CANADIAN
OPERATING ROOM
NURSING JOURNAL
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Safety in the OR

Hands-free Technique

Prevention of SSIs

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President's Message

Creating a Culture of Safety

Patient safety has long been considered a priority in Canada – provincially and nationally. Within the last few years, however, the profile of patient safety initiatives has skyrocketed. Numerous initiatives and organizations have been launched in an effort to improve the safety of Canadian patients throughout the healthcare spectrum. Current provincial initiatives include Health Quality Councils established in some provinces to report on quality, safety and performance of health services and health systems. Other provinces have created patient safety task forces to promote and facilitate activities that have a positive impact on patient safety. Developing a culture of open communication to report adverse events or "near misses" has also been on every province's agenda in healthcare. Open exchanges about adverse events and systems leads to a better understanding of where and why errors occur.

There are also many national initiatives that have patient safety as their main purpose, including: Canadian Patient Safety Institute (CPSI), Safer Health Care Now! Campaign, Institute for Safe Medication Practices (ISMP), and the CNA Patient Safety Resource Guide. ORNAC is actively involved with many of the national initiatives and will continue to welcome future opportunities to have a voice in patient safety initiatives that either directly relate to or impact on perioperative practice.

A focus on patient safety issues gives health care providers, administrations, and governments the opportunity to bring about changes and improvements in our practices and in our workplace environments. The direct results will benefit perioperative Registered Nurses and our patients. We all have the ability and the responsibility to identify patient safety issues, within our realm of practice, and to influence change.

In order to meet the demands of an ever-changing healthcare environment, ORNAC will continue to be proactive towards change in the future. It will continue to stand by its mandate to focus on the promotion and advancement of excellence in the provision of safe patient care in the perioperative environment and the professional growth of perioperative Registered Nurses.

Creating a culture of safety in healthcare should be everyone's mission. Our patients deserve it!

Wishing you and your family a happy and peaceful holiday season….

Linda M. Socha

Linda M. Socha, RN, BSN, RNFA, CPN(C), CEBT, CTBS, is President of the Operating Room Nurses Association of Canada. She is Clinical Nurse Educator for the OR at Saskatoon City Hospital, Manager of the Saskatchewan Transplant Program, and the past Chair of the ORNAC Editorial Committee.

President's Message

Créer une culture de sécurité

La sécurité du patient est depuis longtemps considérée une priorité au Canada, au niveau provincial aussi bien qu'au niveau national. Cependant, les dernières années ont vu croître de manière importante l'attention portée aux initiatives de santé des patients. Plusieurs initiatives et organismes ont été créés visant l'amélioration de la sécurité des patients canadiens à tout niveau du système de santé. Parmi les initiatives provinciales actuelles notons les conseils sur la qualité des soins de santé établis dans certaines provinces pour examiner la qualité, la sécurité et le rendement des services de santé. D'autres provinces ont créé des groupes d'étude sur la sécurité du patient afin de promouvoir et faciliter des activités ayant un impact positif sur la santé des patients. Développer une culture de communication ouverte permettant de rapporter les événements négatifs et ceux évités de peu figure également dans les objectifs relatifs aux soins de santé de toute province. Les échanges ouverts sur les systèmes et les événements négatifs mènent à une meilleure compréhension du pourquoi et du comment de ces erreurs.

Il existe aussi plusieurs initiatives nationales visant la sécurité du patient, y compris l'Institut canadien de la sécurité du patient (ICSP), Des soins de santé plus sécuritaires maintenant!, l'Institute for Safe Medication Practices (ISMP) (*institut pour les pratiques sécuritaires de médicamentation*) et le *Guide de ressources en matière de sécurité du patient* de l'Association des infirmières et infirmiers du Canada. L'AIISOC participe à plusieurs initiatives nationales et accueillera avec enthousiasme de futures occasions de contribution aux initiatives de sécurité du patient touchant directement ou indirectement à la pratique périopératoire.

En se concentrant sur la sécurité du patient, les fournisseurs, administrateurs et services gouvernementaux impliqués dans les soins de santé ont l'occasion d'effectuer de changements et d'améliorer nos pratiques et nos milieux de travail. Les résultats en seront avantageux et pour le personnel infirmier autorisé en soins périopératoires et pour nos patients. Nous devons tous assumer la responsabilité d'identifier les menaces à la sécurité du patient au sein de notre pratique et de faire notre possible pour effectuer les changements nécessaires.

Afin de répondre aux besoins du milieu toujours changeant des soins de santé, l'AIISOC s'engage à poursuivre son rôle proactif. L'association continuera à promouvoir et à faire progresser les normes d'excellence relatives aux soins sécuritaires du patient dans le milieu périopératoire tout en favorisant le développement professionnel du personnel infirmier autorisé en soins périopératoires.

Créer une culture de sécurité doit être la mission de tout un chacun. Nos patients le méritent!

Je souhaite à vous et à votre famille une joyeuse saison des Fêtes.

Linda M. Socha, infirmière autorisée, baccalauréat en sciences infirmières, RNFA, CPN(C), CEBT, CTBS, est la présidente de l'Association des infirmières et infirmiers de salle d'opération du Canada. Elle est infirmière clinique enseignante pour la salle d'opération de Saskatoon City Hospital, gérante du programme de greffe de la Saskatchewan et présidente sortante du comité de rédaction de l'AIISOC.

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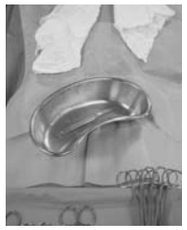

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LA MORT D'UNE INFIRMIERE DE SALLE D'OPERATION EN COLOMBIE-BRITANNIQUE AURAIT-ELLE PU ETRE PREVENUE AU MOYEN DE LA TECHNIQUE MAINS LIBRES?

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« Dédicace à Bev Holmwood, une infirmière de salle d'opération ayant contractée l'hépatite C suite à un accident de travail et qui est décédée deux mois plus tard en décembre 1991 » [1]

RESUME

En 1991, Bernadette Stringer, représentante en matière de sécurité et de santé chevronnée de la British Columbia Nurses' Union, a appris qu'une infirmière périopératoire de Victoria (C.-B.) âgée de 48 ans est morte suite à une piqûre accidentelle avec une aiguille contaminée par l'hépatite C. Cet incident a déclenché une étude évaluant la possibilité que l'application de la technique mains libres réduise le risque de blessures percutanées, de déchirure de gants et de contamination cutanéo-muqueuse pendant la chirurgie effectuée par Mme Stringer dans le cadre des exigences de son doctorat (décerné en 1998 par les départements d'épidémiologie, de biostatistique et de santé au travail de la Faculté de médecine). Les résultats principaux de l'étude ont été publiés en 2002 dans une des revues du *British Medical Journal*, *Occupational and Environmental Medicine*.[2]

Le présent article discutera de certains aspects du cas de Bev Holmwood, passera en revue les renseignements disponibles sur la technique mains libres et décrira une nouvelle étude ayant de nouveau évalué l'efficacité de la technique mains libres.

1. Le Correspondant free-lance B. L'usage de la technique de mains-libère dans les pièces d'opération d'hôpital - UNE étude de l'efficacité d'une pratique de travail [le traité]. Montréal (QC) : L'Université de McGill 1998.

2 Stringer B, Infante-Rivard C, Hanley J. "Effectiveness of the hands-free technique in reducing operating theatre injuries" *Occupational and Environmental Medicine*. 59.10 (2002): 703-707.

COULD THE DEATH OF A BC OR NURSE HAVE BEEN PREVENTED BY USING THE HANDS-FREE TECHNIQUE?

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"Dedicated to Bev Holmwood, an operating room nurse who contracted hepatitis C due to a work injury and died two months later, December, 1991" [1]

ABSTRACT

In 1991, Bernadette Stringer, a long time BC Nurses' Union health and safety representative, learned about the death of a 48 year old Victoria, B.C., OR nurse who had sustained a hepatitis C contaminated needlestick. This incident led to a study evaluating the hands-free technique's ability to decrease the risk of percutaneous injury, glove tear and muco-cutaneous contamination during surgery that

Ms. Stringer carried out in partial fulfillment of her Ph.D. (granted in 1998, by McGill University's Joint Departments of Epidemiology, Biostatistics and Occupational Health, in the Faculty of Medicine). That study's main findings were published in 2002 in one of the British Medical Journal's publications, Occupational and Environmental Medicine [2].

The following article will discuss aspects of Bev Holmwood's case, review the literature on the hands-free technique, and describe a new study that has again evaluated the hands-free technique's effectiveness.

Occupational Risk of Contracting a Bloodborne Disease in the OR

Of the seven U.S. OR studies, in which a dedicated observer or circulating nurse recorded surgical personnel's exposures, a percutaneous injury occurred in 1.7 - 15% of all surgeries and a contamination occurred in 6.2 - 50% of all surgeries[3,4,5,6,7,8,9]. Surgeons and residents were found to usually, although not always, sustain the greatest number of percutaneous and other exposures during surgery. In one OR study scrubbed personnel (nurses or technicians) sustained as many percutaneous injuries as surgeons[10] and in another, circulating nurses sustained the greatest total number of exposures[11]. As well, it should be highlighted that in one or more of these seven OR studies, emergency status, length, type of surgery, blood loss, number of personnel present and time of day were all factors that were found to be associated with risk of injury and/or contamination[12,13,14,15,16,17,18].

