CANADIAN
Operating Room Nursing Journal
Volume 5, Number 2, April, 1987

- Greater Toronto OR Conference
- The problem of awareness during surgery
- Controlling anaesthetic gas exposure
- AIDS the law and the OR nurse
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GENERAL INFORMATION

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

The objective of this publication is the continuing education and professional advancement of the operating room nurse as well as personnel in related nursing services.

Under the guidance and direction of an editorial advisory board, the intent of this publication is to assist national, governmental and allied health care agencies in the process of news and information flow.

The Journal will also assist national, governmental and allied health care agencies in the process of news and information flow to this specialized segment of the health care field.

The Canadian Operating Room Nursing Journal is dedicated to the publishing of original and practical information based on scientific principle and clinical fact. This journal is periodically reviewed by the Editorial Advisory Board, with manuscripts and submissions, whenever possible, adjudicated and assessed in advance by peers specifically chosen by this Board.

The Canadian Operating Room Nursing Journal is indexed in Index Medicus, the Cumulative Index to Nursing and Allied Health Literature, and the International Nursing Index, U.S. National Library of Medicine.

The opinions expressed in articles submitted to this publication are those of the author or authors and are not necessarily to be construed as a reflection of the point of view of the publishers of the *Canadian Operating Room Nursing Journal.*

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GUIDELINES FOR CONTRIBUTORS

The Canadian Operating Room Nursing Journal encourages and invites manuscripts and/or submissions of relevance and current interest to operating room nurses and related health care personnel in the area of surgical nursing care.

As a bi-monthly professional publication, the Canadian Operating Room Nursing Journal reaches the following nursing categories subsumed under the heading, operating room nurse. These categories include:

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- ***O.R. supervisors***
- ***O.R. nurse/managers***
- ***O.R. staff nurses***
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Having submitted a manuscript for publication, the author(s) should retain at least one copy. A covering letter should accompany the manuscript and should include the home and work addresses and phone numbers of the author(s). Every submission should be double-spaced with wide-margins on (standard) 8½ by 11 inch paper. However, other formats will not be rejected if the submission is legible and neat.

Length

Although there is no restriction on the length of a submission, a paper between 5 and 15 pages (excluding illustrations) is advisable.

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Photographs, charts, diagrams, graphs, cartoons and other illustrations greatly enhance a professional manuscript. Photographs should be un-mounted, sharp and preferably, black-and-white. All illustrations should be labelled clearly on the back.

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Your autobiography

This information should include: full name; academic accomplishments (no more than three after the name); last university, college or school attended; present position in the profession; and membership or associations of a professional nature.

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Tracheoplasty...
Reconstructing a new airway

By Patricia Waugh, R.N.

As a member of the operating room team, the O.R. nurse is often a witness to many skillful and unique surgical procedures. The Hospital for Sick Children in Toronto has seen its share of these "surgical miracles." The following is a brief description of a particularly unique procedure that began several years ago.

Attempts to repair long congenital tracheal stenosis, a rare and frequently fatal anomaly, have been arduous and elusive. However, in 1983, a tracheoplasty for complete congenital tracheal stenosis was performed, resulting in one of the few successful repairs of this defect on record.

Case Report

On February 8, 1983, Landon, a seven-month-old baby boy had been admitted to the intensive care unit at HSC from a peripheral hospital. He had been bronchoscoped and intubated and a tentative diagnosis of tracheal stenosis was made. After a short period of time in the ICU, he developed stridor and became cyanotic. Emergency bronchoscopy was performed.

On examination under a general anaesthetic, the staff ENT surgeon diagnosed long congenital tracheal stenosis when he found it impossible to pass a #3 Fr. scope into Landon's trachea. The stenosis spanned the length of the trachea to the bifurcation. This was later confirmed by tracheobronchogram **(See Figure 1).** The patient was immediately referred to Dr. S.H. Ein, a senior general staff surgeon for possible tracheal repair. Operating room time was scheduled for Landon in the cardiac theatre for the following day.

Tracheoplasty

It was necessary in this type of repair to perform a cardiopulmonary bypass. This left the entire tracheobronchial tree free for repair. A medium sternotomy was made and extended up into the neck area to allow access to the heart for insertion of by-pass cannulae and exposure of the trachea. The trachea was freed by dissection from the larynx to the carina. Arterial and venous cannulae were inserted into the aorta and right atrium respectively and bypass was initiated. The trachea was incised longitudinally down the entire length (3.5 cm) of the posterior wall. Each free edge of the split trachea was then sewn to the anterior surface of the esophagus. In essence, the arterial wall of the esophagus had become the posterior wall of the trachea. **[Figure 2(a), (b), (c) and (d)].**

To prevent the problem of the trachea collapsing, several stay stitches from the suture line on either side were sown to the mediastinal tissues for support.

Next, a red rubber catheter was passed up into the larynx and the end retrieved by the anaesthetist. An endotracheal tube (ETT) was inserted over it and passed down to the mid-portion of the trachea. Ventilation was accomplished. Irrigation of the repair demonstrated that there was no air leakage from the suture line.

At this time, bypass was discontinued and the cannulae removed. Both lungs were being well ventilated. Closure was completed with three chest drains left in the mediastinum and pericardium.

Landon remained stable in the ICU. An attempt to extubate 15 days post-op under a general anaesthetic resulted in re-intubation shortly after due to development of severe stridor. Finally, extubation was successfully achieved 29 days post-op.

Subsequent X-rays showed clear lungs and good tracheal size. Landon's stridor gradually subsided,

About the author

Patricia Waugh, R.N., is an operating room nurse at Sick Childrens Hospital in Toronto where she is a member of the cardiac operating room team. She is a graduate of Humber College, Toronto.

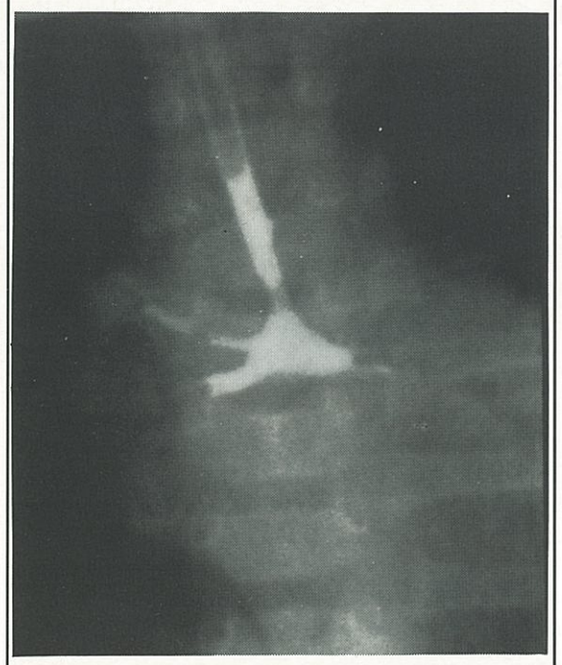


Figure 1
A tracheo-bronchogram showing very narrow trachea with normal sized bronchi.
A normal trachea should be as wide or wider than the bronchi.

but his cough remained weak. Constant suctioning and chest physiotherapy were needed to clear secretions and avoid lung complications.

On post-op day 41 Landon was discharged home where care included suctioning and bronchodilation (Ventolin) treatments.

Initially, one vocal cord unavoidably damaged during surgery, caused hoarseness. Recuperation progressed slowly and uneventfully except for one re-admission for croup in May of 1983. At this time, Landon underwent bronchoscopy. It was found that the size of his trachea was adequate for a child his size and age. The scope passed easily almost to the carina. The distal end of the trachea was slightly narrowed but adequate. By November, 1983, the uninjured vocal cord was compensating well and a normal voice had returned.

Landon is now nearing five years of age and remains active and well. His most recent annual check-up showed continuing improvement. He has the usual number of upper respiratory infections for a child his age but handles them well.

Congenital tracheal stenosis is characterized by

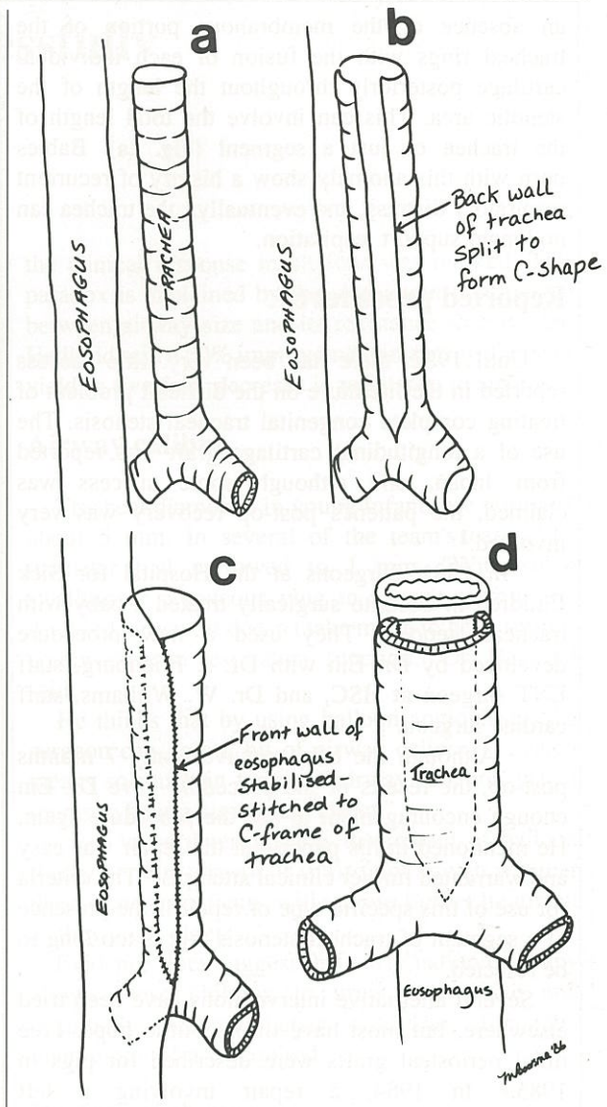


Figure 2(a)
A posterior view of anomalous fusion of cartilaginous rings.

Figure 2(b)
The surgical intervention involves splitting the posterior wall to C-shape the trachea.

Figure 2(c)
The edges of the split trachea are sewn to the anterior wall of the esophagus.

Figure 2(d)
Diagram shows anterior view of completed repair.

an absence of the membranous portion of the tracheal rings with the fusion of each individual cartilage posteriorly throughout the length of the stenotic area. This can involve the total length of the trachea or just a segment **(Fig. 2a).** Babies born with this anomaly show a history of recurrent respiratory distress, and eventually, the trachea can no longer support respiration.

Reported procedures

Until 1982, there had been very little success reported in the literature on the difficult problem of treating complete congenital tracheal stenosis. The use of a longitudinal cartilage graft was reported from Japan, and although some success was claimed, the patient's post-op recovery was very involved.[1]

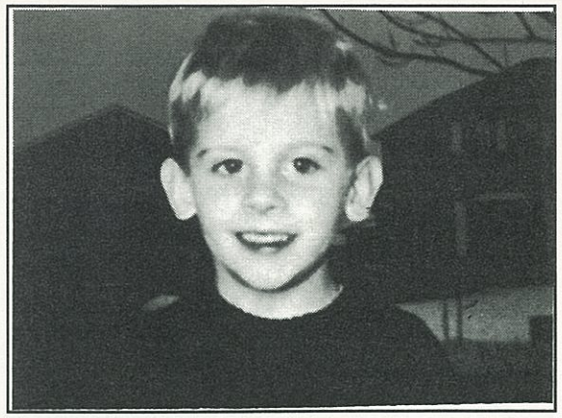
In 1981, surgeons at the Hospital for Sick Children in Toronto surgically treated a baby with tracheal stenosis. They used a new procedure developed by Dr. Ein with Dr. J. Friedburg, staff ENT surgeon at HSC, and Dr. W. Williams, staff cardiac surgeon.

