadian professionals.

- **Saves Time**
  Customized Trays from Qualtex, a division of DeRoyal Industries, make O.R. set up simple. No more time spent assembling, counting, listing, cleaning, wrapping and sterilizing disposables. Qualtex does it in one sterile package.
- **Reduces Risk**
  Because you open only one package, you reduce the risk of cross contamination. Qualtex uses only the brands you specify in the correct order of presentation.
- **Controls Cost**
  Qualtex eliminates keeping track of individual items with one charge for each tray. Your hospital will appreciate the savings in inventory and labor costs.

Based on your tray order with us, we will provide your O.R. with the DBS O.R. Information Management System FREE – Software worth over $50,000!

- **Cuts Paperwork**
  The O.R. Information Management System from DBS, a division of DeRoyal Industries, documents important O.R. information which you can retrieve instantly in custom reports.
- **Many Capabilities**
  The three system components (O.R. Manager, O.R. Scheduler and O.R. Inventory) can help you:
  - Identify the cost of a procedure (by specialty or surgeon)
  - Monitor employee productivity
  - Make and print scheduling changes easily
  - Centralize and reduce inventory by service

Just What The Doctor Ordered

This system is designed to run on powerful, low cost mini computers.

How Do You Get Started?
Call:

DeRoyal Industries, Inc.

(416) 333-0921
3507 Marion Court
Burlington, Ontario
Canada L7M 3E7

Qualtex

DeRoyal Business Systems

Qualtex and DBS are divisions of **DeRoyal Industries, Inc.**

And A FREE $50,000 Software Bonus

Gentle start.
Because surgery was tough enough.

CONVATEC
POST-OP POUCH

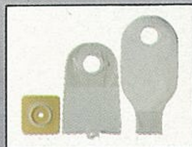
Patients who've just had ostomy surgery require an especially gentle touch. Now there's a postoperative system that treats patients with more gentleness than ever before.

It's the sterile Gentle Touch™ Postoperative System, from ConvaTec.

The Gentle Touch™ Flange on the pouch requires less pressure for application, so changing pouches is virtually painless. Patients will find it an ideal two-piece system because it snaps on and off easily for more thorough cleaning and gas venting, allows easy visualization of the stoma, and has the Stomahesive® Skin Barrier, for unsurpassed skin protection. In fact, patients can continue with it at home while they still have postoperative tenderness.

New Gentle Touch™ Postoperative System

It treats new ostomy patients with the gentle touch they deserve.



Division of Squibb Canada Inc.
2365, Cote-de-Liesse
Montreal, Que. H4N 2M7

August 1989

fusing to allow the delegation.

The person who carries out the act is responsible for ensuring he/she is able to carry it out safely, or for refusing to undertake it.[5]

Program development

Once the delegated/sanctioned medical act(s) to be carried out have the approval of the medical advisory committee and the hospital board, it is important to identify the person or persons to whom the act will be delegated, to assess the knowledge and experience of the candidate, and to appoint a physician or clinical instructor who will be responsible for teaching the act. A program for each act must be developed. Considerations for developing the program include:

a) Content - to include theory and practice.
b) Nature and purpose of procedure.
c) Conditions specific to the individual unit under which the procedure is delegated.
d) Associated knowledge base - i.e., anatomy and physiology, pharmacology.
e) Indications and contraindications.
f) Risk factors and potential complications and management of complications.
g) Recognition of methods for notifying the physicians of complications.
h) Teaching techniques - i.e., demonstrations and supervised "hands-on" training.
i) Skill evaluation criteria.
j) Certification process must be formal and should include: (1) verbal and written testing, (2) evaluation of actual "hands-on" return demonstration.
k) Defined re-certification process *may* include both the above, but ***must*** include the latter.

Record keeping

Records must be kept and must include the hours of instruction, certification and re-certification and the name of the physician who delegates the act. Re-certification is recommended on a yearly basis to maintain competency. A copy of the certificate should be sent to the department of nursing and to the nurse certified. A list of nurses authorized to perform sanctioned medical acts should be maintained on the medical unit for reference purposes.

Through the credentials committee, the hospital board should also be made aware of the nurses who are competent and approved to carry out the sanctioned medical acts.

Certification

Staff newly hired at the hospital, who have a certificate for a given act from another hospital, may challenge the recertification process. If successful in passing, that staff member will not be required to take the full training, but will be required to be certified. The final factor to consider in order to facilitate ongoing quality assurance, is a definitive plan to evaluate the program and the learner.

In the operating room, the "sanctioned medical acts" or added nursing skills may be written in the format of a policy, followed by the procedural steps. The following are examples of a format that may be used for two medical acts as they apply to technical assistance at surgical operations:

(1) Placement of a retractor
(2) Irrigating the operative site

Technical assistance at surgical operations

I. Place retractor

Policy:

Scrub nurse is required to place retractor in superficial wounds under the surgeon's guidance.

Scrub nurse is required to hold retractor in deep body cavity, following placement by the surgeon.

Purpose:

To assist the surgeon during a surgical procedure by retracting tissue in order to maintain the greatest possible access, and obtain an optimal field of vision, in order to facilitate the surgical procedure.

Procedure:

1. Choose retractor of appropriate size in relation to the tissue to be retracted, i.e., length, width.

Rationale:

- If blade length and width of retractor is inappropriate in relation to the tissue to be retracted: (Cont'd)

	• Obstruction in viewing of operative site • May cause pressure or damage to friable tissue, nerves, blood vessels or surrounding organs • Difficult for the scrub nurse to maintain accurate precision when retracting
2. Observe tip location of retractor in wound.	- To avoid pressure or damage to friable tissue, nerves, blood vessels or surrounding organs
3. Scrub nurse should maintain a continuous, constant pressure with the retractor while retracting. (Degree of retraction determined by the surgeon).	- If retractor slips during sharp dissection, injury to surrounding tissue and organs may occur - Potential danger of nerve damage if excess pressure applied - Excess force may cause hematoma or swelling - Insufficient force will decrease field of view - Prevent the impediment of blood flow to blood vessels and surrounding organs
4. Moist, warm sponges should be provided during deep abdominal retraction.	- Prevent injuries to wound edges by retractor blade - Prevent injury to surrounding organs, nerves and blood vesels - Provide warm, non-adhering sponge to pack-off surrounding organs
5. Superficial retractor may be placed by the scrub nurse in field of vision, under surgeon's guidance.	- Scrub nurse can identify wound edges and place retractor, as directed, to assist surgeon
6. Deep retractors are placed by surgeon and held there by the scrub nurse.	- Scrub nurse is removed from the area of direct view. The placement of retractor by the scrub nurse could result in injury to tissue
7. Retractor must not be removed until directed by the surgeon.	- Surgeon may be at a critical stage in procedure. The removal of retractor prior to requested time may interfere with surgeon's direct line of view and/or cause injury to operative area

II. Irrigate operative site

Policy:	**Purpose:**
Scrub nurse is required to provide irrigation in the operative site with irrigation solutions designated by the operating room surgeon.	To facilitate a clear field of vision To assist the surgeon in identifying bleeding points To irrigate septic wounds with antibiotic solutions To prevent osteogenesis and osteonecrosis when drilling of bone is employed

Procedure:	**Rationale:**
1. Irrigation solutions must be mixed according to the surgeon's directions.	- Improper mixing of solutions with drugs may cause injury to tissue, or be ineffective, according to the surgeon's desired intention
2. Irrigation solutions which have been mixed by the scrub nurse should be labelled according to the contents and to the ratio of medication to solution.	- To prevent mix-up of drugs and solutions on set-up, and ascertain proper dilution of irrigation solution to be used
3. Surgeon, circulating nurse and scrub nurse must all verify medications and solutions prior to mixing.	- Prevent wrong medication for patient delivery
4. Anaesthetist must give consent for drugs which may alter effects of anaesthesia, i.e., adrenalin.	- Prevent untoward effects in patients' cardiac output
5. All irrigation solutions must be verified by the circulating and scrub nurses.	- Double check the proper irrigation solution as per surgeon's request
6. Irrigation solutions used intra-abdominally must be at body temperature.	- Hot solutions can cause burns to tissue, and cold solutions can cause neurogenic shock
7. Normal saline 0.9% may be used at room temperature during drilling procedures on bone.	- Solutions at room temperature will prevent osteonecrosis due to overheating of bone during drilling - Prevent the migration of bone in adjacent areas of surgery whuich could cause osteogenesis
8. Prepare irrigation solution in calibrated pitcher.	- Large size allows easy mixing and dilution if powdered drugs used - Enables visual calculation of irrigation solution
9. Irrigation delivered by pouring directly into operative site from basin, or by aspeto syringe	- Ensures fast, easy delivery of irrigation solution
10. Suction must be readily available following the irrigation of the operative site	- To remove irrigation and debris from surgical site to facilitate viewing of operative site

Conclusion

The role of the nurse in the operating room involves much more than expertise in the technical aspects. The opening statement from the I.C.N. Code for Nurses and its statement regarding Nurses and Practice are documents that more than adequately sum up our role as patient advocates in the O.R.

"The fundamental responsibility of the nurse is fivefold:
1. To restore health
2. To alleviate suffering
3. To promote health
4. To prevent illness
5. To create a spiritual environment

The nurse carries personal responsibility for nursing practice and for maintaining competence by continual learning."[6]

References

1. The College of Nurses of Ontario, "Standards of Nursing Practice for Registered Nurses and Registered Nursing Assistants;" pg. 40, 1987.
2. Ibid, pg. 40
3. Ibid, pg. 19
4. Ibid, pg. 50
5. Ibid, pg. 41
6. International Council of Nurses, Geneva, Switzerland, 1973; also, International Nursing Review; 20 (1973): 132.
7. College of Nurses of Ontario, "College Communique,: 12, 13, May, 1989.

About the author

Theresa Markowski, R.N., is Clinical Instructor, Post Graduate Operating Room Technique and Management Program, Hotel Dieu Hospital, Kingston. A nursing graduate of Algonquin College in Ottawa, she took her post graduate studies at Hotel Dieu Hospital, Kingston.

Dealing with inappropriate surgical behaviour

By L.E. and F.A. Rozovsky

Perhaps nothing was going the way the surgeon had planned it. Maybe he had fought with his spouse or a colleague. The bottom line was that the surgeon was in a foul mood, snapping at nursing staff in the operating room. At one point the surgeon became so outraged with the scrub nurse that instead of handing back an instrument to her, he flung it over his shoulder. The scalpel narrowly missed striking a nurse entering the operating room. The nurse "told off" the doctor and he stifled his rage. That was the end of the episode. No reports were filed. No supervisors were informed of the occurrence.