While data from similar Canadian studies do not yet exist, some information about risk to surgical personnel in our hospitals is known. For example, in a 2002 report based on Health Canada's Canadian Needle Stick Surveillance Network (a group of 14 volunteer hospitals who contribute standardized information about all work related blood and body fluid exposures), 24% of percutaneous injuries reported were due to suture needles, scalpel blades and other types of surgical instruments[19]. In another report based on nursing surveys conducted in 1998 and 1999 in British Columbia, Alberta and Ontario, it was found that 70% of operating room (OR) nurses had sustained a percutaneous injury at some time during their career[20].

Occupational Injury and Death of a B.C. OR Nurse

A concrete example of risk from OR work in Canadian hospitals is provided by the tragic experience of Bev Holmwood, who, while circulating during an operation in Victoria, BC, on a patient suspected of being hepatitis C positive, sustained a needlestick when a surgeon was handing her a syringe full of blood. Within days of the injury, Bev developed fulminant acute hepatitis C and was transferred to a Vancouver hospital where her disease quickly progressed to the end stages and she died.

As a result, her partner claimed survivor benefits through the BC Workers Compensation Board (BC-WCB) but because Ms. Holmwood had not reported the injury to her employer (which is standard policy in Canadian hospitals and other workplaces), the BC-WCB first conducted an investigation. As a result of evidence provided by co-workers, the BC-WCB quickly determined that Bev Holmwood had contracted Hepatitis C as a result of an occupational injury. Nevertheless the hospital, her employer, contested and it was at this point that Bev Holmwood's partner contacted the BC Nurses' Union for help appealing the claim. Although the claim was eventually won, it should be noted that if the denial and appeal had not taken place, the union might never have known about this incident and this OR nurse's work related death.

Reducing the Risk

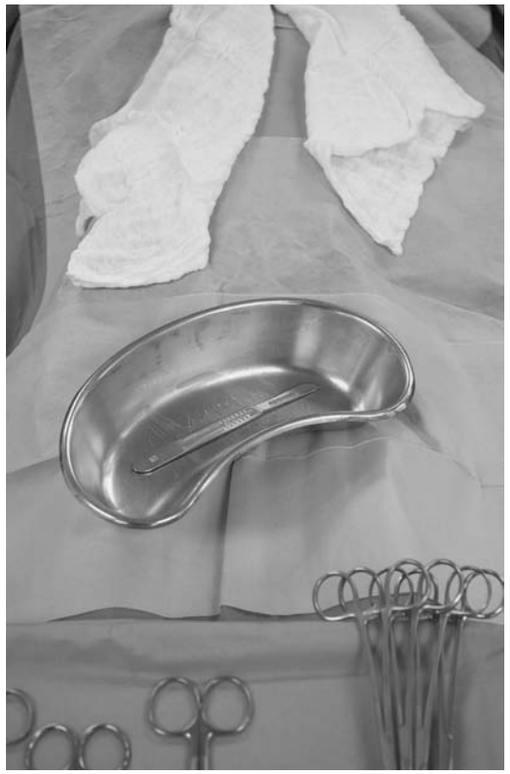
Risk reduction methods have been proposed for many aspects of operating room work. Although strategies to reduce risk make intuitive sense, some have not been evaluated with well-designed studies[21]. Some methods, such as the use of certain redesigned safety syringes,[22] double gloves[23,24] and the use of blunt suture needles instead of sharp suture needles whenever possible[25,26] have been well evaluated and are considered effective. Others require further evaluation. One of these is the hands-free technique. Although the Operating Room Nurses Association of Canada (ORNAC)[27], its U.S. equivalent the AORN,[28] and other professional[29,30,31] and regulatory[32] organizations recommend use of the technique whenever possible, the hands-free technique's effectiveness is being further evaluated in a recently concluded Canadian study involving six hospitals in two provinces. The study was carried out in three phases and funded by Ontario's Workplace Safety and Insurance Board[33]. Study results should be available by April 2007.

Evidence of the Hands-free Technique's (HFT) Effectiveness

Three previous OR studies have assessed the HFT's ability to reduce percutaneous injuries alone,[34] glove tears alone[35], and percutaneous injuries, glove tears and muco-cutaneous contaminations[36]. The study that evaluated the HFT's ability to reduce the risk of sustaining all three outcomes found that when the HFT was used 75% or more of the time during surgery, it was protective; the other two studies did not find that it reduced the risk of percutaneous injury, in one study and glove tears, in the other.

The hands-free technique study that found a positive effect was conducted most recently by one of this article's co-authors (BS), over six months during 1995 to1996, in a 300-bed inner city teaching hospital in a large U. S. city, where use of the HFT was OR policy[37]. In that study, which included the largest number of surgeries, all same-day surgeries and surgeries taking place in the main operating rooms from a variety of sub-specialties, including cardio-thoracic, vascular, orthopedic, general, neuro, etc. were eligible as long as a full-time circulating nurse was present during the procedure. The nurse completed a questionnaire at the end of the surgery as well as recorded the details of percutaneous injuries, glove tears and muco-cutaneous contaminations sustained by physicians, nurses, technicians, physicians' assistants, residents and medical students if they occurred. Only incidents sustained by anaesthesia personnel were not eligible for inclusion.

Circulating nurses completing the questionnaire consulted with scrub personnel, to estimate the overall proportion of use of the hands-free technique during the surgery according to five categories: approximately 100%, 75%, 50%, 25% and 0%. As well, they recorded the type and length of surgery, the amount of bloodloss, the time of day it took place, whether or not the surgery was noisy, the number of people present for at least 75% of the surgery and its status (emergency/non-emergency). When an event occurred, the details of the event were also recorded as soon as possible.



By/Par: J. Porteous

A kidney basin may be easily utilized as a "hands-free zone"

The study found that the hands free technique was used 75% or 100% of the time in only 42% of the 70% (3,765/5,388) eligible surgeries included in the study, even though it was hospital policy. As well, during the study there were 40 percutaneous injuries, 52 glove tears and 51 contaminations reported by eligible personnel.

Using logistic regression to test for interaction and to adjust for potential confounders, study analyses found that although using the HFT

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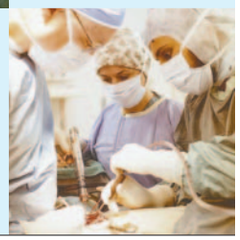

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We thank all applicants for their interest. Only those applicants who are under consideration will be contacted.

Grande Prairie Regional College

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75% or more of the time during surgery was protective, that was only the case in surgeries in which there at least 100 cc of blood loss occurred. In those surgeries, using the HFT most of the time during an operation, reduced the risk by 59% [95% CI 28% -77%]. More specifically, in surgeries in which there was blood loss of 100 cc or more and the HFT was also used 75% or more of the time, the incidence rate was 3.7% compared to 10% in surgeries in which there was blood loss of 100 cc or more but the HFT was used 50% or less. Since there were 1,366 surgeries in which blood loss was at least 100cc, that is 486 surgeries in which the hands-free technique was used 75% or more of the time and 880 surgeries in which the HFT was used 50% or less of the time, it was estimated if the technique had been used in those 880 surgeries when the HFT was used 50% or less of the time, 54 incidents could have been prevented.

Of the two other studies in which the HFT was also evaluated, only one had the primary purpose of evaluating the HFT's effectiveness[38]. The evaluation, however, was done only by looking at the rate of glove tears in caesarean sections. In that study, personnel in randomly selected surgeries were asked to use the HFT to pass instruments while surgeries not selected, or 'control' surgeries, were asked to continue to use whatever technique they normally used. And at the end of each intervention and control surgery surgeons, assistants and technicians placed gloves worn during surgery in a bag for later testing and they also provided information about their role on the surgical team, level of experience, dominant hand and whether or not they had observed a glove tear during the surgery.

In this study, researchers reported randomizing only 165/192 eligible surgeries, although they did not say why and excluded nine surgeries because personnel did not save gloves or record data. In the remaining 156 surgeries, there were glove perforations in 19% of intervention surgeries, compared to perforations in 16.1% of control surgeries – a difference not found to be statistically significantly different (P=0.5).

While the randomized control trial is usually considered the most rigorous study design, it can be argued that randomization should have been at the level of the hospital, not surgery by surgery as was done in this study since doing so required surgical team members to change their practice case-by-case, making results vulnerable to contamination. This is especially of concern since independent assessments, to assess whether or not the hands-free was used in intervention surgeries and not used in control surgeries, were not made.

In addition to this, the other main methodological issue of concern was that only 444 pairs of gloves were tested, including 38 sets of double gloves although 596 personnel were reported to have been involved in the included surgeries that could have resulted in a substantial proportion of eligible gloves being untested for perforations

The objective of the third study was to assess which of ten potential risk factors were associated with percutaneous injury and passing sharp items directly was one of the factors assessed[39]. This study included only 17% of eligible surgeries (1,382 out of 8,153) in two U.S. hospitals.

In this study, observers with no other tasks were trained to record information on the ten techniques, categorizing frequency of HFT use as <1/3, 1/3-2/3, >2/3, or uncertain, and to also collect data on other potential risk factors.

