Mid-Western Regional Hospital

Infection Prevention & Control is Everyone’s Business
Dooradoyle

What’s New in issue 7?
- HOPE LEAN UL Project
- Hand Hygiene Compliance awareness week 14th – 18th February MWRH Dooradoyle 22nd – 23rd February MWR Maternity Hospital
- League Table (IP&C Dashboards)
- Surveillance data for the MWRH 2010
- New appointment Dr. Lorraine Power, Consultant Microbiologist
- KPC Update
- MWR Maternity Update

Infection Prevention & Control (IP&C) Update – Hope Lean UL Project

We are currently participating in a HOPE Lean project. This is an initiative jointly supported by the HSE Mid West and the University of Limerick.

The overall aim of our HOPE Project is to improve Hand Hygiene Compliance as part of the elements of reducing Healthcare Associated Infections.

These results will also be reflected in the HIQA hand hygiene standards rating within the Regional Maternity Hospital Limerick and Mid West Regional Hospital, Limerick.

Team Members: UL Facilitators: Mel Gannon/Dick Keely

Dr. Nuala O’Connell Consultant Microbiologist (Project Lead)
Brid Boyce Quality Manager Mid West Acute Services (Project Co-ordinator)
Katie Sheehan ADON MWRH Limerick
Kieran Ginty Business Manager MWRH Limerick
Eileen Ronan CNM3 Regional Maternity Hospital
Liz Boyle IP&C Clinical Nurse Manager 2 MWRH Limerick/Mat/Croom
Barbara Slevin IP&C Clinical Nurse Manager 2 MWRH Limerick/Mat/Croom
James Powell Medical Laboratory Scientist Microbiology
Brid Breslin IPC Clinical Nurse Manager I MWRH Ennis
Louise Reid Clinical Audit Development Officer Mid West Acute Services
Regina Monahan Medical Laboratory Scientist Microbiology
Edel Roughan A/Housekeeping supervisor MWRH Limerick
Hand Hygiene Awareness Campaign

MWRHL 14th-17th February 2011
MWRMH 22nd-23rd February 2011

IP&C Awareness Stands were located in the Main Reception area, Outpatients Reception area & in the Staff Canteen.
Onsite hand hygiene training was provided which enabled staff to avail of their annual mandatory training. Additional tools used included UV testing which proved very popular and generated much interest as staff could visualise areas of their hands that they missed when they applied hand gel.
Promotional material on the alcohol hand gel currently used in the hospital was available.
Ceire Rochford, RGN, from PEI was available on site to provide advice both on the correct use of Sterillium and skin care
All staff who received hand hygiene training was entered into a draw for spot prizes sponsored by local businesses to which we are most grateful.

New Initiatives

Slogan launched at the Awareness campaign
“I Save Lives With My Clean Hands”
T-shirts for trainers with this slogan & badges for all staff that availed of hand hygiene training.

This helped to increase the awareness throughout the hospitals.

Updated Hand Hygiene posters were strategically placed throughout the 2 hospitals incorporating the “5 moments of hand hygiene”:
“Why, When & How”

Based on WHO recommendations/Guidance
Hand Hygiene Awareness Campaign, MWRHL, MWRMH
Results of the IP&C Hand Hygiene Campaign

There was both an increased awareness and a positive atmosphere throughout within the 2 hospitals. Staff were provided with an opportunity to seek specialist advice regarding skin condition. Almost 1,000 staff trained over 6 days.

Well done everyone!

League Table

Dashboard results are published and displayed-in IP&C cabinets in all clinical areas and at Main Reception Area. These dashboards display *Staphylococcus aureus* (MRSA and MSSA) bacteraemia rates, single room/isolation room occupancy rates & results of hand hygiene compliance audits. Best results are displayed in green, whereas poor results are displayed in red. The aim is to update these dashboards on a weekly basis & acknowledge improvements and best practice. Please look in the IP&C glass cabinets in your area and contact us for assistance in improving your scores!
Surveillance Data for the MWRH 2010

Surveillance is performed on all hospital cases of *Staphylococcus aureus* (MRSA and MSSA) bacteraemia, *Clostridium difficile* infection (CDI), Norovirus infection, Vancomycin resistant *Enterococcus* species (VRE) and Extended Spectrum Beta Lactamase Producing Coliforms. This information is circulated to the Infection Prevention & Control Committee. MRSA bacteraemia and CDI surveillance rates can be viewed on both websites and are also displayed in glass cabinets in the hospital reception area. These rates are updated on a monthly basis. See below for a chart showing *S. aureus* bacteraemia rates which show a reduction in the MRSA rate and proportion in 2010.