Although the facts may be slightly different, the scenario is sadly familiar to many operating room nurses. Should they grin and "bear it" or should they "fight back?" If they fight back, how should they proceed?

Legal duty

Nurses have a legal duty of care to patients as well as to their employer. If they know or should know of hazardous, abhorrent behaviour on the part of a surgeon, they should report it. The failure to do so might constitute substandard practice. If harm did result from the failure to report, the stage would be set for negligence litigation.

Why action rarely taken

Without some type of guarantee that reporting such episodes will not result in job action, nurses feel uncomfortable notifying supervisors. There is also the fear that despite "job protection," the reported surgeon will make life unbearable for those who take such action. Some nurses also feel that it is up to the surgeon's medical colleagues and not nursing to redress wrongful behaviour. Still others believe that it is useless to make such reports because surgeons are so influential in hospital circles that nothing more than a "slap on the wrist" can be expected. For those who share this belief, it is not worth the hassle to report inappropriate conduct.

The absence of job protection is by far the most serious stumbling block. It is an issue that should be addressed in nursing and hospital management policy and procedure. The medical staff and the hospital board must also be prepared to support a programme which may mean severe sanctions for unruly surgeons.

Where to start

The first step is to determine what procedures and reporting channels are in place to facilitate proper communication of unacceptable behaviour. This requires a total systems review for nursing, medicine, surgery and management. If inadequacies are found, corrective action is in order.

The second step is to review existing nursing contracts and collective agreements to determine if job protections are in place. Job actions should be prohibited unless a nurse makes a report that is malicious or in bad faith with a view toward jeopardizing a surgeon's staff privileges. If protections are not in place, corrective action will be required.

The third task is to deal with agency nurses.

Trained in an era when it was not customary to "rock the boat," (nursing supervisory personnel) may prefer to avoid contentious situations.

Some nurses do not work for hospitals but for agencies which supply nursing personnel. If unacceptable situations involve agency nurses, it must be clear that reports are filed with the agency as well as the health care facility. This is a matter which must be addressed as part of contractual arrangements and orientation for agency personnel.

The fourth measure is to put in place a fair, detailed investigatory process. Both sides of a situation must be carefully examined. The principles of natural justice must be observed. This includes the right to a fair hearing, an opportunity to confront accusers, and to have a fair impartial determination.

Fifth, the health facility must have established disciplinary responses it can use when surgeons do act inappropriately. This may include warnings, sanctions, suspensions of privileges or total removal from the medical staff. From the hospital board's perspective, this necessitates careful documentation and evidence to substantiate severe disciplinary action. Operating room nurses who witness scalpel-throwing or similar incidents must be prepared to give written and verbal evidence at privileges proceedings. Without such evidence, the board may be on shaky ground in curtailing or removing a physician's surgical privileges.

Finally, provision should be made for reporting serious infractions to the provincial medical disciplinary body. The surgeon who acts out may be suffering from stress or other problems. The scalpel-throwing may be part of a much broader picture. Viewed in isolation, a hospital may remove privileges. However, if a professional disciplinary body sees a pattern emerge involving one surgeon working in different facilities, more sweeping action may be warranted.

Management refuses to act

Reporting unacceptable behaviour and scalpel-throwing incidents may not be well-accepted by nursing supervisory personnel. Trained in an era when it was not customary to "rock the boat," they may prefer to avoid contentious situations. For the O.R. nurse who was the potential "victim" of a flying scalpel, there may not be any inhibitions on reporting. The real challenge involves the options open to an operating room nurse whose supervisor refuses to take action.

To suggest that staff nurses do an "end round" and go over the head of their supervisors may undermine the latter's authority and credibility. However, management of inappropriate conduct on the part of surgeons should not depend on verbal reports to nursing supervisory personnel.

While a reporting system should include verbal reports to supervisors, it is equally important that written reports be completed and forwarded to administration and the medical director. This is a step which should be taken whether or not a supervisor dislikes "rocking the boat." It means that valuable professional performance information is relayed to senior administrative and medical management who, in turn, are then alerted and prepared to take appropriate action.

Documenting the incident

Effective communication depends upon prompt and accurate reporting and recording information. Those responsible for managing unacceptable behaviour need clear, concise reports which describe the circumstances of the episode.

Personal attacks, suspicions, and conjecture are of little use and may be construed as defamatory remarks. However, the names of witnesses should be included so that senior administrative and medical management personnel can interview them about the occurrence of the incident.

To ensure accurate reporting, several steps should be considered:

1. Teaching personnel how to "write up" incidents involving unacceptable behaviour on the part of professional staff. This can be done in orientation and in-service education.

2. Reports should be written in a timely manner. The longer the time frame between the event and the writing of the report, the greater the likelihood that important facts may be overlooked. It is unrealistic to suggest that there will always be instant recording of events.

Nursing staff may not have time during a hectic schedule to stop and complete a report. However, unreasonable delays of hours or days should be explained in the report. This is important to avoid the suggestions that well after the event the nurse decided to "get" the surgeon.

3. First hand reporting is important. Although a report written up by one nurse on behalf of another

may be quite accurate, it may be viewed as "hearsay" information. To overcome this obstacle to accurate reporting, it is best to insist upon first hand accounts of what transpired in the operating room.

4. All reports should be signed by the individual making such reports. The time and date of the report should also be included.

On the cutting edge

Most hospitals are not going to "jump" at the idea of a reporting system which identifies inappropriate behaviour on the part of surgeons. It smacks of confrontation, an aspect of management most people are inclined to avoid. This is unfortunate since scalpel-throwing is as important as pathology and tissue findings in professional performance appraisals. Both reflect surgical judgement.

One may give impetus to a reporting system to report scalpel-throwing and similar outbursts to the nursing union representative. Since the surgeon's behaviour is making working conditions quite unacceptable, the stage is set for a grievance. Although this may be a backdoor approach to professional disciplinary action, it is likely to be very effective in getting management to take action.

Conclusion

This approach to managing unacceptable behaviour is not likely to be adopted overnight. It takes time to evaluate reporting structures, to train personnel how to make reports, and to teach medical advisory committees, senior management and the board how to handle such information. Physicians joining the medical staff must understand that scalpel-throwing and similar behaviour is grounds for privileges action. For the welfare of everyone concerned, it is up to operating room nurses to insist on such an approach. ■

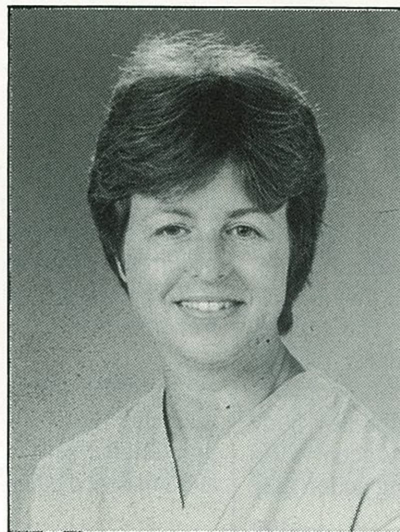
About the authors

Lorne Rozovsky, is a Halifax lawyer with the firm of Patterson Kitz, and adjunct associate professor of law and medicine, Dalhousie University, Halifax.

Fay Rozovsky, M.P.H., president of LEFAR Health Associates, is a visiting lecturer in Health Law, Harvard School of Public Health.

O.R. - ASSISTANT HEAD NURSE

A CAREER IN NURSING



"I chose a career in nursing at Vancouver General Hospital because of career advancement and professional development opportunities."

If you are looking for an **ASSISTANT HEAD NURSE** position, the Vancouver General Hospital Division of Nursing is looking for a Registered Nurse like you.

The position currently available is **FULL-TIME ASSISTANT HEAD NURSE** in the **OPERATING ROOM for the CARDIOVASCULAR TEAM.**

BSN and RNABC registration required. Two years operating room experience and administrative experience essential. (Cardiac surgery experience essential).

Please send resume in confidence to:

Jean MacPhail, Senior Staffing Officer - (604) 875-4256
Vancouver General Hospital
855 West 12th Avenue
Vancouver, B.C. V5Z 1M9

Vancouver General Hospital
British Columbia's Health Sciences Centre

Identifying anaesthetic risks in pregnant surgical patients

By Janet Nelles, R.N., B.Sc.N.

The expectant arrival of a newborn is often the most exciting time a family can enjoy. However, pregnancy can precipitate medical conditions necessitating surgery. Trauma cannot be excluded simply because pregnancy exists. Literature suggests that approximately 0.2% to 2% of North American women will undergo surgery for conditions unrelated to their pregnancy.[2,4]

Women of childbearing age are increasingly remaining in the workforce and continue to work until the final stages of pregnancy. The continuing trend for women to assume employment responsibility traditionally held by men, increases the risk for trauma during pregnancy.[1]

This paper will examine special considerations for the pregnant surgical patient, focusing on aspects prior to labour and delivery. The pregnant woman presents the surgical team with special considerations not only for the well-being of maternal health but fetal health as well.

Maternal considerations

A number of conditions may be found during pregnancy requiring surgical intervention; however a few conditions occur more commonly than others. Ovarian cysts is the most common condition necessitating surgery and has been estimated to occur at rates up to 1:2,500 pregnancies.[9]

Acute appendicitis, occurring at a rate of 0.07%, is another more frequent surgical condition. Other medical conditions that may require surgery are:

- intestinal obstruction
- aneurysm, intracranial tumour
- incompetent cervix
- cholecystitis (inflammation of the gallbladder)
- ulcerative colitis
- nephrolithiasis (calculi in the kidney)
- hyperparathyroidism
- pheochromocytoma (cellular tumor of the sympatho-adrenal system)

What presents to the anaesthetist particular concern over the non-pregnant woman? Pregnant women have a number of changing dynamics occurring within. The anaesthetist not only must consider these dimensions but also the developing fetus.

Changes occurring, from the maternal aspect, cover a variety of systems. The gastrointestinal system poses a difficult problem for anaesthesists, particularly for intubation. Due to the expanding uterus, gastrointestinal contents are pushed upwards and are bounded by an increasingly smaller spacial area. The result is for the stomach to eventually assume a horizontal position, with the pylorus displaced upward and posteriorly. This leads to gastric contents being left longer in the stomach.

