Voices of CHICA
September 2011 Edition

Voices of CHICA
Community and Hospital Infection Control Association, Canada

September 27, 2011

Hosted by Paul Webber
paul@webbertraining.com

Voices of CHICA Sponsors

Thanks to

Voices of CHICA Sponsors

Agenda

Board Update
Donna Wiens, President of CHICA-Canada

Update on 2012 Conference
Anne Bialachowski, Conference Chair

Update on 2012 Bi-Annual Virox Day
on Cleaning, Disinfection & Sterilization
Alexis Silverman & Nicole Kenny, Co-Chairs

CHICA's Newest Chapter
Mandy Deeves

Infection Prevention and Control in Brazil
Special Guest, Dr. Alexandre Marra
Hospital Israelita Albert Einstein
Sao Paulo, Brazil

CHICA Board Update

Donna Wiens
2011 President

Goal 1: Raise the profile of CHICA-Canada and its activities

- Monthly E-newsletter
- Informational e-broadcasts to members
- Canadian Journal of Infection Control
- Chapter Presidents and Chapter Finance Directors teleconferences
- Voices of CHICA teleclasses
- Exhibit at other conferences
- Associate status with Canadian Nurses Association

Goal 2: Enhance the mix of products and services

- Member and Source guide
- Maintain Canadian and International Conferences & job postings on website.
- Partner with other product vendors to provide educational resources for members
- Additions to Audit Toolkit
- Website renewal and expansion
- CHICA Chat discussion board

Hosted by Paul Webber paul@webbertraining.com
www.webbertraining.com
Goal 3: Expand the association’s education initiatives
- Distance Education Course (2011-2012 session full with a waiting list)
- ICPs hired as instructors, facilitators and course coordinators
- Endorsement of Basic IP&C curriculum at other institutions
- Chapter education events
- Road shows and webinars
- 2012 Conference and plans for future locations
- Conference Scholarships
- Routine Practices E-Learning Tool
- APIC/CBIC/CHICA collaboration on ICP core competency document

Goal 4: Expand and develop the membership base
- 1700+ members and rising, growing corporate membership and focussed recruitment
- 22 chapters
- 10 interest groups
- Board member visits to chapters
- Member Recognition initiatives:
  - Champions of Infection Prevention and Control
  - CIC Chapter Achievement Award & member CIC recognition
  - Awards of Merit
  - Honourary Membership
  - Editorial Award
  - Recognition of Distance Education Graduates
  - Volunteer Recognition Certificates

Goal 5: Provide national & international leadership
- Public Health Agency of Canada (consultation meetings on guidelines, timelines, PHAC, strategy plans, CNISP)
- Accreditation Canada/Canadian Standards Association (advisory committees and conference planning committees)
- Canadian Patient Safety Institute
- Operating Room Nurses of Canada
- First Nations and Inuit Health Branch
- Corrections Canada
- Antibiotic Awareness Day – partnership with NCCID
- AMR Consultations
- CBIC – Board of Directors liaison; Strategic Plan 2011
- APIC – Collaborating on committees; IIPW Supporting Partner
- IFIC – Consultation on various matters; presentation at IFIC conference
- IPS – CHICA rep at IPS conference; presentations
- Other – NACI, CCIAP, CHIC, Public Health in 21st Century, NPSR

Initiatives in the Wings
- Revitalization of the ESBL toolkit - 2011
- Revitalization of Emergencies/Disasters toolkit – 2012
- Board Policy and Procedure Manual revision - 2011
- Chapter organizational manual – 2011/2012
- Mechanism to recognize member-developed educational tools – 2011/2012
- Development of a standardized IPAC orientation package – under discussion
- National ICP mentorship program – under discussion
- IPAC program audit tool development – under discussion

Update on 2012 Conference
Anne Bialachowski
Conference Chair

CHICA 2012
Dates-June 16-21st
Host City- Saskatoon, Saskatchewan
Host Chapter-SASKPIC
Theme-Growing for the Future
Voices of CHICA
September 2011 Edition

CHICA 2012
• Novice and Advanced Practitioner Day
• Workshops
  – Long-term Care
  – Paediatrics
  – Cleaning, Disinfection and Sterilization

CHICA 2012
• Keynote
  What Do Executives need to Make Infection Prevention and Control a Priority?
  APIC Executive Champion Award Winner
• Closing
  Story Telling and Infection Prevention

