INSIDE:
National 2005 Conference
• Conference Highlights
• Trade Show Exhibitors
• Conference Abstracts

The relationship between hospital infection and control activities and antibiotic-resistant pathogen rates
IN CASE OF EMERGENCY

SECURITY, CONFIDENCE, ASSURANCE.
OUTBREAK MANAGEMENT BREAKS THE CHAIN OF INFECTION.
Accelerated Hydrogen Peroxide “AHP” is the disinfectant technology of choice whenever preventative measures are required and wherever outbreaks occur. Visit the OUTBREAK section at www.virox.com for information on products, protocols, references, support documents and endorsements, or call 1-800-387-7578.

Congratulations to the 2005 Virox Patron Scholarship Winners.
Come Visit our Booth at the 2005 CHICA Conference in Winnipeg.

VIROX

Engineering Revolutionary Disinfectants for the War Against Microbes.
Can You Identify the Risks?
Nine Areas Where 3M Can Help

When it comes to finding Infection Prevention Solutions, we can all make a difference.

For information on 3M Infection Prevention products and services, contact your 3M Health Care representative or visit www.3M.com/CA/IP

© 3M 2005 3M is a trademark of 3M. Used under license in Canada. 0502-MS-21808
Nurses, doctors, and of course patients. Everybody’s safe, thanks to a precise needle-free way to give IV medication. With fewer needle-stick injuries, everyone can concentrate on helping others, not protecting themselves. Call the CLAVE Customer Care Line at 1 877 506-3111 or visit www.abbott.ca for more information.
2005 Board of Directors

Executive Officers

PRESIDENT
Richard Wray, RN, BA, CIC
Infection Control Practitioner
Hospital for Sick Children
555 University Avenue Room 7324
Toronto, ON M5G 1X8
(416) 813-4902
Fax: (416) 813-4902
E-mail: rick.wray@sickkids.on.ca

PRESIDENT-ELECT
Karen Hope, BSc, MSc
Infection Control Practitioner
Foothills Medical Centre
1403 29 Street NW
Calgary, AB T2N 2T9
(403) 944-2897
Fax: (403) 944-2484
E-mail: karen.hope@calgaryhealthregion.ca

PAST PRESIDENT
Adrienne Brown, BScN, CIC
Manager Infection Control Services
Joseph Brant Memorial Hospital
1230 North Shore Blvd
Burlington, ON L7R 4C4
(905) 632-3737 ext. 5538
Fax: (905) 681-4890
E-mail: chicacanada@mts.net

SECRETARY/MEMBERSHIP DIRECTOR
Pearl Orenstein, RN, BA, DIA, CIC
Infection Control Coordinator
SMIBD Jewish General Hospital
3755 Coté St. Catherine
Montreal, QC H3T 1E2
(514) 340-8222 ext. 5778
Fax: (514) 340-7578
E-mail: porente@lab.jgh.mcgill.ca

DIRECTOR OF FINANCE
Cynthia Plante-Jenkins, MLT, BSc(MLS), CIC
Infection Control Practitioner
Trillium Health Centre
100 Queen Street West
Mississauga, ON L5B 1B6
(905) 848-7580 ext. 2927
Fax: (905) 804-7985
E-mail: cplante-jenkins@thc.on.ca

DIRECTOR, PROGRAMS & PROJECTS
Bruce Gamage, BSN, RN, BScN (Micro), CIC
Infection Control Consultant
BC Centre for Disease Control
655 West 12th Avenue
Vancouver, BC V5Z 4R4
(604) 660-6076 Fax: (604) 660-6073
E-mail: bruce.gamage@bccdc.ca

DIRECTOR, STANDARDS & GUIDELINES
Anne Mallot, MD
Director, Infection Control
Hospital for Sick Children
555 University Avenue
Toronto, ON M5G 1X8
(416) 813-5996 Fax: (416) 813-4992
E-mail: anne.matlow@sickkids.on.ca

PHYSICIAN DIRECTOR
Dick Zoutman, MD, FRCP
Director, Infection Control, Kingston General Hospital
76 Stuart Street, Kingston, ON K7L 2V7
(613) 549-6666 ext. 4015 Fax: (613) 548-2513
E-mail: zoutmand@kgh.kari.net

Other Positions

EDITOR-IN-CHIEF
Canadian Journal of Infection Control
Patricia Piakowski, RN, HBScN, CIC
Thunder Bay Regional Health Sciences Centre
980 Oliver Road, Thunder Bay, ON P7V 6N4
(807) 684-6040 Fax: (807) 684-5878
E-mail: piaskowp@tbh.net

Professional Agents

LEGAL COUNSEL
Sidney Troister/J. Fay Sulley
Torkin, Manes and Cohen
151 Young Street, Suite 1500
Toronto, ON M5C 2W7
(416) 777-5419 Fax: (416) 897-5990
E-mail: chicacanada@mts.net

AUDITOR
Phillip Romaniuk, CA
Stefanson & Lee
200-B Polo Park, 1485 Portage Avenue
Winnipeg, MB R3G 0W4
(204) 775-8975 promaniuk@slrca.ca

Membership Services Office

P.O. Box 46125 RPO Westdale
Winnipeg, MB R3R 3R3
Phone: (204) 897-5990
Toll Free: (866) 999-7111
Fax: (204) 895-9595
E-mail: chicacanada@mts.net

Deliveries Only:
67 Bergman Crescent
Winnipeg, MB R3R 1Y9

ADMINISTRATOR/CONFERENCE PLANNER
Gerry Hansen, BA
Membership Services Office
Phone: (204) 897-5990
Toll Free: 886-999-7111
Fax: (204) 895-9595
E-mail: chicacanada@mts.net
Would you believe they could be putting the baby at risk?

Whooping cough is contagious and can be serious.
And one of the most uncontrolled vaccine-preventable diseases in Canada.¹

Adults and adolescents are a major reservoir of pertussis and a primary source of transmission to infants.²,³

Infants < 1 year have the greatest incidence of pertussis and have the most severe cases with the greatest frequency of complications.⁴,⁵

Adacel offers effective pertussis protection for the rest of the family.

Adacel (dTap), containing a five-component acellular pertussis antigen, is indicated for the prevention of diphtheria, tetanus and pertussis in adolescents and adults aged 11 - 54 years.⁶

Adacel is not indicated to prevent the transmission of pertussis to infants.

NACI recommends pertussis immunization in adults and adolescents⁷

A single dose of dTap should be administered to adolescents and adults in place of the current Td booster to help protect against pertussis.⁷

Recommend Adacel for your patients.

¹Canada’s National Advisory Committee on Immunization

Adacel® (Tetanus and Diphtheria Toxoids Adsorbed Combined with Component Pertussis Vaccine) is indicated for the prevention of tetanus, diphtheria and whooping cough in adolescents and adults aged 11 to 54 years.

Adacel is not indicated to prevent the transmission of pertussis to infants.

As with any vaccination, this vaccine should not be given to anyone who is allergic to any of the components in Adacel or who has previously experienced an allergic reaction to this vaccine. Some individuals may develop a fever, redness and tenderness at the injection site.

Adverse event rates observed with Adacel were comparable to those seen with the group that received a Td booster. The most commonly observed adverse events associated with the use of Adacel were primarily localized to the site of injection. Pain was the most common local reaction (88.6% vs. Td booster 88.7%), followed by erythema (11.8% vs. 6.6%) and swelling (16.7% vs. 16.6%). These local adverse events were generally mild and transient in duration. Systemic adverse events that were reported after vaccination with Adacel (vs. Td booster) included: fever (3.4% vs. 6.0%), vomiting (2.4% vs. 0.7%), and headache (38.8% vs. 35.8%).

For full prescribing information, please see Adacel product monograph.


Adacel® is for adolescents and adults.

The vaccines business of sanofi-aventis Group.
Conference location significant

The annual CHICA–Canada conference is once again here. It will be held in Winnipeg, Manitoba from May 7-11, 2005. The Scientific Program Committee for the Winnipeg conference led by Ilana Warner as Conference Chair and John Embil as Scientific Chair is to be congratulated for planning an extremely timely and exciting program. They have chosen topics ranging from a pre-conference day for the Novice ICP to current and important infection prevention and control topics such as construction, *C. difficile*, West Nile Virus and infections in immune-compromised host. It promises to be a very informative four and half days of education, networking and opportunities to socialize and revitalize.

The location for this year’s conference takes on an additional significance as Winnipeg is now the home of the new Public Health Agency of Canada. Dr. David Butler-Jones heads this agency. A press release issued by the Government of Canada on September 24, 2004 stated that the creation of the Public Health Agency “is another step in ensuring we have the best possible system for ensuring the health and safety of Canadians.”

Infection prevention and control professionals are at the forefront of the global effort to prevent and control emerging infections such as Avian flu and SARS. We look forward to continue working with the Public Health Agency of Canada to improve the health of Canadians.
Who says nurses can't have beautiful hands?

**BEAUTIFUL HANDS IN 7 DAYS**
Nurses who have worn Aloetouch exam gloves have seen beautiful hands in as quickly as one week.

**ALOE – NATURE’S OWN SKIN CONDITIONER**
The aloe vera gel that coats these gloves naturally moisturizes and hydrates your skin, helping to keep it soft and healthy.

**CLINICALLY PROVEN**
Aloetouch gloves are clinically proven to bring soothing relief to dry, irritated skin and minimize contact dermatitis.

**PATENTED PROTECTION**
Patented Aloetouch exam gloves surpass FDA guidelines for quality — so you're assured of consistent protection.

Aloetouch
Ask for the Green Gloves!
Only from Medline

Aloetouch is a registered trademark of Medline Industries, Inc.
US Patent No. 6,274,154

MEDLINE CANADA
www.medline.com
Toll Free 1-800-396-6996
Under the microscope

Rick Wrey, RN, BA, CIC

Over the past months Infection Prevention and Control has been under the microscope. There has been intense public interest fueled by the not so distant SARS outbreak, the anticipation of an influenza pandemic and, more recently, the focus on *C. difficile* and antimicrobial resistant organisms.

CHICA-Canada and its members have been increasingly positioned to provide clarity to the issues under scrutiny and have been invited to contribute to the development of prevention and control strategies. While this isn’t always the case, there has been a noticeable trend toward recognizing the body of knowledge and expertise that CHICA-Canada can contribute by various levels of government, professional associations, the media, and educational institutions. I’d like to acknowledge the hard work and contributions of the Government and Public Affairs committee, under the leadership of Dr. Dick Zoutman, CHICA-Canada Physician Director, which has surely had an influence on this positive trend.

The CHICA-Canada board remains committed to several strategic projects that will support both new and experienced ICPs to develop the skills and knowledge needed to meet the challenges we all face. We continue to focus on the entry to practice online Infection Control educational program, on the verge of being launched. In addition to this program, there are several exciting programs under development in Ontario that will be endorsed by CHICA-Canada and will become available to ICPs across the country.

Educational opportunities have been planned to help chapter presidents develop skills for the new experiences that they are likely to encounter. Last year, the focus was on developing key messages for the media and this year, a program has been planned to develop government lobbying skills.

I am anticipating an extraordinary conference this year. *Charting New Horizons*, in Winnipeg, May 7-11 will live up to its name. The program has been developed to provide learning opportunities for ICPs at all levels of experience. Thank you to Ilana Warner, Conference Chair, Dr. John Embil, Scientific Program Chair, the members of the Scientific Program Committee, and Gerry Hansen, Conference Planner. In addition, thanks are due to the speakers and to the exhibitors and sponsors who support the conference. I hope to see many CHICA-Canada members at the conference and look forward to attending as many of the presentations as possible.

The work of the CHICA-Canada interest groups contributes tremendously toward meeting the specialized needs of our members. There has been interest in creating two or more new interest groups in addition to Long Term Care, Dialysis, Oncology, and Paediatrics. Each of the groups is doing impressive work and both the Chairs and members of the interest groups deserve our sincere thanks.

Continued on page 10
MESSAGE DE LE PRÉSIDENT

Sous le microscope

Rick Wrey, RN, BA, CIC

Par moments ces derniers mois, il semblait que la prévention des infections était elle-même sous le microscope. Les médias ont suscité beaucoup d’intérêt avec la crise du SRAS, la menace d’une épidémie d’influenza et plus récemment, la flambee du C-difficile et d’autres organismes résistants aux antimicrobiens.

CHICA-Canada et ses membres ont été bien placés pour clarifier certaines questions et ont été invités à participer à la mise au point de stratégies de prévention et de contrôle. Quoique cela ne soit pas toujours le cas, nous avons remarqué une nette tendance à reconnaître les connaissances et l’expertise que CHICA-Canada peut apporter aux divers niveaux de gouvernement, aux associations professionnelles, aux médias et aux établissements d’enseignement. J’aimerais souligner l’excellent travail du comité des relations avec le gouvernement et des affaires publiques, sous la direction du Dr Dick Zoutman, médecin directeur à CHICA-Canada, qui a sûrement influencé cette tendance.

Le conseil d’administration de CHICA-Canada concentre toujours ses efforts sur plusieurs projets stratégiques qui permettront aux nouveaux ICP et à ceux d’expérience d’acquérir les habiletés et les connaissances dont ils ont besoin pour relever les défis qui s’annoncent. Nous poursuivons le travail sur le programme d’accès à la pratique en ligne qui devrait être lancé sous peu. D’autres programmes fort intéressants sont aussi en cours d’élaboration en Ontario; ils seront endossés par CHICA-Canada et offerts aux ICP à travers le Canada.

Des formations sont prévues afin d’aider les présidents de sections à acquérir les aptitudes dont ils ont besoin. L’année dernière, nous avons mis l’accent sur les messages à transmettre aux médias et cette année, un programme est prévu sur la représentation auprès des gouvernements.


Le travail des groupes d’intérêt spécialisé de CHICA-Canada contribue énormément à répondre aux besoins particuliers de nos membres. Deux groupes d’intérêt ou plus devraient s’ajouter aux Soins de longue durée, à la Dialyse, à l’Oncologie et à la Pédiatrie. Chacun de ces groupes fait de l’excellent travail et je tiens à...
Karen Hope, President Elect will act as their liaison to the Board and to provide support to help them to meet their goals.

Having attended my first CBIC (Certification Board of Infection Control and Epidemiology Inc.), Board meeting as the CHICA-Canada Liaison, I have a renewed commitment to the certification process. Their standards are extraordinarily high. We need to continue to encourage and support our members to become certified as a demonstrable symbol of knowledge mastery in infection control and applied epidemiology.

I have to admit that I feel somewhat under the microscope myself. I am preceded by highly respected individuals who have led the association to its current position of increasingly recognized authority. I have been reminded several times that I am the first male president and so I have that added challenge! I’d like to specifically thank Adrienne Brown, Past President and Gerry Hansen, Administrator, and Kelli Wagner of the Membership Services Office for their guidance and support. I know that it will be noted that they are all women!

remercier tant les présidents que les membres de ces groupes d’intérêt. La présidente désignée, Karen Hope, agira à titre de liaison entre le conseil et ces groupes afin de leur fournir l’appui dont ils ont besoin pour atteindre leurs objectifs.

Je ressors de ma première réunion du conseil de CBIC (Certification Board of Infection Control and Epidemiology Inc.) en qualité de liaison CHICA-Canada avec un engagement renouvelé envers le processus d’agrément. Leurs normes sont très élevées. Nous devons continuer à encourager et appuyer nos membres à obtenir l’agrément comme signe de maîtrise des connaissances en prévention des infections et en épidémiologie appliquée.

Pour conclure ce premier message en tant que président, je dois admettre que je me sens moi-même sous le microscope. Des personnes très respectées qui ont mené l’association à une position d’autorité de plus en plus reconnue m’ont précédé. On m’a souligné à plusieurs reprises que je suis le premier président masculin, ce qui ajoute au défi! Je tiens donc à remercier Adrienne Brown, ancienne présidente, Gerry Hansen, administratrice et Kelli Wagner des Services aux membres pour leurs conseils et leur appui. Oui, je sais, ce sont toutes des femmes!
Solumed présente Évolution, la dernière révolution pour l'asepsie préopératoire des mains et des avant-bras. La gamme de produits Évolution vous permet d'obtenir, à meilleur prix, un effet antibactérien supérieur aux méthodes de brossages actuelles tout en améliorant la santé de votre épiderme.

Solumed presents Évolution, the latest revolution in preoperative hand and forearm asepsis. The Évolution series of products offers economical antibacterial action superior to current preoperative brushing methods while improving skin condition.
CHICA-Canada’s 2005 National Education Conference will focus on infection prevention and control issues facing practitioners in all health care settings. By calling on the expertise of local and national professionals, organizers have created a dynamic forum for learning and discussion. This conference will provide a unique opportunity for the dissemination of information and networking with peers in practice and industry to enhance the practice of both the novice and experienced infection control professional.

This educational event is approved as an Accredited Group Learning Activity as defined by the Maintenance of Certification program of the Royal College of Physicians and Surgeons of Canada (approval pending).

WINNIPEG – THE HEART OF THE NATION
Join us in Winnipeg, the capital of glorious “Friendly Manitoba” – the heart of Canada and the centre of North America! It has been ten years since we have had the pleasure of meeting in this great city, and much has changed. You may not even recognize “downtown” anymore, for the city has been undergoing a 21st century rebirth, with dozens of new businesses capitalizing on the energy, enthusiasm and visionary leadership the city has enjoyed in recent years. You’ll be awestruck at the sight of our new sports/entertainment complex, MTS Centre. You’ll be impressed by the commercial and culinary choices available to you at Winnipeg’s meeting place “The Forks”, and Portage Place, the indoor shopping mall, all within a short walk of the Delta Winnipeg.

Winnipeg is the home of the National Microbiology Laboratory, Canada’s only Level Four lab. For this reason, conference organizers have been fortunate to be able to call upon many local colleagues of significant expertise.

Come, enjoy and have some fun! Get a taste of Winnipeg’s world-renowned Folklorama festival, as CHICA-Canada hosts a Mini Folklorama for you to savour and enjoy. Winnipeg’s multicultural communities will be highlighted throughout the conference week. Come and enjoy!

DELTA WINNIPEG AND WINNIPEG CONVENTION CENTRE
We’re going home to the Delta Winnipeg, and we’ve both grown! Since CHICA-Canada’s 1995 conference, the Delta Winnipeg has undergone an $8.5 million renovation. The renovated Delta Winnipeg is located in the heart of downtown and is conveniently connected to the Winnipeg Convention Centre. CHICA-Canada’s own growth as a primary infection prevention and control conference requires an expansion of education and exhibit space. The Winnipeg Convention Centre will be the setting for both education and exhibits, with a contemporary atmosphere, state of the art technology, and all with a Friendly Manitoba attitude.

The central location of both the Delta Winnipeg and the Winnipeg Convention Centre provide easy access to shopping, sports activities, and sightseeing: the new MTS Centre, Portage Place, Forks Market, Winnipeg Art Gallery, Royal Winnipeg Ballet, Centennial Concert Hall, Assiniboine Park, CanWest Global Park, and much, much more.

SPECIAL EVENTS

Saturday, May 7, 2005
Manitoba Chapter Hosts a Traditional Social
Delta Winnipeg: 4:00 pm – 6:00 pm
Cash Bar – Social Snacks

Sunday, May 8, 2005
CHICA-Canada Opening Ceremonies and Awards
Delta Winnipeg: 5:00 pm – 6:30 pm
President’s Reception
Delta Winnipeg: 6:30 pm – 8:30 pm
Cash Bar – Hors d’oeuvre

Tuesday, May 10, 2005
Strut Your Stuff! Breakfast
With Dr. Dick Zoutman
Winnipeg Convention Centre: Breakfast 7:00 am- 8:15 am
Mini Folklorama!
Delta Winnipeg: 7:00 pm – 10:00 pm
$60 per person, not included in registration

Silent Auction
Hosted by Manitoba Chapter
Bidding: 6:30 pm – 8:30 pm

Wednesday, May 11, 2005
CHICA-Canada Annual General Meeting and Town Hall
Delta Winnipeg: Breakfast 7:00 am – 8:45 am
Monday, May 9 – Winnipeg Convention Centre

8:00-8:30 am  Welcome from Conference Chairs
Greetings from Dr. Joel Kettner, Chief Medical Officer of Health, Province of Manitoba
Greetings from Mayor Sam Katz, City of Winnipeg
Greetings from Dr. Brian Postl, Winnipeg Regional Health Authority

8:30-9:00 am  KEYNOTE SPEAKER
– Infection Control: A Global Perspective
Frank Plummer MD FRCPC, Scientific Director General, National Microbiology Laboratory

9:00-9:30 am  What's New at Health Canada?
Shirley Paton MN, Centre for Infectious Disease Prevention & Control, Ottawa
• Identify what is on the horizon at Health Canada
• Identify resources available to infection Prevention and Control Professionals through Health Canada

10:00-10:30 am  From Jungle to City:
Viral Hemorrhagic Fever Virus Infections
Heinz Feldmann PhD, National Microbiology Laboratory
• Review the responsible agents
• Identify the clinical manifestations
• Discuss prevention of transmission of viral hemorrhagic fever viruses

10:30-11:00 am  A Virtual Tour of the National Microbiology Laboratory

11:15-12 noon  Oral Presentations

12:00-2:00 pm  Lunch in Exhibit Hall
Exhibits, Poster Presentations

2:00-2:45 pm  Here Today, Gone Tomorrow: West Nile Virus
Michael Drebot, Phd, Chief, Viral Zoonoses, National Microbiology Laboratory
Pierre Plourde MD FRCP, Winnipeg Regional Health Authority
• Review the epidemiology of West Nile Virus infections in Canada
• Identify the clinical manifestations of West Nile Virus infection
• Discuss prevention strategies for West Nile Virus infection

2:45-3:30 pm  Of Mice and Men: Hanta Virus Infections
Robbin Lindsay Phd, Head Field Studies, Zoonotics, National Microbiology Laboratory
Elise Weiss MD CCfP MSc, Brandon and Assiniboine Regional Health Authorities, Brandon
• Review the epidemiology of Hanta Virus infections in Canada
• Identify the clinical manifestations of Hanta Virus infections
• Discuss prevention strategies for Hanta Virus infections

3:30-4:15 pm  Are We Going Mad? Prion Disease
Michael Coulthart PhD, National Microbiology Laboratory
• Review the history of Prion Disease
• Discuss the different types of Prion Disease
• Identify why Prion Disease is important in healthcare

4:15-5:00 pm  How Mad is Mad? Creutzfeldt-Jacob Disease (CJD)
Lynn Johnston MD FRCPC, Queen Elizabeth II Health Sciences Centre, Halifax
• Identify risk factors for acquisition of CJD
• Discuss infection prevention and control issues for CJD
• Review latest recommendations for management of CJD

Tuesday, May 10 – Winnipeg Convention Centre

7:00-8:15 am  Strut Your Stuff! Breakfast
Dick Zoutman MD FRCPC, Kingston General Hospital, Kingston
CHICA-Canada Physician Director

8:30-9:15 am  At Our Doorstep: Pandemic Influenza
Greg Hammond MD FRCP, Public Health Branch, Manitoba Health
• Discuss the concept of outbreak versus pandemic
• Identify key features of pandemic influenza prevention strategy
• Identify how to initiate pandemic influenza planning strategies in your jurisdiction

9:15-10:00 am  Does Avian Flu Have Wings?
Fred Aoki MD FRCP, University of Manitoba
• Discuss the emergence of Avian influenza
• Identify risk factors for acquisition of Avian influenza
• Discuss preventative strategies for Avian influenza

10:30-11:15 am  The Ghost of Severe Acute
11:15-12 noon **Demystifying IV Therapy**
John Conly MD FRCPC, Foothills Medical Centre and University of Calgary

- Identify risk factors for infections in infusion therapy
- Discuss how to identify a vascular access infection
- Discuss preventative strategies for infections in infusion therapy

12:00-2:00 pm Lunch in Exhibit Hall
Exhibits, Poster Presentations

2:00-2:45 pm **Up to Our Ears in Construction**
Elizabeth Bryce MD FRCPC, Vancouver Hospital/HSC, Vancouver

- Identify risks associated with construction in healthcare facilities
- Identify the role of the Infection Prevention and Control Professional in planning of construction projects
- Review available construction guidelines and resources for infection control in healthcare construction projects

4:00-4:45 pm **Clostridium difficile: The Epidemic? Fact or Fiction**
Tom Louie MD FRCPC, Foothills Medical Centre, Calgary

- Discuss the changing epidemiology of *C. difficile* disease
- Identify risk factors for acquisition of *C. difficile* disease
- Identify preventative strategies for minimizing acquisition of *C. difficile* disease

4:45-5:30 pm **Are We Sharing Too Much in Our Facilities?**
Jim Hutchinson MD FRCPC, Health Care Corporation of St. John’s

- Identify how nosocomial infections may be spread
- Identify strategies for preventing the spread of nosocomial infections, including Routine Practices
- Identify unusual spread of nosocomial infections.

