INSIDE:

Standard for patient care and related areas during construction, maintenance and renovation

Hand washing in Peru
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<table>
<thead>
<tr>
<th>Organism</th>
<th>Percent Reduction in 15 seconds</th>
<th>Log Reduction in 15 seconds</th>
<th>Percent Reduction in 30 seconds</th>
<th>Log Reduction in 30 seconds</th>
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<tr>
<td>Gram Positive Bacteria</td>
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The Canadian Journal of Infection Control
Revue canadienne de prévention des infections

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VISION
CHICA-Canada will lead in the promotion of excellence in the practice of infection prevention and control.

MISSION
CHICA-Canada is a national, multidisciplinary, voluntary association of professionals. CHICA-Canada is committed to improving the health of Canadians by promoting excellence in the practice of infection prevention and control by employing evidence-based practice and application of epidemiological principles. This is accomplished through education, communication, standards, research and consumer awareness.

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Once again we are nearing the annual conference. This year the conference returns to Quebec and is being held in the beautiful and historic city of Montreal. This conference is co-hosted by the Association des infirmières en prévention des infections (AIPI).

Another innovative and exciting program awaits attendees. The conference program features include an Advanced Practitioner Day and Novice Practitioner Day and an afternoon concurrent session on PreHospital/First Responders which are popular features and reflect the diversity of our membership.

It is interesting to compare the program from this conference to the last annual conference held in Quebec which took place in Quebec City in April 1997. The 1997 conference topics included: Infection risks associated with new technologies, new construction and renovation, viral challenges for the ICP, role of the microbiology laboratory in surveillance and outbreak and emerging global pathogens.

Now, 11 years later, we have moved on from topics dealing with the growing science of IPAC to topics dealing with development of business cases, project evaluation, career advancement, dynamic leadership and risk assessment to name a few. Although we still address issues related to the science of IPAC, we are now moving toward the development of the infection control professional and, in turn, development of our profession.

It will be interesting to look back another 10 years from now to see how much we will have changed and evolved the IPAC mosaic.

“Change is the only thing that remains constant.”

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At the commencement of my term as resident of CHICA-Canada, I feel I have started off running. There are so many worthwhile projects that CHICA-Canada has embarked upon and so many strengths that support our membership. During this year, I will be reviewing several of projects led by the CHICA board and committees and giving you as much information as I can about the issues facing CHICA in 2008.

But first of all, I look forward to Montreal in May. CHICA-Canada is extremely happy to be co-hosting the 2008 Education Conference with our CHICA Montreal chapter and l’Association des infirmières en prévention des infections (AIPI). The last conference held in Quebec was in Quebec City in 1997 and we are excited about returning to that wonderful province, especially with the support of our planning partners.

With the theme of “Mosaic/Mosaïque”, the conference organizers have done an amazing job of incorporating the various facets of infection prevention and control into a dynamic schedule of education and networking opportunities. The beautiful conference logo symbolizes the coloured glass façade of the Palais des Congrès, site of the 2008 conference. With such a contemporary setting, the program itself is creative and thought-provoking. You can see the full program on the websites of CHICA and AIPI - www.chica.org and www.aipi.qc.ca.

The support of industry for the 2008 Education Conference has been extraordinary. You will see the current list of exhibitors on page 41 and sponsors on page 35. This is an additional source of education in understanding more about the products and services available to assist Infection Prevention and Control Professionals in their recommendations for patient and staff safety.

How does one prepare for such a full conference? Certainly if you are a first-time attendee, the prospect of a large conference with so many choices may seem daunting. Even those of us who have attended many CHICA-Canada and similar conferences have to think ahead to organize ourselves and our schedules to incorporate as many of the valuable, and fun, events. As described in the spring 2007 issue, one should prepare by:

• Setting goals and objectives – plan your days well in advance of the conference.
• Establishing priorities – what are your primary goals in obtaining education and information?
• Printing out handouts that you may want at the conference – they are on www.chica.org and www.aipi.qc.ca
• Mapping out the exhibit hall – so much valuable information to be gained in the exhibit hall; plan your time there thoroughly and carefully.
• Wearing comfortable shoes – needs no explanation!
• Having fun! - attend the fun networking events; eat well; rest; take care of yourself

Enjoy Montreal. Enjoy the conference. À bientôt!
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MESSAGE DE LA PRESIDÉNTE

Mosaique Montréal

Mais avant tout, j’attends avec impatience le mois de mai et le congrès de Montréal. CHICA-Canada a l’extrême plaisir d’agir comme hôte conjoint du congrès de formation 2008, avec la section de Montréal de CHICA-Canada et l’Association des infirmières en prévention des infections (AIPI). La dernière fois qu’un congrès a eu lieu au Québec, c’était à Québec en 1997. Nous sommes enthousiastes à l’idée de retourner dans cette belle province et nous apprécions spécialement l’appui de nos partenaires de planification.

Exploitant le thème « Mosaique », les organisateurs du congrès ont fait un travail remarquable pour incorporer les diverses facettes de la prévention et du contrôle des infections, et dresser un calendrier dynamique rempli d’occasions de perfectionnement et de réseautage. Le magnifique logo du congrès symbolise la façade de verre coloré du Palais des congrès, où se déroulera le congrès 2008. À l’image de ce cadre très contemporain, le programme est créatif et invite à la réflexion. Vous pouvez consulter le programme détaillé sur les sites Web de CHICA et de l’AIPI.

L’appui de l’industrie au congrès de formation 2008 a été extraordinaire. Vous trouverez à la page 41 la liste des exposants ayant confirmé leur participation à ce jour et à la page 35, celle des commanditaires. L’exposition constitue une source supplémentaire de formation en ce qu’elle permet aux professionnels en prévention et contrôle des infections d’en apprendre davantage sur les produits et services offerts, et d’en tenir compte dans leurs recommandations relatives à la sécurité des patients et du personnel.

Comment se préparer à un congrès aussi chargé? Certes, si c’est votre première participation à un congrès d’envergure offrant tant de choix, vous vous sentez peut-être submergé. Même ceux et celles d’entre nous qui ont participé à de nombreux congrès de CHICA-Canada et à d’autres congrès semblables doivent réfléchir et planifier leur horaire de façon à intégrer le plus d’activités utiles et divertissantes.

Tel qu’il est décrit dans le numéro du printemps 2007, voici quelques conseils :
• Fixez vos buts et objectifs – planifiez vos journées longtemps avant le début du congrès.
• Établissez vos priorités – quels sont vos principaux buts en matière de formation et de collecte d’information?
• Imprimez les documents qui vous intéressent pour les apporter au congrès; ils se trouvent sur les sites www.chica.org et www.aiipi.qc.ca.
• Étudiez le plan du salon des exposants – il y a beaucoup d’information pertinente à recueillir au salon; planifiez votre visite minutieusement.
• Portez des chaussures confortables – rien à ajouter sur ce point!
• Amusez-vous! – Participez aux activités de divertissement propices au réseautage; mangez bien; reposez-vous; prenez soin de vous.

Profitez bien de Montréal. Profitez bien du congrès. À bientôt!
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Policies and standards have been developed to limit the transmission of infectious agents (fungal, bacterial, and viral) to patients and clients during construction, maintenance and renovation (CMR) projects in patient care areas and patient care-related areas in acute health care facilities because transmission of infectious agents to patients has been documented to occur during these activities. Members of the departments of Infection Prevention and Control (IPC), Engineering and Maintenance, and Planning and Capital Development in the Calgary Health Region (the Region) met to revise the documents we use during CMR projects in the Region. Our aim was to update the Region’s document so that the responsibilities of all stakeholders were clearly outlined and to create a quick and easy to follow assessment tool. We began by comparing our current Regional policy with documents published by the Canadian Standards Association and the Public Health Agency of Canada. We established several basic principles, developed a three stage process to guide the CMR projects and revised our assessment tool (Appendix I and II).

The basic principles:
1. IPC needs to be involved in each phase of CMR projects occurring in patient acute care areas and patient acute care related areas. IPC involvement starts at the initial design phase and continues until the project is complete. IPC will review issues only as they relate to Infection Prevention and Control.
2. All CMR projects must be carried out in accordance with the relevant engineering/building standards/codes/procedures.
3. When a new area is being built or an area is being renovated, the most recent Infection Prevention and Control (IPC) General Design Guidelines/Standards for Calgary Health Region Capital Projects must be followed. This applies whether the CMR project is to be completed in-house or tendered for contract (see Planning (Schematic Design) Stage).
4. The Infection Prevention & Control Construction Checklist (CMR Checklist: see Appendix I) must be completed and followed for all physical work projects. After completion of CMR Checklist, Table 4 must be included as part of the Tender Package.
5. When required, the Commissioning Checklist (Appendix II) must be completed.

We agreed upon a process to plan, implement and complete CMR projects.

A. Planning (Schematic Design) Stage for New Building Projects or Renovation of Existing Space
All stakeholders involved in designing
or changing physical building structure in the Region must follow the most recent version of the Infection Prevention and Control (IPC) General Design Guidelines/Standards for Calgary Health Region Capital Projects. IPC will review and provide input into each phase of the project including the final schematic design document related to infection prevention and control issues. IPC has a stake in the following issues:

- Design of patient care areas (room size, corridors, sinks, support areas (i.e., clean and soiled utility areas, etc.).
- Design of patient rooms (bathroom, areas for personal hygiene, types of finishing surfaces etc.).
- Hand washing stations/sinks and facilities for personal hygiene within the facility.
- Design of facility/institution cleaning and processing areas, linen management areas, equipment and storage areas, etc.
- Ventilation requirements including special air handling issues.
- Temporary or permanent changes to water supply.

B. Implementation Stage: Construction, Maintenance and Renovation (CMR) Checklist

1. Initiating the Project: Complete the CMR Checklist:

   a) The Project Manager/Coordinator from Engineering and Maintenance or Planning and Capital Development will initiate, complete and sign the Infection Prevention & Control Construction Checklist (CMR Checklist: see Appendix I) for all physical work projects.

   b) All CMR Class III and Class IV (Appendix I, Table 4) projects must be reviewed by IPC prior to project initiation or tender. Projects in Risk Group 4 (Appendix I, Table 2) must also be reviewed.

   c) When projects are sent for tender, the completed Table 4 of the CMR Checklist must be included as part of the Tender Package for all projects.

2. Construction Start-Up Phase:

Prior to the start of the job, the Project Manager/Coordinator will organize a meeting with representatives from relevant stakeholders to discuss deconstruction and construction issues. Stakeholders include but are not limited to Engineering and Maintenance, Planning and Capital Development, IPC (who will review the CMR Checklist to verify that the CMR Project Class is correct) and the users of the area. Topics to discuss include but are not limited to:

- Expected alterations of the ventilation and water systems
- Plans to eliminate/control dust production
- Changes required in movement patterns of patient or equipment
- Where construction supplies will be stored
- How demolition materials will be removed
- Discussing whether alternative accommodations for patients may be needed

3. During Construction, Maintenance and Renovation:

All stakeholders will review the project on an ongoing basis to ensure compliance with measures required to limit the transmission of infectious agents. Stop work orders may be issued if there is non-compliance to the CMR Checklist (Appendix I, Table 4).

C. End of Project Inspection: Commissioning Checklist:

Prior to the re-opening of the area, the Project Manager/Coordinator will organize a post-project or move meeting with representatives from relevant stakeholders (includes but are not limited to IPC, Housekeeping, the Project Manager/Coordinator’s Department and users of the area). Topics to discuss include but are not limited to when:

- The ventilation and water systems will be verified as functional and meets standards.
- What changes may be required by housekeeping to ensure the cleaning of the new or reopened area.
- The settle time will be completed.
- The terminal cleaning will be performed.
- The final walk-through will occur.
- The area can be re-opened. IPC will indicate on Appendix I, Table 4 if a “Commissioning Checklist” (Appendix II) must be completed and sent to IPC re CMR Class IV projects.

DEFINITIONS

1. Construction, maintenance and renovation (CMR) includes activities by any person(s) who breach(es) the integrity of ceilings, walls, floors, and ventilation systems including activities related to installation of wiring, cables, plumbing, and air handling or maintenance.

2. Patient care areas in acute care facilities include areas where individuals (in-patients and out-patients) receive medical care. This includes areas such as waiting rooms, clinics, emergency rooms and diagnostic areas. Areas assigned as “Over Capacity” and “Temporary Occupancy” are also considered to be patient care areas.

3. Patient care-related areas in acute care facilities include areas proximal to patient care areas (i.e., above, below, adjacent or within). This includes areas such as supply, equipment processing, distribution, pharmacy and medication rooms.

4. Settle time is the length of time required to have particles that were suspended in the air removed. Settle time is dependent on the type and number of air changes per hour (ACH) in the area. Settle time is 90 minutes if ACH > 6 (6 ACH is the minimum number of ACH required in patient care areas in acute care patient facilities).
Appendix I: Infection Prevention and Control
Construction Checklist Directions

Use Table 1 to determine what type of work will be performed (ACTIVITY TYPE). Then use Table 2 to determine where the job will occur (GROUP). Calculate the construction, maintenance and renovation (CMR) class (Table 3) by using the information from Table 1 and Table 2. IPC must review all jobs that are found in shaded areas of Tables 1, 2 and 3 i.e., job ticket has shaded color.

Table 4 must be included in the Tender Package. Table 4 provides detailed information about the procedures required to limit the transmission of infectious agents to patients.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Type A</th>
<th>Type B</th>
<th>Type C REVIEW Checklist with IPC unless occurring in GROUP 1</th>
<th>Type D REVIEW Checklist with IPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust level</td>
<td>Essentially no dust</td>
<td>Minimal dust</td>
<td>Moderate dust</td>
<td>High levels of dust</td>
</tr>
<tr>
<td>Time of work</td>
<td>Inspection/non-invasive</td>
<td>Minor repair(s)</td>
<td>Major repairs</td>
<td>Major demolition and construction</td>
</tr>
<tr>
<td>Time to complete</td>
<td>Brief, &lt; 4 hours</td>
<td>&lt; 1 shift</td>
<td>&gt; One shift</td>
<td>Multiple shifts</td>
</tr>
<tr>
<td>Wall</td>
<td>Wall and ceiling not cut</td>
<td>Cut wall or ceiling (limit 1 sq foot) to install or repair minor electrical work, ventilation components, telephone wires, or computer cable</td>
<td>-Building new walls or -Removal of casework</td>
<td>-Removal of wall(s)</td>
</tr>
<tr>
<td>Ceiling tile</td>
<td>May remove no more than one -ceiling tile or -access hatch at a time</td>
<td>May remove 1 tile per 10 linear feet, replace as quickly as possible</td>
<td>-Removal of multiple ceiling tiles or -Electrical work above ceilings</td>
<td>Tiles/ceiling removed and opened to true ceiling</td>
</tr>
<tr>
<td>Wall preparation i.e., painting or wall covering</td>
<td>Does not require sanding</td>
<td>Damp sanding method i.e., no dry sanding</td>
<td>Requires dry sanding</td>
<td>Building walls</td>
</tr>
<tr>
<td>Plumbing</td>
<td>Minor plumbing work that disrupts the water supply to a localized patient area* (i.e., one room) for less than 15 min</td>
<td>Plumbing work that disrupts the water supply of more than one patient area* (i.e., two or more rooms) for less than 30 min</td>
<td>Plumbing work that disrupts the water supply of more than one patient area* (i.e., two or more rooms) for more than 30 min but less than 1 hour</td>
<td>Plumbing work that disrupts the water supply of more than one patient area* (i.e., two or more rooms) for more than 1 hour</td>
</tr>
<tr>
<td>Other activities</td>
<td>Electrical trim</td>
<td>Activities which require access to chase spaces</td>
<td>-Minor duct work or -Removal of floor coverings or -Major cabling or -Assembly of countertops, cupboards -Removal of a fixed building component</td>
<td>Removal of cable systems</td>
</tr>
</tbody>
</table>

*patient area = patient care related areas and patient related care areas
This project is TYPE ______________
Close the Loop of Infection Control

Maximize Post-Operative Protection with Covidien AMD Antimicrobial Dressings

Ordinary sterile dressings may not always provide sufficient protection from infection.

That’s why Covidien AMD Antimicrobial Dressings contain a bacteria-killing polymer to attack bacteria on and within the dressing fabric, helping to keep bacteria out of the wound, limiting cross-contamination, and promoting a healing environment. In fact, they are proven to virtually eliminate bacterial penetration and growth within the dressing. And that means fewer infections, improved clinical outcomes, and significant cost savings to your facility. Finally, a product to help close the loop on your surgical site infection control protocol…after the surgery is complete.

Proven effective against MRSA, VRE, and other common gram+ and gram- bacteria.

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### Table 2: INFECTION PREVENTION AND CONTROL RISK GROUPS
(modified from Table 2 CSA z317.13-07)

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Least (green*)</td>
<td>Medium (yellow*)</td>
<td>Medium/High (pink*)</td>
<td>Highest (red*)</td>
</tr>
<tr>
<td>Laundry and soiled linen cleaning areas</td>
<td>Ambulatory clinics (non-invasive) i.e., Cardiac Rehabilitation, Neurophysiology</td>
<td>Day surgery</td>
<td>Ambulatory care clinics for oncology, transplant or immunodeficient patients</td>
</tr>
<tr>
<td>Office areas (non clinical)</td>
<td>Invasive ambulatory clinics are found in Group 3 or 4</td>
<td>Echocardiography</td>
<td>Anaesthesia and pump areas</td>
</tr>
<tr>
<td>Physical plant workshops and housekeeping areas</td>
<td>Autopsy and morgue</td>
<td>Emergency room</td>
<td>Central processing department</td>
</tr>
<tr>
<td>Public entrances</td>
<td>Clean linen handling and storage areas</td>
<td>Food preparation, serving, and dining areas</td>
<td>Clinics/rooms areas used for invasive procedures</td>
</tr>
<tr>
<td>Unoccupied units</td>
<td>Discharge lounges</td>
<td>Patient Care Units except those noted in Group 4</td>
<td>Bronchoscopy</td>
</tr>
<tr>
<td></td>
<td>Office area adjacent to patient care areas</td>
<td>- General medicine</td>
<td>Cardiac or vascular catheterization &amp; angiography</td>
</tr>
<tr>
<td></td>
<td>Occupational therapy areas remote from patient care areas</td>
<td>- General surgical</td>
<td>Cystoscopy</td>
</tr>
<tr>
<td></td>
<td>Physical therapy: non-wound areas</td>
<td>- Geriatrics</td>
<td>Dental procedure rooms</td>
</tr>
<tr>
<td></td>
<td>Ambulatory care clinics for oncology, transplant or immunodeficient patients</td>
<td>- Labour and birthing rooms (non-operating)</td>
<td>Endoscopy areas</td>
</tr>
<tr>
<td></td>
<td>Patients with cancer waiting to start chemotherapy or radiation therapy</td>
<td>- Newborn nurseries (healthy)</td>
<td>Pacemaker insertion rooms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Pediatrics (not ACH* units)</td>
<td>Labour and delivery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Post anaesthesia care units</td>
<td>Operating rooms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Laboratories (Specimen)</td>
<td>Patient care speciality units</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Nuclear medicine</td>
<td>- Burn care units</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Physiotherapy - tank areas and wound care</td>
<td>Cardiology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Radiology/MRI (non-invasive)</td>
<td>Cardiovascular recovery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Resident areas in continuing care</td>
<td>Dialysis units</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ICUs include critical care nursery</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Immunodeficiency units</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Oncology (including outpatients)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pediatric units at ACH**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Transplant</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Trauma</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Protective environment isolation rooms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pharmacy admixture rooms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Radiology with invasive procedures</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sterile processing rooms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sterile supply areas</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Tissue culture laboratories</td>
</tr>
</tbody>
</table>

*Job tickets produced by Engineering and Maintenance may be colour-coded to indicate risk group
** Alberta Children’s Hospital

THIS PROJECT IS GROUP ________________

### Table 3: CONSTRUCTION ACTIVITY/INFECTION PREVENTION & CONTROL MATRIX
(Modified from Table 1 CSA Z317.13-07)

<table>
<thead>
<tr>
<th>INFECTION PREVENTION &amp; CONTROL RISK GROUP</th>
<th>TYPE “A”</th>
<th>TYPE “B”</th>
<th>TYPE “C”</th>
<th>TYPE “D”</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP 1</td>
<td>CMR CLASS I</td>
<td>CMR CLASS II</td>
<td>CMR CLASS II, III*</td>
<td>CMR CLASS III, IV*</td>
</tr>
<tr>
<td>GROUP 2</td>
<td>CMR CLASS I</td>
<td>CMR CLASS II</td>
<td>CMR CLASS III</td>
<td>CMR CLASS IV</td>
</tr>
<tr>
<td>GROUP 3</td>
<td>CMR CLASS I</td>
<td>CMR CLASS II</td>
<td>CMR CLASS III, IV*</td>
<td>CMR CLASS IV</td>
</tr>
<tr>
<td>GROUP 4</td>
<td>CMR CLASS I, II, III*</td>
<td>CMR CLASS I, II, III*</td>
<td>CMR CLASS III, IV*</td>
<td>CMR CLASS IV</td>
</tr>
</tbody>
</table>

*Where two classes are noted, or any modification of a CMR Class is required, consult with IP&C prior to completing checklist.