Research has found that gastric emptying time of a watery meal can be prolonged by approximately 60%, from week 34 onward.[9] Thus, surgically this patient is not a good anaesthetic risk simply because of aspiration and regurgitation factors impinging on intubation.

Muscle relaxants given to enhance intubation efforts multiply risks involved by relaxing protective reflexes, increasing intra-abdominal pressure and relaxing the cricopharyngeal sphincter.[9] This small fact can potentially create long-term effects for the mother, and perhaps death. Studies have shown that as little as 25 ml gastric juice with pH less than 2.5 introduced to the lungs can cause aspiration pneumonia.[8] To reduce this risk, cricoid pressure, which

can be performed by the circulating nurse, can ensure airway protection and significantly reduce the risk of regurgitation and aspiration and their sequelae. Antacids given to the patient prior to surgery can elevate pH of gastric juices above 2.5, and again, decrease the risks involved with intubation.[3]

The cardiovascular system & pregnancy

Cardiovascularly, a number of changes occur. Because of the growth of the fetus, maternal organs must compete for space; consequently, if organs are not displaced they can become compressed. This develops during the second trimester and continues until the birth.

The pregnant woman, in a supine position may have compression of the inferior vena cava (IVC) and aorta. A radiographic study has shown that complete obstruction of the IVC occurs in approximately 90% of women at term in the supine position. This affects venous circulation by diversion of venous blood, resulting in a decreased amount of regional anaesthetic required.[9]

ECG changes, resulting from displacement of the heart due to the upward compression of the diaphragm, may be seen. Premature contractions, sinus tachycardia and paroxysmal supraventricular tachycardia occur more frequently during pregnancy.

While these arrythmias may not have any effect on maternal or fetal health, medical personnel should be aware of their occurrence.[8] Women with a past history of thrombophlebitis are at risk for a repeat episode.[4] Depending on the length of the surgical procedure, risks may be carried to all pregnant women due to decreased peripheral vascular resistance, increased cardiac output and vasodilation, all of which occur naturally during pregnancy.[10]

The respiratory system and pregnancy

The respiratory system is not without changes, as well. Again, compression due to the enlarged uterus, alters respiratory patterns and rates. Breathing becomes diaphragmatic rather than costal, and oxygen consumption increases. To compensate, hyperventilation occurs. Swelling in nasopharynx may make intubation difficult and carries the risk of bleeding if nasal intubation is necessary.[4,9] Thus, administration of oxygen becomes a vital component to the well-being of mother and fetus, and should be considered when ventilating the patient. Tidal volume increases by 40%, respiratory rate by 15%, and alveolar ventilation increases approximately 70%.[9]

Another point of consideration is the role of fasting. Carbohydrate metabolism is essential to fetal development. Thus the implications of low or nil caloric intake may not be realized until birth; in most cases for surgery, this is practical.

Maternal injury, depending on type and anatomical location, may have a direct effect on the fetus. The pregnant woman, experiencing blood loss due to trauma, has compensatory mechanisms that are activated. The uterus becomes a non-vital organ and consequently blood is shunted away from the uterus. For the fetus, the result is much the same as that occurring within the adult - blood is shunted away from the non-vital organs and quickly progresses to fetal hypoxia. If severe enough, this can result in fetal death, which occurs much quicker than in adults.[1]

The introduction of drugs to a maternal circulatory system carries the risk of crossing the placental barriers. This area is difficult to research largely because of the ethical impact. In fetal development, organogenesis occurs during days 15 to 56. Central nervous system myelinization (acquiring a sheath of myelin for nerve fibres) occurs during the seventh to ninth months. Avoiding exposure to anaesthetics during these periods is suggested. Potential lethal doses may occur in the administration of drug dosages to the fetus causing teratogenesis (abnormal structures in the embryo resulting in a deformed fetus).[4]

Nursing interventions

Nursing management of the pregnant surgical patient can begin before the patient enters the surgical suite. Basic nursing care and judgement are a good beginning to providing adequate care. Because of the importance of oxygen consumption by the patient, nursing interventions aimed at alleviating any difficulties in this respect should be a priority. This can be done by providing oxygen by nasal specs to ensure adequate oxygenation of the mother and ultimately the fetus.

Alleviating any anxieties or fears the patient may have decreases the risk of hyperventilation.[1] Also, good pain control will contribute to adequate oxygenation. Care should be taken not to oversedate the patient, thus avoiding respiratory depression.

Fetal heart rate

Fetal heart rate (FHR) monitoring can provide objective data not only pre-operatively but intra-operatively and during post-operative recovery. FHR monitoring enables the surgical team to detect onset of premature labour or fetal distress. Thus, depending on the surgical site, FHR monitoring should be in place during post-operative recovery.

Monitoring can become vital since the mother may not be able to feel any premature contractions.[7]

As stated earlier, compression of vena cava and aorta are synonymous with pregnancy. Thus, women in the second or third trimester should not be transported or positioned on the operating room table in a supine position.[9] Rather, transport the patient in a semi-Fowler's position or place a wedge under the right hip; thus, the uterus will be sufficiently displaced, relieving any pressure on the aorta and vena cava.[8] These positions may work well in the operating room suite, depending on the type of surgery.

Patient intubation

Intubation of the patient during pregnancy can be difficult. Earlier discussion revealed anatomical and physiological changes occurring within the gastro-intestinal system. With these changes in mind, intubation should be rapid and with a cuffed tube to decrease the risk of aspiration. If possible, the mother may have had pre-operative antacid.

Application of cricoid pressure will minimize risk when performed during intubation. Use of nasogastric suction will ensure risk is minimized, especially if time patient last ate is unknown.[1]

Intravenous therapy maintenance is of utmost importance. For the woman who has encountered trauma, she may have up to 30 to 35% loss of circulating blood volume before any signs and symptoms of shock may be seen. This can affect the fetus immensely. Hemostatis occurs within maternal circulation but the uterus is a non-vital organ; thus, blood is shunted away to more vital areas. Volume expanders such as Ringer's lactate are essential. Whole blood or packed cells, if necessary, can be used to increase the oxygen carrying capacity of maternal circulation.[1] Intravenous fluids may minimize risk of hypotension that could occur with spinal or epidural anaesthesia.[8]

Other risks to be aware of are the administration of drugs. Choose drugs with a long history of safe use associated with pregnancy. This may avoid long term problems, i.e. congenital defects, potential spontaneous abortion. ECG monitoring of the mother can monitor arrythmias which may not be harmful to patient or fetus but allow the surgical team to stay on top of minute-to-minute changes.

Anaesthetic risks

Research in anaesthetics used during pregnancy in non-obstetrical procedures is diffuse. Ethical dilemmas concerned with this type of research understandably inhibit study on the effects of anaesthesia on pregnancy and fetal development. One study done in Manitoba, examined a number of women undergoing incidental surgery during pregnancy and compared them with women who had not undergone surgery during the course of their pregnancy. The researchers investigated type of surgery, type of anaesthesia and incidence of congenital anomalies.

Their findings were that there was no significant difference in the rate of congenital anomalies between the two groups, but they did find an increased risk of spontaneous abortion in those having a general anaesthetic during the first and second trimester. They also noted that the surgical site, i.e. obstetric or gynecological procedures, were more prone to risk of spontaneous abortion than other procedures. No difference was found in rate of congenital anomalies between the two groups of women.[2]

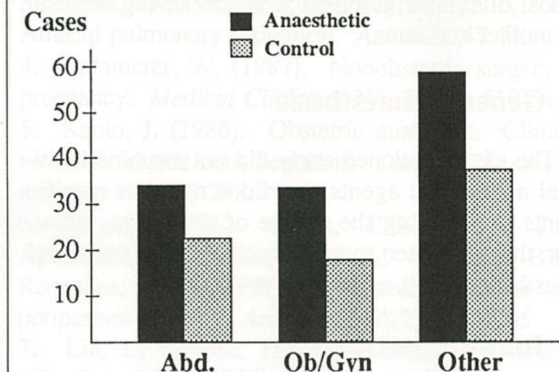


Fig. 1 Abortions by surgery site with general anaesthetic (Duncan et al; *Anaesthesiology*: 793)

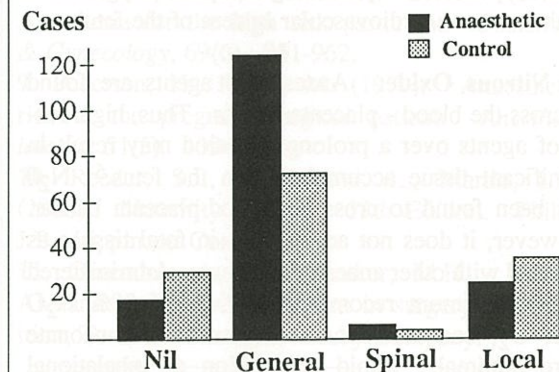


Fig. 2 Abortions by anaesthetic type. (Duncan et al; *Anaesthesiology:* 792)

A number of studies have been conducted on operating room personnel exposed to occupational anaesthetic gases and effects on offspring. It is difficult to correlate these findings to the pregnant surgical patient due to the direct concentration of anaesthetic agent inhaled and absorbed systemically. The

general concensus is that anaesthetics are not good for the developing fetus. However, there is some disagreement about the direct effects and implications of teratogenesis, or the development of abnormal structures in the embryo resulting in deformed fetuses. It is important to remember that in the course of fetal development, organogenesis (the formation of organs) occurs during days 15 to 56, and central nervous system myelinization occurs during the seventh to ninth months. During these periods of development the fetus may be particularly susceptible to the teratogenic affects of anaesthesia.

Of course, the ethical dilemmas abound when considering the pregnant surgical patient. Because of the lack of research on human development with short-term use of anaesthetic agents, the anaesthetist is faced with a number of choices. One must evaluate the importance of two lives at risk and the ethical dilemmas involved with life saving heroism for mother and fetus.

I - General anaesthesia

The aforementioned study did not examine individual anaesthetic agents nor did it mention specific agents used during the course of the study. However, there has been some individual study on several anaesthetic agents on animals:

a) Inhalational agents:

• **Oxygen:** Benefits of oxygen therapy for the pregnant patient have already been discussed. Of utmost importance is providing adequate oxygenation to the tenuous cardiovascular system of the fetus.