Although the baby survived only 7 months post-op, the results of the procedure gave Dr. Ein enough encouragement to use the procedure again. He mentioned in his paper that the repair was easy and warranted further clinical attempts.[2] The criteria for use of this specific type of repair is the presence of a segment of tracheal stenosis that is too long to be resected.

Several alternative interventions have been tried elsewhere, but most have offered little hope. Free tibial periosteal grafts were described for pigs in 1985.[3] In 1984, a repair involving a left pneumonectomy with usage of the left bronchus as a graft to the stenosed area proved unsuccessful,[4] and although pericardial grafts have been used with some success,[5] rejection is still a problem, as are other pre and post-surgical difficulties, such as tracheomalacia (collapsing of the trachea). Many complex combinations of organic transplants and synthetic materials have been used as well with little success.

Conclusion

In tracheal reconstruction, the trachea must be rigid enough to stay open, be air tight in the mediastinum and heal promptly.[6] Meeting these requirements, however, presents considerable challenge. The approach described above is promising, as was evidenced this past December when Dr. Ein and the team successfully performed the procedure on a six-month old baby.



Landon, five years after his surgery for congenital tracheal stenosis, untill recently, a rare and frequently fatal anomaly.

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Acknowledgement

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Balloon angioplasty successfully treats narrowed tracheae

Clinical results using balloon catheter dilation (balloon angioplasty) on severe tracheobronchial narrowings in children have been so successful that a U.S. research team recommends the use of the procedure before attempting surgical dilation or resectioning.

Dr. Gary Hedlund, a radiologist at the USAF Medical Centre, Lakeland Air Force Base, San Antonio, Texas, told the Radiolological Society of North America meeting in Chicago recently that the balloon treatment allowed two children to be successfully weaned from ventilator therapy.

In all, four infants responded to the intervention. In two of the cases, airway stenosis resulted from traumatic intubation following premature birth, while in another, the distal tracheal narrowing was presumed to be congenital. In the fourth infant, balloon dilation averted a right upper lobectomy for congenital lobar emphysema.

Viable alternative

Dr. Hedlund feels that balloon dilation therapy provides a viable alternative to some of the more invasive procedures for airway stenosis in infants, primarily at the level of the distal trachea and proximal bronchi.

Surgical resection of the narrowed airway with re-anastamosis, or dilation by rigid instrumentation, are the usual treatment approaches which frequently lead to scar tissue formation and subsequent restenosis.

The advantage of the balloon method, according to Dr. Hedlund, is that it imparts a transverse-oriented force which he believes is less damaging to airway tissue than the longitudinal type of shearing force effected by bougie or rigid dilators.

The balloon method is performed under general anaesthesia after brief hyperventilation on 100% oxygen. Three 15 second dilations are usually done at each session.

The single complication recorded was a balloon rupture. Since the contrast solution contained in the balloon was nonionic and in a concentration least harmful to the lung, the results of the rupture produced no clinical or radiographic sequelae.

Improvement in the airway calibre as shown on X-ray was only evident in two of the children, though the clinical response in all four was marked. This paradox is explained by the significant relationship between airway size and its resistance to flow. Dr. Hedlund said a 50% improvement in airway diameter yields a five fold decrease in resistance to airflow.

Airway calibre

Tracheal diameters in young infants are normally about 5 mm. In several of the team's cases, the diameter had narrowed to 1 mm. "With some swelling or a mucous plug in a very narrow and diseased airway, it doesn't take much to get a serious compromise in respiratory function," Dr. Hedlund said.

He thinks that by using balloon angioplasty, the surgeon can gain a bit of airway calibre, "...which means so much in terms of airway function that it seems to have a significant effect."

Yet to be determined is the impact of balloon therapy on the airway. It is also not known whether these stenoses patients will require further treatment as they grow older.

Evidence does suggest that early balloon therapy allows these children to grow and thrive and eventually become better candidates for later intervention if it is required.

Preferred therapy

Another speaker at the Radiological Society meeting was Dr. Mervyn Cohen, Professor of Radiology at the James Whitcomb Riley Hospital for Children, Indiana University Medical Centre, Indianapolis. Balloon therapy, he mentioned, tided the first of his child patients over five years. He said that the child still has a tracheostomy, but has had no severe infections or hospitalizations for respiratory problems since the procedure was introduced.

Dr. Cohen said he would choose the balloon catheter route first, except in patients with a complete cartilage ring around the trachea. (See "Tracheoplasty...Reconstructing a new airway," page 8).

"For strictures from prolonged intubation or, as in our case, narrowing after previous surgery...I would do a balloon dilation again."

A Report on Clinical Trials of NU GAUZE* Sponges including in vitro and in vivo comparisons with conventional cotton gauze sponges

In this study by Dr. Dale C. Birdsell, Chief of Plastic Surgery at Calgary's Foothills Hospital, and his associate Dr. John S.D. Davidson, also of Foothills Hospital, conventional cotton gauze sponges were compared with NU GAUZE* rayon sponges.

In the field of medicine, the most newsworthy items are usually new surgical procedures or medications. Little attention is given to advances made in the everyday 'tools of the trade', so to speak, such as instruments, sutures, dressings and sponges. As Dr. Birdsell says in his study, "One could take the view that the cotton gauze sponges presently used (in use for more than 50 years) are perfectly adequate and no changes are required. This would be wrong. Firstly, they may be adequate, but they are not perfect." Dr. Birdsell then gives a very appropriate comparison of our attitudes towards our 'tools of the trade', "If surgeons 20 years ago had not taken a progressive attitude concerning new suture materials, we would probably still be using silk and cotton sutures. Is it possible that the presently used cotton gauze sponge will someday be considered in the same category with silk and cotton sutures?"

Considering the work that the sponge is called upon to do, everything from prepping to dressing wounds, it should do these tasks with maximum efficiency and minimal possible deleterious side effects. A lot has been written about effects of lint in wounds and about maceration under wet dressings. Dr. Birdsell investigated linting and absorption, both in vitro and in clinical trials, comparing NU GAUZE* sponges and cotton gauze sponges.

The results of these clinical investigations showed that NU GAUZE* sponges fared considerably better than cotton gauze sponges.

ABSORPTION CAPACITY (in mL of citrated blood) OF NU GAUZE* SPONGES COMPARED TO 8 AND 12 PLY COTTON GAUZE SPONGES

Trial #	NU GAUZE*	Cotton gauze	Difference	Cotton gauze	Difference
		8 ply		12 ply	
1	17	11	6	14	3
2	16	11	5	14	2
3	17.5	11	6.5	14	3.5
4	18	11	7	13	5
5	17	11	6.5	13.5	4
Average	17.2	11	6.2 (56.4%)	13.7	3.5 (25.5%)

"The total absorption capacity of the NU GAUZE* sponge exceeded that of the 8 ply and 12 ply cotton gauze sponges by approximately 56% and 26% respectively. Furthermore, subsaturation amounts of blood were always more completely absorbed by the NU GAUZE* sponges in both the laboratory and clinical settings. In the latter case, donor sites were left drier and hence more amenable to easy and efficient dressing of the wound. As well, removal of the NU GAUZE* sponge from the wound was consistently associated with less disruption of the exposed and friable dermal capillary bed. Less disruption and thus less bleeding contributed to the efficiency of dealing with the donor site wound.

In vitro studies show quite conclusively that NU GAUZE* sponges contain less free lint than conventional cotton gauze sponges. Free lint in surgical wounds poses a real threat from the standpoint of inciting foreign reactions. Such reactions could enhance scar formation that may jeopardize the final outcome in plastic surgical procedures ranging in scope from cosmetic surgery to tendon and peripheral nerve surgery. Further, any retention of lint (a foreign body) could increase the likelihood of bacterial contamination progressing to infection."

Concerning the handling properties of NU GAUZE* sponges, both investigators found the enhanced resiliency of the NU GAUZE* sponges to be a positive feature when packing closed spaces or applying dry pressure dressings.

As Drs. Birdsell and Davidson summarized, "From these investigations, the NU GAUZE* sponges display features that make them comparable to, and in many aspects superior to conventional cotton gauze sponges. We found NU GAUZE* to have better absorption, while being less linting, less wound disruptive and more resilient than ordinary cotton gauze sponges. This makes NU GAUZE* a more rational choice for an all-purpose, absorbent sponge for dressing and wound care."

NU GAUZE* Sponges are available from Johnson & Johnson Inc.

For a copy of the complete clinical report, contact the Patient Care Division, Johnson & Johnson Inc., Montreal, Quebec H1V 2E4.

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Controlling anaesthetic gas exposure in PACU

By Mary Kubasiewicz, R.N., B.Sc.N.

The presence of anaesthetic gases in the workplace can make a health care facility a dangerous place for the employees who are there, ironically, to provide health care.

Studies from the Soviet Union, Denmark, United States and Great Britain have attempted to identify the effects of long-term exposure to nitrous oxide and the halogens - halothane, enflurane and isoflurane.

Identified health hazards for exposed personnel include spontaneous abortions and congenital anomalies; impairment of the central nervous system; and, increased incidence of kidney and liver disease. Although the methodology used in several of these studies was less than desirable (eg., lack of control groups, small sample size), there is still sufficient information to raise concern and to justify preventive measures.

Stating the problem

Exposure to anaesthetic gases occur when gas escapes into the environment due to anaesthetic technique, leaks in the anaesthetic delivery system, lack of a well-functioning scavenging system, and from the patient's exhaled breath.

In the operating room, emphasis has been placed on identifying leaks in equipment, improving ventilation systems, installing scavenging systems, and monitoring anaesthetic technique and work practices (Brown et al, 1985).

In the post anaesthetic care unit (PACU), the post-op patient is the source of waste anaesthetic gas, via expired air. In the literature, the limited discussion of the problem in the PACU focuses on ensuring an adequate air exchange and frequent monitoring.

Case study description

Seven Oaks General Hospital is a 326-bed community-based, acute care facility in Winnipeg, Manitoba. Seven Oaks runs an active surgical program, with $4^{1/2}$ slates daily, with approximately 25 patients requiring post anaesthetic nursing care.

The nursing staff and administration in PACU were aware of the risks of exposure to anaesthetic gas, due in part to articles published on the subject, and also to discussions held with nurses working in other post anaesthetic care units in the province.

Gas exposure

The PACU at Seven Oaks had been surveyed for nitrous oxide gas by Manitoba Environment and Workplace Safety and Health (Industrial Hygiene section) in August, 1984. The survey found that the gas did not create an overexposure situation for staff. However, by November, 1985, staff were reporting symptoms which could be related to anaesthetic gas exposure (eg., headache, lethargy). The combined efforts of nursing staff and administration through the Staff Management and Workplace Safety and Health Committee was successful in arranging for

About the author

Mrs. Mary Kubasiewicz, R.N., B.Sc.N., is a graduate of the Grace General Hospital School of Nursing in Winnipeg, Manitoba, and the University of Alberta, where she studied for her Baccalaureate of Science Degree in Nursing. Currently, she is the Director of Nursing Practice, Surgical Suite, Seven Oaks General Hospital in Winnipeg. She is also a part-time graduate student at the University of Manitoba School of Nursing. Mrs. Kubasiewicz has worked in operating rooms and post-op care units in a variety of administrative, educational and clinical settings in the provinces of Alberta and Manitoba.

another survey of the area by the province's industrial hygienist. A survey was done in October, 1986, and the results showed that the levels of anaesthetic gases were too high. An improvement in the situation was required.

