CANADIAN
OPERATING ROOM
NURSING JOURNAL

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March 2009

ORNAC 21ST NATIONAL CONFERENCE

St. John's, Newfoundland – June 7 to 12, 2009

"The Depth of Perioperative Nursing : What Lies Beneath"

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President's Message

It's hard to imagine that the first quarter of 2009 is already over! As my term as President is nearing its end, I am feeling a bit nostalgic. I remember my very first ORNAC national conference in Halifax in 1999. Immediately after that conference, I got involved with ORNAC. With some encouragement and gentle persuasion, as well as a great deal of support from a mentor, I ran for office in my provincial operating room nurses group. One thing led to another and flash forward 10 years… here I am writing to you as President of ORNAC. The fact that St. John's, NL, will be the host city for our 21st National Conference, in June of this year, makes my experience as President even more special. My ORNAC experience will have come full circle as it began, and will conclude, in Atlantic Canada!

The National Conference Planning Committee has put together an amazing program for the 21st ORNAC National Conference. I encourage each and every one of you to attend. Not only is this an opportunity to obtain hours of learning activities toward continuing competencies, but it's also an opportunity to network with colleagues, share practices, ask questions, and get involved. As the changing needs of patients and our ever-evolving work force creates changes within perioperative practice, we all need to be engaged, proactive, and active advocates for our patients and our profession.

A comprehensive array of plenary sessions, and a variety of social events, are planned for the upcoming conference. The venue is guaranteed to amaze and the representation on the part of our industry partners will be nothing less than impressive. The National Exhibitors Advisory Committee deserves kudos for its ongoing support and guidance in the planning of this conference. It's no secret that perioperative nurses are passionate and committed to learning, to improving our practice, and to ensuring the provision of safe patient care. What better way to demonstrate this than with a trip to St. John's this June!

Looking back since our last national conference I am happy to report that we have met several of the goals outlined in ORNAC's strategic plan. In particular we have improved the development and revision process for our *Recommended Standards, Guidelines and Position Statements for Perioperative Nursing Practice*, increased and improved our communication platform (both this Journal and www.ORNAC.ca), and begun the process of standardizing our National Conference Planning Committee structure.

Balancing our existing volunteer infrastructure continues to be a challenge but we have been able to sustain our ability to fulfill our core purposes. And to top off the list of accomplishments, ORNAC has, at long last, submitted its application for incorporation!

ORNAC has evolved significantly over the years and I am grateful for having had the opportunity to be a part of its history. We are a forward thinking, progressive organization built on the solid traditions and hard work of the many who served on the Board before us. I encourage you to take an active role in the future of ORNAC. It can be a truly rewarding experience. Explore our web site, share practices by submitting to our journal, get involved in your provincial association, or just start by attending the 21st National Conference.

See you in St. John's, June 7th to 12th!!

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 and Casual Tissue Donor Coordinator for the Saskatchewan Transplant Program. She is also the past Chair of the ORNAC Editorial Committee.

President's Message

Il est difficile de croire que le premier trimestre de 2009 est déjà terminé! La fin de mon temps comme présidente arrive à sa fin, et je sens de la nostalgie. Je me souviens de ma toute première conférence nationale à Halifax en 1999. Immédiatement après cette conférence, je me suis impliquée dans l'AIISOC. Grâce à un peu d'encouragement et beaucoup d'appui de la part d'un mentor, j'ai posé ma candidature au groupe provincial de personnel infirmier périopératoire. Les choses se sont poursuivies et voilà que je me trouve, 10 ans plus tard, à vous rédiger un mot comme présidente de l'AIISOC. Le fait que la 21e conférence nationale aura lieu en juin de cette année à St.John's Terre-Neuve rend mon expérience de présidente encore plus spéciale car ainsi la boucle est bouclée : mon temps au sein de l'AIISOC commence et termine dans les provinces de l'Atlantique!

Le comité de planification de la conférence nationale a créé un programme magnifique pour la 21e conférence nationale de l'AIISOC. Je vous encourage tous à y participer. Non seulement vous aurez l'occasion de participer à un grand nombre d'activités de formation professionnelle, mais vous aurez la chance de résauter avec vos collègues, partager vos pratiques, poser des questions, et vous impliquer. Les besoins toujours changeants de nos patients et de notre domaine nécessitant des modifications dans la pratique périopératoire, nous devons tous défendre avec conviction et de manière proactive nos patients et notre profession.

Une grande variété de sessions plénières et d'activités sociales est proposée pendant la conférence. Le lieu est sûr d'étonner, et nos partenaires dans le domaine vont tout faire pour vous impressionner. Je veux aussi prendre un moment pour reconnaître l'appui continu et les conseils judicieux du comité consultatif d'exposants lors de la planification de la conférence. C'est loin d'être un secret que les infirmières et infirmiers périopératoires ne manquent pas de passion pour l'apprentissage, le perfectionnement de la pratique et les soins sécuritaires pour les patients. Comment mieux démontrer cette passion qu'en voyageant à St.John's en juin!

En faisant le bilan du temps passé depuis la dernière conférence nationale, je suis contente de pouvoir dire que nous avons réussi plusieurs des objectifs identifiés dans le plan stratégique de l'AIISOC. En particulier, nous avons amélioré la démarche de développement et de révision des *Normes de pratique recommandées, lignes directrices et énoncés de position pour la pratique en soins infirmiers périopératoires*, élargi et amélioré a plate-forme de communications (le présent journal et le site www.ORNAC.ca) et commencé la normalisation de la structure des comités de planification de la conférence nationale.

Équilibrer l'infrastructure de gestion de bénévolat existante demeure un défi, mais nous avons tout de même réussi à satisfaire aux objectifs de base. Et comme cerise sur le gâteau, l'AIISOC a pu, enfin, soumettre sa demande de constitution en société!

L'AIISOC a beaucoup évolué au cours des années, et je suis très contente d'avoir eu l'occasion de faire partie de son histoire. Nous sommes un organisme progressiste dont la fondation est construite de fortes traditions et du travail assidu des membres du conseil qui nous précèdent. Je vous encourage à assumer un rôle actif dans l'avenir de l'AIISOC car l'expérience en est très gratifiante. Explorez notre site Web, partagez les pratiques via notre journal, impliquez-vous dans votre association provinciale, ou commencez en assistant à la 21e conférence nationale tout simplement.

Au plaisir de vous voir à St. John's le 7 au 12 juin!

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 clinicienne enseignante de salle d'opération au Saskatoon City Hospital et coordonnatrice occasionnelle des dons de tissus pour le Saskatchewan Transplant Program. Elle est également la présidente sortante du comité de rédaction de l'AIISOC.

