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1. INTRODUCTION

This is the 2015/16 Greater Glasgow & Clyde Annual Infection Prevention and Control Report. The report outlines progress within NHSGGC against the key objectives set out in the 2015/16 Annual Infection Prevention and Control Programme.

Prevention and control of infection continues to have the highest priority within NHSGGC and the Board Infection Control Committee (BICC), in conjunction with clinical service providers, has developed and implemented a challenging programme of work during the past year.

During 2015/16 NHSGGC has implemented a range of measures and controls which are working toward the March 2017 HEAT Targets for *Staph aureus* bacteraemias (SAB) and *Clostridium difficile* Infection (CDI). The NHS Board, Board Clinical Governance Forum and Acute Services Committee continue to receive ongoing assurance through the publication of bi-monthly reports on key performance indicators for the prevention and control of infection. Central to these achievements are the detailed work plans, governance systems and monitoring and reporting arrangements for the effective Infection Prevention and Control (IPC) of infection across NHSGGC.

Good practice in Infection Prevention and Control does not rest solely within the remit of our Infection Prevention and Control Committees and Teams. Every member of staff has a professional responsibility to prevent healthcare associated infection and is accountable for their actions in relation to this. Our service users expect and require us to apply evidence based practice at all times. The most up to date version of the Infection Prevention and Control policies and Standard Operating Procedures (SOPs) can be accessed at:

www.nhsggc.org.uk/infectioncontrol
2. HEALTHCARE EFFICIENCY AND ACCESS TO TREATMENT TARGETS (HEAT)

*Staphylococcus aureus* Bacteraemias (SAB)

The current National HEAT target required all Boards in Scotland to achieve a rate of **24** cases per 100,000 acute occupied bed days (AOBDs) or lower by 31st March 2017. For the last available reporting quarter (October - December 2015), NHSGGC reported **36.6** cases per 100,000 AOBDs (Figure 1) and NHS Scotland reported **32.6** cases per 100,000 AOBDs.

Following a reduction of cases in 2014 there was a quarterly upward trend of SAB in 2015 with a total of 461 cases reported. This is an increase of 20.1% upon the previous year. A Board wide SAB reduction Action Plan was developed including improvement projects, focus groups, modification of existing documentation and ongoing compliance with IV access device care plan monitoring. Progress with this plan is ongoing and is reviewed by the Acute Infection Control Committee and discussed at the Board Infection Control Committee. A graph showing the distribution of origin of SAB in 2015 is included below (Figure 2) and shows that over half of cases (54%) were classified as ‘Out of Hospital Infections’.
Hospital Acquired Infections (HAI) are MSSA or MRSA blood cultures obtained from a patient who has been hospitalised for 48 hours or greater.

**46% of cases in 2015 were HAI**

Healthcare Associated Infections and Community cases are considered as ‘Out of Hospital Infections’.

Healthcare Associated cases are those in which the patient has had some type of interaction with healthcare services in the preceding 30 days to when the positive blood culture was obtained. A proportion of these cases may still benefit from a quality improvement focus within our hospitals.

Within the ‘out of hospital’ SABs in 2015, there has also been a noted increase in the proportion of Community cases. These cases are less likely to improve measures within Acute Hospital settings. Cases related to illicit intravenous drug use account for 29% of community SABs, followed by unknown source, skeletal/joint infections and skin/soft tissue. Targeted awareness of SAB reduction aims within Health and Social Care Partnerships and Public Health should continue to be actively pursued in 2016 in order to reduce the burden of bloodstream infection.

A continued consistent approach to quality, safe and effective care of all intravenous access devices remains high priority throughout NHSGGC in order to aim for reduction in all bloodstream infections and not just those isolating *Staphylococcus aureus*.

**Clostridium difficile**

The HEAT target due to be achieved by the end of March 2017 is a reduction in the rate of *Clostridium difficile* infections (CDI) in persons aged 15 and over to 32 cases or less per 100 000 total occupied bed days.

The last available reporting quarter (October - December 2015) published in April 2016 shows the rate of *C. difficile* within NHSGGC as 38.8 cases per 100,000 occupied bed days in ages 15 & over (Figure 3). NHS Scotland reported 38.0 cases per 100 000 OBDs.
For NHSGGC this was an increase of 38% upon the previous quarter with a total of 139 patient cases and. It should be noted that only 40% of these cases are hospital acquired (n=56).

By mid quarter it was noted that there was a higher than average number of cases for that time frame and an immediate targeted investigation was initiated.

Data is reviewed constantly but additional analysis was undertaken and no single site, hospital or ward was considered to be an outlier; it appeared to be a general increase across all healthcare sectors.

The Infection Prevention & Control Teams (IPCT) reviews every case of CDI for any place/time contact with other patients with CDI and if two HAI cases occur in any ward in a two week period this is considered a ‘trigger’ for additional action and the ward is visited daily until the cases are discharged or are well (there is a presumption until proven otherwise that two in two weeks is most likely due to cross infection). In the last quarter of 2015 three triggers were identified; two of the three were not due to cross infection – confirmed by the reference laboratory. In addition because of the increase in numbers in November all of the specimens that were available from the labs from October and November were sent for typing. Of the 29 specimens submitted 16 different types were identified. This supports the theory of a general increase in numbers across all care sectors and not cross infection in our hospitals.
One of the main risk factors associated with CDI acquisition is exposure to antimicrobial therapy (usually given for chest infections, UTI etc.) specifically co-amoxiclav. Targeted educational sessions have been delivered by the Antimicrobial Management Team to reduce the amount prescribed routinely. The importance of prudent antimicrobial prescribing and adherence to NHSGGC Infection Management Guideline for empirical antibiotic therapy by clinical staff must be sustained in order to see further reduction in total CDI cases.

**Clostridium difficile: Comparison of Hospital Acquired (HAI), Non HAI cases and GP specimens**

The proportion of hospital acquired cases has remained relatively stable in 2015 although overall case numbers increased, however local surveillance for early 2016 indicates a reduction for Quarter one with 94 patient cases.

<table>
<thead>
<tr>
<th>CDI cases</th>
<th>HAI</th>
<th>non-HAI*</th>
<th>GP*</th>
<th>% HAI</th>
<th>% non-HAI</th>
<th>% GP specimens</th>
<th>GGC Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>366</td>
<td>192</td>
<td>106</td>
<td>55%</td>
<td>29%</td>
<td>16%</td>
<td>664</td>
</tr>
<tr>
<td>2011</td>
<td>223</td>
<td>182</td>
<td>86</td>
<td>45%</td>
<td>37%</td>
<td>18%</td>
<td>491</td>
</tr>
<tr>
<td>2012</td>
<td>169</td>
<td>166</td>
<td>76</td>
<td>41%</td>
<td>40%</td>
<td>18%</td>
<td>411</td>
</tr>
<tr>
<td>2013</td>
<td>197</td>
<td>176</td>
<td>73</td>
<td>44%</td>
<td>39%</td>
<td>16%</td>
<td>446</td>
</tr>
<tr>
<td>2014</td>
<td>169</td>
<td>157</td>
<td>81</td>
<td>42%</td>
<td>39%</td>
<td>20%</td>
<td>407</td>
</tr>
<tr>
<td>2015</td>
<td>182</td>
<td>181</td>
<td>71</td>
<td>42%</td>
<td>42%</td>
<td>16%</td>
<td>434</td>
</tr>
</tbody>
</table>

*Reported in Hospital report cards as ‘Out of Hospital’ infections
3. **THE SCOTTISH NATIONAL HAND HYGIENE CAMPAIGN**

The campaign was launched in January 2007 with the aim of improving hand hygiene compliance amongst frontline NHS staff and providing education to the public. Local Health Board Co-ordinators (LHBCs) were employed in all Health Boards to implement the key aims of the campaign. Responsibility for the continued monitoring of hand hygiene has now been placed with NHSGGC.