Solution

Addressing the issue of unsafe gas levels in the PACU involved a three-pronged approach:

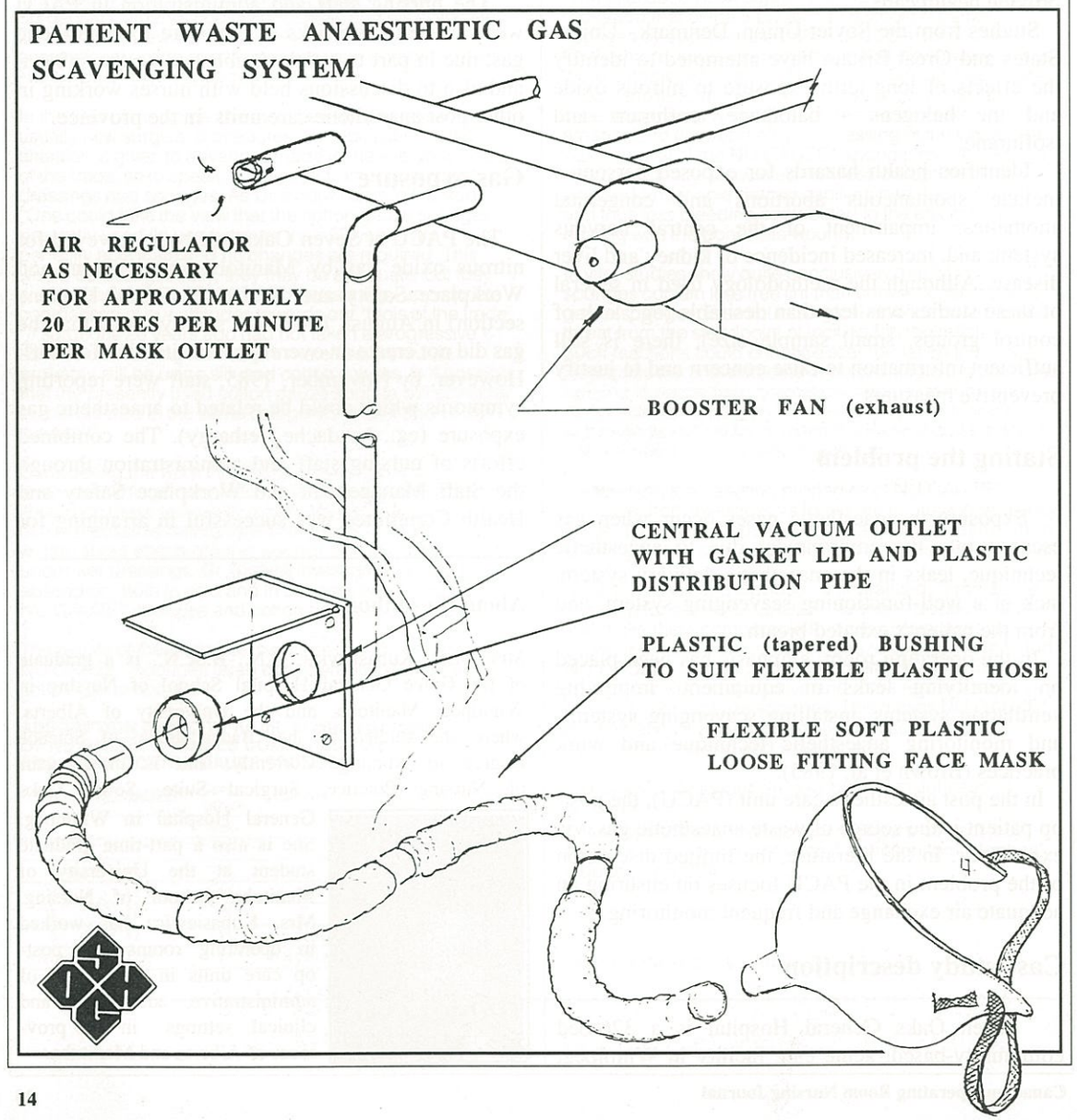
1. modifying the PACU ventilation system
2. developing a scavenging system
3. periodic monitoring in PACU

Ventilation system (1)

Upon investigation by the physical plant staff, it was determined that the room air supply could feasibly be changed from a variable air volume (V.A.V.) to a constant volume system. This would ensure a constant supply of 100% fresh air at all times. The existing room exhaust system is being modified to increase the number of exhausts in order to avoid air stratification, air pockets, etc. The current literature indicates that such attention to adequate exhaust ventilation and fresh air exchanges is the only solution to prevent the accumulation of waste anaesthetic gases in the PACU, when used in conjunction with periodic monitoring (Letts & Wilkinson, 1985; Mattia, 1983; Stringer, 1984).

Scavenging system (2)

In addressing the employee safety issue in the PACU, it became apparent that when dealing with an environmental pollutant suspected of being



carcinogenic, teratogenic, and mutagenic, the governing principle should be that the best solution is one which would address the source of the problem by preventing the exhaled anaesthetic gas from entering the environment.

The nature of nursing practice in the PACU indicates that the nurse remains close to the patient's breathing zone, and therefore is exposed to the anaesthetic gases before ventilation or exhaust systems can diffuse them through the environment.

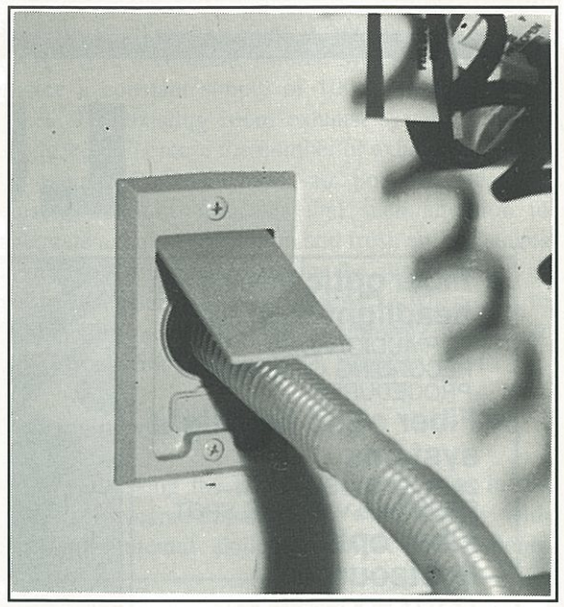
The Director of the Physical Plant, Mr. W. Keith, and the Chief Engineer, Mr. L. Shorrock, designed an individual patient scavenging system which reduces the level of anaesthetic gases in the nurse's breathing zone, and in the ambient air, or environment. Each patient who has had a general anaesthetic is provided with a face tent with exhaust tubing, which is connected to a wall exhaust outlet. **(See photos & Figure 1, preceding page).**

The scavenging system was designed and installed by the physical plant, and required only minor renovations in the PACU. A central vacuum outlet was installed in the patient cubicle, and was connected to the existing exhaust ventilation system. The disposable individual patient portion of the system consists of a length of flexible plastic hose, (Seven Oaks used disposable anaesthetic tubing) and an oxygen face mask. The cost per patient is approximately $1.95.

Close-up of scavenging apparatus on patient

Initially, the system was installed in three patient cubicles, and tested with a trace nitrous oxide monitor, which was rented from a local medical gas company. Results from the monitoring show only trace amounts in the ambient air in the PACU. A significant factor is that readings in a nurse's breathing zone are negligible when the system is used.

Presently, we are waiting for the province's industrial hygienist to return for a follow-up survey. However, we are so pleased with the system that



Close-up of a central vacuum-type wall outlet in the area of the patient cubicle

we are installing it in every patient cubicle. Most importantly, the nurses working in the PACU feel better and are able to concentrate on delivering patient care without worrying about the hazards of exposure to anaesthetic gases.

Groundless concerns

While the scavenging system was still in the initial planning stages, concerns were raised about the possible difficulties which might arise from having a device near the patient's airway. Such fears have proven to be groundless. While an elastic strap loosely secures the face tent, it can easily be removed to access the patient's airway.

Another area of concern was that the exhaust would affect the patient's air or oxygen supply. As the system causes neither discomfort to the patient nor changes to the respiratory effort, this concern was groundless as well. The Department of Anaesthesia, consulted throughout the developmental stages, gave its approval.

The nurses explain the purpose of the system to the patients as it is attached, or as the patient recovers. The patients have been most accepting of the system, and go along with it as part of their nursing care. Naturally, the PACU nurses use their own judgement - the initial patient assessment takes precedence over all other activities, and the scavenging system is not attached until the PACU admission activities are completed.

A major benefit of the scavenging system for the

patient is that the PACU nurse no longer experiences central nervous system impairment, and is thus able to effectively use the highly technical skills and accurate judgement required when providing nursing care in the critical phase of a patient's perioperative period.

Another potential benefit to the patient, although unmeasurable at present, is that the air the patient breathes in the PACU does not contain waste anaesthetic gases. As a beneficial feature, this could improve the patient's recovery from anaesthesia.

At present, the scavenging system cannot be used for intubated patients. However, the physical plant staff are now designing a modification to the system which would enable it to be used with a T-piece.

Monitoring program (3)

In conjunction with modifying the ventilation system and developing a scavenging system, a monitoring program is being implemented to ensure that the first two activities are effective. The provincial industrial hygienist will survey the hospital periodically; but these services are in great demand in Manitoba, and often take many months to arrange.

With the recent experiences in PACU, administration is arranging rental of a nitrous oxide trace monitor, as previously mentioned. We are also evaluating the prospect of using commercially available nitrous oxide dosimeters to examine staff exposure levels.

Nitrous oxide dosimeters are pen-shaped devices which absorb nitrous oxide from the environment. The device is worn clipped to the staff member's uniform adjacent to the breathing zone, or within two feet of the head. The dosimeter is worn by the same employee for a period of one work week, and is then sent to a laboratory for analysis. This will provide a measure of the employee's actual exposure, as opposed to the "snapshot" readings provided by other types of monitoring.

Conclusion

Rectifying a workplace hazard in the PACU has turned out to be a challenging and exciting experience. Through the concern and participation of all levels of staff, the hospital utilized a problem-solving method, which resulted in a creative and innovative solution to a well-documented problem.

The scavenging system controls anaesthetic gas exposure in the PACU and offers the potential to be easily adapted by other health care facilities. This could significantly reduce the health hazards for patients and employees alike.

Those interested in obtaining further technical information may do so by writing:

Mr. Wilf Keith
Director, Physical Plant
Seven Oaks General Hospital
2300 McPhillips Street
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(204) 632-3186

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The problem of patient awareness during surgery

By Linda Rivington, R.N.

It is generally assumed that patients under general anaesthesia are rendered incapable of hearing, feeling or seeing anything. This assumption has pretty well been proven false in a number of cases.

Some post-operative patients are truly able to have vivid recall of specific events that actually occurred during their operation - when they were believed to be unconscious by members of the surgical team.

In recent years, studies have been done and articles written alluding to this fact. Some patients indeed can recall events, usually sounds or spoken words, that have occurred under the state of anaesthesia. This phenomena is known as "awareness."

If this "awareness" is indeed possible, then, as members of the operating room team, we must be considerate of the fact that patients might be exposed to careless talk, or to such statements by personnel in the operating room which could cause anger, mental anguish, or inadvertent complications during the post-operative recovery period.