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LA SALLE D'OPERATION : FUMER DANS UNE ZONE NON-FUMEUR

Auteure : *Sue Taylor, infirmière autorisée, CMLSO, est infirmière-enseignante et responsable de la sécurité du laser médical à l'Hôpital St Joseph's et au London Health Sciences Center. Elle siège actuellement sur le comité des normes relatives aux lasers et à l'évacuation du panache des lasers de l'Association canadienne de normalisation, est présidente désignée de la London and District periOperative Nurses Association et membre de la American Society for Laser Medicine and Surgery.*

Fumer dans les lieux publics a-t-il été interdit dans votre province? En date du 3 mai 2008, la majorité des lieux de travail au Canada ont été désignés des zones non-fumeur. La protection contre la fumée secondaire est complète pour les résidents du Nunavut, Territoires du Nord-Ouest, Terre-Neuve et Labrador, Manitoba, Nouveau-Brunswick, Ontario, Québec et Nouvelle-Écosse. Cependant, en Colombie-Britannique, Saskatchewan et Île-du-Prince-Édouard, les lois protègent certains travailleurs, mais pas tous. Et pour les individus au Yukon, Alberta et compétences fédérales, il n'existe que peu ou pas du tout de protection contre la fumée secondaire au travail. [1]

Tout le monde qui a vu les annonces publicitaires de Physicians for a Smoke-Free Canada à la télé est sûr de se rappeler de Heather Crowe, une serveuse non-fumeur atteinte du cancer du poumon après avoir travaillé plus de 40 ans dans des restaurants et bars pleins de fumée. Heather a fait inlassablement campagne pour les lieux de travail sans fumée. Elle a dit qu'elle voulait être la dernière personne à mourir de fumée secondaire au travail. Elle est décédée le 22 mai 2006 à 20 h. « Les preuves sont claires, » dit le docteur Atul Kapur, président de Physicians for a Smoke-Free Canada. « Tout contact avec la fumée secondaire est dangereux et la ventilation même la plus complète ne peut protéger contre les dangers qu'elle pose pour la santé. »[1]

THE OR: SMOKING IN A DESIGNATED NON-SMOKING AREA

Author: *Sue Taylor R.N., CMLSO, is a Nurse Educator and Certified Medical Laser Safety Officer for St Joseph's Hospital and London Health Sciences Center. She is currently sitting on the Plume Evacuation Standards and Laser Standards Committee for the Canadian Standards Association, is the President Elect for London and District periOperative Nurses Association and a Fellow of the American Society for Laser Medicine and Surgery*

Has smoking in public places been banned in your province? As of May 31, 2008, most workplaces in Canada were smoke-free. There is now full protection from second-hand smoke in Nunavut, the Northwest Territories, Newfoundland and Labrador, Manitoba, New Brunswick, Ontario, Quebec and Nova Scotia. Meanwhile, in British Columbia, Saskatchewan and Prince Edward Island there are laws providing protection from second-hand smoke for some workers, but not for others, while individuals in the Yukon, Alberta and federal jurisdictions have little or no legal protection from second-hand smoke at work.[1]

Anyone who has watched the T.V. commercials for Physicians for a Smoke-Free Canada, will remember Heather Crowe, a non-smoking waitress who contracted lung cancer after forty years of working in smoky bars and restaurants. Heather campaigned tirelessly for smoke-free workplaces. She had stated "I want to be the last person to die from second-hand smoke at work." Heather died at 8:00 p.m. on May 22, 2006. "The evidence is compelling," said Dr. Atul Kapur, President of Physicians for a Smoke-Free Canada. "Any exposure to second-hand tobacco smoke is hazardous and no amount of ventilation can protect people from the dangers of second-hand smoke."[1]

What about OR Nurses?

While there has been a lot of movement toward the protection of the general public from the effects of second-hand smoke, this issue has still not been adequately addressed in the operating room. Are OR staff at an increased risk due to exposure to second-hand surgical smoke?

The effects of surgical smoke include burning watery eyes (conjunctivitis), nausea, fatigue, weakness, respiratory problems, headaches, and pathogenic contamination with the risk of possible regrowth. All of these effects have the potential to negatively impact the health of O.R. staff, including an increase in sick time.

Electrosurgery units (ESUs) heat targeted cells to 100 degrees Celsius which causes the cellular membrane to rupture and creates a plume that contains, in addition to water vapour, particulate matter, gases, mutagens, carcinogens and possible viral DNA. During operative procedures additional "hot" tools, such as laser and ESUs, are being used to vaporize, coagulate and ablate tissue. In an average, one hour long, procedure smoke is produced during about 10 to 15 minutes of cautery usage. However the plume will stay in the room for as long as 20 minutes, even with air exchanges, if smoke evacuation is not used. [2,12]

Approximately 23,000 health care workers in Canada are exposed to surgical smoke each year. Some facilities around the country do not have smoke evacuators or do not use them for various reasons that include:

1. Avoiding the constant noise being added to an already noisy area;
2. Surgical staff believing that they are not necessary or not recognizing the issue as a safety concern;[12]
3. The false belief that masks provide adequate protection from the plume; and
4. The cost of the disposables. (filters, active electrodes evacuation tubing) Should this specify which part is disposable?

Smoke generated by ESUs was not, in the past, recognized as an inhalation hazard. A lack of understanding, education, research, suitable evacuation methods, and poor compliance by physicians and nursing staff contributed to the problem. Laser use, since the 1980s, has resulted in an increased knowledge about inhalation hazards. Early on the dangers of laser plume were recognized and, as a result, smoke evacuation methods were developed and used. Studies have shown that laser and ESU plume have similar content and both are hazardous. A study by Tomita (1989) showed that laser plume posed the same health hazard as smoking three cigarettes. The temperature generated by lasers is higher than that generated by cauteries and, as a result, they cause more cell vaporization.

ESUs cause vaporization at a lower temperature and are used 15 to 20 times more frequently than lasers. ESU plume was shown to cause a health hazard equivalent to smoking six cigarettes.[3] Aerosolized contaminants are produced in both the cut and coagulation modes when ESUs are used. Hazards fall into two categories: biological and chemical. The potentially toxic chemicals in surgical smoke and aerosol include proven toxins, mutagens, carcinogens, and allergens while the potentially harmful biological components include infectious bacteria and viruses (either intact or fragmented).

Who is at risk?

Surgical smoke is hazardous to the entire surgical team that is exposed to it. This includes nurses, anaesthesia providers, patients and surgeons. While surgeons may feel that they have the greatest exposure to the plume because of their proximity to the surgical site, nurses are exposed on a more consistent basis given that they are in the OR five days a week. Ongoing exposure is not good for anyone!