![MRSA and MSSA Bacteraemia per 1,000 In-Patient Bed Days](image)

Enhanced surveillance on *S. aureus* bacteraemia was undertaken to determine which infections are healthcare- or community- associated, patient risk factors and the related source of infection. Below is a chart showing the primary sources identified for *S. aureus* bacteraemia cases in 2010. The IPCT plan to introduce care bundles for intravascular catheter care as an intervention to achieve a reduction in infection related to central (CVC) & peripheral (PVC) catheters.

![Primary Source of all S.aureus Bacteraemia Cases MWRH 2010](image)

![Primary Source of S.aureus Bacteraemia Cases Detected >48 hours Post Admission](image)
## Surveillance Data Continued

<table>
<thead>
<tr>
<th>Requesting Source of Positive Specimens</th>
<th>HCAI C.diff(^1)</th>
<th>HCAI SAB(^2)</th>
<th>HCAI MRSA BSI(^3)</th>
<th>HCAI VRE BSI(^4)</th>
<th>VRE All Sites(^5)</th>
<th>MRSA All Sites(^6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1B</td>
<td>3</td>
<td>3</td>
<td>12</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1C</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1D</td>
<td>3</td>
<td></td>
<td>8</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2B</td>
<td></td>
<td></td>
<td>2</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2C</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2D</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>3A</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3B</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>3C</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>3D</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>4B</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>4C</td>
<td>2</td>
<td>1</td>
<td></td>
<td>1</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>A&amp;E</td>
<td>1</td>
<td></td>
<td></td>
<td>3</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Butterfly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Caterpillar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>CCU</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Dialysis</td>
<td></td>
<td></td>
<td>1</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>HDU</td>
<td>1</td>
<td></td>
<td>3</td>
<td>32</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>HODU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>ICU</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>23</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>OPD</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Rainbow</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Sunshine</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Surg. Day Wd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Trauma</td>
<td>1</td>
<td></td>
<td></td>
<td>2</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Other/Unknown</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HCAI C.diff(^1)</th>
<th>Healthcare Associated <em>Clostridium difficile</em> Infection</th>
<th>Symptoms onset &gt;48 hrs post admission to hospital (Hospital acquired)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCAI SAB(^2)</td>
<td>Healthcare Associated <em>Staphylococcus aureus</em> Bacteraemia</td>
<td>Symptoms onset &gt;48 hrs post admission to ward (ward acquired)</td>
</tr>
<tr>
<td>HCAI MRSA BSI(^3)</td>
<td>Healthcare Associated <em>S. aureus</em> (MRSA) Bacteraemia</td>
<td>Symptoms onset &gt;48 hrs post admission to ward (ward acquired)</td>
</tr>
<tr>
<td>HCAI VRE BSI(^4)</td>
<td>Healthcare Associated <em>Enterococcus</em> species (VRE) Bacteraemia</td>
<td>Symptoms onset &gt;48 hrs post admission to hospital (Hospital acquired)</td>
</tr>
<tr>
<td>VRE All Sites(^5)</td>
<td><em>Enterococcus</em> species (VRE) isolation from all sites</td>
<td>No enhanced data available (acquisition unknown)</td>
</tr>
<tr>
<td>MRSA All Sites(^6)</td>
<td><em>S. aureus</em> (MRSA) isolation from all sites</td>
<td>No enhanced data available (acquisition unknown)</td>
</tr>
</tbody>
</table>

---

Mr. James Powell and Ms. Regina Monahan  
Surveillance Scientists, Department of Microbiology
KPC