NHSGGC has systems in place to monitor Hand Hygiene Compliance on a monthly basis in all clinical areas. These results are utilised to populate the bi-monthly HAIRT reports.

A summary of the HAIRT results are shown below.

**Hand Hygiene Monitoring Compliance (%)**

<table>
<thead>
<tr>
<th></th>
<th>April 15</th>
<th>May 15</th>
<th>June 15</th>
<th>July 15</th>
<th>Aug 15</th>
<th>Sept 15</th>
<th>Oct 15</th>
<th>Nov 15</th>
<th>Dec 15</th>
<th>Jan 16</th>
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<tr>
<td>AHP</td>
<td>98</td>
<td>97</td>
<td>98</td>
<td>98</td>
<td>96</td>
<td>98</td>
<td>98</td>
<td>97</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td>Ancillary</td>
<td>97</td>
<td>92</td>
<td>95</td>
<td>94</td>
<td>93</td>
<td>93</td>
<td>91</td>
<td>94</td>
<td>95</td>
<td>95</td>
</tr>
<tr>
<td>Medical</td>
<td>97</td>
<td>96</td>
<td>96</td>
<td>95</td>
<td>94</td>
<td>95</td>
<td>96</td>
<td>95</td>
<td>96</td>
<td>95</td>
</tr>
<tr>
<td>Board Total</td>
<td>98</td>
<td>98</td>
<td>98</td>
<td>98</td>
<td>97</td>
<td>97</td>
<td>97</td>
<td>98</td>
<td>98</td>
<td>98</td>
</tr>
</tbody>
</table>

These represent *Combined Compliance*, i.e opportunity and technique when healthcare worker carries out hand hygiene. This includes being bare below the elbows.

Quality Assurance (QA) of the process and methodology adopted by the wards is carried out by the LHBC.

In 2015, QA audits showed that the NHSGGC Board Total, as audited by the LHBC, was 89%. This is nine percent lower than that reported by local audits and failures in local process and methodology are generally responsible for the difference, including occasions where awareness of the audit and/or auditor is evident. The LHBC provides specific feedback on process and methodology to counteract these failures.
4. SURVEILLANCE – NATIONAL PROGRAMMES AND MANDATORY REQUIREMENTS

HDL (2006) 38 & CEL 11 (2009) detail the mandatory requirement for HAI Surveillance. NHSGGC remains fully compliant with the requirements of these documents in both undertaking and reporting surveillance on the following.

- Meticillin Resistant *Staph aureus* Bacteraemias (MRSA)
- Meticillin Sensitive *Staph aureus* Bacteraemias (MSSA)
- *Clostridium difficile* Infections (CDI)
- Surgical Site Infection (SSI) in hip arthroplasty, knee arthroplasty, caesarean section and repair of neck of femur

For the last available quarter (October – December 2015), the Surgical Site Infection rate for hip arthroplasty and repair of neck of femur procedure categories was marginally above the national average and above 95% confidence intervals of the national dataset SSI rate. It should be noted that overall infection numbers are low and were within local confidence intervals. A collaborative local review of these cases confirmed no common linkage between SSIs and a local improvement action plan has been instigated and is ongoing.

SSI rates for Caesarean section procedure category are slightly above the national average, but remain within national and local confidence intervals, however it should be noted that the majority of SSIs were superficial and were detected by community midwives following the patient’s discharge home. Midwifery staff have been encouraged to undertake a LearnPro module entitled “Recognising Surgical Site Infections” to ensure that accurate identification of wound infection post surgery is maintained.

**Table 3**

<table>
<thead>
<tr>
<th>Category of procedure</th>
<th>Operations</th>
<th>Infections</th>
<th>NHSGGC SSI rate (%)</th>
<th>NHSGGC 95% CI</th>
<th>National dataset SSI rate (%)</th>
<th>National 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caesarean section</td>
<td>1341</td>
<td>21</td>
<td>1.6</td>
<td>1.0-2.4</td>
<td>1.3</td>
<td>1.0-1.7</td>
</tr>
<tr>
<td>Hip arthroplasty</td>
<td>407</td>
<td>5</td>
<td>1.2</td>
<td>0.5-2.8</td>
<td>0.6</td>
<td>0.4-1.1</td>
</tr>
<tr>
<td>Knee arthroplasty</td>
<td>432</td>
<td>0</td>
<td>0.0</td>
<td>0.0-0.9</td>
<td>0.1</td>
<td>0.0-0.3</td>
</tr>
<tr>
<td>Repair of neck of femur</td>
<td>404</td>
<td>6</td>
<td>1.5</td>
<td>0.7-3.2</td>
<td>0.7</td>
<td>0.3-1.4</td>
</tr>
</tbody>
</table>

The table above shows the SSI rates for Caesarean section (inpatient and POS to day 10), Hip arthroplasty (inpatient and readmission to day 30), Knee arthroplasty (inpatient) and Repair of neck of femur (inpatient) procedures within NHSGGC, 01/10/2015 – 31/12/2015.
5. **AUDIT**

During 2015/2016 a new Infection Prevention and Control Audit Tool (IPCAT) was rolled out across NHSGGC Acute inpatient wards. The new IPCAT incorporates standard infection control precautions (SICPs), transmission based precautions (TBPs) and quality improvement (CAUTI, PVC, CVC) compliance monitoring. Gap analysis carried out during the developmental stage helped identify elements from the former infection control safe patient environment audit tool not included in monitoring by any other department and these criteria have been grouped together to provide the fourth section of IPCAT titled safe patient environment (SPE).

IPCAT gives a detailed profile of clinical practice and staff knowledge, to provide the Board with assurance of SICPs implementation, monitoring and compliance linked to the National IPC Manual. IPCAT also informs the Board that standards of care in NHSGGC will prevent transmission of not only alert organisms/communicable diseases but all types of micro-organisms including emerging pathogens. The application of care bundles / plans to prevent infection by invasive devices is demonstrated to the Board through quality improvement criteria assessed by IPCAT.