CHICA 2012
Virox Scholarships
3rd Annual Breakfast of Champions

CHICA 2012
• Special Event
  A Walk Through Time
  Saskatoon Western Development Museum
  BBQ Dinner
  Dancing

See You in 2012

Update on 2012 Bi-Annual Virox Day
on Cleaning, Disinfection & Sterilization

Alexis Silverman & Nicole Kenny
Co-Chairs

Topics
1. Green and Clean – is the concept mutually exclusive?
   Dr. Angela Griffiths - Confirmed
2. The role to the Environment in Infection Transmission
   Dr. Syed Sattar - Confirmed
3. Environmental Services Quality Assurance Programs
   Mark Heller, Former VP Environmental Services, Alberta Health - Confirmed
7. Alternative Disinfection Technologies
   Dr. Dick Zoutman - Confirmed

Hosted by Paul Webber  paul@webbertraining.com
www.webbertraining.com
Topics

5. Antimicrobial Stuff: Coatings, Surfaces and Soaps
   Speaker required! Can you help?

6. Prions, Spores and Parasites. Oh My! Bugs that Challenge Disinfection and Sterilization
   Waiting confirmation

7. Biofilms
   Waiting Confirmation

Questions? Speaker Suggestions?

Please contact:

Nicole Kenny: nkenny@virox.com
Alexis Silverman:
alexis.silverman@peelregion.ca

CHICA’s 22nd Chapter

Mandy Deoves
CHICA Simcoe Muskoka

Infection Control and Prevention in Brazil

Dr. Alexandre R. Marra
Hospital Israelita Albert Einstein
Sao Paulo, Brazil

Hosted by Paul Webber  paul@webbertraining.com
www.webbertraining.com
Several sources and guidelines

- Problems:
  - Presence
  - Distance
  - Burden

National experience on E-learning and infection control

- 2 courses: 5 Modules (20 days/each)
  - 2004: 182 students
  - 2006: 433 students
- 3 Midia (exclusive phone line for orientation)
  - Internet (www.iras.org.br)
  - Books
  - CD
- 5 tutors: MDs and ICNs
- Free
- Students: selected by local sanitary authority

www.iras.org.br
Voices of CHICA
September 2011 Edition

Microbiology

- Basic clinical microbiology has not been recognized as a priority by government agencies
- Lack of trained laboratory personnel
- The importance of integrating epidemiology and microbiology

Some reasons for conducting antimicrobial susceptibility surveillance

- To determine the level of resistance in a particular geographical region
- To improve the quality of empirical antimicrobial therapy
- To educate all those involved in use of antimicrobials
- To direct ICU efforts in prevention of the spread resistant organisms
- To monitor changes in resistance patterns


Program Brazilian SCOPE (2007-2010)

- Clinical data prospectively collected using standardized case report forms.
- Inclusion criteria: HA-BSI.

SCOPE Study Brazil Results

- 2.8-year study (12 June 2007 – 31 March 2010)
- 2,563 infections (95% monocrobial infections)
- 16 participating hospitals
  - 13.3% pediatric patients (< 16 years)
  - Mean age 50.6 ± 24.8 years (0 to 97 years)
  - 56.1% male
  - 49.0% ICU setting

**Voices of CHICA**

**September 2011 Edition**

**Characteristics of the 2,563 patients with BSIs among 16 Brazilian hospitals**

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>No. (%) of BSIs</th>
<th>Potential risk factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterococcus</td>
<td>143 (5.6%)</td>
<td>Central venous catheter, urinary catheter</td>
</tr>
<tr>
<td>Pseudomonas aeruginosa</td>
<td>180 (7.1%)</td>
<td>Ventilator</td>
</tr>
<tr>
<td>Acinetobacter baumannii</td>
<td>208 (8.1%)</td>
<td>Parenteral nutrition</td>
</tr>
</tbody>
</table>

**Distribution of pathogens most commonly isolated from monomicrobial nosocomial bloodstream infections (nBSIs) and associated crude mortality rates for all patients in intensive care units (ICU), and patients in non-ICU wards**