The study found that percutaneous injuries occurred in 6.9% of surgeries and, interestingly, that 32% of the sharp items causing injury later re-contacted the patient wound.

And, although the study did not find that HFT use decreased risk of injury, it did report that most surgeons used the HFT most of the time while most nurses used it very little. More specifically, in 957 surgeries HFT use by surgeons was greater than 2/3 of the time, and there were 66 injuries, and in 407 surgeries, HFT use by surgeons was less than 2/3 of the time and there were 27 injuries (OR=1.0 [95% CI 0.6-1.5]). It also reported that hands-free use by nurses was greater than 2/3 of the time in only 21 surgeries, in which there were 3 injuries,

while in 1,346 surgeries, hands-free use was less than 2/3 of the time and there were 90 injuries (OR=0.5 [95% CI 0.2-1.4]). But because use by surgeons and nurses has to be highly correlated (since when surgeons use the HFT >2/3 of the time during surgery it means that most of the time they are retrieving sharp items that have been laid down by nurses) the amount of use by each occupational category does not make sense. This indicates unresolved methodological issues and makes these findings questionable.

THE HANDS-FREE TECHNIQUE (HFT)

As mentioned in the abstract, the hands-free technique (HFT), whereby no two people touch the same sharp item at the same time, is one of a number of methods suggested to reduce the risk of percutaneous injury, glove tear and bloody contamination during surgery.

The hands-free technique minimizes the frequency of hand-to-hand passes between surgeons, residents, scrub and circulating nurses, and technicians during surgery. The intent of the technique is to 'standardize' the passing of sharp items and thus increase the predictability and expectations of all involved by decreasing variability and relying less on individual alertness, which is consistent with human factors research and research on safe organizations[40,41].

The need to increase predictability has been highlighted because of the context in which surgery is carried out. Surgical teams are made up of a variety of members with diverse skills who may or may not work together on a regular basis. Communication between team members can be difficult as a result of surgical masks, face shields, and goggles. Team members handle slippery, perforating instruments on a swift and fairly regular basis.

In regular passing of sharp items, the item is passed directly from one person's hand to another's hand. Implementing the hands-free technique turns this in to a two-step process. Step one is laying a sharp item down in a neutral or safe zone. The second step is the retrieval of that sharp item. Often, but not always, the retrieval is carried out by a different person. Sometimes, however, the same person who lays it down is also the person who retrieves it.

The 'neutral' zone can be selected from items regularly used during surgery, such as a mayo stand or a rectangular basin (a kidney basin is not ideal because its shape may not permit a scalpel or other sharp item of a similar size to lie securely in it) or by allocating a specific section of the surgical field. The neutral zone needs to be selected on a case-by-case basis dependant on the location of the incision, the amount, shape and weight of sharp items that will be used, the passing frequency, the number of persons near the surgical site, and the team members' personal preference. More than one location or item can be used for the 'neutral zone'. For example, a sharp item can be laid down for the surgeon to retrieve on the surgical field, but when the item that was originally retrieved by the surgeon is returned it can be placed onto a mayo stand. Regardless of the site or sites selected, it is key to agree upon areas or items that will be used as neutral zones at the start of a procedure. In the rare case when there is a need to change the location or the item used as the neutral zone, this should also be clearly communicated to everyone.

RISK REDUCTION AND THE HFT

The positive results from the Ph.D. study on the HFT provided the impetus to further assess its ability to reduce risk in a three phase Canadian study that has just ended[42]. Data collection for the third phase was completed in November 2006. This study's principal investigator is also B. Stringer but this time she is working with eight co-investigators, including Ted Haines, from a variety of Canadian universities as well as one co-investigator from the University of California-Davis.

Briefly, the most recent study has been carried out in the following way: the first phase used interviews with 20 key informants to explore attitudes about use of the hands-free technique, barriers to its use, and suggestions on how to encourage use among Canadian and U.S. surgeons and OR nurses and technicians working in a variety of sub-specialties. Results from this study have been published in a recent issue of the AORN journal[43]. The second phase

of the study consisted of developing an educational video demonstrating and promoting use of the hands-free technique during surgery. The video was then used as the main component of an intervention used in the third phase study. The third phase study consisted of a pre and post intervention study that took place in three Hamilton hospitals, two Sudbury hospitals, and an Edmonton hospital. Its objectives were to again assess the hands-free technique's ability to reduce risk of injury glove tear and muco-cutaneous contamination as well as assess the video's ability to increase use of the technique.

The video is also in DVD format and is being distributed by the researchers free of charge until the copies they possess run out. More specifically, ORNAC, the AORN, and other nursing and surgical professional bodies throughout the world have been provided with copies.

CONCLUSION

The recent report of an OR nurse sustaining an injury when a cardiac surgeon tried to hand a scalpel "back to her while the nurse was passing another instrument to another surgeon"[44], at the Dallas Veteran Affairs Medical Center, indicates that injuries such as the one suffered by Bev Holmwood more than a decade ago continue to occur. Accidents can happen and there is always opportunity during surgery for perioperative team members to be unaware of an instrument being passed from outside their sightline, or to be distracted, misunderstand requests, or lose control of instruments. The use of methods, such as the hands-free technique, designed to make the passing of instruments more predictable are warranted even as we continue to evaluate them.

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LA PREPARATION PREOPERATOIRE DU PATIENT ET LA PREVENTION D'INFECTION DU CHAMP OPERATOIRE

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RESUME

En 1999, le ministère de la Santé et des Soins de longue durée de l'Ontario a approuvé un financement pour le St. Mary's General Hospital dans le but de créer un centre régional de soins cardiaques. En juillet 2003, le programme de chirurgie cardiaque a été lancé. Pendant l'étape de planification du programme, des protocoles relatifs à la préparation de patients allant subir une chirurgie cardiaque ont été élaborés.

Objectif : Partager des politiques, des protocoles et des outils de formation à l'intention des patients développés à partir de normes de pratiques guidées par la recherche et fondées sur les preuves. Effectuer une revue d'une année (janvier à décembre 2004) et évaluer le taux de conformité relatif à la préparation préopératoire de patients lors de tout pontage aortocoronarien.

APPROCHE : Analyse rétrospective des dossiers

LIEU : Centre régional communautaire de soins cardiaques disposant de 191 lits

PARTICIPANTS : Tout patient adulte subissant un pontage aortocoronarien entre le 1er janvier 2004 et le 31 décembre 2004.

ANALYSE : Le taux de conformité suivant la formation du patient relatif au lavage préopératoire, à l'évaluation de l'exécution du lavage préopératoire et au site de rasage selon la salle d'opération cardiovasculaire.

CONCLUSION : Une équipe de personnel infirmier autorisé était en mesure de mettre en place des politiques et des protocoles au sein d'un programme de chirurgie cardiaque qui correspondaient aux normes recommandées par les Centers for Disease Control and Prevention (CDC), l'Association des infirmières et des infirmiers de salle d'opération du Canada (AIISOC) et l'initiative Des soins de santé plus sécuritaires maintenant! Une analyse rétrospective des dossiers démontre que le personnel infirmier applique et consigne de manière assidue les protocoles relatifs au lavage préopératoire et au rasage.

PRE-OPERATIVE PATIENT PREPARATION IN THE PREVENTION OF SURGICAL SITE INFECTIONS

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ABSTRACT

In 1999 the Ontario Ministry of Health and Long Term Care granted funding to St. Mary's General Hospital for a Regional Cardiac Care Center. In July 2003 the cardiac surgery program opened. During the program-planning phase, protocols and procedures related to patient preparation for cardiac surgery were developed.

OBJECTIVE: To share policies, protocols and patient teaching tools developed from research driven, evidenced based standards of practice. To complete a one-year review (January to December 2004) and assess the compliance rates with pre-operative patient preparation procedures on all Coronary Artery Bypass Graft (CABG) cardiac surgery patients.

DESIGN: Retrospective chart review.

SETTING: 191 bed community-based Regional Cardiac Care Centre.

PARTICIPANTS: All adult patients undergoing Coronary Artery Bypass Graft (CABG) surgery from January 1st 2004 to December 31st 2004.

ANALYSIS: Compliance rate following patient education related to pre-operative washes, assessing completion of pre-operative washes, and location of clipping relative to the Cardiovascular Operating Room (CVOR).

CONCLUSION: A team of Registered Nurses was able to effectively implement policies and protocols within a cardiac surgery program that meet the recommended standards of care of the Centers for Disease Control and Prevention (CDC), Operating Room Nurses Association of Canada (ORNAC) and *Safer Health Care Now!* Initiative. A retrospective chart review has demonstrated that staff consistently apply and document care in accordance with the developed pre-operative wash and hair clipping protocols.

