CANADIAN
OPERATING ROOM
NURSING JOURNAL

Volume 23, Issue 3
September 2005

19th National ORNAC Conference

Compte-Rendu de la 19ième

Disposable Surgical Masks

Police Investigations & the OR

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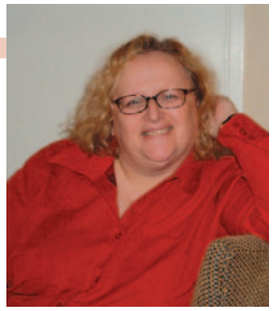
President's Message



I hope you all enjoyed a safe and happy summer. Time certainly does fly by! As this issue is delivered to your door, read through and see what the conference in Montreal was all about. The conference planning committee did a wonderful job of showing off their city to all 1000+ delegates. From the Opening Ceremony, complete with acrobatics, to the closing speaker, who got all of us dancing, it was a constant whirlwind of culture, education and excitement!

The opportunity for us to come together and recharge is a special time. It is the opportunity to rekindle the spark that allows us to be everything we can be for our patients… and for ourselves.

Each conference we are reminded of how much our environment is changing. During the conference, a group of us talked of the changes we have all seen in our careers…the days of glass IV bottles, metal plates used as return electrode cautery pads, sutures in jars, sponges in metal containers with forceps for delivery on to the field. Now you look and see where we are now! There is a daily barrage of change to our environment.

Perioperative nurses face daily challenges in their attempts to deliver safe and optimum standards of care. There is so much today that we have no control over. It is difficult to maintain standards at the best of times, but when faced with a daily onslaught of changes in structure, product and attitudes, it can be almost overwhelming. How do we maintain our standards and our keep our stress level down in the face of all these changes?

There is an acute need for education. On a daily basis, new products are introduced into our workplace. As many decisions are made for financial reasons, there are operating rooms where new products appear without any input from the staff. We need to insist upon proper education and direction about the use of many of these products. We need to talk to the companies involved and ask them to develop proper in-service education. It is our professional responsibility to ensure we are properly in-serviced so that we can provide safe and effective care to our patients.

While some professional perioperative associations do endorse various products, *ORNAC* has never endorsed any products. If you ever have a question about this topic, or about claims being made regarding *ORNAC* endorsement, please contact us at ***info@ORNAC.ca***.

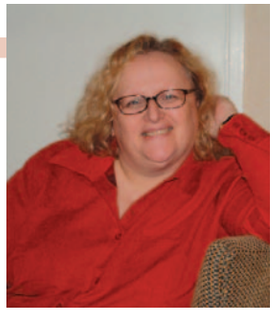
ORNAC does, however, endorse the use of the *Recommended Standards, Guidelines and Position Statements for Perioperative Registered Nursing Practice*. Module 3 (Safety Risk Prevention and Management) is now available for purchase from the Canadian Standards Association (CSA). The standards committee is presently reviewing Module 2. If you are interested in getting involved contact Bonnie McLeod at standards@ornac.ca.

I look forward to the next two years as your president. *ORNAC* has come a long way in its search for excellence. Working together, we can accomplish a lot. If you have an idea for *ORNAC* please share it. I can always be reached at president@ornac.ca. Have a safe and prosperous autumn.

__Marcy McKay,__ RN CPN(C), is President of the Operating Room Nurses Association of Canada. She is a staff nurse at Victoria, General Hospital, Victoria BC, and is currently the webmaster for __www.ornac.ca__.

__Marcy McKay,__ infirmière autorisée, CPN(C), est la présidente de l'Association des infirmières et infirmiers de salle d'opération du Canada. Elle est infirmière de soins généraux au Victoria General Hospital, Victoria, C.-B., et est actuellement webmestre du site __www.ornac.ca__.

Message de la présidente



J'espère que tout le monde a passé un bel été. Que le temps passe vite! Lorsque vous recevez ce numéro, je vous invite à lire un peu sur ce qui c'est passé à la Conférence nationale à Montréal. Le comité de planification de la Conférence a fait un travail admirable de montrer leur ville à tous les délégués, dont il y avait plus de mille. De la cérémonie d'ouverture, comprenant de l'acrobatie, au discours de clôture, lequel nous a tous mis à danser, la Conférence était un tourbillon de culture, d'apprentissage et d'enthousiasme!

L'occasion de se réunir et de se remettre sur pied est un événement important. C'est l'occasion de réanimer le désir d'être tout ce que nous pouvons pour nos patients… et pour nous-mêmes.

Lors de chaque Conférence nous voyons de plus en plus la transformation de notre environnement professionnel. Pendant nos heures ensemble nous avons pu discuter des changements que nous avons tous constatés dans nos carrières… les jours lointains des bouteilles d'intraveineuse en verre, des plaques en métal utilisées, des sutures dans des bocaux et des éponges dans des contenants en métal avec des pinces pour les accouchements à l'extérieur. Regardez bien où on en est rendu aujourd'hui! Notre environnement subit un assaut quotidien de changements.

À tous les jours les infirmiers et infirmières en salle d'opération font face à toutes sortes de défis lorsqu'ils essaient de fournir un niveau de service et de soins optimal. Il y a tellement de situations sur lesquelles nous avons aucun contrôle. Il est difficile de maintenir un haut niveau de service dans les circonstances les plus favorables, mais quand nous affrontons constamment un déluge de changements de structure, de produits et d'attitudes, nous pouvons facilement nous sentir accablés. Comment maintenir le niveau de service tout en réduisant le niveau de stress face à tous ces changements?

Il y a un grand besoin de s'éduquer. De nouveaux produits arrivent dans notre environnement de travail à tous les jours. Comme maintes décisions sont prises pour des raisons financières, il y existe des salles d'opération où de nouveaux produits arrivent sans aucune consultation du personnel. Nous devons insister pour la formation et la direction appropriées à ces produits. Nous devons dialoguer avec les sociétés impliquées et leur demander de développer une formation adéquate sur place. Il est de notre responsabilité professionnelle de nous assurer que nous sommes bien formés afin de pouvoir fournir des soins appropriés et efficaces à nos patients.

Bien que plusieurs associations professionnelles péri-opératoires prêtent leur appui à certains produits, *l'AIISOC* n'a jamais prêté son appui à aucun produit. Si jamais vous avec des questions à ce sujet, ou à propos de toute attestation à cet effet, veuillez nous contacter à ***info@ORNAC.ca***.

L'AIISOC appuie, cependant, l'utilisation des Normes de pratique recommandées, lignes directrices et énoncés de position pour la pratique en soins infirmiers périopératoires. Le troisième module « Prévention et gestion des risques et sécurité » est maintenant disponible auprès de l' Association canadienne de normalisation (CSA). Le comité des normes révise actuellement le deuxième module. Si vous aimeriez vous impliqué à la révision, veuillez contacter Bonnie McLeod à standards@ornac.ca.

Je m'attends à une expérience sans doute gratifiante lors des deux prochaines années comme présidente de *l'AIISOC*. L'Association a fait beaucoup de chemin dans sa poursuite de l'excellence. En travaillant ensemble nous pouvons beaucoup accomplir. Si vous avez des idées à communiquer à *l'AIISOC*, s'il vous plaît, partagez-les. Je suis toujours disponible à president@ornac.ca. Je vous souhaite un automne des plus prospère.

***Marcy McKay,** inf., CPN(C)*

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Editorial Contents

Montreal Home of ORNAC 19th National
Cover Photo by J. Porteous

ORNAC in a Nutshell — Spring 2005

Author: *Lynn Anderson, ORNAC Secretary*

The Spring 2005 meeting of the ORNAC Board & Executive was held in Montreal (April 29, 30 and May 1st) in conjunction with the 19th National Conference.

- ORNAC President Margaret Farley welcomed guests and observers: Pat Pocock and Muriel Shewchuk, CORL; Marla Ewen, RNFANC ; Helene Renaud and Sylvie Beauregard, QC; Tina Kennah and Vanna Wasson, NB; and Donna Marin, SK.
- Farewell was expressed to: Alaine Young, ON; Linda Socha, SK; Line Boucher, QC and a resignation was received from Yvonne LeBlanc, NS. Margaret thanked each one for their contribution to ORNAC and wished them well in the future.
- Donna Marin is welcomed to the Board, from SK, replacing Linda Socha. There will be other new Board members announced in November.
- The **Standards Committee** held a one-day meeting prior to the National Conference and the Standards revised Module 3 was released. The committee has already commenced revisions of Module 2. If anyone would like to assist with revision please contact Bonnie McLeod (Standards@ORNAC.ca) the recently appointed Chair of the Standards Committee.
- The **Awards Committee,** and its Chair Alicia Oucharek Mattheis, was very busy, prior to the Conference, selecting various award winners. The awards presented at the Opening Ceremonies of the Conference included:

  - The *Isabelle Adams Award for Excellence in Perioperative Nursing* was presented to Sandra Poirier of NB. We were thrilled to have Isabelle Adams herself available to present this very prestigious award.