• **Nitrous Oxide:** Anaesthetic agents are found to cross the blood - placenta barrier. Thus, high doses of agents over a prolonged period may result in significant tissue accumulation in the fetus.[5] N_2O has been found to cross the blood-placenta barrier. However, it does not accumulate in fetal tissues as is found with other anaesthetic agents. Administered at the maximum recommended dose of 50% N_2O with O_2, concentrations measured in the neonate were minimal. Rapid elimination of inhalational anaesthetic agents are a definite value over parenteral anaesthesia.[5] When N_2O is administered over a long period, one to two days, at 50% concentration, profound effects were noted in pregnant rats and chicken embryos. These were:

- increased incidence of spontaneous abortions
- skeletal deformities, and
- smaller off-spring.[9]

• **Halothane:** Chronic exposure to halothane gases by operating room nurses has suggested an increased risk of congenital deformities and spontaneous abortion.[4] Animal studies have shown increased rates of skeletal anomalies as well as spontaneous abortion following relatively brief periods of exposure during gestation - 3 to12 hours.[9]

• **Enflurane:** No evidence has been shown to date that enflurane (Ethrane) has any profound effects on teratogenesis. However, this inhalational agent does have side effects that one must consider for maternal health. We know ECG changes may occur during pregnancy. Ethrane has been observed to cause increased heart rate, hypotension, decreased seizure threshold and, at high enough concentrations, create arrythmias.[11]

• **Isoflurane** - A relatively new inhalational agent whose effects on teratogenesis are unknown to date [5] However, side effects of this agent include increased heart rate.[11]

b) Intravenous agents

• **Diazepam:** Studies from the effects of long term use of valium has been generated mainly from data gathered from the general population of women giving birth, who were habitual users. Several reports have correlated a relationship between valium and oral clefts. However, short-term use and its effects are unknown.[9]

• **Thiopental sodium:** No direct effects of congenital anomalies have been noted as a result of pentothal use. However, this agent may have effects on intubation. It is an extremely short-acting drug and allows the patient rapid recovery. Thus, it may cause apnea when used for induction anaesthesia.[12] Therefore, risks lie in intubation with respect to aspiration pneumonia and adequate oxygenation of the fetus.

II - Muscle relaxants

• **Succinylcholine:** This non-depolarizing muscle relaxant is especially useful for intubation with rapid onset and short duration. It is the most widely used muscle relaxant and does not appear to have any effects on the fetus.[6,9] However, because of a decrease in serum cholinesterase activity during pregnancy, it has been found that the duration of action of succinylcholine is longer in pregnant women. This increases the length of paralysis which may have implications if airway problems arise.[6]

III Local/regional anaesthesia

These anaesthetic agents (local and regional) are discussed together, as regional anaesthesia employs the use of local anaesthetic agents.

• **Bupivacaine:** Marcaine is a commonly used local anaesthetic agent. Extensive studies done on marcaine have shown that the fetus can metabolize the drug well. However, it is unknown how the metabolites act on the fetus/neonate. It has been reported that administration of marcaine in concentrations of 0.75% can cause cardiac arrythmias following a rapid intravenous injection. Thus, it is no longer recommended for use in obstetric patients.[5]

• **Lidocaine:** This agent has been shown to have effects on the central nervous system in animal studies following direct infusion of a large dose. This is dependent on the time at which the drug is utilized during various stages of fetal development.[9] No evidence has been shown for human teratogenesis.

In general, no evidence has been shown that use of local anesthetics have teratogenic effects. In fact, it has been recorded that they are quite safe when used for subarachnoid injection. In this case, it has been shown that fetal blood levels of local anaesthetic agents are low. However, peridural, caudal anaesthesia or accidental intravascular injection may have effects on the central nervous system and/or myocardium of the fetus. As well, these types of anaesthesia may create vasodilation which can cause fetal hypoxia by decreasing placental blood flow.[4] Thus, local anaesthetics, depending on use, are not without some risk to the fetus.

Conclusion

From the data presented, it is easy to see the difficulty researchers have in identifying anaesthetic risks for the pregnant surgical patient. The pregnant woman has a number of changing variables the surgical team must consider when making the decision to operate. The well-being of the fetus is dependent on maternal factors. Thus, choices become difficult, especially when fetal or maternal life is at stake.

The anaesthetic/surgical team must face ethical and perhaps moral dilemmas when considering anaesthetic choice. Research into teratogenic effects of various anaesthetic agents is diffuse largely because of ethical concerns in gathering data related to humans. However, general consensus is that surgery during pregnancy should be avoided, especially during critical periods, i.e., organogenesis and central nervous system mylenization. Another alternative is to delay the surgery as long as possible. However, the choice is not easy when the decision to operate becomes essential for survival of mother and fetus.

As seen from the data presented, the greatest risk lies in the increased rate of spontaneous abortion. This risk lies mainly in general anaesthesia; however, it may be attributable to other types as well, as seen from animal studies. Nurses can play an important role in reducing risk factors apparent when presented with the pregnant surgical patient by using nursing judgement and skill.

References

1. Bremer, C., Cassata, L. (1986). Trauma in pregnancy. *Nursing clinics of N.A.*, 21(4). 705-716.

2. Duncan, P., Pope, W., Cohen, M., Greer, N. (1986). Fetal risk of anaesthesia and surgery during pregnancy. *Anesthes.*, 64(6). 790-794.

3. Gibbs, G., Schwartz, D., Wynne, J. (1979). Antacid pulmonary aspiration. *Anesthes.*,47.44.

4. Kammerer, W. (1987). Nonobstetric surgery in pregnancy. *Medical Clinics of NA*, 71(3). 550-51.

5. Kanto, J. (1986). Obstetric analgesia. Clinical pharmacokinetic considerations. *Clinical Pharmacokinetics*, 11. 283-298.

6. Leighton, B.L., Cheek, T.G., Gross, J.B., Apfelbaum, J.L., Shantz, B.B., Gutsche, B.B., Rosenber, H. (1986). Succinylcholine in peripartum patients. *Anesthes.*, 64(2). 202-205

7. Liu, L, Warren, T.M., Ostheimer, W., Weiss, J.B., Lui, M.P. (1985). Fetal monitoring in parturients undergoing surgery unrelated to pregnancy. *Cdn. Anaesthetists' Society Jour.*, 32(5). 525-532.

8. Malinow, A.M., Ostheimer, G.W. (1987). Anesthesia for the high risk parturient. *Obstetrics & Gynecology*, 69(6). 951-962.

9. Pedersen, H., Finste, M. (1979). Anaesthetic risk in the pregnant surgical patient. *Anesthesiology*, 51(5). 439-451.

10. Reeder, S.J., Mastroianni, L., Martin, L.L. (1983). Maternity nursing. 15th Edition. Phila.: J.B. Lippincott Company.

11. Gruendemann, B.J., Meeker, M.H. (1987). Alexander's care of the patient in surgery. 8th Edition, Toronto: The C.V. Mosby Company.

About the author

Janet Nelles, B.Sc.N., R.N., is a recent graduate of the Post Graduate O.R. Technique and Management Course, Hotel Dieu Hospital, Kingston. She is a graduate of the Bachelor of Nursing program, Queen's University School of Nursing. Currently, she is a staff member of the medical/surgical unit at Belleville General Hospital, Belleville, Ontario.

- Pfizer Hospital Products Ltd.
- Sims
- J. Stevens & Son Company
- Stortz Instrument Company
- Surgikos/Codman
- Synthes Canada Ltd.
- Valleylab
- Zimmer of Canada Ltd.

Photo shows Jim Lawrence of Bard Canada Inc. presenting the cheque to ORNAC treasurer, Carole Starr (Peterborough Civic Hospital). Mr. Lawrence is treasurer of the Exhibitors Advisory Committee, which oversaw the fund raising. Also on the committee: Steve Carter (Davis & Geck), Lorne Flower (Instrumentarium), Bob Bothwell (MDT)

World OR conference speakers receive assistance from suppliers

A cheque for over $8000 was presented to the Operating Room Nurses Association of Canada to assist Canadian nurses presenting papers at the 6th World OR Conference, which was held in Vienna, Austria from August 28 to September 1.

This financial assistance was made possible through the fund raising efforts of the executive members of the Exhibitors Advisory Committee, and the generosity of the following Canadian medical/surgical supply companies:

- 3M Canada Inc.
- AMD-Ritmed (Pharmascience) Inc.
- AMSCO
- Bard Canada Inc.
- BeJay Medical
- Canadian Anaesthetic & Scientific Company Ltd.
- Canadian Hospital Specialties Ltd.
- Carl Zeiss Canada
- Carsen Medical & Scientific Company Ltd.
- Davis & Geck
- Dumex
- Ethicon Ltd.
- Euroclean Canada Inc.
- Genesis Medical Corporation
- Graphic Controls
- Hewlett Packard
- Imperial Surgical Company
- Instrumentarium
- Johnson & Johnson Medical Canada
- M.D.T.

Windsor area O.R. nurses planning fourth annual conference in February

The Windsor and District Operating Room Nurses Association will be holding its 4th Annual Conference on Friday and Saturday, February 16 and 17, 1990. As with previous conferences, the Hilton International Hotel and the adjacent Cleary Auditorium will be the locale.

Besides the educational/clinical program, there will be an exposition of medical/surgical products. The Saturday luncheon will feature a walk-thru fashion show by Lamonde Fashions.

The theme of the conference is "Changing the Image of the OR Nurse." Conference organizers have scheduled guest speakers and arranged an agenda in keeping with this theme.

Featured speakers already confirmed include:

- Carol Lenox, clinical instructor, Mississauga Hospital "The many jobs of the O.R. nurse."
- Gerry Richardson, Canada Life Insurance "Financial Management."
- Dr. Laurie Campbell, "Homeopathic medicine and laser technology."
- Carole Bertuzzi-Luciani, "Humour in the workplace."

For registration or further information contact:

Darlene Beaudet, President (WDORNA)
Windsor Western Hospital,
Operating Room,
1453 Prince Road,
Windsor, Ontario
N9C 3Z4 (519) 257-5178

Newfoundland O.R. nurses celebrate 10th anniversary during annual meet

Anniversary celebrations were enjoyed by more than 85 delegates attending the recent Annual Provincial Conference of the Newfoundland and Labrador Operating Room Nurses Association.

The three-day affair, held June 1-3 in Corner Brook, was themed "Looking Back - Progressing Forward." Linda Robbins, director of the School of Nursing at the Western Memorial Hospital in Corner Brook delivered the keynote address - "Winters of Discontent - Invincible Spring."

A medical/surgical product and equipment exposition was also part of the program.