INTRODUCTION

The Centers for Disease Control and Prevention (CDC) has extensively reviewed methods of pre-operative patient preparation to identify practices that reduce the risk of developing a surgical site infection (SSI).[1] The Operating Room Nurses Association of Canada (ORNAC) has also developed *Recommended Standards, Guidelines, and Position Statements For Perioperative Registered Nursing Practice*, to promote best practices, maintain standards, and ensure a standard of care for all surgical patients.[2] More recently, the Institute for Healthcare Improvement released the *Safer Healthcare Now!* campaign that outlines practice components to prevent SSI.[3]

Historically, standards of care have been difficult to implement in that they state what to do but not how to do it. Approximately 2 to 20% of all CABG surgeries result in surgical site infections leading to increased morbidity and mortality for the cardiac patient and an immense cost to the healthcare system through the treatment of SSI.[4] It is important that CDC and ORNAC standards, as well as *Safer Healthcare Now!* initiatives, be applied to this patient population. By sharing policies and protocols that have been developed at St. Mary's Regional Cardiac Care Centre, nursing staff at other health care facilities can access the tools that will assist them in implementing practice change and adhering to standards that result in improved patient outcomes.

In 2003, an extensive literature review identified research based standards of care that are effective in reducing SSI. Following this review, a team of nursing staff and physicians used the CDC and ORNAC standards to develop hospital policies to be applied to all elective and

urgent cardiac surgery patients. These policies included:

- Patient education related to performing pre-operative full body washes with 4% Chlorhexidine impregnated sponges prior to their surgery; and
- Hair clipping, by a Registered Nurse First Assistant (RNFA), immediately prior to transfer of the patient to the CVOR

Following the completion and implementation of the protocols, a one-year (January 1 to December 31, 2004), retrospective chart review was completed on all. Compliance with the developed protocols related to documentation, number of body washes completed related to the patient's BMI, and hair-clipping, in relation to patient location, were assessed.

METHODS

Starting in January 2003 a review of current practices across Ontario's Cardiac programs was initiated. Concurrently, an extensive Internet based literature review was completed combining the search terms surgical site infection, CABG, patient preparation, pre-operative washes, pre-operative hair removal, and cardiac surgery. The literature search provided evidence for pre-operative practice, associated infection rates and outcomes related to cardiac surgery, as well as professional practice and government advisory committee recommendations for best practices in perioperative nursing care

By July 2003, prior to the opening of the cardiac surgery program, the policies, procedures and documentation tools had been created and were ready for implementation in the Cardiac Surgery program. St. Mary's Regional Cardiac Care Centre uses medical information technology databases, computer accessible hospital policies and procedures, and a computerized materials management system. To comply with hospital practices, the pre-operative wash protocol (see Appendix A), hair-clipping protocol for cardiac surgery (see Appendix B), and referring documentation screens entitled "pre-op wash education" and "hair clipping for CVOR" were created in electronic format. The nurses providing pre-operative patient education documented the patient education that was provided, including instructions related to the appropriate method of pre-operative washing and the number of washes to be completed, by the patient, leading up to the surgery date. On the day of surgery, the RNFA reviews with the patient the number of pre-operative washes completed and documents this information. Documentation in the electronic patient record allows for the evaluation of staff and patient compliance to the hospital protocols. Future analysis will allow for the comparison of the compliance levels with the rates of post-operative development of SSI.

In collaboration with the Information Technology (IT) department, electronic reports were developed to identify the number of washes a patient was instructed to complete, related to their BMI; the number of washes completed by day of surgery; and the location of hair clipping. Through the analysis of these reports the authors were able to complete a comprehensive, retrospective review of patient education and patient and staff compliance with washes and hair removal protocols.

Prior to the opening of the cardiac surgery program, RN staff were provided with in-service education sessions highlighting pre-operative practices and the newly developed policies. The importance of these practices, and the evidence-based research demonstrating their impact on infection rates and patient outcomes, were highlighted during these sessions. Nursing staff from clinical areas, including cardiology, cardiac surgery, critical care and the operating room, were required to attend.

EVALUATION

Of the 359 "isolated CABG procedures", 326 patient charts had documentation of preoperative wash education and number of washes completed. 71.6% of patient charts documented the provision of pre-operative wash education. This includes 78.7 % of elective, 57.1% of semi-urgent, 69.2% of urgent, and 26.7% of emergent. 90.8% of patient charts included documentation of the quantity of

washes the patient was instructed to complete pre-operatively. Based on the charted BMI, however, only 73% of patients were instructed to perform the correct number of pre-operative washes (90.4% of elective, 91.6% of semi-urgent, 73% of urgent, 6.7% of emergent). Due to the inherent condition of emergent patients it is expected that nursing staff will be unable to adhere to the pre-operative wash protocols in this patient population. Table 1 demonstrates the correlation between patient urgency and staff compliance to the pre-operative wash protocol.

All 359 patients had hair-clipping documentation completed. Documentation showed that 82.1% of the patients were clipped outside of the CVOR (42% were elective, 34.8% were semi-urgent, 2.8% were urgent, 2.5% were emergent), 7.5% of patients were clipped inside the CVOR (1.4% were elective, 0.5% were semi-urgent, 3.9% were urgent, 1.7% were emergent) and 10.4% did not require hair clipping at all. In accordance with the hair clipping protocol, 5.8% of the patients who had hair removal completed in the CVOR should have been clipped outside of the CVOR as their surgeries were planned (elective, semi-urgent and urgent). 1.7% of CABG cases during the study period were emergent and therefore hair-clipping within the CVOR is acceptable due to the deteriorating condition of the patient. Table 2 demonstrates, based on patient urgency, staff compliance with hospital hair removal policies.

CONCLUSION/DISCUSSION

Evidence based standards of practice can be successfully implemented in the hospital setting through the development of hospital policies, procedures and documentation tools. Key to their successful implementation was RN staff education. By educating nursing staff on the evidence based literature that has driven the creation of the hospital policy and highlighting the benefit of compliance with these protocols to reduce SSI, may aid in replicating the high compliance rates documented in this study.

The *Pre-Operative Wash Instructions* and *Hair Clipping Protocol* were developed in 2003 to coincide with the opening of the Cardiac Surgery program at St. Mary's Regional Cardiac Care Centre. Ongoing literature reviews have identified that these policies continue to be relevant and up to date with recommended practice as evidenced by the pre-operative wash and hair removal recommendations of the *Safer Healthcare Now!* campaign.

Best practices standards and guidelines are accessible to all health care providers but are

Table 1

Documentation N= 359	% of elective N= 174	% of semi-urgent N= 14	% of urgent N= 156	% of urgent N= 15
Pre-operative wash education completed	78.7 %	57.1%	69.2%	26.7%
Number of washes completed documented	95.4%	85.7%	87.8%	73.3%
Number of washes completed accurate to BMI	90.4%	91.6%	73.0%	6.7%

Table 2

Documentation N= 359	% of elective N= 174	% of semi-urgent N= 14	% of urgent N= 156	% of urgent N= 15
Hair clipping outside of the CVOR	42%	34.8%	2.8%	2.5%
Hair clipping inside of the CVOR	1.4%	.5%	3.9%	1.7%

Appendix A

St. Mary's General Hospital, Kitchener, ON

TITLE: PRE-OPERATIVE WASH PROTOCOL

PURPOSE:
To outline the method for pre-operative washing for the surgery patient in preparation for a planned cardiac surgery.

PREOP WASH:
Chlorhexidine 4% is the preferred pre-operative wash agent at SMGH. All patients scheduled for cardiovascular surgery as an elective, semi-urgent or urgent case will complete the pre-op wash regimen.

ASSESSMENT:
The nurse in the pre-admission clinic will provide each elective patient with pre-operative wash teaching. The nursing staff on 700 (inpatient cardiac surgery/cardiology) will provide pre-operative wash teaching to all semi-urgent and urgent patients. The RN will obtain an accurate height and weight on the patient. BMI will be determined based on the height and weight of the patient.

PROCEDURE:
Patients with a BMI<30 will have a total of 2 pre-operative washes. One pre-operative wash will be completed the night before their planned surgical procedure and one pre-operative wash the morning of the planned procedure. Patients with a BMI>30 will have a total of 5 pre-operative washes. One wash will be completed daily for the 4 consecutive days leading up to the planned surgical date. The fifth pre-operative wash will be completed the morning of the planned procedure.

1. Each pre-operative wash will require two (2) chlorhexidine 4% scrub brush-sponges.
2. The patient will first be instructed to wash their hair, face and body with their normal bath products.
3. The patient will then be instructed to wash with the soft side of the brush-sponge beginning at their neck and working towards their waist. Then, using the same soapy sponge, begin at the feet and work towards the waist. The groin should be the last area cleansed.
4. Ensure the patient is aware to avoid contact of the pre-op wash solution with their ears and eyes.
5. Wash each area for 2 minutes.
6. Instruct the patient to rinse the pre-operative wash off.
7. Have the patient repeat wash using a new brush-sponge and the same procedure, steps 3-5.
8. Instruct the patient to rinse the pre-operative wash off.
9. Dry entire body with a clean, dry towel.

EVALUATE:
Ensure that the patient understands wash method prior to completing pre-operative wash. Evaluate condition of skin to ensure no adverse reactions such as rash or skin irritation.

DOCUMENTATION:
"Pre-op Wash Protocol" can be viewed under protocols on the Process Interventions screen. "Pre-op wash Assessment" documented with each shower. Add "Integumentary Assessment" to PI screen if patient has adverse reaction to Chlorhexidine 4% and inform physician.