  - The inaugural *Lorne Flower Memorial Award* was presented by Lorne's son, John Flower, to Margaret Farley.

  - The *Drake-Thompson J&J Medical Products Writing Award* was presented to Joan Porteous, MB, and Jackee Higgins, ON.

Photo by/par Interzone Photography

L to R/g à d: Alicia Oucharek Mattheis (Awards Chair/Présidente du comité des prix) with/avec Sandra Poirier (Winner of/Gagnante du prix d'excellence Isabelle Adams Excellence in Perioperative Nursing award) and/et Isabelle Adams herself/elle-même!

  - *ORNAC / J&J Medical Products Bursaries* were presented to Karen Frenette, NB, and Monique Perazzelli, QC.

  - *Cardinal Health Research Grants* were presented to Sue Beaman, NB, and Kathy MacDonald, NS.

- The **Scope of Practice Committee** has been very busy developing a document to support the need for the Registered Nurse Anaesthesia Assistant. Committee Chair, Dorothy Dewar presented her findings at a session of the Conference and this role will be further developed over the next few months.
- The ***Canadian Operating Room Nursing Journal*** continues to grow and we received a lot of positive comments about the March 2005 issue. An insert in this issue gave everyone an idea of what ORNAC is all about.
- We were very pleased to have Deborah Murphy, Editor and Publisher of the Journal, attend our National Conference.
- Our **Bylaws and Rules & Regulations** governing the Association were once again reviewed and, as a result, we have created a Board seat for two affiliate members. This is a process that we have been working on for a while. By November CORL and RNFANC affiliate groups will be represented on the ORNAC Board.
- The **website,** *www.ORNAC.ca*, continues to grow and develop. To date we have had almost 1,000,000 hits!!! An increased

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Nutshell (cont.)

Interzone Photography

L to R/g à d: Abbey Flower and/et John Flower with/avec Margaret Farley (Winner of/Gagnante du prix commémoratif Lorne Flower Memorial Award) and/et Alicia Oucharek Mattheis (Awards Chair/Présidente du comité des prix)

amount of the Board & Executive work is being done in our Virtual Office and the 2005 Nominations for Elections utilized the website. We are hoping to soon have a Historian page to display ORNAC's History (including the President's plaque, Mission Vision Values Statement, and a copy of all J&J Medical Products limited edition souvenir prints).

- Elections were conducted at our Board meeting and the Executive for 2005-2007 can be found on page 8.
- There are several changes being introduced to the role of Past President and Treasurer. Past President will now be an advisory role only. The current Treasurer, Ray Larkins, will remain for another term – for the first year (2005/2006) he will operate on his own, but starting in 2006 there will be a new Treasurer elected who will continue to receive Ray's direction for his/her first year (2006/2007) and then operate on his/her own for the rest of the term (2007/2008). From now on the Treasurer will be elected during non-Conference years.
- The Board and Executive would like to thank the Montreal planning committee for an exceptional conference. There were over 1,000 registered delegates, 162 exhibitor booths and almost 700 industry representatives!
- We were honoured to have Victorie Audet and Isabelle Adams attend the Conference — they were members of the first national organizing committee. It was also a pleasure to have many former Board & Executive members in attendance.
- The work of ORNAC is ongoing and we continue to move forward as an organization. For more information visit our website at www.ORNAC.ca.

L'AIISOC en Bref — Printemps 2005

Auteure: *Lynn Anderson, ORNAC Secretary*

Au printemps 2005 la réunion du conseil administratif et exécutif de l'AIISOC a eu lieu à Montréal (29 et 30 avril, 1 mai) à l'occasion de la 19e Conférence nationale.

- La présidente de l'AIISOC, Margaret Farley, a accueilli les invités et les observateurs : Pat Pocock et Muriel Shewchuk, CORL; Marla Ewen, RNFANC ; Helene Renaud et Sylvie Beauregard, QC; Tina Kennah et Vanna Wasson, NB; et Donna Marin, SK.
- Nous avons dit au revoir au membres suivants : Alaine Young, ON; Linda Socha, SK; et Line Boucher, QC. Yvonne LeBlanc, NS, nous a avisé de sa démission. Margaret a remercié chacune de leur contribution à l'AIISOC et leur a offert ses meilleurs vœux dans leurs projets futurs.
- Nous souhaitons la bienvenue à Donna Marin de la Saskatchewan, qui prend la place de Linda Socha sur le conseil. Davantage de nouveaux membres du conseil seront annoncés au mois de novembre.
- Le **comité des normes** a entretenu une réunion d'une journée avant la Conférence nationale et le module 3 des normes révisées a été publié. Le comité a déjà commencé la révision du module 2. Si vous êtes intéressé à offrir votre aide au processus de révision, veuillez contacter Bonnie McLeod, la toute nouvelle chaire du comité des normes, à Standards@ORNAC.ca.
- Le mandat de l'AIISOC demande un travail continu et nous allons toujours vers l'avant en tant qu'organisation. Pour de plus amples renseignements, veuillez visiter notre site Web à www.ORNAC.ca

Nutshell (cont.)

- Avant la Conférence, le **comité des prix** et sa présidente Alicia Oucharek Mattheis ont été très occupés à la sélection des gagnants des prix variés. Les prix présentés à la cérémonie d'ouverture incluent :

  - Le prix de distinction en soins péri-opératoires *Isabelle Adams Award for Excellence in Perioperative Nursing* a été décerné à Sandra Poirier du Nouveau-Brunswick. Nous étions enchantés que Isabelle Adams elle-même a pu présenté ce prix prestigieux.

  - Le prix commémoratif *Lorne Flower Memorial Award* inaugural a été décerné à Margaret Farley par le fils de Lorne, John Flower.

  - Le prix de rédaction *Drake-Thompson J&J Medical Products Writing Award* a été décerné à Joan Porteous du Manitoba et Jackee Higgins de l'Ontario.

  - Les *bourses ORNAC / J&J Medical Products* ont été décernés à Karen Frenette du Nouveau-Brunswick et Monique Perazzelli du Québec.

  - Les subventions de recherche *Cardinal Health Research Grant*s ont été présentées à Sue Beaman du Nouveau-Brunswick et Kathy MacDonald de la Nouvelle-Écosse.

- Le **comité du champ des activités** s'occupe à créer un document illustrant le besoin pour des assistants-infirmiers d'anesthésie autorisés. La présidente du comité, Dorothy Dewar, a révélé ses résultats lors de sa présentation à la Conférence et ce rôle sera davantage développé dans les prochains mois.
- La ***Revue de l'Association des infirmiers et infirmières en salle d'opération du Canada*** continue à s'épanouir et nous avons reçu beaucoup de commentaires positifs à l'égard du numéro de mars 2005. Un encart dans ce numéro a fait connaître à tous les lecteurs les objectifs de l'AIISOC.
- Nous étions très contents que Deborah Murphy, rédactrice et éditrice de la Revue, a pu assister à la Conférence nationale.
- Les **règles et règlements** régissant l'Association ont de nouveau été révisés et le résultat est que nous avons créé un siège au conseil réservé à deux membres affiliés. Cela est une démarche que nous avons entreprise depuis quelque temps. Dès novembre les groupes affiliés CORL et RNFANC seront représentés dans le conseil.
- Le site Web, *www.ORNAC.ca*, connaît une croissance et un développement continus. Jusqu'à présent nous avons eu presque 1 000 000 visites! De plus en plus de travail des conseils administratif et exécutif se fait au « bureau virtuel » et la mise en candidature pour les élections de 2005 a été effectuée au moyen du site. Nous espérons bientôt avoir une page « Historique » pour illustrer un peu l'histoire de l'AIISOC (y compris la plaque de la présidente, l'énoncé de mission, de valeurs et de vision, ainsi que des exemplaires de toutes les images souvenir à tirage limité de J&J Medical Products).
- Les élections ont eu lieu à la réunion du conseil administratif et la liste des membres du conseil exécutif 2005-2007 se trouve à la page 8.
- Plusieurs changements ont été apportés aux rôles du président sortant et du trésorier. Le rôle du président sortant sera désormais un rôle consultatif uniquement. Le trésorier actuel, Ray Larkins, demeurera dans ce rôle pendant deux ans - la première année (2005/2006) il travaillera seul, mais dès 2006 un nouveau trésorier sera élu. Ce dernier sera sous la direction de Ray pendant un an (2006/2007), et travaillera ensuite indépendamment pendant le reste de son mandat (2007/2008). Dorénavant le trésorier sera élu aux années sans Conférence nationale.
- Les conseils administratif et exécutif aimeraient remercier le comité de planification de la Conférence nationale. La Conférence a connu un énorme succès avec plus de 1 000 délégués, 162 kiosques et presque 700 représentants de l'industrie!
- C'était un honneur d'accueillir Victorie Audet et Isabelle Adams à la Conférence – elles étaient membres du premier comité organisateur national. Nous nous avons fait également un plaisir de souhaiter la bienvenue à bon nombre d'anciens membres des conseils administratif et exécutif.