Noteworthy agenda presentations included:

- "Hazards of Recovery Room Nursing"
- "The Many Hats of the O.R. Nurse"
- "Asceptic Technique - Ritual vs. Reality"

The annual general meeting of the association saw the installation of a new provincial executive:

President
Shirley Taylor
4 Laurier Street
St. John's, Nfld.
A1A 2W1

Vice-president elect
Angela LeMoine
P.O. Box 67, W.E.P.S.
Curling, Nfld.
A2H 3J0

Vice-pressident, Public Relations
Lillian Budden
25 Forbes Street
St. John's, Nfld.
A1E 3L4

Vice-president, Education
Marg Howe
23 Valley View Drive
Corner Brook, Nfld.
A2H 6R4

Secretary/treasurer
Debi Cashin
15 Forest Road
Windsor, Nfld.
A0H 2H0

Past-president -
Anne Hughes
107 Strawberry Marsh Rd.
St. John's, Nfld.
A1B 2V7

N&LORNA Executive: 1989 - 1991

Seated: Shirley Taylor, Angela LeMoine, Anne Hughes; **Standing:** Debi Cashin, Lillian Budden, Marg Howe

ARTHROSCOPY PROGRAM FOR O.R. NURSES

The **Orthopaedic and Arthritic Hospital,** in conjunction with **Zimmer of Canada Limited,** is pleased to offer a series of two-day arthroscopy courses for operating room nurses.

Course Director:
Robert W. Jackson, M.D., M.S., F.R.C.S. (C)
Course Instructor:
Marlene Muir, R.N.

Program Highlights...

- Peri-operative management of patients undergoing arthroscopic surgery
- Anaesthetic techniques
- What to purchase
- Care, handling and sterilization of instrumentation and equipment
- Normal/abnormal knee pathology
- Skills lab - models and videos
- Trouble shooting the video system
- Observation of O.R. arthroscopy procedures

Location:
Orthopaedic and Arthritic Hospital,
43 Wellesley Street East
Toronto, Ontario
M4Y 1H1

Course Dates:
September 25-26
October 30-31
November 20-21
December 11-12

Course Fee:
$150.00 per nurse - includes breakfast, lunch, and dinner on evening one. Does not include hotel.

Registration:
To register, phone or write:
Bette Hales, Zimmer of Canada Limited,
2323 Argentia Rd., Mississauga, Ont.
L5N 5N3 (416) 858-8588

Planning committee for 1990 National OR Nursing Conference scheduling high impact topics for agenda

One of the tenents guiding the selection of program topics for the 11th National O.R. Nurses Conference scheduled for Toronto next April is the current issues that are impacting on operating room nurses in the workplace.

Audrey MacDonald, publicity convenor for the national conference that is to take place next April 2 - 6 at the Harbour Castle Westin Hotel and Convention Centre in downtown Toronto, reports that the Program Planning Committe had been scrutinizing the numerous topics that are currently impacting on operating room nurses today. "We've made some of our selections already. All our topics thus far reflect current issues which are of concern to nurses in todays workplace."

The theme of the conference is "Progress through Power: Personal, Professional and Political."

Some of the topics that have been lined up thus far include:

- "The legal implications of the nursing shortage;"
- "O.R. nurse personalities"
- "Protecting women's rights"
- "The 21st century nurse"
- "Nursing power"

To date, 50% of the approximately 150 booth spaces available have been sold. Prospective exhibitors are advised that booth space is provided on a "first come, first serve basis." Medical/surgical manufacturers and/or distributors are encouraged to reserve their exhibit space as soon as possible.

The last national operating room nursing conference was held in Vancouver in 1988. Over 900 delegates registered for the gathering last April, and approximately 130 exhibit booths were reserved.

Delegates interested in pre-registering for the 11th National OR Conference are asked to contact:

Audrey MacDonald
2301 Mountaingrove Ave.
Burlington, Ontario
L7P 2H8 (416) 586-4401

Exhibitors contact:
Valerie Shirreff
#36, 7251 Copenhagen Rd.
Missisauga, Ontario
L5N 2H6

Quebec operating room nurses schedule 23rd provincial conference for Montreal in October

The operating Room Nurses Association of Quebec will be holding its 23rd Provincial Conference at the Laval Congress Centre in Montreal from the 4th to 6th of October, 1989.

The theme of the conference is "The Challenge of Year 2000."

The Quebec O.R. conference is the oldest operating room nursing conference in Canada, dating back to the 60s.

For enquiries contact:
(1) Monique Duguay, O.R.
Hopital General LaSalle,
8585 Terrasse Champlain,
LaSalle, Quebec H8P 1C1
(514) 365-1510

(2) Claude Marcil, Inf.-Chef,
Centre Hospitalier Lachine
650 - 16ieme Ave.
Lachine, Quebec H8S 3N5
(514) 637-1127

Metal detectors could trigger defibrillators

Airport security personnel who wave their wand-like metal detection devices could trigger a defibrillating pulse and possibly arrythmia in patients with automatic implantable cardiac defibrillators (AICD).

The warning comes in the wake of tests conducted by the Bureau of Radiation and Medical Devices in Ottawa. The tests were made in response to passenger safety concerns raised by Transport Canada.

Patients should be aware of the hazard and ensure that security officials do not use wands near the AICD implant site. These individuals should be hand-searched, the bureau stresses. To this end, Transport Canada has been informed and manufacturers of implantable cardiac defibrillators have been asked to put a warning in their physician/patient manuals.

Post-op headaches could be linked to caffeine

Headaches that are frequent side effects of a general anaesthetic could be linked to caffeine withdrawal caused by fasting before the operation, a study from London, England has suggested.

Dr. Galletly and two colleagues at the Hammersmith Hospital in London, asked 150 patients undergoing day-surgery to complete a questionnaire on post-operative symptoms. They were also asked how many cups of tea and coffee they drank daily.

An analysis of the completed questionnaires showed a significant relationship between post-op headache and caffeine intake.

The researchers noted that the frequency of headaches increased with caffeine intake up to about 200mg per day. After this, a plateau in the rate of headaches occurred. A caffeine level of 200mg is equal to four cups of tea or three cups of instant coffee per day.

Ontario PAR nurses to hold annual meet

The Ontario Post Anaesthetic Nurses Association will be holding its 4th Annual Conference in Toronto this September. The annual gathering will be held at the Chestnut Park Hotel September 29 and 30.

Agenda highlights include:

- a panel discussion on current issues affecting the post anaesthetic nursing specialty
- a debate on "solo staffing"
- legalities of being a post anaesthetic nurse
- fluid balance
- patient controlled analgesia

For more details, contact:
Gail Skene:
Work: 416-633-9420
Ext. 6615
Home: 416-884-5697.

OR news

200,000 nurses are needed in the U.S.

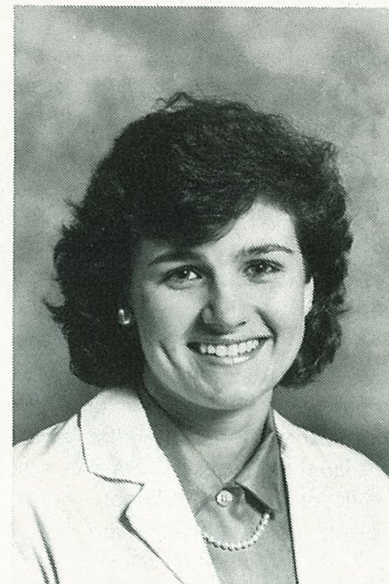
The United States is short of at least 200,000 nurses, and this pervasive shortage is beginning to erode the quality of care, a government panel declared recently.

The Commission on Nursing, a Washington-based organization, said an aging population, new technology coupled with educational shortcomings, and the AIDS crisis, are the major factors accounting for the shortage.

The commission recommended expanded career opportunities, increased pay for nurses and easing the burden of work on the many nurses who are overworked.

O.R. INSTRUCTOR - STAFF DEVELOPMENT

A CAREER IN NURSING



"I chose a career in nursing at Vancouver General Hospital because of its strong commitment to professional development and staff support."

If you are looking for a career in **STAFF DEVELOPMENT** the Vancouver General Hospital Division of Nursing is looking for a Registered Nurse like you.

The position currently available is **FULL-TIME INSTRUCTOR - NURSING STAFF DEVELOPMENT** in the **OPERATING ROOM.**

BSN and RNABC registration required, Master's preferred. Recent operating room and teaching experience essential.

Please send resume in confidence to:

Jean MacPhail, Senior Staffing Officer: (604) 875-4256
Vancouver General Hospital
855 West 12th Avenue
Vancouver, B.C. V5Z 1M9

Vancouver General Hospital
British Columbia's Health Sciences Centre

Hamilton area OR nurses "Get to the Heart of Things"

The Operating Room Nurses Association of Hamilton and District have completed plans for a one-day "Educational Workshop" on coronary heart disease.

"Get to the Heart of Things" is the topic of the one day educational event scheduled for Saturday, October 21 at the Holiday Inn, Burlington, Ontario. For more details:

Janet MacCullouch
Work - (416) 389-441 Ext. 3413
Home - (416) 575-8373

Studies show that laughter and a sense of humour boost the body's immune system

If you're not a good laugher, it's advisable that you start practicing to become one - it's healthier according to studies carried out at the University of Waterloo and Texas Tech University.

In the Texas study, researchers found that laughter reduced pain about 20% in a group of volunteers. "Laughter stimulates internal organs, helps reduce blood pressure and promotes relaxation," says Dr. William Fry, a psychiatrist who has been studying the physiology of laughter for more than 30 years. Dr. Fry also believes laughter reduces certain immune depressors in the blood.

In a similar study at the University of Waterloo in Ontario, researchers there rated a group of volunteers on their sense of humour. Those who received higher scores in their rating for having a sense of humour also were found to have higher levels of immunoglobulin A (IgA) as well as immunoglobulin G (IgG).

IgA and IgG are proteins in the body considered important in protecting the body from invasion by pathogenic bacteria.

Chronic chills linked to iron deficiency

You're scrubbing up or preparing the operating room in the early morning hours for the days schedule, and those chilly feelings just won't go away. Chances are its because you have an iron vitamin deficiency.

Researchers at Pennsylvania State University recently linked chronic chills in women to a deficiency in iron. In tests carried out on 18 young women, they found that eight of the 18 suffered almost twice as large a drop in body temperature when exposed to cold. These eight women also generated 13% less body heat and had a significantly lower metabolic rate. After 12 weeks on iron supplements, the eight women chilled out at normal levels following exposure to cold.