THIS PROJECT IS CMR CLASS __________
the next generation
of sterility assurance
is here.

Introducing the new Class 6 Verify® SixCess™ Challenge Packs and Indicators

> **Reduce the wait:** immediate release of all loads
> **Reduce the risk:** eliminate “blind” release
> **Reduce the work:** no readers or incubation required

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HEPA Filter and HEPA Vacuum equipment that contains High Efficiency Particulate Air (HEPA) filters that have passed a filter challenge test (commonly called a DOP test) within the last six months.

Negative pressure system is created when there is reduced air pressure within the work area compared to the ambient air pressure, produced through the use of negative-air units that prevent leakage of air out of the work area i.e., air flows from the corridor INTO the enclosed area.

---

TABLE 4: Infection Prevention and Control IPC Construction Checklist

<table>
<thead>
<tr>
<th>Location of Construction</th>
<th>Project #</th>
<th>Project Start Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHR Project Manager/Coordinator</td>
<td>Estimated Duration</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contractor Performing Work</th>
<th>CMR Class</th>
<th>Date</th>
<th>Exceptions</th>
</tr>
</thead>
</table>

**Table 4: CMR Class:**
A risk assessment for asbestos must be made for all construction, maintenance, renovation and repair work. If mould encountered, stop work and notify Project Manager/Coordinator.

<table>
<thead>
<tr>
<th>CMR Class I</th>
<th>CMR Class II Do CMR Class I plus</th>
<th>CMR Class III Do CMR CLASS I and II plus</th>
<th>CMR Class IV Do CMR CLASS I, II, III plus</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal Clean Hands</strong></td>
<td>- Use required job related safety equipment - Use protection indicated by IPC signs attached to patient’s door - Do hand hygiene before starting job and before leaving work area</td>
<td>Ensure clothing is dust-free before leaving work area (i.e., use HEPA filter vacuum)</td>
<td>Use clinically appropriate attire (i.e., OR greens). Attire must be changed whenever worker(s) enter/leave the area</td>
</tr>
<tr>
<td><strong>Containment</strong></td>
<td>Protect patient care equipment and patients from dust</td>
<td>Use drop sheets in work area Use tape to create an effective seal of windows and unused doors Use a tack mat at entrance</td>
<td>Create impermeable dust barrier (1 layer 6 mil polyethylene) Seal plumbing, electrical outlets: seal intake and exhaust vents REVIEW WITH IPC how ceiling is sealed</td>
</tr>
<tr>
<td><strong>Ventilation</strong></td>
<td>Isolate ventilation (may need to disable) Change/replace filters</td>
<td>Use portable HEPA filtration units to create negative pressure (test with smoke test)</td>
<td></td>
</tr>
<tr>
<td><strong>Dust Control</strong></td>
<td>Immediately replace tiles Clean work area i.e., HEPA vacuum and/or keep dust free by wet mop (no standing water)</td>
<td>Use water mist while cutting non-water permeable materials Use HEPA vacuum attachment when cutting water permeable surfaces (i.e., drywall)</td>
<td>HEPA vacuum air ducts and spaces above ceiling if necessary Contractor/Engineering and Maintenance clean-up must be completed before hoarding removed. Prevent dust creation during dismantling</td>
</tr>
<tr>
<td><strong>Plumbing</strong></td>
<td>1) Work during low activity 2) Do not use material (i.e., gaskets) that would support Legionella growth 3) Do not use faucet aerators 4) Maintain dry work environment 5) Ensure no water discolouration 6) Report water leak to maintenance and IPC 7) remove &quot;dead legs&quot; Avoid stagnate water: i.e., do not use collection tanks or long pipes. Consider hyperchlorination of water or flushing to prevent Legionella</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Debris removal</strong></td>
<td>Use covered containers to remove debris</td>
<td>Clean debris at end of day HEPA vacuum daily (minimum) and end of job</td>
<td>Contact IPC if a chute is planned to be erected</td>
</tr>
</tbody>
</table>
FIND THE MICROBE THAT COULD COST THIS PATIENT HER LIFE.

80% of the bacteria that cause infections reside in the first five layers of the patient's own skin. That's why there's ChloraPrep®. ChloraPrep combines the CDC-recommended formulation of 2% CHG with innovative, "hands-off" applicators to provide a more effective system to help reduce infections associated with skin bacteria. ChloraPrep is fast-acting on a broad spectrum of bacteria, including MRSA, and inhibits bacterial growth for at least 48 hours. Help stop infection from the start with ChloraPrep.

- **PERSISTENT** antimicrobial activity inhibits the growth of bacteria for at least 48 hours
- **PROVEN** in 33 published studies as best practice for helping reduce the risk of infection
- **RECOMMENDED** use of 2% CHG formulation in at least 10 evidence-based guidelines, including the CDC, SCAI and IHI

REFERENCES

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800-523-0502

Entura

Appendix II: CMR Class IV Commissioning Checklist

This checklist must be completed by the CHR Project Manager/Coordinator. IPC will indicate if they need to review the completed project prior to occupancy.

All items in Box A must be complete prior to removal of hoarding.

Prior to occupancy - All items must be completed and
- IPC must receive a copy of the completed and signed Commissioning Checklist

### Box A

<table>
<thead>
<tr>
<th>Location of Construction</th>
<th>Project #</th>
<th>Expected date of completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHR Project Manager/Coordinator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contractor Performing Work</td>
<td>Supervisor</td>
<td>Telephone number</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IPC contact</th>
<th>Telephone Number</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>All work is completed and meets requirements of</th>
<th>Schematic Design1 (if appropriate)</th>
<th>Deficiencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tender Package</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Ventilation systems cleaned, function restored, and verified as functional. (maintenance final inspection completed and verbal confirmation report received from air balance contractor) | Completed & meets standards | Yes [ ] No [ ] |
| Water systems flushed and inspected for leaks and verified to meet standards (maintenance final inspection completed) | Completed & meets standards | Yes [ ] No [ ] |

City of Calgary Occupancy permit required Yes [ ] No [ ] If Yes, Occupancy permit received on Date

<table>
<thead>
<tr>
<th>Box B</th>
</tr>
</thead>
</table>

2. Settle time is the length of time required to have particles that suspended in the air removed.

### REFERENCES


STRICT ENOUGH to fight an OUTBREAK!

SAFE ENOUGH for EVERY DAY USE!

ACCELERATED HYDROGEN PEROXIDE

Disinfectants and Disinfectant Cleaners

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- **Fast Action.** Kills TB, MRSA, HIV-1 and HCV in 3 minutes.
- **More Value.** A cleaner and disinfectant in one.
- **Fully Saturated Wipes.** 7-layer design that drenches surfaces with the power of CaviCide®
- **Space Saver.** Minimize storage space and unclutter counter space.
- **Non-abrasive.** For use on hard, non-porous surfaces.
- **Durable.** Non-woven towelettes that won’t bunch up during use.

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<table>
<thead>
<tr>
<th>Exclusive CaviWipes FlatPack Features:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy-open flip top</td>
</tr>
<tr>
<td>Sticks easily to clean, smooth, dry surfaces</td>
</tr>
<tr>
<td>Kills TB in 3 minutes</td>
</tr>
<tr>
<td>Kills MRSA, HIV-1 and HCV in 3 minutes</td>
</tr>
<tr>
<td>Patented adhesive package—easy on / easy off</td>
</tr>
<tr>
<td>45 individual non-woven wipes per pack</td>
</tr>
</tbody>
</table>
Hand washing is the most effective method to prevent the transmission of microorganisms between health workers and patients in the hospital. Pathogens are transported on the hands of health workers from colonized or infected patients, and represent an important means of transmission of microorganisms and the dispersion of infections. This common observation is clarified in our studies that evaluated the normal flora of the respiratory and gastrointestinal tract of hospitalized patients in intensive care units. The normal flora is rapidly replaced by pathogens which are circulating in the unit.

We developed a hand washing project in the Neonatal Unit of Dos de Mayo Hospital, which is one of the most important public hospital in Lima, Peru, in 2006. The VIGIA project (a national project financed by the World Bank) to improve the
health of high-risk populations) provided financial support totalling 3850 nuevos soles (~$1350).

The first component of the project, undertaken during the month of October, was training. Our objective was to provide intensive education on proper hand washing for all personnel in the Neonatal Unit. Fulfilling the program goals, 100 per cent of staff underwent our training.

Subsequent to the training we observed hand washing practice in those staff. Observations in the Neonatal Unit found that staff performed acceptable hand washing technique 86.7%, of the time, better than our objective of 80%. We also tested unit staff on the 11 items covered in training. We anticipated a grade of 80% on this test, but achieved a mean grade of 72.6% and a median grade of 72.9%.

The aim of this project, of course, was to decrease nosocomial infections. Our results found that while our nosocomial rate was 3.5% in March, it decreased to 2.4% in October.

Following the conclusion of this project and ongoing to date, handwashing procedures, training and observation were standardized in the Neonatal Unit.

BIBLIOGRAPHY
1. Ponce de León, Samuel. Retail Manual de prevención y control de infecciones hospitalarias. Serie ITSP/Manuales operativos Paltex. OPS. 1996
5. Reinforcement of Hand washing. VIGIA Project OGE Peru 2006
Today, Cardinal Health Canada is CHASING ZERO HOSPITAL-ACQUIRED INFECTIONS.

Our customers achieve positive and measurable reductions in infection rates by utilizing our capabilities to help them manage hospital-acquired infections.

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Quebec: 1-800-668-9067
Toronto: 905-946-9501
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Johnson & Johnson
MEDICAL PRODUCTS
A DIVISION OF JOHNSON & JOHNSON, INC.
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Nominations are invited for the following positions:

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- Director, Finance (3-year term)
- Physician Director (3-year term)

These terms commence January 1, 2009. Position descriptions and nomination forms are found in the CHICA-Canada Policy and Procedure Manual, or may be obtained from the Membership Service Office or downloaded from www.chica.org (Members Login).

Signatures of two active members are required 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:

Bern Hankinson, RN, BN, CIC
CHICA-Canada Secretary/Membership Director
c/o Membership Service office
PO Box 46125 RPO Westdale
Winnipeg MB R3R 3S3

Or by courier to:
Bern Hankinson, RN, BN, CIC
CHICA-Canada Secretary/Membership Director
c/o Membership Service office
67 Bergman Crescent
Winnipeg MB R3R 1Y9


---

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• Pets Visits, Therapy & Research
• Ask The Experts

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The Victoria Inn is pleased to offer conference attendees a discounted room rate of $105/night. To obtain this rate please mention you are a CHICA MB Conference attendee when booking.

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* Self-assessment data from Centers of Excellence evaluations. Total of 118 evaluations.
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2008 Education Conference


SIMULTANEOUS INTERPRETATION

Simultaneous interpretation will be provided for all education sessions. The original language of the session will be indicated on the final program. Poster presentations will be presented in the language of the presenter. Visual materials during education sessions will be provided in both languages.

CALL FOR ABSTRACTS

The preliminary program and call for abstracts are now available at www.chica.org and www.aipi.qc.ca.

2008 EDUCATION CONFERENCE COMMITTEE

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Calgary, Alberta

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Ramona Rodrigues MSc(A) CIC
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CONFERENCE HOTEL

Hyatt Regency Montreal
1255, rue Jeanne-Mance
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Room rate: Traditional Room: $186.00 single/double (plus 16.5% taxes). Includes Internet access.

Deadline for reservations: April 28, 2008 – do not wait to make hotel reservations. The room block will go quickly.

All reservations must be made individually through the hotel’s Reservation Department by calling 514-982-1234, or, toll free, 1-800-361-8234, or on www.Hyatt.com.

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Room Rate: Single/Double $159. These rates are subject to the lodging tax of 3% per room, per night, federal GST (5%) and provincial QST (7.5%).
WATCH FOR ON-LINE ABSTRACT SUBMISSIONS for the 2009 National Education Conference

www.chica.org
ANNUAL GENERAL MEETING

NOTICE IS HEREBY SERVED that the Annual General Meeting of the Community and Hospital Infection Control Association – Canada will be held on Thursday, June 5, 2008 at the Palais des Congrès, Montreal, 0700 hrs. A Town Hall meeting will be held immediately following the Annual General Meeting. CHICA-Canada members must register and pick up a voting card before entering the AGM.

SOLUMED ORAL PRESENTATION AWARDS

CHICA-Canada and Les entreprises Solumed are pleased to announce the formation of the Solumed Oral Presentation Awards. Two awards for Best Oral Presentations, as chosen by attendees of the 2008 Education Conference, will be presented. The prizes, in the amount of $500 each, will be presented at the closing ceremonies of the conference.
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THIRD ANNUAL RUN FOR IFIC — Fun 5Km RUN and 2.5Km WALK

Monday, June 2, 2008 - 6:30 am

(No rain date)
Starting Point and Route to be announced
Hosted by CHICA Montreal
In support of the IFIC® Scholarship fund
"International Federation of Infection Control"

Please help support IFIC in its effort to support Infection Prevention and Control Professionals. Collect sponsors and then come and run or walk with us on a picturesque route through Montreal...
Registration will be at the Palais des Congrès (look for the CHICA Montreal booth near the Registration area). Starting point and route to be announced.

The 2008 Run or Walk for Fun is in aid of the International Federation of Infection Control Scholarship Fund which assists Infection Control Professionals from under-funded or under-resourced countries to attend the annual IFIC education meeting.

Prizes will be awarded for fastest male and female, and fastest ICP and M.D. There will also be a prize for the person who raises the most sponsorship dollars. Help us reach our goal of $2,500.00.

Entry fee and sponsorship will be paid at the conference. Do not send with your conference registration. The cost is $255 for runners and walkers. All participants will receive a race t-shirt.

When collecting sponsorship for your run or walk, please present the total sponsorship by way of a cheque made payable to CHICA-Canada. Sponsorship monies and sign up forms will be collected at race registration. A sponsorship form is attached. Sponsors will be provided with a charitable receipt from CHICA-Canada.

Participants will be required to sign a liability waived at time of registration. Medical assistance and water will be available en route. Participants are responsible for ensuring their own health and safety while on this run.

For more information, contact CHICA-Canada
Telephone 1-866-999-7111 or email chicacanada@mts.net
This event is approved by the City of Montreal and adheres to all City by-laws.

THANK YOU FOR YOUR SUPPORT!
Name of Runner ____________________________
Telephone Number _________________________

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Association pour la prévention des infections à l'hôpital et dans la communauté — Canada

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Two MRSA Roadshows were successfully held in Vancouver and Calgary in March and April 2008. With topics including Best Practices, Screening, Surveillance and Decolonization, the Roadshows attracted over 150 participants. A third Roadshow is planned for Toronto in the fall of 2008.

Three webinars were held to enhance the MRSA program. A fourth webinar is planned for the fall of 2008. Information on upcoming Roadshows and webinars will be posted to www.chica.org.

The Roadshow Seminars program, sponsored by BD (Becton, Dickinson and Company), is aimed at both clinicians and healthcare executives faced with the clinical and financial impact of MRSA in their facilities.

“CHICA-Canada is pleased to partner with BD (Becton Dickinson) for the MRSA educational initiatives as infection prevention and control professionals are continually faced with the challenges that accompany a growing burden of MRSA in Canadian healthcare facilities,” said CHICA-Canada Past President Joanne Laalo.

“BD is proud to work jointly with CHICA-Canada on this important initiative,” said James Glasscock, Country General Manager of BD, “as it is central to our commitment at BD to prevent healthcare-associated infections and help all people live healthy lives.”
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CHICA/AIPI 2008
June 2-4, 2008
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The Canadian Journal of Infection Control • SPRING 2008 43
The Board of Directors and the Editor-in-Chief of CHICA-Canada announce the 2008 Editorial Award.

The Editorial Award will acknowledge the author(s) of a selected scientific article that has appeared in a 2008 issue of the Canadian Journal of Infection Control.

The winning author(s) (to a maximum of 3 authors) will each receive one waived registration to the conference portion of the 2009 conference (Tuesday-Thursday only; does not include Novice or Advanced Practitioner Day or PreConference Day). A applicable registration fee will be refunded if the registration has been paid before the award winner(s) are announced. Award not transferable and applies to the 2009 conference only.

All papers will be judged by the CHICA-Canada Awards Committee according to:

• The author or at least one of the authors must be a member of CHICA-Canada.
• Papers must be relevant to Infection Prevention and Control in healthcare or in the community and must have appeal to the membership of CHICA-Canada.
• The paper must be original work.
• The paper must reflect clinical relevance and accuracy.
• There must be clarity, quality of organization, and grammatical correctness.
• There are current references, footnotes and bibliography.
• Manuscripts are prepared according to the Canadian Journal of Infection Control Guidelines for Contributors (see page 76).

The award may not be presented to the same author(s) two years consecutively.

The Editor-in-Chief, members of the Canadian Journal of Infection Control Editorial Board, the CHICA-Canada Board of Directors, and the Awards Committee are not eligible.

The deadline for competition is December 31, 2008.
ORAL_PRESENTATIONS
TUESDAY, JUNE 3, 2008
Final Schedule will be published in the Conference program.