NE FAITES PAS PENCHER LA BALANCE!

LES SOINS DES PATIENTS IMPLIQUÉS DANS UNE ENQUÊTE POLICIÈRE

Auteure : *Joan Porteous, infirmière autorisée, baccalauréat en sciences infirmières, CPN(C), éducatrice clinique, salle d'opération, Health Services Centre, Winnipeg, Manitoba*

De temps à autre les infirmières de salle d'opération jouent un rôle complexe : celui de responsable de preuves médico-légales et de défenseur du droit à la vie privée du patient. La gestion appropriée de preuves peut être facteur déterminant dans le résultat d'une enquête criminelle. Pour mieux comprendre comment prévenir la destruction involontaire des preuves lors d'une intervention chirurgicale, il faut premièrement comprendre l'importance de celles-ci.

DON'T TIP THE SCALES!

CARE FOR PATIENTS INVOLVED IN A POLICE INVESTIGATION

Author: *Joan Porteous, RN, BN, CPN(C) is the Clinical Educator, General Hospital OR Department, at the Health Sciences Centre in Winnipeg, MB.*

ABSTRACT

Occasionally perioperative nurses are involved in the complex role of caring for medical-legal evidence while also advocating for the patient's right for privacy. Appropriate management of evidence may be the deciding factor in the outcome of a criminal investigation. Understanding the importance of evidence is the first step in learning how to prevent its unintentional destruction during the surgical procedure.

Photo by J. Porteous

Contents of a Forensics Box

Our first consideration with every patient is to provide safe and efficient care. In the OR, cooperation with the police is balanced with the patient's right to privacy and confidentiality of their health care information. This is not always an easy task. Perioperative nurses have a responsibility to their patients as well as to investigators to do what is appropriate, since our actions can have direct effects on the outcomes of criminal investigations. Understanding the importance of evidence is the first step in learning how to keep evidence from being destroyed. Hospital documentation is often accepted in a court of law without challenge[1].

Immediate Preoperative Considerations:

When a police officer accompanies a patient to the preoperative holding area, his or her name and badge number should be documented on the patient record[2]. If the patient wishes to speak about the event being investigated, ask the patient if the police officer can be present. This may help to ensure accurate recording of the testimony and possibly avoid a court appearance for the nurse. Document that the patient discussed the event with the officer. The police officer may be requested to delay questioning if it interferes with necessary surgical care. Generally police officers do not come into the theatre.

If, however, the patient is under arrest, the powers and duties of the police officer expand and he or she may need to accompany the patient into the theatre and remain there until the patient is anaesthetized.[3] Once the patient is asleep, the officer should leave the theatre. If the officer's presence seriously interferes with safe, efficient care, he or she may be asked to relocate as appropriate.

The perioperative nurse should assess the patient preoperatively for risk of violent behavior. If there is risk for violence the nurse may ask a police officer to accompany the patient into the theatre and remain until the patient is asleep. This would be done to help assure the safety of the surgical team. If the officer comes into the theatre with the patient, document the officer's name and badge number on the patient record.

The preoperative assessment should also include a written account of the patient's physical appearance and behaviour[2] and a record of any unusual odours such as chemicals, gasoline or alcohol.[4]

Intraoperative Considerations:

If the patient is under arrest, or if the officer has a warrant, then the officer has the right to take any property that is believed to be connected with the offence.[3] Occasionally the patient will arrive in the OR for life-threatening emergent procedures without having had their clothes removed. All evidence, including clothes, should be handled with gloved hands.[2,5] Be cautious of needles or other sharp objects in pockets. If at all possible cut along seams and do not cut through holes or punctures as holes may provide police with evidence of bullet or stab entries.

In situations where every minute is critical, lay a clean sheet in the corner on the floor and put the clothes on the sheet, to be bagged separately later. Handle clothes as little as possible to avoid particles falling off.

As soon as is practical, all clothing should be packaged individually into paper bags. The use of paper bags prevents the decomposition of evidence that can occur if left in a plastic bag.[5] If the clothes are wet with blood or other fluids, they should be placed into moisture-proof bags for safe transport until they can be dried later by police. All footwear should be placed into paper bags. Any other physical evidence such as pills or other items found in clothing should be documented. The transfer sheet from the preoperative stretcher should also be bagged separately, since evidence may have fallen from the clothes onto the sheet.[6] Each item bagged should be numbered and labeled with the patient name only in order to ensure health care confidentiality. The contents should also be identified on the label. The same information should also be documented in the patient record.

If debris, such as glass fragments, dirt, hairs, or fibers, is found on the patient, collect them appropriately and document where they were found. Use clear tape to collect hairs. ORNAC standards offer excellent guidelines for collection of evidence[2]. A body graph could be added to the patient record. A body graph is a drawing that outlines the body, and allows for drawings or notations to be recorded in relation to different parts of the body. Package each type of debris into individual numbered containers or envelopes.

Record any sites where the skin has been punctured by OR personnel. If the patient states anything unusual just before or during induction, it should also be documented. Avoid cleaning more of the patient's hands than necessary, since gunpowder residue, tissue, hair or other evidence may be present. Document the presence of any other wounds on the hands, forearms or arms. Injuries such as these may provide evidence of self-defense.[5]

During positioning and skin prep, other areas of the body can be further assessed. Document and describe any wounds or body markings. The preoperative skin prep may remove evidence. Documentation prior to the skin prep may be crucial for appropriate legal outcomes. Describe any blood-stained patterns or bloody fingerprints on the patient's body. Describe patterned

Don't Tip the Scales (cont.)

abrasions around wounds, wound shape and size. Does the wound have ragged edges or clean-cut straight edges? Document dark residue around the wound (on an entrance wound this could be gunpowder). Save and document any fabric or debris in the wound or around the wound edges.[5]

During the surgery bullets or stab weapons may be removed. Only surgical forceps with tip covers may be used to remove the bullet as handling a bullet with metal instruments can interfere with evidence markings[7]. Do not drop the bullet into a metal container. Once the bullet is removed, the scrub should use water to rinse off blood and tissue to prevent microscopic markings from being destroyed[6]. Then place it in dry gauze and put it into a specimen container.[4] Some newer exploding bullets have sharp edges and glove tears may occur during wound exploration.

Avoid handling a knife in the same manner the culprit would have handled it. To avoid smearing fingerprints, handle the knife on areas not normally handled, and package it in paper or cardboard.

Taking a specimen of the patient's bodily substances without consent violates the patient's rights, unless it is required by law or is a part of the surgical procedure.[7]

Transfer of Evidence to Police:
Evidence should be transferred to police upon receipt of a warrant, if the patient is under arrest, or if the patient consents. Once evidence is gathered, packaged, labeled and documented, it can be given to the waiting police officer[8,9]. Document in the patient record the officer's name and badge number, time of transfer and how it was transferred.

In situations where the police officer produces a warrant for health information about the patient, a copy of the warrant should be placed into the patient's chart. In Manitoba, hospitals are legislated to have a designated privacy officer. During regular working hours, the privacy officer would arrange for the transfer of health information to police upon receipt of a warrant. On off-hours, the nursing supervisor could be called.

If police officers are not waiting nearby to collect the evidence (such as a knife used in a stabbing incident) the item may be given to hospital security officer for safekeeping until the police collect it. Ensure the documentation includes the security officer's name and when it was given. Documentation must verify that all the evidence has been in secure possession at all times.[4]

Postoperative Considerations:
If the evidence is not given directly to police or hospital security, it should be kept in a locked area, to which only one individual has the key. If hospital security personnel are not available, the evidence could be locked in a secure area such as the narcotics cupboard. This will ensure the chain of custody of the items.

The officer should be directed to the post anesthesia care unit in order to remain with the patient postoperatively.

Care of the Deceased Patient:
If a patient does not survive the surgical procedure, care must be taken when handling the body postoperatively. In some Canadian provinces the Medical Examiner needs to be notified and permission obtained to prepare the patient for transfer to the morgue[2]. This information should be located in the OR policy within each facility. It is important to document the name of the Medical Examiner and the time this permission was received.

When the patient is involved in a police investigation, postmortem care is more complex.[6] Ensure that surgical closing counts are correct and that all existing drainage tubes, implants, and invasive lines are left in place for removal and examination at autopsy. The literature recommends that medication vials and solution containers used during the surgical procedure should also remain with the patient.

Each of the patient's hands is placed into paper bags, and the mouth of the bag is taped[2]. The hands are placed at the patient's side. If the feet are injured in any way, they should also be placed into paper bags and the bags secured at the ankles. If the patient's head has sustained injuries, it should be placed into a paper bag

Don't Tip the Scales (cont.)

also. Do not wash the body if it is considered part of forensic evidence.[3] Document any attempted IV sites or other intraoperative puncture attempts.