Unsupervised dieting said to be dangerous

Unsupervised dieting can be ineffective and dangerous says Dr. Richard Rivlin, Chief of Nutrition at the Sloan-Kettering Cancer Center in New York. In addition to the loss of lean tissue along with fat, unsupervised fasting can deplete such elements as potassium. If potassium levels drop too low, heart arrhythmias and even sudden death can occur.

St. PAUL'S HOSPITAL
(Grey Nuns') of Saskatoon

Registered Nurses Operating Room

(Full Time, Regular Part-Time, Casual)

St Paul's Hospital is nearing the completion of a 65 million dollar expansion which will see its total bed capacity increase to 436 this year. A Christian Institution in the Catholic tradition, our hospital aspires to offer "health care with a difference"

Qualification: Practising registration with S.R.N.A. Must have current O.R. experience.

Salary: $14.45 - $18.30 (based on experience)

Please forward application to:

Personnel Officer (Nursing Recruitment)
St. Paul's Hospital (Grey Nuns') of Saskatoon
1702 20th Street West
Saskatoon, Saskatchewan
S7M OZ9

VALLEY HEALTH SERVICES ASSOCIATION

Valley Health Services Association, a Regional Hospital, the main referral Centre for Nova Scotia's beautiful Annapolis Valley for specialties including, Orthopedics, Paediatrics, Obstetrics, Urology, Internal Medicine, Psychiatry, Cardiology, Thoracic and Vascular Surgery, General Medicine and Surgery has immediate openings for:

TWO OPERATING ROOM NURSES

Qualifications:

- Registered in the Province of Nova Scotia.
- Previous and recent O.R. experience and/or a post basic O.R. course.

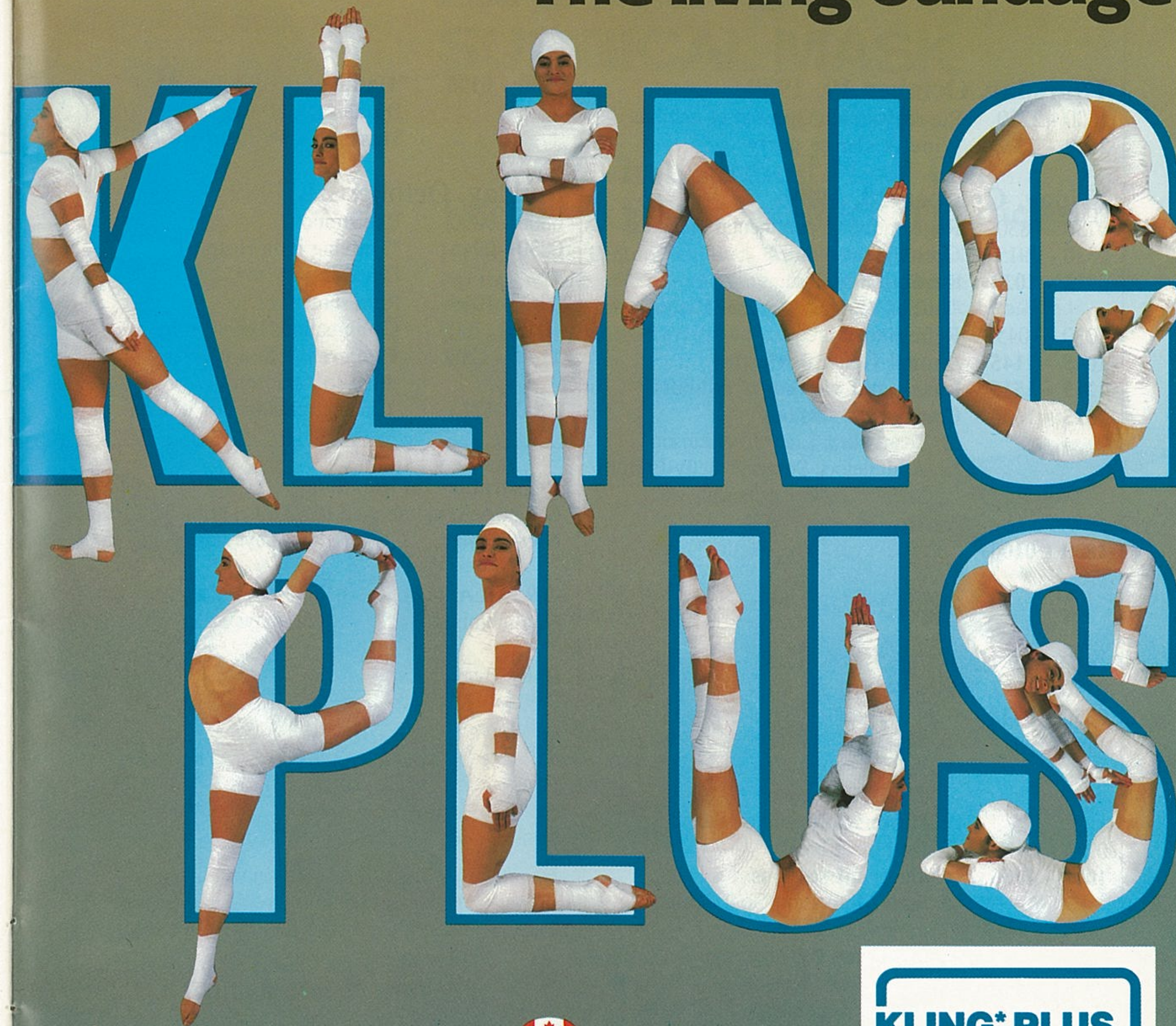
Please send complete resume to:

Personnel Department
Valley Health Services Association
Miller Unit
100 Exhibition Street
Kentville, Nova Scotia
B4N 1C4

A conforming bandage must:

- have the ability to mold or conform to irregular body surfaces
- adhere to itself and stay in place without slipping
- have controlled stretch to create **moderate compression without causing constriction**
- be virtually lint-free and non-fraying
- provide breathability and softness for patients' comfort
- be absorbent
- and, it should almost be...

The living bandage



A Canadian achievement in research and development

KLING* PLUS
conform bandages

Johnson & Johnson INC.

*Trademark of JOHNSON & JOHNSON

Operating Room Nurses of Alberta

1989 Annual Conference

Medicine Hat Lodge & Cypress Centre

Thursday, October 19 - Sunday, October 22, 1989

Thursday, October 19, 1989

1600 - 2220 Pre-registration/Opening of exhibits
2200 - 2330 Wine & cheese party

Friday, October 20, 1989

0730 - 0830 Registration & continental breakfast
0830 - 0915 Opening ceremonies
0915 - 1030 Keynote address...
"Gift of Wings," Mr. Carl Hiebert
1030 - 1045 Refreshment break
1045 - 1145 Annual General Meeting
1215 - 1515 Lunch and viewing of exhibits
1515 - 1630 Concurrent sessions
a. Teamwork: Lucy Jo Atkinson
b. Ambulatory Surgery: Betty Barrett
c. Emergency Anaesthesia: Dr. Forestall
1830 - 0100 "Shakin' with the Sixties" Dinner/Dance Music by "Klaas Craats"

Saturday, October 21, 1989

0730 - 0830 Registration
0830 - 0945 Concurrent sessions
a. Technical Standards: M. Shewchuk
b. Patient Monitoring in OR/PARR Dr. B. Soklofske
c. Universal Precautions: Jane Robbins
0945 - 1015 Refreshment break
1015 - 1130 Concurrent sessions
a. Staff Motivation/Goal Setting: Linda Iwasiw
b. Malignant Hypothermia: Dr. Conley
c. AIDS: Irene Kahler
1130 - 1430 Lunch and viewing of exhibits
1430 - 1545 Concurrent sessions
a. Computers in the O.R.: Donna Prokopczak
b. Orthopaedic Implant Surgery: Dr. R. MacKenzie/Dr. E.D. Scott
c. Middle Ear Disease: Dr. N. Harris
1900 - 0100 "Hawaiian Beach Party" Dinner and Dance Music by "Moments Notice"

Sunday, October 22, 1989

0800 - 0830 Registration
0830 - 0945 "Thriving in a Hospital": David Irvine
0945 - 1015 Refreshment break
1015 - 1130 Continuation: David Irvine
1130 - 1200 Conference Summarization: Luci Jo Atkinson
1200 - 1215 Closing remarks and brunch

Registration Information:
O.R.N.A.A. member - $165/3 days prior Sept. 15
Non-member .... - $185/3 days prior Sept. 15

O.R.N.A.A. member - $185/3 days after Sept. 15
Non-member .... - $205/3 days after Sept. 15