IPCAT is completed in each Acute inpatient ward as a minimum yearly, using standardised agreed definitions. A traffic light system is used to determine the time scale for re-audit:-

<table>
<thead>
<tr>
<th>Color</th>
<th>Percentage</th>
<th>Reaudit Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>91-100%</td>
<td>12 months</td>
</tr>
<tr>
<td>Green</td>
<td>80-90%</td>
<td>12 months</td>
</tr>
<tr>
<td>Amber</td>
<td>66-79%</td>
<td>6 months</td>
</tr>
<tr>
<td>Red</td>
<td>&lt;65%</td>
<td>3 months</td>
</tr>
</tbody>
</table>

Following completion of IPCAT, results and an action plan generated can be accessed via the Infection Control dashboard. Actions highlighted as a critical non-compliance must be addressed within 24 hours of completion of IPCAT with a period of one month allowed for all other actions to be completed.
IPCAT specific to theatre areas is now available through our web based application and each theatre department will have an audit completed as a minimum yearly, with results and an action plan accessed via the Infection Control dashboard following completion.

Pilot of IPCAT specific to Mental Health inpatient areas was completed during 2015/2016 and the audit tool previously used will now be replaced by IPCAT with audit results and an action plan available via the Infection Control dashboard.

There have been no changes to the audit tool for dental/high risk treatment room areas. 2016/2017 will see development of IPCAT specific to out-patient departments.
6. **STANDARD OPERATING PROCEDURES (SOPs)**

NHSGGC has a comprehensive manual of board-wide policies and Standard Operating Procedures (SOPs) for Infection Prevention and Control. All policies / SOPs are developed and disseminated to a specific standard operating procedure which includes consultation through the Acute Infection Control Committee (AICC) and Partnership Infection Control Support Group (PICSG) and subsequent approval at the Board Infection Control Committee (BICC).

Since 2012 a link to the IPC Manual has been available on the desk top of all PCs and tablets in NHSGGC, allowing staff to have access to current Infection Prevention and Control policies and guidance documents.

The National Infection Prevention and Control Manual chapters 1 (Standard Infection Control Precautions - SICPs) and 2 (Transmission based precautions) were placed on the NHS Greater Glasgow and Clyde’s Infection Prevention and Control site in January 2013 and all NHS Boards have been required to monitor compliance with SICPs since. NHSGGC has now made SICPs monitoring at ward level available to all acute Senior Charge Nurses (SCNs) to provide assurance on SICPs application.

**Updated Policies & SOPs**

The following were developed or updated between April 2015 and March 2016

- Decontamination SOP
- Respiratory Syncytial Virus (RSV) SOP
- Carbapenem Resistant Organism (CRO) / Carbapenemase Producing Enterobacteriaceae (CPE) SOP
- SOP Twice Daily Clean of Isolation Rooms
- SOP Terminal Clean of ward
- SOP Terminal Clean of Isolation Rooms
- Priority for isolation Document
- Food Hygiene for Ward Kitchens
- Tuberculosis Policy
- Chickenpox Policy
- Occupational Related Illness Policy
• Last Offices SOP
• MRSA SOP
• Clostridium difficile Infection (CDI) SOP
• Scabies SOP
• Hand Hygiene SOP
• Decontamination of equipment and the environment (including the use of single-use and single-patient use items.
• Outbreak SOP

Patient Information Leaflet
• Washing clothes at home
• Prevention and control of infection

Decontamination
• SOP Decontamination of Transoesophageal Echocardiograph (TOE) Probes (V1)

IPC Care Plans
• MRSA Care Plan
• MRSA (MHS) Care Plan
• Influenza Care Plan
7. GOVERNANCE AND ACCOUNTABILITY

NHSGGC Bi-monthly HAI report

NHSGGC Board Clinical Governance Forum and the Acute Services Committee continue to receive bi-monthly reports on key performance indicators on healthcare associated infections.

These reports are designed to:

- Ensure visibility on HAI data and issues for the NHS Board, Clinical Governance Forum, Acute Services Committee and Infection Control Committee members.
- Facilitate assurance and awareness around HAI prevalence within NHSGGC.
- Demonstrate performance against Infection Control HEAT targets, mandatory surveillance programmes and agreed key performance indicators (KPIs).
- Place hospital specific information on HAIs in the public domain in the context of an open Board meeting and on the Board website thereafter.

**Governance Relating to Infection Prevention and Control within Acute Operating Division**

Each of the acute directorates receives comprehensive monthly reports on key performance indicators on HAI. Infection Prevention & Control is a standing agenda item on each Sector/Directorate’s Senior Management Team and/ or Governance Forums and Infection Prevention & Control elements are integrated within the Performance Review process within the Acute Operating Division. A Lead Infection Prevention & Control Nurse and Infection Prevention & Control Doctor are aligned to each of the sectors/directorates. Each ward and department receives monthly Statistical Process Control Charts or interval charts for MRSA and CDI together with regular IPCAT audit reports and hand hygiene compliance data.

**Governance Relating to Infection Prevention and Control within Partnership Organisations.**

The Partnership Infection Control Support Group (PICSG) oversees the implementation of the NHSGGC Infection Prevention & Control Programme within non-acute service delivery areas.
During 2015/16 the group continued to develop and monitor progress against a specific action plan for Infection Prevention and Control within Partnership services.

Specific governance arrangements within our Partnership organisations during 2015/16 are:-

- Governance for non-acute inpatient beds is affected and overseen through the Director of Nursing for Mental Health Services.
- Accountability for Infection Prevention and Control within Health & Social Care Partnerships (HSCPs) rests with local managers.
- The Director of Nursing for Mental Health Services chairs PICSG and represents PICSG at BICC.
- Each HSCP has a nominated member of their Senior Management Team as their lead for HAI and representative on PICSG.
8. EDUCATION

The Infection Prevention & Control Team (IPCT) within NHSGGC continues to provide a comprehensive programme of education and training in Infection Prevention and Control. The NHS Greater Glasgow & Clyde (NHSGGC) Board Infection Control Committee recognises that there are significant risks to patients, healthcare workers (HCWs) and visitors as a consequence of Healthcare Associated Infection (HAI). These risks necessitate a specific Infection Prevention and Control (IPC) Education Strategy to educate the workforce and to ensure that the knowledge of the workforce on infection prevention and control is sufficient to prevent and minimise as far as possible, the risks of all HAI as a consequence of inadequate education. The IPC Education Group has representation from all 5 Infection Prevention & Control Teams and an Infection Prevention & Control Doctor and the group’s role includes reviewing current, and developing new training packages for delivery across all of NHSGGC.

Cleanliness Champions Programme

The Cleanliness Champions Programme is part of the Scottish Government’s Action Plan to combat Healthcare Associated Infection (HAI) within NHS Scotland. The programme is primarily web-based but can be completed via hard copy and is designed to be self-directed with mentorship support. Based on Standard Infection Control Precautions, it focuses on safe practice and safe environment and sits within a wider educational framework for HAI within NHS Scotland. NHSGGC has a total of 3295 members of staff who have completed this training programme.

In 2015, NES and the Cleanliness Champions Programme (CCP) Management Group agreed that the current CCP should be updated to reflect current learning needs by rebranding, refreshing and re-designing a new IPC education programme. The content of the former CCP will be completely re-designed to form different parts of a new National Infection Prevention & Control Education Pathway and will align with the National Infection Prevention and Control Manual. A three year programme of work commencing 2015/16 has been planned.
NHSGGC continue to be represented on both the NES Cleanliness Champion Management Group and Editorial Group. This allows NHSGGC educational needs to be addressed through the national groups.