Most OR's do not care for patients who are involved in police investigations on a regular basis. In order to assist staff that may be on duty at the time, it is a good idea to have a forensics box available.

A FORENSICS BOX COULD CONTAIN:
small paper (lunch) bags to cover hands
large paper (grocery) bags to cover feet or the head
extra-large paper bags for clothing items such as winter jackets, etc.
body graphs to be used for documentation swabs
small rigid specimen containers
paper envelopes
labels
a narrow cardboard box that would hold a knife which has been used as a weapon
written guidelines for staff who are caring for a patient who is involved in a police investigation

A police officer may often accompany the patient during transfer from the OR to the morgue. The patient is placed into a locked area in the morgue and the officer takes the key. The police department will arrange to have the patient removed for autopsy at a later time.

There should be no access to the patient by the family without the medical examiner's permission. The OR department is not the optimal location for family to come to view their loved one. The perioperative nurse should remain in attendance and can lend support if the family is allowed to view the patient's body. In cases such as this, the names of family members who visit the patient should be documented[2].

Conclusion:

A clear documented chain of evidence is difficult to maintain in an intraoperative crisis, but every attempt should be made to maintain it. The patient may be the victim or the perpetrator of a crime. Evidence that is improperly collected, may be excluded in the criminal court. Preservation and transfer of evidence is essential in order to ensure appropriate legal outcomes. Regardless of our personal feelings or beliefs, each patient is entitled to safe and efficient professional care, respect for privacy, and consideration of their legal rights.

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ORNAC ANNOUNCES. . .

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WHY

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WHEN

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HOW

Guidelines for Applicants and Application Forms are available from Karen Frenette, Chair of ORNAC Research Committee, at *kfrenette@reg6.health.nb.ca* or through the ORNAC Website: *www.ornac.ca*

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Soumettre votre lettre d'intention par le 15 novembre 2005. La date limite pour soumettre votre demande est le 15 mars 2006. La sélection des gagnant(es) de la bourse se fera lors de la réunion du conseil d'administration de l'AIISOC de mai 2006.

COMMENT

Le guide d'admission et les formulaires d'application sont disponibles auprès de la présidente du comité de recherche, Karen Frenette, par *kfrenette@reg6.health.nb.ca*, ou par le biais du site web de l'AIISOC : *www.ornac.ca*

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MASQUES CHIRURGICAUX JETABLES : UNE ÉTUDE SYSTÉMATIQUE

Auteures : *Allyson Lypp, infirmière autorisée, diplôme en soins infirmiers, infirmière autorisée monitrice, maîtrise ès arts, maîtrise ès sciences, conférencière principale à la School of Care Sciences, University of Glamorgan, Royaume Uni*

Peggy Edwards, infirmière autorisée, diplôme en pratique opératoire, baccalauréat ès sciences, pratique professionnelle, analyste de risque du pool d'assurance Gallois, Pontypridd, Royaume-Uni

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Remerciements : *Cochrane Collaboration Wounds Group* et le *Theatre Nursing Trust Fund*. Extraits de l'étude systématique reproduits avec la permission de : Update Software, Oxford

Allyson Lipp

Peggy Edwards

RÉSUME

Le but original du développement des masques chirurgicaux était de contenir et de filtrer les gouttelettes contenant des microorganismes expirées de la bouche et du nasopharynx des travailleurs de la santé en salle d'opération afin de fournir une protection au patient. Toutefois, il y a plusieurs façons dont les masques chirurgicaux auraient le potentiel de contribuer à la contamination de la plaie opératoire. Récemment les masques chirurgicaux ont été recommandés comme barrière entre l'équipe chirurgicale et le patient; cependant, l'efficacité du masque chirurgical en tant que moyen de prévention de l'infection des plaies opératoires est sujette à caution.

L'objectif de l'étude systématique est d'identifier et d'analyser tous les essais comparatifs randomisés évaluant l'utilisation de masques chirurgicaux par l'équipe chirurgicale lors de chirurgie propre dans le but de prévenir l'infection postopératoire de la plaie opératoire.

Toutes les publications traitant des masques chirurgicaux jetables sont grâce au *Specialised Trials Register* (registre des essais spécialisés) du *Cochrane Wounds Group* (mars 2001). Les fabricants et distributeurs de masques chirurgicaux jetables ainsi que les organismes professionnels, y compris la *National Association of Theatre Nurses* et l'*Association of periOperative Registered Nurses,* ont été consultés pour les détails sur les études en cours et non publiées.

Inclus sont les essais comparatifs randomisés et quasi-randomisés comparant l'utilisation de masques chirurgicaux jetables et la non utilisation de ceux-ci.

Résultats primaires : Deux essais comparatifs randomisés impliquant un total de 1 453 patients sont inclus. En ce qui concerne le plus petit essai, la tendance démontrée indique une association entre l'utilisation des masques et un nombre réduit d'infections. Cependant, dans un plus grand essai, il n'y avait aucune différence entre le taux d'infection entre le groupe masqué et le groupe non masqué. L'analyse de ni un ni l'autre des essais ne prend en compte la randomisation des groupes.

Conclusion des auteurs : Selon les résultats limités, il n'est pas clair si l'utilisation des masques chirurgicaux constitue un avantage ou un désavantage au patient subissant une chirurgie propre.

Disposable Surgical Face Masks: A Systematic Review

DISPOSABLE SURGICAL FACE MASKS: A SYSTEMATIC REVIEW

Authors: *Allyson Lipp RN DipN RNT MA MSc, Principal Lecturer, School of Care Sciences, University of Glamorgan, UK.*

Peggy Edwards RN Dip Operating Practice BSc Professional Practice, Welsh Risk Pool Assessor, Pontypridd, UK

Acknowledgements: Cochrane Collaboration Wounds Group and the Theatre Nursing Trust Fund. Extracts of systematic review reproduced by kind permission of: Update Software, Oxford.

ABSTRACT

Surgical face masks were originally developed to contain and filter droplets of microorganisms expelled from the mouth and nasopharynx of healthcare workers during surgery, thereby providing protection for the patient. However, there are several ways in which surgical face masks could potentially contribute to contamination of the surgical wound. Surgical face masks have recently been advocated as a protective barrier between the surgical team and the patient, but the role of the surgical face mask as an effective measure in preventing surgical wound infections is questionable.

The aim of the systematic review is to identify and review all randomised controlled trials evaluating disposable surgical face masks worn by the surgical team during clean surgery to prevent postoperative surgical wound infection.

All relevant publications about disposable surgical face masks were sought through the Specialised Trials Register of the Cochrane Wounds Group (March 2001). Manufacturers and distributors of disposable surgical masks as well as professional organisations including the National Association of Theatre Nurses and the Association of Operating Room Nurses were contacted for details of unpublished and ongoing studies.

Randomised controlled trials (RCTs) and quasi-randomised controlled trials comparing the use of disposable surgical masks with the use of no mask were included.

Main results: Two randomised controlled trials were included involving a total of 1,453 patients. In a small trial there was a trend towards masks being associated with fewer infections, whereas in a large trial there was no difference in infection rates between the masked and unmasked group. Neither trial accounted for cluster randomisation in the analysis.

Reviewers' conclusions: From the limited results it is unclear whether wearing surgical face masks results in any harm or benefit to the patient undergoing clean surgery.

INTRODUCTION

Systematic reviews are considered to be the most credible form of evidence from which to inform practice. Dissemination of the results of systematic reviews is vital in order to influence clinicians to ensure that their practice is evidence based.

Both authors have a background in the operating department environment and were afforded the opportunity to undertake a systematic review with the Cochrane Collaboration (Wounds Group) as a result of funding from the Theatre Nursing Trust Fund. The actual process of undertaking a systematic review is outside the scope of this paper and has been explored elsewhere (Edwards & Lipp 2001).

This paper is based upon the systematic review of the use of disposable surgical face masks (Lipp & Edwards 2002).

AIMS OF THE SYSTEMATIC REVIEW

To identify and review all relevant data in order to determine whether disposable surgical face masks worn by the surgical team prevent surgical wound infection in clean surgery.