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DATE APPROVED: May 23rd, 2003
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DATE COMPUTERIZED: May 23rd, 2003
DATE REVIEWED:
RESPONSIBILITY: Nursing Practice Council

REFERENCES: AORN 2003, ORNAC 2003; Paulson, D.S. Efficacy Evaluation Of A 4% Chlorhexidine Gluconate As A Full Body Shower Wash. *AJIC*. 1993;21(4): 205-209; Wihlborg, O. The Effect of Washing With Chlorhexidine Soap On Wound Infection Rate In General Surgery. *Annales Chirurgiae et Gynaecologiae*. 1987; 76: 263-265.

Appendix B

St. Mary's General Hospital, Kichener, ON

TITLE: HAIR CLIPPING PROTOCOL FOR CARDIAC SURGERY

PURPOSE:

To outline the method for pre-operative hair removal for the cardiovascular surgery patient in preparation for a planned cardiac surgery.

POLICY STATEMENT:

Hair clipping by electric, disposable clippers is the preferred method of hair removal for the cardiac surgery patient at SMGH.

ASSESSMENT:

The RNFA will determine the need for hair clipping in all elective, semi-urgent and urgent cardiac surgery patients. Emergent cardiac surgery patients may not follow this protocol due to their urgent nature. The RNFA will be responsible for completing hair clipping on all appropriate patients outside of the OR in the current area that the patient is located (i.e. 700, CCU/ICU, AM admissions).

INTERVENTION:

Electric hair clippers with disposable heads will be used by the RNFA for hair removal. Hair clipping is completed only when appropriate. The cardiac surgeon and/or RNFA will determine when hair clipping is appropriate.

EVALUATION:

Ensure patient understands need for hair removal and purpose prior to implementing intervention. Evaluate condition of skin to ensure no adverse reactions such as rash or skin irritation.

DOCUMENTATION:

"Hair Clipping Protocol" can be viewed under protocols on Process Interventions screen. Hair Clipping intervention documented on PI. Add "Integumentary assessment" to PI screen if patient has adverse reaction to hair removal and inform physician.

ORIGIN: Jennifer Beamer RN
DATE APPROVED: May 23rd, 2003
DATE REVISED:
DATE COMPUTERIZED: May 23rd, 2003
DATE REVIEWED:
RESPONSIBILITY: Nursing Practice Council
REFERENCES: AORN 2003; ORNAC 2003.

Preoperative Patient Prep (cont.)

not always implemented because staff do not have the tools required for change. Through the development of these new policies, and the electronically accessible documenting tools for use by nursing staff, Registered Nurses at St. Mary's Regional Cardiac Care Centre implemented change through the review of current site practices, implementation of national standards and review and documentation of the effectiveness of these changes.

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ORNAC in a Nutshell — Fall 2007

Author: *Dorothy Dewar, ORNAC Secretary 2007-2009*

The ORNAC Executive & Board met for its biannual meeting in Toronto November 2nd, 3rd and 4th, 2007.

- ORNAC President Linda Socha welcomed new board members Candice Franke SK, Anne Smith PE, Leah Restall MB, Kathy Radcliffe ON and Vanna Wasson NB. Farewell, and thank you, was expressed to Francine Clautier Quebec.
- The Standards Committee has completed Module 1 which is now for sale through CSA. No rest for the committee, though, as they have already started work on revising Module 4.
- ORNAC's Auditor, Mr. Delorme, attended the Board meeting, reviewed the finances, and gave ORNAC a clean bill of health!!
- The Awards Committee is developing criteria for several new awards. *The Gloria Stephens Award for Excellence as an Educator in the field of Perioperative Nursing* and the *RMAC Surgical Safety Award* will be presented at the 2009 National Conference in St John's, NL. Details will be on the web site when finished as well as in CORNJ.
- Three Post Graduate Perioperative RN Programs received ORNAC approval within the past 6 months. Congratulations are extended to Saskatchewan Institute of Applied Science and Technology, Calgary Health Region Post Graduate Perioperative Program and Algonquin College in Ottawa, ON.
- ORNAC continues to work on obtaining Federal Incorporation. It is hoped that this process will be finalized by the end of the year.
- ORNAC has purchased a subscription for *Eluminate*, a computer program which allows us to connect through the internet to work in a virtual office. The package includes 10 seats and unlimited usage. The Executive has made use of it and the Standards Committee, along with many other ORNAC committees, plans to make use of it for committee work. A Calendar has been set up on the ORNAC web site to book its usage times. It is hoped that this access may be offered to the Provincial groups so they can work remotely within their Provinces. More information to follow.
- The CNA has launched a reference group as part of its centenary activities.
- An initiative in Environmental health has been developed to respond to public concerns and a growing body of evidence which suggests that one of the major issues that will challenge the health care system in the future will come from pollution, climate change and environmental issues. The main goals of the project is to increase nurses' awareness of environmental health issues, provide nurses with the tools they need to support environmental health in practice, education, research and policy and to support nurses in reducing their own environmental footprint. Bonnie MacLeod, ORNAC's President Elect, will represent ORNAC on this Committee.
- ORNAC has secured a booth at, and is a Bronze sponsor of, the upcoming Canadian Student Nurses Association Conference to be held in Winnipeg in January 2008.
- ORNACs President Linda Socha represented us at the World Conference in Seoul Korea. where she also gave two presentations. She also traveled to Harrogate, England to attend the AFPP Conference and presented there also.
- ORNAC continues to receive "undeliverable" Journals. Please go to the ORNAC web site at www.ornac.ca and change your address or inform a member of your executive.
- Edmonton, Alberta has been successful in its bid to host the 2013 ORNAC National Conference. Dates for your diary: May 5th – 12th, 2013

ORNAC in a Nutshell — Fall 2007

- ORNAC is involved in several new initiatives. We have a number of current and former Board members representing ORNAC with various groups including Canadian Patient Safety Institute (CPSI), Canadian Standards Association (CSA), ISMP (Institute for Safe Medication Practice).

L'AIISOC en bref – Automne 2007

Auteure : *Dorothy Dewar, secrétaire de l'AIISOC, 2007 à 2009*

Les conseils exécutif et administratif se sont assemblés à Toronto le 2, 3 et 4 novembre 2007 pour la réunion semestrielle de l'AIISOC.

- La présidente de l'AIISOC, Linda Socha, a accueilli les nouveaux membres du conseil suivants : Candice Franke (SK), Anne Smith (PE), Leah Restall (MB), Kathy Radcliffe (ON) et Vanna Wasson (NB). Elle a aussi remercié Francine Clautier (QC) pour son travail.

- Le comité des normes a terminé le module 1 et ce dernier est maintenant en vente par l'Association canadienne de normalisation. Mais le comité n'a pas le temps de se reposer sur ses lauriers car la révision du module 4 est déjà commencée.

- L'auditeur de l'AIISOC, M. Delorme, a assisté à la réunion du conseil, a vérifié l'état des finances et a prononcé que l'association est en pleine santé!

- Le comité des prix est en train d'élaborer les critères de plusieurs nouveaux prix. Le *Gloria Stephens Award for Excellence as an Educator in the field of Perioperative Nursing* (Prix d'excellence de formation en soins infirmiers périopératoires Gloria Stephens) et le *RMAC Surgical Safety Award* (Prix de sécurité en chirurgie RMAC) seront décernés lors de la Conférence nationale 2009 à St John's à Terre-Neuve. Plus de détails seront publiés sur le site Web et dans le journal aussitôt que possible.

- Au cours des six derniers mois, trois programmes d'études supérieures en soins infirmiers périopératoires ont été approuvés par l'AIISOC. Nous félicitons la Saskatchewan Institute of Applied Science and Technology, le Calgary Health Region Post Graduate Perioperative Program et l'Algonquin College à Ottawa en Ontario.

- La présidente de l'AIISOC, Linda Socha était notre représentante à la conférence mondiale à Séoul en Corée. Elle a aussi voyagé à Harrogate en Angleterre pour assister et présenter un discours à la conférence de l'AFPP.

- L'AIISOC a acheté *Eluminate*, un programme informatique nous permettant de communiquer par Internet par le biais d'un bureau virtuel. L'abonnement inclut 10 postes de travail et une utilisation illimitée. Le conseil exécutif l'a déjà utilisé et le comité des normes, ainsi que plusieurs autres comités de l'AIISOC, prévoient son utilisation. Un calendrier se trouve sur le site de l'AIISOC où il est possible de réserver le système. Nous espérons que les groupes provinciaux auront aussi accès à cet outil afin de faciliter les communications. Détails à venir.

- L'AIIC a fondé un groupe de référence dans le cadre de ses activités de centenaire.

- Une initiative de salubrité de l'environnement a été mise en place afin de répondre aux préoccupations du public et aux nombreuses preuves indiquant la probabilité qu'un des plus grands défis pour le système de santé sera bientôt les effets de la pollution, le changement climatique et l'environnement. Les objectifs principaux de ce projet sont de sensibiliser le personnel infirmier à l'importance de la salubrité de l'environnement, de lui fournir les outils nécessaires pour promouvoir la salubrité de l'environnement dans la pratique, formation, recherche et politiques et de l'aider à réduire sa propre empreinte écologique. Bonnie MacLeod, la présidente désignée de l'AIISOC, représentera l'AIISOC sur ce comité.