Anaesthesia depth

"With the technique of balanced anaesthesia, paralysis has almost eliminated the ability to appreciate anaesthesia depth. Even a gross change such as awakening or overdosage can remain undetected, as the guidelines for drug administration may largely be derived from preset criteria unrelated to the particular patient that is being treated."[1]

Studies have been done with the use of tape recorders, verbal message transmission, suggestions, select sounds, etc., and relayed to the patient through earphones during surgery. In some cases, very optimistic and positive suggestions were spoken repeatedly via the tape recorder. The patients were reassured and suggestions relayed in terms of rapid recovery, feelings of well-being, lack of nausea and vomiting, etc. Placebo groups were subjected to a monotonous, low frequency noise with the chief objective of drowning out the actual sounds of the operating room. Control groups were allowed to hear actual sounds during their particular surgical procedures.

It was found generally that the different sounds seemed to have the most significant effect on the older patients in terms of post-operative well-being resulting in a shorter hospital stay.[2]

One physician routinely suggested to a large number of his patients, during the final stage of their operations, that recovery would be excellent. The result was a decrease in their need for post-operatiave medications to relieve pain, and a decrease in the incidence of nausia and vomiting.[3]

Even though there have been some difficulties in terms of conducting methodological studies, there has indeed been sufficient evidence demonstrating that some patients are truly able to retain meaningful sounds without subsequent "awareness" of this retention; and these patients were considered to be unconscious.

Case studies

During the summer of 1985 a women in England was awarded $20,000 by the courts. She experienced awareness under anaesthesia during a caesarian section. She had been given a premedication which not only put her to sleep, but made her a paralytic.

About the author

Linda Rivington, R.N., is a graduate of the Nursing Diploma Program, St. Lawrence College, Brockville, Ontario, and a graduate of the Operating Room Technique and Management Course, Hotel Dieu Hospital, Kingston, Ontario.

She was intubated, but somehow the anaesthetic failed to work. During the procedure she awoke and felt she was suffocating and aware of the fact that her throat was "blocked." She was unable to see or speak, but stated later that she had felt the surgeon cutting, placing his hands on her abdomen and being sutured. She was unable to communicate her suffering and emotional trauma due to the fact that she was paralyzed."[4]

Another case involved a young, healthy female undergoing a lumbar discoidectomy. She was anaesthesized, placed in prone position on bolsters and mechanically ventilated. The anaesthetist forgot to turn on the nitrous oxide. The patient had been paralyzed with curare and as a result was unable to move.[5]

Post-operatively, she stated that she had experienced a warm sensation at the operative site, but did not have any pain. She was able to see the clock in the room, but was unable to communicate to the operating room staff that she was awake. After the procedure she was able to remember the conversation that occurred in the operating room. Fortunately, there were no jokes or trauma inducing remarks. The women did experience nightmares for a short period of time. Fortunately, she was able to forget the episode completely.

In recent years, there have also been cases of unintentional "awake intubation." One investigation was done to examine the possibility that this occurrence may be more commonplace than is generally thought. Over a three month period, three anaesthetists recorded names of patients they anaesthetized for operations involving gyneco-logical, plastic, thoracic and general surgery. The premedication and induction techniques were similar in each case.[6] Out of 160 patients who had been paralyzed and intubated, three (or 2%) experienced a clear recall of events following venapuncture. One women gave an account of paralysis and intubation. She had made ineffectual efforts to communicate her terrifying experience, but to no avail. Another male patient in the study who was aware of his paralysis and intubation prior to an emergency operation stated he had not been disturbed by the incident.

Regardless, even if three out of 160 patients experienced awareness of paralysis or intubation in just one study, is it not therefore reasonable to assume that there are indeed many patients who are subjected to this potentially terrifying experience each day?

Possible causes

There have been various opinions concerning the probable causes of awareness during endotracheal intubation. One possible explanation could be related to those surgical procedures which are accompanied by difficulties with intubation. As these difficulties will prolong the procedure, during which time thiopentone is being circulated and redistributed, the patient could be left with an in-adequate cerebral blood level necessary to suppress consciousness at the time intubation is accom-plished.

Some studies reveal that either inadequate or no premedication may be a cause of awareness during intubation. Pre-oxygenation is believed to be another cause in that, unless there are contra-indications, it would be better to pre-oxygenate with a mixture of both nitrous oxide and oxygen to provide some cover against other causes of awareness. An inadequate dosage of thiopentone was also cited as a possible cause of awareness during endotracheal intubation.

The above mentioned studies[7] clearly reveal the occurrence of awareness of endotracheal intubation; and even though some of the patients in the studies did not have an awareness of paralysis, some of them were understandably terrified by the experience.

It should be noted that post-surgical patients are sometimes reluctant to voice complaints or reveal these occurrences. This is disturbing in that the members of the operating room team may never realize or come to appreciate that some of their patients may be experiencing great emotional trauma.

Detection and prevention

There have been a few theories discussed and attempts made to prevent the phenomena of awareness during anaesthesia. However, since there are really no verifiable tests or outward signs of awareness, it has proven to be a difficult task.

It has been suggested that muscle relaxants should be used with caution, and only when absolutely necessary. If a patient's paralysis is only partial, he or she may be capable of responding effectively if awareness does occur. Reducing the amount of muscle relaxant administered could allow the patient this capability. Some physicians feel that narcotic supplementation allows for a reduction in the dosage of a relaxant.

Another method of detection is by inflating a blood pressure cuff on the arm above the systolic pressure. This will isolate one arm from general circulation prior to induction. If conscious, the patient, upon request, would be able to move the arm after induction. This would alert the surgical team to the fact that the patient is conscious and possibly experiencing discomfort as the arm will

have had no exposure to the relaxant.

Another means of detecting awareness is by monitoring cerebral function with an electroencephalograph. This method has had apparent success in the detection of the depth of both anaesthesia and hypoxia. The majority of suggestions, however, for prevention of awareness relate to the deepening of the anaesthetic agent. This is the usual course followed unless the patient's condition is such that he or she could not tolerate supplementation.[8]

Discussion

The operating room is generally considered to be the area where the patient is most vulnerable. Surgical patients place themselves totally at the mercy, in most cases, of complete strangers. The patient has no choice but to trust implicitly in the abilities of the operating room team. In no other area of health care are people rendered as totally helpless as they are in the atmosphere of the operating room.

This fact in itself places an increased responsibility on all members of the health care team in the intra-operative area. The total welfare of the patient must always be central in the thoughts and actions of every team member.

Prior to surgery, most patients have many unspoken fears. The anxiety experienced may be related to a number of factors. They are separated from their significant others and are placed in an unfamiliar environment. Most patients are seldom knowledgeable of hospital routines, particular those associated with the physical preparation for their surgical procedure, the surgery itself and their post-operative care. As well, some will have economic concerns associated with hospitalization.

Many patients fear post-operative pain, mutilation, changes in lifestyles and death. A lot of patients are modest and fear potential embarrassment or loss of dignity associated with body exposure. Some patients are experiencing grief or embarrassment or loss of self respect as a result of the potential change in a body part or in their normal ability to function. In light of these and other recognized pre-operative concerns felt and experienced by those patients destined for surgery, it is obvious they are vulnerable and probably highly sensitive to all stimuli.

Regardless of how hectic our days are as members of the operating room team, if at the end of the day we sum it up as having had four gallbladders, three hernias, etc., where has the total care concept or holistic approach to patient care gone?

If we are to be completely honest with ourselves, can we, in fact, state that the behaviour by all members of the operating room team is always comparable under general anaesthesia as it is during procedures under local anaesthesia conditions? Or, are we, at times, more "patient conscious" during local anaesthesia than during a procedure that calls for a general anaesthetic? Hopefully not!

The reference here is not to comparable changes in terms of patient safety or competence of surgical skills. What is under scrutiny here are the subtle changes in professional conduct which, if the patient were awake, may trigger feelings of insecurity and a lack of confidence and respect for their care givers.

Control and responsibility

Even though the possibility may be slight that our patients are experiencing awareness and auditory perception during surgery, as operating room nurses, we do have means at our disposal for controlling or being responsive to the situation. First and foremost, we must take a firm stand in the event the anaesthetist decides to leave the room during surgery. This is dangerous, unprofessional and unacceptable and should never be allowed.

Also, the operating room nurse can make an ongoing assessment for the following signs that can indicate awareness during surgery. It should be noted that these signs are not always consistent nor totally reliable, but they are indications in some cases of possible awareness during anaesthesia:

- lacrimation (secretion of tears)
- brochospasm
- tracheal tug
- swallowing
- change in blood pressure
- change in pulse
- change in pupil size
- sweating
- eye movement
- other body movements

If any of the aformentioned signs are apparent, the operating room nurse should make certain that the anaesthetist is made aware.

Conclusion

It is imperative that, as members of the operating room team, we always maintain a thoughtful, professional attitude which reflects in both our conversations and our actions. I believe that all dialogue during a surgical procedure must be optimistic and positive, with full consideration and concern at all times for the patient.

If a patient had auditory perception, and was subjected to careless, snide remarks or unnecessary joking, the possibility for damage to their emotional and physical well-being may well be irreparable. The dignity of the patient must, at all times, be foremost in our thoughts, words and actions.

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Indiscreet remarks during surgery result in near fatal emotional problems

Operating room personnel who make derogatory or other kinds of indiscreet remarks during surgery can cause severe damage to anaesthetised patients. Two incidents reported in a recent edition of the Medical Journal of Australia and described in the Medical Post (February 10, 1987) point up the serious emotional problems that resulted when indiscreet remarks were made during surgical procedures.

Dr. Julius Howard of Bathurst, New South Wales, reported on two cases where anaesthetised patients heard and perceived disparaging comments about themselves while undergoing surgery.

In one case, a 19-year-old female college student who had previously been treated for obesity and shyness, was adhering successfully to a sensible diet and an adjusted social life when she underwent minor surgery.

The report in the Australian journal mentioned that the young women emerged from the operation without complications. Two weeks post-op she presented herself to Dr. Howard's office crying and depressed. In the two-week interval, she had regressed to a state of depression and senseless bouts of eating. She even contemplated suicide for the first time in her life.

Dr. Howard, using hypnotic regression, where the patient returns to an earlier mental state or situation, was able to make her recall the events in the operating room leading up to what upset her. She vividly recalled, under hypnosis, even to the point of identifying the speaker, this remark from the surgeon: "She is fat, isn't she?"

In the other reported case, a 29-year-old female clerical worker had complained of chronic insomnia over the past three years - since she underwent a hysterectomy.

Again, by the technique of hypnotic regression, Dr. Howard was successful in revealing to the patient the incident in the operating room that precipitated the insomnia: the women, anaesthetised, had clearly heard the anaesthetist say: "She will sleep the sleep of death."

Between 0 and 80%

Since the time of her surgery, the women became vaguely aware of some fearful anxiety which kept her awake for three years - and she didn't know why. Through counselling, the report states, both women managed to overcome their problems.

Dr. Howard mentioned in the report that previous controlled experimental studies showed that between zero and 80% of patients picked up events or comments made during anaesthesia.

Patients, he said, were more likely to register and retain comments during an operation when the comments were relevant to them.

He mentioned that the most positive implication to come out of the study was that the surgical team could use this "awareness" phenomena to promote post-operative well-being and a speedier recovery.