BACKGROUND

Surgical face masks were originally developed to contain and filter droplets of micro-organisms expelled from the mouth and nasopharynx

Continued on Page 24

UPCOMING EVENTS

For details visit www.ornac.ca

PROVINCIAL & REGIONAL CONFERENCES

British Columbia	Harrison Hot Springs	April 19-22, 2006
Alberta	Red Deer	October 26-29, 2005
Manitoba	Winnipeg	June 15-17, 2006
Ontario	Ottawa	April 23-26, 2006
Quebec	Laval	November 7-9, 2006
New Brunswick	Miramichi	April 21-22, 2006
Atlantic Conference	Halifax	October 4-7, 2005

ORNAC CONFERENCES

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20th National	Victoria, BC	April 23-27, 2007
21st National	St. John's, NL	June 7-12, 2009

INTERNATIONAL CONFERENCES

NATN (www.natn.org)	Harrogate, UK	October 10-13, 2005
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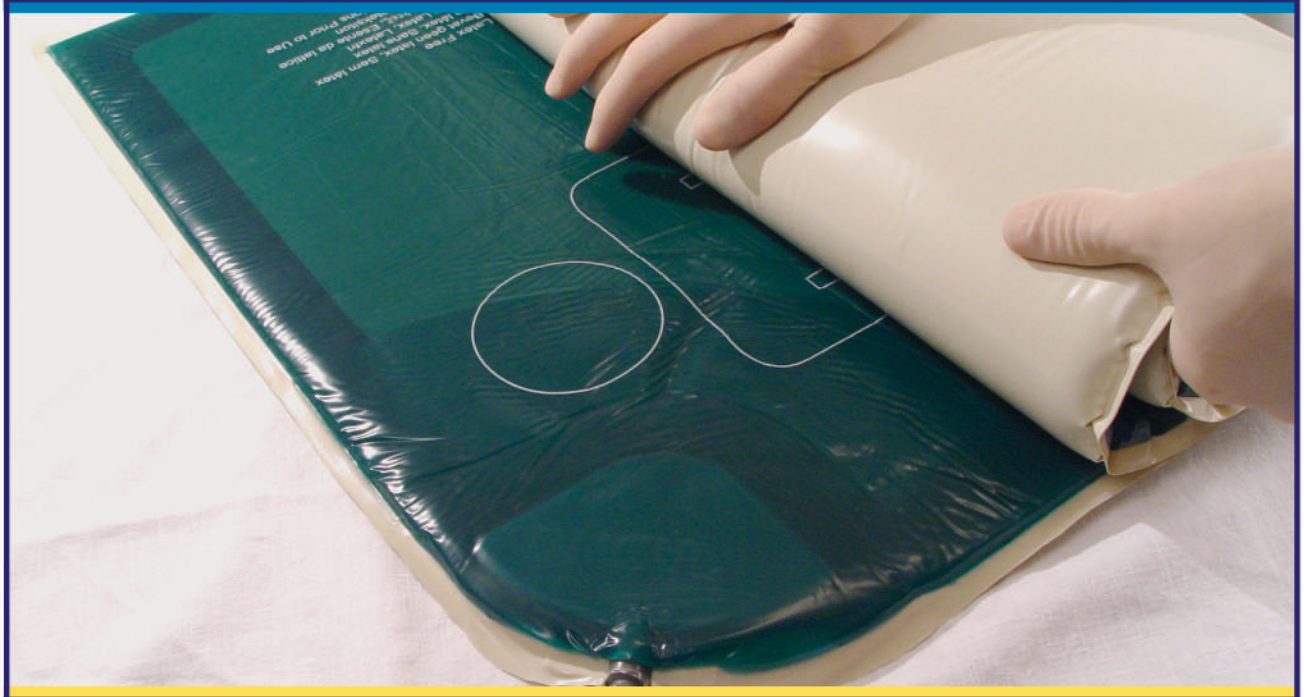

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Disposable Masks (cont.)

during surgery. They were introduced around a century ago as a method of protecting patients from the risk of surgical wound infections (Belkin 1997).

The primary purpose of a surgical mask is to provide protection for the patient from the surgical team. Recently, masks have been advocated as a protective barrier for the surgical team from the patient (Garner 1996, Weber et al 1993). This systematic review will not investigate the use of surgical masks for this purpose. The surgical face mask is disposable and generally made up of three or four layers. It is normally designed with two filters that act as a barrier down to 1 micron, therefore trapping bacteria of that size or larger. The protection afforded by this type of mask is claimed to be a minimum of four hours (UHS 2000). Worn correctly, the mask should cover the nose, with the metal band contouring the bridge of the nose. The mask should be drawn underneath the mouth and secured by tying the tapes firmly around the back of the head.

Although the surgical mask is designed to protect the patient there are several ways in which it could contribute to contamination of the surgical wound. Firstly insufficient tension on the strings causes 'venting'. Venting is leakage of air from the side of the mask. The exhaling of moist air increases resistance, which is thought to exacerbate the problem of venting (Belkin 1996).

Secondly, Belkin (1996) also cites 'wicking' as a method of conveying liquid via capillary action as possibly contributing to the passage of bacteria. Thirdly a mask could cause contamination by 'wiggling'. This is a term used to describe friction of the mask against the face which has been shown to cause the dispersal of skin scales from the face, resulting in possible contamination of surgical wounds (Schweizer 1976).

In addition, the mask may be worn incorrectly; for example, allowing exposure of the nose or mouth. Removal of the mask by grasping the filter section could result in contamination of the wearer's hands, whereas disposal is recommended by handling the tapes only (Perry 1994).

These issues call into question the effectiveness of the design and highlight the incorrect use of surgical face masks. As with many interventions surgical face masks were introduced without standard specifications or formal evaluation. Despite acknowledging the controversy surrounding the use of masks, they are currently recommended by numerous operating department organisations (AORN 1998, NATN 1998).

This uncertainty has lead to inconsistent practices based on inadequate rationale. For example, the use of surgical face masks has been abandoned by some surgical teams (in part or whole) and during certain procedures. In choosing to not wear a mask members of the surgical team could be leaving the patient vulnerable to the risk of wound infection via droplet contamination.

A clean surgical wound is classified as 'an uninfected operative wound in which no inflammation is encountered and the respiratory, alimentary, genital or uninfected urinary tract is not entered' (Mangram et al 1999). Non-clean wounds may be classified as clean-contaminated, contaminated or dirty-infected depending upon the area of the body operated upon and the level of infection and inflammation present. A surgical wound is less likely to become infected postoperatively if it is classified as clean, therefore any infection arising could be more reasonably attributed to other factors such as the use of a surgical face mask (Mangram et al 1999).

Diagnosis of a surgical wound infection is not without its challenges. For example, some patients such as the elderly and the immuno-compromised do not always display the cardinal signs of infection. However, correct diagnosis of surgical wound infections is imperative to ensure accurate surveillance. A surgical wound infection is defined by 'pus, or a swab with >106 cfu per mm3 tissue and at least one of the following signs or symptoms: pain, localised swelling, redness or heat' (Mangram et al 1999).

The costs incurred when a patient contracts a surgical wound infection are considerable in financial as well as social terms. It has been estimated by Plowman et al (2000) that each patient with a surgical wound infection requires an additional hospital stay of 6.5 days and that hospital costs are doubled. When extrapolated to all acute hospitals in England it was estimated that the annual cost nationally was almost #1 billion. It is not currently known what proportion of this figure could be attributed to the use or non-use of disposable surgical face masks.

The above discussion indicates that the role of the surgical mask as an effective measure in preventing surgical wound infections is questionable and this together with the cost implications warrants a systematic review.

LITERATURE SEARCH

The gold standard for the inclusion into systematic reviews of effectiveness is the randomised controlled trial (Oxman & Clarke 1999). In this review only quasi-randomised controlled trials were retrieved.

The literature search was conducted to include both scrubbed and non-scrubbed members of the operating team. The intention of the review was to examine the use versus non-use of disposable surgical face masks in both adult and paediatric clean surgery. It was not the intention to explore visors, non-disposable masks or other personal protection properties of the face mask.

Cochrane Collaboration has a well-established search strategy for the literature search.

Studies to be considered for the review were sought from The Cochrane Controlled Trials register (CCTR) which contains the Cochrane Wounds Group Specialised Trials Register (see Table 1).

The Cochrane Wounds Group Trials Register has been compiled through searching of the major health databases including MEDLINE, Cinahl and EMBASE and is regularly updated through searching of the Cochrane Controlled Trials Register, handsearching of wound care journals and relevant conference proceedings (Collaborative review group search strategy, Cullum et al 2001).

The bibliographies of all retrieved and relevant publications identified by these strategies were searched for further studies. There was no specific date restriction placed upon study inclusion, but only disposable surgical face masks were considered. Manufacturers and distributors of disposable surgical masks as well as professional organisations including the National Association of Theatre Nurses, the European Operating Room Nurses Association, the Australian College of Operating Room Nurses and the Association of Operating Room Nurses were contacted for details of unpublished and ongoing studies. There was no restriction on the inclusion of reports based on language of publication, or publication status.