**Learn Pro**

Staff can access NHSGGC Infection Prevention & Control education modules on-line via Learn Pro. NHS Education for Scotland (NES) continues to provide Infection Prevention & Control education packages via this platform.

The Infection Prevention Control Team supports delivery of this education through the ongoing updating of education resources to reflect current policy and available evidence.

**Induction & Face to Face Training**

The Infection Prevention & Control Teams developed a standard induction presentation which is delivered across the Acute Division as part of NHSGGC mandatory training.

In addition Infection Prevention & Control Teams in all hospital sites provide education locally both independently and with other partners, e.g. Practice Development to all grades of staff within NHSGGC. Members of the Infection Prevention & Control Teams also provide education to undergraduate medical and nursing students throughout Glasgow and Clyde and also provide training opportunities for volunteers working within NHSGGC premises.

**Mandatory Education Update Training**

This course was developed in 2010/11 and is now in the second cycle, and delivers mandatory update training across the Acute Division. Infection Prevention & Control is a core part of this training and has been supporting its delivery since its launch. The Infection Prevention & Control Team is represented on the NHSGGC Service Leads Group hosted by Learning & Education.
Infection Prevention & Control Education Strategy

The NHS HAI Education Strategy was updated in February 2015 to take cognisance of recommendations of the Vale of Leven Inquiry Report (Recommendation 60) and the revised Health Improvement Scotland HAI Standards (Standard 2).

The role of the strategy is to ensure that the NHSGGC workforce has a sufficient knowledge to ensure they can practise safely, preventing and minimising the risks of HAI to their patients, the general public, their co-workers and themselves.

All HCWs are required to attend a generic induction programme; however, specific and additional infection prevention & control programmes are necessary depending on; the profession of the individual HCW and, the location in which the professional is to work. Infection Prevention & Control have developed a single system induction checklist which will facilitate the Manager / Reviewer through this process and an HAI Education Matrix lists the mandatory and recommended HAI modules which staff should undertake and update 3-yearly. The NHS HAI Education Strategy was updated to include Health & Social Care Partnerships (Mental Health & Community).

Number of Learnpro Modules (01/04/15 – 31/03/16)

<table>
<thead>
<tr>
<th>LearnPro Module</th>
<th>Nursing &amp; Midwifery</th>
<th>Medical Staff</th>
<th>Allied Health Professionals</th>
<th>Ancillary</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness Champions</td>
<td>60</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>63</td>
</tr>
<tr>
<td>Clostridium Difficile (Clinical scenario)</td>
<td>1113</td>
<td>6</td>
<td>22</td>
<td>22</td>
<td>1163</td>
</tr>
<tr>
<td>Clostridium Difficile Online tutorial</td>
<td>1579</td>
<td>7</td>
<td>37</td>
<td>41</td>
<td>1664</td>
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<tr>
<td>HAI Clinical Induction</td>
<td>2170</td>
<td>42</td>
<td>70</td>
<td>129</td>
<td>2411</td>
</tr>
<tr>
<td>Helping patients cope with isolation in hospital</td>
<td>596</td>
<td>1</td>
<td>15</td>
<td>7</td>
<td>619</td>
</tr>
<tr>
<td>Hospital Outbreak Management</td>
<td>723</td>
<td>3</td>
<td>4</td>
<td>12</td>
<td>742</td>
</tr>
<tr>
<td>IPC Influenza</td>
<td>2670</td>
<td>42</td>
<td>219</td>
<td>237</td>
<td>3168</td>
</tr>
<tr>
<td>Aseptic Technique</td>
<td>1524</td>
<td>15</td>
<td>18</td>
<td>36</td>
<td>1593</td>
</tr>
<tr>
<td>Recognising Surgical Site Infection (C-sec)</td>
<td>262</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>275</td>
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<tr>
<td>Recognising Surgical Site Infection</td>
<td>453</td>
<td>8</td>
<td>3</td>
<td>6</td>
<td>470</td>
</tr>
<tr>
<td>IPC Standard Infection Control Precautions</td>
<td>3466</td>
<td>127</td>
<td>496</td>
<td>671</td>
<td>4760</td>
</tr>
<tr>
<td>IPC Statistical process Control Charts</td>
<td>1024</td>
<td>26</td>
<td>149</td>
<td>122</td>
<td>1321</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15640</strong></td>
<td><strong>282</strong></td>
<td><strong>1036</strong></td>
<td><strong>1291</strong></td>
<td><strong>18249</strong></td>
</tr>
</tbody>
</table>
9. **DECONTAMINATION**

NHSGGC is required to comply with national directives/standards for the decontamination of re-usable Medical Devices

**Central Decontamination Units**

There are three Central Decontamination Units processing surgical instruments within NHSGG&C. These are located at Cowlairs in Glasgow, Inverclyde in Greenock and Glasgow Dental Hospital.

All units are accredited BS EN ISO 13485:2003 Quality Management and Medical Devices Directive (MDD)93/42/EEC units. All reusable surgical instruments used in Acute sites in Glasgow are processed in Cowlairs Central Decontamination Unit. All reusable surgical instruments used in Acute sites across the Clyde Sector are processed at Inverclyde Central Decontamination Unit. All surgical instruments used within Glasgow Dental Hospital are processed within the onsite facility.

The Decontamination Service Governance arrangements are supported by a range of local site groups and a Steering Group. These Groups are only effective if all Directorates attend and input to them to highlight how the service can be developed.

**Decontamination in Primary Care**

Glasgow Dental Hospital Decontamination Unit continues to provide services for 14 Community dentists. Podiatry Services have moved to single use disposable products. Services to Greenock prison continue from Inverclyde CDU.

**Decontamination of Flexible Endoscopes**

A Sub-Group of Senior Management Team, chaired by the Director of Facilities, oversees the implementation of the draft HPS Technical Requirements for the processing of flexible endoscopes.
Flexible Endoscopes are decontaminated within local Endoscopy Suites or in centralised Endoscopy Reprocessing Units (ERU) located within each Acute sites.

All locations within NHSGG&C have departments which meet new current regulations. These are New Stobhill Hospital, New Victoria Infirmary Hospital, Vale of Leven, Glasgow Royal Infirmary, Inverclyde Royal Hospital, Gartnavel General Hospital, Royal Alexandra Hospital and Queen Elizabeth University Hospital.

A NHSGGC sub-group has been established to monitor the water quality for all the endoscopy units and standard operating procedures have been created to address any issues that may arise. This has standardised the processes throughout NHSGGC. This group report to the Decontamination sub-group.