CARING WITH HIGH TECHNOLOGY

Manitoba's Second Biennial O.R. Nurses Conference

(Sponsored by the Manitoba Operating Room Nurses' Association)

The Delta Winnipeg

June 14 - 16, 1987

Sunday, June 14

1800 - 2300 Registration/ Reception

Monday, June 15

0830 - 0845 Welcome Address
Sharon Hodge, R.N., MORNA President
Winnipeg Health Sciences Centre

0845 - 0900 Opening Remarks
Bev Popowich, R.N.,
Conference Chairperson
Misericordia General Hospital

0900-1600 Concurrent Session - All Day
"Computers in Nursing"
Cheryl Plummer, R.N., B.Sc.N., M.Ed.
Co-ordinator of Nursing Systems,
Shaughnessy Hospital, Vancouver.
Ann Warnock-Matheron, R.N., B.Sc.N.
University of Calgary

0900 -1100 "How to Manage Yourself and Your Time"
Carol Ann Fried, M.Ed., Consultant

1100 - 1400 Viewing of Exhibits and Lunch

1400 - 1450 "Developing a Laser Program"
Joan Finnegan, R.N., Nursing Director,
Surgical Suite,
Victoria General Hospital;
Jan Busch, R.N., Clinical Instructor,
Surgical Suite,
Victoria General Hospital;
Barbara Bolton, R.N., Charge Nurse,
Laser Program
Victoria General Hospital

1510 - 1600 "New Advances in Surgery and O.R. Nursing..."

1. "Reconstruction - New Life"
Coralee Clarke, R.N., Head Nurse,
Plastics, Winnipeg Health Sciences Centre

2. "Stereotactic Surgery"
Linda Clarke, R.N.,
Assistant Head Nurse, Neurosurgery,
St. Boniface General Hospital

1830 - 2110 Banquet and Entertainment

Tuesday, June 16

0900-1600 Concurrent Session
"Staying Human in a High Tech World"
Joan Keyes, R.N., M.S.N.,
Assistant Professor of Psychiatry,
University of Pittsburgh

0900 - 1100 "Incorporating Specialty Levels of Practice"
Diane Faulconer, R.N., M.N.,
Director of Surgical Services,
Boca Raton Community Hospital,
Boca Raton, Florida

1100 - 1400 Viewing of Exhibits & Lunch

1400 - 1500 "Meeting the Needs of the Day Surgery Patient"
Diane Letwin, R.N., B.N.,
Assistant Executive Director,
Concordia General Hospital, Wpg.
Margaret Adrian, R.N.,
Head Nurse, O.R., & N.F.A.
Concordia General Hospital, Wpg.

1510 - 1600 "Dealing with Donor Families"
Del Johnston, R.N.,
Manitoba Transplant Co-ordinator

1600 - 1615 Closing Remarks
Sharon Hodge, R.N.,
MORNA President
Winnipeg Health Sciences Centre

1900 - 2000 MORNA Annual General Meeting

2000 - 2100 Banquet

2100 - 2145 "Nursing Experiences in Kuwait"
Beth Ritchie, R.N., BN, Co-ordinator,
Manitoba Emergency Nursing Course,
Winnipeg Health Sciences Centre
Joan Kupchak, RN, Clinical Instructor
Manitoba Emergency Nursing Course
Winnipeg Health Sciences Centre

For more Conference details Contact:
Joan Brown
Publicity Committee, MORNA
29 East Lake Drive
Winnipeg, Man. R3T4T5.

Comparative study suggests greater care necessary in selecting absorbable sutures in surgical closings

By Editorial Staff

The results of a new comparative study of sutures conducted at the University of Western Ontario's orthopaedic research laboratories early last Spring, suggest that surgeons have made mistakes in selecting sutures that don't last long enough. Greater care should therefore be given to the choice of absorbable sutures, especially those selected for organs within the body, or for those structures that are not well vascularized.

Reporting to the annual meeting of the Orthopaedic Research Society held in San Francisco recently, Dr. Robert Bourne, an orthopaedic surgeon at the University Hospital in London and head of the research team, said that over the past decade or so, surgeons have been going from non-absorbable to absorbable sutures, "...and I think that often mistakes have been made in selecting a suture that doesn't last long enough."

Premature disintegration

"For example, if someone was repairing a torn rotator cuff and wanted to select a certain absorbable suture, the suture would disintegrate before the rotator cuff could be expected to heal. Likewise," he said in an interview, "in doing an artificial knee replacement, I think the suture has the potential to dissolve and disintegrate prior to the repair of the extensor mechanism. This could lead to either failure of the operation, or to unnecessary complications."

"For general surgeons, this has implications in terms of closing an abdomen. Weaker absorbable sutures are commonly used, and I think that is inappropriate. I think if they are going to use an absorbable suture, they should use one of the longer-acting monofilament ones. These don't handle as easy, but for longevity and strength, are better."

Other surgical implications

The University of Western Ontario study of the comparative strengths of sutures also has implications, among others, for gynecologists doing hysterectomies, for pediatric surgery, and for hernia repair procedures.

In his remarks to the Orthopaedic Research Society, Dr. Bourne reported on the tensile strength testing of four absorbable sutures (0 size) both dry and with 24-hours of saline soaking, as compared with four nonabsorbable sutures of the same size: silk, Ethibone, TiCron and Prolene.

The various sutures were also tested, dry and wet, with one hitch, and with four, five and six knots.

In vivo testing was also done in rabbits in whom the various sutures were implanted. These were then removed for tensile strength testing at one, two, three, four, six and 12 weeks.

Polydioxanon the strongest

Among the absorbable sutures tested, the strongest was polydioxanon, which has a half-life of six weeks. The next strongest was polyglyconate with a half-life of three weeks. Polyglycolic acid, however, only had a half-strength, or the time when strength decreases by 50%, of two weeks, the research study showed.

Interestingly, the absorbable sutures were in some cases equal or superior in strength as they came out of the box. However, tensile strength in the absorbable sutures decreased by about 15% in the first week and by about 40% in the second week. The exception was polydioxanon, which retained 96% of its strength in the second week.

Whereas polydioxanon retained 86% of its strength at three weeks in vivo in the rabbit tests, the polyglyconate sutures retained only 40%, and the other two absorbables were "very fragile.'

Dr. Bourne said that the study also indicated that saline soaking decreased strength by from 3.6% to 13%. Elasticity was also reduced. Also, one hitch, or six knots, reduces strength by from 30%-35%. He mentioned that six square knots are required for consistent security.

Conclusion

Concluding, he said that if absorbable sutures are used, he tends to use the strongest one. "The weaker, braided sutures may be all right to use for skin, where you have a good blood supply, but once you're dealing with avascular structures, like a tendon, you shouldn't use these."

EXPLORING NEW HORIZONS

15th Regional Conference for Operating Room Nurses

(Sponsored by the Operating Room Nurses of Greater Toronto)

Sunday, April 26 - Wedneday, April 29, 1987
Constellation Hotel, Toronto, Ontario

Sunday, April 26

1800 - 1900 Pre-registration
2000 - 2200 Get-together Cocktail Party

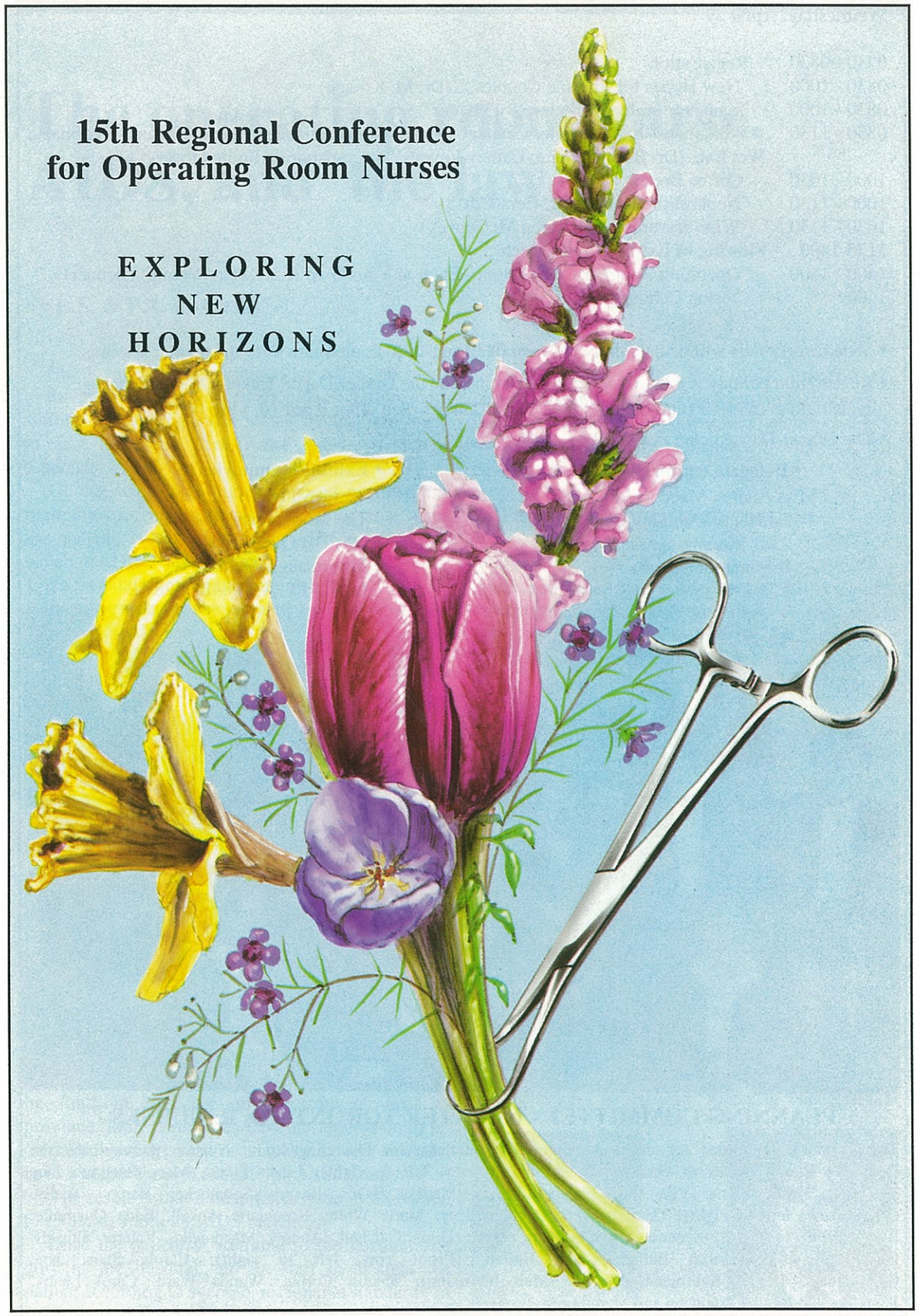
Monday, April 27

0730 - 0830 Registration
0830-0915 Opening Ceremonies
0915 - 0945 "The Nursing Horizon: A National Perspective," (By Helen Evans, President, CNA)
0945 - 1015 Coffee Break
1015 - 1115 "Baccalaureate in Nursing or Specialty Certificate: The Relationship of Specialization to Entry to Nursing Practice." (Irmajean Bajnok)
1015 - 1115 Nurse Paramedics (Sunnybrook Medical Centre)
1015 - 1115 Workshop: "Richards' Surgical Compression Hip Screw," (Pre-registration required) Allan Tanner, Richards' Surgical
1115-1630 Formal Opening and Viewing of Exhibits and Lunch
1500 - 1630 "Pancreas Transplantation Today: Medical and Nursing Perspectives," (Dr. Luis Toledo-Pereyra & Pat Ball, R.N.)
1500 - 1630 "Burn Treatment: Where it's Really At," (Dr. W. Peters; Judy Knighton, Clinical Nurse Specialist; Felicity Goodwill, Reg. N.)
1500 - 1630 Workshop: "Pacemakers," (Dave Cameron, Medtronic) Pre-registration limited to 15
1630 - 1830 "Monday Night at the Movies"
1830 - 2100 Ethicon Banquet