TABLE 1

The Cochrane Wounds Group Specialised Trials Register database was searched on CD ROM 2001 Issue 1 using this strategy:

1	(MASK or MASKS)
2	(FACE AND MASK)
3	MASKS*:ME
4	((#1 or #2) or #3)
5	(SURGICAL and INFECTION)
6	SURGICAL WOUND INFECTION*:ME
7	WOUND INFECTION*:ME
8	ANTISEPSIS*:ME
9	(((#5 or #6) or #7) or #8)
10	PERIOPERATIVE CARE*ME
11	INTRAOPERATIVE CARE*ME
12	(#9 or #10 or #11)
13	(#4 and #12)

METHODS

Titles and abstracts of references identified by the search strategy were assessed in terms of their relevance and design according to the selection criteria. The two reviewers performed this independently. Copies of those articles and studies that appeared to satisfy these criteria were obtained. When it was unclear from the title or abstract if the paper fulfilled the criteria, or when there was disparity between the reviewers, a copy was obtained. The two reviewers then jointly decided whether to include or exclude a study.A piloted data extraction sheet was used to extract and summarise details of the studies (see Table 2). When data were missing from the study an attempt was made to contact the authors to

Continued on Page 33

19TH NATIONAL ORNAC CONFERENCE
MONTREAL MAY 1 - 6, 2005

Author: *Line Boucher, President of the 19th National ORNAC Conference.*

The 19th National ORNAC Conference succeeded beyond our wildest dreams. Delegates were first amazed by a performance given by members of the Paizo Circus. Later we heard speeches by our honoured guests, including Jane Cowell Poitras, assistant mayor of Montréal; Ghislaine Desrosiers, President of the Order of Nurses of Quebec; and Janet Mann, representative of the certification program of the Canadian Nurses Association.

2005 marks the 10th anniversary of Certification in Perioperative Nursing. On this occasion Ms. Mann requested that those who are certified stand to be recognized. She was impressed and enthused by the number of nurses present who had obtained certification. We can be proud that perioperative nursing is the specialty with the highest number of certifications.

Opening ceremonies continued with the presentation of bursaries and prizes. Those in attendance felt extremely privileged with the presence of two of the great Canadian pioneers in perioperative nursing, Victoire Audet and Isabelle Adams. Ms. Adams honoured us with a few words before awarding the *Isabelle Adams Award for Excellence in Perioperative Nursing*. This was a memorable moment for all.

Photo by/par J. Porteous

Montréal 2005 - home of the ORNAC National Conference / lieu de la Conférence Nationale AIISOC

Photo by/par Interzone Photography

ORNAC Incoming Executive L to R/Nouveaux membres du conseil exécutif, g à d: Ray Larkins, MB (Treasurer/Trésorier), Linda Socha, SK (President Elect/Présidente désignée), Marcy McKay, BC (President/Présidente), Lynn Anderson, NL (Secretary/Secrétaire)

The conference continued with many interesting presentations that contributed greatly to the event's success. There were a total of 40 presentations, 17 of which were given in French and 23 in English (with simultaneous translation available).

On a lighter note, the Social Committee kept delegates very busy. To stay in shape, aerobic dance classes were offered before and after the daily conference sessions. The evening events were hugely successful. The committee sold 1052 tickets for the **Disco Evening** on Monday, 1210 tickets for the **Cuban Festivities** on Tuesday, and 914 for Wednesday's **Country Night**. We were thrilled with both with the attendance and with the large number who showed up "dressed for the occasion."

The exposition site was very impressive. We had great participation from our partners in the medical supply industry. There were 162 booths representing 78 companies, the largest participation seen yet.

SURGICAL SMOKE

RISK Surgical smoke can carry dangerous bacteria and viruses, including HIV. It can produce upper respiratory irritation and may have mutagenic potential.

FACT An estimated 23,000 operating room professionals are exposed to electrosurgical smoke each year in Canada, including surgeons, nurses, anesthesiologists, and surgical technologists. Sadly, many existing operation room smoke evacuation systems are underutilized due to bulky handpieces that nobody likes to use.

NEED A smoke capture device that makes it easy to gain compliance of the surgical staff and will work with all smoke evacuation systems.

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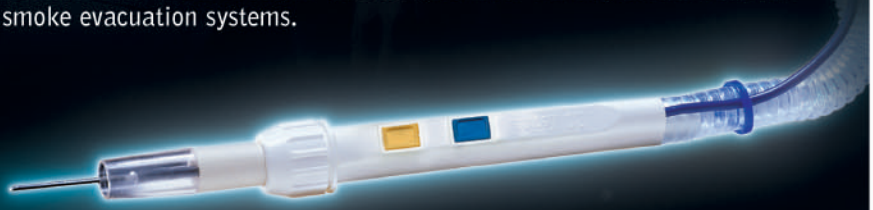

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EXHIBITOR SURVEY:

Lucas Ethier, of primed, completed our readership survey for Conference Exhibitors at *ORNAC* National (May 2005) and won a **Palm Tungsten E.**

ON-LINE SURVEY WINNERS WERE:

The winner of the Palm organizer was **Edna N. Arcilla of Port Coquitlam, B.C.**

The winner of the digital camera was **Elaine Herrington of Cornwall, Ontario.**

Thank you to everyone who participated in the 2005 ***Canadian Operating Room Nursing Journal*** Readership Survey.

We appreciate your feedback and look forward to incorporating your comments in to future Journals.

NATIONAL CONFERENCE (cont.)

For the first time at a national conference, *the Standards of Practice in Perioperative Nursing* was available through the CSA. ORNAC had worked hard to completed the 3rd edition in English and the French version is also now available. The representatives of the CSA were very pleased with the number of copies sold.

It was with pride that we learned that participation surpassed that of previous national conferences. The total number of delegates was **969.** There were **653** medical supply company representatives and **74** visitors for a total of **1763** people.

VISITORS BY PROVINCE/TERRITORY

Northwest Territories:	5
British Columbia:	104
Alberta:	84
Saskatchewan:	39
Manitoba:	50
Ontario:	269
Quebec:	286
New Brunswick:	34
Prince Edward Island:	6
Nova Scotia:	54
Newfoundland:	20

OTHER VISITORS

Australia (NSW):	6
United States:	4
England:	2

Photo by/par Interzone Photography

Brent Christensen of/de 3M - with 2 disco queens / avec 2 fanatiques du disco

Photo by/par J. Porteous

Nurses from St. Boniface Hospital (Winnipeg) enjoy a tour of Montréal.
Des infirmières de St. Boniface (Winnipeg) participent à une visite guidée de Montréal.

At the end of the week, the Closing Ceremonies were simple, but moving. The Co-Chairs of the next national conference, Marcy McKay and Sandy Stewart (with French translation provided by Marlene Weeks), showed us some of the charms of Victoria, this loveliest of flower-filled cities. After this we were treated to a video of highlights of the Montreal Conference. It was an opportunity to relive, with pleasure, many moments from the conference… and to do so with a little nostalgia. This didn't last long as the Conference headed in to its final moments with a very dynamic presentation about stress management through laughter. The official closure was marked by the removal and parade of the provincial flags.

Congratulations and thanks to all the members of the organizing committee. The success of this Conference was due to your passion and wonderful team spirit. Thank you also to our delegates and exhibitors for your wonderful support.

COMPTE-RENDU DE LA 19IÈME

Auteur : *Line Boucher, Présidente de la 19ième Conférence Nationale*

La 19ième Conférence Nationale a remporté un succès hors de toute attente. Dès l'ouverture, nous avons été transportés par la beauté du spectacle offert par les gens du cirque Paizo. Suivi des allocutions de nos invités d'honneur, Mme Jane Cowell Poitras, maire suppléant de Montréal, Mme Ghislaine Desrosiers, présidente de l'OIIQ et Mme Janet Mann, représentante pour la certification de l'Association des infirmières et infirmiers du Canada, pour n'en nommer que quelques uns.

L' année 2005 marque le 10ième anniversaire de la certification canadiennne en soins périopératoires et à cette occasion Mme Mann a demandé aux gens certifiés de se lever pour qu'on les reconnaisse. Elle a été impressionnée et ravie de voir le nombre de gens certifiés en place. En passant, nous sommes la spécialité qui compte le plus grand nombre d'infirmières certifiées au Canada. Il y a de quoi être fière.

Suite à ces allocutions, il y a eu la remise des prix et bourses. Quelle ne fut pas la surprise de chacun de constater la présence dans l'assemblée de nos deux plus grandes pionnières, Mme Victoire Audet et Mme Isabelle Adams. Mme Adams nous a fait l'honneur de dire quelques mots et de remettre elle-même le prix honorifique de la plus haute distinction, « *le prix Isabelle Adams » prix d'excellence en soins périopératoires*. Pour chacun, ce fut un moment des plus mémorable.

Photo by/par Interzone Photography

L to R/g à d: Francine Cloutier (Registration Committee Chair/Présidente du comité d'inscription), Monique Trachy (Conference Co-Chair/Vice-présidente de la Conférence), Line Boucher (Conference Chair/Présidente de la Conférence).

Et que dire de l'incroyable qualité des conférenciers sinon que leur conférence a contribué hautement à la réussite de cet événement. En tout 40 conférences, dont 17 en français et 23 en anglais avec traduction simultanée dans les trois salles.