Twenty seven different chemicals have been isolated in surgical plume. While surgical smoke comprises 95% water vapour the remaining 5% can be hazardous to the health of OR staff. This portion poses more than just an inhalation risk. As an example, soft contact lenses are porous and are therefore prone to absorbing hazardous airborne chemicals including those that have been identified in surgical plume.

The actual number of particles present in surgical smoke and aerosol can vary depending on the type of surgery and its duration. Generally the quantity of particles ranges from

1,000,000 to 1,000,000,000. In a British study Walker and Brian (1990) found viable bacteria present in laser plume regardless of the power densities and duration of use. It was also noted that *Staphylococcus Aureus* was more resistant to the lasing effects than was *Escherichia Coli.*[4]

Baggish and coworkers (1991) studied the effects of using carbon dioxide laser plume on the lungs of rats. In rat lungs exposed to laser plume for various periods of time, they found congestive interstitial pneumonia, bronchiolitis and emphysema.[5] The noxious odours from surgical smoke are caused by the chemical by-products that are emitted when a hot tool is used to vaporize, cut, ablate, excise, or coagulate tissue.

Various toxic chemical byproducts have been identified in surgical smoke (see Table 1). It is estimated that over 100 more compounds, found within surgical smoke, have yet to be identified.[14,15] In industry many of these chemical components, if isolated, are required to be evacuated from the workplace environment.

Table 1: Chemical Compounds found in Surgical Plume

Acrolein	Free radicals
Acetonitrile	Furfural (aldehyde)
Acrylonitrile	Hexadecanoic acid
Acetylene	Hydrogen cyanide
Alkyl benzenes	Isobutene
Benzaldehyde	Methane
Benzene	3-Methyl butenal (aldehyde)
Benzonitrile	6-Methyl indole (amine)
Butadiene	4-Methyl phenol
Butene	2-Methyl propanol (aldehyde)
3-Buteneitrile	Methyl pyrazine
Carbon monoxide	Phenol
Creosols	Polycyclic aromatic
1-Decene(Hydrocarbon)	hydrocarbons
2,3-Dihydro indene	Propene
(Hydrocarbon)	2-Propylene nitrile
Ethane	Pyridene
Ethene	Pyrrole (amine)
Ethylene	Styrene
Ethyl benzene	Toluene
Ethynyl benzene	1-Undecene (Hydrocarbons)
Formaldehyde	Xylene

Toluene is an industrial solvent that is irritating to the eyes, nose, and respiratory tract. Chronic poisoning has resulted in anemia, leukopenia, and bone marrow hyperplasia. Chronic inhalation during pregnancy has been associated with teratogenic effects on the fetus.

Acrolein is highly toxic if inhaled or ingested. Its vapours irritate the nose and throat and can severely irritate the eyes, causing reddening of the eyelids, tearing and swelling.

Formaldehyde: This embalming fluid is carcinogenic, very toxic, and corrosive to skin and mucous membranes. Gas and vapours are irritating at very low levels. It is one of the most common causes of occupational skin disease. Excessive or repeated exposure may cause kidney damage.

Benzene is an industrial degreasing agent that increases the risk of leukemia with prolonged low-level exposure. Prolonged skin contact or excessive inhalation may cause irritation of the eyes, nose, and respiratory tract, euphoria, nausea, drowsiness, headaches, dizziness or intoxication.

Hydrogen Cyanide (HCN) is also found in rat poison. Inhalation of lesser concentrations can cause headache, vertigo, nausea and vomiting. HCN levels of 100 ppm have been measured at lasing sites. This level is ten times higher than recommended limits.

Methylmethacrylate: OR personnel are exposed to additional hazards when using the laser to vaporize the methylmethacrylate used in orthopedic implants. The harmful byproducts emitted in these procedures include cyanide gas, carbon particles and fluorocarbons, all of which are dangerous if inhaled.

PARTICULATE SIZE:
Studies[6,7] have shown that, while surgical masks only filter 5 mm particles, 77% of particulate matter is less than 1.1mm in size. This is the most dangerous particle size, as it is the optimal size to be deposited in the lower