Tuesday, April 28

0730 - 0830 "Excellence in Power and Visibility," (Lilly Lai Quon, R.N.; Helen F. Wynn, R.N.)
0830 - 1130 Workshop: "Extracapsular Cataract Extraction and Intraocular Lens Implant," Pharamcia Wet Lab, (Dr. B. Sniderman; Cathy Loveys) Pre-registration limited to 8
1000 - 1030 Coffee Break
1030 - 1130 "Cochlear Transplantation," (Dr. Nedzelski)
1130-1500 Viewing of Exhibits and Lunch
1500 - 1630 "Out in Africa," (Dr. Munnings)
1500 - 1630 "AIDS," (Pat Williams, Infection Control Officer)
1500 - 1630 Workshop: "O.R. Air Contaminants," (Assess-Air) Pre-registration required
1630 - 1730 General Meeting, Operating Room Nurses of Greater Toronto
1830 - 2000 Exhibitors' Reception/Cocktail Party
2000-0100 Dinner/Dance

(Continued on page 30)



Wednesday, April 29

0730 - 0830	Registration
0830 - 1000	"New Hopes for Infertile Couples," (Dr. M. Kroach)
0830 - 1000	"Laughter in the Workplace," (TBA)
0830 - 1130	Workshop: "Extracapsular Cataract Extraction and Intraocular Lens Implant," Pharmacia Wet Lab, (Dr. B. Sniderman; Cathey Loveys) Pre-registration limited to 8
1000 - 1030	Coffee Break
1000 - 1130	"Nephrolithotripsy," (Dr. Hershorn)
1030 - 1130	"Wise Wardrobing," (Karen McConvey)
1130-1400	**Viewing of Exhibits and Lunch**
1400 - 1600	"Operating Room or Court Room - Enter at Your Own Risk," (Dr. Young, Coroner)
1600	Closing Ceremonies

- Video workshops will be held daily between 0830 and 1600 as alternatives to the regular sessions.
- Registration per day is $25.00 (which does **not** include the Dinner/Dance Ticket). A 3-day package registration is $100.00 and includes the Dinner/Dance ticket; after April 10, $110.00.
- The Dinner/Dance ticket is $35.00.

• Delegate enquiries to:
Miss Audrey Macdonald
Convenor-Publicity Committee
2301 Mountaingrove Ave.
Burlington, Ontario
L7P 2H8

• Exhibitor enquiries to:
Valerie Shirreff
The Mississauga Hospital
100 The Queensway
Mississauga, Ontario
L5N 2H6 (416) 848-7628

PLANNING COMMITTEE - GREATER TORONTO O. R. NURSES

The Planning Committee for the 15th Regional Conference for Operating Room Nurses sponsored by the Operating Room Nurses of Greater Toronto. **(Back row, left to right):** Linda Elbert, Mary Barstow, Jane Dewhurst, Janice Ferris, Vija Hay, Elizabeth Jones, Marilyn Evans, Beverly Schmocker, Karen Wales. **(Third row, left to right):** Cathy Lovett, Debbie Lacey, Marie White, Rosemarie Atwell, Edna Quammie, Bonnie Jean Gilchrist. **(Second row, Left to right):** Hilda Gatchell, Audrey Macdonald, Valerie Shirreff, Diana Jorgensen, Sharon Ball, Rosalyn Hollett. **(Front row, left to right):** Carole Starr, Jane Cunningham, Donna Kaufmann, Marlene Muir. **(Missing):** Sharon Corbie, Wanda Ward, Carol Lenox, Jeany Backer, Regina Trudgeon and Margo Fretz.

The operating room nurse, AIDS, and the law

By L.E. & F.A. Rozovsky

The threat of the incurable killer AIDS has many health professionals worried about their legal responsibilities. Operating room nurses being more likely to face exposure than many others, must be especially aware.

Of the many legal duties imposed on operating room nurses, five are of particular importance when the patient is suffering from AIDS. The duties which must be evaluated are:

1. the hospital's duty to the patient
2. the nurse's duty to the patient
3. the nurse's duty to the hospital
4. the duty to the state
5. the hospital's duty to the nurse

1. The hospital's duty to the patient

The first duty is that of the hopsital to the AIDS patient. This duty must be considered in two parts. The first is whether the hospital is under a legal obligation to admit the patient in the first place.

The issue of whether any person has a right to be admitted to a hospital in Canada has not been thoroughly discussed by the courts. However, in many provinces, provisions exist under the public hospitals statute or under obligations dealing with this subject.

In most provinces there is a modified right to be admitted when it is medically necessary and on the recommendation of a physician and where there is accommodation. This right, however, is not absolute and, in any case, differs from province to province. Many provinces have no legislation at all on the subject. In these provinces it is very doubtful as to whether there is a legal right to admission.

The result is that a hospital may be in a position to refuse to admit an AIDS patient.

Once the patient is admitted to the hospital, the duty of the hospital and its staff is to treat the patient according to average, reasonable standards in the circumstances. The staff must care for the patient, given his or her condition, in the same way in which care for other patients is given according to the standards that are reasonable in light of their condition.

2. The nurse's duty to the patient

As in the case of all patients, the nurse has a direct and independent duty to the AIDS patient, quite apart from his or her duty to his or her employer. This duty is to treat the AIDS patient in a manner consistent with average, reasonable and competent nursing standards in the same or similar circumstances.

To do this, it is incumbent upon the nurse to find out what the current standards are in caring for AIDS

About the authors

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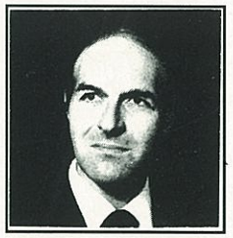
Fay A. Rozovsky is a member of the Massachusetts and Florida Bars and an Associate Professor of Gerontology at Mount St. Vicent University in Halifax. She is also a consultant in health administration, risk management and quality assurance and visiting lecturer at Harvard, School of Public Health.



victims. Considering that the state of knowledge about the disease is in such a state of flux and so much misinformation is so widely published, it is important for the nurse to keep up-to-date and well informed. In this sense, there is no difference between the duty the nurse has in caring for the AIDS patient or in caring for a patient suffering any other ailment.

The important key is that the nurse must constantly be upgrading his/her knowledge. This is particularly true in dealing with new situations, such as when there was an outbreak of Legionnaires' Disease, or in encountering a patient with a tropical disease not ordinarily seen in Canada.

Some nurses, for various reasons, may not wish to care for the patient. Quite apart from the nurse's duty to her employer, once the nurse has taken on a patient, she cannot abandon that patient. S/he has a duty to act reasonably, which means continuous care. The abandonment of a patient which results in patient injury, constitutes negligence and may be the basis of a malpractice suit.

3. The nurse's duty to the hospital

The basis for the nurse's duty to the patient is that he or she is holding out as a professional nurse. Therefore, the law says that he/she must act as would the average, reasonable and competent nurse in the circumstances.

However, all nurses who are employees of hospitals have a double duty. They not only have a duty to the patient, they also have a duty to the hospital as their employer. The reason for this is that the nurse, in taking on employment as a professional nurse, is in effect holding herself out as a professional nurse. The employer, in relying on that fact, acquires a legal right to receive nursing services according to the standards of the average, reasonable and competent nurse in the circumstances.

It should be noted that the operating room nurse is in a slightly different position than is the average floor nurse. S/he is not merely holding himself/herself out to the patient and the hospital as simply a nurse. S/he is holding himself/herself out as an operating room nurse.

Therefore, the hospital and the patient have the legal right to expect standards of the average, reasonable and competent operating room nurse in dealing with an AIDS patient.

If a patient is injured due to the failure of a nurse to meet these standards, the patient is entitled to take legal action against the hospital, the nurse, or both. The hospital and nurse are individually responsible, as well as being responsible together.

The burning question is whether the nurse can refuse to care for a patient with AIDS. The basic legal position is that, unless the hospital has hired the nurse to do tasks quite different from those required by an AIDS patient, the hospital, as the employer, can assign the nurse to whatever work the administration sees fit.

However, there may be a collective agreement with the nurses which allows the nurse to refuse to care for patients in situations in which the nurses think such work would be dangerous to their health.

In some provinces the provincial occupational health and safety legislation may also allow workers to refuse to do work which is felt to be dangerous to one's health or life. In both cases, nurses should seek legal advice in order to determine their position.

4. The duty to the state

In a number of provinces, AIDS and even a positive ELISA test for AIDS is a reportable disease. This means that there is a duty to report to public health officials that the patient has the disease. Ordinarily, this duty to report falls on a doctor or a laboratory. However, under some legislation, it may rest on anyone who suspects the existence of the disease.

The dilemma for the operating room nurse arises when he or she knows or suspects that a person has AIDS and also knows it has not been reported, or that its existence is being covered up. Instructions may have been issued that no mention of the disease is to be made on the record.

This could be quite a plausible situation since normally the disease is transmitted through homosexual contact, extramarital contact or non-medical drug usage, all of which the patient might wish to have concealed.

The question is whether the nurse is under a legislated duty to report. A careful review of communicable disease provisions under provincial public health acts should therefore be made to determine this factor.

5. The hospitals duty to the nurse

Just as an employee has a duty to the employer, so to does the employer have a duty to an employee. The basic duty is to provide a reasonably safe work environment, and to avoid actions which could cause reasonably forseeable harm.

In admitting a patient suffering from AIDS, or in fact any other communicable disease, the hospital is under an obligation to its staff to take reasonable

"With the enormous amount of publicity being given to AIDS and the amount of misinformation, it is important that...all operating room nurses become well informed on the subject."

precautions to minimize the risk of infection. This means that the hospital itself has an obligation to learn as much as possible about the communicability of AIDS and how to reduce that risk. The hospital is not, however, obliged to insure that working with an AIDS patient is guaranteed to be without risk. The employees have the right to demand that these steps be taken.

In some provinces occupational health and safety legislation may give to the employees, including operating room nurses, the right to refuse to work in situations which are unreasonably dangerous.

Such a right might be included in a collective agreement where the nurses are unionized. In any case, such a right, whether it exists or not, or to what extent, depends on the province and the institution. Legal advice should be sought to determine a definitive answer.

Conclusion

With the enormous amount of of publicity being given to AIDS and the amount of misinformation, it is important that all health professionals and particularly operating room nurses become well informed on the subject. Armed with the facts about the dreaded disease, advice can then be sought from legal counsel for nurses' associations and nurses' unions as to the legal position of the nurse and the patient with AIDS.

Surgikos Award winner to be announced at Greater Toronto O.R. Conference

The Annual Conference of the Operating Room Nurses Association of Greater Toronto, scheduled for the Constellation Hotel in Toronto April 27-29, will be the locale for the awarding of the 1986 Surgikos Editorial Award. This will be the forth time since the inception of the Canadian Operating Room Nursing Journal that the award has been presented.

Past Surgikos Award winners

Last year's recipient was Jerry Rudney, an operating room technician (urology) from the Health Sciences Centre in Winnipeg. His award-winning article, "Ultrasonic Percutaneous Lithotripsy," is found in Volume 3, Number 1, Feb.'85.

Previous winners are: 1984, Jean Savickis, Hospital for Sick Children, Toronto. Her article on the separation of conjoined twins is found in Volume 2, Number 4, September, 1984. The first recipient of the Surgikos Editorial Award was Joanne Teskey, an operating room nurse at Sunnybrook Medical Centre in Toronto. Her winning submission, "O.R. Preceptors Promote Competence, " is found in Volume 1, Numer 2, April, 1983.