Pour nous divertir, le comité des activités sociales n'a rien ménagé. Pour nour mettre en

Photo by/par J. Porteous

Manitoba nurses gather for a photo
Des infirmières et infirmiers du Manitoba

Photo by/par Interzone Photography

Lynn Walters, BC - leads aerobics for Getinge Castle / anime une classe d'aérobie pour Getinge Castle

CONFÉRENCE NATIONALE AIISOC

Photo by/par Interzone Photography

ConMed - getting down at Disco Night / on danse à la soirée Disco

forme, la danse aérobique pré et post conférence et des soirées magnifiquement organisées. Le comité a vendu 1052 billets pour la soirée Disco Évolution du lundi, 1210 billets pour la soirée cubaine du mardi et, 914 billets pour la soirée country du mercredi. Comme vous pouvez le constater la participation des gens a été extraordinaire et à ma grande surprise, plusieurs d'entre eux portaient un costume relié au thème de la soirée.

Le site des exposants était tout simplement grandiose et le terme est faible. Nous avons

Photo by/par Interzone Photography

National Exhibitors Advisory Committee / Comité consultatif national des exposants (NEAC) 2005-2007. L to R/g à d: Patty Traver, Secretary/Secrétaire (AMT Electrosurgery); Brent Christensen, Treasurer/Trésorier (3M Canada); Lenore Beyer, Vice-Chair/Vice-présidente du comité (Medline Canada); Sylvain Chartier, Chair/Président du comité (Les Entreprises Solumed Inc.); Brad Hara, Past Chair/Ancien président du comité (Trudell Medical Marketing Ltd.); Marcy McKay, 2007 National ORNAC Conference/Conférence nationale AIISOC.

Photo by/par Interzone Photography

Cuban Night celebrators / On fête à la soirée cubaine: Caroline Lepage, Les Entreprises Solumed Inc; Sylvain Chartier, Les Entreprises Solumed Inc; Linda Blanchard, Chair of Publicity Committee/ Présidente du comité de publicité; Sylvain Roy, Les Entreprises Solumed Inc; Stéphanie Murphy, Les Entreprises Solumed Inc.

obtenu une remarquable participation de la part de nos fidèles partenaires, les compagnies de produits médicaux. Sur le site, il y avait 162 kiosques pour 78 compagnies. Un total qui ne s'était encore jamais vu.

Pour la première fois, lors d'une conférence nationale, il y a eu ventes des normes de pratique recommandées en soins périopératoires par la compagnie CSA. Nous avons assisté à la sortie du module 3 révisé en anglais, celui en français est maintenant disponible. Les représentants de la compagnie CSA ont été agréablement surpris du succès de la vente des normes.

C'est avec honneur et fierté que nous avons appris que notre conférence a remporté la palme du plus gros événement à s'être produit jusqu'à maintenant. Le total d'inscription s'est chiffré à **969** délégués, **653** représentants des produits médicaux et **74** visiteurs pour un total des présences sur le site de **1763** personnes.

CONFÉRENCE NATIONALE (cont.)

C'est fabuleux. Voici un petit aperçu du nombre des délégués par province :

Territoires Nord-Ouest :	5
Colombie Britannique :	104
Alberta :	84
Saskatchewan :	39
Manitoba :	50
Ontario :	269
Québec :	286
Nouveau-Brunswick :	34
Île du Prince Édouard :	6
Nouvelle-Écosse :	58
Terre Neuve, Labrador :	20

Autres visiteurs :

NSW Australie :	6
États-Unis :	4
Angleterre :	2
Bermudes :	2

Photo by/par Interzone Photography

Marcy McKay - president ORNAC, at Closing Ceremonies / présidente de l'AIISOC aux cérémonies de clôture

Pour terminer, la cérémonie de clôture était à la fois simple et émouvante. Les deux présidentes de la prochaine conférence nationale, Marcy McKay et Sandy Stewart, nous ont fait découvrir quelques charmes de Victoria, cette belle ville toute en fleurs. Par la suite, nous avons visionné un vidéo nous donnant un bref aperçu des différentes activités de la semaine. C'était un moment unique. On avait l'impression de revivre avec plaisir chacun de ces instants tout en éprouvant une petite pointe de nostalgie. Mais pour peu de temps, car le tout s'est terminée sur une note très dynamique de notre conférencière sur la gestion du stress par l'humour. Finalement, ce fut la fermeture officielle par le retrait et le défilement des drapeaux de chaque province.

Félicitations et merci à tous les membres du comité organisateur pour la réalisation de ce beau projet. Si cette conférence a été couronnée d'un tel succès, c'est grace à votre ardeur, votre passion et votre formidable esprit d'équipe. Merci également à nos délégués ainsi qu'aux représentants des produits médicaux pour votre extraordinaire support.

Photo by/par Interzone Photography

Award Recipients L to R / Récipiendaires des prix, g à d: Alicia Oucharek Mattheis (Awards Chair/Présidente du comité des prix), Monique Perazelli (Gagnante de la bourse J&J Bursary Winner), Karen Frenette (Gagnante de la bourse J&J bursary winner), Anne Sigouin (J&J Medical Products), Joan Porteous (Gagnante du prix de rédaction Drake Thompson Writing Award winner), and/et Jackee Higgins (Gagnante du prix de rédaction Drake Thompson Writing Award winner)

Photo by/par Interzone Photography

Karen Frenette (Research Committee Chair/Présidente du comité de recherche) with/avec Sue Beaman (Récipiendaire de la subvention de recherche Cardinal Health Research Grant recipient) and/et Vafa Jamali (Cardinal Health).

Disposable Masks (cont. from page 25)

obtain missing information. Data extraction was undertaken independently by the two reviewers and compared. Differences of opinion related to study inclusion, methodological quality and data extraction was resolved by discussion with a third party. Studies were excluded if they were not randomised, or if they were controlled clinical trials of disposable surgical face masks (Lipp & Edwards 2002). The validity of the studies was assessed to detect potential sources of bias from the study design (see Table 3).

Results of literature search

The initial search yielded 250 citations; the abstracts of these papers were examined to assess potential relevance. We subsequently retrieved 97 papers for fuller examination. Of these, 11 were excluded from the review due to study design, or differing outcome measures and two were included. No unpublished studies were identified which met the criteria for inclusion. There was no response to requests for further information from the authors of included studies. No studies were published in duplicate. Thirteen trials were identified and two randomised controlled trials met the inclusion criteria. This review took at face value any description in the original studies of the type and cleanliness category of surgery performed. As a result studies performed in the operating department were included and other areas such as the laboratory, maternity ward and accident and emergency were excluded.Tunevall (1991) set up a random list for one year at a time denoting weeks as masked or unmasked. The study included all types of surgery clean, clean contaminated and contaminated. Only data relating to clean surgery were extracted.

Chamberlain (1984) involved gynaecological operation lists carried out by masked and unmasked staff. This study was abandoned after 41 patients, due to the identification of wound infections in three out of the five major clean cases performed. The bacteria identified in the infected wounds were not linked in any way to the bacteria identified with the operating department personnel.

Randomisation and concealment of allocation

In Tunevall (1991) the method of randomisation used was not explained. A randomisation list denoting masked or unmasked weeks was drawn up for one year, but it is not clear how the randomisation list was prepared. A week, rather than an operating list or single operation was chosen to ensure a similar number of major and minor cases as most major cases were performed at the beginning of the week. The randomisation list was inversed for the second and part of the third year due to anticipated seasonal differences, therefore not concealing allocation and enabling members of the theatre team to calculate whether the week was likely to be masked or unmasked. It is not clear whether the members of the admitting personnel had access to the randomisation list.

Chamberlain (1984) stated that the operating lists of one surgical team were randomly allocated to a masked or unmasked group over two months. Later Chamberlain (1984) indicated that masked and unmasked staff carried out the gynaecological operation lists alternately. The time between allocation of each list as masked or unmasked and the start of the list is not stated making allocation concealment uncertain.

In both studies the surgical team is used as the unit of randomisation and the patient is used as the unit of assessment thus creating a unit of analysis error.

There is no information in either study as to how patients were allocated to particular operating lists and so selection bias, by the person compiling the operating list, cannot be excluded during this phase of the study. Selection of patients to the different intervention groups was controlled by the authors of both studies, but the methods appear to fall short of genuine randomisation. Therefore the included studies are classed as quasi-randomised.