Continued on Page 12

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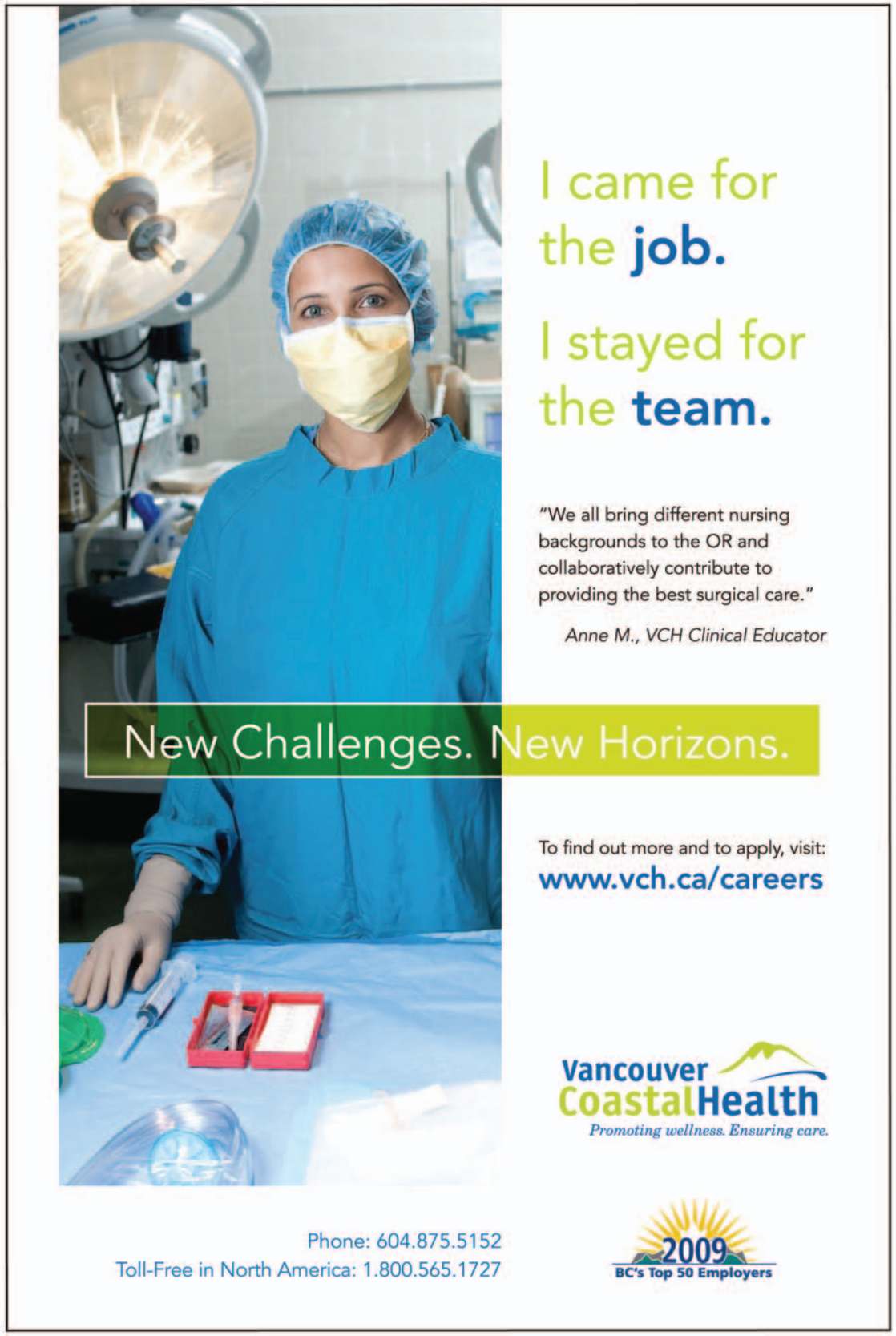
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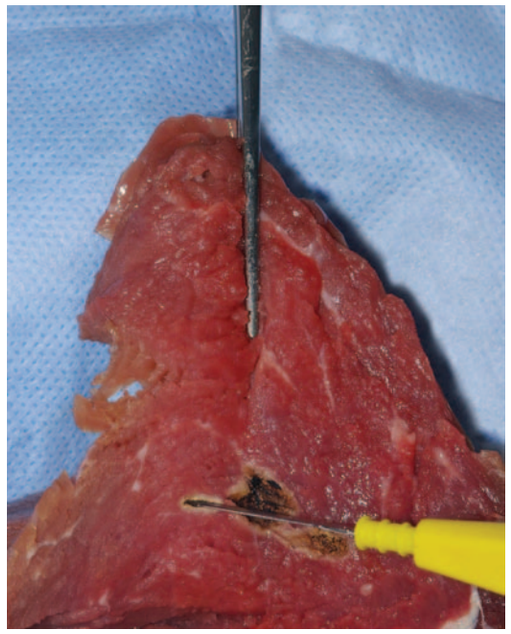
respiratory tract. Upon inhalation the plume can be deposited anywhere along the respiratory tract. Particulates and debris can be caught by the nasal cilia or may attach to the mucous membrane and cause minor irritation. The toxic components of the plume may be absorbed by the mucus membrane anywhere along the respiratory system resulting in rhinitis, bronchitis, nausea, fatigue, hallucinations or headaches. All of these studies noted that this particulate matter should not be inhaled.

Studies have shown that when bacteria have been lasered, viable bacteria could be found after culture and that viral D.N.A. from human papillomavirus (HPV) and Human Immunodeficiency Virus (HIV) were detected in laser and ESU plume. Mycobacteria have also been isolated. Studies have shown conclusively that there was no HPV cultured from a surgeon's nasopharynx, ears and eyelids if smoke evacuators and laser masks were used.[4,8,9]

Patient exposure can be an issue as well, as the harmful constituents of surgical smoke can be absorbed by skin and mucus membranes. During laparoscopic surgery the plume produced within the enclosed space will remain and be absorbed by the tissues unless it is removed. The pneumoperitoneum needed for laparoscopic surgery can increase the rate of absorption. Methemoglobin is an oxidative part of hemoglobin and is unable to carry oxygen. This element inhibits the normal ability of hemoglobin to off load oxygen to the tissues. In procedures involving one of the "hot" tools patients had a post-op level of methemoglobin that was triple the level found prior to the surgery.[10] Carbon monoxide is produced by electrosurgery of the tissue. Carbon dioxide used for insufflation is present in the peritoneal cavity at mean concentrations of 345 ppm. At the end of surgery the patients' mean concentration of methemoglobin was 475 ppm.

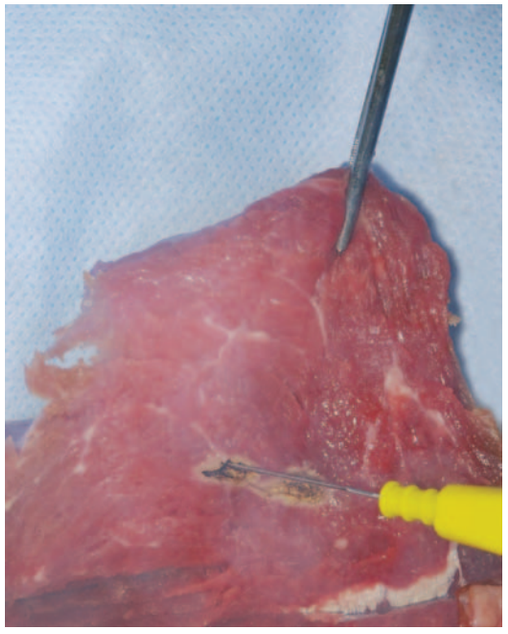
PROTECTION METHODS:

There are various methods used to evacuate and protect O.R. staff from the surgical plume. These include wall suctions, masks and dedicated smoke evacuators. Wall suctions have been used for years to evacuate smoke. Problems arise when the smoke condenses inside the suction pipes inside the walls and narrow



By/Par: J. Porteous

Electrosurgery being used on tissue, no smoke has yet been generated.



By/Par: J. Porteous

Smoke resulting from the electrical cutting current generated by the hand-piece.

the diameter thereby decreasing the suctions capabilities not to mention what might be growing inside the pipes. The typical wall suction only pulls between 3 and 5 cubic feet per minute. However efficient smoke evacuation requires a vacuum source that pulls much more. Airborne particles and organisms evacuated from the surgical site can be deposited into the central vacuum system where they can multiply. This can result in a "sick O.R." and even greater potential hazards.