It is suspected that transmission of a multi-resistant bacterium called a KPC producer has occurred between patients at the Mid-Western Regional Hospital in Limerick. KPC stands for *Klebsiella pneumoniae* carbapenemase, an enzyme produced by variants of the common bacterium *Klebsiella pneumoniae* that live on the skin and in the mouth and guts of humans and can cause pneumonia and urinary tract infections. The Consultant Microbiologists at Mid-Western Regional Hospital Limerick advise that "KPC-producing bacteria are a common type of bacterium that has evolved into a major challenge for infection control as infections associated with these organisms are difficult to treat because most strains are resistant to the majority of our usual antibiotics. Prevention of infection is key. There have been 3 probable cases of cross-transmission of the organism in Limerick since mid-January 2011. *Klebsiella* can spread through person-to-person contact and from patient-to-patient on the hands of healthcare workers. Important ways to control the spread of the organism are to undertake intensive environmental cleaning in the affected ward(s) and ensure that everyone cleanses their hands at the appropriate moments of patient care. A programme of intensive Deep Cleaning has been instituted in the wards where transmission is suspected of occurring.

For further advice or patient information leaflets contact the IP&C team.
A significant amount of work has been undertaken by the Multidisciplinary team at the Mid Western Regional Maternity Hospital following the HIQA Hygiene Inspections of 2009/2010, this included:

- 35 quality improvement Plans of which 21 have been actioned and completed
- Significant refurbishments have been undertaken by Technical Services Department which included, repainting of Clinical areas, replacement of shower doors and their surround with white rock, enhanced storage in some clinical areas & locks on storage doors.
- Replacement of some Clinical Hand Wash sinks
- The MWRMH committee met 11 times in 2010. Service user joined committee May 2010 and attended 3 meetings 1 of which involved an announced hygiene environment audit of Ward M1. Medical representative joined committee in Nov 2010.
- 3 midwives are link midwives for Infection Control and attend Regional General Hospital for meetings (3 meetings in 2010)
- In 2010, 500 audits were undertaken by Midwifery and Ward Attendant Staff There was also 8 management walkabouts throughout the MWRMH undertaken by the Hospital Administrator and CMM3, along with the CMM2 responsible for the clinical area where the audit was undertaken. Action plans were developed and forwarded to Technical Services for action. The catering officer undertakes monthly ward pantry audits and corrective actions identified. On a weekly basis Senior Midwifery Management meet with clients to assess /discuss their care while an inpatient in the Regional Maternity Hospital, discussions would include the Hygiene of the area, Results are forwarded to Chairperson of Local Hygiene committee for discussion at the monthly hygiene meetings.
- There was 1 hygiene related complaint in 2010.
- Increased signage and awareness of the correct use of sterilium gel is in place at both entrances to the hospital. A total of 1,308 sterilium gel units were used in MWRMH in 2010. 2 sensory stands were purchased and situated at both floors of hospital.
- 2 notice boards for information on hygiene and infection control are available in the main reception of the hospital. A patient information leaflet has been developed and given to women on admission to hospital.
- A staff information leaflet is also available and given to all new staff on induction. A copy of this leaflet is laminated and available in clinical areas
- A philosophy of Decontamination was completed in July 2010
- An education and training programme on decontamination has been developed; various levels were identified to meet the needs of the individual involved in the decontamination process. Educational sessions in Decontamination as part of the induction process for new employees; 2 sessions have been completed. In house training in the MWRMH commenced in September 2010 – 6 sessions have been completed - 65 staff have attended
- MWRMH part of the HOPE project in conjunction with UL and MWRH

Ms. Eileen Ronan
A/Assistant Director of Nursing/Midwifery
The IP&C team would like to acknowledge their sponsors for the Hand Hygiene awareness campaign:

- Greene’s The Unicorn
- Dooradoyle Leisure Centre 4 STORM Cinema
- Formula for Fun
- PEI
- O’Malley’s Chemist
- Arthur’s Quay Pharmacy
- C Residential Letting Agency
- Ambassadors Dry Cleaning
- Woodlands House, Adare
- Christopher John Hairdressers
- Inner Harmony Beauty Salon
- Aspara Beauty Salon

The IP&C team greatly appreciate the help and support received from Transition Year students on work experience in the MWRHL.