- Non seulement l'AIISOC a réservé un kiosque à la conférence de l'Association des étudiant(e)s infirmier(ère)s du Canada (AEIC) qui aura lieu à Winnipeg en janvier 2008, il en est aussi un commanditaire de niveau bronze.

- L'AIISOC reçoit toujours des copies retournées du journal. Veuillez accéder au site de l'AIISOC à www.ornac.ca et effectuer un changement d'adresse ou communiquer avec un membre de votre conseil exécutif.

- La ville de Edmonton en Alberta présentera la Conférence nationale de l'AIISOC 2013 qui aura lieu du 5 au 12 mai.

- L'AIISOC poursuit toujours ses efforts de constitution en société en régime fédéral. Nous espérons terminer cette procédure avant la fin de l'année.

- L'AIISOC participe à diverses nouvelles initiatives. Plusieurs membres actuels et anciens du conseil administratif représentent l'AIISOC au sein d'un grand nombre d'organismes, parmi lesquels notons l'Institut canadien de la sécurité des patients, l'Association canadienne de normalisation et la *Institute for Safe Medication Practice* (Institut pour une pratique sécuritaire de médication).

UPCOMING EVENTS / EVENEMENTS SUIVANTS

For details visit www.ornac.ca

PROVINCIAL & REGIONAL CONFERENCES

British Columbia	Whistler	May 7-10, 2008
Alberta	Red Deer	October 22-25, 2008
Saskatchewan	Saskatoon	September 2008
Manitoba	Winnipeg	March 2008
Ontario	Toronto	June 15-18, 2008
Quebec	Quebec City	October 28-31, 2008
New Brunswick	Saint John	April 18 & 19, 2008
Nova Scotia	Amherst	June 6 & 7, 2008
Newfoundland & Labrador	Saint Anthony's	September 18-21, 2008
Affiliate: CORL	Toronto, ON	May 5-6, 2008

ORNAC CONFERENCES

www.ornac.ca

21st National	St. John's, NL	June 7-12, 2009
22nd National	Regina, SK	May 8-13, 2011

INTERNATIONAL CONFERENCES

ACORN (www.acorn.org.au)	Surfer's Paradise, AUS	May 21-24, 2008
AORN	Anaheim, CA, USA	March 30 - April 3, 2008
AFPP (www.afpp.org.uk)	Harrogate, UK	October 6-9, 2008
EORNA	**Copenhagen, Denmark**	**April 17-19, 2009**

RELATED PROFESSIONS

CAS (www.CAS.ca)	Halifax, NS	June 13-17, 2008

POURQUOI LE PERSONNEL INFIRMIER AUTORISE DANS LA SALLE D'OPERATION?

LE ROLE DU PERSONNEL INFIRMIER PERIOPERATOIRE AUTORISE : UN SECRET BIEN GARDE

Auteure: *Muriel Shewchuk, infirmière autorisée, baccalauréat en sciences infirmières, CPN(C), est consultante en soins périopératoires. Elle vient juste de prendre pris sa retraite après 42 ans dans les domaines de formation et d'administration périopératoires. Muriel est la cofondatrice ainsi que la coprésidente actuelle du Canadian Operating Room Leaders Network (CORL), organisme ayant récemment devenu groupe affilié de l'AIISOC. Muriel sera la représentante du CORL au sein du conseil administratif de l'AIISOC.*

Plusieurs d'entre nous ont entendu un leader, un gérant ou un directeur prononcer des opinions comme « les soins infirmiers n'ont pas de place dans une salle d'opération; ce n'est qu'un lieu technique », « n'importe qui peut apprendre comment travailler dans la salle d'opération » ou « il n'y a aucune différence entre une infirmière auxiliaire autorisée, une infirmière autorisée et une technicienne de salle d'opération ». D'autres idées incendiaires semblables, dont le but est de minimiser l'importance des connaissances et de la formation spécialisées, sont « le personnel infirmier en salle d'opération est égoïste », « la spécialisation est la cause de la pénurie d'infirmières » et « une infirmière est une infirmière est une infirmière ». Parmi les idées qui passent dans la tête d'une infirmière périopératoire autorisée lorsqu'elle entend de tels énoncés répréhensibles sont que la personne manque de connaissances professionnelles et ne comprend pas l'impact des soins périopératoires sur la qualité des soins.

Pourquoi les soins complexes et hautement spécialisés fournis par le personnel infirmier périopératoire autorisé sont-ils si méconnus? Un hôpital penserait-il à créer un service de soins intensifs sans infirmières auxiliaires autorisées? Jamais! Néanmoins, la salle d'opération est aussi complexe que ce dernier, et contient peut-être encore davantage de risques. Alors pourquoi les habiletés requises par cet environnement ne sont-elles pas mieux reconnues et respectées? Pourquoi certaines personnes doutent-elles du besoin de la présence et du rôle du personnel infirmier autorisé dans chacun des domaines des soins des patients?

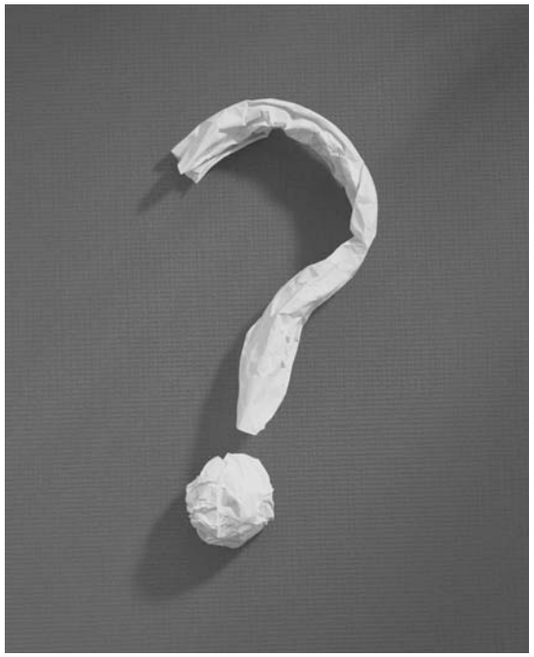
WHY A REGISTERED NURSE (RN) IN THE OR?

THE PERIOPERATIVE REGISTERED NURSE ROLE – A WELL KEPT SECRET

Author: *Muriel Shewchuk RN, B.Sc.N, CPN(C) is a Perioperative Nurse Consultant. She retired in 2005 following over 42 years of Perioperative Education and Administration. Muriel is a co-founder, and currently co-chair, of the Canadian Operating Room Leaders Network (CORL) which has recently been granted Affiliate status with ORNAC. Muriel will represent CORL on the ORNAC Board.*

Many of us have heard some destructive leader, manager, or director, make statements like "there is no nursing in the operating room – the OR is only technical"… "a monkey could be taught to work in the OR" or " there is no difference between a Licensed Practice Nurse (LPN), a Registered Practical Nurse (RPN), an Operating Room Technician (ORT), and a Registered Nurse (RN)". Other inflammatory statements, that attempt to diminish the importance of specialty knowledge and training, include "OR nurses are only self serving," or "specialization is the cause of the nursing shortage," and "a nurse is a nurse is a nurse." The lack of professional knowledge and impact for the patient care are only some of the thoughts that go through the mind of a perioperative registered nurse at such reprehensible statements.

Why is the highly specialized, and complex, care provided by the Perioperative Registered Nurse so misunderstood? Would a hospital think of staffing an ICU with LPNs and RPNs? Absolutely not! And yet the operating theatre is an equally complex, and perhaps a more risky, environment. So why is the skill-set required for this environment not fully recognized and respected? Why are some questioning whether an RN needs to be present in, and in charge of, each theatre of patient care?



KEEP OUT!

The misunderstanding starts right with the message on the OR door – signs on the door make statements like "Keep Out" and "Only Authorized Personnel". You would find similar language at a nuclear plant, but not in a lot of other workplaces. It is anything but inviting and creates a feeling of exclusion. Decades of worry, and an historical lack of true understanding about the organisms that can cause severe, and fatal, illness, are likely at the root of this atmosphere or exclusion and isolation. Tradition and many "sacred cows" are also at play. We need to open the door to the "nay-sayers", and to our colleagues outside of the surgical suite, to help build understanding for the role, and importance, of the perioperative nurse.

DON'T TOUCH ANYTHING!

The angry parent may be heard to shout "Don't Touch Anything" at a two year old in a shop full of fragile items. Anyone violating the sterile setup in a surgical suite may invoke a similar panicked response in protection of the patient. Anyone who is the recipient of this dressing down will likely never forget the humiliation and will likely avoid coming back for more. Their lack of understanding about what causes the reaction, combined with the presence of an assertive OR nurse in full scrub attire, creates an atmosphere of intimidation.

TECHNOLOGY IS OVERWHELMING

The surgical environment thrives on, and is often driven by, technological advancement. New equipment is very costly and attracts much attention. Technology makes news and is often the focus of fund raising events. Budget meetings are consumed with the never-ending need for more surgical equipment. While most people will hear about the cost of, and constant need for, new technology, they won't have the opportunity to see the application of technology, under the gentle hands of the perioperative Registered Nurse, and the end benefit to the patient.

UNDERSTANDING THE OR

The Terminology:

The term "operating room" is used both generally and specifically and this double use adds to the lack of understanding. The Operating Room, or OR, (or Surgical Suite) at a general level is used to refer to an area of the hospital including a collection of many procedure rooms where surgeries take place. Its use would be similar to the general use of other specialty departments, such as ER.