Surgical masks are designed to protect patients from airborne droplets from operating room personnel. Protection provided by a mask depends on both the filtration efficiency and the leakage between the open spaces and the wearers face. Flat masks have been proven to work more efficiently than cone shaped masks. Masks are reasonably efficient at filtering particles between the sizes of 0.3 to 1mm. To effectively address the surgical smoke issue a mask would have to be designed to filter particles from less than 0.1mm. In addition surgical masks only filter particulates, not chemicals.[9]

Particulate sizes:
Hepatitis B virus, 0.042 µm
Human Immunodeficiency Virus, 0.180 µm
Human Papilloma Virus, 0.045 µm
Mycobacterium tuberculosis, 0.500 µm

Smoke Evacuators

Smoke evacuators, initially developed to evacuate laser plume, are quite effective at removing both odour and particulate matter. They transport surgical plume away from the operative field via a capture device, a vacuum and a filtration system. Variable flow settings are an asset on any smoke evacuator, so that high settings can be used for regular cases and low settings for laparoscopic procedures. The best vacuum tubing is a high grade corrugated tubing that will not collapse or kink during use. An activation device is a great safety tool as it detects electrical current leakage. When such a device is attached to the ESU pencil cord staff does not need to worry about the system.

Filtration Systems

The plume evacuator filtration system is composed of a pre-filter, a high-efficiency filter, and an activated-charcoal filter. There are many different types of filters available for use with a plume evacuation system.

Prefilters

Prefilters, made of sponge or wire grating, are used to capture objects (e.g., cotton), fluid, or gross particulates that can be accidentally sucked into the airstream and subsequently damage the high-efficiency filter or the evacuator pump.

A High Efficiency Particulate Air (HEPA) filter captures 99.97% of particles 0.3 µm in diameter and only three particles out of 10,000 pass through the filter.

An Ultra Low Penetration Air (ULPA) filter is designed to capture very small particles and organisms. It captures 99.999% of particles 0.12 µm in diameter so that only one particle out of 100,000 passes through. Research has shown that pathogens such as HIV, HPV, and HBV particles are found attached to droplet nuclei, and that the total size of the particle is significantly larger than the 0.1-µm particles that an ULPA filter is designed to capture.

The state-of-the-art filtering system is referred to as a Very Large Scale Integrated (VLSI) filter. It is essentially an ULPA filter with the highest efficiency rating. VLSI filters capture 99.9999% of latex spheres 0.12 µm in diameter. Only 1 particle out of 1,000,000 passes through.[13]

High Efficiency Filters

A membrane filter efficiently captures particles larger than its pore size (e.g., a 0.5-µm filter will block a 10-µm particle). Membrane filters are thin, highly efficient, and have well defined filtration characteristics. They generally have higher flow resistance and a lower particle-loading capacity (the number of particles per

Continued on Page 21

ORNAC in a Nutshell — Fall Meeting 2008

Author: *Dorothy Dewar, ORNAC Secretary*

The ORNAC Executive & Board met for its biannual meeting in Toronto November 8th and 9th, 2008.

- ORNAC President Linda Socha welcomed new board members Aline Gagnon from Quebec, Margot Walsh from Newfoundland and Labrador, Carol Jean Chevalier (proxy for Marlene Weeks), Rupinder Khotar from BC, and Catherine Timmons from Nova Scotia. Welcome back to Francine Cloutier from Quebec and Sue Styles from Alberta (proxy for Barbara Mushayandebvu).

- The St. John's ORNAC National Conference from June 7th – 12th gets ever closer. The Conference Committee are still working very hard to put the finishing touches to what promises to be an excellent Conference. Registration for the Conference can be done online. Please check out information on the ORNAC web site, in the CORNJ, and information sent out by the Conference committee to the individual hospitals. See you there!

- ORNAC endorsed the World Health Organisation's (WHO) "Surgical Safety Checklist" last year. Canadian Patient Safety Institute (CPSI) has coordinated various stakeholders across Canada (including ORNAC) to adapt and work through the surgical safety checklist and identify other initiatives related to safe surgery to better understand how they align with one another. This group will be working towards the development of a surgical safety checklist that will be the standard for all of Canada.

- ORNAC's new web site is up and running. The new web site is much more user friendly and has a much cleaner look. There is a new section in the forum where interested parties can post policies, thus share with other peri-operative colleagues. Please check it out at www.ornac.ca.

- ORNAC has a board member sitting on the CNA Environmental reference group. As part of its centennial celebrations for 2008, CNA has launched a project to support work in environmental health in the domains of nursing practice, education, research and policy. To find out more about this project log on to www.cna-aiic.ca

- ORNAC Board members continue to be involved with several groups on a variety of initiatives: Canadian Nurses Association (CNA) and their Environmental Health Workshop; Canadian Patient Safety Institute (CPSI); Canadian Council on Health Services Accreditation (CCHSA) and the design and construction of Canadian Health Care Facilities, and the Canadian Standards Association (CSA).

- ORNAC members who are moving should visit the ORNAC web site at www.ORNAC.ca to change their address, and ensure they continue to receive their copy of the Journal. Members who do not have on-line access can contact a member of their provincial executive in order to update their address.

L'AIISOC en bref – Reunion d'automne 2008

Auteure : *Dorothy Dewar, secrétaire de l'AIISOC*

Les conseils exécutif et administratif de l'AIISOC se sont réunis à Toronto le 8 et 9 novembre pour leurs réunions biannuelles.

- La présidente de l'AIISOC, Linda Socha, a accueilli les nouveaux membres de conseil Aline Gagnon du Québec, Margot Walsh de Terre-Neuve et Labrador, Carol Jean Chevalier (représentante par procuration pour Marlene Weeks), Rupinder Khotar de Colombie-Britannique et Catherine Timmons de la Nouvelle-Écosse. Elle a également remercié Francine Cloutier du Québec et Sue Styles de l'Alberta

L'AIISOC en bref – Reunion d'automne 2008

(représentante par procuration pour Barbara Mushayandebvu) de leur retour.

- La conférence nationale de l'AIISOC qui aura lieu à St. John's le 7 au 12 juin arrive à grands pas. Le comité travaille toujours diligemment pour mettre la dernière touche à ce qui sera sans doute une conférence fantastique. L'inscription peut se faire en ligne. Veuillez consulter le site Web de l'AIISOC, le journal de l'AIISOC, et les communications envoyées directement aux hôpitaux par le comité de la conférence. Au plaisir de vous y voir!

- L'année dernière, l'AIISOC a annoncé son appui de la liste de contrôle pour la sécurité chirurgicale de l'Association Mondiale de la Santé (OMS). L'Institut canadien pour la sécurité des patients (ICSP) a regroupé plusieurs acteurs à travers le Canada, dont l'AIISOC, pour adapter et réviser cette liste de contrôle et identifier d'autres initiatives liées à la sécurité chirurgicale afin de mieux comprendre où elles se chevauchent. Ce groupe vise la création d'une liste de contrôle de sécurité chirurgicale standard pour tout le Canada.