**Wednesday, May 11**

**All Sessions at the Delta Winnipeg**

7:30-8:45 am CHICA-Canada Annual General Meeting and Town Hall
Breakfast included – ALL WELCOME
CHICA-Canada Members must pick up voting card at entrance

9:00 am **Introduction – Canadian Public Health Agency**
Paul Gully MB CHB FRCPC
Deputy Chief Public Health Officer,
Public Health Agency Canada

9:30-10:15 am **Look What Came Through the Door**
John Embil MD FRCPC,
Health Sciences Centre, Winnipeg

- This lighthearted overview will use cases to highlight the principles of Infection Prevention and Control.

10:15-11:15 am **CLOSING ADDRESS**
– To Infinity and Beyond
Dick Zoutman MD FRCPC,
Kingston General Hospital, Kingston

- Dr. Zoutman will summarize the new heights to which Infection Prevention and Control will take us in the future.

11:15-11:45 am **CLOSING CEREMONIES**
Advanced Hard Surface Disinfection & Hand Hygiene is Just a Wipe Away!

Désinfection perfectionnée des surfaces dures et hygiène des mains grâce à nos serviettes!

- Bactericidal, tuberculocidal, and virucidal.
- Cleans, disinfects, and deodorizes non-porous hard surfaces.
- Low and high alcohol-based formulas for every situation.

SANI-CLOTH® – Serviettes jetables préhumidifiées
- Bactéricide, tuberculocide, et virucide.
- Nettoie, désinfecte et désodorise les surfaces dures non poreuses.
- Formules à haute et à basse concentration d'alcool pour toutes les situations.

SANI-DEX® – Essuie-mains antimicrobiens
- Efficace contre les bactéries Gram positif et Gram négatif (y compris le SARM et l’ERV) et contre les champignons.
- Contient 0,5 % de chloroxylène pour une action désinfectante persistante.
- Enlève les débris et la saleté.
- La formule émolliente aide à garder la peau hydratée.

Call 1-800-263-7067 for more information on the Sani-System® Program, or visit us at www.pdipdi.com

© 2003 Professional Disposables International
Morning Sessions

Infection Prevention and Control in the Oncology Unit

8:30-9:15 am  Invasive Fungal Disease
Eric Bow MD FRCPC,
CancerCare Manitoba, Winnipeg

- Identify the clinical signs and symptoms of invasive fungal infections in the immunocompromised
- Discuss the diagnostic challenges of these infections
- Review prevention measures for this group of infections

9:15-10:00 am  Being on the Lookout: Infections in the Immunocompromised Host
Stuart Rosser MD FRCPC,
St. Boniface General Hospital, Winnipeg

- Review the common infections in the immunocompromised host
- Identify the risk factors for infections in this group
- Discuss endogenous and exogenous sources of infection

10:30-11:15 am  Demystifying Our “Sacred Cows”: Infection Control in Oncology
Brenda Dyck BScN CIC, Winnipeg
Regional Health Authority, Winnipeg

- Describe infection prevention and control practices in Oncology
- Discuss the infection control myths in this population

11:15-12:00 pm  Getting the Ball Rolling: Setting Up a New Program
Karen Pauling-Shephard RN BScN CIC,
Foothills Medical Centre, Calgary

- Describe the role of the “Needs Assessment” and its importance in initiating an Infection Prevention and Control Program
- Identify how to determine what processes will work in your jurisdiction
- Identify individuals and programs key to the success of an Infection Prevention and Control Program in Oncology.

Afternoon Sessions

Infection Prevention and Control in Pediatrics

1:00-1:45 pm  The Heat is On: Pediatric Febrile Respiratory Illness
Anne Matlow MD FRCPC,
Hospital for Sick Children, Toronto

- Identify the common pathogens causing pediatric febrile respiratory illness
- Discuss the clinical presentation of these illnesses
- Describe infection prevention and control measures related to pediatric febrile respiratory illnesses

1:45-2:30 pm  Give It a Shot! Pediatric Immunization
Barbara Law MD,
Health Sciences Centre, Winnipeg

- Review the current Canadian Immunization Guide
- Discuss the risks and benefits of immunization
- Discuss the conundrum of non-compliance

3:00-3:45 pm  What’s Wrong with This Baby? Infections in the Neonatal Intensive Care Unit
Joanne Embree MD FRCPC,
Health Sciences Centre, Winnipeg
Karen Oleson BN CIC,
Health Sciences Centre, Winnipeg

- Identify the common infections acquired in the Neonatal Intensive Care Unit
- Describe the factors that contribute to infections in the Neonatal Intensive Care Unit
- Identify key factors to prevent infections in the Neonatal Intensive Care Unit

3:45-4:30 pm  From Cradle to Graduation
Margaret Fast MD FRCPC, Winnipeg
Regional Health Authority, Winnipeg

- Review common communicable infections from the cradle to adulthood
- Highlight prevention and health promotion strategies for this group
- Identify resources that are at your disposal
“It’s awesome. I can guarantee you it will be well used.” Eileen Stamp, RN

Dr Dick Zoutman and Paul Webber present...

Trainer's Resource®
For Infection Control

INCLUDES: Prepared slide shows, professionally designed PowerPoint® slides, and a large image library depicting clinical infection control activities

Visit www.trainers-resource.com or contact trainersresource@webbertraining.com

ENVIRONMENTAL CONTAINMENT UNIT™

ENGINEERED TO PROTECT HEALTHCARE ENVIRONMENTS FROM HARMFUL CONTAMINANTS

The ECU® is the only clinically tested, portable containment product on the market that enables a range of applications with the appropriate level of HEPA-filtered negative air pressure required by the CDC and CSA.

Ceiling Cavity Projects
Wall Access Projects
Construction Anteroom
Isolation Room Conversion

MINTIE® TECHNOLOGIES, INC. | THE LEADER IN INDOOR CONTAINMENT SOLUTIONS | www.mintie.com | 800-G-MINTIE (800-964-6843)
SPECIAL EDUCATION SESSIONS FOR THE NOVICE INFECTION CONTROL PROFESSIONAL

Saturday, May 7, 2005
Winnipeg Convention Centre

EDUCATION SESSIONS

A Finger in Every Pie: Infection Control in Action
Judy McLeod RN, St. Boniface Hospital, Winnipeg
- Identify key individuals and departments necessary for the success of an infection prevention and control program
- Discuss examples of expertise provided by infection prevention and control professionals
- Provide examples of situations where Infection Prevention and Control input is invaluable

What’s the Bug? Interpreting Microbiology Reports
Paul Van Caeseele MD, Cadham Provincial Laboratory, Winnipeg
- Review the basic components of a microbiology requisition
- Discuss various examples of microbiology results and their interpretation
- Describe how to interpret reports for antimicrobial resistant organisms

Keeping It Clean! Hands and the Environment
Michelle Alfa MD, St. Boniface Hospital, Winnipeg
- Explain the use of role models in improving hand-hygiene
- Describe the role of the environment in nosocomial infections
- Identify problems related to inadequate disinfections

Knowing Your Stuff: The Nitty Gritty of Routine Practices
Nila MacFarlane BN, St. Boniface Hospital, Winnipeg
- Describe routine practices
- Describe additional precautions
- Explain the practice applications of routine practices

Where’s the Bug? Surveillance in Action
Faye Penner RN BHScN CIC, Deer Lodge Centre, Winnipeg
- Discuss the concepts of surveillance
- Identify the key components of a surveillance program
- Provide examples of surveillance monitoring

Who Let the Bug Out? Outbreak Management
Genevieve Thompson RN, Cadham Provincial Laboratory, Winnipeg
- Describe factors which alert infection prevention and control professionals of an outbreak
- Review the steps of outbreak management
- Explain the importance of post outbreak evaluation

Getting Down to Business: Interactive Workshop on Outbreak Management
(Note: The style of this workshop will vary depending on attendance.)
- Review outbreak situation
- Develop a management strategy for the outbreak
- Prepare a summary of the investigation

Registration brochure available at www.chica.org – January 2005
Fast • Effective • Persistent
When infection begins with the skin
Protection begins with ChloraPrep®

www.chloraprep.com
## Dates and Hours of Show

**MONDAY, MAY 9, 2005**
10:00 am – 10:30 am  
12:00 noon – 2:00 pm  
3:30 pm – 4:00 pm

**TUESDAY, MAY 10, 2005**
10:00 am – 10:30 am  
10:30 am – 12:00 noon  
Purchasing Managers  
12:00 noon – 2:00 pm  
3:30 pm – 4:00 pm

## Abatement Technologies Ltd

Air filtration HEPA-CARE Systems for controlling airborne pathogens in patient care areas of healthcare facilities and HEPA-AIRE portable air scrubbers for controlling airborne contaminants during construction and renovation.

7 High Street  
Fort Erie, ON L2A 3P6  
Elizabeth Lamb  
800-827-6443  
Fax: 905-871-8291  
Elamb@abatement.ca  
www.abatement.com

## AMG Medical Inc.

AMG Medical is a leading manufacturer and distributor of a wide breadth of medical disposable and durable products, including personal protective equipment.

8505 Ch. Dalton  
Montreal, QC H4T 1V5  
Chantel Desjardins  
800-361-2210  
Fax: 800-295-6572  
Chantel.desjardins@amgmedical.com

## Arjo Canada Inc.

From labour-saving patient/resident lift transfer, bathing, showering, hydrotherapy systems to skin care, hygiene and infection control products and programs, the Arjo comprehensive selection is unparalleled. For the individual, Arjo products offer security, comfort and dignity.

1575 South Gateway Road, Unit C  
Mississauga, ON L4W 5J1  
800-665-4831  
Fax: 800-309-1116  
Info@arjo.ca  
www.arjo.com

## Bowers Medical

11-3691 Viking Way  
Richmond, BC V6V 2J6  
604-278-7566  
Fax: 604-278-7525  
www.bowersmedical.com

## Breathe Free Technologies Inc.

190 Robert Speck Parkway, Suite 212  
Mississauga, ON L4L 3K3  
Mario Girardo  
905-615-7818  
Fax: 905-272-6659  
Mariogirardo@breathefreeinc.com

## Butcher’s/ Five L Equipment

Broad range of floor care and dilution control chemicals; specialising in hydrogen peroxide disinfectant cleaners.

1748 Hunters Run Drive  
Orleans, ON K1C 6W5  
Bruce O’Neill  
613-841-2173  
Fax: 613-841-2174  
Bruce.onell@johnsondiversey.com  
www.butchers.com

## Cardiomed Supplies Inc.

Box 575 Gormley Industrial Avenue  
Gormley, ON  
Christian Dubé  
Tel. 905-888-1965  
Fax. 905-888-1433

## Carsen Group Inc.

Carsen’s DSD-201 Medivators unit is a fully-automated endoscope reprocessor designed to high level disinfect two endoscopes independently, in two separate chambers, saving you both time and money.

151 Telson Road  
Markham, ON  
Sharon Newell  
800-387-0437 Ext. 3602  
Fax. 905-479-2595  
Sharatn@carsengroup.com  
www.carsengroup.com

## Convatec Canada

ConvaTec is dedicated to bettering the lives of patients, their supporting caregivers and healthcare professionals with innovative, high-quality products and services for ostomy care, skin care and advanced wound care. This dedication and commitment to meeting customers’ needs have been our passion for over 25 years.

110 – 555 Dr. Frederik Phillips  
Saint-Laurent, QC H4M 2X4  
Julia Langdale  
514-747-8041  
Fax: 514-744-8124  
Julia.langdale@bms.com  
www.convatec.com

## Deb Canada

Deb Canada is a leading Canadian manufacturer of infection control skin hygiene products. Hygenipak Hand Hygiene System, Microsan hand sanitizer, Instafoam skin cleansers, Debbra Protective creams and educational programs.

Box 730  
42 Thompson Road West  
Waterford, ON  
N0E 1Y0  
David Greene  
519-443-8697  
Fax: 519-443-5160  
Debcanada@debcanada.com  
www.debcanada.com

## Ecolab Healthcare

370 Wabasha Street North  
St. Paul, MN  
55102  
Tina Strelau  
651-293-2626  
Fax: 651-293-2959  
Tina.Strelau@ecolab.com

## Epiquest

96000 Overseas Highway, P2  
Key Largo, FL  
305-853-5574  
Fax 305-853-5574  
www.epiquest.com

## Fresh Communications

2455 Meadowpine Boulevard  
Mississauga, ON L5N 6L7  
905-542-5539  
www.rocheCanada.com

## Ecolab Healthcare

370 Wabasha Street North  
St. Paul, MN  
55102  
Tina Strelau  
651-293-2626  
Fax: 651-293-2959  
Tina.Strelau@ecolab.com

## Hoffman-La Roche

2455 Meadowpine Boulevard  
Mississauga, ON L5N 6L7  
905-542-5539  
www.rocheCanada.com

## Epiquet

96000 Overseas Highway, P2  
Key Largo, FL  
305-853-5574  
Fax 305-853-5574  
www.epiquest.com

## Fresh Communications

208

## Hoffman-La Roche

310
ICPA Inc.
ICPA Inc. Healthcare Software Experts, improving outcomes through knowledge. As epidemiologists and software designers, we specialise in software that creates meaningful reports, graphs, and rate analysis, including AICE (Infection Control), Respond! (Employee Health), QTrendz (Quality Control Charts), RedBet (syndromic surveillance). Our telephone technical support is outstanding and users manuals are through and easy-to-follow. Visit us at the CHICA-Canada conference in Winnipeg.
515 S. Capital of Texas Highway
Suite 240
Austin, TX 78746-4305
Gloria Wilson
512-892-4594 Ext. 232
www.icpa.net

Johnson & Johnson Medical Products
Advanced Sterilization Products, whom Johnson and Johnson Medical Products represents in Canada, a Division of Johnson & Johnson Inc., is a leading developer of innovative instrument sterilization, high level disinfection, and cleaning technologies including: STERRAD Sterilization Systems offer the most productive solution for low-temperature sterilization needs. The CIDEX family products including CIDEX OPA, CIDEX, CIDEZYME and ASP Automatic Endoscope Reprocessors. Utilizing advanced instrument processing technologies, these products help our customers to promote positive patient outcomes while controlling costs, increasing productivity and enhancing safety.
200 Whitehall Drive
Markham, ON L3R 0T5
Isabelle Mannella
905-946-2179
Fax: 905-946-2128
Imannell@medca.jnj.com
www.jnj.com

Johnson Diversey Inc.
154 Handyside Avenue
Winnipeg, MB R2M 0M9
Emile Sabourin
www.johnsondiversey.com

Kimberly-Clark
50 Burnhamthorpe Road West
Mississauga, ON L5B 3Y5
Louis Vachon
514-592-5273
Fax: 450-652-5427
Lvachon@kcc.com

Laura Line Skin Care Products
Laura Line is a complete line of Canadian-made product products for the healthcare professional. We carry a full range of fragrance-free products. Soaps, lotions and sanitizing gels.
30 McLeod Court
Kitchener, ON
N2R 1B1
Maureen Gorloff
519-748-9628
Fax: 519-895-2374
Maureen@lauralineskincare.com
www.lauralineskincare.com

Pall-Aquasafe Water Filters
Disposable Water Filters for 7 Day Use

Features:
- CE marked medical device
- Sterilising grade membrane
- Individually tested
- Protective barrier to waterborne contamination

Benefits:
- Reduces the risk of waterborne nosocomial infection
- Easy to use on all taps and showers
- Provides instantaneous protection
- Cost effective solution

Simple, Instantaneous and Clinically Proven

Visit us on the Web at www.pall.com/aquasafe
Concerned about nosocomial infections? Put your mind at ease.

The extra 60 seconds it takes to check the effectiveness of your glut solution prior to each use is vitally important to reducing hospital-related infections that occur each year. As important is the reliability and efficiency of the precleaners and sterilants you use. MetriCide® with its 20+ year history is a tried and true formula recommended specifically for high-level disinfecting and sterilizing scopes and other delicate instruments. To find out more about Metrex products, call 800.841.1428 or visit www.metrex.com.

A Complete Product Line for Reprocessing

Metrex offers powerful dual-enzymatic detergents and sponges for quick removal of debris. MetriCide is specifically recommended for scopes. Reusable up to 14 days. No dilution required. MetriTest™ is recommended prior to each use.

Put your mind at ease by testing MetriCide using MetriTest strips

PASS
FAIL
FAIL

Saturated with MetriZyme® dual-enzymatic detergent, MetriSponge® has a specially contoured shape to preclean scopes and other delicate instruments.
Les Enterprise Solumed Inc. 109
Solumed develops, manufactures and sells skin antisepsis products used for skin decolonisation prior to invasive procedures such as injection, puncture, blood culture, blood donation, IV therapy, catheter dressing changes, surgeries or for hands hygiene. We sell unit-dose and multidose packaging containing Chlorhexidine Gluconate, Povidone Iodine, Ethyl Alcohol, and Isopropyl Alcohol under the brand names Solu-I.V., SoluPrep SteriGel and Evolution. Solumed développe, fabrique et commercialise des antiseptiques utilisés pour décoloniser la peau avant des procédures invasives comme les injections, les ponctions veineuses, les dons de sang, la thérapie intraveineuse, les changements de pansements de cathéters, les chirurgies ou pour l’hygiène de la peau. Nous vendons des produits à utilisation unique ou multiples contenant du Gluconate de Chlorhexidine, de la Povidone Iodée, de l’Alcool Isopropylique ou de l’Alcool Éthylique sous les marques Solu-I.V., SoluPrep, SteriGel et Évolution. Les Enterprise Solumed Inc. 3277 Jean Briard Laval, QC H7T 2L2 Sylvain Chartier 450-682-6669 Fax. 450-682-5777 Info@solumed.biz www.solumed.biz

Manitoba Health, Communicable Disease Control Unit, Public Health Branch Reistration Area
Fact sheets and pamphlets will be available for conference participants to take back to their workplace. Program staff will be available to answer questions about communicable disease control programs in Manitoba.
4th Floor, 300 Carlton Street Winnipeg, MB R3B 3M9 Michelle Long 204-788-6725 Fax: 204-788-2040 Mlong@gov.mb.ca www.gov.mb.ca/health/publichealth/index.html

Maunco Medical 413
Distribution of Accel surface disinfectants and instrument cleaners/disinfectants/sterilants, distribution of Sterillium hand disinfectant, inserve education on disinfection and antisepsis.
269 University Avenue Belleville, ON K8N 5S3 Russell Johnson 613-363-5376 Fax: 613-969-7465 russell@maunco.com www.mauncomedical.com

Medco Equipment 213
Medco’s multi-purpose wheelchair washer sanitizes wheelchairs, commode chairs, shower chairs etc. automatically in five minutes. Independent lab study proves 99.9% reduction of bacteria with one wash.
105 Old Highway NW, Bay 3 New Brighton, MN 55112 Philip Brooksbank 651-639-8684 Fax: 651-639-8685 Medcoequipment@email.msn.com

MedLine Canada/Maxxim Medical 504
Medline offers our 100,000 products. Areas of focus include: gloves, traditional and advanced woundcare, ready bath bathing systems, skincare, protective apparel and much more.
2460 South Sheridan Way Mississauga, ON L5J 2M4 Helen Everett 905-403-7035 heverett@medline.com

Medonyx Inc. 202
GeFast: Disposable, garment-worn, ergonomic sanitary gel dispenser specifically designed for healthcare workers. Clinical studies indicates a dramatic increase in handwashing and reduction in cross-infections.
95 Cottonwood Drive Toronto, ON M3C 2B3 Gilad Shoham 866-MED-ONYX 815-301-9278 info@medonyx.com www.medonyx.com

Metrex Corporation 406
1717 West Collins Avenue Orange, CA 92867 Rossana Fernandez 800-841-1428 Fax. 714-516-7904 Rossana.fernandez@metrex.com

Nilfisk-Advance Canada 206
396 Watline Avenue Mississauga, ON L4Z 1X2 Jean Lapointe 905-712-3260 Fax: 905-712-3255 Jlapointe@nilfisk-advance.ca

Pall Medical 300
Pall is the global leader in the filtration, separation and purification industry. Pall’s technologies play a vital role in the production of most drugs and therapies.
101-1785 Alta Vista Drive Ottawa, ON K1G 3Y6 Matthew Antoine 613-526-3900 Fax: 613-526-3884 Matthew_antoine@pall.com

PDI/Nice Pak 302
Two Nice Pak Park Orangeburg, NY 10962 Zina Jones 845-365-1700 Ext. 547 Fax: 845-365-1729

The Laura Line family of skin care products include Creams, Lotion and Antibacterial Soaps, Sanitizing Gel and Laura Line Moisturizing Creams. All of these Products have been specifically formulated for frequent hand washers using the finest skin conditioners and moisturizers available.