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Total (n=2,447)</th>
<th>ICU (n=1,005)</th>
<th>Non-ICU (n=1,442)</th>
<th>Total (n=2,447)</th>
<th>ICU (n=1,005)</th>
<th>Non-ICU (n=1,442)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escherichia coli</td>
<td>154</td>
<td>114</td>
<td>40</td>
<td>66.7</td>
<td>57.1</td>
<td>9.2</td>
</tr>
<tr>
<td>Klebsiella pneumoniae</td>
<td>133</td>
<td>31</td>
<td>102</td>
<td>24.0</td>
<td>17.7</td>
<td>26.3</td>
</tr>
<tr>
<td>Acinetobacter baumannii</td>
<td>128</td>
<td>56</td>
<td>72</td>
<td>22.0</td>
<td>22.2</td>
<td>21.0</td>
</tr>
<tr>
<td>Pseudomonas aeruginosa</td>
<td>100</td>
<td>95</td>
<td>5</td>
<td>45.0</td>
<td>46.1</td>
<td>2.8</td>
</tr>
<tr>
<td>Staphylococcus aureus</td>
<td>293</td>
<td>283</td>
<td>10</td>
<td>11.5</td>
<td>10.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**Characteristics of the 2,563 patients with BSIs among 16 Brazilian hospitals**

<table>
<thead>
<tr>
<th>Underlying conditions</th>
<th>No. (%) of BSIs</th>
<th>No. (%) of BSIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>420 (16.6%)</td>
<td>30 (12.3%)</td>
</tr>
<tr>
<td>Neutropenia</td>
<td>330 (13.0%)</td>
<td>202 (11.9%)</td>
</tr>
<tr>
<td>Transplantation</td>
<td>251 (9.8%)</td>
<td>297 (11.4%)</td>
</tr>
<tr>
<td>Renal</td>
<td>230 (8.8%)</td>
<td>225 (8.4%)</td>
</tr>
</tbody>
</table>

**Rates of antimicrobial resistance among gram-negative organisms most frequently isolated from patients with nosocomial bloodstream infection**

<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>No of isolates</th>
<th>% resistant</th>
<th>No of isolates</th>
<th>% resistant</th>
<th>No of isolates</th>
<th>% resistant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amp-Sul</td>
<td>176</td>
<td>50.0</td>
<td>280</td>
<td>41.7</td>
<td>92</td>
<td>35.9</td>
</tr>
<tr>
<td>Pip-Tazo</td>
<td>241</td>
<td>35.5</td>
<td>148</td>
<td>75.7</td>
<td>174</td>
<td>35.9</td>
</tr>
<tr>
<td>Cefazolin</td>
<td>261</td>
<td>53.5</td>
<td>160</td>
<td>75.7</td>
<td>101</td>
<td>39.9</td>
</tr>
<tr>
<td>Cefotaxime</td>
<td>252</td>
<td>55.4</td>
<td>160</td>
<td>75.7</td>
<td>101</td>
<td>39.9</td>
</tr>
<tr>
<td>Ceftobiprole</td>
<td>237</td>
<td>58.4</td>
<td>160</td>
<td>75.7</td>
<td>101</td>
<td>39.9</td>
</tr>
<tr>
<td>Ceftazidime</td>
<td>267</td>
<td>50.0</td>
<td>263</td>
<td>75.7</td>
<td>203</td>
<td>39.9</td>
</tr>
<tr>
<td>Imipenem</td>
<td>297</td>
<td>0.3</td>
<td>290</td>
<td>35.9</td>
<td>212</td>
<td>38.8</td>
</tr>
<tr>
<td>Meningitis</td>
<td>223</td>
<td>1.3</td>
<td>209</td>
<td>36.4</td>
<td>201</td>
<td>38.8</td>
</tr>
<tr>
<td>Ciprofloxacin</td>
<td>293</td>
<td>36.2</td>
<td>279</td>
<td>37.4</td>
<td>193</td>
<td>39.9</td>
</tr>
<tr>
<td>Gentamicin</td>
<td>290</td>
<td>30.7</td>
<td>272</td>
<td>31.8</td>
<td>184</td>
<td>40.7</td>
</tr>
</tbody>
</table>

**Distribution of Candida species most commonly isolated from monomicrobial nosocomial bloodstream infections (nBSIs) and associated crude mortality rates**