- Le nouveau site Web de l'AIISOC est en ligne. Il est beaucoup plus convivial et sa conception plus simple. Il existe une nouvelle section dans le forum où les personnes intéressées peuvent publier des politiques afin de les partager avec d'autres professionnels périopératoires. Veuillez visiter www.ornac.ca.

- Un des membres du conseil de l'AIISOC est aussi membre du Groupe de référence en santé environnementale de l'Association des infirmières et infirmiers du Canada. Parmi les initiatives marquant son centenaire en 2008, l'AIIC a lancé un projet appuyant la santé environnementale touchant la pratique, formation, recherche et politiques dans le domaine des soins infirmiers. Pour de plus amples renseignements sur ce projet, visitez www.cna-aiic.ca.

- Les membres du conseil de l'AIISOC sont toujours impliqués dans plusieurs groupes appuyant une variété d'initiatives dont l'atelier sur la santé environnementale de l'Association des infirmières et infirmiers du Canada (AIIC), l'Institut canadien pour la sécurité des patients (ICSP), le Conseil canadien d'agrément des services de santé et la conception et construction d'établissements de santé, et l'Association Canadienne de Normalisation.

- Nous invitons tout membre de l'AIISOC ayant récemment déménagé ou qui déménagera dans un proche avenir à visiter le site Web de l'AIISOC pour changer son adresse afin d'assurer la livraison de sa copie du journal. Les membres sans accès à Internet peuvent communiquer leur nouvelle adresse à un membre de leur conseil exécutif provincial.

In 2008 **Medline Canada** published a calendar for Canadian Operating Room Nurses that featured an offer for **ORNAC** members to complete Medline University courses on-line at no charge. Those who completed three or more courses were automatically entered into a draw for two trips to the next **ORNAC** National Conference.

Medline Canada and Medline University would like to thank all participants and congratulate the following winners:

Ellen Ferguson, *of Glace Bay, NS*, and **Karen Storey**, *of North Bay, ON*, have each won free registration, accommodation and travel for the **ORNAC National Conference June 7 to 12, 2009!**

ASK A QUESTION- ORNAC STANDARDS

QUESTION:

Our perioperative nursing staff rely on the ORNAC standards as policy guidelines. All of our hospital's policies and procedures are now in electronic format and we are wondering if it would be possible to also grant our staff access to an electronic form of the ORNAC Standards?

ANSWER:

The ORNAC Standards Committee appreciates your interest in having the *ORNAC Recommended Standards, Guidelines, and Position Statements for Perioperative Registered Nursing Practice* available, electronically, to your staff. The ORNAC Standards are a copyrighted publication and copyright laws become considerably more complicated with electronic formats. At this particular time we are not able to provide electronic access to this document due to potential legal implications.

The members of the ORNAC Standards Committee are aware of the interest in electronic access to the ORNAC Standards and are discussing how to move this format forward. We are, unfortunately, uncertain as to how long the process will take. Once an electronic format is available details will be provided at www.ORNAC.ca.

POSEZ UNE QUESTION – NORMES DE L'AIISOC

QUESTION :

Le personnel infirmier en soins périopératoires dépend des normes de l'AIISOC car il s'en inspire pour créer ses politiques. Toutes les politiques et procédures de notre hôpital sont maintenant disponibles en format électronique, et nous nous demandons si nous pourrions aussi avoir accès à une version électronique des normes de l'AIISOC.

REPONSE :

Le comité des normes de l'AIISOC apprécie beaucoup votre désir d'une version électronique des *Normes de pratique recommandées, lignes directrices et énoncés de position pour la pratique en soins infirmiers périopératoires* accessible à tout membre de votre personnel. Cependant, les normes constituent une publication protégée par les droits d'auteur, et les lois régissant les versions numériques de tels documents sont très complexes. En ce moment, nous ne sommes pas en mesure de fournir accès à une version électronique en raison des implications juridiques possibles.

Les membres du comité des normes de l'AIISOC sont conscients qu'il existe une demande réelle pour l'accès numérique aux normes de l'AIISOC, et se penchent sur la question. Malheureusement, il est difficile de prédire le temps que cela prendra. Aussitôt un format électronique disponible, les détails en seront publiés sur www.ORNAC.ca.

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MONDAY, JUNE 8

0800 – 1000 Opening Ceremonies

1000 – 1030 Break

1030 – 1145 Key Note Address - Rex Murphy, CBC Journalist

1145 – 1300 Lunch

1300 – 1400 Evidence Based Practice:
Adding to the depth of Perioperative Nursing - Dr. Hugh McKenna

1400 – 1600 A Mock Discovery -
Dan Boone, Lynn Anderson & Tina Parrill

TUESDAY, JUNE 9

0830 – 0930
A) Perioperative Nursing Research - Karen Frenette CORL
B) Working toward Zero SSI - Maureen Spencer
C) Oral Abstract Presentations x 3

0930 – 1000 Break

1000 – 1100
A) Smoke Exposure: Can Clean Air Be a Reality? - Kay Ball
B) RNFA Session - Grace Groetzsch
C) Competency Development &Advanced Practice - Dr. Lois Hamlin

1100 – 1500 Exhibits/ Posters/ Lunch

1500 – 1600
A) High Performance in Perioperative Leadership & Opportunities for High Performing Perioperative Leaders - Muriel Shewchuck/ Charlie Byers (CORL)
B) Evaluation of Skin Preparation - Marion Yetman, Glenda Tapp, & Donna Moralejo
C) Oral Abstract Presentations x 3

WEDNESDAY, JUNE 10

0830 – 0930
A) Operation Smile - Dr. David Jewer
B) CORL - Carol Kirkwood
C) Oral Abstract Presentations x 3

0930 – 1000 Break

SOCIAL EVENTS

SUNDAY	- Welcoming Reception – "Half Hour Later In Newfoundland"
MONDAY	- J&J Medical Products Print Reception - An Evening at "The Rooms"
TUESDAY	"A Scoff, A Scuff and A Swalley"
WEDNESDAY	A free evening to explore the City of St. John's
THURSDAY	"Rally in Alley"

Please note the above schedule is subject to change

BREAKFASTS TO BE SPONSERED BY MEDLINE & COVIDIEN *(Details To Be Confirmed)*

Please check the website for information on Hotel Accommodations

www.ORNAC.ca FOR REGISTRATION PRICES AND TIMES

1000 – 1100
A) Pathology Research - Dr. Betty Dicks (RN)
B) Sterilization Standards - Colleen Landers
C) Oral Abstract Presentations x 3