The NHSGGC decontamination sub group continues to address any decontamination issues outwith the areas of endoscopy and central decontamination of instruments. The remit of the group is:-

- To provide technical expertise and a consensus on the ideal best practice of decontamination for any given issues.
- To participate and assist in risk assessments by NHSGGC on decontamination issues.
- A dedicated e-mail address has been established to allow staff to contact the decontamination sub-group. A webpage within the NHSGGC Infection Prevention & Control site allows responses to queries to be centrally stored and available to all staff.
10. **HEI : HEALTHCARE ENVIRONMENT INSPECTORATE**

**Healthcare Environment Inspectorate – Summary of Visits**

**Background**

The Healthcare Environment Inspectorate (HEI) within Health Improvement Scotland (HIS), was set up by the Cabinet Secretary for Health and Wellbeing in April 2009 with a remit to undertake a programme of inspections in acute hospitals. The HEI is independent of NHS Boards and reports directly to Scottish Government and Ministers. It carries out both planned and unannounced inspections of hospitals and, for administrative purposes, is based within NHS Healthcare Improvement Scotland. HIS launched the new HAI Standards in February 2015 and subsequently all inspections of healthcare premises have been against these standards.

**From April 2015 to March 2016 NHSGG&C has had 4 unannounced visits:**

- Stobhill ACH 21\(^{st}\) and 22\(^{nd}\) October 2015: 4 requirements and 1 recommendation
- Gartnavel General Hospital 3\(^{rd}\) and 4\(^{th}\) November 2015: 1 requirement and no recommendation
- Royal Alexandra Hospital: 13 and 14 January 2016 – 3 requirements and 1 recommendation
- New Victoria Hospital: 17 and 18 February 2016 – 3 requirements and 1 recommendation.

**Key IPC Themes from Requirements**

- Completion of all elements of the PVC care bundle
- Maintaining patient equipment and general facilities, cleaned and ready for patient use.
- Monitoring of standard infection control precautions.

NHS GGC is required to provide assurance that standard infection control precautions are being implemented by all healthcare staff, in all patients in all healthcare environments. In particular the standard of cleanliness of reusable patient equipment and compliance with the management of blood and body fluid spillage will be monitored.
• This will be provided through the NHS GGC IPCAT audit programme with reporting to sector governance groups.

• SICPs audit tool is embedded as part of SPSP and undertaken by the SCN in acute clinical areas in NHS GGC.

• IPCT continue to audit use of bed space and weekly assurance checklists as part of the IPCAT audit in each clinical area throughout GGC.

• Through the Care Assurance System (CAS) system, IPC link nurses are being developed to support the completion of SICPs audits locally

The inspection reports can be viewed at:
http://www.healthcareimprovementscotland.org
11. **ANTIMICROBIAL MANAGEMENT TEAM**

The Antimicrobial Management Team (AMT) provides Board wide leadership on the safe and cost-effective use of antimicrobials underpinned by surveillance of antibiotic use and compliance with guidelines. Minimisation of the collateral microbial effects of antibiotics such as *Clostridium difficile* and antibiotic resistance are AMT priorities, with a focus on reducing and containing the prescribing of broad spectrum agents whilst providing safe and suitable alternative therapies. The AMT is represented on both the Board Infection Control Committee (BICC) and the Acute Infection Control Committee (AICC) whilst IPC is represented on the Antimicrobial utilisation sub-committee of the Area Drugs and Therapeutics committee. The AMT and antimicrobial pharmacists are actively engaged with the HEI processes.

**Primary Care**

A continued trend towards overall reduction in prescribing has been observed in primary care. The Scottish Government *Clostridium difficile* HEAT target is supported by a primary care antibiotic prescribing target to reduce the number of antibiotics dispensed: 50% of practices to achieve \( \leq 1.8 \) items/1000 patients per day. In 2015 the target was met by 56.4% of practices (59% in 2014). Sustained reductions in prescribing of co-amoxiclav, quinolones and cephalosporins have also been observed in primary care. Primary care prescribing advisers are providing a vital role in supporting GPs in achieving this target.

**Secondary Care**

In secondary care there is a trend in increasing antibiotic use (1,670 DDDs/ 1000 OBDs in Q4 2015). This is likely to be multi-factorial with an increasing proportion of inpatients being treated with antibiotics (observed since 2009), increasing use of recommended combination antibiotic therapy (e.g. amoxicillin + metronidazole + gentamicin) and possibly longer antibiotic courses. Similar trends have been observed throughout NHS Scotland. Local efforts continue to focus on appropriate initiation and rationalisation of antibiotic therapy and promotion of shorter duration treatment when supported by evidence. The trend towards increasing use of co-amoxiclav (to 218 DDDs/ 1000 OBD in Q4 2015) has continued in GGC as well across NHS Scotland.
Particular focussed efforts have been made between December 2015 and February 2016 to promote alternatives to co-amoxiclav whilst acknowledging that it remains an essential antibiotic in general hospital use. There are also ongoing efforts promote alternatives to Piperacillin-tazobactam and Meropenem in view of concerns over future resistance in Gram negative bacteria. Recent data suggest reductions in both Meropenem (from a peak of 23.6 in Q2, 2015 to 18.9 DDDs/ 1000 OBDs in Q4 2015) and Piperacillin–Tazobactam (from 24.1 in Q2 2015 to 21.5 DDDs/ 1000 OBDs in Q4 2015) although it is too early to know if this encouraging reduction will continue. Piperacillin-tazobactam prescribing in GGC remains below the Scottish average whilst Meropenem prescribing is higher than most other boards but equivalent to NHS Lothian. The AMT continues to work with site based teams and through the board’s new clinical governance structure to promote adherence with GGC guidance. Aztreonam is promoted as an alternative anti-Gram negative agent to spare carbapenem use in secondary care. Its use has already increased to approximately 19.1 DDDs/ 1000 in Q4 2015 from 8.1 DDDs/ 1000 OBDs in Q4 2014. Recent supply problems with this agent has led to the introduction of Temocillin into more empirical use (as a carbapenem alternative) and it is anticipated that increase in use will be observed in 2016. Temocillin use also continues to be promoted by infection specialists as an alternative when ESBL infection has been diagnosed.

Prescribing indicators for the Scottish Government Clostridium difficile HEAT target for GGC hospitals are shown below. The prescribing target for hospitals has focussed on antibiotic review in downstream medical wards since 2014 in addition to adherence to guidance for pre-operative surgical prophylaxis. A particular focus has been to limit the duration of antibiotic therapy, a key antimicrobial stewardship initiative. Steady improvement against the new downstream targets has been observed but recording of proposed duration of antibiotic therapy remains challenging. Good adherence to surgical prophylaxis guidance has been observed in orthopaedic surgery and there have been significant improvements, due to collaborative efforts between clinicians and antimicrobial pharmacists, in plastic surgery (data not shown). The vital role of the site-based Antimicrobial pharmacists in collecting and feeding back data to local clinical teams to drive quality improvement must be emphasised.
### Summary statistics for Primary and Secondary care prescribing indicators supporting the Scottish Government *Clostridium difficile* HEAT target