For more information:
Telephone: 1-800-257-5592 Facsimile: (519) 895-2374 www.lauralineskincare.com
Kitchener, Ontario

The Canadian Journal of Infection Control • SPRING 2005 23
Pharmex Ltd. 101/103/105
Pharmex is dedicated to the development of market-leading products and market transforming ideas, leading to higher performance standards in infection prevention and control.
80 Galaxy Blvd., Unit 4
Toronto, ON M9W 4Y8
Gary Hodgins
416-675-3333
Fax: 416-675-9176
Info@pharmex.ca
www.pharmex.ca

Pinchin Environmental Ltd. 301
Engineering, consulting, project management and training. Air and noise, climate change, GHG, occupational health and safety, building science, environmental management and financial due diligence. Indoor air quality and microbial contamination, hazardous materials management (asbestos, mould, lead) laboratory services (asbestos, mould, lead, odour).
5749 Coopers Avenue
Mississauga, ON L4Z 1R9
Liza Hernandez
204-452-0983
Fax: 204-453-0788
Lherandez@pinchin.com
www.pinchin.com

PrimeLine Medical Products Inc. 107
Manufacturers of infection control products, protective apparel, gloves, face masks, OR drapes and gowns, industrial and sutom products, ISO 13485:1996 registered.
10707 – 100th Avenue, Suite 900
Edmonton, AB T5J 3M1
Judy Morgan
780-497-7600
Fax: 780-497-7670
Info@primemedical.com
www.primemedical.com

Proper Manufacturing 210
36-04 Skillman Avenue
Long Island City, NY 11101
Larry Accardi
718-392-6650
Fax: 718-482-8909
Marketing@proppermfg.com
www.proppermfg.com

Remington Medical Equipment 113
“Changing with the times.” Handisept and Viroseptic are the new brand names, indicating what our products represent in the infection control market -- effective, proven antiseptics for hand disinfection.
Remington Medical Equipment
401 Bentley Street
Markham, ON L3R 9T2
Bob Remington
905-470-7790
Fax: 905-470-7787
bob@remingtonmedical.com

SciCan 401/403
1440 Don Mills Road
Toronto, ON M1N 1Z1
Bob Andrews
416-446-2757
Fax: 416-445-2727
Rga@scican.com

SHPI 203
1240 E. Mueller Park Road
Bountiful, UT 84010
Kris Knight
801-298-3360
Fax: 801-298-1759
Kknight@shpi.com

Smith and Nephew 306
Every Smith and Nephew product means a lot to the person it helps and that means a lot to us. Acticoat and Iodosorb are antimicrobial wound dressings.
4707 Levy Street
St-Laurent, QC H4R 2P9
514-956-1202
Fax: 514-956-1777
Ronda.gauthier@smith-nephew.com
www.smith-nephew.com

Source Medical 308
Source Medical Corporation, Canada’s leading and only value-added distributor of medical, surgical and laboratory products offers goods and services for the acute care and continuing care healthcare markets.
60 International Boulevard
Toronto, ON
M9W 6J2
Brett Paveling
416-213-6824
Fax: 416-213-5016
Contactus@sourcemedical.com
www.sourcemedical.com

STERIS Canada Inc. 207/209
6290 Northwest Drive
Mississauga, ON
L4V 1J7
Antoniette Rokicki
800-661-3937 Ext 6227
Fax: 905-677-0141
Customerservice.canada@steris.com
www.steris.com

Surgilance Inc. 411
Surgilance designs manufactures and sells safety medical devises that protect healthcare professionals from sharps injury. The One-Step-Plus safety lancet is their latest product.
303 Research Drive, Suite 140
Norcross, GA 30092
Alan Wells
770-448-9493 Ext. 226
Fax: 770-559-4382
Alanwells@surgilance.com
www.surgilance.com

3M Canada 405/407
3M has a variety of product solutions that can help address your infection control needs.
300 Tartan Drive
London, ON NSV 4M9
Melanie Rice
519-451-2500 Ext 2730
Fax: 519-452-4626
mjrice@mnm.com
www.3m.com/ca/ip

Tyco Healthcare Canada 505/507
Tyco Helathcare Canada is a leading marketer, manufacturer, distributor and servicer of medical devices and drug products. Its product portfolio includes disposable medical supplies, diagnostic imaging agents, monitoring equipment, medical instruments, bulk analgesic pharmaceuticals and nuclear medicines. Leading brand names include: Kendall, US Surgical, Auto Suture, Mallinckrodt, Nellcor, Vallylab, and Puritan Bennett.
7300 Trans-Canada Pointe-Claire, QC H9R 1C7
Lori Ann Campbell
877-864-8926
Fax: 800-567-1939
CustomerService.canada@tycohealthcare.com
www.tycohealthcare.com

Vernacare 410
Vernacare’s closed system for human waste disposal utilizing disposable utensils is environmentally friendly, protects nurses from microbial splash, saves time and impacts c.diff, Norwalk, MRSA and VRE.
150 Norfinch Drive, Unit 1
Toronto, ON M3N 1X6
Glenn Duncan
416-661-5552 Ext. 232
Fax: 416-661-5559
Glenn.duncan@verna-care.com
www.vernacare.com

Virox Technologies Inc. 412
Virox is the creator and manufacturer of patented accelerated hydrogen peroxide (AHP) products including, sanitizers, instrument pre-cleaners, low to high level disinfectants and chemosterilants.
2815 Bristol Circle, Unit 4
Oakville, ON L6H 6X5
Nichole Kenny
999-387-7578
Fax: 905-813-0220
Nkenny@virox.com
www.virox.com
Protect Staff and Patients against harmful Pathogens

The NQS00, when in operation, can reduce bacterial and viral aerosols to undetectable levels in 10 to 15 minutes.

Designed to provide the HIGHEST LEVEL OF PROTECTION

- Complete mixing pattern, air is pulled in through the bottom of the unit and exhausted through the top at a 45° angle
- Ideal for negative pressure isolation rooms
- HEPA filtration to remove 99.97% of organisms that are .03 microns or larger
- UVGI lamps provide full backup to HEPA media and ensure that the interior of the unit remains bacteria-free

Protect your:

- ICU
- Dialysis
- Isolation Rooms
- Emergency Departments
- Bronchoscopy Room
- Research Labs
- Waiting Areas
- Morgue

NQS500  NQS250/400

* Based on a recent study from Centre for Environmental Microbiology.
NQS products are available from Lifetronics Medical, the exclusive Canadian Distributor since 1995.
For more information call (416) 685-2313, 600-838-8239 or E-mail: info@lifetronicsi.com.

---

Teleclass Education for Healthcare Professionals

A teleclass is an infection control lecture delivered over the telephone with handout notes e-mailed to registrants in advance. Teleclass recordings and handout notes are also posted on-line for unlimited access. Teleclass registration fees are $35 per site (not per participant). For more information on Teleclass Education or to inquire about registrations, go to www.webbertraining.com, or contact Paul Webber by e-mail (paul@webbertraining.com), or by phone (800-363-5376).

Live Teleclasses - 1:30-2:30pm Eastern
www.webbertraining.com

Teleclass Schedule

May 2005
19 – Antiseptic Practice and Procedure.
   Dr. Susan Crow, USA
26 – Canadian Response to West Nile Virus
   Dr. Paul Sockell, Canada

June 2005
9 – Cost of Hospital Infection
    Prof. Barry Cockson, UK
14 – UK Teleclass: Mumps in the Community
    Lauta Lane, UK
16 – Skin Rash & Infection Control
    (Facility to be announced)
30 – Infection Control for Emergency First Responders
    Margaret McKenzie, Canada
Future Conferences

CHICA Canada National Education Conference
May 6 – 10, 2006
Bridging Global Partnerships
Co-hosted by SOPIC

International Urinary Tract Infection Symposium
June 10, 2005
Winnipeg, Manitoba

Association for Professionals in Infection Control and Epidemiology
June 19-23, 2005
Baltimore, Maryland

15th World Conference on Disaster Management
June 10-13, 2005
Toronto, Ontario

Infection Control Nurses Association International Conference
September 26-29, 2005
Torquay, UK

International Federation of Infection Control
October 13-16, 2005
Taksim, Turkey

Agriculture’s Role in Antimicrobial Resistance Conference
October 23-26, 2005
Toronto, Ontario

For information on any of these conferences visit www.chica.org for links.

Wood Wyant Inc.
Wood Wyant is the leader in providing state-of-the-art technology, as well as the latest advances in chemical formulations to the healthcare sector.
2345 Autoroute des Laurentides, Bureau 100
Laval, QC H7S 1Z7
Louise Taillon
450-680-9731
Fax: 450-680-9735
Ltaillon@woodwyant.com
www.woodwyant.com

Webber Training Inc.
Teleclass education, trainer’s resource for infection control kit, Quantitative carrier test manual.
58 Lambert Drive
Belleville, ON K8N 4K6
Paul Webber
800-363-5376
Fax: 613-969-7465
Paul@webbertraining.com
www.webbertraining.com

CHICA CANADA
Winnipeg Convention Centre Ground Floor Plan • May 9-10, 2005

Registrations
The communities of Winnipeg are robust with the rich languages, strong traditions, tantalizing traditional foods, the sounds and the artistry of many cultures.

Wander the colourful streets of Winnipeg.
Join us on a virtual walk through four of Winnipeg’s most vibrant neighbourhoods:
• Mediterranean
• Asian
• Eastern European
• Francophone/Métis

Thrill to the rich musical sounds of each culture.
Clap to the beat of the thrilling dance entertainment
Enjoy an abundance of food delicacies
Experience the life that is Winnipeg!

TUESDAY, MAY 10, 2005
7:00 PM – 10:00 PM
DELTA WINNIPEG
$60.00 per person plus GST
Not included in registration:
Cash Bars
Dress: Casual

The Board of Directors of CHICA-Canada is seeking nominations for Board positions in 2006. Being on the Board of CHICA-Canada is an excellent way to participate at the national level. Personally and professionally, it offers you the opportunity to meet a wide range of CHICA-Canada members, network with allied professional groups, and work with other motivated and experienced Board members.

Nominations are invited for the following positions:

President Elect (1 year term)
Director of Finance (3 year term)
Physician Director (3 year term)

These terms commence January 1, 2006. Position descriptions and nomination forms are found in the CHICA-Canada Policy and Procedure Manual or may be obtained from the Membership Services Office or downloaded from www.chica.org.

Signatures of two active members are needed for each nomination. If you know someone who would be qualified and interested in one of the above positions, send a completed nomination form to:

Pearl Orenstein, RN, BA, DIA, CIC
CHICA-Canada Secretary/Membership Director
c/o Membership Services Office
PO Box 46125 RPO Westdale
Winnipeg, MB R3R 3S3

Deadline for nominations is August 15, 2005
Adascal
Added Pertussis Protection

Tetanus and Diphtheria Toxoids Adsorbed Combined with Component Pertussis Vaccine

For better protection against Tetanus, Diphtheria and Whooping Cough

Dosage: 1 ml for Injection

Vial: 5 x 0.5 ml

Single Dose 5 x 0.5 ml

CLINICAL PHARMACOLOGY

Introduction of Adascal into the brewing of diphtheria and pertussis toxoids has been associated with a decided decrease in morbidity and mortality from these diseases. Simultaneously vaccination with diphtheria toxoid and tetanus toxoid has also been associated with a decreased risk of post-vaccination syndromes. Therefore, the vaccine has been in the hands of the Canadian manufacturers for some time.

Diphtheria is a common communicable disease caused by Corynebacterium diphtheriae. The disease may be divided into the pharyngitis, skin or other lesions of the respiratory and gastrointestinal tracts. The infection may be transmitted by inhalation or via direct contact. The vaccine is generally well tolerated by children and adults.

Pertussis (whooping cough) is a highly contagious respiratory disease caused by Bordetella pertussis. Severity and mortality is greatest in infancy, and infants may die in a few cases. The disease is transmitted by direct contact with infectious droplets and is entirely preventable through vaccination. The vaccine is generally well tolerated by children and adults.

Uses of Diphtheria toxoid are primarily in the prevention of tetanus and diphtheria toxoid vaccines, which has been shown to be highly effective in preventing these diseases.

Pertussis toxoid is also used to prevent whooping cough. The vaccine is generally well tolerated by children and adults.

Table 1. Pertussis Toxoid (CPS) and Tetanus Toxoid (CPS) Combined with Fentanyl

<table>
<thead>
<tr>
<th>Pertussis Toxoid</th>
<th>Tetanus Toxoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.3</td>
<td>5.0</td>
</tr>
<tr>
<td>4.8</td>
<td>5.0</td>
</tr>
<tr>
<td>5.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Pertussis toxoid (4.3 mg) is administered at 2 months of age, followed by 2.0 mg at 3 months, 2.0 mg at 4 months, and 1.0 mg at 12 months.

Tetanus toxoid (5.0 mg) is administered at birth, followed by 1.0 mg at 2 months and 1.0 mg at 4 months.

CONTRAINDICATIONS

General

Known sensitivity to ADASCAL (Diphtheria and Tetanus Toxoids Adsorbed Combined with Component Pertussis Vaccine) should not be present in the context of any acute illness, including acute respiratory infection or recent contact with someone with a respiratory infection, in which the vaccine can be administered.

PHARMACOLOGICAL INFORMATIONS

Composition: 2.0 mg of pertussis toxoid and 1.0 mg of tetanus toxoid. The vaccine contains 2 units of tetanus toxoid per milliliter of solution.

WARNINGS

The vaccine should be administered to children within 14 days of the expected start of the illness.

PRECAUTIONS

General

No specific precautions are necessary for the administration of the vaccine. The vaccine should be administered at 2, 4, and 6 months of age, or at the fourth dose at 4 months of age.

Adascal is not indicated for use in patients who have had a previous anaphylactic reaction to the vaccine. The vaccine is generally well tolerated by children and adults.

Adascal is not indicated for use in patients who have had a previous anaphylactic reaction to the vaccine. The vaccine is generally well tolerated by children and adults.
Table 2: Rate (%) of Adverse Events Reported After Vaccination with ADACEL® Compared to TD Adjuvanted

<table>
<thead>
<tr>
<th>ADVERSE EVENT</th>
<th>SEVERITY</th>
<th>Vaccine Event Rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Pain</td>
<td>Any</td>
<td>89.5</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>10.1</td>
</tr>
<tr>
<td>Swelling</td>
<td>Any</td>
<td>89.4</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>10.2</td>
</tr>
<tr>
<td>Redness</td>
<td>Any</td>
<td>89.3</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>10.1</td>
</tr>
<tr>
<td>Systemic</td>
<td>Any</td>
<td>7.8</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>2.2</td>
</tr>
<tr>
<td>Fever</td>
<td>Any</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>0.0</td>
</tr>
<tr>
<td>Increased Energetic Level</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>Fatigue</td>
<td>Any</td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>0.0</td>
</tr>
<tr>
<td>Night Sweats</td>
<td>Any</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>0.0</td>
</tr>
<tr>
<td>Cramps</td>
<td>Any</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>0.0</td>
</tr>
<tr>
<td>Nausea</td>
<td>Any</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>0.0</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>Any</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>0.0</td>
</tr>
<tr>
<td>Sinusitis</td>
<td>Any</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>0.0</td>
</tr>
<tr>
<td>Vomiting</td>
<td>Any</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Severe</td>
<td>0.0</td>
</tr>
</tbody>
</table>

In a clinical trial with 369 adolescents aged 11 and 12 years old, ADACEL® was shown to have a safety profile that was comparable to that seen in the first trial in older adolescents. In addition, safety ADACEL® and adjuvanted monocomponent vaccines with a dose of Hepatitis B vaccine, the adverse events rates were not affected.

Inoculated reactions consisting of pain, tenderness, and redness at the injection site may be associated with tetanus and diphtheria toxoids. Following injection doses, local erythema and swelling are not uncommon and Airmax®-type toxicity may occur. Severe local reactions are often associated with high levels of circulating antibody, usually resulting from overproduction due to high doses being given too frequently. Very rare: large local reactions, consisting of redness extending to whole arm; St. Thomas, or circumferential swelling of an injected limb have been reported following the fourth and fifth pediatric doses of acellular pertussis-containing vaccines. These local reactions are usually not associated with significant pain and are self-limiting.

Systemic reactions, such as generalized urticaria, are uncommon like symptoms have been reported usually occurring within 12 hours of vaccination, with some delayed onset and persistency.

Meningococcal complications such as peripheral neuropathy[1] and demyelinating disorders of the central nervous system (CNS) following tetanus toxoid or diphtheria toxoid have been described but are rare. The U.S. Institute of Medicine has concluded that the evidence is insufficient to accept or reject a causal relationship between tetanus toxoid, DT or Td and demyelinating diseases of the CNS (e.g., demyelinating encephalomyelitis, transverse myelitis, optic neuritis) or peripheral neuropathy (other than those caused by direct intraneural injection).

The following neurologic adverse events have been reported as being associated with some vaccines containing tetanus toxoid or diphtheria toxoid: 1) peripheral nerve manifestations[2] paralytic palsies mononeuropathies[3] polyneuropathies[4] and muscular weakness[5] and/or paralysis[6] of cranial nerves[7] and thoracolumbar or peripheral nerves[8] or muscle weakness or muscle atrophy[9] of cranial nerves are to be considered as a possible toxicity[10]. The Institute of Medicine concluded that the evidence was insufficient to accept or reject a causal relationship between tetanus toxoid and influenza vaccination. On the basis of the case report and evidence that a vaccine-induced immunologic response can cause Guillain-Barré Syndrome (GBS), the Institute of Medicine concluded that tetanus toxoid-containing vaccines can trigger GBS in adults. No increased risk for GBS has been observed in the use of DT in children.

Adverse events occurring following an accepted dose of an allergenic vaccine, as one that a reasonable physician would regard as definite or probable for that vaccine, and not related to another vaccine or a concomitant nonvaccine (see Contraindications).

PHARMACOLOGICAL INFORMATION, Composition

ADACEL® (Tetanus and Diphtheria Toxoids Adsorbed Combined with Component Pertussis Vaccine) is supplied as a sterile, white, lyophilized, unconcentrated, combined component pertussis vaccine in sterile water for injection. Component pertussis vaccine is as sterile, white, lyophilized, unpertussisated vaccine component of the purified pertussis antitoxin.

In each dose (0.5 mL) contains:

- Pertussis toxioid (PT) 6.4 mg
- Tetanus toxoid (TT) 0.3 mg
- Diphtheria toxoid (DT) 0.1 mg

- Pertussis toxoid (PT) 2.5 mg
- Tetanus toxoid (TT) 1.0 mg
- Diphtheria toxoid (DT) 0.5 mg

- Pertussis (PrP) 5.0 mg
- Tetanus (TT) 5.0 mg
- Diphtheria (DT) 2.0 mg

Stability and Storage

Store at 2°-8° C (36°-46°F) or at room temperature. Do not freeze. Reconstituted contents must be administered as soon as possible, or discarded.

AVALABILITY OF DOSE FORMS

Vac 0.5 mL (Single Dose)

Vac 0.5 mL (Single Dose)

REFERENCES


A Product Monograph is available on request.

Pharmaceutical Information 2002

Manufactured by:

Aventis Pasteur Limited
1750 St. Louis Avenue West, Montréal, Quebec, Canada M2B 1J4
P.O. Box 9920, Montréal, Quebec

Aventis Pasteur

Aventis Pasteur

Aventis Pasteur
Lessons Learned: We learned that it is important to involve key stakeholders during all phases of product development. Since the field of occupational health infection control is always changing the tool will have to be updated regularly. It would be useful to have a method of evaluating the effectiveness of the tool in changing infection prevention practices. This should be considered in the future.

HANDS ON FOR HEALTH INITIATIVE: PROMOTION OF RESPIRATORY ETIQUETTE IN HEALTHCARE AND COMMUNITY SETTINGS


The continued spread of respiratory pathogens such as influenza, the emergence of SARS and the threat of pandemic influenza, amplify the need to address the transmission of respiratory illness in health care settings and the community. Observations reveal that people do not consistently employ simple infection control measures such as covering their mouths when they cough and practicing correct hand hygiene, thereby increasing the risk of exposure to respiratory pathogens (Miranda, Falcao, Dias, Norbrega, Rebello, Pimenta & Salade, 1994; Gwanwmygo, Burge, Nardell & Thompson, 2001). Studies also show that most people are aware of the importance of hand hygiene, yet this knowledge may not be transferred into practice (Perry, 2001). The project goal is to promote the use of “Respiratory Etiquette” (use of a tissue to contain respiratory secretions when coughing/sneezing, disposal of tissues in the waste receptacle, hand hygiene after contact with respiratory secretions and contaminated objects, and use of a mask by persons with respiratory infection symptoms) which is supported as a tool to reduce transmission of respiratory infection (CDC, 2004; Health Canada, 2003).

This one-year (April 2004 – April 2005), Capital Health funded initiative, encompassing target populations in Suburban / Rural communities of Redwater, Fort Saskatchewan, Leduc, Devon, Stony Plain, and Evansburg, includes use of a respiratory etiquette video in waiting rooms, the distribution to patients of respiratory etiquette kits to those patients with cough and fever, students in grades four to six and staff in healthcare facilities will also be targeted for education. The secondary target audience is the general public, which will be exposed to the information via posters, newspaper articles, and through influence of primary targets.

Utilization-focused evaluation of the project, using both quantitative and qualitative methods, will measure short-term outcomes (one year) and will document lessons learned about program implementation. Data collection will include before-after testing of optimal samples of target populations for changes in knowledge, attitude and behaviours. It evaluated positively, the program may be expanded to the greater Capital Health population as well as to other health regions in the province. Health promotion requires a proactive approach to prevent illness. This project provides an opportunity to promote health through simple, evidence-based practice.

HOW CLEAN IS YOUR HOSPITAL? ENVIRONMENTAL SURVEILLANCE CULTURES OF INPATIENT HOSPITAL ROOMS AFTER DISINFECTION

Al-Kabish N, Chan F, Sub KN. Children’s Hospital of Eastern Ontario, Ottawa, ON.

BACKGROUND: Pathogenic organisms surviving on inanimate objects and surfaces in the hospital environment have the potential to cause nosocomial infections. This has been demonstrated with RSV and influenza viruses. The role of the environment as a reservoir for other pathogens other than C. difficile is less well studied. Environmental disinfection is an important component of infection prevention strategies, but the effectiveness of these practices is not well known.

OBJECTIVES: To study the effectiveness of terminal environmental cleaning in eliminating on impacting pathogens from inanimate surfaces in the Children’s Hospital of Eastern Ontario, an 156 bed acute care pediatric facility in Ottawa, Canada.

METHODS: Terminal disinfection of patient rooms was performed using a hospital-approved quaternary ammonium compound and following standard procedure. Environmental swabs were obtained from 10 empty patient rooms following patient discharge, and after terminal disinfection of the rooms. Six swabs were obtained from each room. Three were obtained from the patient room (door handle, call bell, and bed or crib rail); the other three were taken from the patient washroom (faucet handle, toilet flush handle, and door handle). Specimens were inoculated onto blood and MacConkey agar and processed using standard laboratory methods.

RESULTS: A total of 106 samples were obtained, yielding a total of 177 organisms. In total, 81% of specimens had bacterial growth. All rooms yielded at least 3 positive samples. Washrooms were the most heavily colonized sites; 89-100% of samples from each of the three washroom sites yielded bacteria. Organisms considered to be of low pathogenic potential (e.g. coagulase-negative staphylococci) accounted for 72 % of all isolates. Lactose fermenting and non-lactose fermenting gram negative bacilli accounted for 14 % of isolates. Faucet handles harbored 38.4% of the total number of organisms isolated, and 84% of potentially pathogenic bacteria. In contrast, 67% of specimens from the three patient room sites were positive, and only 3.6% of these isolates were considered potential pathogens. No nosocomial infections were attributed to this environmental contamination.