1100 – 1500 Exhibits / Posters / Lunch

1500 – 1600
A) The Perioperative Adventure! Coping in Challenging Seas - Lynn Walters CORL
B) Military Nursing - Nathalie Auger & Peter Hennecke
C) Pediatric Pt with Osteogenic Sarcoma - Debbie Jaraway

THURSDAY, JUNE 11

0830 – 0930
A) Innovation and Leadership in Perioperative Nursing - P. Elliott & J. Koekebakker (CORL)
B) Code of Ethics - Panel discussion with Margot McNamee / Rick Singleton / Margaret Farley
C) Organ Retrieval - DCD

0930-1000 Break

1000 – 1100
A) Robotics in the OR - Dr. Anavari
B) Oral Abstract Presentations x 3
C) Safer HealthCare Now - Theresa Fillatre & Dannie Carrie

1100 – 1500 Exhibits / Posters / Lunch

1500 – 1600
A) Perioperative Benchmarking - Contributions to Best Practice Tina Foster & Randy Heiser CORL
B) Oral Abstract Presentations x 3
C) A Greener O. R. - Lyndsay Downes & Lucia Pfeuti

FRIDAY, JUNE 12

0830 – 1000 Navigating Icebergs: Leadership Skills for All Professional Nurses - Sister Carol Taylor (CORL)

1000 – 1030 Break

1030 – 1200 Closing Speaker - T.A. Loeffler Adventurer & Motivational Speaker

1200 – 1245 Closing Ceremonies

THE DEPTH OF PERIOPERATIVE NURSING: WHAT LIES BENEATH

Keynote Speakers:
Rex Murphy
T.A. Loeffler

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Smoke (cont.)

unit of area that can be captured before the filter's performance is affected) than depth-media filters. Because of their much lower flow resistance, higher particle capture capacity, and longer life, most smoke evacuators use depth-media filters. A depth media filter consists of randomly oriented glass or polypropylene fibers. The open spaces between the densely packed fibers are much larger than the particles to be captured, so filtering action results when the particles come in contact with, and adhere to, the fibers through the forces of inertial impaction, electrostatic attraction, and diffusion.

Activated Charcoal Filters

Activated charcoal filters absorb odours and gaseous hydrocarbons from the waste exhaust. Odour-control efficiency is related to the filter's CTC (carbon tetrachloride) rating. The CTC rating is the percent by weight of CTC vapour the charcoal can absorb. For example, 1 pound of CTC-60 charcoal can absorb up to 60% of its weight or 0.6 pounds of CTC vapor.

Activated charcoal is a carbon-based compound that is baked at high temperatures without the presence of oxygen. This process "activates" the charcoal by removing the organic compounds and leaving only the carbon matrix behind. Through this process, the carbon granules become full of active sites where organic molecules may be captured without changing the carbon structure. There are different types of carbon used for these filters. Wood, coconut and coal grade carbons are used, with coconut being the most commonly used in smoke evacuation filters. This type of activated charcoal readily absorbs water vapour as well as organic molecules. Research has confirmed the effectiveness of charcoal filters on tests with rats exposed to laser plume. When a charcoal filter was used the rats were shown to suffer much less lung damage. When, however, an ULPA filter was added there was no lung damage whatsoever.[11] Some filters are impregnated with an antimicrobial agent to inhibit the growth and reproduction of microorganisms. These agents work through poisoning, oxygen deprivation, interruption of DNA replication and cell division, cell wall disruption, or by interfering with oxidative phosphorylation.

Additional Aspects of the System:

Air fresheners are used to scent the air exhausted from the system. They take an unwanted odour and replace it with another odour or use a heavier odour to mask the presence of the first odour. If the OR team is able to detect the odour, either during or after surgery, it usually means the smoke evacuator is not working optimally.

The ability of the suction to effectively remove the plume is a direct result of the volume of air being removed from the surgical site. The best vacuum motor creates a vortex that overcomes the particles momentum by changing their direction, so they are drawn through the system.

A control panel typically includes an on/off switch, flow control mechanism, and a delay control mechanism. Some have specific high/low flow switches for laparoscopic or regular usage. Some evacuators have a remote device that activates the machine in conjunction with the laser or ESU.

Centralized vacuum systems, rather than ordinary wall systems, can be incorporated into an articulating arm which is attached to the service column. Disposal tubing is attached to the arm and pulled over the surgical site where the plume is sucked into a centrally maintained filter system. This system can be readily incorporated in to a new surgical facility. There are some of the same concerns with the centralized system as there would be with the use of an ordinary wall system.

ADVOCACY:

There are many groups that have issued statements about the risks of surgical plume: The Operating Room Nurses Association of Canada (ORNAC), Canadian Standards Association (C.S.A.), Occupational Safety and Health Administration (OSHA), The National Institute for Occupational Safety and Health (NIOSH), and The Association of Perioperative Nurses (AORN). A web search will list over one million articles on this subject.

Smoke (cont.)

OR nurses spend a great deal of time acting as an advocate for the unconscious patient. Often the patient's needs are put well ahead of the nurse's. It is time to start advocating, for the sake of all the OR staff, on this health issue. We can educate ourselves about the known risks, talk to management about a cleaner work environment, talk to your facility Occupational Health Unit, our peers, professional associations, unions and surgeons. It is also important to talk to the staff in other areas where cautery is used, such as the outpatient and endoscopy clinics. As this issue is discussed in broader forums its hazards and problems are more likely to be addressed.

ORNAC Standards pertaining to this article can be found in the Operating Room Nurses Association of Canada (2007) (ORNAC). *Recommended Standards, Guidelines, and Position Statements for Perioperative Registered Nursing Practice (* 8th edition). In Module 3, p. 69, Standard 6.2.9 Plume (Laser smoke), and Module 3, p. 76-77, Standard 6.5 Smoke Evacuators

Les normes professionnelles de l'AIISOC relatives à cet article sont citées dans le document suivant édité par l'Association des infirmières et infirmiers de salle d'opération du Canada (2007) : *Normes de pratique recommandées, lignes directrices et énoncés de position pour la pratique en soins infirmiers périopératoires* (8e édition) Module 3, page 69. Norme 6.2.9 (Vapeur de laser), et Module 3, pages 76 à 77, Norme 6.5 (Évacuateur de fumée).