SHARING A HOSPITAL ROOM: IS EXPOSURE TO HOSPITAL ROOMMATES A RISK FACTOR FOR NOSOCOMIAL INFECTION? HAMEL M.*, O ’Callaghan C., Zoutman D. , Queen's University, Kingston, ON Background/Objective: Numerous patient- and hospital-level characteristics have been established as risk factors for nosocomial infection. However, very few studies have exam- ined the role of hospital roommates in transmission of infection. The objective if this study was to determine the association between exposure to roommates during a hospital stay and risk of nosocomial infection.

Methods: A retrospective cohort design was used to examine the association between number of hospital roommates and occurrence of three selected nosocomial infections (methicillin-resistant Staphylococcus aureus (M RSA), vancomycin-resistant Enterococcus (VRE), and Clostridium difficile (C. difficile)) in patients admitted to a single level teach- ing hospital from 2001 to 2005. Exposures were characterized as daily number of room- mates each patient was exposed to and number of unique hospital roommate exposures. Additional variables previously established to be associated with nosocomial infection were measured as potential covariates. Cox proportional hazards models were used to estimate the risk of infection associated with roommate exposure.

Results: Daily roommate exposures were found to be significantly associated with M RSA infection or colonization (HR =1.06, 95 CI: 1.02, 1.09) in multivariate analyses. No significant associations were found for total number of unique roommate exposures per day for M RSA, or for VRE or C. difficile.

Conclusions: The results of this study add to the growing body of research attempting to explain the transmission of nosocomial infections, as well their prevention and control. The significant association found between daily roommate exposures and M RSA demonstra- tes that limiting patients’ contacts with each other may contribute to infection control in this facility.

GUIDE DE PRATIQUE : LES INFECTIONS DE SITES CHIRURGICAUX ASSOCIEES A UN IMPLANT EN ORTHOPEDIE : LES CONNAITRE, LES RECONNAITRE, LES PREVENIR.

Annie Labeige, Marie-Claude Roy1, Johanne Gagnon, Francoise Cote1
1Centre hospitalier affilié universitaire de Quebec (CHAI), Quebec, Quebec, Canada,
2Universite Laval, Quebec, Quebec, Canada

Problematique: Au CHA, un projet de surveillance a democratise un taux anormalement eleve d’ISC (infection de site chirurgical) suite a des chirurgies orthopediques avec implants. A plus investigation, nous avons installe differentes mesures visant a diminuer ces taux. Un guide de conscience a ete cree avec l’intention de favoriser l’utilisation de gestes operatoires a ete conçu en collaboration avec l’Universite Laval, comme moyen d’intervention.

Projet: Ce guide a ete realise dans le cadre d’une maîtrise en sciences infirmieres. Sa conception a ete faite par une recherche documentaire de donnees probantes issues de la recherche scientifique concernant les facteurs de risque d’ISC en orthopedie ainsi que sur les pratiques pour les prevenir. L’ébauche issue de cette recherche a ensuite ete validate par des specialistes du sujet.

Resultats: Le guide issu de cette recherche contenait, en plus de recommandations claires documentees, la physiopathologie, la microbiologie, les classifications et definitions des ISC et des ISC associes a un implant, les facteurs de risque ainsi que des interventions deployses comme deterriseurs de risques pour diminuer les risques d’ISC en orthopedie.

Conclusion: En validation, ce guide s’avere un outil fiable et accessible qui permet de conjuger intervention et prevention.

INFECTION PREVENTION AND CONTROL IMPACT ON EMERGENCY DEPARTMENT DESIGN: PLANNING FOR THE UNKNOWN Maja McQuine, Sandra Callery, Eileen MacIsaac

Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Background: In 1976, the Sunnybrook Health Sciences Centre Emergency Department (ED) was built for a capacity of 20,000 visits per year. In 2003, the unit had over 41,000 visits and is recognized as a regional trauma centre. In 2007, the Health Services Restruc- turing Commission initiated an expansion project to increase capacity and restructure the department from 18,000 to 35,000 square feet and increase stretcher capacity to 48 bays. Project: Illustrate the key design elements in the Emergency Department and Satellite Imaging Expansion Project that support infection prevention and control (IP&C).

Results: The final drawings took into account the need for patient segregation, unique separation qualities in the heating, ventilation and air conditioning system set-up, effective support areas and materials/surfaces conducive to easy cleaning and disinfection. Four self sufficient pods were created, serving varying levels of patient care/acute. Each pod will contain a nursing station, airborne infection isolation room, patient rooms/sbys, and support areas. Each pod will have its own air handling unit with 100% outdoor exhaust, to allow for pod isolation. There are 4 airborne infection isolation rooms; while another 18 rooms were retrofitted to provide negative airflow if required. The department has 17 hands-free, foot operated hand wash sinks, with adjacent water resistant wall covering. Clever use of space minimizes clutter and allows crash carts and stretchers to be stored out of traffic pathways.

Lessons learned: The involvement of IP&C from the beginning of the process enhanced the final designs by: A) Applying the region’s changing epidemiology into the design on making process; Ensuring that key IP&C design related standards were applied to spacing, transmission of organisms, and workflow paths; Redesigning the department within the confines of an existing footprint; Utilizing strategies to mitigate risk to patients and staff despite project limitations.

1. CHICA/AIPI 2008 Education Conference
plastic to prevent moisture from penetrating the packaging. Continuous temperature and humidity monitoring was installed to control OR and Sterile Supply Department; readings were recorded in a logbook. Nonurgent procedures were canceled; patient decision for all other procedures was reviewed. The aim of the audit was to determine if AAI guidelines were followed.

**Results:** During this week, humidity levels were consistently >60%, and often up to 85%. The SSI rate for procedures during this week was 10.7% (3/28 procedures). There were no fungal SSIs. This SSI rate was slightly higher than the remaining weeks in the first quarter of 2005 (3.3%), and the first quarter for 2004 (7.9%). However, these differences were not statistically significant. All procedures were deemed urgent; none were canceled. No patient refused to undergo surgery upon disclosure. The humid weather and inability to alter the fresh air supply rate appeared to be cause of the increased humidity despite the HVAC system running at full capacity.

**Lessons learned:** We documented a non-significant increase in SSIs during a period of consistently high OR humidity. These data are helpful to quantify patient risk in high humidity situations. ORs should maintain a log of temperature and humidity readings in order to correlate SSI rates with OR conditions. Additional studies in larger populations would be helpful to validate these findings.

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**LIGHTS, CAMERA, ACTION: BEING AN INFECTION CONTROL PROFESSIONAL (ICP)**

M. Edy Cordoviz, I. Jan A. Bertin, Janet Bacicay, Shelby Winton, A. Mber-Leh Wolfe, Samantha Woolsey, M. Ark Joffe

Royal Alexandra Hospital, Edmonton, Alberta, Canada

**Issue:** Providing education to staff in a meaningful way is challenging. Infection Control Practitioners (ICPs) must find new methods to present old information. In a facility with over 5600 staff members, the hospital infection control team began using audiostreaming technology to bring infection control (IC) information to frontline staff.

**Project:** The ICPs “star” in short, sometimes humorous, videos fashioned after commercials or music videos. The videos contain important infection control messaging from hand hygiene to equipment cleaning. The frontline staff are also asked to participate, as contestans, in games such as “Infection Control Jeopardy”, “Infection Control Clue” and Personal Protective Equipment Olympics”. The games consist of infection control facts that staff must answer or demonstrate to win a prize. These activities are videotaped or photographed and are posted on the hospital IC website.

**Results:** Staff have given positive feedback about the videos and games. The audio/virtual aides have increased interest in the IC website. The videos have sparked conversations about infection control issues.

**Lessons learned:** We found many benefits to providing IC information to frontline staff in a refreshing and innovative manner. Staff were entertained, while learning basic infection control principles. The videos and photographs increased the visibility of the ICPs. There was an increase in the awareness of IC issues. It is important for ICPs to use creative ideas to provide information in a manner that is engaging for staff. Using a multi-media approach is a creative and effective method to bring IC information to staff.

*Chosen as one of the six best abstract submissions*

**A SUCCESS STORY: PERSONAL PROTECTIVE EQUIPMENT (PPE) TRAINING**

Marie-Andrée Bruneau, Natalie Bruce, Virginia R Roth

The Ottawa Hospital, Ottawa, Ontario, Canada

**Issue:** The 2003 Severe Acute Respiratory Syndrome (SARS) outbreak in Ontario highlighted the need for increased infection control training for healthcare workers (HCWs).

**Project:** A training program was developed on the proper use of PPE based on Knollies’ “Primer on Infection Prevention and Control”. Each one-hour program was advertised as mandatory attendance for all HCWs. To increase learner’s readiness, a relief budget was made available and sessions took place away from clinical work areas. The key motivation message was: “use PPE correctly for your safety”. Although the target audience was regulated HCWs, all personnel in the hospital, including staff, RTs, nurses, RTs, 4 technologists, and 9 others; all had a culture of their fingertips taken and 20 of their pagers. No HCW was recovered. The majority of negative cultures (94%) and pages (85%) revealed normal skin flora. 3 HCW had no bacteria on their fingertips but admitted washing their hands compulsively. Interestingly, 2 of 3 RTs had abundant respiratory flora on their hands and pagers, including filamentous fungus. S. aureus (not MRSA) was recovered on the hands of 6 HCW and Enterococcus (not VRE) was found on the hands of 4 HCW.

**Lessons learned:** HCW were very receptive to these results. The predominant respiratory flora on RTs’ hands illustrated well the cross-contamination that can occur between patients via hands or contaminated equipment. No MRSA were identified and normal skin flora predominated.

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**THE CONTENT OF PANDEMIC INFLUENZA PLANS IN ONTARIO ACUTE CARE HOSPITALS**

Dick Zoutman1, B. Douglas Ford2, Brian Schwartz3, Matt Melinyshyn3

1Queen’s University, Kingston, ON, Canada, 2University of Toronto, ON, Canada, 3Melinyshyn Consulting Services, Kingston, ON, Canada

**Introduction:** The purpose of this study was to examine the content of pandemic plans in acute care hospitals in Ontario to determine the information needed to be conveyed to help hospitals prepare for future influenza pandemics.

**Methods:** A survey was sent in early 2007 to all acute hospitals in Ontario. The survey was completed by the person most responsible for the hospital’s pandemic influenza plan. Respondents had 30 days to complete the survey. A total of 177 responses were received (66%) of plans outlined the security strategy and half (51%) a within hospital patient transportation strategy. Challenges for planning included: the determination of personnel to be vaccinated (86%) and a priority list for pandemic influenza vaccines. The majority (99%) of plans identified critical supplies such as N95 respirators, masks, gloves, gowns, and eye protection, while fewer identified diagnostic supplies (63%) and cots (32%). Half of plans (53%) included a priority list for receiving antivirals and 42% a priority list for pandemic influenza vaccinations. The critical care section of plans addressed the screening of new patients and visitors for febrile respiratory illness 100% of the time and triage procedures 90% while criteria for ventilator use was addressed by only a quarter of plans. Two-thirds (65%) of plans based their plans on the Influenza Management System model. The key human resource components of which services to suspend (90%) and continue (85%) were addressed by most plans, however, few addressed staffing of alternative sites (36%) and roles for family members (36%). Surge capacity related to beds (97%) and on-site supplies (87%) were addressed by most hospitals, while fewer addressed morgue (74%) and parking (26%) capacity. Over 90% of plans identified critical supplies such as N95 respirators, masks, gloves, gowns, and eye protection, while fewer identified diagnostic supplies (63%) and cots (32%). Half of plans (53%) included a priority list for receiving antivirals and 42% a priority list for pandemic influenza vaccinations.

**Conclusion:** The vast majority of pandemic influenza plans had shortfalls in many key areas. A web-based educational initiative, the “Being Prepared is Being Protected Pandemic Learning Portal Project”, is currently being developed by the authors to address these important areas and will assist hospitals to plan effectively for future pandemics.

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**EASING THE PAIN OF OUTBREAKS IN LONG TERM CARE: ELEMENTS OF A SUCCESSFUL OUTBREAK PREVENTION AND CONTROL TEAM**

H. Hamlin, Rebecca

Capital District Health Authority, Halifax, Nova Scotia

**Issue:** The occurrence of outbreaks in a Long Term Care (LTC) facility is always a cause for concern.

**Project:** A multidisciplinary team was formed and terms of reference developed. Key issues identified included: outbreak prevention, empowerment of staff to assess and act promptly and efficiently to prevent transmission and the means by which decisions were made and executed in a timely, effective manner. Education and promotion programs were developed and delivered to residents, families, volunteers and staff. The team met as soon as evidence of an outbreak occurred and regularly throughout the outbreak. Members were responsible to bring back to their respective groups further enhanced communication within the facility, an electronic template was designed which outlines outbreak status, restrictions and expected actions of staff. To address the needs of residents, families and volunteers, an Outbreak Telephone Line was established which is updated after each meeting.

**Results:** The outbreak group is an example of various disciplines coming together as a cohesive, productive team. Staff members now recognize and report potential cases of illness immediately to Infection Control. Staff members have reported a greater sense of comfort that has resulted from receiving clear, concise direction from the group. Residents
and family members have reported satisfaction with improved communication

**Lessons learned:** Early detection and action combined with effective communication are key to managing outbreaks successfully.

**INFECTION PREVENTION & CONTROL PARTICIPATES IN AN ACCREDITATION PILOT**

Peddle, N.,*, Stevenson, R., St. Joseph’s Healthcare, Hamilton, Ontario

**Issue:** The Canadian Council on Health Services Accreditation (CCHSA) developed a new format for hospital accreditation. Infection Prevention and Control (IPC) at St. Joseph’s Healthcare chose to participate in an accreditation pilot project. This presented an opportunity for a peer self-assessment and an interdisciplinary approach to accreditation in May 2008.

**Project:** An on-line survey, pertaining to Infection Control, was distributed to ninety-nine front line staff. IPC & submitted selected infection rate data along with supporting documentation for six new Required Organizational Practices. The final stage of the pilot was an on-site visit by the CCHSA surveys who met with IPC. Surveys also assessed front-line staff Infection Control knowledge.

**Results:** The CCHSA reviewed the on-line survey results. Feedback indicated questions on the survey were ambiguous and lacked clarity, causing Infection Control to receive red flags, including unmet criteria related to standards. A new plan was developed to address the red flags. Conversely, the on-site visit report concluded that Infection Control had met all the standard criteria, and had no red flags.

**Lessons learned:** We provided the CCHSA with feedback on the questionnaire format indicating that the front line staff found some questions difficult to interpret. The ambiguous nature of the questions was reflected in the number of red flags received. The on-site visit was a positive experience and IPC & gained valuable advice from the surveyors. Involving frontline staff in the process allows surveyors to better assess the quality of care provided. The accreditation pilot strengthened communication throughout the organization and built on St. Joseph’s commitment to quality improvement.

**ORAL PRESENTATIONS**

**WEDNESDAY, JUNE 4, 2008**

Final Schedule will be published in the Conference program.

**YEARLY DIDACTIC INFECTION CONTROL EDUCATION OF MEDICAL STUDENTS AT QUEEN’S UNIVERSITY**

Jim Gauthier,*, Kathleen Poole,*, Dick Zoutman,*, Susan Moffatt,*, Janet Allen,*, Susan Cooper,*, Amanda Knapp,*, Alyson Davis,*, Darlene Campbell,*, Providence Care, Kingston, Ontario, Canada;* Queen’s University, Kingston, Ontario;* Kingston General Hospital, Kingston, Ontario;* Southeastern Ontario Regional Infection Control Network, Kingston, Ontario, Canada;*KF&LAPublic Health, Kingston, Ontario, Canada

**Issue:** To build routine practices into medical students’ clinical habits as they learn physical diagnosis to help embed the practices in their clinical behaviors.

**Project:** As a collaboration between the Clinical Skills Program, School of Medicine, Queen’s University, and the Kingston Hospital’s Infection Control team, methods were discussed to increase education to medical students in each year of their didactic training. First-year students would receive 45 minutes on Routine Practices, hand hygiene and glove use within the first month of classes; second-year students would receive a 40 minute review of Routine Practices and new information on gown and mask use for Additional Precautions (third-year students received this training also, as they had not received it last year); third-year students would be tested on gown donning and doffing during their Observed Standardized Clinical Exams (OSCE), also known as a bell ringer examination.

**Results:** For first-year students, a preliminary 10-minute overview was presented by one IPCP, followed by the students breaking into groups of 10 students, who met with an IPCP for more information on hand hygiene, with a practical application of gloves, and a test of hand washing effectiveness using red paint to simulate soap. Second-year students received a similar 10 minute introduction in a group, then broke into smaller groups of 10 students to meet with an IPCP for a practical demonstration of gown donning and doffing. The OSCE for third-year students required 4 IPCP to observe and grade the students. Of 104 students, only 1 failed and required a make up lesson and demonstration.

**Lessons learned:** A manual education for medical students by IPCP was well received, with very positive feedback from all 3 classes. Examination to test the basic skill of PPE use provided evidence of theoretical learning with the ability to put this learning into practice. Having an IPCP teach Routine Practices and proper Infection Control measures at the beginning of a medical student’s career with reinforcement through their didactic training will hopefully ensure these psychomotor behaviours become automatically applied in daily practice. Effective collaboration between medical school undergraduate curriculum and teaching hospital’s achieved a shared professional mandate.

**PROGRAM EVALUATION: “DO CURRENT INFECTION PREVENTION AND CONTROL ORIENTATION PROGRAMS FACILITATE HEALTHCARE WORKERS’ ATTAINMENT OF THE CORE COMPETENCIES?”**

Jennifer Coates,*, Donna Maira,*, June Pollett,*, Emory University of Newfoundland, St. John’s, Newfoundland, Canada;* Eastern Region Health Authority, St. John’s, Newfoundland, Canada

**Background/Objectives:** CHICA-Canada has articulated core competencies for the knowledge and skills required by all healthcare workers (HCWs). This project assessed one health region’s orientation program, consisting of regional, nursing and environmental services sessions, to see if it contained the necessary core content.

**Methods:** Data collection, in Fall 2007, consisted of: 1) content analysis; 2) observation of delivery; 3) interviews with leaders, and 4) administration of a questionnaire to 103 current/ recent attendees to assess their knowledge and confidence levels, and to obtain feedback.

**Results:** The regional session covered 22% (61) of the 36 detailed topics contained within the 7 core competencies. The nursing and environmental services sessions each covered an additional 2 topics, with considerable duplication of topics. All three sessions missed 10 topics, including first aid and accessing IPC & resources. Topics missed varied by session, eg. 5 specific core included correct removal of PPE based on indication while the converse was true for environmental services. Sessions provide no opportunity to practice techniques. Leaders stated they were not aware of the core competencies and all assumed HCWs came with prior IPC & knowledge. The questionnaire return rate was 18%. Confidence rating did not equate with actual IPC & knowledge. For example: in 10 nursing staff, who reported a “very high” confidence level for glove application/removal, only 3 could state when and how to do this correctly, 3 gave a partly correct answer and 4 gave an incorrect answer.

**Conclusions:** To ensure the orientation program helps HCWs attain the 7 core IPC & competencies, revisions are recommended with emphasis on practice of knowledge, assessment of content, and content from all 36 topics. The methods used provide a model for assessing other orientation programs.