In addition, the individual rooms where surgery occurs are **also** called Operating Rooms (or Surgical Suites). In keeping with our British heritage they may also be referred to as

ORNAC / Johnson & Johnson Medical Products Bursary for OR Nurses

This bursary was established to financially assist ORNAC members in furthering their education in areas that will enhance the perioperative nursing practice.

Up to $1,500 is awarded each year to one or more successful candidates. The name(s) of the recipient(s) is announced at the ORNAC National Conference or at the Provincial Conference of the recipient(s).

Funding is available for post-basic operating room nursing programs approved by ORNAC and also for Baccalaureate, Masters, and Ph.D. nursing programs that are considered an enhancement to existing perioperative employment.

ORNAC recognizes that the education of perioperative nurses plays a pivotal role in creating a successful national organization and appreciates the financial support of **Johnson & Johnson Medical Products.**

Johnson & Johnson

Submission deadline is January 15th
For submission criteria, or a bursary application,
visit www.ORNAC.ca and click on Education and then Awards
OR
Contact the President of your Provincial Association

Bourse de l'AIISOC/Johnson & Johnson Medical Products Bursary pour les infirmieres et infirmiers de salle d'operation

Johnson & Johnson

Cette bourse a été établie pour assister aux membres de l'AIISOC poursuivant leur formation dans un domaine pouvant enrichir la pratique des soins périopératoires.

Jusqu'à 1 500 $ est présenté chaque année à un ou plusieurs candidats. L'identité du ou des récipiendaires est annoncée à la conférence nationale de l'AIISOC ou à la conférence provinciale du ou des récipiendaires.

Ce financement est disponible pour les programmes périopératoires post-diplôme, de baccalauréat, de la maîtrise ou de doctorat approuvés par l'AIISOC jugés pouvoir enrichir le rôle périopératoire actuel du ou des récipiendaires.

L'AIISOC reconnaît que la formation des infirmières et infirmiers périopératoires joue un rôle esentiel dans la création d'un organisme national et est reconnaissant de l'appui financier de **Johnson & Johnson Medical Products**.

La date limite des soumissions est le 15 janvier.
Pour les critères de soumission ou une demande de bourse, veuillez visiter
www.ORNAC.ca et cliquer sur le lien Education puis Awards.
(disponible en anglais seulement)
OU Contactez le président de votre association provinciale.

Pearls of Wisdom (cont.)

Operating Theatres, while hospitals in the USA do not use the term Theatre.

The Perioperative Environment:

Each individual Operating Room or theatre is its own full unit of care, must be self-sufficient and fully staffed prior to admission of the patient and throughout the procedure. The team must be competent with qualified members able to provide all aspects of care including handling of any complication, change in patient status or procedure. The essential tripartite team is the experienced Registered Nurse, who is in-charge of the theatre, the anesthesiologist and the surgeon. Additional support persons are required for specific procedures and roles.

The RN is responsible for assessing risk factors and directing nursing care, as needed and should a patient become unstable. Unlike in some departments, patients are not transferred elsewhere for specialty care. In addition, health team members caring for other nearby patients cannot leave their post to assist as is possible in multi-patient units/ rooms of care.

Each surgical team requires, at minimum, a circulating RN- in charge, a scrub nurse, who may be an OR or scrub technician ORT, an anesthesiologist, and a surgeon. Each has a very specific role and must be able to function interactively and independently. Each of the fundamental team members may need additional team members to provide specialty support. These needs will depend on the complexity and length of the procedure and the skills required.

The Key OR Nursing Roles:

It is impossible to understand why there is a need for an RN in the perioperative environment without an understanding of the nursing roles in the OR.

There are many roles for a perioperative RN in the Operating Theatre. Staff nurses are expert in both the scrub and circulating role as well as "in charge" of a single theatre, group of specialty theatres or the full shift. RN's with additional education and expertise take on many other critical leadership roles, including educator, charge nurse, supervisor, coordinator, liaison nurse for families, manager, director, or the surgical and first assistant role. For purposes of this article only the direct patient care staff in the theatre are being addressed.

Circulating Role

The circulating nurse is a Registered Nurse with a perioperative specialty body of knowledge, and skills, built upon the foundation of a basic nursing program including sciences and humanities. The role is to supervise and provide safe, efficient and effective patient care throughout the immediate preoperative, intraoperative and immediate post-operative period. Directing, leading, supervising and teaching other staff is also a major component of the role. Coordinating, communicating and integrating safe, effective and efficient patient care, in short time frames, with all members of the surgical team, is paramount.

The nursing process of continuously assessing, planning implementing and evaluating is, although it is often not documented in detail, used by the nurse throughout the surgical procedure. The process often occurs in a short time frame, is cyclical, with constant change, and is integrated with the multidisciplinary care of the surgeon and anesthesiology team. . The impact of the Registered Nurses' critical thinking and resulting action is paramount to the ability of the full team to obtain the best outcome for the patient. Continuous astute observation, reassessment and evaluation are integral, throughout the surgical procedure, in order to ensure a high quality, safe outcome is integral to the RN role.

The circulating Registered Nurse must have a big picture view of the whole system including knowing where the resources, both human and material, are located, the financial impact of using these resources, how to obtain them, and how to activate resource plans in time for safe patient care.

Continued on Page 45

LE TRAVAIL D'EQUIPE ET L'ENGAGEMENT

Soumis par :
Brenda Moffitt, infirmière autorisée, baccalauréat en sciences infirmière, infirmière soignante, chirurgie cardiovasculaire, University of Alberta Hospital, Edmonton (Alberta).

Regina Leonard, infirmière autorisée, baccalauréat en sciences infirmière, maîtrise en éducation, infirmière soignante périopératoire, University of Alberta Hospital, Edmonton (Alberta).

Brenda Moffitt et Regina Leonard étaient dans leur lieu préféré (à part le travail), une exposition de courtepointe, quand elles ont eu l'idée de fabriquer une courtepointe représentant les services périopératoires. En tant que fournisseur de soins, le personnel périopératoire est toujours en train de partager ses connaissances et ses compétences et d'aider et donner de l'espoir à ses patients. Elles ont voulu créer une façon de partager leurs histoires.

Elles ont présenté leur idée à leurs collègues et ont demandé à chacun de contribuer un carré de courtepointe représentant ce dont ils sont fiers de leur pratique. Les différentes soumissions (voir figure 1) ont touché une variété de thèmes. Le résultat était une courtepointe de trente carrés, chacun le symbole d'expériences du personnel périopératoire dans la salle d'opération et la salle de réveil.

Le nom de la courtepointe, «Le travail d'équipe et l'engagement», a été choisi car il reflète avec fidélité les qualités dont font preuve quotidiennement le personnel périopératoire. Le patient est toujours notre première priorité, et voilà pourquoi nous y concentrons toutes nos ressources et toute notre attention afin de lui fournir une expérience périopératoire sécuritaire.

La courtepointe représente des réflexions personnelles et de groupe; chaque carré raconte sa propre histoire. Le tout représente les soins

By/Par Regina Leonard

The Quilt

infirmiers, la médecine, les sciences de la santé, la gestion, les ressources et le personnel travaillant tous de concert. Elle reflète également les soins du patient, l'appui des pairs et le soin de soi.

Les thèmes présents dans la courtepointe comprennent la philosophie des soins infirmiers, l'éducation, le mentorat, la communication, la pratique aseptique, les soins du patient, les relations interpersonnelles, le travail d'équipe, la collégialité, la gestion du temps, la coordination, les activités sociales et le plaisir.

Bien que les thèmes qu'elle représente seront sans doute appropriées dans toute salle d'opération, cette courtepointe a été créée à l'Hôpital de l'Université de l'Alberta et occupe une place spéciale dans le cœur de tout le monde ayant participé au projet. Tout membre du personnel du service des Soins périopératoires l'a signée afin d'honorer cette réalité.

Grâce à la générosité de Suzanne Biamonte, Cohos Evamy et PCL, la courtepointe est maintenant en exposition sous une panne verre de plastique à l'entrée du service des Soins périopératoires. Ainsi placée, elle continuera à réconforter, plaire et remonter le morale de patients, familles, personnel périopératoire et autres employés de l'hôpital. Nous espérons que la courtepointe rappellera à tout le monde que derrière ces portes se trouve une équipe vouée aux soins de qualité.

TEAMWORK AND DEDICATION

Submitted by:
Brenda Moffitt, RN, BScN, Operating Room Cardiovascular Staff Nurse, University of Alberta Hospital, Edmonton, AB.

Regina Leonard, RN, BScN, MEd, Operating Room Generalist Staff Nurse, University of Alberta Hospital, Edmonton, AB.

Brenda Moffitt and Regina Leonard were at their favourite spot (other than at work) – a quilt show – when the idea of making a Perioperative Services quilt was born. As caregivers, perioperative personnel are forever providing knowledge, skill, helping hands and hope to our patients. We wanted to have a medium through which to share our stories with others.