CONCLUSIONS: Bacteria can be detected in the environment after terminal cleaning of patient rooms. Patient washrooms were the most heavily colonized areas and could potentially serve as reservoirs for infection. It would be paid to procedures used for environmental disinfection in healthcare settings.
Waterless Surgical Hand Preparation

Surgicept™ Surgical Hand Preparation is a new addition to the infection control arsenal. This product is for use by operating room and critical care personnel for disinfection of the hands and forearms prior to performing surgery or patient care.

Features

- Conforms to new CDC guidelines for hand hygiene.
- Contains ethyl alcohol as the active agent.
- Rapid and broad spectrum antimicrobial action.
- Persistent activity reduces risk of cross contamination.
- Two minute, waterless and brushless hand disinfection.
- Formulated with Viacydin™, a patent pending emollient and antimicrobial system.
- Low risk of bacterial resistance development.
- Highly effective in eradicating antibiotic resistant organisms.
- Gentle on the skin compared to other scrub products.

Surgicept™ The clear solution for your infection control needs

Saving lives, saving time, saving resources

mycrocept
CORPORATION

Exclusive
Canadian
Distributor:

Instrumed
Surgical

Phone: 1-800-667-5653 or 905-820-0902
Fax: 905-820-0983
E-mail: instrumedsurgical@on.aibn.com

FDA TFM TEST FOR IMMEDIATE AND PERSISTENT ACTIVITY

Reduction in Hand Flora Counts After First Application of Surgicept™ Surgical Hand Prep

LOG 10 cfu/hand

0 1 2 3 4 5 6 7 8

1 MINUTE 6 HOURS

In Vitro 15 Second Time Kill and Spectrum of Activity of Surgicept™ Surgical Hand Prep

Reduction from Baseline: LOG 10 cfu/hand
EMERGING PROBLEMS OF PARATHYROID FEVER IN INDIA: AN EXPERIENCE OVER THE LAST 10 YEARS
Arri K, Renuka K, Srijana M, Seema S, Das BK. Department of Microbiology, All India Institute of Medical Sciences, New Delhi, India.

Objective: Enteric fever continues to be a major community acquired infection in our country. Until recently Salmonella paraatyphi A was thought to be responsible for only a small percentage of cases of enteric fever and has traditionally been associated with a mild clinical illness. However, this patient was found to have a variant of Salmonella paraatyphi A and this addition to the list of potential causative agents of enteric fever has led to a significant increase in CDAD rates. Possible mechanisms include sharing of toilets from two units onto a single poorly designed unit. The CDAD rate in period two was significantly higher than in period one (P < 0.05, t-test). Results: The total numbers of clinical samples received in the laboratory from the clinically suspected cases of enteric fever each year were not significantly different during 1994 to 2004. However, the proportion of the disease caused by S. paraatyphi A gradually increased over the years – from 6% in 1994 to 30% in 2004. During 1996 there was an outbreak due to paraatyphi fever when S. paraatyphi A accounted for 50% of the total cases from the enteric fever cases. Also, there has been an increase in the number of MDR S. paraatyphi A (multidrug resistant strains showing resistance to chloramphenicol, ampicillin, cotrimoxazole, nalidixic acid and ciprofloxacin) by disc diffusion method as per the NCCLS guidelines. Ciprofloxacin MIC was determined by the E-test method for the strains showing reduced susceptibility to ciprofloxacin which was determined by the resistance to nalidixic acid.

LESSONS LEARNED:

1. Pre-amalgamation, (period one: April to June 2004), 29 vascular surgery and ENT patients were separated on two units. Post-amalgamation (period two: July to September 2004), 23 of these patients were concentrated on a single unit. This unit has only two single rooms with dedicated toilets. The 12 remaining rooms shared seven toilets. CDAD rates and risk factors were compared pre and post-amalgamation.

2. The CDAD rate in period two was significantly higher than in period one (P < 0.01). There were no significant differences in patient population, patient days, attending staff and physicians, procedures performed, or severity of illness (ICHI Resource Intensity Weight and complexity measurement). Use of all classes of antibiotics was similar in both periods, except for penicillins, which had significantly higher use during period one. The only identifiable change was an increase to 93.6% in 2004, which was much higher than the incidence of NAR strains showing reduced susceptibility to ciprofloxacin which was determined by the resistance to nalidixic acid.

3. Consistent areas of frustration contributing to high levels of stress were identified across all facilities with the major themes being resource limitation, restrictions in patient care, inadequate communication both within and outside the facility, deficiencies in emergency preparedness and interaction between facilities and regions, limitations in staff knowledge and training, and excessive stress. Lack of any regional cooperation prior to the outbreak hampered response and lead to duplication across facilities.

CONCLUSIONS: The incidence of S. paraatyphi A infections has gradually increased over the years with the increase in its antimicrobial resistance. This infection is no longer a mild disease. The available vaccine against S. typhi infections only might have been responsible for the shift. In this changing scenario there is a need to revise the strategies for the prevention of enteric fever.

PROVIDING CARE FOR SARS PATIENTS IN TORONTO ACUTE CARE FACILITIES DURING THE 2003 OUTBREAK

Objective: To review some aspects of the facility level experience relevant to infection control and occupational health in providing care for SARS patients during the Toronto outbreak (March to July 2003).

Methods: Qualitative and quantitative data were collected through interview with individuals at eight facilities. A standardized questionnaire was used and information was entered electronically.

Results: Response at the facility level was characterized by continuing evolution of practices, limitations in expertise and resources, and inter-facility variability in application of Provincial Operating Centre (POC) directives. All facilities provided care in airborne isolation rooms in critical care units and seven facilities developed and managed specific SARS units. From 2 – 47 staff members were diagnosed at these units with SARS. The number of beds per IPC prior to the outbreak varied from 173 – 500.

Analysis and feedback are provided to stakeholders, CQI committees and the hospital board present) and selected chart review. The data is entered into a computer program. Nosocomial infections in the elderly significantly impact quality of life and costs within personal care homes. Efforts to decrease nosocomial infections first require the standardized tracking of infection rates. A lack of consistent definitions and processes limited the ability to benchmark infection rates across the 39 personal care homes in Winnipeg.

CONCLUSION: The rise in CDAD is a local epidemic with high fit testing failure rates, which complicated patient care at some facilities.

Regional Infection Surveillance: Improving Resident Care- One Bug at a Time
Taylor B. * Winnipeg Regional Health Authority, Personal Care Program, Deer Lodge Centre, Winnipeg, MB.

Issue: Nosocomial infections in the elderly significantly impact quality of life and costs within personal care homes. Efforts to decrease nosocomial infections first require the standardized tracking of infection rates. A lack of consistent definitions and processes limited the ability to benchmark infection rates across the 39 personal care homes in Winnipeg.

Project: The Winnipeg Regional Health Authority Personal Care Home Program implemented a regional infection surveillance program to standardize infection control processes, to minimize the number of nosocomial infections, to prevent outbreaks within the region, and to identify opportunities for quality improvement.

Results: Shared definitions of nosocomial infections have been developed, data collection processes have been centralized, information sharing and benchmarking has been enhanced across the entire region.

Lessons Learned: Interpretation of the definitions varied across the region. Infection surveillance education is essential to ensure a standardized tracking of infection rates.

Infection Prevention and Control and Cardiac Surgeons – How to Achieve Surgical Site Infection Identification Harmony
Orenstein P,* Consolacion N, Larouche S, Amihod B, Miller M. Infection Prevention and Control Unit, SMBD-Jewish General Hospital, Montreal, QC.

Issue: The SMBD-JGH is a 638-bed acute-care, tertiary hospital. Our medical-surgical hospitals provide a wide range of services, including rehabilitation, mental health services, primary care, cardiology, oncology, emergency and pediatrics. Nosocomial infections in the elderly significantly impact quality of life and costs within personal care homes. Efforts to decrease nosocomial infections first require the standardized tracking of infection rates. A lack of consistent definitions and processes limited the ability to benchmark infection rates across the 39 personal care homes in Winnipeg.

Project: The Winnipeg Regional Health Authority Personal Care Home Program implemented a regional infection surveillance program to standardize infection control processes, to minimize the number of nosocomial infections, to prevent outbreaks within the region, and to identify opportunities for quality improvement.

Lessons: The SMBD-JGH is a 638-bed acute-care, tertiary hospital. Our medical-surgical hospitals provide a wide range of services, including rehabilitation, mental health services, primary care, cardiology, oncology, emergency and pediatrics. Nosocomial infections in the elderly significantly impact quality of life and costs within personal care homes. Efforts to decrease nosocomial infections first require the standardized tracking of infection rates. A lack of consistent definitions and processes limited the ability to benchmark infection rates across the 39 personal care homes in Winnipeg.

Project: The Winnipeg Regional Health Authority Personal Care Home Program implemented a regional infection surveillance program to standardize infection control processes, to minimize the number of nosocomial infections, to prevent outbreaks within the region, and to identify opportunities for quality improvement.

Analysis and feedback are provided to stakeholders, CQI committees and the hospital board present) and selected chart review. The data is entered into a computer program. Nosocomial infections in the elderly significantly impact quality of life and costs within personal care homes. Efforts to decrease nosocomial infections first require the standardized tracking of infection rates. A lack of consistent definitions and processes limited the ability to benchmark infection rates across the 39 personal care homes in Winnipeg.

CONCLUSION: The rise in CDAD is a local epidemic with high fit testing failure rates, which complicated patient care at some facilities.

Regional Infection Surveillance: Improving Resident Care- One Bug at a Time
Taylor B. * Winnipeg Regional Health Authority, Personal Care Program, Deer Lodge Centre, Winnipeg, MB.

Issue: Nosocomial infections in the elderly significantly impact quality of life and costs within personal care homes. Efforts to decrease nosocomial infections first require the standardized tracking of infection rates. A lack of consistent definitions and processes limited the ability to benchmark infection rates across the 39 personal care homes in Winnipeg.

Project: The Winnipeg Regional Health Authority Personal Care Home Program implemented a regional infection surveillance program to standardize infection control processes, to minimize the number of nosocomial infections, to prevent outbreaks within the region, and to identify opportunities for quality improvement.

Results: Shared definitions of nosocomial infections have been developed, data collection processes have been centralized, information sharing and benchmarking has been enhanced across the entire region.

Lessons Learned: Interpretation of the definitions varied across the region. Infection surveillance education is essential to ensure a standardized tracking of infection rates.

Infection Prevention and Control and Cardiac Surgeons – How to Achieve Surgical Site Infection Identification Harmony
Orenstein P,* Consolacion N, Larouche S, Amihod B, Miller M. Infection Prevention and Control Unit, SMBD-Jewish General Hospital, Montreal, QC.

Issue: The SMBD-JGH is a 638-bed acute-care, tertiary hospital. Our medical-surgical hospitals provide a wide range of services, including rehabilitation, mental health services, primary care, cardiology, oncology, emergency and pediatrics. Nosocomial infections in the elderly significantly impact quality of life and costs within personal care homes. Efforts to decrease nosocomial infections first require the standardized tracking of infection rates. A lack of consistent definitions and processes limited the ability to benchmark infection rates across the 39 personal care homes in Winnipeg.

Project: The Winnipeg Regional Health Authority Personal Care Home Program implemented a regional infection surveillance program to standardize infection control processes, to minimize the number of nosocomial infections, to prevent outbreaks within the region, and to identify opportunities for quality improvement.

Results: Shared definitions of nosocomial infections have been developed, data collection processes have been centralized, information sharing and benchmarking has been enhanced across the entire region.

Lessons Learned: Interpretation of the definitions varied across the region. Infection surveillance education is essential to ensure a standardized tracking of infection rates.

Infection Prevention and Control and Cardiac Surgeons – How to Achieve Surgical Site Infection Identification Harmony
Orenstein P,* Consolacion N, Larouche S, Amihod B, Miller M. Infection Prevention and Control Unit, SMBD-Jewish General Hospital, Montreal, QC.

Issue: The SMBD-JGH is a 638-bed acute-care, tertiary hospital. Our medical-surgical hospitals provide a wide range of services, including rehabilitation, mental health services, primary care, cardiology, oncology, emergency and pediatrics. Nosocomial infections in the elderly significantly impact quality of life and costs within personal care homes. Efforts to decrease nosocomial infections first require the standardized tracking of infection rates. A lack of consistent definitions and processes limited the ability to benchmark infection rates across the 39 personal care homes in Winnipeg.

Project: The Winnipeg Regional Health Authority Personal Care Home Program implemented a regional infection surveillance program to standardize infection control processes, to minimize the number of nosocomial infections, to prevent outbreaks within the region, and to identify opportunities for quality improvement.

Results: Shared definitions of nosocomial infections have been developed, data collection processes have been centralized, information sharing and benchmarking has been enhanced across the entire region.

Lessons Learned: Interpretation of the definitions varied across the region. Infection surveillance education is essential to ensure a standardized tracking of infection rates.

Background/Objectives: The chemotherapy clinic at North York General Hospital treats patients with solid organ tumours, multiple myeloma, and lymphomas. A patient with asymptomatic (smear-negative, culture-positive) active pulmonary tuberculosis, detected on staging CT scan, attended the clinic on eight occasions prior to diagnosis. An investigation of contacts was conducted to determine TB exposure/transmission in this immunocompromised population.

Methods: Subjects investigated included all patients with two or more exposures to the index case (each exposure averaged two to four hours), and all staff who worked in the chemotherapy clinic. Staff was followed by the Occupational Health Department as per standard guidelines. Patients who were still enrolled in the clinic were assessed by an Infectious Diseases specialist and underwent Tuberculin Skin Testing (TST) and interferon-gamma release assay (IGRA). Detailed histories, including cancer diagnosis, previous TB exposure, country of birth were conducted. Patients discharged from the care of the clinic were followed by the Toronto Public Health Department.

An environmental assessment was conducted, consisting of traffic patterns and air exchange determinations.

Results: Twenty six patients were assessed. Four patients (two colon CA, one breast CA, one multiple myeloma) were found to have baseline positive TST (range 12mm-29mm), and one patient had a known history of positive TST. Four of the five patients with baseline positive TST were foreign-born. No staff converted their TST.

The environmental assessment revealed that there were 17 air exchanges per hour. Conclusions: Patients with solid tumors undergoing chemotherapy still appear able to mount a cell-mediated immune response to TST antigens, making TST a useful part of TB exposure follow-up in this population. Despite multiple exposures, there were no Mantoux conversions. High air exchange rates may have played a protective role.

TO BE OR NOT TO BE… FOCUS TESTING OF HEALTH CARE WORKERS TO DETERMINE FACTORS INFLUENCING IMMUNIZATION DECISIONS Batenburg J, Gaughan J, Jovanovic K, Zivkovic S, Smith B, van Horne L. 1 Peel Public Health, Brampton, ON.

Issue: Annual influenza immunization coverage rates among health care professionals in Peel acute care settings have been declining since 2000. Poor influenza coverage rates result in transmission of infection, increase in morbidity and mortality, increase in institutional outbreaks, higher rates of staff absenteeism and misinformation about risks of influenza vaccine. The declining immunization coverage rates prompted Peel Public Health to take a closer look at the issues impacting declining rates.

Project: Focus groups were conducted by Peel Public Health Staff with health care workers from acute care, community care (CCAC) and local emergency responders in summer 2004. The purpose of the focus testing was to gain an understanding of the barriers that influence health care workers’ decision to be or not be immunized. The responses were elicited in three categories: perceptions of the flu vaccine, community practice, and barriers to receiving vaccine. Focus group results were summarized and presented back to the Infection Control Practitioners and Occupational Health staff at participating facilities. Short and long term goals were collaboratively developed to improve coverage rates.

Results: Feedback from participants indicated that the focus testing was a useful process for better understanding the barriers to vaccination. Participants indicated that a negative immunization experience vocalized by a colleague impacts willingness to receive vaccine. Other negative factors were misinformation available through the Internet and ease of access to clinics. Participants clearly indicated that physicians influence immunization decisions and need to be involved with unit champions in staff immunization campaigns.

Lessons Learned: The focus groups promoted education and awareness among participants and provided an opportunity to engage and develop partnerships with our target group. The decision to be immunized is affected by a number of factors. Immunization campaigns for health care workers must be collaborative and address barriers to immunization on an on-going basis.

INFECTION CONTROL PRACTICES FOR ANTIMICROBIAL RESISTANT ORGANISMS (AROS) IN CANADIAN NOSOCOMIAL INFECTION SURVEILLANCE PROGRAM (CNISP) HOSPITALS: A SURVEY OF PRACTICE Varia M, 1 Johnston L, 1 Oliver-Agostini M, 1 Gravel D, 1 Green K, 1 Elizabeth Bryce E, 1 Simor A, 1 Paton S. 1 Canadian Hospital Epidemiology Committee (CHEC), CNISP, 2Health Canada, Ottawa, ON, 3Dalhousie University, Halifax, NS, 4Mt. Sinai Hospital, Toronto, ON, 5University of British Columbia, Vancouver, BC, 6University of Toronto, Toronto, ON.

Background: Amidst debate regarding whether screening should be conducted routinely to limit the spread of AROs, it was recognized that there is lack of data about what infection control (IC) practices are actually used among IC professionals.

Objective: To describe the screening and barrier precautions used by CNISP hospitals to control the cross-transmission of methicillin resistant S. aureus (MRSA), vancomycin resistant enterococci (VRE), and extended spectrum- lactamase (ESBL) and AmpC (AmpC) producing E.coli and K. pneumonia.

Methods: Separate questionnaires for MRSA, VRE and ESBL/AmpC were sent by e-mail in January 2003 to 25 healthcare centers representing 37 hospital sites. Questions regarding IC practices and screening policies for MRSA, VRE and ESBL/AmpC, 2002 screening results, and hospital antimicrobial restriction policies were included. Data were entered into an MS Access database and data analysis conducted in MS Excel.

Results: Twenty-eight questionnaires were returned, providing data for 36 (97.3%) hospital sites. The majority conduct admission screening for MRSA (96.4%) and VRE (89.3%), but only 1 for ESBL/AmpC (3.6%). While all hospitals screened patients with a previous admission history, other groups that were screened varied by site. Very few (MRSA: 14.3%, VRE: 10.7%) record the number of patients screened.

Regularity prevalence surveys were done for MRSA (17.9%), VRE (32.1%), and ESBL/AmpC (3.6%). Preemptive precautions were applied for MRSA and VRE by 67.9% of facilities. No facilities started precautions for patients unless confirmed as ESBL positive. All facilities ‘flag’ patients previously identified with MRSA and VRE but only 50% for ESBL and 14% for AmpC. Barrier precautions vary for ARO and patient care setting. In the inpatient non-ICU setting, >90% wear gowns and gloves for MRSA and VRE, but only 75% for ESBL; and 64% wear masks for MRSA. Attempts to decolonize MRSA patients have been made in 60%.

Lessons learned: A successful SNSP requires the collaboration and education of all health care providers. Policies restricting antimicrobial prescribing were reported by 18 facilities (64.3%) but varied by facility.

Conclusion: While all sites institute screening and precautions for VRE and MRSA, they differ in implementation. Additional, transmission of AROs still occur with the use of screening and precautions. Further studies examining hospital IC practices and corresponding rates of transmission of AROs would help in identifying and refining ‘best practise’ guidelines.

HOSPITAL INFECTION (NOSOCOMIAL) IN NICU AT LOGHMAN TEACHING HOSPITAL, TEHRAN, IRAN Ehseshi Z. Academic Member of Medicine, Shahid Beheshti University, Tehran, Iran.

Objective: To implicate the rate of nosocomial infection and to identify the most common sites of nosocomial infection and the most common pathogens that are the cause of nosocomial infection in newborn service and the newborn NICU.

Methods: The approach for this study was in the form of a retrospective study consisting of 308 case files documented for patients in newborn service and newborn NICU that were admitted to the Loghman Teaching Hospital during the year 2002 through year 2003. Diagnostic criteria in this study were derived from clinical studies, laboratory, and radiography data.

Results: The rate of nosocomial infection was 6.8% with a mortality rate of 33%. The rate of nosocomial infection in newborn NICU was 14%. The most common sites of nosocomial infection found were blood stream (33%), urinary tract (24%), respiratory tract (24%), gastrointestinal (14%), and skin (5%). The most common germ of cause septicaemia is also Klebsiella (40%). Concerning the rate of infection obtained the following sites of infection existed: Septicaemia (36%), Pneumonia (14.9%), Urinary Tract Infection (4.2%), surgical-site infection (1.8%), all other infections (43.1%).

Conclusions: The nosocomial infection occurrence, based on these studies, in the Neonatal Ward and Newborn NICU (14%) is lower than the occurrence rate observed in the Internal, Cancer, Burn, Cardiac, Ortho, Ophthalmology, Paediatric, and OB/CYN Ward included in this study. For patients affected to Nosocomial Hospital Infections, the most common site found for infection was the bloodstream, followed by urinary tract and respiratory tract sites (24%). The most common pathogens of cause of septicaemia and surgical-site infections is found to be organisms of Cram Positive (bacteria). Most common pathogen of cause of pneumonia and urinary tract infections are organisms of Cram Negative (51%) (coccii).

COMPLIANCE IN HAND HYGIENE AFTER IMPLEMENTING AN E-LEARNING PROGRAM IN SUFFICIENT HAND HYGIENE, BASED ON AUDITS (OBSERVATION STUDY AND QUESTIONNAIRES) Due D*, Screjby Hospital, Aarhus, Denmark.

Background: A clinical guideline in sufficient hand hygiene was implemented in 2003 at a Danish Hospital. Audits were made showing that compliance in hand hygiene six months after implementing the guideline, was: 21% use jwets in contact with the patients, 50% use non sterile gloves in an unclean procedure, 43% use desinfection before a clean procedure, 59% use disinfection after an unclean procedure.

Objective: To increase focus of hand hygiene we made an e-Learning program based on the clinical guideline.

Strategy: An introducing programme was offered four times in plenum within two weeks.

Every person in hygiene from every staff-group was invited along with their leaders. They were introduced to the background of doing the program and the program was demonstrated. The implementation strategy is based on teaching and motivation of the staff.

Along with the program they got a written instruction.

Method: To show if compliance increased, I made a questionnaire. The questionnaire contains questions about information about the program, if you did the test and...
how the test affected your every day hand hygiene. It also contains questions about behavior. For example; “Are you ready to comment on your colleagues insufficient hand hygiene?” might show us some effect of the program and might basically show us if we are ready to change our behavior.

**Hypothesis:** Compliance in hand hygiene after implementing the clinical guideline in sufficient hand hygiene, did not live up to our expectations of increasing compliance. I have great expectations that compliance in hand hygiene will increase when an e-Learning course within the same area as the clinical guideline is implemented.

**Results:** Within the next couple of months the results will be ready. They are based on these questionnaires and compared to audit results (staff observations in the wards) I wish to present these results at the congress in May 2005.

**Conclusion/discussion:** I wish to show that an e-Learning program makes a difference in an implementation strategy. e-Learning is flexible, effective, productive and up-to-date.