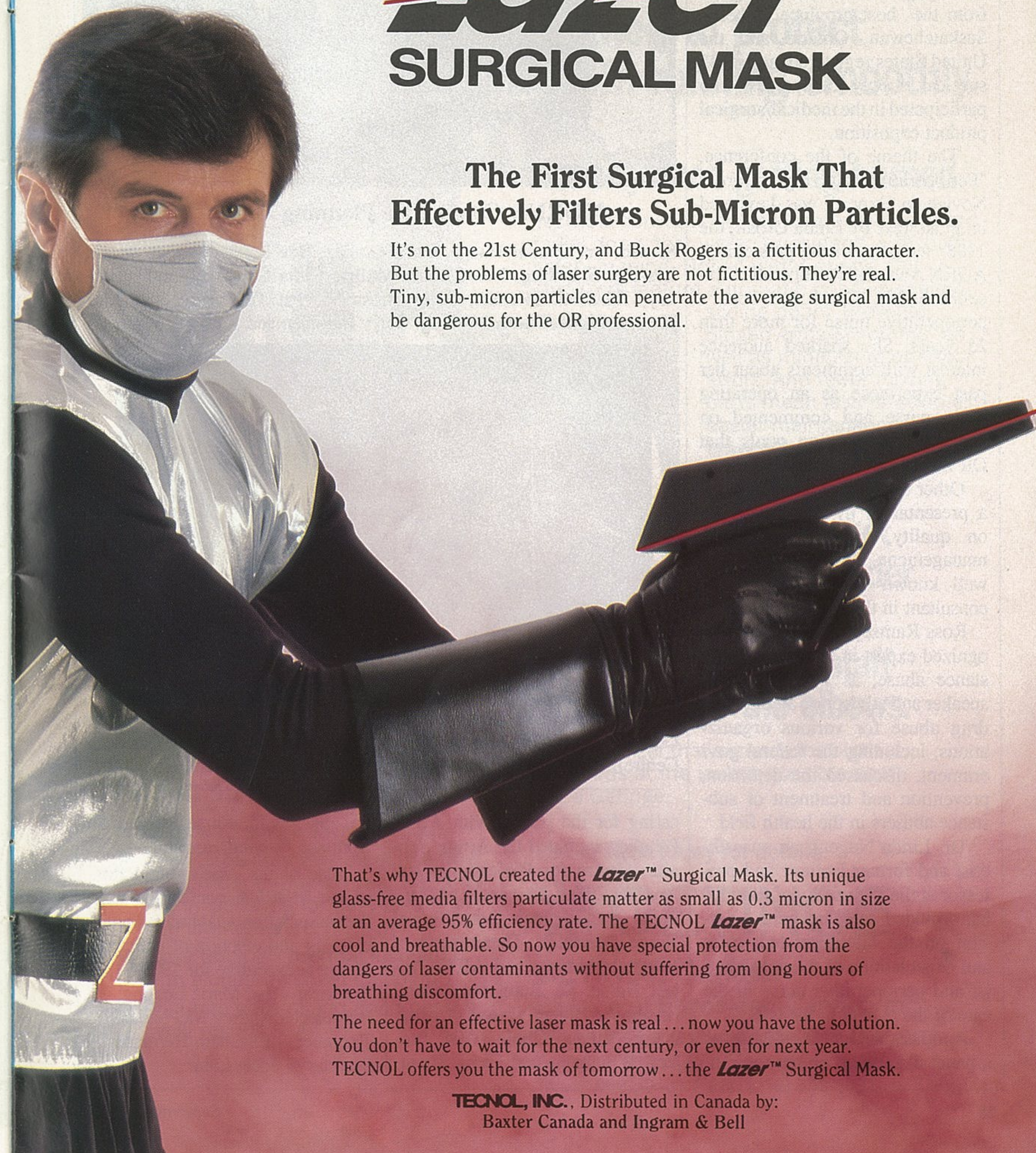
Daily Registration:
Friday - O.R.N.A.A. member - $75.00
Non-member .... - $85.00
Saturday - O.R.N.A.A. member - $75.00
Non-member .... - $85.00
Sunday - O.R.N.A.A. member - $60.00
Non-member .... - $65.00

Registration includes: all sessions, lunch, brunch, continental breakfast, Wine and Cheese Party, and social events for the days registered.

For further information:

Mrs. Marge Ensminger
"89 O.R.N.A.A. Conference Chairperson
340 - 14th Street N.E.
Medicine Hat, Alberta
T1A 5V8

Even Buck Rogers Didn't Have Protection From Laser Plume... Until Now.



Perioperative nursing "alive and well" in Manitoba

Province enjoys its third successful OR conference

The Third Biennial Conference of the Manitoba Operating Room Nurses Association was held June 11 to 13 at the Delta Hotel in Winnipeg. Over 125 delegates from the host province, Alberta, Saskatchewan, Ontario and the United States registered, as did 35 surgical supply companies who participated in the medical/surgical product exposition.

The theme of the conference, "Perioperative Nursing - From Novice to Expert" was keynoted in an address by Linda Groah, the 1988 recipient of the prestegious AORN Award of Perioperative Excellence. Ms. Groah has been a perioperative nurse for more than 25 years. She sparked audience interest with comments about her past experinece as an operating room nurse and commented on some of the exciting goals that OR nurses can look forward to.

Other dynamic topics included a presentation by Fay Rozovsky on quality assurance and risk management. Ms. Rozovsky is a well known lawyer, writer and consultant in the health care field.

Ross Ramsey, a nationally recognized expert in the field of substance abuse, as well as writer, speaker and advisor on alcohol and drug abuse for various organizations, including the federal government, discussed the detection, prevention and treatment of substance abusers in the health field.

Dr. Linda Nugent, an anaesthetist and former lecturer and professor at the University of Manitoba, provided delegates with a session on the interdependent roles and expectations of the anaesthetist and perioperative nurse in the care of the patient in the OR.

Another program highlight was a panel discussion on the topic of caring for the patient with AIDS. Panelists included Dr. Arthur Schafer, Centre for Professional and Applied Ethics, University of Manitoba; Tracy Hildebrandt, Clinical Nurse Specialist, Department of Medical Nursing, and AIDS Project Nurse, St. Boniface General Hospital; Diane Issacs, Coordinator, Village Clinic AIDS Project, Winnipeg; and Chris Shymko, Sr. Staff Nurse, O.R., St. Boniface General Hospital.

One of the social highlights of the MORNA conference was the association's annual dinner meeting and election of officers. The new executive for 1989-91. President - Eva Marie Lessing; Pres-elect - Audrey McPhaden Treasurer, - Elizabeth Herman; Secretary - Josie Lam.

MORNA Conference Planning Committee

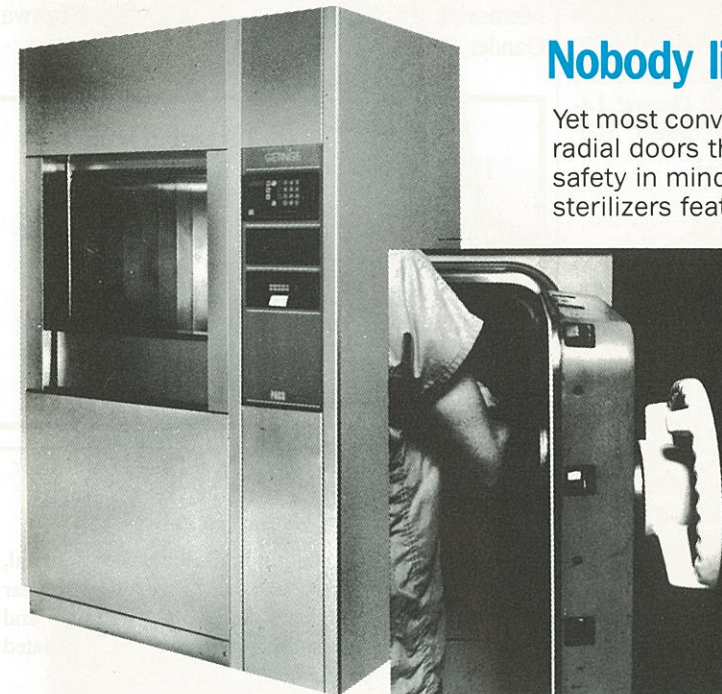
Seated, l-r: Sharon Hodge, Chris Gomez, Bev Popowich, Eva Marie Lessing. **Standing, l-r:** Coralee Muller, Chris Shymko, Carole Rickey, Elizabeth Herman, Sally Brosnyak, Pat Corey, Audrey McPhaden, Linda Clarke. **Missing:** Gerry Boughen and Kathleen Lebar.

At the MORNA Wine & Cheese Party

Left to right: Eva Marie Lessing, MORNA President (St. Boniface General Hospital); Sharon Hodge, Past-president (Health Sciences Centre); Elizabeth Herman, Treasurer (Misericordia General Hospital).

Staff getting burned up over your sterilizer? Better get a Getinge.

The sterilizers designed to protect your staff and keep the O.R. running smoothly.



Nobody likes getting burned.

Yet most conventional sterilizers have awkward radial doors that weren't designed with staff safety in mind. Not so with Getinge. Our sterilizers feature automatic positive-sealing, sliding doors. Prevents "Singed Arms Syndrome" as well as minimizing operator effort. And fewer moving parts mean less downtime, easier maintenance, and fewer scheduling headaches.

Don't let your sterilizer get you hot under the collar. Or your staff singed below the elbows.

Get a sterilizer that exceeds the highest standards at the lowest possible cost. Get a Getinge.

Getinge sterilizers treat you right.

And in so many ways...

- Compact, space-saving design.
- Solid 316L stainless steel chamber construction with ten year warranty. Highly polished for easy cleaning and maintenance.
- Extra thick 2" thermal insulation with aluminum sheet cladding.
- Accurate control and documented cycle results STAT!

Call or write today for details.

GETINGE

GETINGE Canada
Division of **Euroclean Canada Inc**
866 Langs Drive Cambridge, Ont. N3H 2N7
Tel: (519) 653-8880
Telex: 069-59481 FAX: (519) 653-8691

Calendar of Events

September 28 - 29, North Bay, Ontario:
15th Annual Conference, Northern Ontario Operating Room Interest Group - NOORIG. (For details Mary Rankin, North Bay Civic Hospital, 750 Scollard Street, North Bay, Ontario P1B 1C1).

September 29 - 30, Toronto, Ontario:
4th Annual Conference, Ontario Post Anaesthetic Nurses Association (OPANA), Chestnut Park Hotel. (Contact, Gail Skene: Work: 1-416-633-9420 Ext. 6615 Home: 416-884-5697.

October 4 - 6, Montreal, Quebec:
23rd Annual Provincial Conference, L'association des infirmiers(es) des salles d'operation du Quebec, Centre des Congres de Laval a Laval, Montreal, Quebec. (Contact Monique Dugay, Hopital General LaSalle, 8585 Terrasse Champlain, LaSalle, Quebec H8P 1C1 (514) 365-1510).

October 11 - 14, Halifax, Nova Scotia:
18th Atlantic Operating Room Nurses Conference, Hotel Nova Scotian. (Contact: Bernadette Frances, Conference Chairman, 11A Victoria General Hospital, Halifax, Nova Scotia B3H 2Y9).

October 19 - 22, Medicine Hat, Alberta:
Annual Provincial Conference, Operating Room Nurses of Alberta, Medicine Hat Lodge and Cypress Centre. (For information contact Marge Ensminger, Chairperson, 340 - 14th Street North East, Medicine Hat, Alberta T1A 5V8 (403) 527-2122).

November 3 - 4, Vancouver, B.C.:
Post Anaesthetic Nursing Conference, Hyatt Regency Hotel. (Sponsored by the Canadian Association of Critical Care Nurses and the Vancouver Community College. (For details and registration, Continuing Education, Nursing and Health, Vancouver Community College, 250 West Pinder Street, Vancouver, B.C. V6B 1S9 (604) 687-1757).

November 4, Oshawa, Ontario: Fall Conference, Operating Room Nurses Association of South Central Ontario, Durham College, 2000 Simcoe St., Oshawa, Ontario. (Contact Eunice Bowman, Oshawa General Hospital, Operating Room, 24 Alma St., Oshawa. After 1600 hrs., 416-576-4735).