The Surgikos Editorial Award consists of a $2,500 cash award and commemorative plaque, and is given annually by Surgikos Canada for the best adjudicated article to be published in the Canadian Operating Room Nursing Journal.

The Award, which is administered by the Operating Room Nurses Association of Canada (ORNAC), is open to all operating room nurses, technicians, staff nurses, instructors, and students, full or part-time, engaged in some area of operating room nursing instruction, for example, post-basic programs, O.R.T. programs, etc.

It will be the responsibility of ORNAC to establish the criteria for judging submissions, and to select the judges for the competition. All submissions become the property of the Canadian Operating Room Nursing Journal, and will be subject to the usual editorial rules and regulations of the Journal.

Educational award

As an educational award, the funds provided must be used by the recipient within 12 months, or within a reasonable time should there be contingencies. The award can be used to cover and allay costs incurred while attending operating room-related courses, seminars, workshops, conferences or for special programs or projects related to operating room nursing.

The Editorial Awards Committee of the Canadian Operating Room Nurses Association is chaired by Muriel Shewchuk, Foothill Hospital, Calgary.

National and Provincial associations of Canadian operating room nurses

Operating Room Nurses Association of Canada O.R.N.A.C.

National Executive — 1986-1988

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Provincial Representation/ORNAC

***Note:** Each province is allowed two 'Provincial Representatives' to sit on the ORNAC Board. Usually, these individuals are either a provincial O.R. association President, President Elect, or someone appointed by a provincial association executive.*

Newfoundland/Labrador Operating Room Nurses Association (N&LORNA) (88)

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Ann Hughes
Head Nurse - OR
Health Science Centre
Prince Philip Dr.
St. John's, NF A1B 3V6

Past-president/Board member - ORNAC
Sylvia Humphries
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P.E.I. Operating Room Nurses Group (PEIORNG) (87)

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Nova Scotia Operating Room Nurses Group (NSORNG) (87)

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Team Leader
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Board Member - ORNAC
Mary MacAdam
O.R. Staff Nurse
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Judy Wheeler
O.R. Supervisor
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Quebec Operating Room Nurses Association/Infirmière et infirmiers de Salle d'opération du Québec (88)

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Hôtel-Dieu de Lévis
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Lévis, Québec
G6V 3Z1

Co-président/Board Member - ORNAC
Louise Christen
Centre Hôpital Jeffery Hale
1250 Chemin Ste. Foy
Quebec City, Quebec G1S 2M6

Operating Room Nurses Association of Ontario (ORNAO) (87)

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Unit Supervisor
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Weller St.
Peterborough, Ont. K9J 606

President Elect/Board member - ORNAC
Carol Lenox
Nurse Clinician - OR/RR/Day Surgery
Mississauga Hospital
100 Queensway West
Mississauga, Ont. L5B 1B8

Manitoba Operating Room Nurses Association (MORNA) (87)

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Health Science Centre
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Winnipeg, Man. R3A 1M4

President Elect/Board member - ORNAC
Bev Popowich
Clinical Instructor - OR/PARR
Misericordia General Hospital
99 Cornish Ave.
Winnipeg, MAN. R3M 1E2

Saskatchewan Operating Room Nurses Group (SORNA) (87)

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Manager O.R. Nursing
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Saskatoon, Sask. S7K 0M7

Board Member - ORNAC
Margaret Hayes
O.R. Nursing Co-ordinator
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Regina, Sask. S4P 0W5

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Medicine Hat, AB
T1A 4H6

President Elect/Board Member - ORNAC
Jackie Waisman
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Red Deer, AB
T4N 4E7

British Columbia Operating Room Nurses Group (BCORNG) (87)

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GDN/Consultant
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Vancouver, B.C. V5Z 2K4

President Elect/Board Member - ORNAC
Lorna Murphy
General Duty Nurse
B.C. Children's Hospital
4480 Oak St.
Vancouver, B.C. V6H 3V4

PRIORITIES—Check off

☐ ***Renew subscription to O.R. Journal***

☐ ***Finish final draft of article to Journal***

Calendar of Events

April 27-29, Toronto, Ontario: Annual Conference, Operating Room Nurses Association of Greater Toronto, Constellation Hotel. (Contact Audry Macdonald, Publicity, 2301 Mountaingrove Ave., Burlington, Ontario L7P 2H8).

May 8-9, Edmonston, New Brunswick: Annual Conference, Operating Room Nurses Association of New Brunswick, Howard Johnson Hotel. (Contact Noelline LeBel, Edmonston Regional Hospital, 54 - 21st Ave., Edmonston, N.B. E3V 2C1).

May 25-29, Regina, Sask.: Infection Control Course sponsored by Bureau of Communicable Disease Epidemiology, Continuing Nursing Education Department, University of Saskatchewan, Plains Health Centre, Regina. For registration information call (306) 584-1987).

May 27-29, Calgary, Alberta: International Nursing Conference, "Clinical Judgement and Decision Making: The Future of Nursing Diagnosis," sponsored by Faculty of Nursing, Continuing Education, University of Calgary; the North American Nursing Diagnosis Association; and Boyle, Letourneau and Associates. (Contact Gerri Behm, Conference office, 2500 University Dr. N.W., Calgary, AB T2N 1N4. (403) 220-5051).

June 14-16, Winnipeg, Manitoba: Second Biennial Conference of the Manitoba Operating Room Nurses Association, Delta Inn. (Delegates contact Eva Marie Lessing, 50 Cathedral Ave., Winnipeg, MB, R2W 0W5. Exhibitors contact Audrey McFaden, 38 Mansfield Cres., Winnipeg, MB R2N 1R6).

June 15, Winnipeg, Manitoba: First Bienneial Post Anaesthesia Nurses Conference of the Manitoba Association of Post Anaesthesia Nurses, Delta Inn. This one-day conference will be held in conjunction with the MORNA Conference. (Contact Sheila McDonald, 874 Kilkenny, Winnipeg, MB R3T 5A5 (204) 269-3211).

June 19-20, Saskatoon, Saskatchewan: Operating Room Nurses Group Annual Conference. (Contact Darlene Stuttard, Saskatoon City Hospital, 7th Ave. & Queen St, Saskatoon, Sask. S7K 0M7).

July 28-August 1, Quebec City, P.Q.: Colposcopy, Gynecological and Cutaneous Laser Surgery Programs, Chateau Frontenac. (Contact Maryanne Riopelle, P.O. Box 224, Komoka, Ont. N0L 1R0 (519) 471-0300).

September 9-11, Quebec City, P.Q.: Quebec Operating Room Nurses Association Provincial Conference, Hilton Hotel. (Contact Mariette Forgues Guay, Hotel Dieu de Levis, 143 rue Wolf, Levis, P.Q., G6V 3Z1).

September 14-18, Singapore: 5th World Conference of Operating Room Nurses, Westin Stamford and Westin Plaza Hotels. (Contact A.O.R.N., 10170 East Mississippi Ave., Denver, CO)

September 17-19, Thunder Bay, Ontario: 7th Biennial Conference, Lakehead Operating Room Nurses Association, Red Oak Inn. (Delegates contact Connie Riley, c/o McKeller General Hospital, 325 South Archibald St., Thunder Bay, Ont. P7E 1G6.)

September 26, Toronto, Ontario: Ontario Post Anaesthetic Nurses Association (OPANA) Second Annual OPANA Conference, Toronto Convention Centre. (Contact Pat Sbrocchi, PAR, St. Joseph's Hospital, 30 The Queensway, Toronto, Ontario M6R 1B5 (416) 530-6286).

October 2-3, London, Ontario: London and District Operating Room Nurses Association Annual Conference, Lamplighter Inn, London. (Contact Susan Taylor, Publicity Committee, Operating Room, St. Joseph's Health Centre, 268 Grosvenor St., London, Ontario N6A 4V2).

October 15-17, St. John's, Newfoundland: 17th Atlantic Operating Room Nurses Conference, Hotel Newfoundland. (Contact Ann Hughes, Health Science Centre, St. John's, Nfld A1B 3V6).

October 18-21, Red Deer, Alberta: Operating Room Nurses Association of Alberta Annual Conference, Capri Centre. (Contact Jackie Waisman, 116 Barrett Dr., Red Deer, AB T4R 1J3).

November 13-14, Hamilton and District: 3rd Regional Conference, Operating Room Nurses Association of Hamilton and District, Prudhommes Inn, Vineland Station & Queen Elizabeth Way. (Contact Chris Belgrave, Hamilton General Hospital, 237 Barton St. E., L8L 2X2 (416) 527-0271).

May 30-June 3, 1988, Vancouver, B.C.: National Conference, Operating Room Nurses Association of Canada (ORNAC), B.C. Convention Centre and Pan Pacific Hotel. (Contact Mary Raikes-Tindle, 5199 Turquoise Dr., Richmond, BC V7C 4Z6; Exhibitors contact Jean Kerr, Exhibitors Committee, 1105 - 2050 Nelson St., Vancouver, B.C. V6G 1N6).

OR news

Singapore gears up for World OR Conference

A wide ranging exhibition of medical/surgical products, as well as numerous educational sessions focusing on clinical, managerial, ethical and professional issues will be some of the highlights for delegates to the Fifth World Conference of Operating Room Nurses scheduled for Singapore this coming September.

Nurses from at least forty countries, and possibly more, will be in attendance. This is also the first time the Conference will be held in the Orient. Dates for the event are September 14 -18.

Canada has sent delegates to every one of the past four World Conferences: San Diego ('78), Switzerland ('80), Hawaii ('83), and the Netherlands in 1985. At the Le Hague gathering two years ago, over fifty Canadians were in attendance. Canada sent three speakers to this event. Recently, it was announced that several Canadian O.R. nurses will be invited to make presentations at the Singapore gathering.

Delegates planning to attend the Singapore Conference are asked to contact the executive secretary of the Operating Room Nurses Association of Canada. This is requested so that all delegates from Canada can be contacted in order to be informed of the planned attire and other special Canadian events that are scheduled.

Those wishing for more details on the Conference or who will be attending are asked to submit their complete work address and phone number to:

Ms. Dorothy Orr
ORNAC Secretary
Brooks Health Centre
Bag 300
Brooks, Alberta T0J 0J0

Transplant statistics indicate there are more patients than donors and organs

The first Canada-wide survey on transplant statistics has been made available by Health and Welfare Canada. The first Survey done and the number and type of transplants performed is for the three month period beginning June 1, 1986. The following chart, which will be updated and expanded upon as the information is provided, will be a regular feature of the Canadian Operating Room Nursing Journal.

Organ	No. of transplants (June 1 to August 31)	No. of patients on waiting list
Kidney	254	1,103
Heart	29	26
Heart/Lung	3	12
Liver	13	12
Single Lung	2	3
Bone and Bone Graft	15	12
Skin	22	0
Pancreas	2	2

Father of Medicine lived right for a long, long time

Hippocrates of Greece is considered the Father of Medicine primarily because of his extensive collection of medical writings and his rejection of medical ideas based on superstition. As well, he expounded on numerous rational principles, some of which are still valid after more than two thousand years.

He must have lived what he preached and taught, because he lived to the estimated ripe old age of 90, an almost unheard of example of longevity for the 3rd Century B.C. And, of course he prayed to the Greek God of Medicine, whom we all know to be Asclepius; or, if you want the Roman version, Aesculapius, the word from which a well-known surgical supply company derives its corporate name.

Surgical complications account for 161 deaths

In Canada in 1985, the latest year for which complete figures are available, there were 475 deaths attributed to medical practice. This includes 43 deaths described as "misadventures during surgical and medical care."