**“SURVEY SAYS…” HOW HEALTHCARE WORKERS PERCEIVE INFECTION CONTROL ISSUES**

Samantha Woolsey,*, Jill Joffe, Nina Shumitcher,*, Nel Hendin, Shelley Winton, A. Mark Joffe, Royal Alexandra Hospital, Edmonton, Alberta, Canada

**Issue:** Provision of infection control (IC) education, service, and resources to a diverse group of healthcare workers can be a challenge for Infection Control programs. Our 750 bed tertiary care hospital has a staff of approximately 5600 with varying levels of education and experience. We felt it would be beneficial to determine the level of IC knowledge in our staff.

**Project:** Two summer students performed semi-structured interviews with 163 staff members in our facility’s inpatient and outpatient care areas. The interviewees were asked a series of 19 questions that covered position type, healthcare experience, participation in ICIC, specific education opportunities, IC service acquisition, and familiarity with the Infection Prevention Services department, IC. Issues most commonly encountered, and IC frustrations. Some interesting trends emerged.

**Results:** An IC education deficit was identified in all staff types, however the majority of staff felt their level of IC knowledge was adequate. Nurses with the most experience were the least likely to report having formal M RSA education, 50% of nursing students stated they had not attended an IC orientation session. Very few staff could identify the IC staff by name although the majority stated they knew how to contact the IC department. Very few staff had accessed the IC website, and of greater concern almost half of staff would not have a co-worker for IC information rather than contacting the IC department.

**Lessons learned:** We have identified several areas for improvement in our facility. The survey responses illuminated the need for continued promotion of the Infection Prevention Department including a website education blitz. This information is being shared with leaders in the facility to gain support for yearly IC education sessions for more of our healthcare workers.

**YOUR 4 MOMENTS FOR HAND HYGIENE, CLARIFYING THE “WHEN”**

Liz M Creight, Clare Barry

Ministry of Health and Long-Term Care, Toronto, Ontario, Canada

**Issue:** Compliance rates for hand hygiene (HH) are frequently reported below 50%. In 2006 the Ministry of Health and Long-Term Care (MOHLTC) in Ontario held a 2-day workshop with provincial, national and international experts to discuss improving HH practices. Ontario then developed and tested a multifaceted HH program for hospitals. Ten hospitals across the province participated in the pilot. The pilot phase of the just Clean Your Hands (JCH) program found that health care providers (HCP) think they clean their hands appropriately. The observational audit results showed that there was a significant gap between perception and practice. Clarity in messages used to teach “when and how” to clean hands is a necessary component to improve HH practices. There is a significant mismatch between HH knowledge and HH practice. The “4 Moments” concept is one element of the multifaceted JCH program.

**Project:** The goal of the project was to provide a simplified method to teach “when and how” to clean hands at the right moment with the right technique. The JCHY H tested six indications. Feedback and expert review confirmed the six indications and recommended they be represented as “4 Moments”. The 4 Moments are: Before initial patient/patient contact, Before aseptic procedure; After Body Fluid Exposure Risk; After patient/patient environment contact. The “4 Moments” concept is one element of the multifaceted JCH program.

**Results:** Defining simply “when and how” to clean hands through an education program contributed to a clearer understanding that translated into improved practices. In the 6-month testing period, there was a steady increase in compliance rates from the baseline. The “4 Moments” concept is one element of the multifaceted JCH program.

**Lessons learned: HCP think they clean their hands, but do not know the indications of “when and how” to clean their hands. Using “Your 4 moments for hand hygiene” improves compliance in HH practices.**

* Chosen as one of the six best abstract submissions

**LEARNINGS FROM ONTARIO JUST CLEAN YOUR HANDS PROGRAM PILOT PHASE**

Clare Barry, Liz M Creight, MOHLTC, Toronto, Canada

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Issue: A 2006 study of hospitals in Ontario found overall adherence to hand hygiene (HH) was 32%. The Just Clean Your Hands (JCYH) program for hospitals aims to obtain sustained improvement in HH compliance. JCYH was developed in collaboration with provincial, national and international experts.

Project: The nine month pilot phase in ten hospitals assessed the effectiveness of a multifaceted program. Program components included: environmental modifications; senior/middle management support; education; champions and role models; observation and feedback; and a communications toolkit. The evaluation components included: health care provided HH observation surveys, facility surveys, focus groups, key informant interviews, product measurements, and compliance data through direct observation. A third party evaluation was done at baseline, interim and in the final phase. Ministry staff made two visits per site to learn more about the enablers and barriers to develop a successful program.

Results: Data included: 4,240 HCPS observed in 11,351 indications across all three evaluation periods; 27 focus groups at baseline and 20 interim focus groups; 2,260 health care survey respondents (53% response rate); 5594 patient surveys (57% response rate). There was a steady increase in HH compliance across pilot sites. Key learning included: HCPS do not have a clear understanding of when to clean hands; HH compliance varies by type of facility; HH observation therefore an overall compliance rate may not be comparative over time; patient confidence increased knowing there is a HH program; patients do not want to be responsible for reminding HCPS to clean their hands; alcohol-based hand rub placed correctly at point of care increases compliance; timely feedback from observational audits can close the gap between perception and practice.

Lessons learned: A single intervention such as posters or education will not obtain a sustained improvement in HH. A multifaceted approach consisting of all the components listed above is essential.

POSITIVE IMPACT OF ALCOHOL BASED HAND RUBS (ABHR) AT POINT-OF-CARE ON THE HAND HYGIENE COMPLIANCE OF FRONT-LINE HEALTH CARE WORKERS

Olivia Yow, Sandy Callery, Mary Veammce

Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Background/Objectives: Hand hygiene (HH) is recognized as the single most important factor to reduce healthcare acquired infections. Various strategies and interventions have been utilized in the hopes of improving compliance. Placement of alcohol based hand rubs (ABHR) at point of care is known to be good practice but can be a challenge in special settings such as units with cognitively impaired residents. In our long-term care (LTC) home the selection of tamper-resistant dispensers has allowed the safe installation of ABHR at point-of-care. This study describes the impact of ABHR at point-of-care on the HH compliance rates at HCWs.

Method: In the summer of 2007, the 575-bed LTC portion of this academic tertiary care facility completed the installation of dispensers for ABHR products at point-of-care (within the resident’s bed space). From March 2007 until February 2008, trained auditors performed repeated HH audit sessions on 17 different resident units of the LTC home. The auditors used a standardized tool to audit HCWs’ HH during their interaction with residents. Analysis of HH audit results pre and post installation was completed.

Results: During the HH audit period, 794 HH opportunities were observed during 97 auditing sessions. Overall, HH compliance increased by 122% with the implementation of ABHR at point-of-care. The difference is statistically significant. Improvement in unit-specific HH compliance rates was observed in all 17 resident units.

Conclusions: ABHR at point-of-care can lead to improvement of hand hygiene compliance rates.

* Best First Time Abstract Submission

LE TRIAGE INFORMATISÉ: UNE APPROCHE PROACTIVE D’ENDIGUSTRMENT D’UN ÉVENTUELLE PANDEMIE

Julie Carbonneau

Hôpital Ste-Anne, Ste-Anne de Bellevue, Qc, Canada

L’Hôpital Sainte-Anne, centre de soins de longue durée de 420 lits pour anciens combattants, a développé un programme de triage informatisé en cas de pandémie. Ce programme est le fruit de la collaboration entre des membres de l’équipe de prévention et de contrôle des infections, de l’équipe de gestion du plan de pandémie et du Service Informatic de l’Hôpital.

En situation de pandémie, ce programme de triage informatisé permettra de procéder à l’évaluation initiale des signes et symptômes d’allure grippale qui présentera un employé à son arrivée au travail. A cet objectif, l’employé sera réaffecté vers un professionnel de santé pour que celui-ci procède à un triage avancé. Le triage informatisé facilitera le contrôle quotidien des absences des employés liées aux symptômes d’allure grippale, ce qui contribuera à prévenir ou à retarder l’introduction de l’influenza pandémique au sein de l’établissement. Le programme permettra également d’associer à chaque employé le masque N-95 approprié, tout en identifiant et en assurant le suivi de son état vaccinal et des antiviraux qu’il aura reçu.

Lors de la présentation, une démonstration concrète du logiciel sera effectuée. Les composants du programme incluent: la mise à jour de la base de données, l’automatisation de la production de rapports et le suivi de l’état des employés vaccinés.

UNIVERSAL MRSA ADMISSION SCREENING FOR PSYCHIATRIC PATIENTS IN A LARGE URBAN TEACHING HOSPITAL

Alexis Silverman, Michael Gardam

University Health Network, Toronto, Canada

Issue: The University Health Network (UHN), comprised of three major urban health care centres, has been screening all admitted patients considered at high risk for MRSA and VRE carriage for the past ten years. However in October of 2007, the decision was made to universally screen all newly-admitted patients. MRSA screening involves swabbing both axilla, groin and perineum areas. VRE screening involves swabbing the rectum. Traditionally psychiatric patients have not been screened for MRSA and VRE as they did not meet the criteria for a high-risk patient and because of the invasiveness of the swabs for this patient population.

Project: The purpose of this project was to implement MRSA and VRE screening in an acute care psychiatric population.

Results: In order to implement admission screening, meetings were held with the nurse manager, nurses and psychiatric aids to see how best to approach this unique patient population. Opportunities were given for the health-care staff to voice questions and concerns. The unit staff identified that the majority of patients would not accept the swabs. Specifically, the psychiatric ward were survivors of sexual abuse, a statement readily supported in the literature. Swabbing of intimate areas could potentially re-traumatize these patients, as well as severely impede the creation of a therapeutic nurse-client relationship. It was decided that patients would be swabbed for MRSA in the nares only. The nurse or psychiatric aid would ask to swab the patient’s axilla, groin and perineum if the request would not re-traumatize the patient.

Health care workers felt that VRE swabbing was inappropriate for this patient population. From November 1, 2007 to January 1, 2008, 62 patients were admitted to the ward. 50 patients were swabbed, only 6 refused and 6 patients were missed. The screening program identified one patient colonized with CA-MRSA, and this patient was moved to a private room and given education on MRSA and hand-hygiene. The in-patient psychiatric health-care staff were highly supportive of this initiative and the pilot has been adopted into daily practice.

Lessons learned: Universal admission screening is possible and practical on an in-patient psychiatric unit as long as health-care workers are encouraged to participate in program development, the uniqueness of the patient population is respected and the risk of re-traumatization is avoided.

COMMUNITY ACQUIRED MRSA AND SOCIOECONOMIC STATUS (SES)

Simone K, Alberta Health and Wellness, Alberta

Background: Community acquired methicillin resistant Staphylococcus aureus (CA-MRSA) is increasingly common. CMRSA 7 and CMRSA 10 are two strains known to be community acquired. Recent community outbreaks highlight the potential increased risk of infection for individuals of lower socio-economic status. The objective of this study was to describe the relationship between socio-economic status and CA-MRSA cases in Alberta over time.

Methods: Cases were defined as new clinical infections (no positive PFGE of the same strain during the previous six months) with PFGE identified as CMRSA 7 or CMRSA 10 in Alberta during 2006 and 2007. The data was linked to the Alberta Health Care Insurance Plan (AHICIP) at the quarter end closest to the date of infection to create a proxy for socio-economic status. The data was grouped as follows: Group 1: Does not receive an AHICIP premium subsidy. Group 2: Receives an AHICIP premium subsidy. Group 3: Registered First Nations and AHICIP premiums are paid by the federal government. Group 4: Receives social assistance.

Results: For the 351 cases of CMRSA 7, 175 cases are Group 3 with an age standardized rate of 70.7 cases per 100,000. The age standardized infection rates for CMRSA 7 is highest among Group 3 followed by Groups 4, 2 and 1. For the 2,951 cases of CMRSA 10 the age standardized infection rate is highest among Group 3 (249.1 cases per 100,000) and Group 4 (236.7 cases per 100,000). The age standardized infection rates for CMRSA 10 increased in all groups between 2006 and 2007.

Conclusion: Those on social assistance are over represented as CMRSA 10 cases in Alberta. Registered First Nations are over represented as cases for both CMRSA 7 and CMRSA 10 in Alberta. Socio-economic status is a changing factor in MRSA infection.

* Chosen as one of the six best abstract submissions

UTILITY OF ENVIRONMENTAL SAMPLING FOR THE PREVENTION OF VANCOMYCIN RESISTANT ENTEROCOCCUS (VRE) TRANSMISSION

Victoria Williams, Sandy Callery, Andrew E Simor, Mary Veammce

Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

Background: Patients with gastrointestinal colonization are the major reservoir for vancomycin resistant enterococci (VRE). VRE transmission is a major concern in the hands of healthcare workers the most common mode of transmission in healthcare facilities. A thorough VRE contamination of environmental surfaces in the room of a patient infected or colonized with VRE there is no clear evidence that links environmental contamination with transmission.

Objectives: To determine whether a policy of environmental sampling and keeping the room closed pending negative culture results, is more effective than visual inspection of the room without culturing, in preventing the transmission of VRE to the next admitted patient.

Methods: All acute care inpatient units were eligible for inclusion except intensive care and psychiatric care. The rooms of non-consecutive patients with VRE who had been discharged or transferred were alternatively examined according to whether Protocol I (terminal cleaning, inspection by Infection Prevention and Control and admission of new patient(s)) or Protocol II (terminal cleaning, environmental cultures and closing of the room pending negative results). The next admitted patient to all rooms had rectal swabs obtained for VRE within 24 hours of admission, 3-5 days after admission and upon discharge from the room and/or the facility. The proportion of patients who acquired the same strain of VRE after being admitted to rooms handled according to either Protocol I or Protocol II was compared.

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SURFACE DISINFECTANTS AND LABEL CLAIMS: REALISTICALLY CAN CONTACT TIMES BE MET TO ACHIEVE ANTIMICROBIAL EFFICACY?
Navid Omidbakhsh
Virox Technologies, Oakville, On, Canada
The number of infections continues to rise in North American and around the world. The use of disinfectants is an important part of all healthcare facilities infection control practices. Most disinfectants are applied to surfaces, and allowed to air dry. For disinfection to occur, it is important for a product to keep the surface wet for the entire disinfection contact time as noted on the label in order to achieve the claimed disinfection activity. The objective of this study was to determine the efficacy of several different disinfectant chemistries against common pathogens using a realistic contact time for each chemistry based on its evaporation rate and compare the results to the efficacy claims listed on the product labels. In this study, several disinfecting chemistries including Accelerated Hydrogen Peroxide (AHP) 0.5%, bleach 500 PPM, a quat, 600 PPM, a quat-alcohol (0.2% quat & 21% alcohol), and a phenol, 700 PPM were tested for their drying time on a surface, and then tested for their antimicrobial activity at their drying time against S. aureus, P. aeruginosa, and MRSA, as representative bacteria using a quantitative carrier test method with the criteria of at least 6 log reduction to pass. All tested products dried in less than 5 min contact time with alcohol-based products drying significantly faster than any other chemistry (p-value of 0.000). Quat and phenol carried a label claim of 10 min, but dried at less than 2-3 min, and those contact times, they were found ineffective. AHP dried at 3-4 min, regardless it was still efficacious. Bleach dried at less than 2 min, and it was not efficacious. Quat/alcohol dried at less than 30 seconds, and was not effective. The results showed that it is not possible in practice to meet the required contact time for slow acting disinfecting products, and the products with no gap or less gap between their claimed contact time, and drying time have a significantly better chance of achieving their required level of decontamination.

RESULTS: The risk of acquisition of VRE by patients admitted to a room managed according to Protocol I (1/19) was not significantly different than for patients admitted to a room managed according to Protocol II (0/12) (p=0.99). The patient who acquired VRE after admission to a room managed according to Protocol I, was identified as positive for the organism through a prevalence screen on the unit 40 days after admission. At least 1 positive environmental culture was obtained in 8/14 (57.1%) rooms managed according to Protocol III.

CONCLUSIONS: Although VRE may be detected in the hospital environment there is insufficient evidence to conclude that routinely obtaining negative environmental cultures from the room of a patient infected or colonized with the organism is more effective in preventing VRE transmission to subsequent patients, provided the room is adequately cleaned and disinfected.

SURFACE DISINFECTANTS AND LABEL CLAIMS: REALISTICALLY CAN CONTACT TIMES BE MET TO ACHIEVE ANTIMICROBIAL EFFICACY?
Navid Omidbakhsh
Virox Technologies, Oakville, On, Canada
The number of infections continues to rise in North American and around the world. The use of disinfectants is an important part of all healthcare facilities infection control practices. Most disinfectants are applied to surfaces, and allowed to air dry. For disinfection to occur, it is important for a product to keep the surface wet for the entire disinfection contact time as noted on the label in order to achieve the claimed disinfection activity. The objective of this study was to determine the efficacy of several different disinfectant chemistries against common pathogens using a realistic contact time for each chemistry based on its evaporation rate and compare the results to the efficacy claims listed on the product labels. In this study, several disinfecting chemistries including Accelerated Hydrogen Peroxide (AHP) 0.5%, bleach 500 PPM, a quat, 600 PPM, a quat-alcohol (0.2% quat & 21% alcohol), and a phenol, 700 PPM were tested for their drying time on a surface, and then tested for their antimicrobial activity at their drying time against S. aureus, P. aeruginosa, and MRSA, as representative bacteria using a quantitative carrier test method with the criteria of at least 6 log reduction to pass. All tested products dried in less than 5 min contact time with alcohol-based products drying significantly faster than any other chemistry (p-value of 0.000). Quat and phenol carried a label claim of 10 min, but dried at less than 2-3 min, and those contact times, they were found ineffective. AHP dried at 3-4 min, regardless it was still efficacious. Bleach dried at less than 2 min, and it was not efficacious. Quat/alcohol dried at less than 30 seconds, and was not effective. The results showed that it is not possible in practice to meet the required contact time for slow acting disinfecting products, and the products with no gap or less gap between their claimed contact time, and drying time have a significantly better chance of achieving their required level of decontamination.
Objective: July 7, 2000, the BC Ministry of Health announced a comprehensive influenza campaign for British Columbia (BC). The Ministry’s goals were: to reduce illness and death associated with influenza in the most vulnerable populations, to reduce predictable preventable additional pressures on the health care system that occur during influenza season, and to achieve immunization of health care workers. Since July 2000, the staff influenza numbers continue to remain around 45% with a number of identified influenza outbreaks. Saanich Peninsula Hospital (SPH) 150 bed extended care unit challenged their staff to improve and sustain their immunization numbers to 80% for the protection of their residents.

Methods: In response, SPH developed an integrated influenza management plan. The plan focused on an enhanced ability to prevent and control influenza. This would involve a targeted immunization campaign for high-risk groups, enhanced ability to quickly identify outbreaks, and to implement control measures. SPH along with the Vancouver Island Health Authority (V IHA) used a campaign that involved the development of staff policies around influenza immunization and outbreak management, an enhanced media campaign, incentive program for staff and refinement of protocols for quick access and testing of isolates during an outbreak.

Results: Increase in influenza awareness both among health care workers and the general public. Increased in immunization of SPH extended care staff with 115% increase in staff immunization rates over the 2005 campaign. A 90% immunization rate among residents in residential care facilities was seen. There were no reported outbreaks of influenza in residential care facility within the SPH during the 2006 and 2007 influenza season.