---

**Hepatitis A**

**Fat**

<table>
<thead>
<tr>
<th>Dose</th>
<th>% of people who completed entire series</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>17 5</td>
</tr>
</tbody>
</table>

**Hepatitis B**

<table>
<thead>
<tr>
<th>Dose</th>
<th>% of people who completed entire series</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>28 18 53</td>
</tr>
</tbody>
</table>

---

**Establishment of a Hepatitis A and B Community Immunization Clinic for High Risk Clients**

**Earl S, Cosentino C, Sanaza N. Region of Peel Public Health Brampton, ON**

**Issue:** Peel Public Health works closely with the Peel Works Needle Exchange Programme to provide information, education and awareness regarding harm reduction and hepatitis within Brampton’s downtown marginalized community. Two public health nurses are assigned to this project. During such outreach initiatives, the public health nurses gained a level of trust and established relationships with clients in this community. Recognizing the many risk factors encountered daily including communal living, intravenous drug use, multiple sex partners and homelessness, Peel Public Health staff feel that it is important for this community to know their hepatitis status, as well as be immunized against hepatitis A and B. Through this collaboration, the marginalized community members expressed difficulty accessing health services due to a number of barriers that face them daily. As a result of this need, the process of developing a hepatitis A and B high risk community immunization clinic began.

**Project:** As recommended by the National Advisory Committee on Immunization (NACI) and the Provincial Advisory Committee on Communicable Diseases, the Ministry of Health and Long Term Care (MOHLTC) implemented a hepatitis A vaccine program for high risk populations. Individuals who were eligible for publicly funded hepatitis A vaccine included: individuals with chronic liver disease including those with hepatitis C, Intravenous drug users, and men who have sex with men.

In accordance with the MOHLTC guidelines, Peel Health started planning community based hepatitis A immunization clinics for high risk individuals. Phase one of the clinics was initiated, offering both hepatitis A and B vaccine, to those meeting eligibility criteria. An agreement was sought between the John Howard Society and Peel Public Health to operate the clinic during a free weekly breakfast program which targeted this high risk marginalized population. The program was launched in March 2004. The first phase of the program was completed in January 2005. Phase two of this program includes the addition of a hepatitis B and C testing component and is scheduled to begin in winter 2005.

**Results:** A total of 189 patients with 217 CDAD episodes were identified, giving an incidence of 12.4 episodes per 1,000 patient days. 187 (86%) cases were nosocomial. Of these, 157 (84%) were primary episodes. The mean age of the patients was 76 years. In the six weeks prior to symptom onset, 151 (96.2%) of primary nosocomial cases had used antibiotics. Fluoroquinolones were the most used class. A total of 17 (10.4%) of patients died during the study period either directly or indirectly due to CDAD. There was known gatifloxacin use in 64.7% of the CDAD attributable deaths. All primary deaths due to CDAD occurred in patients 65 years or older, who had received antibiotics within the previous eight weeks. CDAD patients were older and had longer hospital stays than the general hospital population. Many had multiple pre-existing comorbidities. Contact precautions were started an average of 4.0 days after symptom onset, and usually on the same day as the notification to the ward of a positive Clostridium difficile toxin assay.

**Conclusions:** Several recommendations were put forward following this investigation many of which have been, or are in the process of, being implemented. This included on-site Clostridium difficile toxin testing to improve turnaround time of laboratory testing, increased infection control staff, and improved antibiotic stewardship. Although this descriptive study suggests that gatifloxacin may play some role in primary deaths due to CDAD, the numbers are small and causality is likely multifactorial. Further study is warranted.

**AN INVESTIGATION OF POST CRANIOTOMY/DURAPLASTY SURGICAL SITE INFECTIONS CAUSED BY PROPIONIBACTERIUM ACNES: A CASE FOR SHERLOCK HOLMES?**

Yetman M, Hutchinson J, Hewitt S, Manuel C, Moralez D, Health Care Corporation, St. John’s, Memorial University of Newfoundland, NL.

**Issue:** Propionibacterium acnes (P. acnes), a common skin commensal, is rarely implicated as the cause of severe neurosurgical site infections (SSIs). This report describes an investigation of 14 cases of epidural abscess following craniotomy/duraplasty in the past four years.

**Results:** Initially, environmental or procedural faults were suspected. Meetings were held with the OR staff, including surgeons, and an audit of OR procedures and postoperative care was done. This failed to identify a probable cause. A literature review revealed a paucity of reports of P. acnes as a cause of neurosurgical infections. During this time more cases were identified. Frustration was mounting. Implants such as the Gelfoam, Surgicel, and synthetic duraplasty used in the cases were cultured. P. acnes was recovered from a single sample of new non-implanted Gelfoam. This isolate and clinical isolates from five patients were typed using pulse field gel electrophoresis (PFGE) by the National Microbiology Laboratory. Isolates from Gelfoam and three patients were found to have identical PFGE patterns suggesting Gelfoam as a common source. However, this was not supported by the observance of no similar infections in non-neurosurgical procedures using Gelfoam or by a poll of colleagues reporting no increase in P. acnes SSIs in their institutions. Interestingly a case of epidural abscess caused by P. acnes was identified in a patient who had the initial surgery in a hospital outside of Newfoundland. Changes were initiated; the use of Gelfoam was discontinued and the shave/clipping technique was adjusted.

**Lessons learned:** Keep looking. The answer is not always obvious. Actions may have to be taken based on less than perfect evidence. Deductive skills have been tested... if only Sherlock was here to help.
PREVALENCE OF ZOONOTIC PATHOGENS IN DOGS VISITING HUMAN HOSPITAL PATIENTS IN ONTARIO

LeFlourie S, *Wesele PY, *Walmer-Toews D, *Peregrine A, *Reid-Smith R. Deps. of Population Medicine, *Clinical Studies, and *Pathobiology, University of Guelph, ON. Visiting dogs in hospitals by humans and companion animals is a common practice. While the therapeutic value of such practices has been investigated, the potential health hazards, both to the patients and the dogs, has not. This information is especially important in light of increasing concerns about nosocomial infections in healthcare facilities. A cross-sectional study measured the prevalence of zoonotic pathogens in a group of 102 healthy dogs actively involved in visitation programs in Ontario. A standardised questionnaire was administered to each of the dogs' owners to obtain dog and program information. Fecal samples, aural, nasal, oral, pharyngeal and rectal swabs, as well as hair-coat brushings, were collected from all dogs. Salmonella spp was isolated from 6 fecal samples, vancomycin-resistant enterococci from 5, extended-spectrum beta lactamase (ESBL) and/or cephalosporinase E. coli from 6, and Clostridium difficile from 58. Pasteurella multocida was isolated from 29 oral swabs. Fecal isolation found 2 dogs to be shedding Toxocara canis and 1 other to be shedding Ancylostoma caninum. Enzyme immunassays detected Giardia spp antigen in 7 fecal samples, but failed to detect any Cryptosporidium spp. With C. difficile excluded, no one dog was found to carry more than 1 enteric pathogen. Methicillin-resistant Staphylococcus aureus was not isolated from any nasal or pharyngeal swabs or from feces. Similarly, Pseudomonas aeruginosa, group A streptococci and Microsporum canis were not isolated from any aural, pharyngeal or hair samples, respectively. Only spaying/neutering was identified as a statistically significant protective factor against shedding Salmonella (OR 0.10, 95% CI 0.29 – 0.69, p = .001). None of the other factors, such as antimicrobial history, animal's diet or degree of interaction with patients, were significantly associated with any organism. In some instances, such as MRSA, only a few patterns are worth noting. None of the 11 dogs that tested positive for multidrug-resistant bacteria had been hospitalized for anything other than sterilization, and only 6 of these had prior antimicrobial exposure. In all dogs, interaction with other dogs on a regular basis, whether during exercise or as part of a multi-dog household. Follow-up with the ESBL E. coli-positive dogs showed at least half of the other dogs (6 out of a total of 10) in the multi-pet households were also infected – further evidence of the potential for dog-to-dog spread at the very least. The significance of these findings, particularly the high prevalence of C. difficile, warrants further investigation. At this point, all that can be said with certainty is that dogs can carry many organisms of potentially pathogenic consequence without displaying clinical signs. In light of this, veterinarians are in a unique position to protect the health of their patients, the owners, and the people they visit through certification and education programs. Further, veterinarians and physicians should work together to better evaluate the risks of these potential pathogens and develop objective criteria for screening of hospital visitation dogs. This project was made possible by the Pet Trust research fund of the Ontario Veterinary College.

THE INVESTIGATION OF A CASE OF METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS FOUND IN A BONE SPECIMEN TAKEN DURING A TOTAL HIP ALLOGRAFT

Churchill E, *McGeer A, Beaudry-Clouatre M, Willey, B. Department of Microbiology, Infection Control Mount Sinai Hospital, Toronto, ON

Issue: Methicillin-Resistant Staphylococcus aureus (MRSA) was found isolated from a patient following surgery, a patient having a history of hospitalisation. The isolate, obtained in the operating room just prior to implantation, was sent to the laboratory for testing and was found to be positive for MRSA. The patient received both oral and intravenous antibiotic medications. Due to the long-term risks associated with MRSA within the allograft, the patient eventually had to have a peripherally inserted central catheter (PICC line) to facilitate his long term antibiotic use. A number of additional factors contributed to the severity of this case including, the multidisciplinary teams which had to be consulted for this patient, the financial costs of the patient’s added stay in the hospital as well as the emotional stress inflicted on the patient. Lessons Learned: Interventions, such as consultation with the ESBL Project, to better evaluate the risks of these potential pathogens and develop objective criteria for screening of hospital visitation dogs. This project was made possible by the Pet Trust research fund of the Ontario Veterinary College.
INFECTION CONTROL AND A NURSING INTERNSHIP PROGRAM
Ashcroft B.*, Stevenson A, Tomczek A. Toronto East General Hospital, Toronto, ON.
Issue: During SARS, TEGH recognized the lack of qualified infection control staff to deal with critical issues during a crisis. Post SARS Govt. of Ontario guidelines stipulate an increased ratio of IPC to patient population served. MOHLTC had made funds available to nursing education through a Nursing Enhancement fund for nursing education. Funds would need to be applied for, and this was done under the directive of the VP People Strategies and Chief Nursing Officer of TEGH.
Project: Reflecting on the Benner Novice to Expert Model, relying on the current resources of an IPC, an infection control coordinator and the infection control officer, two positions as Infection Control Interns were advertised internally to all RN staff of the hospital. Principles of adult education were utilized in the intern's learning experience. With a timeframe of five months for the internship to be determined, a process of education both formal and informal, structured and self-directed learning were encompassed. Each intern in addition to their learning objectives and the department learning goals, had a research project to undertake that would benefit the institute. The project progressed with increasing responsibilities for the interns towards the role of a full-fledged infection control practitioner. The goal was to have interns prepared for future secondment should an epidemic or pandemic event occur that required increased qualified infection control practitioners at the front of any crisis. Equally, these interns would be available as future resource if there was sick time relief or long-term replacement required within the infection control department.
Results: This project was successful in developing highly qualified interns who alleviated the work load of the current infection control department, and are prepared for future secondment to the department on as needed basis. The interns rolled out successful research projects. They were instrumental in increasing educational sessions to hospital staff and taking over general orientation classes. They made significant contributions to the monthly hospital newsletter. The internship paved the way for future internships in other departments and offer of a second internship program in the IC department.
Lessons Learned: Recognition from the interns was that having two interns share their experience with each other was a valuable asset and decreased amount of reliance on currently available Infection Control Departmental staff. Variances in delivery of educational material with respect for the Principles of Adult Learning were most beneficial to both Interns. As the Intern position was a secondment from their current positions, and, as both had been in leadership roles, frequent call back as a resource to their original role, created a tax on the Interns time for educational experience. Future Interns will clearly be seconded. Space issues are equally important to the Interns experience as sharing with 4 persons in one office was distracting to the learning environment. Equally it is realized that selection process for Interns is important with consideration for prior critical thinking skills, and teaching learning skills. We learned the value of recognizing nurses currently in leadership roles to take on new roles through a concentrated mentoring and preceptorship manner, with reflection of Adult Principles of Learning.

INFECTION CONTROL WORKS: SPREADING THE WORD, NOT THE GERMS
Schuman M.1, McNally W.1, Littlejohns A.1, Grey Joses M.1, Loving G.1, Kaiser R.1, 1Capital District Health Authority, Halifax, NS.
Issue: Following analysis of infection control surveillance data and unit specific transmission rates of nosocomial Methicillin-resistant Staphylococcus aureus (MRSA) and Clostridium difficile, it was noted that cross-transmission of bacteria was an ongoing problem on one of our surgical wards. Rates of transmission identified numerous education efforts with staff. A fresh approach was required, and encouraging bedside nurses to become actively involved in the infection control and prevention activities on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was considered the key to improving the issue. Active participation on their unit was consid...
surveillance of catheter-related bloodstream infections in the hemodialysis program


Objective: Hemodialysis patients are at increased risk of acquiring infections, including Catheter-Related Bloodstream Infections (CRBSI) due to their immunocompromised state, prolonged vascular accesses, invasive procedures, poor nutrition and frequent hospital exposures. Hemodialysis accesses may include fistulas, grafts and/or central lines. In approximately 25 percent, CRBSI may be an important risk factor for MRSA colonization/infection.

Method: A total of 68 inpatients were identified with ESBL; 33 in the first phase and 35 in the second phase. In phase one, the proportion of nosocomial cases was lower in phase two as compared to phase one (69% vs 87%, p=0.06). Three clusters involving three to five patients each were identified during phase one; two of the clusters took place in the ICU, no clusters occurred in phase two. During phase two, 381 private room days were utilised over two years, of which 220 were also contact precaution days.

Conclusions: These results suggested increased risk of transmission in critical care areas in the absence of isolation precautions. The incidence of ESBL for the pre and post implementation phases was compared.

Results: A total of 68 inpatients were identified with ESBL; 33 in the first phase and 35 after policy implementation. Overall incidence increased from 0.32 per 10,000 patient days in phase one to 0.49 per 10,000 patient days in phase two (p=0.05 OR 1.53, 95%CI 0.95-2.45). Regional ESBL surveillance was noted to increase during this time period. The proportion of nosocomial cases was lower in phase two as compared to phase one (69% vs 87%, p=0.06). Three clusters involving three to five patients each were identified during phase one; two of the clusters took place in the ICU, no clusters occurred in phase two. During phase two, 381 private room days were utilised over two years, of which 220 were also contact precaution days.

Exposure Prevention for Emergency Responders – Development of a Training Video for Front Line Emergency Responders

Van Horne L,1 Smith B. Peel Public Health, Region of Peel, Brampton, ON.

Objective: To evaluate the current admission screening process and its role in identifying colonized patients and controlling the transmission of MRSA.

Methods: Ninety-five emergency responders were interviewed. Each responder was asked a question at the beginning of two previous days for which admission for risk factors was needed. The survey was conducted as part of a larger study to evaluate the risk of transmission in critical care areas in the absence of isolation precautions. The use of a collaborative approach created a better product that meets the needs of the emergency responders.

Results: The project was successful on several fronts. It achieved the goal of providing basic infection prevention education in an easy to use format and also increased the knowledge of the Designated Officers in infection prevention and control. In addition, several partnerships were developed between the public health unit and the emergency services.

Lessons Learned: The use of a collaborative approach created a better end product that meets the needs of the emergency responders. Compromises were required to ensure that the video reflected actual practice but this was needed to ensure that the emergency responders would see the video as credible. Additional projects and training are being planned to assist the Designated Officers in fulfilling their role.


Johnston L,1 Olmer-Agostino M,2 Gavel D,3 Conly J,4 Simor A,4 Matlow A,1 Emb1 McVey,2 Payton S.5 Canadian Hospital Epidemiology Committee, Canadian Nosocomial Infection Surveillance Program (CNSP), Dalhousie University, Halifax, NS, Canada, 2Health Canada, Ottawa, ON, 3University of Calgary, Calgary, AB, 4University of Toronto, Toronto, ON, 5University of Manitoba, Winnipeg, MB, 6Health Canada, Winnipeg, MB.
INCIDENCE OF CARDIAC SURGICAL SITE INFECTIONS IN CANADA, 1998-2004

Vana M,† Zoonvan D,† Henderson E,† Johnston L,‡ McGeer A,† Taylor G,† Gravel D,‡ Canadian Hospital Epidemiology Committee (CHEC), CNISP. ‘Centre for Infections Disease Prevention and Control, Public Health Agency of Canada, Ottawa, ON; ‘Kingston General Hospital, Kingston, ON; †Peter Lougheed Centre, Calgary, AB; ‡Dalhousie University, Halifax, NS; °Mount Sinai Hospital, Toronto, ON; ‡University of Alberta Hospital, Edmonton, AB.

Background: Surgical site infections (SSI) account for up to 40% of nosocomial infections and are a major source of morbidity following operative procedures. However, there is a lack of reliable data on SSI rates in Canada due to lack of standardization of case definition and data collection across hospitals.

Objective: To conduct a pilot study for cardiac SSI to collect the first national incidence data on SSI and to test the feasibility of a national SSI surveillance program.

Methods: National Nosocomial Infection Surveillance (NNIS) System definitions for infections were used. We included six facilities that were able to provide complete data on patients undergoing surgery between 1998 and 2004. Data included demographics, procedure duration, class and infection type. Sources of identification of SSI were clinical signs of infection observed by hospital staff supported by laboratory reports. Cases were patients with SSI within 30 days of surgery. Preliminary data are presented here.

Results: Data were collected on a total of 11851 operations. Almost all surgeries (n=11744, 99.1%) were classified as clean procedures. Most patients (n=10005; 97.3%) had an ASA severity score of three or above. The procedure duration range from 0.3-16.3 hours (median 3.4 hours). A total of 530 cardiac SSI were reported; the overall SSI rate was 4.5%. Of these, 355 (67.0%) were superficial, 58 (10.9%) deep and 117 (22.1%) organ/space infections. The rate of SSI increased with duration of surgery.

Conclusion: Cardiac SSI rates in our study have remained stable since 1998 and are comparable to that reported by NNIS system. This is the first report of national SSI surveillance data in Canada. Based on the availability and quality of SSI data, nosocomial surveillance for SSI is feasible. However, further analysis and the inclusion of data from other hospitals with similar characteristics is needed for a more accurate picture of the SSI rates in Canada.

A METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) OUTBREAK IN A REGIONAL BURN UNIT: LESSONS LEARNED

McGuire M,† Barry C, Veeramcube M, Simor A, Fish J, Nyog Inn N. Sunnybrook and Women’s College Health Sciences Centre, University of Toronto, Toronto, ON.

Background: The Ross Tilley Burn Centre at Sunnybrook and Women’s College, a tertiary care teaching hospital, is a regional referral centre for adult burn patients. The Ross Tilley Burn Centre at Sunnybrook and Women’s College, a tertiary care teaching hospital, is a regional referral centre for adult burn patients.

Methods: Patients were screened for MRSA on admission, weekly, and on transfer/discharge until the last MRSA positive patient was discharged. MRSA isolates were typed by PFGE. Environmental cultures were taken after patient transfer/discharge.

Results: The 31 MRSA positive patients had 10 MRSA types by PFGE. Further analysis of the epidemiologic data in conjunction with the MRSA typing results confirmed that 20 patients became colonized/infected with MRSA as a result of nosocomial transmission.

Objective: To examine the role of MRSA screening and pulsed field gel electrophoresis (PFGE) in the investigation and management of an MRSA outbreak in a burn unit.

Conclusions: A combination of screening methods and PFGE is essential in an outbreak investigation on a burn unit to determine transmission of MRSA. Admission screening for MRSA failed to identify eight of 11 patients, showing the importance of prevalence, transfer and discharge screens. In recent publications, the time until the first MRSA positive culture could vary between one and 23 weeks depending on length and type of patient exposure, antibiotic use and other factors. PFGE is critical when investigating an MRSA outbreak in a healthcare facility. PFGE proved that we were dealing with 10 different MRSA clones during the outbreak thus changing the management of the outbreak. The increased levels of fluid and protein in the burn patient environment may have played a role in transmission of MRSA as it promoted persistence of organisms in the environment. There is a need for further studies to look at the role the environment plays in MRSA transmission on a burn unit. Without continued surveillance and PFGE, incorrect assumptions about MRSA transmission would have occurred.

LEARNING TO CONSTRUCT A SURVEY QUESTIONNAIRE

Lam-Li D,* Newman A. Infection Prevention and Control, Foothills Medical Centre, Calgary Health Region, Calgary, AB, and Department of Microbiology and Infection Control, London Laboratory Services Group, London, ON.

Introduction: Questionnaires are an applicable measurement tool for Infection Control studies. However, constructing a questionnaire is a difficult skill to acquire and each questionnaire we create should be used as an opportunity to learn more about designing and constructing a survey questionnaire. We use our experience from the Hemodialysis Unit Survey to illustrate some of the lessons we learned from constructing this type of utility survey.
Make Micro-Touch® Nitrile your first choice in Nitrile.

Powder-Free, Worry-Free Protection for Latex-Sensitive Individuals

- Conforms to the hand for a comfortable fit.
- Fully textured for excellent wet-dry grip.
- No natural rubber latex.
- Nitrile film provides excellent chemical and puncture resistance.
- Available in sizes extra-small to extra-large.
- 510K approved for chemotherapy use.

For more information call our Customer Service at 1 800 363-8340 or send an e-mail to: customerservicecan@ansell.com

www.ansellhealthcare.com/canada
Project: The questionnaire was created using questions selected from previous chat room discussions of the CHIC- Dialysis Interest Group. The questions were grouped under related subject headings and presented as a five-page self-administered questionnaire. A mixture of open-ended and closed-ended questions were asked about the design of the Hemodialysis unit, cleaning and disinfection of the dialysis machine, water treatment and waste management, Hemodialysis access management and infection surveillance, isolation and screening of antibiotic resistant organisms, airborne diseases and hepatitis viruses, immunization program and antibiotic utilization. Questions relating to statistics are being asked. Pre-testing of the questionnaires was not done.

Results: Since the respondents are not from a homogeneous discipline, knowledge level and familiarity with common terminology would be different than assumed. This is translated to skipped or erroneous answers. Some questions failed to deliver clear meaning leading to misinterpretation of the questions and thus, invalid answers. Fortunately, there were sufficient checks in the questionnaire to warn about inconsistencies in the answers. The use of open-ended questions in the questionnaire design required extensive follow-up clarification and validation of the answers provided. Questions asking the respondent to provide statistical data had a poor response rate and were considered too demanding to complete.

Lessons Learned: Wordings of questions is the primary key in maximizing the validity in the question-asking process. Providing clear definitions for common terminology and avoiding the use of acronyms reduce the number of skipped or erroneous answers. Pre-testing the questionnaire would reduce these problems. To ensure accuracy in response, specific in-depth questions should be directed to the person most knowledgeable about the subject matter. Statistics questions should be limited. Limiting the number of open-ended questions in a general survey also facilitates the data analyses.

INTRODUCTION OF NEW ISOLATION SIGNS IN AN ACUTE CARE FACILITY
Tomiczek A. Toronto East General Hospital, Toronto, ON.