Number of patients

A power calculation informed Tunevall (1991) that the study would have to include over 3,000 patients to demonstrate a decrease of 30% in wound infection rate. It is unclear whether the power calculation was performed on the basis of cluster randomisation, or individual randomisation. Although the study involved a total of 3,088 patients only 1,429 patients undergoing clean surgery met the criteria of this

TABLE 2

The following data were extracted from each study:

- Trial setting
- Number of air filtration changes in the surgical field per hour
- Filtering capacity/specification of masks
- Types of surgery
- Number of wound infections
- Definition of wound infection
- Depth of wound infection
- Documentation of co-interventions
  * use of prophylactic antibiotics
  * use of antiseptic irrigation
- **After piloting, data also included:**
  * Identified bacteria associated with staff and patients
  * Measurement of compliance in the wearing of surgical face masks (ie: mask covered nose and mouth, presence of wicking and venting)
  * The size of the surgical team

review. In Chamberlain (1984) only 41 patients were recruited because the study was discontinued. Out of this number only 24 cases were clean surgery. With such a small number of female patients, it is unlikely that they were representative of the population.

Similarity at baseline

A description of the baseline characteristics of the patients is important to decide whether the results are generalisable and to compare characteristics of the two groups to ensure that the randomisation was successful. Tunevall (1991) confirmed baseline comparability for age and types of surgery. In Chamberlain (1984) due to the nature of gynaecological surgery all patients were female and no baseline comparability was reported.

Outcome measures

The outcome measure used in Tunevall (1991) trial was wound infection defined as pus, visible to the naked eye, or cellulitis without pus, both requiring debridement or percutaneous drainage and/or antibiotic therapy. With this study follow up was until after discharge, but it was not explicit how these patients were followed up once discharged. Chamberlain (1984) did not define wound infection, but two out of the three wound infections reported were noted as serious enough to warrant antibiotics. The other infection being identified by a high vaginal swab. All patients in this study were examined daily until discharge.

Neither study took any steps to measure compliance in relation to the correct wearing of surgical face masks, or recording any events such as venting, wicking or wiggling.

No other primary or secondary outcome measures listed in this review were considered by either study.

Data analysis

Neither study was analysed on an intention to treat basis. Chamberlain (1984) study was discontinued after seven weeks after a third case of postoperative infection in the unmasked group was diagnosed. However, the authors acknowledge that although two of three wounds grew staphylococcus aureus, in neither case was it a strain which corresponded to those isolated from the staff. Similarly in the Tunevall (1991) study no dropouts were reported.

TABLE 3

Validity assessment criteria of studies:

- Method of randomisation
  * generation of the randomisation schedule
  * method of randomisation eg: envelopes, computer etc.
- Baseline comparability of treatment and control groups
- Length of follow up
- Inclusion criteria
- Exclusion criteria
- A sample sufficiently large to detect clinically important differences as statistically significant
- Blinding of patients (recipients)
- Blinding of outcome assessors to wearing of masks
- Extent of loss to follow-up and use of intention to treat analysis
- Source of funding

Blinding of participants

It was impossible to blind the participants (surgical team) of the trials to wearing or omitting a surgical face mask. The blinding of patients was not stated in either study. Neither study distinguished between the use of local anaesthetic and general anaesthetic. Blinding of outcome assessors was in place for Chamberlain (1984) with the member of laboratory staff being unaware of the group allocation of the specimens obtained. Whereas with Tunevall (1991) specific notification of the trial was given with each wound swab submitted for culture therefore allowing the potential for detection bias.

Both studies included all members of the surgical team and neither study examined whether particular members of the team were more or less likely to cause a surgical wound infection.

Consent

Neither author specified whether consent was obtained from the staff involved in the study. Tunevall (1991) stated that consent was obtained from patients, but Chamberlain (1984) did not specify that consent from patients had been obtained.

RESULTS OF REVIEW

Both studies compared the use of disposable surgical face masks with using no surgical face masks. A total of 1,453 patients were included. Clinical and methodological homogeneity was assessed. The observed clinical heterogeneity between the trials was reflected in parameters such as study population, time lapse of seven years influencing technique and equipment, diagnosis and length of follow up. Potential sources of clinical heterogeneity could be attributed to type of disposable surgical face mask, of operating theatre design for example airflow rates and country of study. Given this clinical heterogeneity it was inappropriate to pool

the two studies. Statistical heterogeneity depends on both clinical and methodological differences within the trials. Methodologically there were differences between the baseline comparability of the two trials Chamberlain's 1984 study was restricted to gynaecological surgery thus including women only. The study was also discontinued before any comparability could be established. Whereas Tunevall (1991) reported that the groups were similar for age and acute and cold surgery. Also Tunevall (1991) used a considered sample whereas Chamberlain (1984) only had a sample of 41 which compromises the methodological quality. Interpreting the sources of heterogeneity was undertaken mindful that it was post hoc.

The Tunevall (1991) study reported 13/706 infections in the masked group and 10/723 infection in the non masked group, this did not demonstrate any significant difference in infection rates (OR 1.34, 95% CI 0.58 to 3.07). Chamberlain's 1984 small study reported no infection in the masked group and 3/10 infections in the non masked group but the results were non significant (OR 0.07, 95% CI 0.00 to 1.63). The main outcome measure of postoperative surgical wound infection was stated by both studies. Neither study author considered the secondary outcome measures listed in the review of costs of infections, length of hospital stay and mortality rate.

Potential bias in the primary studies and the limitations placed on inferences

Of the two studies that met the inclusion criteria studies of this review it was found that the overall strength of evidence provided was weak. Both studies were randomised but the allocation concealment was unclear, possibly due to the fact that both studies were published prior to the CONSORT guidelines (Begg et al 1996). Methodologically the studies results may have been biased in several ways. Chamberlain (1984) did not specify the criteria used to detect the presence of a wound infection. Mangram et al (1999) report that failure to use objective criteria to define surgical site infection has been shown to substantially affect reported surgical site infection rates. Chamberlain (1984) was limited by its discontinuation after seven weeks as result of several infections, thus creating a potential bias in the findings towards the use of surgical face masks.

Follow-up by Chamberlain (1984) was until after discharge and by Tunevall (1991) until discharge. However, the actual duration of follow-up could have varied considerably depending upon the type of surgery performed with the potential of underestimating the number of surgical wound infections present. It is likely that the inadequate concealment of allocation and lack of blinding in both studies resulted in under- or over-estimation of the effects of wearing a surgical face mask.

The types of disposable surgical face mask used in the study were specified by Tunevall (1991), but not by Chamberlain (1984). It is possible that the specific mask composition changed between the time of the two studies and this has the potential to influence results.

Potential bias in the review and the limitations placed on inferences

The reviewers relied on the good will of experts in the field to provide information on completed or ongoing, published or unpublished studies. When critically appraising the validity of the studies the reviewers had to rely on adequate reporting of the trials. By assuming that if something was not reported it was not done, is not necessarily correct. The reviewers did attempt to obtain additional clarifying data from investigators. However, no response was received. The examination of the effectiveness of disposable surgical face masks must be seen in the context of the number of variables associated with wound infections. The data extraction sheet attempted to collate confounding variables such as environmental issues, but no data were provided in the trial reports. It is difficult to interpret from smaller studies such as Chamberlain 1984 whether surgical face masks are a significant contributing factor to surgical wound infections.

Applicability of results

The results extracted for this review were limited to clean surgery and therefore the results cannot be extrapolated to other categories of surgery. The contribution that disposable surgical face masks make towards preventing infection is likely to be less consequential in contaminated wounds than in clean surgery. Although the review did not exclude trials involving prostheses, no trials of this nature were found, therefore limiting application of the review's results to this type of surgery. Neither study differentiated between the scrubbed and non-scrubbed members of the team in their results. Therefore it is not possible to discriminate between the contribution of the various members of the surgical team to any resulting surgical wound infection. The two studies included were based in the operating department and so application of the results to other invasive procedures in other clinical areas is limited.

The potential of surgical face masks to benefit the patient via reducing surgical wound infections or harm the patient by increasing surgical wound infections was examined in this review. Analysis was not undertaken of the potential to harm or benefit the surgical team by way of protection. Although Chamberlain's 1984 results favoured the use of surgical face masks it was relatively small and was discontinued on spurious grounds. The Tunevall (1991) trial was larger, more rigorously designed and its results favoured not wearing a surgical face mask, although these were not statistically significant.

Discussion

Given the prevalence of the use of surgical face masks, research into this topic remains surprisingly neglected. It was disappointing that only two trials met the inclusion criteria of this review and these were undertaken prior to 1991.

Much of current national and international policy is based upon equivocal evidence from two main sources, neither of which met the inclusion criteria for this review. The first group of experimental studies involved testing the filtration efficiency of surgical face masks in the laboratory. The second group of studies was concerned with measurement of potential contamination of the surgical field using settle plates (Edwards 2001).

Disposable Masks (cont.)

No other reviews in this area were found and the limited number of trials in this review make it unsafe to draw definitive conclusions about the effect of surgical face masks on reducing surgical wound infection in clean surgery.

From the limited results it is unclear whether wearing surgical face masks causes any harm or benefit to the patient undergoing clean surgery. The authors firmly believe that further robust research is needed to determine conclusively the benefit of surgical face masks as a patient protective device (Lipp & Edwards 2002).

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