Discussion: Despite the increase in immunization rates among health care workers, in general, the overall rate within the health authority remains low. The success of the SPH extended care campaign may have been a result of the climate of the facility and the commitment of the manager and key staff to the initiative. Future campaigns will be directed to the entire facility, including acute care. It will be interesting to see if these immunization numbers can be sustained in other areas.

Conclusion: Influenza immunization campaigns in order to be successful must involve management and numerous departments. Early planning is important and must start as soon as the previous year’s campaign concludes. A key component to any plan is communication, staff incentives and staff belief in the program. The success or failure of a plan is in the message about immunization that gets out to the ‘at-risk’ populations. This will continue to be a key component of the future influenza campaigns.

DEVELOPMENT OF AN EDUCATIONAL PROGRAM: HELPING LONG TERM CARE NURSES TO MAKE THE RIGHT INFECTION CONTROL DECISIONS


Methods: Capital District Health Authority in Halifax, Nova Scotia is diverse and wide geographically. The district includes five Long Term Care Facilities (LTC). We knew there were varying degrees of nursing practices. There are many infection control challenges in health care and long term care is no exception.

Project: Infection Control Practitioners (ICP) recognize the importance of maintaining a balance between a home like environment while protecting the residents from infection related adverse events. We recognize that health care workers need the “right” information to make the “right” decision. While an established Infection Prevention and Control program existed within the district, it did not totally address the complexities of resident care. A collaborative program was developed for nurses which included supporting infection control education which is easily accessible, user friendly and is consistent across the district. Nurses use this to guide their Infection Control practice. This reference material has been integrated into the nursing units of all LTC areas of Capital Health. Project funded by District Nursing Advisory Council.

Results: This project has transformed the practice environment and the spin off has been the creation of a LTC/IC Quality Nursing Collaboration in which the goal is to optimize quality resident care within Capital Health.

Lessons: The ICP recognizes the integral role they play in guiding nursing/IC practices.

VAP: VENTILATOR ASSOCIATED PNEUMONIA OR VALUE ADDED PROGRAM?

M ay Griffiths-Turner1, Margaret Macleod2, Lily Waugh, Julia Groenestege, Deborah Cook3, Roman Jaeschke2

1St. Joseph’s Healthcare, Hamilton, Ontario, Canada, 2McMaster University, Hamilton, Ontario, Canada

Objective: To reduce the rate of VAP in all medical / surgical / intensive Care Unit (ICU) through implementation of the Safer Healthcare Now (SHN) Ventilator Associated Pneumonia (VAP) surveillance and intervention bundle.

Project: A multidisciplinary team was convened to initiate the program. SHN VAP definition criteria were used to define VAP. The intervention bundle elements were introduced concurrently. A nursing care regimen every 12 hours was introduced 6 months later, increasing to every 6 hours after 9 months. Monthly VAP rates were calculated as the number of VAP per 1000 ventilator days. A baseline VAP rate was established with a goal of reducing the rate to 50% below baseline. Intervention bundle compliance was calculated as a percentage with a goal of achieving 90% compliance.

Results: 25% of VAP occurred 2-5 days post intubation. 75% of VAP occurred greater than 5 days post intubation. VAPs declined over time, reaching a sustained rate reduction of 50%. Intervention bundle compliance surpassed 95%. Implementation of an oral care regimen resulted in the largest subsequent decline in VAP rates.

Lessons learned: An innovative, multi-pronged approach to identify a potential VAP, triggering VAP investigation, was essential to ensure all cases were captured. Reporting of VAP infection rates generated interest in implementation of other IP&C related quality improvement initiatives in ICU. VAP surveillance became the vehicle to an amplified collaborative relationship between IP&C and ICU. What began as ventilator associated pneumonia surveillance became a value added program.

THE STATE OF PANDEMIC INFLUENZA PLANNING IN ONTARIO ACUTE CARE HOSPITALS

Dirk Coutmann, B. Douglas Ford, M. Edward*1, Matt Melinyshyn*2

1Queen’s University, Kingston, ON, Canada, 2University of Toronto, Toronto, ON, Canada, M. Melinyshyn Consulting Services, Kingston, ON, Canada

Introduction: The purpose of this study was to determine the state of pandemic influenza planning in acute care hospitals in Ontario. The findings will aid in designing a program to help hospitals plan effectively for future pandemics of severe respiratory infections such as influenza.

Methods: A comprehensive survey was sent in early 2007 to all acute care hospitals in Ontario. The survey was completed by the person most responsible for the hospital’s pandemic influenza plan.

Results: The response rate was 77%, 97 of 126 acute care hospitals participated. Three quarters (75%) of hospitals had pandemic influenza plans. There was a trend for larger hospitals to be more likely to have plans (r = .20, p = .06). Most urban hospitals (88%) had plans while only 67% of rural hospitals did. Only 16% (12 of 73) of hospitals with plans had formally tested their plans. Larger hospitals were more likely to have tested their plans (r = .35, p = .003) and more urban hospitals (29%) had tested their plans than rural hospitals (8%). 70% of respondents thought the planning process was not adequately funded. No respondents were completely satisfied with the completeness of their hospital’s pandemic plan and only 18% were satisfied.

Conclusions: A quarter of Ontario’s acute care hospitals did not have a pandemic influenza plan as of early 2007 and few hospitals had formally tested them. The majority of hospitals thought the pandemic planning process was underfunded and were not satisfied with the completeness of their plans. These results support the need for a comprehensive program to help hospitals, especially small and rural hospitals, develop pandemic influenza plans.

THE PREVALENCE OF EXTENDED-SPECTRUM BETALACTAMASE-PRODUCING ESCHERICHIA COLI AND KLEBSIELLA PNEUMONIAE AMONG CLINICAL ISOLATES FROM A GENERAL HOSPITAL IN IRAN

Bibi Sedigheh Fazly Bazzaz, M aboubad Adrabi Basab, Zahr Zahra Farshadzadeh

Mashhad University of Medical Sciences, Mashhad, Iran, Islamic Republic of Objective: Beta-lactamase production is the most important mechanism for bacterial resistance to beta-lactam antibiotics. Escherichia coli and Klebsiella pneumoniae are among the bacteria which produce extended-spectrum beta lactamase (ESBL). ESBL production causes resistance to multiple antimicrobial agents. The aim of this study was to determine the prevalence of ESBL producing E. coli and K. pneumoniae and antimicrobial pattern of the strains.

Methods: This study was conducted at Imam Reza Hospital, a 900 beds general teaching hospital affiliated to Mashhad University of Medical sciences. From May 1st to September 2007 all E. coli and K. pneumoniae strains isolated from clinical specimens were collected by microbiological laboratory. Bacterial susceptibility to antimicrobial agents was determined by disk diffusion method. The double disk synergy test was performed by standard disk diffusion assay for each isolate. Clavulanate enhancement of the diameter of the inhibition zone around either the antibiotic disk by at least 5 mm was regarded as presumptive evidence for the presence of ESBL.

Results: During the study period, the total of 206 isolates including 106 E. coli and 100 K. pneumoniae were collected of which 249 isolates (72.33) were ESBL positive. From ESBL positive samples, 77 isolates of E. coli (53.67%) and 72 isolates of K. pneumoniae (48.32%) were resistant at least to one of the antibiotics. In the E. coli isolate group 77 samples were ESBL positive, of which 28 isolates were resistant to cephalosporins, 16 to monobactam and 33 to both families of antibiotics. In the K. pneumoniae isolates, 72 samples were ESBL positive, of which 17 isolates were resistant to cephalosporins, 11 to monobactam and 39 to both families of antibiotics. A lot so there was significant difference between out or in-patients isolates in regard to ESBL production (p-value<0.0001).

Conclusion: In our study, the prevalence of ESBL producing isolates was high for a clinical setting. We recommend an antimicrobial policy and performance of double disk diffusion assay to ensure correct medication by physicians.

GLOVE POWDER: A HEALTH HAZARD

Lucio Ouellet

Université de Montréal, Montreal, Canada

Issue: Glove powder is made of adsorbed cornstarch. Powder lubricant is used in manufacturing process, on finished glove, as donning agent, as mold release agent and on finished glove to prevent blocking. It has influenced the eventual exposure of sensitive people to latex allergens and demonstrated heath effects on patients as well. A estimated 50 % of all surgical gloves and an estimated 30 % of all examination gloves purchased in Canadian hospitals are powdered. Cost is the driving force behind these numbers. Many healthcare professionals think that there is insufficient evidence behind the hazard of glove powder. Despite overwhelming evidence in literature, hospitals, doctors, and other healthcare professionals continue to wear powdered gloves.

Literature review: This review will describe available scientific evidences of cornstarch glove powder effects in healthcare. Powder issue has been published for many years. Glove powder is a vector in latex allergy issue, occupational asthma, skin breakdown, microorganisms and food contamination. Glove powder has been involved in granuloma formation, pruritus, maculopapular rashes, adhesions, and wound infection. Maintaining a powdered environment has economic implications rarely accounted for. Despite overwhelming evidences in literature, hospitals, doctors, and other healthcare professionals continue to wear powdered gloves.
Conclusion: This review will provide participants with scientific and medical evidences in understanding the effect of cornstarch in healthcare. Finally, it is determined to provide material in a noncommercial format that satisfies the needs of CHICA.

B.U.G.S. CREATIVE CONCEPTS FOR THE BOTTOM LINE IN BASIC BUG BUSINESS

BASIC BUG BUSINESS INFORMATION TO PROMOTE UNDERSTANDING OF INFECTION TRANSMISSION CONCEPTS AND

GENERATE IMPROVED COMPLIANCE AMONG STAFF, PATIENTS, AND VISITORS REGARDING INFECTION PREVENTION AND CONTROL PRACTICES IN THE PEDIATRIC SETTING

Gayla Dionne

Shriners Hospitals for Children, Montreal, Quebec, Canada

Issue: Implementation of prevention practices in a multicultural pediatric facility is a challenge. Simple concepts are required for improved comprehension and compliance. XXX XXXX XXXXXX-Canada is a bilingual, short term, specialty acute care centre. It is a part of an international health care system of 22 hospitals. The patient population includes children and adolescents who come from Canada, the United States as well as from other foreign countries.

Project: Utilisation of pictograms and humorous Bug costumed presentations to promote improvement in compliance. B.U.G.S. is the general theme used for promotion of educational activities for Infection Control and comprises the basics of an infection prevention program. Known as the “Bug Lady”, the infection control practitioner has used various creative ways to obtain the attention of both patients and staff in order to enhance their collaboration in implementing infection control measures in this specialized facility. This presentation presents in a simplified and humorous manner the basic concepts of infection transmission and prevention practices - creative concepts for the bottom line in Basic Bug Business.

Results: Improved compliance and comprehension of basic prevention practices. No transmission of MRSA or VRE and reduced Class I surgical site infection rates.

Lessons learned: Creative concepts help promote compliance.

INFECTION PREVENTION AND CONTROL: DEVELOPING AN ENDOSCOPY PROGRAM

Elizabeth Hendsbey, Lynn Johnston, Sheila McDonald

Capital District Health Authority, Halifax, Nova Scotia, Canada

The reproducibility of flexible endoscopes is an exciting science in which the manufacturer outlines a clear concise protocol in order to achieve a consistent best practice. Careful attention must be given to the implementation of Infection Control standards and guidelines. At the Capital District Health Authority in Halifax, the Infection Prevention and Control management team established a position for an Infection Control Practitioner, with Endoscopy expertise, specifically assigned the project of developing an Endoscopy Program. The primary goal is to ensure the universal care of the endoscopes to all areas within the district, by applying scientifically based guidelines and routinely monitoring the performance-based compliance of these guidelines.

DEVELOPMENT OF POSTERS FOR DONNING AND REMOVAL OF PERSONAL PROTECTIVE EQUIPMENT

Gal Barwosy, Chris Drummond, Deborah Brown, Alina Jenkins, Stacey Linger, Amanda Marshall

1Queen Elizabeth Hospital, Charlottetown PEI, Canada, 2Prince County Hospital, Summerside PEI, Canada, 3Hillsborough Hospital, Charlottetown PEI, Canada, 4Souris Hospital, Souris PEI, Canada

Issue: A study conducted by the Infection Control Practitioners in Prince Edward Island revealed inconsistencies in the process for donning and removal of personal protective equipment (PPE). PPE is defined as “specialized clothing or equipment, worn by an employee for the protection against infective material.” The observational study concluded that the potential for health care workers to contaminate themselves and their surroundings when removing PPE was significant. The IPC’s conducted a needs assessment which identified that the development of a tool with instructions in combination with visual aids would assist the HCW’s and visitors in the proper procedures.

Project: The project team consisted of four Infection Control Practitioners from across PEI and a fourth year nursing student. The IPC’s represented acute care, addictions, long term care, mental health and community hospitals. The goal of the team was to develop posters based on Health Canada Guidelines and best practice and to be used across the PEI health care continuum. The team created ten posters with instructions and photos directing staff and visitors when donning and removing PPE. The purpose is to ensure that PPE is donned and removed appropriately reducing the risk of personal contamination. The development of the posters was informed by the procedures outlined in the literature by the Ontario Ministry of Health and LTC, WHO, and best practices from Hong Kong, Australia, and Italy. Research indicates that personal contamination can be avoided with effective removal of PPE and that using simple language and pictures to illustrate instructions will encourage compliance from staff and visitors. The team met over a period of six months to form and edit the posters.

Results: The content was developed by the IPC’s based on the literature and feedback obtained by Occupational Health and Safety and an Infectious Disease Specialist. The poster colour and layout were designed based on recommendations from the Strategic Marketing Graphic Design Section of the Provincial Government. The posters are in the implementation phase.

Lessons learned: The project proved to be a major challenge in using plain language, designing pictures to accurately depict the donning and removal of the PPE while ensuring that the posters were appropriate for all health care agencies. The Graphic Design Section was accessed and their expertise was beneficial. Although the project was prolonged, the finished posters have been well received from the major stakeholders and the Provincial Infection Control Committee.

WHO WANTS TO BE AN INFECTION CONTROL MILLIONAIRE: THE SEQUEL

Jim Gauthier1, Kathleen Poole1, Dick Zoutman2, Michelle Gibson3, Darlene Campbell4

1Providence Care, Kingston Ontario, Canada, 2Queen’s University, Kingston Ontario, Canada

Issue: Education for third-year medical students before their clinical rotation included a quiz using remote voting devices (resembling the audience participation in “Who Wants to be a Millionaire”) program. This year, all students had received hands-on training in hand washing, glove donning and doffing, and appropriate mask use, 1 hour more infection Control education time than previous third-year students.

Project: Compare the results of this year’s voting with the previous year to see if the added contact with an IPC modified our results.

Results: The largest change was in the students who had the extra training thinking that all personal protective equipment (mask, gown and gloves) is required for Contact and Airborne precautions.

Lessons learned: When having the smaller group sessions with the students, more emphasis can be placed on the minimum required PPE for each scenario being discussed.

A MONTHLY SITE SPECIFIC CONSTRUCTION/RENOVATION/REPAIRS REVIEW MEETING: IMPROVING INTERDEPARTMENTAL COMMUNICATION

Kathleen Poole1, Jim Gauthier1, Darlene Campbell1, Dick Zoutman1, Gae Kirkwood1

1Providence Care, Kingston Ontario, Canada, 2Queen’s University, Kingston Ontario, Canada

Issue: All outside contractors are required to meet CSA Z317.13-03 for projects in our facilities and to attend Infection Prevention and Control education sessions. It was noted that our own maintenance/physical plant staff frequently did not meet the same standards for dust control for routine maintenance, painting, and repairs.
**Project:** Infection Prevention and Control, in March 2006, established a monthly meeting with maintenance/physical plant, housekeeping, and Occupational Health and Safety to discuss upcoming and ongoing internal projects.

**Results:** Terms of reference (TOR) were created which include:
- Discussion and reviewing of upcoming internal and external (contractor) projects for compliance with Canadian Standards Association (CSA) Standard Z317.13-03,
- Ensure input from each working group member where applicable,
- To ensure a Risk Assessment Analysis form has been completed for each project,
- To ensure input from each working group member where applicable,
- To ensure input from each working group member where applicable.

**Lessons learned:** 1. Input from Occupational Health helped establish any at-risk staff members in areas where maintenance or repairs were being conducted. 2. Input from housekeeping helped to ensure rapid and effective cleaning after projects that generated dust. 3. Infection Control was aware of issues coming up in advance, instead of working in a reactive mode. Maintenance/physical plant was able to plan barriers that were suitable for the degree of work being performed. Overall, all staff received better communication of possible disruptions in their area, not just in patient care areas.

**Vancomycin Resistant Enterococcus in a Neonatal Intensive Care Unit (NICU): An “Intensive” Challenge**

Pearl Orenstein, Barbara A. Minhod, Norma Consolacion, Sharon Gates, Silvanna Perin, Mark Miller

**Background:** The Sir Mortimer B. Davis–Jewish General Hospital (SD–JGH) is a 638-bed acute-care tertiary hospital with a 34-bed NICU. The NICU never had a neonate colonized/infected with vancomycin resistant enterococcus (VRE) until May 18, 2007 when a neonate VRE was cultured from stool of a neonate (born in M arch) who was incidentally found VRE positive (Van A).

**Methods:** A VRE cohort, full barrier precautions, extensive education, weekly stool specimens from the neonates and rigorous environmental cleaning followed by environmental screening were the prevailing IPCU strategies implemented immediately. Numerous multidisciplinary meetings as well as meetings for parents and family members were held concurrently to elucidate the urgency and necessity for these measures. Numerous obstacles related to the above measures were encountered, and required resolution.

**Results:** The first stool screening resulted in finding an additional 2 positive babies. Subsequent weekly stool screening identified a total of 7 VRE-positive neonates by the end of May. Weekly screening continued for 1 month post-discharge of the last VRE-positive neonate and demonstrated a total of 5 months with no further transmission. The protocol for all NICU admissions now includes VRE screening.

**Conclusion:** Lack of further nosocomial transmission and a speedy resolution of the outbreak validated the rigorous and stringent infection prevention and control measures, despite many obstacles and repeated protestations by some NICU staff.

**Secular Trend of Nosocomial Fungal Infection at a Medical Center, 2000–2007**

Shu-Uan Liao, Yin-Yin Chen, Fu-Der Wang

**Background/Objectives:** The studies have documented geographic differences in rates and epidemiology, underscoring the need for surveillance to monitor the trend of the nosocomial fungal infection over a 10 years span.

**Methods:** In a retrospectively study we reviewed medical charts from 1998 to 2007 at a medical center in north Taiwan. Patients admitted after 48hrs who developed nosocomial fungal infection were included in the study.

**Results:** The result reveals that there were 2,651 episodes of nosocomial fungal infection during 10 years, with an average incidence of 0.336 episodes/1,000 patient-days/year in 2007, and candidemia increased from 0.065% to 0.155%. Overall, 59.0% of the nosocomial fungal episodes (1,565/2,651) were due to yeast, followed by C. albicans (24.8%), C. tropicalis (5.5%), C. glabrata (4.3%), C. parapsilosis (3.5%), and other Candida species (2.9%). By Chi-square test for trend, there were statistical differences among the annual infection rates (p<0.001). The most common organism causing nosocomial candidemia was C. albicans (46.0%), there was significant increased (p<0.001), but no difference in the annual infection rates between C. albicans candidemia with non-C. albicans candidemia (p=0.43).