Issue: The outbreak of Severe Acute Respiratory Syndrome (SARS) in Toronto in 2003 caused tremendous anxiety among healthcare staff at Toronto East General Hospital concerning the management of patients requiring barrier precautions. Many staff did not have adequate knowledge of isolation procedures or awareness of when to use precautions.

Project: The author developed new isolation signs to assist staff in knowing which illnesses required barrier precautions, and which precautions to use. A staff survey was done to assess the learning needs of the hospital staff about Routine Precautions. The survey results showed that several problems needed to be addressed in order for the staff to feel confident and safe while caring for patients with potentially infectious diseases. One medical unit was selected to pilot the new isolation sign project. The pilot project went on for five weeks, during which time input was sought from multiple stakeholders. Due to our diverse staffing population and the diverse community diseases. One medical unit was selected to pilot the new isolation sign project. The pilot project went on for five weeks, during which time input was sought from multiple stakeholders. Due to our diverse staffing population and the diverse community

Results: Staff quickly mastered using the new signs and indicated verbally on many occasions that they felt the new signs to be much easier to understand and to use. The introduction of the new signs allowed the ICPS a place to start with the education program around the "new normal. An additional bonus was the high visibility of the new ICPS during the period of institution of new signs, which helped the staff become familiar with the new team members. This project was completed in a cost effective manner.

Lessons learned: The most important lesson learned from this changing of isolation signs is that there is no amount of communication in a hospital setting that can be considered adequate. Communication regarding the changing of the isolation signs took place in a variety of formats: broadcast e-mails, newsletters, team meetings and a hospital newspaper, yet some staff remained unaware of the changes happening. Language barriers, shift work and weekend work can leave staff feeling "out of loop."

OUTBREAK OF MRSA DETECTED THROUGH OCCUPATIONAL HEALTH
Gauthier I*, Campbell D, Zoutman D, Lloyd L. Providence Continuing Care Centre, Kingston, ON.

Background: Over one year, methicillin resistant Staphylococcus aureus (MRSA) infections were detected in three nurses (two nurses working on the same nursing unit) of a 149-bed Complex Continuing Care/Rehabilitative/Ceriatric/Palliative Care Hospital. An investigation was conducted on the linked ward.

Methods: A point prevalence survey of all patients on that complex continuing care nursing unit was undertaken in June. The survey was expanded site-wide, and was repeated in August. Staff swabbing for detection of colonization was offered.

Results: Four of 28 patients were colonized with MRSA. The site wide survey detected four additional patients as colonized. Pulled field gel electrophoresis typing was performed on the isolates. Five of the patients identified had the same strain as the three nurses. Seven of the eight patients identified as colonized were determined to be nosocomially colonized. The second point prevalence study detected seven new colonized patients, with three of these patients colonized with the same outbreak strain. Upon review, four of these seven cases were determined to be nosocomial. Only 12 of 265 nursing staff presented for screening and of those none were identified as colonized or infected. Interventions initiated included posting of contact precaution signs advising that gloves and gowns were to be worn by all persons entering the patient’s room. Family and visitors had not been required to wear gowns or gloves if they were just visiting in the room. Education sessions on MRSA and Contact Precautions were conducted for various staff groups including housekeeping, rehabilitative therapy and nursing.

Conclusions: The use of contact precautions by everyone entering patient’s rooms in this complex continuing care hospital, routine admission screening of anyone who had an overnight stay in any healthcare facility, additional education for staff and other interventions initiated at the time have helped to stop the nosocomial spread of MRSA. No further staff infections have been identified.

REDUCTION OF CORONARY ARTERY BYPASS SURGERY SURGICAL SITE INFECTIONS USING PERIOPERATIVE INTRANASAL MUPIROCIN

Background: Trillium Health Centre is a 750 bed tertiary care community hospital. Trillium is a regional cardiac care centre and is the leading centre in Canada for performing “beating heart” cardiac surgery. Seventy to 80% of cardiac surgery patients are done off pump.

Objectives: Several studies have shown that intranasal Mupirocin (INM) applied perioperatively significantly reduces surgical site infections (SSIs) after open heart surgery. Other studies have shown no such benefit with INM administration.

Methods: 1215 INM patients who had CABG only and “CABG plus” (CABG with other procedures such as valve replacement or repair) from November 1, 2003 to January 31, 2005 were prospectively followed. The INM protocol was included in the appropriate preprinted order sets as follows: INM one day before surgery, the day of surgery and for three post operative days for a total of 5 days. A historical control group consisted of 1053 patients who had CABG only and “CABG plus” surgeries from October 1, 2002 to Nov 10, 2003.

Results: There was a significant difference in overall SSIs between the control group and the INM treated group: 4.8% (50 of 1053) versus 3% (36 of 1215) (P=.034) respectively. Ninety eight percent of patients successfully completed the INM protocol. Conclusion: The results of this study indicate that prophylactic intranasal Mupirocin may significantly reduce the SSI rate in CABG surgery patients. The inclusion of the INM regimen in preop and postop cardiac surgery order sets ensures that patients receive treatment. Since historical controls were used in this study, other confounders which were not measured may have had an influence on SSI rates.

Reach Canada’s Infection Control Professionals!
For advertising opportunities in the Canadian Journal of Infection Control
Please contact:
Kristy Gagne
Tel: 204-985-9797
Email: kristy@kelman.ca
USE OF AICE® MILLENNIUM PDA MANAGER TO COLLECT INFECTION PREVENTION AND CONTROL SURGICAL SITE INFECTION DATA

Plante-Jenkins C, *Trillium Health Centre, Mississauga, ON.

Issue: Surgical site infection (SSI) manual data collection and manual data entry is a labor-intensive process that is prone to transcription errors.

Project: This project facilitated electronic bedside data collection for Infection Prevention and Control (IPAC) and permitted Infection Control Practitioners (ICP) to collect data on patient units, in health records, and throughout the organization via a personal digital assistant (PDA) synchronized with AICE® Millennium surveillance software. The AICE® Millennium software is maintained on a local area network (LAN). The objectives of the project were to: eliminate the need for ICP to manually collect data onto paper forms; eliminate the need for support staff to manually enter data into software; permit support staff to perform other functions with time saved; prevent transcription errors; allow each ICP to manage their surveillance data.

Results: User satisfaction surveys completed at three months and six months evaluated issues such as use of the PDA, use of software, data entry to PDA and data transfer to AICE® Millennium. A user survey evaluated project objectives.

Lessons Learned: The technology for electronic data collection is acceptable to users. Workflow changes required may be more difficult to adjust than technology changes.

MANAGEMENT OF A MEASLES EXPOSURE IN A PEDIATRIC EMERGENCY DEPARTMENT

Freeman R, Streitenberger L, Wray R, Goldman C, Mallory P, Matlow A. The Hospital for Sick Children, Toronto, ON.

Issue: An unvaccinated transplant patient presented to the Emergency Department (ER) with a history of cough, conjunctivitis, runny nose and rash. The patient had a known travel related exposure to measles. The patient was apparently isolated appropriately in the ER and measles serology was sent to the laboratory. Infection control notification was delayed and on review, it was determined that the patient had not been appropriately isolated. An investigation was commenced when the serology results confirmed a diagnosis of measles.

Investigation: All patients, staff members and visitors present in the ER during the index patient’s stay and for two hours afterward were identified and considered exposed. An investigation, notification and follow-up process was undertaken in collaboration with Infection Prevention and Control, Occupational Health and Safety and Toronto Public Health.

Results: There were 67 staff members exposed and all were immune. One hundred and seventeen patients were exposed and 63 patients were immune. Sixteen exposed, susceptible, high risk patients were given immune globulin. Exposed family members and visitors were contacted and followed up by the appropriate Public Health jurisdiction. There were no known secondary infections resulting from this exposure.

Lessons Learned: The ER required a larger, negative pressure isolation room to manage complex patients requiring airborne precautions. Prompt notification of Infection Prevention and Control for sentinel events may have averted this outbreak. Ongoing communication and collaboration between our facility and Toronto Public Health could have facilitated more efficient exposure management. Since measles has not been eradicated worldwide, emergency departments should be aware of vulnerable populations, particularly after recent travel to endemic regions, and be vigilant with screening and isolation precautions.

A NOSOCOMIAL S. AUREUS CELLULITIS/SCALDED SKIN SYNDROME (SSSS) OUTBREAK IN NEONATES AT A COMMUNITY HOSPITAL: USE OF PULSE FIELD GEL ELECTROPHORESIS (PFGE) TO IDENTIFY A STAFF RESERVOIR

Rau N*, Lanza S, Matthews F, Gilliland J.

Background: Up to 50% of neonates become colonized with S. aureus strains of nursery origin in the first few days of life. These strains are usually transmitted via hands of personnel and hand hygiene is therefore emphasized during outbreaks. Random stall screening is not recommended, as nasal carriage is often transient. In October 2003, the Infection Prevention and Control Service (IPCS) was informed of four cases of umbilical stump soft tissue infections involving healthy term infants delivered at Halton Healthcare Services (HHS) from October 1-10. One of these infants had SSSS. Despite a hand hygiene campaign to paediatric/ neonatal staff, along with active inpatient surveillance for skin / soft tissue infections presenting in neonates, three further cases of SSSS were identified in neonates delivered at HHS on November 28th. Two required readmission for treatment.

Method: The incidence of S. aureus in clinical isolates from newborns in the preceding two years was reviewed. Antibiogrammes and biotypes of outbreak related S. aureus isolates were reviewed; where available, strains were sent for PFGE for analysis. A search for an epidemiologic link was undertaken and led to screening of all staff who cared for more than one outbreak case.

Results: Only one S. aureus clinical isolate was identified in the newborn age group over the preceding two years. In all seven outbreak cases, S. aureus isolates demonstrated a unique resistance profile to penicillin and clindamycin. Biotypes of all strains were identical. PFGE analysis of the two available outbreak isolates were identical. 17 staff underwent screening (nares); 14 were negative and three were positive for S. aureus with antibiogrammes to the outbreak cases. However, only one of these had the same PFGE isolate as the outbreak strain. All carriers have received a decolonization regime. Active surveillance for new cases continues.

Conclusion: PFGE is more precise than a unique antibiogramme in the identification of a staff reservoir of S.aureus.

PROVINCIAL TASK FORCE ON THE PREVENTION AND CONTROL OF COMMUNICABLE DISEASES IN HEALTH INSTITUTIONS AND AMBULANCES SERVICES: “BACK TO BASICS”

Bowmer I, *Yetman M, Baird J, Griffiths B, Ryan A. Health Care Corporation, St. John’s, Central Newfoundland Regional Health Center, Department of Health and Community Services, Memorial University of Newfoundland, NL.

Background: In response to the global havoc wreaked by SARS, the Government of Newfoundland & Labrador gave the Provincial Task Force on Infection Control the mandate to access the preparedness of the province to deal with an outbreak of this magnitude.

Objective: To elicit the views of participants on vigilance for communicable disease outbreaks and to review the standards, policies, procedures and resources related to control and prevention of communicable diseases.

Methods: A qualitative study utilizing focus group sessions was undertaken to gather information from participants in the 14 Institutional Boards throughout the Province. Fifty-nine discussion groups were held with over 500 participants. Extensive notes were taken by the researchers at each session and later transcribed. Transcriptions were analyzed through the qualitative software, Ethnograph, for main issues and themes.

Results: Several key issues were identified under six critical focus areas: infection control resources, policies and procedures within the organization; planning processes and committees in place to develop an institutional awareness/response team; assessment of surveillance, screening and evaluation strategies; availability of infrastructure and resources to meet an infectious disease threat; staffing needs in the event of a crisis; and communications strategies.

Conclusion: There is a critical need to move “Back to Basics” in the endeavor to be prepared for an outbreak of a communicable disease. Principles of hand hygiene, segregation of the infectious, and high standards for environmental cleanliness must be instilled in health care worker so that in time of crisis these principles are not onerous. This can be accomplished by significant resource allocation for infection control professionals in institutions and infection control leadership at the provincial level.
THE DEVELOPMENT OF AN INTERACTIVE METHOD FOR TEACHING INFECTIOUS DISEASE HEALTH CARE WORKERS AS NURSES IN HOSPITAL AND NON-HOSPITAL SETTINGS.

**Method:**
To characterize needlestick injuries (NSIs) among nurses in hospital and non-hospital settings, a descriptive study of all accepted workers' compensation claims for a needlestick injury filed between 1995 and 2001 was conducted at nurses in Washington State.

**Results:**
There were a total of 4,695 accepted State Fund health care worker NSI claims. In non-hospital settings, the overall rate of injury was 71.8 per 10,000 full-time equivalent employees (FTEs) per year, with the rate increasing from 61.5 claims per 10,000 FTEs in 1995 to 85.1 claims per 10,000 FTEs in 2001. Trend analysis showed an annual average increase of 0.36% (95% CI = 0.30%, 0.42%; p-value <0.0001). In hospital settings, the overall rate of injury was 147.8 per 10,000 FTEs, with the rate increasing from 111.4 claims per 10,000 FTEs in 1995 to 139.1 per 10,000 FTEs in 2001. Trend analysis showed an annual average decrease of 0.36% (95% CI = -6.60, 7.41; p-value <0.09316). Nurses accounted for the largest (32.5%) proportion of health care workers involved, both in hospital (45.8%) and in non-hospital (28.7%) settings. The majority of injuries in non-hospital settings occurred in physician offices (47.8%), skilled nursing care facilities (35.1%) and home health care services (6.5%). Devices causing injury include syringe (59.9%), winged steel-needle (12.1%), a lancet (9.7%), IV tubing needle (5.6%), suture needle (3.9%), vacuum-tube phlebotomy set (2.9%), stylet (2.5%) and others (3.3%). The most common mechanisms of injury were: administering an injection (18.3%); disposal related (21.7%); recapping (10.9%) unexpected movement of patient (8.2%) and drawing blood (7.4%). Nurses were exposed to HBV (n=11), HCV (n=63), HIV (n=15), both HBV and HCV (n=6) and HCV and HIV (3). The direct cost per claim was US $546 on average. The average cost of claims with exposure to HCV or HBV or HIV was $2138.

**Conclusions:**
There is a difference in NSI claim incidence rate, and mechanisms of needlestick injury when reviewing worker compensation claim records for health care workers in non-hospital settings relative to hospital health care workers. Nurses accounted for the majority of injuries in hospital and non-hospital settings.

**Project:**
Initially all chronic hemodialysis patients were tested for HBV and HCV to establish a baseline. The results of the serologies were promptly reviewed to minimize potential transmission of viral hepatitis B in the hemodialysis setting. Isolation practices for HBV positive patients. Hepatitis B vaccinations were recommended to all susceptible patients. Patients who tested positive for anti-HBc (anti-body to hepatitis B core) negative for HBsAG (hepatitis B surface antigen) and anti-HBs < 10 mIU/ml (hepatitis B anti-bodies) were segregated and dialyzed on dedicated machines until detailed analysis could be performed. A core group was established to maintain communication with all key stakeholders. The group consisted of Infection Prevention and Control, Infectious Disease Physician, Hemodialysis Program Director, Nurse Manager, Charge Nurses, Nurse Educator, Nephrology Technical Department, Manager of Virology Department and Environmental Services.

**Results:**
Policies and procedures to prevent transmission of hepatitis B were developed according to the Centers for Disease Control and Prevention (CDC) and Health Canada guidelines. These policies included the following: Admission Screening to the Hemodialysis Program; Administration of the Hepatitis B Vaccine Series, Measure Follow-up Hepatitis Bs Ab titre; Dialysis Machine Disinfection; Environmental Cleaning with Effective Virocidal Agent. These policies were extended regionally to assist with fluid movement of patients between programs and ensure the safety of both patients and staff members.

**Lessons Learned:**
A major change occurred in the hemodialysis program in order to implement infection control practices to prevent transmission of Hepatitis B. Staffing and dialysis times for a number of patients were adjusted to accommodate isolation rooms and dialysis machines; education of environmental services prior to the implementation of change in cleaning practices of the environment; education and communication with the virology lab to ensure understanding of the new protocol and ability to accommodate the influx of lab specimens. Infection Control spearheaded the change in practice but effective implementation required a multi-disciplinary team approach.
Terumo offers you a world of confidence.

With an 80 year tradition of quality and innovation, we are one of the leading medical device manufacturers worldwide.

Imitators come and go. Terumo delivers high quality, cost effective safety devices with the technical and customer support you expect now and into the future.
USING THE EMERGENCY PREPAREDNESS MODEL TO CONTROL A NOROVIRUS OUTBREAK IN A TERTIARY CARE CARDIAC PROGRAM

Curtin J, Shimokura G, McNaughton M. Providence Health Care, Vancouver BC.

Issue: The large Norovirus outbreak ever seen at St. Paul's Hospital, Vancouver occurred in December 2004 in the cardiac: medical, surgical and catheter labs. It involved 85 staff, 78 patients and lasted 24 days.

Project: For the first time, members across multiple hospital departments and contracted services, which included Emergency Preparedness, Nursing, Housekeeping, Infection Control, Occupational Health and Safety, Communications, Microbiology Laboratory, Cardiac, Medical Surgical and Catheter Labs Programs, Nutrition, Survey, Materials Management and Purchasing, Linen Services, Central Supply Services, Administration, and Public Health came together as a working group to help control the gastrointestinal outbreak. The initial reaction to the outbreak was to close the cardiac programs but we quickly realized that this was not practical as it would have life threatening implications and impact cardiac services across the province.

Results: Once the Norovirus outbreak Management Team (NORT) was formed, the management of the outbreak shifted to a multidisciplinary approach with each service focusing on their area or expertise and coordinated by the Emergency Preparedness leader. By using the Emergency Preparedness model, which worked within the Hospital Emergency Incident Command System (HEICS) guidelines, we ensured that the outbreak was led with one leader and one voice and offered consistency and predictability. NORT met daily over the course of the outbreak which ensured that all disciplines articulated their concerns, participated in the decision-making process, helped one another accomplish tasks, and collectively evaluated the progress of the outbreak.

Lessons Learned: NORT was instrumental in controlling the outbreak. A permanent NORT team is now in place at Providence Health Care whose responsibility is to respond to any hospital-wide outbreaks quickly and effectively. We are also updating our gastrointestinal outbreak protocol to include acute care needs and more specific specimen collection protocols. Our most ambitious plan involves having infection control "Champions" on every clinical unit to help us mobilize our hospital for our next major outbreak. Other lessons learned will be discussed.

REDUCING ORTHOPEDIC SURGICAL INFECTIONS

Shea B, Lloyd A, Loeb M. The Hamilton Health Sciences Orthopedic Six Sigma Team and 3M.

Issue: Recent events in Canada have highlighted the need for healthcare institutions to initiate focused and proactive patient safety initiatives. Increased awareness by the public of infection control issues has been fueled by the SARS outbreak, by media reports of the use of improperly sterilized equipment and by reports such as that of Baker and Norton outlining the incidence of adverse events among hospitalized patients in Canada. Hamilton Health Sciences (HHS) in conjunction with 3M, as part of a patient safety initiative undertook a Six Sigma project aimed at reducing surgical infection rates among patients having primary total knee and total hip replacement surgery. Six Sigma, more commonly used in industry, is a data driven approach focusing on process improvement and variation reduction. Use of the Six Sigma methodology allowed us to implement an improvement process that involved and was supported by senior management, orthopedic surgery, anesthesiology, hospital education and infection control.

Project: Key stakeholders, defined as those necessary to evaluate and assess every step in the process, worked with the patient's pre-operative appointment to help their stay in the post-anesthetic care unit (PACU), were assembled. Infection Control provided baseline and post-intervention surgical infection rates, identified factors contributing to surgical infections, and provided surgery specific data. Through regularly scheduled weekly meetings from September 2003 to December 2004, the team worked through the first steps of the Six Sigma DMAIC process (define, measure, analyze, improve, control). Process measurement involved mapping the process, identifying inputs and outputs, and creating a cause and effect matrix, from which a project "roadmap" was derived. Process mapping involved itemizing the major activities / tasks of the team as well as identifying the key input variables and output factors. This involved brainstorming with the team, using existing documentation, and observing the process. More than 70 steps/inputs in the process were identified from the patient's pre-operative appointment to their stay in the post-anesthetic care unit (PACU). Process mapping involved identifying the major activities/tasks of the team as well as identifying the key input variables and output variables. This involved brainstorming with the team, using existing documentation, and observing the process. More than 70 steps/inputs in the process were identified from the patient's pre-operative appointment to their stay in the post-anesthetic care unit (PACU). A cause and effect matrix was used to rate the importance of the inputs and outputs in the process. A failure modes and effects analysis (FEMA) was utilized to look at variation and effects for inputs to the process. The team worked through the DMAIC and chose to focus on the top five inputs that were determined using the Six Sigma methodology to have significant impact on infection rates. These top five were controllable inputs that could be changed or improved upon to reduce surgical infection rates.

Results: Improvement changes identified by the process were implemented in stages. The final change was implemented in January 2005. Infection rates specific to the Six Sigma project will be collected for twelve months after this last phase of implementation and compared to twelve months of baseline infection rates to measure impact on infection rates.

Lessons Learned: The Six Sigma project provided an excellent opportunity for the infection control department to be involved in a collaborative project aimed at reducing surgical infection rates. It provided a challenge and established a goal to improve patient safety, which is inline with HHS's corporate goals and objectives and is also one of CDC's seven healthcare challenges. It enabled the infection control practitioner to foster better working relationships with surgeons and the orthopedic team and achieve “buy in” that alone would not have been possible. It allowed industry and healthcare to partner effectively in the interest of improved patient care.

SEVERE RESPIRATORY ILLNESS (SRI) SURVEILLANCE WITHIN ACUTE-CARE INSTITUTIONS PARTICIPATING IN THE CANADIAN NOSOCOMIAL INFECTION SURVEILLANCE PROGRAM (CNISP)


Objective: To describe the results of hospital based surveillance for severe respiratory illness in patients requiring hospital admission and nosocomial febrile respiratory illness (FRI) on medical and surgical units.

Methods: CNISP hospitals were recruited to perform surveillance for community-acquired SRI and nosocomial FRI on acute medical and surgical units (excluding intensive care units).

Results: Twelve CNISP hospitals from eight provinces including two pediatric hospitals participated in surveillance over a consecutive 13 weeks from January 3 to April 27, 2004. A total of 1.642 case patients were identified, 1,200 (73%) were adults and 442 (27%) were children ≤18 years of age. 1,255 (76.4%) patients met the case definition for SRI for a rate of 4.43 per 1,000 non-elderly admissions. Six of these (0.5%) had risk factors for SARS; 5 had recent travel to Asia and one was a laboratory worker handling live SARS CoV. No cases of SARS were identified. An additional, 225 (13.7%) patients had nosocomial pneumonia and 162 (9.9%) had FRI without pneumonia for a rate of 9.3 per 10,000 patient-days and 6.7 per 10,000 patient-days respectively. No clusters of illness occurred on any patient ward. Among the adult cases, 201 (16.7%) were admitted to the ICU, 170 (14.1%) were ventilated and 131 (10.9%) died. Among the children, 61 (13.8%) were admitted to the ICU, 35 (7.9%) were ventilated and live (1.5%) died.