<table>
<thead>
<tr>
<th>Source/Clinical sites</th>
<th>Indicator</th>
<th>Target</th>
<th>GGC (achieving target)</th>
<th>National median (Boards achieving target)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary Care data 2015</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All GP practices</td>
<td>&lt;1.8 items/1000 patients / day by March 15</td>
<td>50% practices</td>
<td>56.4% (Yes)</td>
<td>53.3% (7/14 boards)</td>
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<tr>
<td><strong>Secondary Care data from June 2015 until January 2016</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Orthopaedic Surgery</td>
<td>Single dose antibiotic prophylaxis (median monthly score)</td>
<td>≥95%</td>
<td>100% (Yes)</td>
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<tr>
<td>Orthopaedic Surgery</td>
<td>Compliant with local policy (median monthly score)</td>
<td>≥95%</td>
<td>100% (Yes)</td>
<td>Not currently available</td>
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<tr>
<td>Downstream Medical Wards</td>
<td>Indication for antibiotic recorded (median monthly score)</td>
<td>≥95%</td>
<td>100% (Yes)</td>
<td>Not currently available</td>
</tr>
<tr>
<td></td>
<td>Choice as per guidance</td>
<td>≥95%</td>
<td>97% (Yes)</td>
<td>Not currently available</td>
</tr>
<tr>
<td></td>
<td>Duration recorded</td>
<td>≥95%</td>
<td>65% (No)</td>
<td>Not currently available</td>
</tr>
<tr>
<td></td>
<td>All doses given</td>
<td>≥95%</td>
<td>93% (No)</td>
<td>Not currently available</td>
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<tr>
<td>Downstream Surgical Wards</td>
<td>Indication for antibiotic recorded (median monthly score)</td>
<td>≥95%</td>
<td>97% (Yes)</td>
<td>Not currently available</td>
</tr>
<tr>
<td></td>
<td>Choice as per guidance</td>
<td>≥95%</td>
<td>90% (No)</td>
<td>Not currently available</td>
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<td>Duration recorded</td>
<td>≥95%</td>
<td>30% (No)</td>
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</tr>
<tr>
<td></td>
<td>All doses given</td>
<td>≥95%</td>
<td>90% (No)</td>
<td>Not currently available</td>
</tr>
</tbody>
</table>
12. SCOTTISH PATIENT SAFETY PROGRAMME

SPSP programmes with an infection control element.

Sepsis
All acute unscheduled care receiving areas will be included which is estimated at twenty teams in total. The next step for roll-out is at the QEUH Emergency and Receiving unit.

The work stream is monitored through the Deteriorating Patient Steering Group. Reports are also tabled six monthly at the Acute Clinical Governance Committee.

There are two sepsis measures reported nationally;

- compliance with the bundle and
- time to administer first dose of antibiotic

Front line teams collect measures on a spreadsheet and send data in centrally. Three teams have shown a capable process as they have achieved at least 95% on one occasion (IRH, 4B1QEUH, B7WOSCC). Three teams have achieved sustained reliability and are now on quarterly data return (RAH, VOL, B6WOSCC).

Paediatric & Neonates
The Paediatric Intensive Care Unit has sustained reliability in Ventilator Associated Pneumonia (VAP) and Central Line processes with a reduction in infections (outcome data) also evident.

The central line insertion work is spreading formally to theatres who are currently testing; the maintenance process has now spread to 8 wards.

Within neonates all units are reporting a reliable process in relation to central line maintenance, however the outcome measures show that in the PRM that SABS are still occurring. Discussion is underway to address this and to identify future priorities for SPSP.
CAUTI

Background
CAUTI is one of the original 9 point of care priorities within the Scottish Patient Safety Programme (SPSP) Acute Adult, and also one of the 4 harms of the Scottish Patient Safety Indicator (SPSI). SPSP embarked on a national programme to ensure reduction in CAUTI across NHSScotland. The aim was to reduce Catheter Associated Urinary Tract Infections (CAUTI) by 30% by end December 2015. CAUTI insertion and maintenance bundles were introduced as part of the change package for this priority area. The measurement plan included both process and outcome measures for CAUTI.

‘CAUTI’ was defined as: Urinary Catheter In situ or removed within previous 48 hours plus fever (Temp <36 C or >37.9 C or 1.5> baseline on 2 occasions in last 12 hours). Plus one or more of the following:
• Shaking chills (rigors)
• New costovertebral (central lower back) tenderness
• New onset or worsening delirium (confusion)
And on antibiotics for treatment of UTI'

NHSGGC appointed two HAI Quality Improvement Facilitators (HAI-QIFs) between 2014 – 16, who primarily focussed on the implementation and roll out of the Acute Adult Safety Programme Catheter Associated Urinary Tract Infection (CAUTI) indicator as defined by the joint collaborative Safe Patient Safety Programme (SPSP) and Healthcare Improvement Scotland (HIS).

The HAI-QIFs successfully completed the Scottish Skills Quality Improvement Facilitator course during this time. The process and outcome measures associated with this work stream were:

CAUTIP1: Percent compliance with UUC (urethral urinary catheter) Insertion Bundle
CAUTIP2: Percent compliance with UUC (urethral urinary catheter) Maintenance Bundle
CAUTIO2: CAUTI Rate – per 1000 urethral urinary catheter days
Achievements in NHS GGC

By April 2016, 184 adult acute wards across 8 sites in NHS GGC were engaged in the CAUTI programme (Table 1) and had received training on the definition of CAUTI, the use of the CAUTI insertion and maintenance care plans and the completion of the CAUTI safety cross.

<table>
<thead>
<tr>
<th>Sector / Directorate</th>
<th>Target</th>
<th>No. Teams engaged</th>
<th>% team engaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>51</td>
<td>51</td>
<td>100%</td>
</tr>
<tr>
<td>South</td>
<td>66</td>
<td>47</td>
<td>71%</td>
</tr>
<tr>
<td>Clyde</td>
<td>53</td>
<td>53</td>
<td>100%</td>
</tr>
<tr>
<td>Regional</td>
<td>30</td>
<td>30</td>
<td>100%</td>
</tr>
<tr>
<td>W&amp;C</td>
<td>3</td>
<td>3</td>
<td>100%</td>
</tr>
<tr>
<td>Acute</td>
<td>203</td>
<td>184</td>
<td>91%</td>
</tr>
</tbody>
</table>

Table 1.  No. of teams engaged with CAUTI programme against target

CAUTI rate

By April 2016, 140 wards were in a position to submit reliable process and outcome data on CAUTI. The final published data on CAUTI for April 2016, reported to the Acute Clinical Governance Committee in May 2016 was:

- Total number of CAUTI: 7
- Total number of urinary catheter days: 10298
- CAUTI rate per 1000 UUC days: 0.7

Bladder Scanner Survey

A survey of bladder scanner use and availability was undertaken and findings reported at the Acute Clinical Governance meeting on 16th November 2015. Wards without access to bladder scanners were identified and highlighted to Directors for action.

CAS CAUTI link nurse scheme

A second work scheme was developed by the HAI-QIFs in NHS GGC to provide support in the development of the CAS CAUTI standards and evidence base. The training of CAUTI link nurses has been started with the intention that the CAUTI SPSP work has continuing support at ward level. A series of CAUTI education Web-Ex have been successfully provided to link nurses across the whole of NHSGGC.
The successful work undertaken by the HAI-QIFs throughout NHS GGC was shared nationally with poster presentations at:

- Scottish Patient Safety Programme (SPSP) Quality Improvement in HAI – looking to the future and building on the success of the QIF role;
- SPSP - Integrating Safety across Safety: Compassion, Connection, Community;
- SPSP Acute Adult Learning Session West - Radisson Blu, Glasgow.
13. FACILITIES

CLEANING SERVICES

In the published results for the National Cleaning Specification and National Monitoring Framework, NHSGGC has consistently scored green within the Domestic Framework for 2015/16.