**Conclusions:** These data suggest that, there was a steady increase in the frequency of isolation of nosocomial candidemia with fungemia during the last decade, particularly in urinary tract infection and blood stream infection. The incidence of candidemia was lower than those reported previously in North America and Europe, but the species distribution were similar to these studies.

**Using GIS in Mapping, Analysis and Evaluation of HIV/AIDS Occurrence Patterns in Thailand**

Suwanne A. Sodavalkul

School of Engineering, University of the Thai Chamber of Commerce, Bangkok, Thailand

**Background:** The occurrence spread patterns of HIV/AIDS varies from one geographic region to another and this has been attributed to the social, cultural and economic variations. One of the most challenging is the ability to determine the spread pattern of this viral infection and to accurately map the incidence of HIV/AIDS occurrence Patterns in Thailand.

**Active Surveillance for Methicillin-Resistant Staphylococcus Aureus (MRSA) in a Trauma Intensive Care Unit (ICU): It Works!**

Barbara Catt, Sandra Callery, M. any Veermoom

**Background:** MRSA is an important healthcare-associated pathogen worldwide. In Canada, approximately 72% of the MRSA acquisitions occur in hospitals. MRSA infections in ICU settings are associated with higher morbidity and mortality rates, and healthcare costs. It is important to identify and contain transmission of MRSA, as soon as possible.

**Methods:** Sunnyside Health Sciences Centre (SHSC) is a large tertiary academic care center with an admission screening tool to capture patients at high risk for acquiring MRSA. Once a patient was identified, ICU staff were inducted in the use of the MRSA screening tool and its application to all patients in their setting.

**Purpose:** To determine compliance with the completion of the MRSA screening tool and to monitor the incidence of MRSA in an ICU setting.

**Results:** No MRSA positive site swabs were obtained for MRSA from high risk patients, identified by the screening tool. MRSA positive patients and their contacts are placed on Contact Precautions. Cases were investigated to determine nosocomial acquisition that includes molecular typing. Periodic chart audits were performed for the completion of the MRSA screening tool. In 2005 staff education on the use of the screening tool was done and surveillance screening was incorporated into the physician orders upon admission. To determine overall prevalence of MRSA in the ICU the number of MRSA patient days was calculated for each year.

**Conclusion:** Two chart audits were performed in 2004. Compliance with the completion of the screening tool was calculated at 22.2% and 38.2% respectively with 75% of the eligible patients not being screened. In 2005, compliance results increased to 83% and 5% of the eligible patients were not screened. The nosocomial rate of MRSA has continued on a downward trend from 1.54/1000 patient days in 2005 to 0.15 per 1000 patient days in 2007. The total number of MRSA days in the ICU for 2007 was 45.

**Conclusions:** MRSA control programs should include active and associated passive surveillance followed by the use of Contact Precautions for those identified as MRSA positive. Close monitoring of compliance with the screening tool is critical. Nosocomial acquisition for MRSA can be prevented during times of high prevalence of MRSA in the ICU setting by early identification and application of precautions.

*Chosen as one of the six best abstract submissions

**The Use of Chlorhexidine Glucosamine Disposable Cloths to Reduce Transmission of Vancomycin Resistant Enterococci on Two Nephrology Units**

Deborah Hobbs, Sarah Forgie, Geoff Taylor, Rhoda Wiens

**Background:** MRSA is an important health-care-associated pathogen worldwide. In Canada, approximately 72% of the MRSA acquisitions occur in hospitals. MRSA infections in ICU settings are associated with higher morbidity and mortality rates, and healthcare costs. It is important to identify and contain transmission of MRSA, as soon as possible.

**Methods:** In addition to our usual strategies used to prevent transmission of AROs (including active surveillance cultures) we instituted the use of 2% CHG disposable washcloths to bathe patients known to be colonized or infected with VRE. These VRE positive patients were bathed daily for one month or until discharge whichever was shorter with CHG disposable washcloths.

**Conclusions:** Active surveillance cultures of VRE negative patients for the presence of VRE were conducted before, during and after implementation of this practice.

**Results:** Data from the Infection Control database was analyzed for the two years prior to implementation of the CHG cloth bathing practice (January 1, 2005 to December 31, 2006) and one year after (January 1 to December 31, 2007), comparing the number of hospital acquired VRE cases per 10,000 patient days on the same units. The number of patients with hospital acquired VRE was 7/10,000 patient days in 2005 (9 cases), 6/10,000 patient days in 2006 (8 cases) and 2/10,000 patient days in 2007 (4 cases).

A statistically significant decrease (p<0.05) in hospital acquired VRE was noted for cases of VRE positive patients. In 2007, compliance results increased to 83% and 5% of the eligible patients were not screened. In 2005, compliance results increased to 83% and 5% of the eligible patients were not screened. The nosocomial rate of MRSA has continued on a downward trend from 1.54/1000 patient days in 2005 to 0.15 per 1000 patient days in 2007. The total number of MRSA days in the ICU for 2007 was 45.
Depuis 2005, l'Institut nationale de santé publique (INSPQ) offre une formation de base menée à la santé des personnes qui séjournent en CHSLD. La réduction du risque passe par des interventions collaboratives, en conformité avec les protocoles et les recommandations de l'INSPQ et travaillant en LD et en courte et longue durée à la fois.

Les résultats : Les infirmières en LD sont moins scolarisées que celles travaillant à la fois en LD et LD ou en courte et longue durée à la fois. La rédaction & diffusion des procédures, la surveillance, les mesures environnementales, l'éducation et la gestion des éclissions sont les domaines requérant plus de formation.


CIC: A 350% INCREASE

Susan Cooper, Janet Allen

South Eastern Ontario Infection Control Network, Kingston, Ontario, Canada

Issue: In 2006 an informal survey, conducted by the South Eastern Ontario Infection Control Network (SEOICN), of infection control resources demonstrated that in southeastern Ontario there were only 4 certified (CIC) Infection Control Professionals (ICPs) practicing in our region. Although many non-certified ICPs were new to their current role, several met the qualifications required to write the exam.

Project: With successful certification as a shared goal, a study group, supported by SEOICN, and open to ICPs employed across the spectrum of care, was established to assist qualified candidates prepare for the certification exam. A group of 15, with diverse backgrounds and perspectives, met monthly from October 2006 through June 2007. Using the Certification Board of Infection Control (CBIC) handbook, the APIC study guide, and the expertise and experience of group members, sample questions were reviewed. Based on areas of study outlined in the CBIC test specifications, areas of weakness were identified and discussed.

Results: 15 regular attendees, 10 attempted the exam within 6 months of study group completion. All 10 were successful and the number of certified ICPs in southeastern Ontario increased from 4 to 14, a 350% increase. Evaluations post study group showed attendees were motivated and benefited from working together. The study group provided encouragement and guidance, allowed networking and confidence development in a positive environment.

Lessons learned: The establishment of a regional CIC study group is an effective model for creating a supportive atmosphere for reviewing and understanding key infection prevention and control knowledge required for certification.

CENTRAL VENOUS CATHETERS IN A NEONATAL ICU – INFLUENCE OF TYPE OF CATHETER AND BIRTH WEIGHT

Lorraine Piché, Lyne St-Martin, Lina M. Osian, Dorothy M. Moore

Montreal Children’s Hospital, McGill University Health Centre, Montreal, Quebec, Canada

Objective: Primary blood stream infections (BSI) are the most common infections acquired in neonatal intensive care units (NICU). Most are associated with central vascular catheters (CVC). Our objective was to determine if BSI rates differed by type of CVC used.

Methods: Prospective surveillance for CVC-associated BSI (C-BSI) and CVC use is routinely performed in our NICU. Data for the most recent 5 years were analysed. C-BSI rates were calculated per 1000 CVC-days and data stratified by birth weight group (BWG). Our NICU has no in-born neonates; most patients are referred in for surgery or other highly specialized care.

Results: There were 63 primary BSI: 43 associated with CVC, 2 with umbilical catheters (UC), 17 with peripheral catheters and one with no catheter. Overall C-BSI rate was 4.67. Rates for non-tunneled CVC (NTCVC), peripherally-inserted central catheters (PIC), tunnelled CVC (TCVC), and UC were 7.47, 3.88, 3.98 and 0.98 respectively. The rate for NTCVC was significantly higher than for TCVC and PIC (p=0.037, RR 1.89, 95% CI 1.04-3.46) and for UC was lower than with other catheters (p=0.015, RR 0.20, 95% CI 0.05-0.76). Patients had 2 CVC simultaneously for 13% of CVC-days but no bump during these periods. Parenteral nutrition (PN) was administered during 72% of CVC-days and all but one C-BSI occurred during PN administration. C-BSI rates were 5.1, 5.7, 4.8, and 4.0 for infants of BWG <1000, 1000-1500, 1500-2500, and >2500g respectively and did not differ significantly by BWG.

Conclusions: C-BSI rates were highest with NTCVC. Rates with PIC and TCVC did not differ. The need for long term vascular access is anticipated, especially for PIC. PIC or TCVC should be considered. Stratification of C-BSI rate by BWG permits comparison with published benchmark data, but may not be the optimum marker of severity of illness in a referral NICU. Other markers of severity of illness may be needed.

HOSPITAL-ACQUIRED CLOSTRIDIUM DIFFICILE DIARRHEA: THE VIEW FROM PEDIAetriCIS

Lyne St-Martin, Lorraine Piché, Lina M Osian, Caroline Quach, Dorothy More

Montreal Children's Hospital, McGill University Health Centre, Montreal, Quebec, Canada

Objective: Hospital-acquired Clostridium difficile diarrhea (CDAD) has been of concern in recent years because of increasing infection rates and dissemination of a hypervirulent strain. We describe CDAD incidence at a pediatric hospital in a region experiencing epidemic CDAD in hospital's caring for adults.

Methods: Prospective surveillance for nosocomial infections is carried out in our pediatric tertiary care hospital using informal case definitions and case finding strategies. C.
difficult toxin is detected by cytotoxin assay. Data from the past 10 years were analysed.

Results: Pathogens were identified in 398 of 486 cases of nosocomial diarrhoea (ND) and included rotavirus 247 (51%), C. difficile 156 (32%), other bacteria 3, other viruses 9, with 2 pathogens found in 17 cases. A child under 6 months old was more likely to be infected with rotavirus (29 vs 14; RR: 2.0, 95% CI 1.4-2.7; p <0.001), C. difficile (12% vs 4%; RR: 2.9, 95% CI 1.7-4.9; p <0.001). Children with underlying medical illness were more likely to have underlying CDAD illness (69% vs 40%; RR: 1.7, 95% CI 1.3-2.3; p <0.001).

Conclusion: CDAD is a common nosocomial diarrhoea that is predominantly caused by rotavirus, C. difficile and other viruses. There is an increased risk of CDAD in children under 6 months old and those with underlying medical illness.
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Results: Physicians and midwives completed surveillance forms for 745 (85%) of 872 c-section patients who delivered between July and December 2007. The incidence of infection was 8.1 cases per 100 c-sections. Excluding cases identified through outpatient surveillance, there were 2.7 cases per 100 c-sections. Surveillance findings were discussed at quarterly AINP (Alberta Initiative for Nursing Practice) council meetings.

Lessons learned: Engaging clinical leaders to take ownership of surveillance beginning in the planning phase led to 85% complete patient follow-up, ongoing collaborative discussions of findings and problem-solving to prevent infections. Most infection cases were identified through outpatient surveillance. The intensity of case-finding must be reported with infection rates to allow for valid inter-hospital comparisons and benchmarking.

SURVIVING THE STORM: FLOOD REMEDIATION IN A RURAL HEMODIALYSIS UNIT
Sheila Hauser, Lance Verch-Whittington, Nancy Kelly-Moor
Renfrew Victoria Hospital, Renfrew, Ontario, Canada
Our chronic Hemodialysis Unit is part of a regional dialysis program in a rural setting consisting of one main unit and two satellite units. The program includes hemodialysis, outpatient peritoneal dialysis, and a pre renal insufficiency clinic. The total number of patients undergoing hemodialysis is roughly one hundred although this number fluctuates. Stable patients can be dialyzed at the satellite units while those requiring closer monitoring are accommodated at the main site where two nephrologists are readily available. In the fall of 2007 the hemodialysis unit at the main site sustained major damage after freak weather conditions. While we were hopeful for a quick remediation and reconstruction process turned out to be more time consuming and resulted in relocation of the unit from September 2007 until February 2008. Many challenges were encountered including the reorganization of patient and staff schedules and communication with personnel regarding project status. In addition the infection control issues related to mould remediation, the physical relocation of the unit, and the construction phase involved discussion and communication at several levels within the organization.

Our discussion will cover the impact on both personnel and patients, the process followed to resolve the flood damage, the reconstruction opportunities, and the educational hurdles. We anticipate lessons learned from this endeavour can be utilized in pandemic planning for this patient population.

APPLICATION OF A RAPID QUALITY IMPROVEMENT STRATEGY (KAIZEN) TO IMPROVE CLEANING OF INTRA-HOSPITAL TRANSPORT EQUIPMENT
Esther Rupnarain, Doreen Alexander, Anwred Dardaine, Scott Lewis, Diane White, Andrea Currie, Kevin Katz
North York General Hospital, Toronto, Ontario, Canada
Issue: Regular cleaning of intra-hospital transport equipment (IHTE) is important in preventing nosocomial transmission of organisms. We identified this as a problem area at our 430-bed community teaching hospital.

Project: A multidisciplinary team was formed for a 5-day Kaizen event that was facilitated by a Lean Sensei. This involved mapping the “current state” process of IHTE cleaning. We identified inefficiencies through team observations and gap analysis, and subsequently designed a new “future state”. We developed protocols for cleaning, designated areas for clean IHTE and made cleaning products more easily accessible. Education was provided to porters and volunteers to ensure clear understanding of the cleaning protocols.

Results: On baseline observation, IHTE was cleaned 0 out of 8 times following patient use. Porters self-reported cleaning 100% of IHTE after use for patients who were on isolation. There were no standard expectations or protocols for IHTE cleaning and the porters were not aware that they had to clean IHTE after every patient use. Target compliance rate for cleaning was at least 80% with at least two months of implementing the cleaning protocols. Based on porter self-reporting and casual observations, this target was achieved within the first week and an audit at two months indicated 100% compliance (8 observations).

Lessons learned: This Kaizen event produced positive solutions quickly and effectively. Standard protocols and clarifying expectations for cleaning IHTE through education can lead to dramatically improved results.

METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS ADMISSION SCREENING AT BC CHILDREN’S HOSPITAL
Jun Chen Collet, Lyndie Koch, LBomie Anderson, Rita Degler, Vicki Gagen, Eva Thomas
1 PHA Protection and Infection Control, BC Children’s Hospital, Vancouver, BC, Canada
2 Department of Pathology and Laboratory Medicine, Children’s & Women’s Health Centre of British Columbia, Vancouver, BC
Background: The increase of Methicillin-resistant Staphylococcus aureus (MRSA) in hospital has been widely reported worldwide. Due to the high risk patients for MRSA becomes an appealing strategy to isolate patients in order to prevent subsequent nosocomial spread.

Objectives: To describe the epidemiology and control of an MRSA outbreak in our Medico-surgical ICU.

Method: We conducted an active surveillance of MRSA among all ICU admissions over a 4 week period. Screening was performed using the UV A lamp to detect MRSA positive target areas. Positive cultures were identified and contact was made with the families and infection control team.

Results: Out of 33 ICU admissions, 2 cases of MRSA were identified. One case was identified as a hospital acquired infection and was immediately treated with appropriate antibiotics. The other case was identified on day 2 after admission. Both cases were identified and treated immediately.

Interpretation/Conclusion: MRSA screening among high risk patients at BC Children’s Hospital are stable over two consecutive periods, the slight decrease in MRSA positive screens in 2007/2008 was not statistically significant. These results may be affected by the compliance with the screening policy at the hospital.

USE OF GLOWGERM™ AS A QUALITY INDICATOR FOR ENVIRONMENTAL CLEANING PROGRAM
Jennifer Blue, Cindy O’Neill, Paul Spezzie, Jeff Reviel, Lee Ramage, Lisa Ballyantyne
Hamilton Health Sciences, Hamilton, Ontario, Canada
Background: Healthcare associated infections (HAI) due to antibiotic resistant organisms are increasing in Ontario. Environmental cleaning plays a key role in eradicating resistant organisms that live in hospital environments in help reduce HAI by. Environmental cleaning practices on an Orthopedic Unit were reviewed along with hand hygiene and equipment disinfection following an outbreak of vancomycin resistant Enterococcus (VRE) which could live in the environment for a long time. These findings lead to a hospital wide cleaning improvement initiative using Glowgerm™, a chemical that fluoresces under a UVA lamp. The Glowgerm™ product was employed by Infection Control and Customer Support Services (CSS) as a tool to evaluate daily cleaning of patient washrooms as well as discharge cleaning of isolation rooms on all units except ICU/CCU/EH at Hamilton Health Sciences (HHHS)-Henderson site.

Method: Over a four-week period, the Glowgerm™ product was applied to 7 frequently touched standardized targets in randomly selected patient bathrooms on each unit and 14 frequently touched targets in isolation rooms prior to cleaning. The cleaning was evaluated the following day using the UVA lamp to detect targets that were not cleaned. Results were recorded on a standardized form.

Results: The rate of targets cleaned versus targets missed were calculated. The overall rate for daily cleaning of bathrooms and discharge isolation rooms was poor (73%; targets missed). Based on these findings, several interventions were implemented based on contributing factors. A mong these were increased formal infection control education and practical environmental exercises involving Glowgerm™. A significant improvement in cleaning was observed in subsequent evaluations.

Conclusion: Glowgerm™ is an effective tool to evaluate environmental cleaning and adherence to policy/procedures and was superior to visual evaluation methods. The use of Glowgerm™ improved cleaning and enhanced staff contribution. The Glowgerm™ product was incorporated into the CSS environmental cleaning program as a quality indicator to monitor environmental cleaning process.

POSTER PRESENTATIONS
WEDNESDAY, JUNE 4, 2008
Final Schedule will be published in the Conference program.

RAPID CONTROL OF MRSA OUTBREAK IN A MEDICAL-SURGICAL INTENSIVE CARE UNIT (ICU)
Aunj K. Khwara, Marianna Lampits, Maryam Salari-pour, Patricia McKernan, Roslyn Devlin, Matthew M. Mulera
St Michael’s Hospital, Toronto, Canada
Background: Outbreaks of MRSA in ICU are often prolonged, difficult to control, and result in significant morbidity and mortality. We describe the control of an MRSA outbreak in a 24 bed open concept medical-surgical ICU through early detection and the stepwise addition of infection control measures.

Objective: To describe the epidemiology and control of an MRSA outbreak in our medical-surgical ICU.