The idea was presented to their colleagues and each were asked to contribute a quilt block that represents "what we do best". The varied submissions (see figure 1) reflected a wide variety of themes. The end result was a quilt of thirty blocks each of which symbolizes experiences in the Perioperative Services of the

Figure 1

UNIVERSITY OF ALBERTA HOSPITAL, EDMONTON ALBERTA
OPERATIVE SERVICES STAFF QUILT 2005
"TEAMWORK AND DEDICATION"

ORNAC Carol Klapstein	*Information Sharing* Regina Leonard	*Classy Lady and Mentor Elan* Aileen Campbell	*Heart Menders Fixing Hearts* Brenda Moffitt	*University Hospital Nursing* Ria Vandehorst	*From My Heart to Your Heart* Carol Klapstein
Sticks n' Stones Break My Bones Carol Klapstein	*Best Wishes and Love to Sheila* Regina Leonard	*Big Heart of Cardiac Surgery* Judy Connon	*It's Time to Wake Up* Ruth Sutton	*Anaesthesia Monitoring* Carol Klapstein	*Transplantation Living related kidney* Laura Smith
Essence of Post Anaesthesia Nursing Rosemarie Luchak	*Operating Room Life Line* Carol Klapstein	*Thanks Doctor Doctor to Patient Relationship* Regina Leonard	*Circle of Activity Providing Care* Regina Leonard	*Friends and Caring Colleagues* Brenda Moffit	*Scrubbing those germs away* Stacey Popowich
Work Hard and Play a Little Regina Leonard	*Time Manage-ment and Coordination Management* Carol Ryll	*Hand and Heart and Hope* Carla Morrison	*Lung, Liver, Bowel and Breast Ribbon* Regina Leonard	*Productivity Plus Future Nurses* Michele Derbyshire	*Patient Centred Resource Driven* Christine Mochid
Transplantation Organs of Life Carol Ryll	*Christmas cheer and planning* Michele Derbyshire	*Fire Fighters Burn Treatment* Debbie Nystad & Brenda Moffit	*Otolaryngology Emblem* Heather Allen	*Hope fulfilled* Kim McLennan Robbins	*Branium Preserved* Gwen Baldwin

Acknowledgements:
Brenda Moffitt and Regina Leonard for birthing the idea of a quilt and for piecing of the squares, borders and binding. Staff submission of the squares and monetary donations toward the batting, thread, borders and binding. Suzanne B for volunteering her time and skill for final machine finishing of the completed quilt. Kim Robbins for naming the quilt. PCL for the donation of the frame. Management support and encouragement. Excellence of health care personnel in the Operative Services of the University of Alberta Hospital.

Teamwork and Dedication (cont.)

Operating Room and Post Anaesthesia Recovery Room.

"Teamwork and Dedication" was chosen as the title for the quilt as this title truly reflects the qualities that perioperative personnel display on a daily basis. The patient is always the centre of our attention and the full team's resources and energies are focused on providing the patient with a safe perioperative experience.

The quilt depicts personal and group reflections and each block has its own story. It represents nursing, medicine, health sciences, management, support resources and personnel who all work together as the perioperative team. The quilt reflects patient care, peer support, and self care.

Themes depicted in the quilt include nursing philosophy, education, mentoring, communication, aseptic practice, patient care, relationship building, teamwork, collegiality, time management, coordination, socialization and fun.

While the themes it represents would make the quilt appropriate in any Operating Room,, it is unique to the University of Alberta Hospital and special to everyone who got involved. As a result it has been signed by personnel in the hospital's Perioperative Services.

Thanks to generous donations by long arm quilter Suzanne Biamonte, Cohos Evamy, and PCL the quilt is now grandly displayed under Plexiglas at the entrance to the Perioperative Services. In this location, the quilt will continue to provide much comfort, joy and pleasure to many patients, their families, Perioperative staff and other hospital personnel. The quilt should help remind everyone that behind these double doors is a very caring and dedicated team!

Pearls of Wisdom (cont.)

The circulating Registered Nurse must also be skilled in the scrub role in order to accurately and efficiently supervise, support, teach and maximize the efficiency of the scrub nurse for the entire team. The circulator ensures the scrub nurse is providing all support required by the surgeon, that all items are made available in a timely manner, and that non-verbal communication is used to increase efficiency and reduce stress. Astute and continual observation of the scrub team activities and the anesthesiologist are necessary to ensure the circulating nurse senses any rising levels of concern, complication, or stress, and to responds appropriately, and in a timely manner. Effective direction, coordination and organization of the full surgical team is the lead role of the circulating Registered Nurse. This is not a role where an individual can only worry about their own section of work. The coordination of dozens of elements, each impacting on the overall performance and outcome, is key to the creation of a top performing team that communications well, respects and values each other, and has the necessary resources and skills to perform the work in a safe, efficient, and timely manner. Providing, and maintaining, the right environment for the team contributes to positive patient outcomes.

The circulating Registered Nurse in the Theatre is able to make use of information from national Standards of Practice, which are developed by North American perioperative nurses and based on research from perioperative practice and other, multi-science, sources.

A circulating Registered Nurse with appropriate communication skills is a major component in successful team functioning. Processing and sharing key information at the right time, with the right team member, is a key factor in critical decision-making and patient care. The ability to effectively share information, while minimizing noise, distraction, and stress factors, requires a specific level of professional development.

The circulating Registered Nurse serves as a patient advocate throughout the procedure. The nurse has assessed the patient pre-operatively and had the opportunity to converse with the patient and review the patient's health record. The nurse is often familiar with the patient's special final wishes or requests, fears, confidences, religious and ethical issues. How this information is used and shared with the team requires a high-level of professional judgment and expertise in both communication and interactive discourse.

The circulating Registered Nurse must have a big picture view of the whole system including knowing where the resources, both human and material, are located, the financial impact of using these resources, how to obtain them, and how to activate resource plans in time for safe patient care.

Understanding the legal ramifications specific to the Operating Room and ensuring that all members of the team adhere, is another important role of the circulating Registered Nurse. The circulating Registered Nurse is responsible for ensuring full team compliance with policies and procedures. Non compliance can increase risk, and create liability issues, so the investment in, and retention of, highly qualified Registered Nurses, to circulate, is of major importance to minimize the patient's risk and protect the healthcare facility.

Scrub Role

The perioperative RN, builds upon a solid academic training, the extensive knowledge of surgical anatomy and the sequential steps the surgeon will likely perform in a wide range of procedures. An in-depth knowledge of hundreds of specific instruments, tools, medical supplies, sutures, staplers and devices is critical. Many of the devices must be taken apart to ensure sterilization and reassembled, in a timely manner, on the sterile field. Throughout this training the risks to patients, legal responsibilities and accountability are melded into the patient care plan in order to ensure appropriate outcomes. LPNs, RPNs, and scrub technicians can be trained to conduct the technical component of the scrub role but must be supervised at all times by a circulating RN.

Pearls of Wisdom (cont.)

Knowledge of the surgical steps allows the perioperative nurse to anticipate the surgeons' requirements and properly place the instrumentation in the surgeons' hands so that the surgeon does not need to take his/her eyes off the surgical site.

During each procedure, astute observation is required on the part of the scrub nurse. He/she will need to be able to modify the setup if a procedure changes and to request additional instruments and supplies in a manner that does not distract the surgeon. Extensive knowledge of aseptic technique to prevent infection, and the application of this technique throughout the procedure, is required.

Changing Misunderstandings about the RN Role

It is clear that the perioperative RN needs to emerge from behind the hidden door to ensure that colleagues, in academic, clinical and administrative positions, understand the critical and essential role being played by the perioperative RN in both direct and supportive patient care.

Comprehensive roles and functions are clearly defined in the ORNAC Standards of Practice documents.[1] The importance of the RN role in staffing and patient outcomes has been described especially as it affects staffing and safe patient care.[2] A fully researched, documented, and approved standardized language, entitled Perioperative Nursing Data Set (PNDS), has been in place since 1999 in order to support the perioperative nurses role in evidence based practice.[3]

Perioperative Registered Nurses need to be involved with schools of nursing and to seek out opportunities to willingly preceptor students. In some areas of the country efforts have resulted in the successful inclusion of a section, on perioperative nursing, in the basic student nursing curriculum. Attending job fairs, taking advantage of special days to promote the role among facility staff and community members, and inviting nurses in to the surgical units in the OR to share the RN role will go a long way to increasing the understanding of the role. High profile, positive, assertive messages must become the mantra to live by. Be seen and understood!

Summary

The above description of the circulating Registered Nurse is only a brief over view of the detailed and complex world of perioperative nursing. Unveiling the vital, "well kept secret", of the need for a Registered Nurse , circulating at all times throughout the surgical procedure, is critical for safe patient care.

The health care system is responsible, and accountable to the public, for the provision of a hospital environment that is safe for all patients and personnel. The operating theatre is the prime unit of care, in the OR, and must have the resources in the room to fully complete the intended surgery and to prepare for changes and complications that may arise. The critical thinking, clinical decision making, systems approach, and reflective high-level practice, creates a requirement that the circulating role must be filled by a Registered Nurse. A skilled perioperative Registered Nurse must be in charge of each theatre, any group of theatres, each OR shift and the OR Department. Every perioperative nurse needs to explain, be proud of, and to market the importance of the role outside the walls of the OR to the "world".

Now is the time to make it so!!

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