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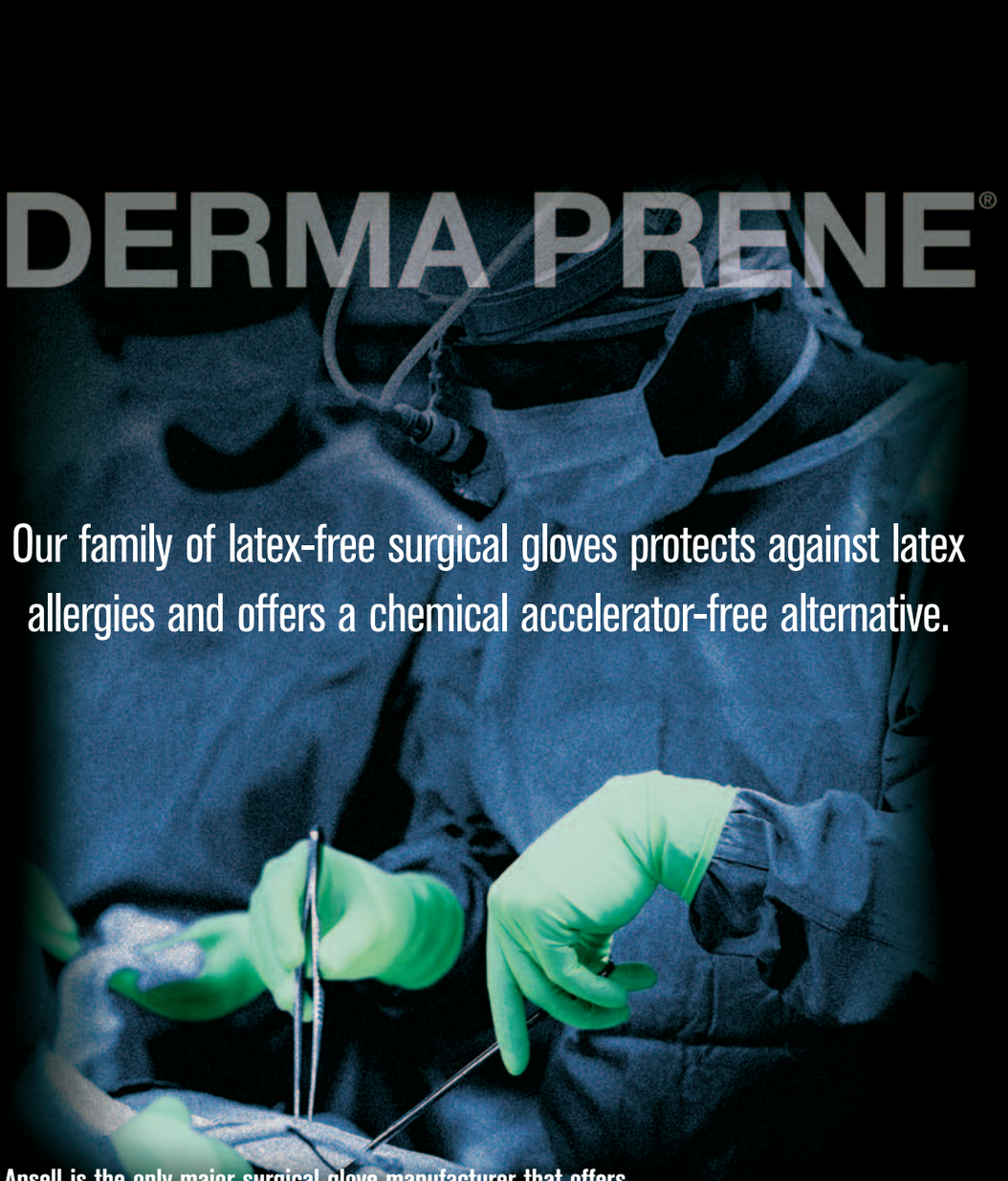

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The **Medline Canada Mentorship Award** was established in collaboration with ORNAC in recognition of the significant role mentorship plays in the perioperative environment. **The inaugural award will be presented at this year's National Conference** to the top 6 perioperative registered nurses who are recognized by their peers as outstanding mentors and role models. The award amount of $6000 will be divided equally between the six recipients.

For more information visit www.ORNAC.ca
Nomination deadline is April 15, 2009.

MEDLINE CANADA

L'AIISOC et Medline Canada présentent :

Le **Prix de mentorat de Medline Canada** a été établi en collaboration avec l'AIISOC afin de reconnaître le rôle important que joue le mentorat dans le milieu périopératoire. **Lors de la conférence nationale cette année, le prix inaugural sera décerné** à six infirmier(ère)s autorisé(e)s périopératoires choisi(e)s par leurs pairs comme mentors et modèles de rôle extraordinaires. Le prix de 6000 $ sera partagé entre les six récipiendaires.

MEDLINE CANADA

Pour de plus amples renseignements, veuillez visiter www.ORNAC.ca.
La date limite des candidatures est le 15 avril 2009.

UPCOMING EVENTS / EVENEMENTS SUIVANTS

For details visit www.ornac.ca

PROVINCIAL & REGIONAL CONFERENCES

Alberta	Red Deer	October 21-24, 2009
British Columbia	Penticton	April 28 - May 1, 2010
Newfoundland & Labrador	St. John's	June 10, 2009
PEI	Charlottetown	September 2009
Nova Scotia	Halifax	May 23, 2009
New Brunswick	Woodstock	April 17 & 18 2009

ORNAC CONFERENCES *www.ornac.ca*

21st National	St. John's, NL	June 7-12, 2009
22nd National	Regina, SK	May 8-13, 2011
23rd National	Edmonton, AB	May 5-10, 2013

INTERNATIONAL CONFERENCES

ACORN (www.acorn.org.au)	Adelaide, AUS	September 22-25, 2009
EORNA (www.afpp.org.uk)	Copenhagen, Denmark	April 17-19, 2009
AFPP (www.afpp.org.uk)	Harrogate, UK	October 12-15, 2009

RELATED PROFESSIONS

CAS (www.CAS.ca)	Vancouver, BC	June 26-30, 2009

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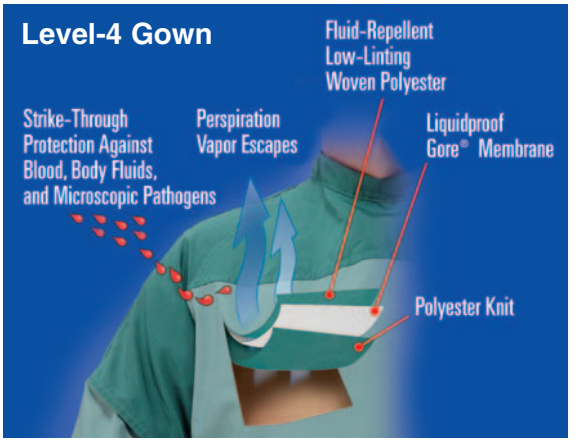

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