Conclusions: SRI (pneumonia with fever) is a common reason for admission to Canadian hospitals; however, recent travel and risk factors for SARS in such patients are very uncommon. Identified rates of pneumonia on medical and surgical units in these hospitals were similar to those for US hospitals. Clusters of pneumonia in hospital are uncommon, and should be investigated. The surveillance was labour intensive requiring one FTE per facility. Lessons learned from this pilot will be useful in constructing long-term sentinel SRI surveillance in Canada.

MRSA IN LONG TERM CARE AND ITS IMPACT ON ACUTE CARE

Davis A, White D, Alexander D, Driwood SJ, Pikala Z, Katz NC. North York General Hospital, North York, ON and University of Toronto, ON.

Background/Objectives: North York General Hospital is a 430 bed community teaching hospital with a very busy Emergency Department (67,000 visits per year). It became apparent that Methicillin Resistant Staph aureus (MRSA) was frequently being isolated in patients transferred from Long Term Care Facility (LTCF) 'X'. Numerous roommate contacts required screening and contact precautions when admission screens were noted to be positive at 48-72 hrs. The Infection Prevention and Control Team decided to investigate the admission prevalence of MRSA colonization in patients transferred from LTCF 'X' and to implement control measures to reduce unexposed contacts and transmission.

Methods: Data was collected prospectively over a five month period on all admissions transferred from this facility. Every new admission was empirically placed on MRSA precautions in a single room. Swabs for MRSA were taken on admission to identify unexposed contacts and transmission.

Results: As of January 2005, 54 patients were transferred from LTCF 'X' to NYGH, 8/54 (14.8%) were known to be MRSA colonized prior to transfer. An additional 11 patients were detected by this screening protocol, for an estimated overall MRSA prevalence of 19/54 (35.2%) at LTCF 'X'. Seven of 11 (63.6%) patients unknown to be previously MRSA-colonized were detected on the admission screen, two of 18 (10.5%) patients were detected on the Day 3 screen, and two of 11 (18.2%) were only detected at day 7. Of the 11 newly detected patients, 9/11 (82%) were colonized in the anterior nares, 3/11 (27.3%) were colonized in their rectum, 4/11 (36.4%) were colonized in their wounds, and 1/11 (9%) was infected with a positive clinical specimen (bilateral).

Conclusions: MRSA is reaching endemic levels in a long term care facility in Toronto. Further investigation of the prevalence of MRSA in other Long Term Care facilities and associated impacts on acute care facilities should be undertaken. A more sensitive test with a more rapid turnaround time would be beneficial in this setting.

EPIDURAL ABSCESSSE S POST CRANIOTOMY/DURAPLAST: A REPORT OF 13 CASES

Hutchinson J, Yetman M, Hewitt S, Moralejo D, Hayward B, Kelly S, Steele-Rodway M. Health Care Corporation, St John's, NL; Memorial University of Newfoundland, NL.

Background: An increase in neurological site infections (SSIs) caused by Propionibacterium acnes prompted a review of all neurosurgical cases for a four-year period.

Conclusions: SRI (pneumonia with fever) is a common reason for admission to Canadian hospitals; however, recent travel and risk factors for SARS in such patients are very uncommon. Identified rates of pneumonia on medical and surgical units in these hospitals were similar to those for US hospitals. Clusters of pneumonia in hospital are uncommon, and should be investigated. The surveillance was labour intensive requiring one FTE per facility. Lessons learned from this pilot will be useful in constructing long-term sentinel SRI surveillance in Canada.

ORAL PRESENTATIONS: TUESDAY, MAY 10, 2005
Thirteen cases were identified. The objective of this study is to identify risk factors associated with these infections.

Method: A retrospective chart review was done on all infected patients. Preoperative data collected included: age, sex, diagnosis, co-morbidity, emergency or elective procedure, and hair preparation. Intraoperative factors recorded included surgical team members, skin antisepsis, length of surgery, implants, wound classification, type of drain, serum and urine cultures. Postoperative data focused on the course of the cranio- tomy, time of removal of drains and the time to infection. The antimicrobial therapy prescribed was also noted.

Results: All cases were epidural abscesses. Classical features of infection were not present. In the first cases, the time between the initial surgery and infection was prolonged, (9 – 32 months); while in the most recent case the infection appeared in 11 days. Most craniotomies, 92%, were done, for tumors. Two patients, 15%, had previous neurosurgery. The operations were performed in the same room by different surgeons. Duraplasty was achieved with galea (autologous graft) in 62% of cases. Duraplasty, composed of bovine pericardium, was used for the remaining cases. Anti-inflammatory prophylaxis was used for all cases.

Conclusion: The exact cause of the epidural abscesses has not been revealed. Further investigation is indicated and is being implemented, including a case-control study and review of procedures related to duroplasty.

PROLONGED ENVIRONMENTAL SURVIVAL OF ENTEROCoccus AND NON-ENVELOPED VIRUSES COMPARED TO OTHER MICROORGANISMS

Howie R,* Coombs K, Alla M. Medical Microbiology, University of Manitoba, Winnipeg, MB.

Background / Objectives: Despite concern that environmental contamination with microorganisms may facilitate transmission in healthcare, little is known regarding the length of survival of viruses compared to other organisms. The objective of this study was to determine the duration of survival for enveloped and non-enveloped viruses compared to a range of other microorganisms when dried in an inanimate environment.

Methods: Organisms in this study were a representative range of microorganisms that could be associated with contamination of complex medical devices and/or healthcare environments including: Mycobacterium chelonae, Pseudomonas aeruginosa, Enterococcus faecalis, Candida albicans, Reovirus (non-enveloped) and Sindbis virus (enveloped). Teflon and PVC carriers were inoculated with ~7 LOG$_C_0$ of each microorganism in an organic artificial soil (ATS) and dried overnight. Survival was evaluated over 30 days by a quantitative viability assay (cfu or pfu counts).

Results: Microbial survival in the ATS was ~1 LOG$_C_0$ higher compared to the test with no organic material. Non-enveloped Reovirus and Enterococcus survived 30 days. Reovirus with a 2 LOG$_C_0$ reduction and E.faecalis with a -4 LOG$_C_0$ reduction in viable counts. Mycobacterium chelonae survived up to 12 days with a -6 LOG$_C_0$ reduction in organisms. C.albicans and Caliciviruses survived 12 days with a -7 LOG$_C_0$ reduction. In contrast, drying had severe effects on survivability for the gram negative, P.aeruginosa, and for the enveloped Sindbis virus. Overnight drying caused a 4.5 LOG$_C_0$ and a 7 LOG$_C_0$ biomass reduction for P.aeruginosa and Sindbis virus respectively. Furthermore, the duration of survival was only nine days for P.aeruginosa and one day for Sindbis virus.

Conclusion: This data indicates that non-enveloped viruses such as Reovirus can survive on surfaces (either medical devices or the patient-care environment) for prolonged periods similar to Enterococcus faecalis. Our data suggests that GI organisms such as small, round enteric viruses or VRE could have long-term environmental survival, particularly in bathroom areas. Such persistence could provide a significant reservoir for nosocomial transmission.

[Partial funding (graduate scholarship for RH) for this project has been provided by the Health Sciences Centre Foundation and the Manitoba Health Research Council.]

COMPLIANCE AND PSYCHOLOGICAL IMPACT OF THE QUARANTINE EXPERIENCE DURING SARS

Garay JR,* Reynolds DL, Deanmond S, Moran K, Stya R, Devereaux S, Gold WL, McGeer A. Durham Region Health Department, Whitby, ON. University Health Network, Mt. Sinai Hospital, Toronto, ON.

Background: Durham Region, east of Toronto, recorded the third highest number of SARS cases in Canada. From mid-March through June, nearly 5,000 people were placed into quarantine as a result of potential exposure to SARS. This study describes compliance behaviours and the psychological impact of the quarantine experience.

Methods: All adults aged 18+ who were placed into voluntary quarantine and followed for at least two days by the Durham Region Health Department were eligible for the study. From July through September, a standardized, structured mailed questionnaire was administered. Questions addressed understanding of the rationale for quarantine, behaviours during and after quarantine (including compliance), difficulties with quarantine, and support systems during this time. The anonymous questionnaire was distributed to HCW at a surgical intensive care unit, neonatal intensive care unit and the emergency department of a large urban hospital. Thirty-five physicians, nurses and respiratory therapists were queried with a questionnaire about their experiences following the use of the devices.

Results: Of 1,912 mailed questionnaires, 1,063 were completed (response rate 55.7%). Overall, self-reported compliance (combining all requirements of quarantine) was poor (15.8% ± 2.3%). Compliance with requirements that would protect the community was significantly lower. Three-quarters of respondents were distributed to HCW at a surgical intensive care unit, neonatal intensive care unit and the emergency department of a large urban hospital. Thirty-five physicians, nurses and respiratory therapists were queried with a questionnaire about their experiences following the use of the devices.

Results: Of 1,912 mailed questionnaires, 1,063 were completed (response rate 55.7%). Overall, self-reported compliance (combining all requirements of quarantine) was poor (15.8% ± 2.3%). Compliance with requirements that would protect the community was significantly lower. Three-quarters of respondents were distributed to HCW at a surgical intensive care unit, neonatal intensive care unit and the emergency department of a large urban hospital. Thirty-five physicians, nurses and respiratory therapists were queried with a questionnaire about their experiences following the use of the devices.

Conclusions: This study demonstrated a low rate of compliance with quarantine requirements and raises concerns about the effectiveness of quarantine as a public health measure for the control of infectious diseases such as SARS. Negative psychological impacts were reported by individuals placed into quarantine, especially among HCW. Improvements in compliance and reduced psychological distress may be possible by increasing understanding of the quarantine experience and providing enhanced education regarding the rationale for quarantine.

CLUSTER OF SARS IN TORONTO HEALTHCARE WORKERS DESPITE INFECTION CONTROL PRECAUTIONS: A CASE SERIES

Ohter Aögison M*, Gravel D, McDonald LC, Lem M, Sarwal S, McGeer A, Green K, Veamcombe M, Roth V, Paton S, Loeb M, Simor A.* Centre for Infectious Disease Prevention and Control, Public Health Agency of Canada, *Centre for Infectious Disease Prevention and Control, Atlanta, GA, Mount Sinai Hospital, Toronto, ON. Sunnybrook and Women’s College Health Sciences Centre, Toronto, ON. *Centre for Infectious Disease Prevention and Control, Hamilton, ON.

Objective: To review the demographics, co morbidities, symptoms, exposures, type of patient care activities for assigned SARS-patients, and infection control practices among those healthcare workers (HCW) who developed Severe Acute Respiratory Syndrome (SARS) in Toronto, Canada, after stringent infection control precautions (post-precaution) had been implemented.

Methods: A retrospective review of work log and patient assignments, and comprehensive interviews with HCW that met the case definition for SARS in Toronto, Canada, post-precaution.

Results: Seventeen HCW were identified from six hospitals that met the case definition for SARS post-precaution. These HCW had a mean age of 29 ± 3.2 years. Two HCW could not provide an interview due to illness. Of the remaining 15, only nine of the HCW (60%) reported receiving formal infection control training. Twenty-five (71%) thought that use of the device made hand sanitizing easier, and 23 (66%) felt that they were likely to sanitize their hands after use.

Conclusion: Multiple factors were likely responsible for this cluster of SARS, including HCW performing high-risk patient-care procedures, inconsistent wearing of personal protective equipment (PPE), fatigue, and lack of adequate infection control training.

PERSONAL PORTABLE ALCOHOL GEL DISPENSERS: A NOVEL APPROACH FOR IMPROVING HAND HYGIENE PRACTICES

Shisham S1, Donegan N2 and Shisham G3. 1Section of Infectious Diseases, Washington Hospital Center, Washington, DC, 2Department of Infection Control, Washington Hospital Center, Washington, DC, 3Medonyx Inc. Toronto, ON.

Issue: Healthcare worker (HCW) hands are a major mode of transmission and spread of nosocomial infections. Proper hand hygiene is a fundamental element of infection control strategies in healthcare facilities. Ideally, hands should be decontaminated before and after contact with patients. Despite frequent and ongoing educational efforts, adherence to recommended hand washing practices among HCW remains poor (usually less than 50%). Adherence is associated with easy access to hand-rub solution, whereas high workload is associated with non-adherence. Compliance is particularly problematic in emergency departments and critical care units.

Project: To improve hand hygiene practices among HCW we introduced clip fastened personal portable alcohol hand rub dispensers (gelstat; provided as a gift by Medonyx Inc., Toronto, Ontario) to these settings. Dispensers were distributed to HCW at a surgical intensive care unit, neonatal intensive care unit and the emergency department of a large urban hospital. Thirty-five physicians, nurses and respiratory therapists were queried with a questionnaire about their experiences following the use of the devices.

Results: All queried HCW responded to the questionnaires. Thirty one (89%) HCW found the product easy to use. Twenty five (71%) thought that use of the device made hand sanitizing easier, and 23 (66%) felt that they were likely to sanitize their hands more often when wearing this product. Overall, 74% of respondents said that they would use the product if it were distributed in their unit.

Lessons Learned: Personal portable alcohol gel dispensers are well accepted by HCW in a variety of patient care units and are expected to improve compliance with hand hygiene guidelines.

For up to the minute information on the 2005 National Education Conference visit www.chica.org
Introducing the NEW MONOJECT Magellan Safety Needle

Discover a Whole NEW World of Needle Safety.

- Easy one-handed safety activation
  - Minimizes training and in-service
- Needle-based engineering control
  - Promotes clinical flexibility
- Robust safety shield covers entire needle
  - Maximizes protection from sharps injury
- Integral safety shield
  - Eliminates ability to remove safety device
- Pre-attached syringe combinations
  - Saves time and improves efficiency
- Complete product line
  - Simplifies the standardization to safety

tyco Healthcare
Kendall

Contact your local Tyco Healthcare Medical sales representative at 1-877-664-TYCO for more information.
Background: Antibiotic-resistant pathogen rates are rising in Canada and the United States with significant health and economic costs. The examination of the relationship of surveillance and control activities in hospitals with rates of nosocomial methicillin-resistant *Staphylococcus aureus* (MRSA), *Clostridium difficile*-associated diarrhea (CDAD), and vancomycin-resistant *Enterococcus* (VRE) may identify strategies for controlling this growing problem.

Methods: Surveys were sent to infection control programs in hospitals that participated in an earlier survey of infection control practices in Canadian acute care hospitals.

Results: One hundred twenty of 145 (82.8%) hospitals responded to the survey. The mean MRSA rate was 2.0 (SD 2.9) per 1000 admissions, the mean CDAD rate was 3.8 (SD 4.3), and the mean VRE rate was 0.4 (SD 1.5). Multiple stepwise regression analysis found that hospitals that reported infection rates by specific risk groups (r = 20.27, P < .01) and that kept attendance records of infection control teaching activities (r = 20.23, P < .01) were associated with lower MRSA rates. Multiple stepwise regression analysis found that larger hospitals (r = 0.25, P < .01) and hospitals at which infection control committees or staff had the direct authority to close a ward or unit to further admissions because of outbreaks (r = 0.22, P < .05) were associated with higher CDAD rates. Multiple logistic regression analysis found that larger hospitals (OR, 1.6; 95% CI, 1.2-2.0; P = .003) and teaching
hospitals (OR, 3.7 95% CI, 1.2-11.8; P = .02) were associated with the presence of VRE. Hospitals were less likely to have VRE when infection control staff frequently contacted physicians and nurses for reports of new infections (OR, 0.5; 95% CI, 0.3-0.7; P = .02) and there were in-service programs for updating nursing and ancillary staff on current infection control practices (OR, 0.2; 95% CI, 0.1-0.7; P = .01).

**Conclusion:** Surveillance and control activities were associated with MRSA and CDAD rates and the presence of VRE. Surveillance and control activities might be especially beneficial in large and teaching hospitals. (Am J Infect Control 2005;33:1-5.)

Incidence rates of methicillin-resistant *Staphylococcus aureus* (MRSA) and *Clostridium difficile*-associated diarrhea (CDAD) are on the rise in Canada.1,2 The United States has seen an increase in the occurrence of a number of antimicrobial-resistant bacteria, including vancomycin-resistant *Enterococcus* (VRE).3 VRE is relatively uncommon in Canada, but can be reasonably expected to become an increasing problem.4 Patients infected with antimicrobial-resistant bacteria have significant morbidity and mortality and incur economic costs to health care facilities.5-7

Infection surveillance and control activities have been shown to be effective in reducing antibiotic-resistant pathogen rates in acute care hospitals.8 We recently assessed the infection surveillance and control activities in Canadian acute care hospitals and found that only two thirds of effective surveillance activities and 60% of effective control activities were being performed.9

### Table 1. Surveillance and control activities tested by regression for association with nosocomial MRSA, CDAD, and VRE

**Surveillance activities**

- Specific statistics collected for infections by wards, units, or service
- Specific statistics collected for infections involving particular anatomical sites or medical devices
- Surgical site infection rates calculated and reported to surgeons
- Surgical site infection rates calculated for clean procedures
- Frequency that case finding methods used to detect new cases of nosocomial infections
- Hospitalized patients are examined and charts reviewed by infection control staff
- Infection control staff contact physicians or nurses for reports of new infections
- Infection control report forms filled out by ward staff and sent to infection control staff

**Infection control activities**

- Program for teaching nursing and ancillary staff current infection control practices
- Program for teaching medical staff current infection control practices
- Kept attendance records of teaching activities
- Monitored effectiveness of teaching activities
- Communicated hospital’s infection data to patient care staff
- Direct authority to close wards or units to further admissions
- Policy for isolation precautions for patients with *Clostridium difficile*-associated diarrhea
- Policy for indications, drug choices, timing and duration of perioperative antibiotics
- Complete current Health Canada Guidelines on preventing nosocomial infections

The present study examined the relationship of surveillance and control activities in Canadian acute care hospitals with nosocomial MRSA, CDAD, and VRE.

### METHODS

**Survey**

A one-page survey was sent by fax or e-mail to the infection control programs of all 145 hospitals that had participated in our earlier survey of infection control programs in Canadian acute care hospitals for which we have extensive infection surveillance and control activity data.9 Non-responders were sent a second and third survey, and surveys were returned by fax or e-mail. The infection control programs were asked to provide the number of any and all new nosocomial cases (colonized and infected) of MRSA, CDAD, and VRE for 1999. Information from the earlier survey provided admissions data that allowed for the calculation of infection rates.9 Hospital size, surgery rates, surveillance and control index scores, and individual surveillance and control activity values were also derived from the previous survey.9 The surveillance index was composed of 23 items related to the collection and dissemination of nosocomial infection and antibiotic resistance data, and the control index consisted of 44 items related to activities directed toward the reduction of nosocomial infections and patient colonization by resistant pathogens.9

**Statistical analysis**

Simple regression was used to test the association of hospital
size, hospital teaching status, surveillance and control index scores, and individual surveillance and control activities with MRSA and CDAD rates. The individual infection surveillance and control activity items chosen had sufficient variation in responses to test the association (Table 1). Variables found to be significant at the <.05 level were tested by multiple stepwise regression analysis with forward and backward selection for association with MRSA and CDAD rates. Separate multivariate models were developed for MRSA and CDAD. The forward selection procedure adds variables if the probability of F to enter was ≤.05, and the backward elimination procedure subtracts variables if F to remove was ≥.05. Because only one third of hospitals reported having any VRE cases in 1999, this dependent variable was dichotomized as hospitals with and without VRE.

Univariate logistic regression analysis was used to test the association of hospital size, hospital teaching status, surveillance and control index scores, and individual surveillance and control activities with the presence of VRE. Variables found to have P values <.05 were tested by multiple logistic regression for inclusion in the multivariate model by stepwise logistic regression using forward selection if the significance level of the logistic likelihood ratio test was <.05, with backward elimination if significance was >.05.10 All statistical analyses were performed using the StatView 5 statistical package (SAS Institute, Cary, NC).

**RESULTS**

One hundred twenty of 145 (82.8%) hospitals responded to the survey and contributed data: 117 hospitals reported MRSA data, 81 CDAD, and 116 VRE. Eleven hospitals reported not being able to provide resistant pathogen data because it was not collected in 1999 or changes in computer systems prevented access. The mean MRSA rate (colonized and infected) was 2.0 (SD 2.9) per 1000 admissions, and the median was 0.8. Twenty-one hospitals reported having no MRSA cases. The mean CDAD rate (colonized and infected) was 3.8 (SD 4.3) per 1000 admissions, and the median was 2.3. Only three hospitals reported having no CDAD cases. The mean VRE rate (colonized and infected) was 0.4 (SD 1.5) per 1000 admissions, and the median was 0.0. Seventy-six hospitals reported no VRE cases, and 40 reported at least one case.

**Univariate regression analysis**

The mean number of acute care beds per hospital was 291 (SD = 200), and the median was 239. All hospitals had surgical services; the mean number of overnight and day surgeries per 250 beds per year was 11,148 (SD = 5371), and the median was 10,181. Larger hospitals were associated with higher rates of MRSA (r = 0.22, P = .02) and CDAD (r = 0.31, P = .005) and the presence of any VRE (OR, 1.8; 95% CI, 1.6-2.0, P < .0001). Teaching hospitals composed 24.2% (29 of 120) of the sample. Teaching hospitals were associated with higher rates of MRSA (r = 0.20, P = .03) and the presence of VRE (OR, 6.0; 95% CI, 2.4-14.8; P = .0001). The surveillance index had a mean of 63 (SD = 16), and the median score was 67 out of a maximum of 100. The surveillance index score was not associated with nosocomial MRSA and CDAD rates or VRE in hospitals. The control index had a mean of 61 (SD = 14), and the median score was 62 out of 100. The control index score was not associated with nosocomial MRSA and CDAD rates or VRE in hospitals.

Simple regression analysis identified three individual surveillance and control variables in addition to hospital size and teaching status to be associated with MRSA rates. Conducting surveillance and reporting on infection rates by specific risk groups based on anatomical sites or medical devices (eg, ventilator-associated pneumonia) (r = 0.24, P = .01), calculating surgical site infection rates for clean procedures (r = 0.19, P = .05), and keeping attendance records when teaching infection control techniques and procedures (r = 0.20, P = .04) were associated with lower MRSA rates.

Simple regression analysis identified three individual surveillance and control variables in addition to hospital size to be associated with CDAD rates. Hospitals that reported infection rates by specific risk groups (r = 0.23, P = .04) and that calculated surgical site infection rates and reported them to surgeons (r = 0.23, P = .04) had lower CDAD rates. When infection control committees or staff had the direct authority to close a ward or unit to further admissions because of an infection control outbreak (r = 0.29, P = .009), this was associated with higher CDAD rates.

Univariate logistic regression analysis identified four individual surveillance and control variables in addition to hospital size and teaching status to be associated with the presence of VRE. VRE is less likely to be present when infection control staff frequently contact physicians or nurses for reports of new infections (OR, 0.6; 95% CI, 0.5-0.8; P = .0009) and when infection control report forms are frequently completed by ward staff and sent to infection control (OR, 0.3; 95% CI, 0.1-0.8; P = .02). Hospitals that had programs for teaching nursing and ancillary staff current infection control practices (OR, 0.3; 95% CI, 0.1-0.9; P = .03) and that kept attendance records of infection control teaching activities were less likely to have VRE (OR, 0.3; 95% CI, 0.1-0.7; P = .008).