Method: Our infection control policy mandates an outbreak investigation if 2 hospital-acquired MRSA cases are identified in an ICU within a 4 week period. In July 2007, MRSA was identified in the spurtum of 2 patients within a 1 week period. Screening of the ICU identified 1 additional case and a fourth case was identified from a clinical specimen before control measures were implemented. Initial control measures included healthcare worker education, enhanced surveillance (i.e. screening of ICU admissions and discharges and weekly screening of the ICU), cohorting, and enhanced environmental cleaning. Despite these measures, 3 more cases occurred. All II patients were then placed in contact isolation, healthcare workers were screened for MRSA and the nursing staff was cohorted. After 2 weeks without a case, 2 additional cases were identified. Decolonization of all MRSA positive patients was initiated. No further cases occurred over a five week period and the outbreak was declared over.

Results: The baseline MRSA acquisition rate in our medical-surgical ICU is 1.5 cases per 1000 patient days (~10 cases/year). The outbreak resulted in 9 cases of MRSA colonization (n=6) or infection (n=3) over an 11 week period. Colonization was identified from sputum (7/9), nares (2/9) or perianal skin swabs (2/9) and 3/9 patients were colonized at multiple sites. Strain typing using PFGE indicated that 4/9 isolates were similar, but only 2/5
subsequent cases were colonized with the outbreak strain. Only 1/175 healthcare workers screened was colonized with MRSA but it was not the outbreak strain. **Conclusions:** Early detection and the stepwise addition of infection control measures resulted in the rapid control of an MRSA outbreak in our medical-surgical ICU without unit closure. A low threshold of suspicion and the rapid initiation of unit-wide MRSA surveillance were the key steps in limiting the size of the outbreak. Despite enhanced infection control measures, MRSA transmission involving 3 different strains persisted, suggesting intermittent breakdowns in infection control practice. Complete cessation of transmission required the initiation of MRSA decolonization for all MRSA positive patients.

DECREASING THE RATE OF HEALTH CARE ACQUIRED CLOSTRIDIUM DIFFICILE ON A HOSPITAL UNIT  
Helen Shaw1, Christopher Greensmith2, Karen Riley1, R. N. Gidwani, Lynn M Cewen3, Neil Fulop4, Sandra Castle1, Erin Fletcher1,2
1Bluewater Health, Sarnia, Ont, Canada, 2Lambton County Community Health Services, arnia, Ont, Canada

Background: Regular surveillance of the HA rate of C.diff showed an increasing rate in 2006. The rate was increasing from around 3/1000 admissions per quarter to as high as 14.5 in Q4 of 2006/07. The majority of the increase occurred on one particular unit. This increase coincided with the NAP1 C.difficile outbreak in Montreal hospitals. An interdisciplinary team approach was used to reduce the escalation of HA C.difficile on the unit.

**Purpose:** To develop a sustainable, systematic approach to reduce the rate of Health Care Acquired C.difficile on a hospital unit.

**Method:** A team was formed to develop an interdisciplinary approach to resolve the increasing rate of C.difficile. The team comprised of pharmacy, environmental services, management, front line staff infection control staff, and Chair of the Infection Control Committee. In Q2 2006/07 a letter was sent to the Infection Control Committee to physicians requesting prudent use of all antibiotics and that they consistently noted the indication for antibiotics when ordered. In Q1 2007 the medical unit was targeted with a concerted effort around cleaning the unit and all equipment. A nother approach in the cleaning was to switch to a 1:10 bleach solution as recommended in the PIDAC Best Practice Document for C.difficile. In Q7 2006/07 an additional infection control professional was hired and began an intense education program for the staff on the unit, reinforcing the importance of hand hygiene, appropriate use of PPE and an understanding of how transmission occurs through shared equipment.

**Results:** In the time frame between Q3 2005/06 and Q1 2007 the rate of HA C.difficile continued to rise at a steady rate. In Q2 2007 the rate began to decline. In Q3 2007/08 the rate had declining to 3.1/1000 admissions.

**Conclusions:** An interdisciplinary approach is effective to decrease the rate of HA C.difficile. A multi-prong approach including hand hygiene education, improved use of PPE, improved unit environment cleaning programs and prudent antibiotic use is effective in reducing the rate of C.difficile. Over time, with regular in-services, the behaviors of staff regarding hand hygiene and PPE do change. The sustainability of these changes will be reviewed quarterly.

UTILIZATION OF A KAIZEN (RAPID IMPROVEMENT) PROJECT TO IMPROVE THE CLEANING OF SHARED EQUIPMENT  
Diane White, Scott Lewis, Alfried Ng, Elena Holt, Esther Rupnarain, Kevin Katz North York General Hospital, Toronto, Ontario, Canada

**Issue:** Routine Practices is the cornerstone of good infection control practice. Nonetheless, compliance with cleaning of non-critical shared equipment between patients remains suboptimal.

**Project:** A four-day rapid improvement project was undertaken to determine incentives and barriers to cleaning equipment such as blood pressure machines between patients. A multi-disciplinary team was created which determined the current state process and designed the new ‘future state’ process. The manager of IPAC and the unit manager jointly championed the project. A countabilities were clarified and job descriptions were updated for all unit staff.

**Project outcomes:** For monitoring improvement are listed in the table below.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Pre Kaizen Ave.</th>
<th>2 Weeks Post Kaizen</th>
<th>3 Months Post Kaizen</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of equipment cleaned after use</td>
<td>20%</td>
<td>60%</td>
<td>100%</td>
</tr>
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<td># of times ‘dirty’ equipment touches a patient before being cleaned</td>
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<td>2</td>
<td>0</td>
</tr>
<tr>
<td># disinfectant wipe containers used per month</td>
<td>63</td>
<td>NA</td>
<td>94</td>
</tr>
</tbody>
</table>

**Results:** The first hand hygiene audit indicated compliance rates for orthopaedics of 41.6%, surgical/medicine 30%, and dialysis 40%. Following the educational campaign regarding hand hygiene compliance among health care workers (HCW).

Lessons learned: 1) Psychological changes were possible in some areas but not others. 2) IP audit is important in the preparation of the presentation to ensure quality content. 3) IPC acceptance of a novel education approach is paramount in promotion of that endeavour. 4) Staff performances to deliver hand hygiene messages may be more effective during seminar, education days or for informal greetings in public spaces, such as facility meetings. 5) Staff discomfort with clowns may have a negative influence on performance and therefore influence the effectiveness of the education message. While the use of clowns was not deemed a success in our Region, there were several lessons learned. Experimentation with novel education approaches involves the willingness to risk and to learn from that risk whether or not the endeavour was successful.

CLOWNS FOR MEDICAL EDUCATION? ARE YOU SERIOUS?  
Donna L. Birdwood, Pamela A. Armstrong, Kathryn Bush, Manuel Mah, Gwyneth Meyers Calgary Health Region, Calgary, Alberta, Canada, 1University of Calgary, Calgary Alberta, Canada

**Issue:** Hand Hygiene Group (HHG) of Calgary Health Region Infection Prevention and Control (IPC) team has promoted improved hand hygiene practice with novel forms of staff education such as “Bugs on the Run” skit with professional actors. The HHG utilized a clown presentation to deliver hand hygiene (HH) messages.

**Project:** Two clowns were utilized in this endeavour. One was a professional clown who practiced therapeutic clowning at a pediatric hospital, the other was an amateur. The clowns developed their own 10 minute presentation from a creative brief given to them by HHG. Nursing units were given advanced notice of clown visits. A accompanied by an IPC, the clowns visited nursing units in 3 adult acute care urban hospitals, a pediatric hospital, continuing care centres, home care, and rural health centres and hospitals.

**Results:** About 66 presentations were conducted. Staff surveys of urban acute care staff following the presentations indicated 14% of staff surveyed saw the clowns, and of those 30% were more aware of HH messages. Impact of the clown presentations was less than the impact made with the “Bugs on the Run” skit. Thirty percent of staff saw the actors and the IPC 70% reported that they were more aware of HH messages. Some Infection Control Professional (ICP’s) stated they were uncomfortable when they started with the professional actors but their comfort level increased as they saw the interaction between the staff and the actors. However, with the clowns their comfort level remained low.

**Lessons learned:** 1) Professional clowns may be more effective in some areas than others. 2) IPC input is important in the preparation of the presentation to ensure quality content. 3) IPC acceptance of a novel education approach is paramount in promotion of that endeavour. 4) Clown performances to deliver hand hygiene messages may be more effective during seminar, education days or for informal greetings in public spaces, such as facility meetings. 5) Staff discomfort with clowns may have a negative influence on performance and therefore influence the effectiveness of the education message. While the use of clowns was not deemed a success in our Region, there were several lessons learned. Experimentation with novel education approaches involves the willingness to risk and to learn from that risk whether or not the endeavour was successful.

THE EFFECT OF PATIENT AND FAMILY EDUCATION ON HEALTHCARE WORKERS’ COMPLIANCE WITH HANDWASHING  
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**Background:** Effective hand hygiene by healthcare worker’s (HCW’s) is central to prevention of hospital-acquired infections. In spite of many studies to support this, non-compliance with hand hygiene is still a significant challenge in the hospital setting. Empowering patients to remind health care workers to wash their hands has been shown to increase hand hygiene adherence by HCW’s.

**Objectives:** To investigate whether patient and family education results in an increase in hand hygiene compliance among health care workers (HCW).

**Methods:** An audit of HCW hand hygiene compliance was completed using a tool developed and validated in our institution. The study was performed on an orthopaedic, a respiratory/medicine ward and a dialysis unit in a teaching hospital in London, Ontario. Family and patients were educated regarding indications for, and the importance of HCW hand hygiene compliance. The educational intervention included a teaching session by the study nurse and provision of a pamphlet that had been developed for this purpose. Patients and families were asked to remind staff to perform hand hygiene. This intervention was provided for one month and following a second month where no intervention took place, a second audit was conducted.

**Results:** The first hand hygiene audit indicated compliance rates for orthopaedic of 41.6%, respiratory/medicine 30%, and dialysis 40%. Following the educational campaign regarding patient awareness of hand-hygiene the overall compliance rates of hand-hygiene at our...
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centre significantly increased from 37 to 54% (p-value 0.005). Overall, the trend was due to increased hand-hygiene compliance in all HCW groups. In both study periods hand hygiene after completion of care was significantly associated with hand-hygiene compliance.

**Conclusions:** Education of patients and families appears to increase HCW hand hygiene compliance. Education strategies need to be developed to promote hand hygiene. Simple strategies for increasing hand hygiene compliance could be used in different settings.

**REFERENCES:**


**ABSTRACT:** A 33-bed spinal cord rehabilitation unit in London, Canada, had a MRSA outbreak of 7 cases, 4 of whom were transferred from other hospitals. A lack of hand hygiene was identified as a critical factor in the outbreak. The investigation included a review of therapy practices, a prevalence screening audit of MRSA, and molecular typing. Treatment included hand hygiene education, cohorting, decolonization, and increased environmental cleaning. The outbreak was successfully managed, with no further infections identified since January 25, 2008. The investigation identified several strategies for improving hand hygiene compliance, including education, cohorting, and decolonization.

**Keywords:** MRSA, spinal cord rehabilitation, hand hygiene, outbreak, cohorting, decolonization.

**INTRODUCTION:** The spinal cord rehabilitation unit at the London Health Sciences Centre in London, Canada, is a 33-bed unit providing services for spinal cord, acquired brain injury and amputee patients. In September 2007 a cluster of 3 nosocomial MRSA infections were identified in spinal cord injury patients, prompting an investigation.
MRSA, VRE patients with diarrhea. Linen and clothing were changed if soiled. In addition, 2%CHG cloths were used to clean (final wipe) the perineum for CDAD and/or antibiotic status was confirmed, patients were re-screened every 14 days until discharged or patients who reverted spontaneously to methicillin-resistant Staphylococcus aureus (MRSA) in Health Care Settings. Implementation plans for the IPC strategy included: 1) Infection Prevention and Control Accountability and Reporting; 2) Cleaning, Disinfection and Sterilization, health organizations and professions need and benefit from a province-led focus on IPC practices. The provision of health care occurs in multi-disciplinary environments and wide-ranging facilities. Ongoing communication and consultation is required to facilitate successful standard development and implementation across the spectrum of health care.

**METHODS:**
Jan-Mar 2007 prompted the trial of CHG impregnated cloths as an additional measure to reduce nosocomial transmissions in the renal units. Pre-trial period: Apr-Jul 2007. Trial period: Aug 2007-Mar 2008. Methods: All patients were screened (nasal, rectal, wound/drainages) upon arrival to the unit for MRSA and VRE carriage. Patients who screened negative on admission were re-screened every 14 days until discharged or death. Known positives were re-screened monthly. Decolonization was not performed. Patients who reverted spontaneously to negative were re-screened twice, one week apart, to confirm negative status. Once negative status was confirmed, patients were re-screened every 14 days until discharged or death. During the trial period, SAGE 2%CHG cloths were applied once daily for all positive patients from chin to toe. Linen and clothing were changed after each application. In addition, 2%CHG cloths were used to clean (final wipe) the perineum for CDAD and/or MRSA, VRE patients with diarrhea. Linen and clothing were changed if soiled.

**RESULTS:** There appears to be a trend of overall reduction of new nosocomial MRSA, VRE and CDAD. Overall new nosocomial rate per 1000 patient days decreased from 4.0 in the pre-trial period to 2.4 in the trial period. (MRSA decreased from 0.5 to 0.1, VRE decreased from 2.2 to 1.8, CDAD decreased from 1.2 to 0.6). A proximate cost of SAGE 2%CHG cloths was $185.20. Majority of the staff agreed the SAGE 2%CHG cloths were appropriately packaged, adequate for bathing and fragrance free. Six of 27 evaluations reported skin irritation in patients with abrasions or rashes.

**Conclusions:** The SAGE 2% cloths appear to contribute to decreasing nosocomial transmissions for MRSA, VRE and CDAD. Since the rate of new nosocomial cases was low in the pre-trial period, it is difficult to show that 2%CHG cloths have significant effect in decreasing MRSA and VRE transmissions. The use of the cloth is acceptable to staff and patients in general. Product cost is not insignificant and must be offset by preventing potentially costly infections.

**INFECTION PREVENTION AND CONTROL (IPC) IN ALBERTA**

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**Issue:** Alberta is developing a provincial approach to IPC. The process for undertaking such an endeavour includes strategy development and setting standards to support consistency in IPC practice. Concerns regarding the sterilization of instruments at a hospital and in a clinic, prompted infection prevention and control (IPC) actions across the system.

**Project:** An investigation by the Health Quality Council of Alberta, and an Alberta Health and Wellness review of provincial IPC policies, practices, and procedures, identified variation in IPC policies and practices throughout the province. Findings indicated a need for provincial IPC standards. The Minister directed Alberta Health and Wellness to include standards in the IPC Strategy, which was already in development.

**Results:** The IPC Strategy, accompanied by the Alberta Hand Hygiene Strategy and four infection control standard sets, were released in January 2008. The standards are: 1) Infection Prevention and Control A Accountability and Reporting; 2) Cleaning, Disinfection and Sterilization of Reusable Medical Devices for all Health Care Settings; 3) Standards for Single-use Medical Devices; and 4) Standards for Prevention and Management of Methillin-Resistant Staphylococcus aureus (MRSA) in Health Care Settings. Implementation plans for the IPC Strategy and the Alberta Hand Hygiene Strategy are being developed.

**Lessons learned:** Consistent practices across the province’s health regions are desirable to prevent and manage health care-associated infection. One lesson learned is that despite the existence of national and provincial guidelines such as the Canadian Standards Association (CSA), Health Canada guidelines, and Ontario Best Practices for Cleaning, Disinfection and Sterilization, health organizations and professions need and benefit from a province-led focus on IPC practices. The provision of health care occurs in multi-disciplinary environments and wide-ranging facilities. Ongoing communication and consultation is required to facilitate successful standard development and implementation across the spectrum of health care.

**PRATIQUES DE BASE ET PRÉCAUTIONS ADDITIONNELLES ; TESTEZ VOS CONNAISSANCES PAR LE BINGO!**

*j) Johanne Gagné, Sylvie Goulet, Myriam Lalonde and Pauline Laplante

Problématique: L’évolution des soins en milieu hospitalier demande une constante mise à jour des nouveaux méthodes de soins reliées à une technologie développée et fascinante. L’équipement informatique et les appareils électroniques à usages multiples par exemple facilitent à bien des égards la qualité des soins et permettent de sauver du temps.

Dans un contexte semblable, comment est-ce possible de capter l’intérêt du personnel hospitalier en regard des pratiques de base et des précautions additionnelles ? Ces « concepts » de base relèvent à la prévention des infections doivent être enseignés en un premier temps, puis rappelés de façon régulière au fil des problèmes qui surviennent.

De quelle manière peut-on offrir une mise à jour des connaissances en suscitant l’intérêt des participants sur un sujet maintes fois abordé ? Inspiré de quelques textes sur le changement de comportement des travailleurs de santé en regard de maladies respiratoires transmissibles et plus particulièrement d’un article sur les exigences à rencontrer en éducation mais de façon interactive, l’idée d’adapter un projet de Bingo présenté dans cet article a donc été retenu.

**Projet:** Développer les outils pour offrir une mise à jour des connaissances en regard des pratiques de base et précautions additionnelles aux infirmières et aux préposés aux bénéficiaires. Les objectifs sont de revoir les éléments de la chaîne de l’infection, l’application des pratiques de base dans les activités courantes d’une unité de soins, les pratiques d’asepsie lors de soins, les précautions additionnelles et leurs applications, l’étiquette respiratoire, les outils disponibles en prévention des infections et la bonne technique de mise et de retrait de l’équipement de protection. La méthode proposée est donc interactive sous forme de jeu.

**Résultats:** Les trois cartes comprenant douze questions chacune ont été réalisées et prévues pour soutenir les informations ou indications à transmettre, des images ou photos en format Power Point ont été préparées. Pour l’ensemble des trois hôpitaux du Centre hospitalier de l’Université de Montréal (CHUM), 1000 personnes ont participé au Bingo !

**Conclusion:** L’apprentissage sous forme de jeu est stimulant pour le personnel. La méthode interactive permet de capter l’attention et l’intérêt du personnel de soins, ce qui permet les trois horaires de travail.

**WHAT ARE YOU MISSING?**

AUDIT OF MICROBIOLOGY RESULTS AND DOCUMENTATION STANDARDS ON ADMISSION SCREENING FOR METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) AND VANCOMYCIN-RESISTANT ENTEROCOCCUS (VRE)

Susan Jones, Linda Shi

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Issue: In a follow up to the November 2006 audit in which the potential problem was identified that staff may be focusing on the nares/perirectal sites when doing MRSA screening and not swabbing open areas and devices. It was noted that if sites were being missed when following up known carriers, it was likely that they were missed during admission screening. Documentation standards were poor and did not indicate specific sites where swabs had been collected. Education was presented to the staff highlighting the College of Nurses standards on documentation and the audit results.

Project: The setting is a facility providing complex care and complex rehabilitation through a broad range of inpatient and outpatient services. A chart review was completed on all newly admitted patients during the month of August 2007 within 24 hours of admission. Data was collected on whether there was documentation of MRSA swabs being collected, sites specified, and whether there were sites other than nares/perirectal areas to be screened. Microbiology site results for each patient was then checked with data collected from the patient’s chart. VRE screening was also part of the audit.