The Estates Tool overall score for NHSGGC scored green for 2015/16. Focus has been maintained in investment on HAI related issues and the built environment. The current focus of attention within Facilities continues to be continuous quality improvement initiatives.

Initiatives worked on during 2015/16 include:

• Roll out at QEUH of Dynamic Risk Assessment model and a revised Domestic Services delivery model in the adults and children’s hospitals to include discharge cleaning.
• Commencement of Estates Action Learning Sets to address operational issues and challenges.
• Continuation of a Domestic Supervisors Action Learning Set to address operational issues and challenges.
• Participation in the ongoing review of National Cleaning Specification.
• Risk Assessment roll out of non conforming HAI Scribe issues.
14. **PATIENT EXPERIENCE**

Patient Experience, formerly known as Public Focus, Patient Involvement, remains a key priority area within the Infection Prevention and Control programme, with public members continuing to participate fully in the Board Infection Control Committee and Partnerships Infection Control Support Group. The Board approved a number of key objectives around Patient Experience for 2015/2016 which were developed in association with our public partners. Activities embedded within our programme have been developed to ensure that the NHS Board responsibilities of participation in all three aspects of the Scottish Government Participation Standard within the Infection Control Service are met.

At the start of the year a member of the Infection Prevention and Control Team, leading on Patient Experience initiatives, sat on the Patient Experience Steering Group. The purpose of this is to ensure that:

1. Our Public partners continue to participate in the development of the infection control programme on new and revised policies, standard operating procedures and to participate in the development of new patient information leaflets.
2. Our public partners are routinely consulted on initiatives e.g. new hospital projects.

A member of the Infection Prevention and Control Team also works closely with facilities and community engagement staff to ensure that:

1. Members of the public are educated on key standards and practices in infection control including use of audit tools for hand hygiene and monitoring of key policies.
2. Public partners who participate on monitoring projects including cleaning services standards are provided with information to enable full participation in these processes.
Infection Prevention & Control Person Centred Care Group

A NHSGGC Infection Prevention and Control Person Centred Care Group was set up in 2013 led by a Lead Infection Prevention & Control Nurse. The group have this year undertaken an Infection Prevention & Control Service Evaluation.

An Infection Prevention & Control Service satisfaction questionnaire was sent to each acute ward in NHSGGC to enable the Infection Prevention & Control Service to evaluate the service provided and comment on any areas which could be improved. The questionnaire was anonymised and we requested that it was completed by the Senior Charge Nurse, a Staff Nurse and a Nursing Auxiliary within each ward, i.e. 768 questionnaires were sent out throughout NHSGGC and 424 (55%) questionnaires were returned. A copy of the full report is available on request.
15. **RESEARCH**

Members of the NHSGGC Infection Prevention & Control Team have participated in a number of research projects relating to the management and control of infectious disease in 2015-2016

**Published papers**


- Deshpande A, Smith GW, Smith AJ. Biofouling of surgical power tools during routine use. Journal of Hospital Infection 2015; 90:179-85


**Posters/Abstracts**

33rd Annual Meeting of the European Society for Paediatric Infectious Diseases (ESPID), 12th-16th May 2015, Leipzig, Germany

1. Atypical Mycobacteria in paediatric Cystic Fibrosis patients: Examining changes in colonization rates and strain distribution. C. Lucas, C. Williams, A. Balfour
2. Discriminatory power of MALDI-TOF Diagnostics for paediatric Cystic Fibrosis

**Focus 2015; National Meeting of the Association for Clinical Biochemistry, 8th -11th June 2015, Cardiff, UK**

1. Point of Care Testing (POCT) for Respiratory Synctial Virus (RSV) in paediatric patients and audit of a clinical care pathway.
   K. Harvey-Wood, A. Balfour, A. Burns, H. Dunlop, C. Williams

**NHSScotland 2015, 23rd-24th June 2015, Glasgow, UK**

1. Audit of Impact on Service Provision following Introduction of Molecular Diagnostics for Superficial Fungal Infections
   G. Shankland, K. Harvey-Wood, A. Balfour, F. Conlon, L. Brown

**Federation of Infection Societies (FIS) 2015, 21-23rd November 2015, Glasgow SECC, UK**

1. Comparison of methodologies for testing Temocillin against Cystic Fibrosis strains of Burkholderia cepacia complex
   A. Mcgeoch, C. Lucas, A. Balfour

**Infection Prevention Society Scottish Branch Conference 2015, 29th October, Glasgow, UK**

1. Patient Centred Care: The Experience of Patients in Isolation with *Clostridium difficile* Infection or *Meticillin Resistant Staphylococcus Aureus*
   J. Barmanroy, C. Brown, S. Dodd, A. Gallagher, M. Hay, J. Higgins, L Macready

   J. Barmanroy, S. Dodd, A. Gallagher, M. Hay, J. Higgins, L Macready, E. Paterson, J. Whelan
ECCMID 2016, 9th – 12th April 2016, Amsterdam

1. Antimicrobial management of MRONJ: Where's the evidence?  
   *McDonald James, Smith A, Changez H*

2. Moraxella *osloensis*: A singly centre study analysing increasing prevalence and potential role in disease  
   *Dhillon R; Hamilton K, Changez H*

**Presentations**


**Dissertations**

Risk Assessment and the Use of Gloves and Aprons in Clinical Practice – D McConnell. Submitted for MSc Infection Control.

What are the risk factors associated with PCP amongst renal transplant recipients – S Dodd. Submitted for MSc Infection Control.
16. **EMERGING PATHOGENS**

**Antimicrobial resistance**

The spread of antimicrobial resistance (AMR) remains a major public health concern. In 2013 the UK Department of Health published its five year antimicrobial resistance strategy.

Challenges to achieving the goals of the strategy include:

- Lack of integration of the approach to infection control and antimicrobial prescribing in hospital and community settings (including care homes as hot spots) as antimicrobial resistance develops and spreads in all of these settings.

- Lack of understanding of the background levels of AMR in the general population (colonisation rates and percentage who develop infection).

The IPCT will continue to work closely with the antimicrobial management teams in adults and paediatrics to ensure that IPC systems are collecting the appropriate alert organisms to underpin these processes and with Public Health to ensure optimal management of infection in community settings. Screening will commence in NHSGGC shortly for Carbapenemase Producing Organisms (CPE) and Carbapenem Resistant Organisms (CRO).

**Viral haemorrhagic fever**

The ongoing outbreak of Ebola virus disease in West Africa reminds us of the role global travel can play in the rapid spread of disease. Of concern is that other “exotic” infections such as Crimea Congo Haemorrhagic fever (CCHF) could become endemic in parts of Europe.