**Multivariate regression analysis**

Multiple stepwise regression analysis found two factors to be independently associated with MRSA rates in hospitals. Hospitals that reported infection rates by specific risk groups (r = 0.27, P < .01) and that kept attendance records of infection control teaching activities (r = 0.23, P < .01) reported lower rates of MRSA.

Multiple stepwise regression analysis found two factors to be independently associated with CDAD rates in hospitals. Larger hospitals were associated with higher CDAD rates (r = 0.25, P < .01). Higher CDAD rates were reported by hospitals at which infection control committees or staff had the direct authority to close a ward or unit to further admissions because of outbreaks (r = 0.22, P < .05).

Multiple logistic regression analysis found four factors to
Manufacturers of infection control products, protective apparel, gloves, face masks, OR drapes and gowns, industrial and custom products.

Careful attention to design +

**ISO 13485:1996** certification = Superior Quality

Quality Assurance gives health care practitioners a high degree of confidence in the **primED** brand.

**primED** products are available throughout Canada and internationally.

---

**A 90-hour certificate course**

(1st priority given to Ontario applicants.)

**Online Introductory Infection Control Course**

*April 2005*

**Queen's University**

- Covering broad topics in:
  - Medical Microbiology
  - Clinical Epidemiology
  - Disinfection, sterilization, environmental management
  - Surveillance, CQI & outbreaks
  - IC program management, Community Infections, LTC & Home care issues
  - Resistant & emerging pathogens, antibiotic utilization & control
  - Occupational infections
  - Adult learning & teaching principles
  - Evidence-based infection control practice

- Using latest multimedia technology
- Highly interactive
- Case studies

**Who Should Take This Course?**

New infection control practitioners in all health care settings, including communicable disease staff working in health units

**Course coordinators:**

Dick Zoutman, MD, FRCP, Professor
Departments of Pathology & Molecular Medicine, Community Health & Epidemiology, Medicine and Microbiology & Immunology, Queen's University

Jim Gauthier, MLT, CIC, Infection Control Practitioner
Providence Continuing Care Centre, St. Mary's of the Lake Hospital, Kingston, Ontario

For more information, visit: [http://meds.queensu.ca/ce/ic/](http://meds.queensu.ca/ce/ic/)
be independently associated with at least one case of VRE in hospitals. Larger hospitals (OR, 1.6; 95% CI, 1.2-2.0; \( P = .003 \)) and teaching hospitals (OR, 3.7; 95% CI, 1.2-11.8; \( P = .02 \)) were associated with the presence of VRE. Hospitals were less likely to have VRE when infection control staff contacted physicians and nurses for reports of new infections more frequently (OR, 0.5; 95% CI, 0.3-0.7; \( P = .02 \)). Hospitals that had in-service programs for updating nursing and ancillary staff on current infection control practices were also less likely to have VRE (OR, 0.2; 95% CI, 0.1-0.7; \( P = .01 \)).

**DISCUSSION**

Overall surveillance and control index scores were not associated with nosocomial MRSA and CDAD rates and the presence of nosocomial VRE in Canadian hospitals; however, hospital characteristics and targeted surveillance and control activities had impacts on MRSA and CDAD rates and the presence of VRE. The response rate to our survey question permits generalization to acute care hospitals in Canada with more than 80 beds.

Larger hospitals and teaching hospitals were associated with higher rates of nosocomial resistant pathogens, and this has also been found in other studies.\(^3\) Case-mix factors such as antibiotic exposure and length of stay are associated with higher rates of nosocomial resistant pathogens in larger hospitals; however, these data were not collected in our study.\(^11\)

The Society for Healthcare Epidemiology of America guidelines for preventing the spread of resistant pathogens recommends active surveillance that is frequent and focused for patients at risk for carriage and colonization by resistant pathogens.\(^8\) The multivariate analysis found that hospitals reporting on infection rates by specific risk groups based on anatomical sites or medical devices reported lower rates of MRSA and that, when infection control staff contacted physicians and nurses more frequently for reports of new infections, hospitals were less likely to have VRE. The protective effect of surveillance likely exists because of control measures taken, such as barrier precautions, isolation, and hand hygiene, to prevent further spread of identified resistant pathogens.\(^8\)

An expert panel recommends the education and training of health care workers by knowledgeable infection control staff as a necessary component of hospital infection prevention and control programs.\(^12\) The multivariate analysis found that lower rates of MRSA were reported when attendance records were kept of infection prevention and control teaching activities and that hospitals with programs for teaching and updating nursing and ancillary staff on current infection control practices were less likely to have VRE.

Higher rates of CDAD were associated with infection control committees or staff having the direct authority to close a ward or unit to further admissions because of an infection control outbreak. It is probable that this control policy was more likely a reaction to higher CDAD rates than a causal factor.

The MRSA and VRE rates reported by hospitals in our study are considerably lower than those reported in the United States.\(^3\) The relatively low rate of resistant pathogens in Canadian hospitals limits the ability to identify relationships between the various surveillance and control activities and MRSA, CDAD, and VRE rates.

Our results suggest that further investments in infection surveillance and control would help control the growing problem of resistant pathogens in hospitals.

Increasing the intensity of infection surveillance and control programs in larger and teaching hospitals would have the most effect on MRSA, CDAD, and VRE rates.

The authors thank the survey respondents for completing the survey and CHICA Canada and its chapters for their inputs.

**References**


**MEMBERS OF THE CANADIAN HOSPITAL EPIDEMIOLOGY COMMITTEE (CHEC)**

*†* Elizabeth Henderson, PhD, Calgary Health Region, Calgary, AB
* Scott Henwick, MD, Surrey Memorial Hospital, Surrey, BC
*† James Hutchinson, MD, Health Sciences Centre, St. John’s, NF
* Magued Ishak, MD, Centre hospitalier Angrignon, Verdun, QC
* Peter Jessamine, MD, The Ottawa Hospital, Ottawa, ON
*† Michael John, MD, London Health Sciences Centre, London, ON
*† Lynn Johnston, MD, Queen Elizabeth II Health Sciences Centre, Halifax, NS
† Pamela Ki白菜, MD, Victoria General Hospital, Victoria, BC
*† Joanne Langley, MD, IWK Health Centre, Halifax, NS
*† Mark Loeb, MD, Hamilton Health Sciences Corp., Hamilton, ON
*† Anne Matlow, MD, Hospital for Sick Children, Toronto, ON
*† Allison McGeer, MD, Mount Sinai Hospital, Toronto, ON
† Sophie Michaud, MD, Centre Universitaire Sante L’Estrie-Fleurimont, Sherbrooke, QC
*† Mark Miller, MD, Jewish General Hospital, Montreal, QC
*† Dorothy Moore, MD, Montreal Children’s Hospital, Montreal, QC
† Virginia Roth, MD, Ottawa General Hospital, Ottawa, ON
*† Andrew Simor, MD, Sunnybrook and Women’s College Health Sciences Centre, Toronto, ON
* Geoffre Taylor, MD, University of Alberta, Edmonton, AB
† Mary Vearncombe, MD, Sunnybrook Women’s College Health Sciences Centre, Toronto, ON
*† Alice Wong, MD, Royal University Hospital, Saskatoon, SK
*† Dick Zoutman, MD, Kingston General Hospital, Kingston, ON.

* Members of CHEC in 1999 when project was initiated.
† Present CHEC members.

**MEMBERS OF THE CANADIAN NOSOCOMIAL INFECTION SURVEILLANCE PROGRAM (CNISP)**

Denise Gravel-Tropper, MSc, Centre for Infectious Disease Prevention and Control, Health Canada
Marianna Ofner-Agostini, MHSc, Centre for Infectious Disease Prevention and Control, Health Canada
Shirley Paton, MN, Centre for Infectious Disease Prevention and Control, Health Canada
Karen Hope, President Elect
Karen Hope, BSc, MSc has been part of the Calgary Health Region infection control team since 1990. After acquiring a Bachelors degree in Cellular and Microbial Biology in 1984, she worked in microbiology research for two years. In order to move beyond the bench she applied and was accepted into the Community Health Sciences graduate program at the University of Calgary. She was granted her Masters degree in 1990, following which she began her career at the Calgary General Hospital as part of the infection control team. Since then, and throughout the process of regionalization, she has worked at the Peter Lougheed Hospital and since 1998, the Foothills Medical Centre. Karen has served as president of the CHICA-Canada Southern Alberta chapter, and most recently acted as CHICA-Canada conference chair for the 2004 Conjoint Conference with AMMI.

Philosophy: During my time in infection control, I have seen the profile of the profession evolve through the expertise and extraordinary efforts of the CHICA-Canada board and membership. While widespread recognition of our body of expertise is partially dependent on the vagaries of microbiological phenomenon, respect can only be sustained by demonstrating strong leadership and providing direction based on sound principles and scientific evidence. As the role of the infection control professional has rapidly expanded, CHICA-Canada has been instrumental in ensuring that our organization is responsive to the changing needs of the health care system, addressing increased patient acuity, the movement of service to community settings, the explosive surge in new and complex technologies and the emergence of stealthy new pathogens. As we strive to meet the demands of relentless external forces, CHICA-Canada has also helped the membership face challenges within. The timely development of innovative education initiatives will ensure that we continue to supply a cadre of competent ICs to resource newly created positions and replace a maturing workforce.

As president elect, I am pleased to be part of a team that so aptly represents its membership across the country. I hope to assist CHICA-Canada in meeting its upcoming goals, by further championing our profile as a leader in infection control and continuing to foster relationships with other like-minded organizations, agencies and industry; while ensuring that the organization continues to strengthen internally and remain responsive to its members. Although I have now been in the field for 14 years, this career continues to challenge and inspire me, and I hope that I bring some of that energy to my new position.

Dr. Elizabeth Ann Henderson, Director of Education
Elizabeth (Betty Ann) Henderson is Epidemiologist for Infection Prevention and Control for the Calgary Health Region and Associate Professor in the Department of Community Health Sciences at the University of Calgary. She is also the Program Co-ordinator for Graduate Program in Hospital Epidemiology in the Department of Community Health Sciences at the University of Calgary. Betty Ann obtained her PhD in Infectious Diseases and Hospital Epidemiology from the Department of Community Health Sciences, University of Calgary. She holds a M.Sc. Medical Sciences (Epidemiology and Health Care Research) from the University of Calgary and a B.Sc. in Microbiology from the University of British Columbia. Betty Ann has been a member of CHICA-Canada and of the Southern Alberta Chapter for 15 years.

Philosophy: Three fundamental principles form the backbone of my philosophy about education. These are: that the need for learning is life-long, that geographic location should not be a barrier to learning and that life experience is a wonderful teacher and we need to use and build on that experience and expertise of CHICA-Canada members. As professionals in infection prevention and control in Canada, we need to overcome the uniquely Canadian challenges of delivering quality health care in remote communities by integrating technology with multi-disciplinary teams of experts. The goal is to improve access to infection control knowledge and expertise. Communities of Practices for infection control professionals with mentored education and consultation among urban, rural and remote communities would be responsive to IC problems, would facilitate exploring innovative approaches to problem-solving and would promote program development using evidence-based practices and scientific principles.

Pearl Orenstein, Secretary/Membership Director
Pearl Orenstein is Infection Prevention and Control Coordinator at Sir Mortimer G. Davis – Jewish General Hospital in Montreal. She graduated as an RN from the Jewish General School of Nursing, and has attained a BA in Community Nursing, a Diploma in Institutional Administration, and Certification in Infection Control. Pearl is a member of the Montreal P.I. Chapter of CHICA-Canada. She is a Board and Committee member of several organizations, including being Past President and Board member of the Jewish Support Services for Seniors; and has been a participant, presenter and moderator at several CHICA-Canada conferences. This is Pearl’s second position on the Board of CHICA-Canada. Prior to restructuring of the Board, she held the position of Nurse Representative from 1993 to 1995.

Philosophy: The healthcare system is in a state of constant evolution, encompassing a magnitude of changes in technology, science and global resources. Now, more than ever, the ICP must be an advocate for the health and safety of our patients. The pressure to provide care in the most cost-efficient manner is a challenge to us all. We need to ensure that what we do is efficient, effective and is in the best interest of the individual patient. We must learn to balance the pressures from both within and outside our communities to ensure the highest quality of care for all.
Is the missing link in your Infection Control Program

Hand Hygiene?

At Deb Canada we recognize that hand hygiene within the healthcare setting is changing. State of the art manufacturing facilities located in Canada help provide a seamless transition to the new CDC guidelines for all your hand hygiene needs. Utilizing our Hygenipak host system enables us to use one dispenser format to cleanse, protect, and sanitize the skin. Support through our membership with CHICA, OLTCA, ORCA, and OANHSS and full educational and in-service programs can strongly assist your compliance efforts.

For more information, please contact Deb Canada:
Tel: (888) DEB-SOAP Fax: (800) 567-1652
Email: debcanada@debcanada.com
www.debcanada.com
Dear Colleagues:

It was a pleasure to speak with so many of you recently and hear your support for those in the tsunami-affected areas. Some of you have already pledged funds both for the immediate relief effort and the long term goals that IFIC has set out for itself in providing communication, education and support for infection control persons in the devastated areas. The IFIC board is extremely grateful for this support.

We would like to outline some of our thoughts on how we should proceed. There is at the moment a large outpouring of grief, compassion and empathy for those affected by this tragedy. However, there are also long term implications: implications such as rebuilding and restoration of infrastructure including education. This is where we believe we should be drawing on the real strengths and abilities of IFIC and our member societies such as CHICA-Canada, APIC, ICNA and other infection control organizations. The rebuilding process will take a long time and the after effects will be felt for many years. Therefore, this is how we believe we should direct our efforts.

One of the aims of IFIC is to raise money for the IFIC Scholarship Fund in order to bring persons from the disaster areas to IFIC’s annual conference which will be held this year in Istanbul, Turkey in October. IFIC has created this fund, which is separate and discrete from all other funds. It is not to be used for any other purpose. Last year in Porec, Croatia, IFIC was able to fully or partially fund 11 people from areas with scant resources to attend the conference and the year before in Malta to bring eight people from such areas. Further, in donating to causes such as this or other legitimate charities, we can be assured that the funds will not be diverted for the benefit of unscrupulous individuals.

We ask you to please share this urgent plea with your chapter members. Funds are acceptable in the form of a cheque, money order or bank draft. Please also include your e-mail address. Contributions can be made by societies, their chapters, individuals and corporations and may be sent to the Honorary Treasurer at this address:

Dr. Nizam Damani
Clinical Director & Consultant Clinical Microbiologist,
Craigavon Area Hospital,
68 Lurgan Road, Portadown,
Craigavon, Co. Armagh
N.Ireland, U.K. BT63 5QQ

Thank you again to those of you who have already donated so generously and spontaneously. It is so appreciated.

We appreciate your consideration of this letter.

Yours sincerely,
Moira Walker RN, CIC
Chair, IFIC Scholarship Fund
3857 24th Avenue W
Vancouver, BC V6S 1L8
Canada
moirawalker@uniserve.com
INNOVA™ E3

New technology for your endoscopes.

- Flexible endoscope washer-disinfector with state-of-the-art features such as the automated leakage tester
- Optional bar code reader available
- Professional installation and service offered nationwide
- Meets new Canadian standard for glutaraldehyde emissions (<0.05ppm)

SciCan

1440 Don Mills Road, Toronto, Ontario M3B 3P9
Phone (416) 445-1600  Fax (416) 445-2727 Toll free 1-800-667-7733

www.scican.com

INNOVA is a trademark of BHT-Hygienetechnik GmbH.
An outbreak of viral gastroenteritis in a mental health facility: You’re not in acute care anymore, Toto!

By Jim Gauthier

After spending four years working as an Infection Control Practitioner in acute care, I made the move to the non-acute care sector. Providence Continuing Care Centre (PCCC) is composed of four sites: three in Kingston and one in Brockville. I am responsible for Infection Control in the combined Complex Continuing Care, Geriatric and Rehabilitation hospital, and also the Mental Health hospital. My first outbreak in the Mental Health setting occurred in mid-January, 2004, and I discovered there were a few differences in outbreak management, compared to an acute care setting.

Outbreaks occur in healthcare facilities despite our best education and preventative measures, especially through the winter months. Influenza and Norovirus can take their toll in the acute care setting, but in facilities dedicated to longer-term care, the results can have very serious outcomes. Many interventions are used to limit the spread of the pathogen in these settings: limiting transfers and visitors, isolation of symptomatic patients and cohorting staff all work to shorten the outbreak period.

PCCC - Mental Health Services site is housed in a 1950s era building. The wards are constructed in a coed dormitory style with single, double, quad and six-bed rooms. None of the client rooms have sinks or toilets - there are common-use toilets and sinks (male and female), and communal bathing areas, with alternate days being available to the male and female clients on each floor. Staff have separate toileting areas, with sinks, behind keyed doors. Meals are generally taken by the clients in the sunroom at the end of each ward. Entry to six of the nine wards in the facility is with a ward key. The clients on these secure wards may not be allowed off the floor at all, or only with supervision, depending on the stage of their illness.

Notification of a problem greeted me on a Monday morning. Clients had a variety of symptoms - vomiting, diarrhea, nausea and low-grade fever. The first cases had been detected the previous Wednesday, and by Monday 10 to 12 of the 24 clients had symptoms. Transfers to and from the floor were stopped, as were passes off the floor and the floating of casual staff was also curtailed. An outbreak management team meeting was convened, and other actions agreed upon included an extra housekeeper to clean high touch areas, especially the washrooms and eating areas.

Issues that were well removed from acute care quickly became evident. There was no way to isolate symptomatic clients, who were used to being ambulatory. The majority of our clients are very independent with their day-to-day activities and do not need assistance with toileting, bathing, etc. The attention to ‘ins and outs’ seen in acute care is generally not necessary in Mental Health. Most of the illness for the first few clients was not witnessed, but was self-reported. Thus, detection of mildly ill clients was difficult.

The outbreak team did make some recommendations. Clients would have their hands sanitized before entering the sunroom for meals, if some refused to use the alcohol-based product, they could wash their hands washed the old-fashioned way at a sink. This increased the amount of time required to have clients ready for meals. I did not suggest to staff they wear masks, which was effective at stopping transmission to staff in a previous outbreak of Norovirus (in the acute care hospital), as I was not sure how the clients would react. I was glad to find that it was not

---

Introducing the most advanced institutional cleaning system ever.

The Safeguard System

For more info visit us at www.woodwyant.com or call 1.800.361.7691.
an issue for the clients when the staff on the floor began to wear masks for all client contacts. 

Clients quickly recognized me on the floor as being the one responsible for judging when the outbreak was over. I would discuss the outbreak with staff, and then hold an impromptu meeting with any assembled clients before leaving the floor. When the outbreak spread to the adjacent open ward, I had to designate that floor as a temporary secure ward and limit movement of 29 clients, who had either always had the freedom to come and go, or had progressed to the open ward from a secure ward. They, too, wanted their own separate meetings, where I would hear about why they should be allowed to leave the floor. My explanation of the risk of transmission, incubation periods and the need to keep the outbreak from spreading in the facility allowed the clients to understand the need for movement restrictions. Support from the Leisure/Life Skills instructors - with big screen TV, numerous videos and popcorn helped to pass the time more quickly for the clients.

When I did ‘open’ the first outbreak ward, I received positive feedback—not only from the staff, but also from the clients who recognized the work done by everyone on the floor to limit the spread of our still un-named pathogen. Very seldom did one get input or feedback from the patients on an isolation ward when I was in the acute care setting!

The clients in mental health are working through illnesses that many of us in Infection Control do not have a great understanding and many Infection Control Practitioners have not worked in a facility that has a mental health ward. A change in routine can be very upsetting and difficult for both the client and staff member. My first outbreak, which saw a 50% attack rate on the one ward, was handled very well by both clients and staff.

A sense of humour and understanding made the process pass quickly.

Jim Gauthier is an Infection Control Practitioner for Providence Continuing Care Centre in Kingston, ON. He has organized an interest group for Infection Control Practitioners who provide services to Mental Health Facilities across Canada. He can be reached at: gauthij2@pcchealth.org.
THE 5 Ws of Infection Control

Who?
you and your staff

What?
creating splatter & risking cross contamination

Where?
in the patient's toilet or sink

Why?
you use an ARJO flusher disinfector

When?
NEVER AGAIN!

Empty. Flush. Clean. Disinfect. All with the touch of a button.

How?
Reduce the risk of nosocomial infections while increasing clinical efficacy with ARJO flusher disinfectors.

Our revolutionary technology allows you to spend more time and effort on patient care and less time with housekeeping.

For more information, call 800-665-4831 or visit us online at www.arjo.com.
Breakthrough DISINFECTANTS Designed To Kill

- Introducing the first and only disinfectant that works in 98% organic soil, at 791 ppm hard water.

- Proof of killing bacteria in near 100% organic soil is the real deal from an epidemiological perspective.

- Microgen formulations allow you to reduce cost by 30-50% vs. ready-to-use.

D-125 Master Label declares efficacy against 133 microorganisms. Below are associated with nosocomial infections.

For the complete list, go to www.microgeninc.com, click on “milestones”

Antibiotic Resistant Gram Positive Rods
Enterococcus faecalis (Vancomycin Resistant - VRE)
Staphylococcus aureus (Methicillin - MRSA), Penicillin G, Ampicillin, Cefazolin, Cefatoxime, Chloramphenicol, Ciprofloxacin, Clindimycin, Erythromycin, Oxacillin, Rifampin, Tetracycline Resistant, Vancomycin Resistant Intermediate - VISA) Staphylococcus epidermidis (Drug Resistant)

Concentrates • Sprays • Wipes

MICROGEN INC
A Microbiology Surface Chemical Distribution Network
info@microgeninc.com • www.microgeninc.com
1-800-420-7522 x11
HealthPRO made MedPro® Defense™ Gowns their choice.

Make it YOURS.
Call today to request samples and information:
1-800-363-2381 • www.amgmedical.com

RISK-FREE TRIAL OFFER!
Try MedPro Defense Protective Gowns and Standard Isolation Kits for FREE! Contact Institutional Sales at AMG Medical:
1-800-363-2381 or email: medprodefense@amgmedical.com to receive your FREE samples.

*Note: Offer valid for a limited time and only applicable to purchasing personnel and infection control practitioners in healthcare facilities in Canada. MedPro Defense Standard Isolation Kits are not part of the HealthPRO contract. For more information about HealthPRO: www.healthprocanada.com.
The balancing act has never been easier.

Strike the perfect balance with Endure 320 Advanced Care. This new alcohol-based hand rinse is fast and effective at killing germs, plus contains advanced moisturizers and conditioners to protect and leave the skin feeling soft and smooth.

In fact, our proven antimicrobial hand rinses, along with our “Go Ahead, Rub It In” in-service training and on-line CEU program, are all part of a system that works together to improve hand-washing compliance and utilization.

Learn more today. Call your Ecolab/Huntington representative at 1-800-352-5326.

Waterless Antimicrobial Hand Rinses. Available in multiple sizes and dispensing options. CHG, latex glove and lotion compatible.