February 16 - 17, 1990, Windsor, Ontario:
4th Anual Conference, Windsor and District Operating Room Nurses Association, Hilton International Hotel and Cleary Auditorium. (For more details and registration: Darlene Beaudet, W&DORNA president, c/o Windsor Western Hospital, Operating Room, 1453 Prince Road, Windsor, Ontraio N9C 3Z4 519-257-5178).

June 27 - 29, 1990, Banff, Alberta:
21st Annual Scientific Sessions, Canadian Association of Neuroscience Nurses. (For more deatls on conference and for those submitting abstracts for the event, contact Maureen Robertson, Box 676, Bragg Creek, Alberta T0L 0K0).

October 18 - 20, 1990, Gander, Nfld: 11th Annual Conference, Newfoundland & Labrador Operating Room Nurses Association, Hotel Gander. (Exhibitors contact Henry Norris, James Paton Memorial Hospital, 125 Trans Canada Highway, Gander, NF A1V 1P7

April 2 - 6, 1990, Toronto, Ontario:
11th National Operating Room Nurses Conference, Harbour Castle (Westin) Hotel.
Delegates contact Audrey MacDonald, Operating Room, Mount Sinai Hospital, 600 University Avenue, Toronto, Ontario M5G 1X5.
Exhibitors contact Valerie Shirreff, Operating Room, Mississauga Hospital, 100 Queensway West, Mississauga, Ontario L5B 1B8.

General Journal Information

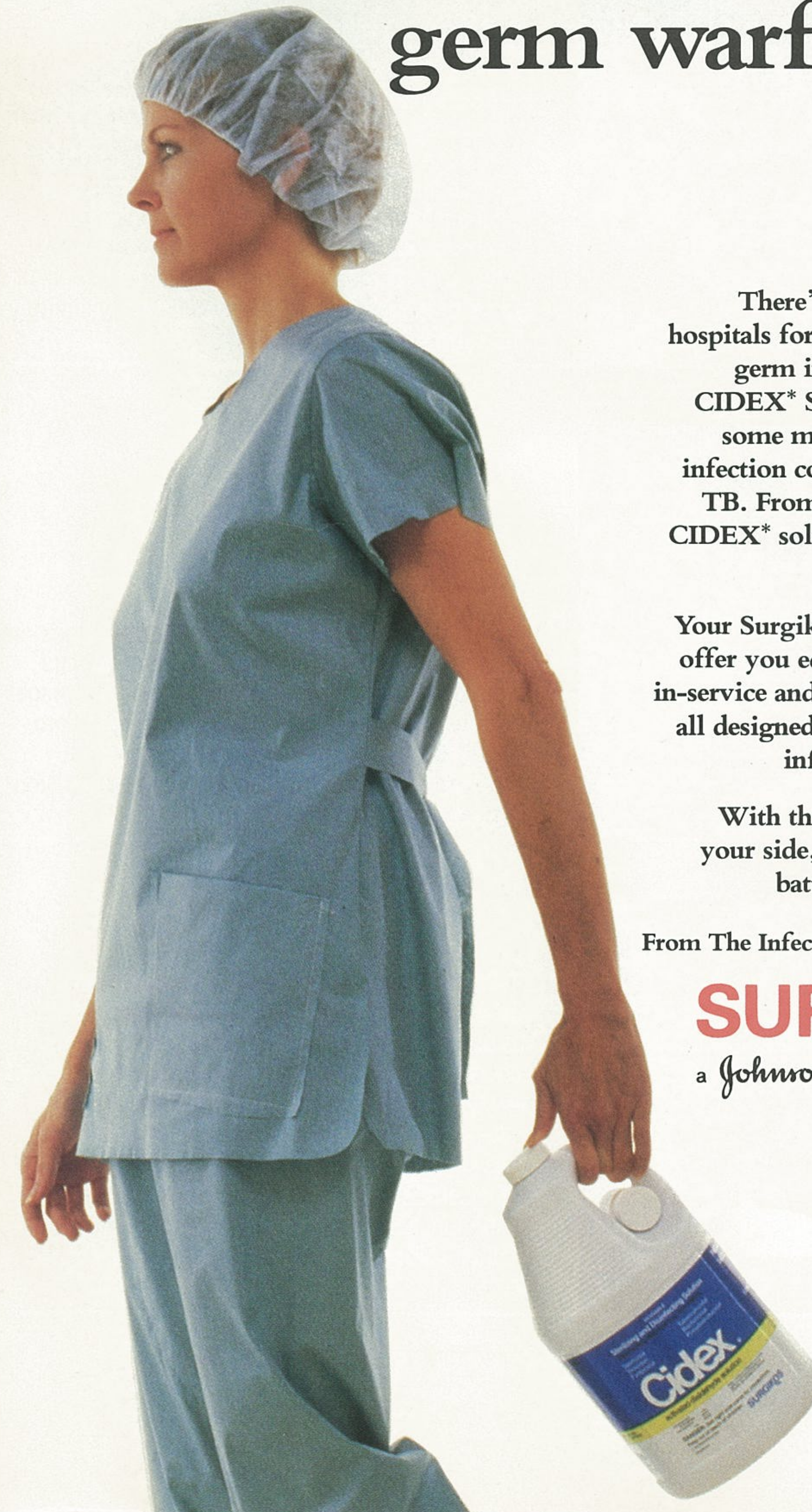
Canadian Operating Room Nursing Journal, copyright, 1983, is published six times a year (February, April, June, September, October and December) for operating room nurses and related surgical nursing personnel across Canada.

Canadian Operating Room Nursing Journal is indexed in Index Medicus, the Cumulative Index to Nursing and Allied Health Literature, and the International Nursing Index, United States National Library of Medicine, Bethseda, Maryland.

Canadian Operating Room Nursing Journal permits reproduction of its contents for noncommercial purposes in the interest of educational or scientific advancement. Any other intent for use of the contents of the Canadian Operating Room Nursing Journal requires the editor's consent.

Canadian Operating Room Nursing Journal is published by Health Media Incorporated, Suite 202, 214 Merton Street, Toronto, Ontario M4S 1A6 (416)-481-2244.

For two decades we've been conducting germ warfare.



There's no room in today's hospitals for cost overruns due to germ infection. That's why CIDEX* Solutions are tackling some major problems facing infection control. From staph to TB. From herpes to influenza. CIDEX* solutions are the proven leader in asepsis.

Your Surgikos representative can offer you educational programs, in-service and training materials— all designed to meet the needs of infection control today.

With the CIDEX* system on your side, you too can win the battle against infections.

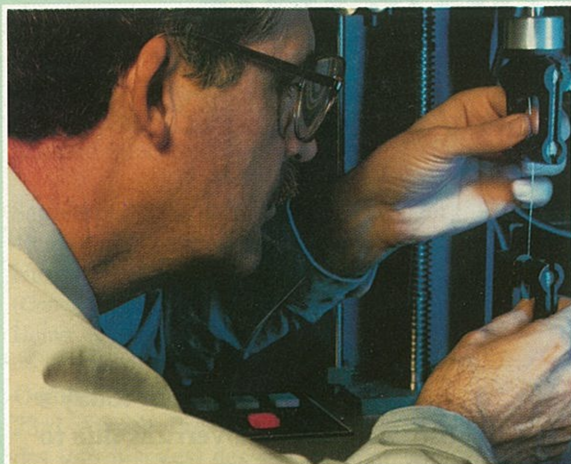
From The Infection Control Company

SURGIKOS
a Johnson&Johnson company

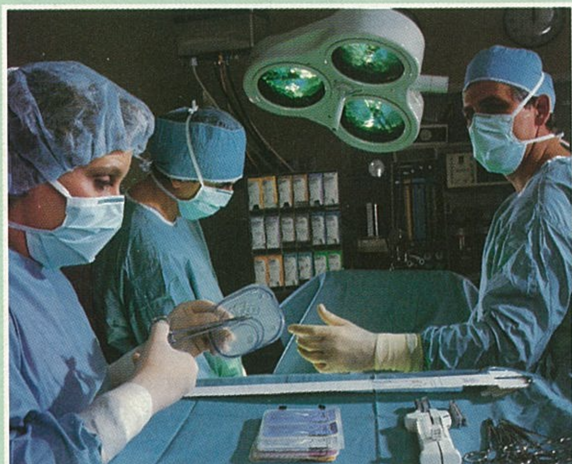
in Ontario call
1-800-461-7693
Outside Ontario
1-800-461-7664

*Trademark

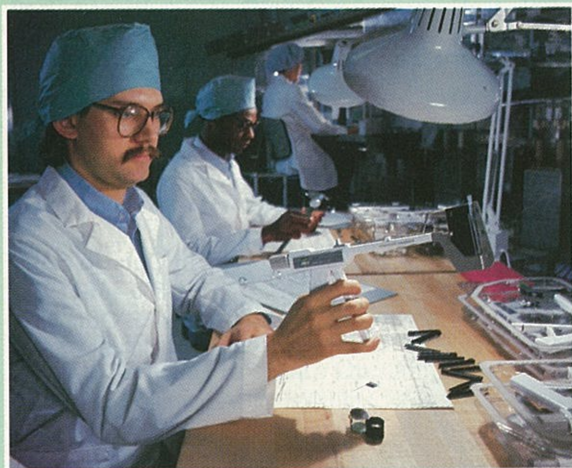
ETHICON's commitment to quality means...



ETHICON* sutures must pass as many as 100 tests before they reach the O.R. to make sure they pass the most important one...yours! ETHICON controls every step in the manufacturing process, from raw materials to finished product. And at every step in the production process all sutures are rigorously tested. Quality assurance from beginning to end...it's typical of the extra effort we invest in every suture that carries the ETHICON name.



ETHICON puts a lot of thought into its packages, so you can get the most out of them. From our customized E-PACK* procedure kit to modular storage racks, every ETHICON package is designed to provide the fastest, simplest, aseptic, dispensing technique...saving you critical time and helping you perform at your best.



ETHICON test-fires every stapler at least once, so you don't have to think twice about them. Whether it's our reloadable disposable staplers or our disposable ones, every ETHICON* stapler is test-fired by a quality control professional. In addition, staple cartridges meet the highest standards for uniformity. Thus whether stapler and cartridges are purchased at the same time or years apart, we guarantee both fit and function. As a result, whenever you use an ETHICON stapler, you know you are using a proven performer.

From resection to closure ...in business for life

ETHICON LTD.
a Johnson & Johnson company
PETERBOROUGH, ONTARIO K9J 7B9

*Trademarks