Results: There was documentation indicating that 71% (100/140) of all new admissions were swabbed for M RSA, but only 25% of those specified sites swabbed. Microbiology results indicated 12/140 (8.6%) had correct swabs taken, but 25% were missed altogether. There were 37 sites that should have been collected but no documentation was found in progress notes. Some patients may have had more than one site. VRE results indicated that 43% (60/140) had documented swabs taken but microbiology results indicated 64% (89/140) Only two thirds of admissions noted are being swabbed for VRE.

Lessons learned: Clear, complete and accurate documentation facilitates the evaluation of the client’s progress towards desired outcomes, as per College of Nurses guidelines on documentation. This audit shows that documentation is still inadequate and there is the potential for sites other than nares/perirectal to be missed during screening. The recognition of the potential for missed MRSA, carriers are not being identified.

Background: A cluster of seven MRSA infections in one month in another hospital, was identified by Infection Prevention and Control in a 10-bed medical/surgical ICU in the Calgary Health Region. Early investigation of the cluster revealed epidemiological links that were later corroborating the situation.

Methods: Initial measures taken included a prevalence screen to identify more cases, isolation of known positives, enhanced environmental cleaning, hand hygiene education, the use of a new disposable oral suction holder and the institution of an admission screening protocol, nasal and rectal swabs were obtained and screened for MRSA using selective agar plate culturing on all admissions to the ICU for the next fourteen months.

Results: There were 510 admissions but 26 patients (5%) missed screening due to a short length of stay (<1day) in the ICU. Of the 484 admissions that were screened, 35 were positive for MRSA (7%). Thirteen of these were already known to be positive in the Region. Of the remaining 22 (4.5%) new positive admissions, 64% (14/22) were found to be colonized on admission screening, while 36% (8/22) presented with a positive clinical culture. There was only one case of MRSA acquisition that could be attributed to the ICU. Isolation of known positives, enhanced environmental cleaning, hand hygiene education, the use of a new disposable oral suction holder and the institution of an admission screening protocol, nasal and rectal swabs were obtained and screened for MRSA using selective agar plate culturing on all admissions to the ICU for the next fourteen months.

Conclusions: While the debate continues regarding the benefits of admission screening, early identification of colonized patients may play a role in decreasing transmission by facilitating the early isolation of colonized patients and highlighting staff awareness of the issue. By comparison, hand hygiene initiatives and enhanced cleaning can be difficult to sustain.

ANTIBIOTIC USE AND SUSCEPTIBILITY PATTERNS IN ONE REHABILITATION AND TWO LONG-TERM CARE INSTITUTIONS

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Background: Antimicrobial resistance is increasingly important in rehabilitation and long-term care institutions (LTCI). Local susceptibility patterns (SP) can guide empirical treatment of infections, alert infection control practitioners to trends in resistant organisms and highlight the need for antibiotic stewardship. We examined the SP of gram-negative bacilli (GNB) in our 3 LTCIs and compared this to antibiotic usage.

Methods: The database for the microbiology laboratory that serves these LTCIs was queried for GNB from January 1 to December 31, 2002. A chart audit was performed for cases of infections nosocomial, nasal culture, and swabs, varied however, quinolones and sulfa drugs represented the most commonly prescribed drugs (33% and 31% respectively).

Conclusion: The SP in our LTCIs limits the choices for oral antibiotic therapy, and has resulted in a mismatch of empiric therapy and SP. These data will serve as our baseline to monitor SP in our LTCIs.

CAMPAGNES D’HYGIÈNE DES MAINS : SORTIR DES SENTIERS BATTUS

Suzanne Leroux
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Sujet: Les établissements de santé sont des lieux où la probabilité de retrouver une quantité et une diversité d’agents infectieux est élevée. Quotidiennement, un grand nombre de personnes sont présentes et se recroisent. Les infections nosocomiales sont une préoccupation importante pour les établissements qui doivent offrir des soins de qualité et sécuritaires. L’hygiène des mains des mains est reconnue comme un moyen efficace pour réduire la transmission des infections. En 2003, le centre hospitalier Pierre Le Gardeur innovait avec un projet qui visait à promouvoir la lavage des mains auprès de 2000 personnes au sein de 3 établissements, soit soit près de 30 000 lavages des mains. Les résultats ont permis de constater un accroissement significatif de l’observance du personnel de l’hygiène des mains (13%). Une revue de la littérature fut faite et un nouveau projet est né. Le patient est invité à rappeler aux intervenants de se laver les mains avant de lui donner des soins des et personnel est invité à procéder à l’hygiène des mains devant le patient. Cette approche a permis de corriger les éventuelles inconstances et de promouvoir l’hygiène des mains. Les résultats ont montré que si le risque de contamination persiste, le patient est invité à rappeler aux intervenants de se laver les mains avant de lui donner des soins des et personnel est invité à procéder à l’hygiène des mains devant le patient. Cette approche a permis de corriger les éventuelles inconstances et de promouvoir l’hygiène des mains. Les résultats ont montré que si le risque de contamination persiste, le patient est invité à rappeler aux intervenants de se laver les mains avant de lui donner des soins des et personnel est invité à procéder à l’hygiène des mains devant le patient. Cette approche a permis de corriger les éventuelles inconstances et de promouvoir l’hygiène des mains. Les résultats ont montré que si le risque de contamination persiste, le patient est invité à rappeler aux intervenants de se laver les mains avant de lui donner des soins des et personnel est invité à procéder à l’hygiène des mains devant le patient. Cette approche a permis de corriger les éventuelles inconstances et de promouvoir l’hygiène des mains.

POSITIVE IMPACT OF IMMEDIATE FEEDBACK TO FRONT-LINE HEALTH CARE WORKERS ON HAND HYGIENE COMPLIANCE

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Background/Objectives: Although hand hygiene (HH) has been known to be the single most important factor to reduce healthcare acquired infections, studies of HH compliance in health care environments other than critical care settings is often more than 30%. Various methods have been utilized in the hopes of improving compliance. This study describes the impact of providing immediate feedback to front-line health care workers on their HH compliance rate.

Method: In the summer of 2007, the 650 bed acute care portion of this academic tertiary care facility completed the installation of brackets for alcohol based hand rub products (ABHR) at point of entry and exit of each patient room. A chart review during admission screening. Documentation standards were poor and did not indicate any additional use of ABHR within the patient care area. The percentage of HCWs who used ABHR at point of entry and exit of each patient room. A chart review was performed to determine current strategies for early detection of active TB or LTBI in oncology patients.

Methods: A literature review was performed to determine current strategies for early detection of TB applicable to the oncology program. A workshop involving members of Infection Prevention and Control, Public Health, Quality/Risk Management, Oncologists and Administrators was conducted in order to develop a strategy for early detection of active TB or LTBI in oncology patients.

Objective: To develop a strategy for early detection of active TB or LTBI in oncology patients.

Methods: A literature review was performed to determine current strategies for early detection of TB applicable to the oncology program. A literature review was performed to determine current strategies for early detection of TB applicable to the oncology program. A literature review was performed to determine current strategies for early detection of TB applicable to the oncology program. A literature review was performed to determine current strategies for early detection of TB applicable to the oncology program. A literature review was performed to determine current strategies for early detection of TB applicable to the oncology program.
EKC is a highly transmissible eye infection that can spread quickly. Identification of possible health care acquired epidemic kerato conjunctivitis cases and development of a protocol for infection prevention and control

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Issue: In November 2007, the Infection Control program was made aware that there was an increase in the number of epidemic kerato conjunctivitis (EKC) cases in the community and that there were concerns about possible transmission within our two eye centers. There was no formal reporting mechanism for health care acquired EKC and it was difficult to ascertain the location and extent of the problem.

Project: The Infection Control program worked collaboratively with the ophthalmology group to develop a corporate protocol for surveillance and management of EKC cases.

Results: A total of three possible hospital acquired EKC cases were identified over a six-week period. Two cases were associated with center A and the third case was associated with center B. A subsequent review of practices determined that both centres had a different protocol for management of suspected EKC cases. Both centres were using the same environmental cleaning product to clean surfaces post EKC cases but the product was not effective against adenovirus. A corporate adenovirus EKC protocol was developed to address management of suspected EKC, including patient placement, use of personal protective equipment, use of disposable instruments, reprocessing of instruments and cleaning of environmental surfaces with a product effective against adenovirus. The protocol also included a patient information sheet on EKC and a corporate reporting form to be completed and sent to the Infection Control department if nosocomial acquisition is suspected. The protocol is also being implemented in our emergency departments where cases of EKC may initially present following an ophthalmologic visit.

Lessons learned: EKC is a highly transmissible eye infection that can spread quickly in ophthalmology settings. Disinfectant agents used in many healthcare settings may not have the virucidal activity against adenovirus. Staff working in these settings must be aware of the proper management of suspected cases, and the necessary environmental disinfection protocols, to prevent transmission. Prompt identification of possible nosocomial transmission and a central reporting system are required to act quickly to avert a potential outbreak.

THE ROLE OF MRSA DECOLONIZATION THERAPY AND ITS USE AS AN INFECTION PREVENTION AND CONTROL METHOD IN A TERTIARY HOSPITAL

A d r i a n a D r a g a n , M . D , M . S c , A l l i s o n M . C e e g , M . D , F R C P C , C . C , C . R . , S a r a h E d e n , R . N . , C I C
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Decolonization of MRSA patients may assist in A R O control by decreasing the reservoir for this organism. We analyzed the results of decolonization therapy on a gastrointestinal medicine/surgery unit (GIU) in a tertiary care hospital in Toronto, to assess the efficacy, safety and tolerability of decolonization therapy in this population.

Methods: Retrospective cohort study of patients admitted to a GIU at the time of their first MRSA culture at Mount Sinai Hospital from January 1, 2000 to June 30, 2007. Data were obtained from the infection control database, and microbiology laboratory information system.

Results: 156 patients were identified as MRSA colonized (N=121) or infected (N=35) on this unit during the study period. Of these, 51 received some form of decolonization treatment. These patients received gentamicin standard therapy (7 days of topical mupirocin, chlorhexidine gluconate washes, oral rifampin, and doxycycline). Treatment was initiated at first admission with a positive culture in 47 cases (92%), 11 patients had a second treatment attempt subsequently, and 3 a third one. The mean age was 58 years (range 18 to 95 years) in treated patients vs. 64 years (range 19 to 95 years) in non-treated. There were no significant differences in the type or number of positive sites at diagnosis (27% of the treated and 24% of untreated patients having 2 positive sites including wounds) and type of MRSA between treated and untreated patients. Patients harbouring mupirocin susceptible MRSA were 2.7 times less likely to be treated (P=0.01), and patients with longer LOS (35 days vs.22 days, P=0.09) were somewhat more likely to be treated. Survival analysis demonstrated that 72.55% of treated patients were MRSA free at 3-6 months post therapy, compared to 45.65% of untreated patients (2= 7.83, p=0.005 by log-rank test). Four patients declined treatment and 3 discontinued therapy prematurely due to gastro-intestinal side effects. Therapy was not associated with selection of mupirocin resistance.

Conclusions: Decolonization therapy significantly increased the chances of patients being MRSA free in the long term, without significant rates of adverse events. Efforts to decolonize patients, even on wards with large numbers of compromised patients with chronic skin lesions may assist in reducing the need for additional precautions, and the size of the MRSA reservoir.
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When the Joint Commission (JC) enhanced its Infection Control Standards to include new requirements which reflect increased recognition that healthcare-associated infections (HAIs) are a national concern, their purpose was twofold. To raise awareness that these infections can be acquired in any healthcare setting and increase what is expected of hospital leadership and of infection control programs.

The goal of an effective infection control program is to reduce the risk of acquisition and transmission of healthcare-associated infections. The new standards, now more than three years old, require that hospitals have organization-wide infection prevention and control programs and state that hospitals should assign responsibility for managing these programs to individuals formally qualified in infection prevention and control and epidemiology. According to JC Standard IC.7.10: “Qualifications [for the individual(s) responsible for managing the infection control program] may be met through ... certification [such as that offered by the Certification Board for Infection Control (CBIC)] in prevention and control of infections.” This Joint Commission endorsement of certification through CBIC serves as an incentive for infection control professionals (ICPs) to become and maintain certification. This Joint Commission endorsement also provides the impetus for healthcare institutions to require certification for individuals responsible for managing their infection prevention and control programs.

This year promises to be an exciting and productive one for CBIC. Much work has already begun. During our February board meeting we welcomed new members Barbara Russell, Craig Gilliam, Marion Yetman, and Michelle Farber. The CBIC Test Committee, chaired by Rita Tjoelker, is working on a new SARE that will be ready for those who choose to recertify in 2009. Other board and committee work includes collaborating with APIC and AJIC on several lengthy projects; one will continue for the next three years.

The three-year project is an initiative to increase the number of certified infection control professionals to at least half of the APIC membership, which is just over 11,000. Only 3,929 ICPs around the world are currently certified. Eventually we’d like to see the eligible APIC members become board-certified in infection prevention and control.

You will find many references to the 35th Annual Educational Conference and International Meeting on the APIC website. As a past Conference Committee chair and someone who attends educational meetings held by other healthcare associations, I can tell you that APIC’s Annual Meeting is not to be missed. The value of networking with your peers and hearing the most current information on topics that truly interest you cannot be matched. The updates really add value to you and your professional practice because they enable you to share what you learn with others in your respective organizations and, perhaps, add to their efforts to prevent and control infections. An added benefit of this conference is that some of the information provided may contribute to your success with the certification exam. I encourage all of you to attend and I hope to see you there.

Those attending APIC ‘08 in Denver: Please join us at the CBIC session on June 16. I will discuss the increasing number of advantages associated with being certified in your specialty practice. And stop by the CBIC booth to say hello to the board members.

Warm wishes for the rest of the year ahead.

Deanie Lancaster, CBIC President
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The SARS Memorial Fund for Infection Control Practitioners is a tuition/certification/professional development reimbursement program funded by Molson Canada SARS Concert (2003) and supported by the Ontario Ministry of Health and Long Term Care.

RNFOO manages the SARS Memorial Fund, initiated in January 2005. The fund provides grants to Infection Control Practitioners from any discipline to support them in advancing their knowledge to lead infection control practices within their healthcare settings. Grants can be applied to continuing education, certification/re-certification and professional development.

The fund of $175,000 is to be administered over three years, allowing for the allocation of approximately $58,000 per year in support of individual pursuing formal education and certification in the area of infection control.

See www.rnfoo.org for details.
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Through the financial support of the Virox Technologies Partnership, 10 CHICA-Canada members were awarded scholarships to attend the 2008 Education Conference in Montreal. CHICA-Canada and its members thank Virox Technologies and their partners Deb Canada, JohnsonDiversey, Steris Corporation, Virox Technologies and Webber Training for their initiative to make the education conference accessible to those whose accomplishments should be recognized and who may not have otherwise been able to attend.

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Did you know …

The International Infection Control Council (I2C2) is a partnership of CHICA-Canada, APIC and ICNA (U.K.).

In 2002, it published the Infection Control Toolkit: Strategies for Pandemics and Disasters. With the advent of SARS and the H5N1 influenza virus, as well as other natural disasters and disease outbreaks since 2002, the I2C2 recognized the need to update and revise the previous toolkit.

The content has been updated and reformatted into the newest version Infection Control Toolkit for Emergencies and Disasters. The purpose of the toolkit is to assist IPCPs in the preparation and implementation of plans for emergencies and disasters.

The revised toolkit is now available at $120.00 CDN (Member rate) plus shipping & handling and GST.
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Carol Goldman began her career as an ICP in 1978 “by chance.” She was working for the Victorian Order of Nurses, and was interested in education. Her friend Linda was leaving an infection control position at Mount Sinai Hospital in Toronto, and urged Goldman to apply. She did, and was hired at the end of her interview. She stayed in the position for 20 years.

“We were so unsophisticated with regard to surveillance and even laboratory services then,” she says, remembering those early days. “But the principles of infection prevention and control are really not that much different than they are today. We were always interested in standards of practice, patient care. Patients were the bottom line.”

She says that she hopes that SARS made the difference in infection control in Ontario and with any luck everywhere in Canada. “It always seemed that administrators only played lip service to infection control.”

Goldman credits the wealth of mentors in Toronto for her continued learning and success. She joined CHICA in the early 1980s, and was named an honorary member in 2001. “CHICA has been so wonderful with establishing the education programs. We never had that before. All we could do was read and attend conferences and mentor; we never had anything formalized.”

After her 20 years at Mount Sinai, she moved across the street to the Hospital for Sick Children. The only previous pediatric experience she’d had was her standard rotation in nursing school, so it took her some time to adjust to the different patient population. “From an infection control perspective, understanding the patient is key. The host factors of the child are unique, and their ability to care for themselves so different than adults. It’s a whole different approach in terms of educating the client for example, but the infection control principles are the same - the application of them just a little different.” In fact, she found moving to pediatrics allowed her to return to basic infection control, since pediatrics (then) did not face the problem of antibiotic-resistant organisms. “It was back to basics, which I hadn’t realized how much I’d missed it.”

Goldman retired two years ago and now does consulting work. She also is proud to represent CHICA on the International Federation of Infection Control. She has always enjoyed travel, and gets to combine her two passions in this role. While on holiday in Ukraine this upcoming summer she plans to visit colleagues there to see if she can drum up some business for IFIC while there. Belonging to an association like CHICA is invaluable according to Goldman, and certification “critical.”

“I’ve been certified since day one. Employers need to recognize it and it should be criteria of the job. It’s wonderful that CHICA has pushed the CBIC program.”

Goldman feels glad to have chosen a career in infection control, despite her distaste for biostatistics and surveillance, and the fact that the job can be demanding. “There’s no timetable in infection control. You need to be committed. Mount Sinai was the first to report an institutional outbreak of Norovirus, with 1,000 people infected. I don’t think I was home for a month, and had two hours of sleep many nights. You have to forego a personal life during outbreaks.”

Despite the challenges, Goldman loves infection control, and would do it all again if she could. “It’s an exciting part of healthcare. It takes a while to learn the huge body of knowledge, and in fact it seems that there is always something new to learn everyday.”

Carol Goldman

Lifelong Learning
How to submit an article to the Journal

The Canadian Journal of Infection Control publishes member-supplied articles as feature technical article or as “News from the Field”. All material submitted is reviewed by an editorial board consisting of CHICA-Canada members. If you are not sure about your writing skills, get your ideas down and ask a colleague or member of the editorial board for help. Full requirements for technical articles can be found at http://www.chica.org/inside_cjic_journal.html, but here are some tips for getting started:

1) The author of the content must be clearly identified by name, title and organization and both a telephone number and email address must be supplied for contact purposes.
2) The subject of the material must be relevant to the interests of infection control practitioners.
3) The material should be submitted electronically via email as a Word document.
4) Length of submitted material is to be limited to a maximum of 1,500 words.
5) No part of the submitted material is to include what can be construed as sales-oriented promotion of specific individuals, companies, products or services.
6) Any photographic images to be included with the material must be free and clear of any copyright and must be submitted electronically as JPGs or TIFFs that are high resolution (at least 300 dpi) and a minimum of 6” x 9” in size. Image files should be sent separately, not embedded in the Word document.
7) In the event that the material is accepted for publication in CJIC, the author agrees that the first publication rights for the material belong to CJIC magazine and that any subsequent publishing of the material can only be done after the author or publisher is granted reprint approval in writing from CHICA-Canada and CJIC magazine.

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