<table>
<thead>
<tr>
<th>Candida species</th>
<th>N (%)</th>
<th>Mortality N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Candida albicans</td>
<td>47 (34.3)</td>
<td>33 (20.2)</td>
</tr>
<tr>
<td>Candida parapsilosis</td>
<td>33 (24.1)</td>
<td>17 (51.5)</td>
</tr>
<tr>
<td>Candida tropicalis</td>
<td>21 (15.3)</td>
<td>17 (81.0)</td>
</tr>
<tr>
<td>Candida krusei</td>
<td>15 (10.9)</td>
<td>11 (73.3)</td>
</tr>
<tr>
<td>Candida glabrata</td>
<td>14 (10.2)</td>
<td>11 (78.6)</td>
</tr>
<tr>
<td>Candida lusitaniae</td>
<td>2 (1.5)</td>
<td>2 (100.0)</td>
</tr>
<tr>
<td>Candida kefir</td>
<td>2 (1.5)</td>
<td>2 (100.0)</td>
</tr>
<tr>
<td>Candida glabrata</td>
<td>1 (0.7)</td>
<td>1 (100.0)</td>
</tr>
<tr>
<td>Candida kefir</td>
<td>1 (0.7)</td>
<td>-</td>
</tr>
<tr>
<td>Candida glabrata</td>
<td>1 (0.7)</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>137 (100)</td>
<td>94 (68.8)</td>
</tr>
</tbody>
</table>

**Positive deviance**

**The origin of Positive Deviance**

In every community or organization there are certain individuals or groups whose uncommon practices/behaviors enable them to find better solutions to problems than their neighbors or colleagues who have access to the same resources.

Only those behaviors/strategies that are accessible to all are maintained, any other are discharged.

Hosted by Paul Webber paul@webbertraining.com
www.webbertraining.com
Voices of CHICA
September 2011 Edition

Positive deviance: A new strategy for improving hand hygiene compliance

- 2 (20 bed each) step-down units (E & W): 9 mo period (3 phases)
  - 1st: Pre-intervention: counted hand hygiene episodes (electronic counters)
  - 2nd: implemented PD strategy in E unit
  - 3rd: PD applied in both units
- HAIs surveillance: performed by trained ICNs

Positive deviance Approach

- Meeting of all HCWs (2x/mo).
- Opportunities to express their feelings about hand hygiene.
- Needs to improve (changing experiences).
- Monthly HAIs rates were shown to HCW.
- Identified "positive deviants" HCWs. They identified others and so forth... (*Are those who wanted to change and develop new ideas for improving hand hygiene and who stimulated other HCWs).

Hosted by Paul Webber  paul@webbertraining.com
www.webbertraining.com
### Results

**Study outcomes from July to September 2008 - Positive Deviance**

<table>
<thead>
<tr>
<th>Intervention unit (E)</th>
<th>Control unit (W)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand hygiene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol gel aliquots dispensed (total)</td>
<td>109,683</td>
<td>62,178</td>
</tr>
<tr>
<td>Alcohol gel aliquots dispensed per room (mean±SD)</td>
<td>136.41±42.37</td>
<td>68.14±33.81</td>
</tr>
<tr>
<td>Alcohol gel used (L/1,000 patient days) (mean±SD)</td>
<td>83.2±3.02</td>
<td>42.03±4.55</td>
</tr>
<tr>
<td>Chlorhexidine used (L/1000 patient days) (mean±SD)</td>
<td>21.2±11.30</td>
<td>16.7±6.07</td>
</tr>
<tr>
<td>Healthcare associated infections (ていきます)</td>
<td>1.5</td>
<td>3</td>
</tr>
<tr>
<td>Incidence density of HAIs/1,000 patient days</td>
<td>6.5</td>
<td>12.7</td>
</tr>
</tbody>
</table>

**Intervention unit (E)**
- **Positive Deviance**
- Reduction on HAI
- Increase alcohol gel utilization

**Bundles / Checklist**

- Broad “bundles” / checklist
  - Pts have many needs, not only IC
  - Developing areas might need different bundles

**Conclusions**

- Nationwide surveillance studies are important
- High prevalence of Gram-negative x Gram-positive bacteria / high rates of antibiotic resistance
- High prevalence of non-albicans Candida
- Infection control policies are necessary
- The culture of accountability and the positive deviance must ever exist

---

**Bundle compliance and ventilator associated pneumonia (VAP) rate per 1,000 ventilator days from April 2007 to September 2008**

*oral decontamination with chlorhexidine 0.12% (since October/2007)
**continuous aspiration of subglottic secretions (CASS) endotracheal tube (since February/2008)

---

**Thanks to Voices of CHICA Sponsors**

- Virox
- Deb
- 3M Canada
- Diversey
- Gojo
- Ecolab

---

Hosted by Paul Webber  paul@webbertraining.com  www.webbertraining.com