These figures from Statistics Canada's latest "Causes of Death" catalogue, also list 288 deaths from "complications of medical procedures without mention of misadventure."

As for "misadventures," 30 deaths were attributed to "accidental cut, puncture, perforation or hemorrhage," and 12 were because of a "surgical operation." The latter includes six attributed to heart catheterization, four during administration of an enema, two because of foreign objects left in their bodies, and one during endoscopy.

Surgical complications killed 161, including 81 from anastomoses, bypasses or grafts, 27 from organ removal and 11 from amputations.

Statistics Canada, for the year 1985, also reported that the leading cause of death was coronary heart disease at 47,407. Cancer at 46,333 is closing the gap as the second leading cause of death; and as these are 1985 figures, during the intervening months, cancer has probably overtaken heart disease as the number cause of death.

OR news

Longevity differences still baffle researchers

Medical researchers are still puzzled as to why women outlive men.

Longevity research being carried out by the Royal College of Physicians of London, England is still in the dark, but has come up with some insight that does offer some explanation.

Naturally, it is conceded that a retirement that is active with no smoking and drinking to excess is the usual counsel provided. But there's more to the dilemma than good, healthy living habits.

Sir Cyril Clarke, president of the College believes that differences in life span in the sexes is due to the tendency of men to "run to fat" at retirement age, while women are "kept going" by keeping house.

"Urge is also an important factor in longevity," he said, "and may account for some interesting changes in the lifespan of mentally retarded people, especially those with Down's syndrome."

He said, speaking about Down's: "They live now until about 50, whereas in 1929 the average age of death of a Down's child was nine. This, I think, is largely due to 'urge'; they're dressed decently...and they're encouraged to do things."

Sugar consumption has unwarranted reputation

Contrary to popular held beliefs, sugar may not be as bad for us as we think.

According to leading nutritionists attending the World Sugar Research Organization symposium in Sydney, Australia, there is no scientific evidence to link sucrose with heart disease, obesity, hyperglycemia, hyperactivity in children, or cancer.

In fact, research shows that sucrose could have a positive effect, such as alleviating distress and discomfort, according to Professor Ian MacDonald, chairman of the British Nutrition Foundation and head of the department of physiology at Guy's Hospital in London, England.

"It has been suggested that sugar releases endogenous opioids, or opium related substances. These substances have similar effects to morphine, namely they reduce physical and mental discomfort," he said.

All the biochemists and nutritionists at the conference agreed that sugar is making a turnaround. Professor Harvey Anderson, head of the Human Nutrition Research Council of Ontario, blamed sugar's bad reputation on previous studies that, he said, were unscientific and poorly conducted.

"Behavioural disorders including sleep, mood, depression, hyperactivity and crime have been linked with sugar, with food additives, nutritional deficiencies and excesses, primarily as a result of poorly conducted studies."

Sugar intake has been blamed on criminal behaviour and juvenile delinquency, but there is absolutely no evidence of it."

It was pointed out that, taken in moderation, sucrose cannot be scientifically linked to health problems, with the exceptions of dental caries and possibly some metabolic problems in some peoples not used to sucrose-based substances, the Australian Aborigines, for example.

"For the majority of healthy people, eating an otherwise balanced diet, I have not come across a clear reason to reduce sugar intake from around 14% of calories," said Dr. S. Truswell, professor of nutrition at the University of Sydney.

It was also pointed out that, as a causative dietary factor, sucrose was not mentioned in recent reviews and recommendations by the American Heart Association and two World Health Organization reports on the prevention of coronary and cardiovascular diseases.

Booster shots advised for hepatitis B vaccine

Booster shots of hepatitis B should be given every five years says Dr. Cladd Stevens, head of epidemiology at the New York Blood Centre in New York and one of the pioneers of hepatitis vaccine research.

Speaking at a multidisciplinary conference held in Toronto last October under the sponsorship of the Canadian Liver Association and the Toronto General Hospital, Dr. Stevens said that the early recipients of the vaccine should be recalled soon for booster hepatitis B shots.

Although it is not a clear-cut issue, early results of the vaccine's efficacy reveal that antibody protection declines with time, and those that received the plasma-derived vaccine four or five years ago are less safe today, Dr. Stevens stressed in her address. Since being licensed in 1982, close to 100,000 doses of hepatitis B vaccine have been distributed in Canada at a cost of $125 per dose.

Despite evidence showing that the vaccine is safe, well tolerated and highly effective, many health care workers are reluctant to receive the vaccine.

Some health care workers are afraid to take the vaccine because of the fear of contacting AIDS. This fear has no scientific basis. Readers are asked to see news article on page 44, which discusses the issue.

Surgical infection traced to commotion and talking

Eliminating excessive conversation and commotion in the operating room can reduce the prevalence of surgical wound infections in hip prothesis surgery and total hip and knee replacements according to a study reported in a recent issue of the American Journal of Infection Control (Volume 14, Number 4, August, 1986, pp. 161.)

Between May, 1982 and June 1985, 189 patients underwent orthopaedic surgery at two community hospitals in Jefferson City, Missouri.

Intraoperative surveillance by infection control nurses was agreed to for two procedures, hip prothesis or total hip or total knee replacement.

The significant findings were too many persons in the operating room (five to nine), frequent opening of the operating room doors (25 to 50 times), excessive conversation, and inconsistent use of prophylactic antibiotics: inappropriate selection, not correctly administered, for example, within one hour of the surgical incision. The rate of surgical wound infections overall was 14/116.

Recommendations were shared with the surgeons, the operating room nursing staff and the anaesthesia personnel. It was noted that the primary surgeon generally sets the tone of the operation; if his or her conversation was frequent, others talked freely to.

The initial follow-up study showed that fewer persons were in the operating room (4 vs. 5 to 9), fewer openings/closings of the OR doors (less than 10 vs. 25 to 50), and reduced casual conversation.

Subsequently, a statistically significant drop in surgical wound infections was realized, 3/73 vs. 14/116.

Solving the problem of inconsistent use of prophylactic antibiotics took longer. Establishing protocols to assist with the administration of antibiotics resulted in no infections reported during the latter part of the study. The protocols included administration of the antibiotics within one hour before initial incision, and repeated during the surgery if longer than two hours; and remote sites of infection were to be under treatment before the surgical procedure began.

OR news

Anaesthetists pass new work standards for OR

Minimum standards for monitoring patients have been passed by the American Society of Anaesthesiologists (ASA). The standards are seen as necessary because of data collected independently by researchers at Harvard University and and the ASA Committee on Standards of Care. This data suggests that as many as 2000 anaesthesia-related deaths occur each year in the United States, all of them preventable.

The standards adopted for basic intraoperative monitoring emphasize unifying the behaviour of anaesthesiologists in order to reduce preventable mishaps. These standards are detailed in the ASA newsletter, December, '86.

The first standard requires qualified anaesthesia personnel to be present in the OR throughout the administration of all general and regional anaesthetics.

The second standard requires continual monitoring of oxygenation, ventilation, circulation and body temperature. Under this standard, operating rooms must be equipped with an oxygen analyzer, an alarm device that detects disconnection of a mechanical breathing system, and an electrocardiograph. The standards state that they address only the basics of intra-operative monitoring, and may be exceeded at any time.

Hepatitis B vaccine free of AIDS virus

One of the reasons many health care workers are not consenting to receive the vaccine for hepatitis B is the fear of contracting the acquired immune deficiency syndrome (AIDS) from the vaccine. Despite evidence showing the vaccine to be safe, many workers remain reluctant to take it.

Researchers noted that several persons at risk for acquiring AIDS are known to have donated plasma used to manufacture hepatitis B vaccine.

According to the researchers, however, fear of getting AIDS from the vaccine has no scientific basis. When the hepatitis B virus (HBV) vaccine is manufactured, it undergoes three inactivation steps: pepsin at pH 2, 8m urea, and 0.01% formaldehyde. The researchers tested the three treatments and found that each could completely inactivate all isolates of the AIDS virus.

Further evidence of the successful inactivation and removal of the AIDS virus, is confirmed by the absence of viral nucleic acids related to the AIDS virus in the vaccine, reserachers at the Centres for Disease Control in Atlanta mentioned in a report published in the August 15, 1986 issue of the JAMA.

Also, there have been few AIDS antibodies found in the more than one million-plus HBV vaccine recipients in both Canada and the United States, most of whom were health care workers. Those recipients who did develop AIDS were in high-risk categories for contacting the disease, and their cases could not be traced to the hepatitis B vaccine.

OR news

I.V. nurses set dates for annual Conference

The Canadian Intravenous Nurses Association will hold its 12th Annual Convention at The Renaissance Hotel in Scarborough, Ontario, this autumn.

Some of the agenda topics have been established for this event taking place October 22-23: Nursing research: implications for nurses and intravenous therapy; Risk management: how does it relate to quality assurance; AIDS disease update: is testing reliable? I.V. nursing: professional or technician? Cancer management: who decides what?, and What's new in burn treatment?

For more details, contact Pamela Smith, C.I.N.A., 4433 Sheppard Ave. E., Suite 200, Agincourt, Ontario M1S 1V3.

Hamilton area OR nurses announce new executive

The Hamilton and District Operating Room Nurses Association (H.D.O.R.N.A.), one of seven regional O.R. nursing organizations in Ontario, have announced the composition of their new executive:
President, Adrienne Brown, West Lincoln Memorial Hospital, Grimbsy; Past-president, Carol Lenox, Mississauga Hospital; President- elect, Jocelyn Staynes, Hamilton General Hospital; Secretary, Chris Belgrave, Hamilton General Hospital; Treasurer, Janet Rinaldi, the Oakville Trafalgar Hospital.

The Conference programme committee chairman is E.M. McKague, St. Catharines General Hospital. The Hamilton and District Regional Conference is scheduled for November 13-14, at Prudhommes Inn, Vineland St.

Vancouver National O.R. Conference organizers prepare for 1988 event

By this time next year (April, 1988), 95% of of the work and planning for the 10th National Operating Room Nurses Conference will be completed. Prospective delegates and exhibitors are asked to confirm their participation as early as possible.

Below are listed the contact people responsible for delegate and exhibitor information.

The 10th National O.R. Conference is slated for May 30 to June 3, 1988 at the B.C. Convention Centre and Pan Pacific Hotel in Vancouver.

Exhibitors are asked to contact:
Jean Kerr
Exhibitors Committee
1105 - 2050 Nelson St.
Vancouver B.C.
V6G 1N6

Delegates' information and pre-registration:
Mary Raikes-Tindle
Publicity Chairman
5199 Turquoise Dr.
Richmond, B.C.
V7C 4Z6

Jarvik heart transplants proving successful

According to the British Medical Journal (January 3, 1987) in the past year in the United Sates, 17 people were given artificial Jarvik hearts while awaiting human heart transplantation. Three have fully recuperated; three are presently recuperating; four are still in hospital; and seven have since died.

Still, critics of the program continue to argue that the use of artificial hearts as "bridges" will not increase the number of patients treated successfully.

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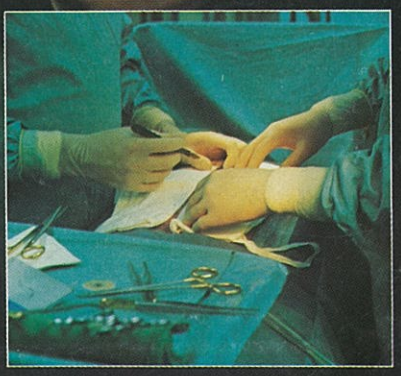

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