Turkey and Balkan countries with the exception of Greece have recorded circulation of CCHF strains among animal hosts, ticks, and humans, and have established CCHF endemicity.
The establishment and maintenance of a CCHF endemic focus requires an environment favouring an efficient contact between competent ticks and animal hosts with relatively high prevalence of infection. Recent studies reveal that Hyalomma ticks are abundant in northern Greece, possibly due to the increased (by approximately 2 °C) mean temperatures and mean maximum temperatures in this area during the last 25 years as such it is not possible to exclude the possibility of CCHF becoming endemic in that Greece.

Levels of preparedness achieved for the recent Ebola outbreak need to be maintained over time to cope with this threat.

**Non-tuberculous myobacteria (NTM)**

1) *Mycobacterium abscessus*

   In recent years there has been an increasing number of NTM infections in patients with cystic fibrosis. The most common pathogen is the multi drug resistant *Mycobacterium abscessus* which can lead to severe destructive lung disease and disseminated infection. *M.abscessus* is an environmental organism found in water and soil. Recent evidence suggests cross transmission between patients can occur. The Cystic Fibrosis trust has produced infection control guidelines which are currently under consultation. NHSGGC ICT will work with paediatric and adult cystic fibrosis colleagues to further develop infection control policy in this area.

2) *Mycobacterium chimaera*

   A small number of patients have developed endocarditis and or bacteraemia due to NTM following cardiac surgery where cardiac bypass was used. Most infections have been due to *M.chimaera*. Symptoms may be slow to manifest in patients occurring many months after transmission. The source of contamination is colonisation of the water used in heater coolers. Guidance recommends sampling of heater cooler devices and ensuring processes are in place for cleaning and disinfection of these devices. These are in place in NHSGGC.
**Elizabethkingia anoephilis**

Recent outbreaks of *Elizabethkingia anoephilis* bacteraemia have occurred in the US. *E. anoephilus* is a Gram negative pathogen found in the environment. The majority of patients in the US outbreaks have been > 65 yrs old with underlying co morbidities. A source is yet to be established. Improved laboratory diagnostics will lead to increased detection of these and other environmental Gram negative organisms some of which may colonise hospital water supplies.

**Pneumocystis jirovecii (PCP)**

Pneumocystis jirovecii (PCP) is an emerging pathogen in the renal transplant population. Several outbreaks have been reported in the UK. Whilst PCP infection in this patient group was thought to be due to reactivation evidence has emerged to support cross transmission in the hospital setting. Outpatient renal transplant clinics have been postulated as the setting in which cross transmission might occur.
LOOKING FORWARD:-- 2016/2017

NHSGGC will continue the focused priority afforded to Infection Prevention & Control related issues during 2016/17.

Key challenges will include:-

- The reconfiguration of acute hospital services and the creation of Health and Social Care Partnerships.
- The National HEAT Target for SABs for a reduction to 24 cases or less per 1000 AOBDs by 31st March 2017.
- The ongoing cycle of HEI inspections and the implementation of the revised HIS HAI Standards.
- Maintaining the current low levels of CDI within NHSGGC to deliver the 2017 HEAT Target.
- Supporting link nurses involved in Care Assurance System.
- National Prevalence Study.
- Implementing SSI surveillance in vascular and colorectal surgery.
- Implementing E-Coli Bacteraemia Surveillance.
- Implementing CPE Screening.

Whilst operating within the challenging financial environment facing NHS Scotland and NHS Greater Glasgow and Clyde in 2016 and onwards.

Tom Walsh
Board Infection Control Manager
NHSGGC
May 2016
## GLOSSARY

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>AICC</td>
<td>Acute Infection Control Committee</td>
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<tr>
<td>AMR</td>
<td>Annual Management Review</td>
</tr>
<tr>
<td>AMT</td>
<td>Antimicrobial Management Team</td>
</tr>
<tr>
<td>AOBDs</td>
<td>Acute Occupied Bed Days</td>
</tr>
<tr>
<td>BICC</td>
<td>Board Infection Control Committee</td>
</tr>
<tr>
<td>CAUTI</td>
<td>Catheter Associated Urinary Tract Infection</td>
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<td>CCHF</td>
<td>Crimea Congo Haemorrhagic Fever</td>
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<td>CCP</td>
<td>Cleanliness Champions Programme</td>
</tr>
<tr>
<td>CDI</td>
<td><em>Clostridium difficile</em> Infection</td>
</tr>
<tr>
<td>CEL</td>
<td>Chief Executive Letter issued by Scottish Government Health Directorates (SGHD)</td>
</tr>
<tr>
<td>CPE</td>
<td>Carbapenemase Producing Enterobacteriaceae</td>
</tr>
<tr>
<td>CRO</td>
<td>Carbapenem Resistant Organism</td>
</tr>
<tr>
<td>CVC</td>
<td>Central Vascular Catheter</td>
</tr>
<tr>
<td>HAI</td>
<td>Originally used to mean hospital acquired infection, the official ‘Scottish Government’ term is now Healthcare Associated Infection. These are considered to be infections that were not incubating prior to contact with a healthcare facility or undergoing a health-care intervention. It must be noted that HAI infection is not always an avoidable infection.</td>
</tr>
<tr>
<td>HAIRT</td>
<td>Healthcare Associated Infection Reporting Template</td>
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<td>Healthcare Worker</td>
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<td>HDL</td>
<td>Health Department Letter</td>
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<td>Healthcare Environment Inspectorante</td>
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<td>Healthcare Improvement Scotland</td>
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<td>IPCAT</td>
<td>Infection Prevention &amp; Control Audit Tool</td>
</tr>
<tr>
<td>IPCT</td>
<td>Infection Prevention &amp; Control Team</td>
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<tr>
<td>KPI</td>
<td>Key Performance Indicator</td>
</tr>
<tr>
<td>LanQIP</td>
<td>Lanarkshire Quality Improvement Portal</td>
</tr>
<tr>
<td>LHBC</td>
<td>Local Health Board Co-ordinator</td>
</tr>
<tr>
<td>MRSA</td>
<td>Meticillin Resistant <em>Staph aureus</em> Bacteraemias</td>
</tr>
<tr>
<td>MSSA</td>
<td>Meticillin Sensitive <em>Staph aureus</em> Bacteraemias</td>
</tr>
<tr>
<td>NES</td>
<td>NHS Education for Scotland</td>
</tr>
<tr>
<td>NTM</td>
<td>Non-tuberculous myobacteria</td>
</tr>
<tr>
<td>OBD</td>
<td>Occupied Bed Days</td>
</tr>
<tr>
<td>PVC</td>
<td>Peripheral Vascular Catheter</td>
</tr>
<tr>
<td>QA</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td>QIF</td>
<td>Quality Improvement Facilitator</td>
</tr>
<tr>
<td>RSV</td>
<td>Respiratory Syncytial Virus</td>
</tr>
<tr>
<td>SABs</td>
<td>Staphylococcus Aureus Bacteraemia</td>
</tr>
<tr>
<td>SCN</td>
<td>Senior Charge Nurse</td>
</tr>
<tr>
<td>SGHD</td>
<td>Scottish Government Health Directorates</td>
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<tr>
<td>SICPs</td>
<td>Standard Infection Control Precautions</td>
</tr>
<tr>
<td>SOP</td>
<td>Standard Operating Procedure</td>
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<tr>
<td>SPE</td>
<td>Safe Patient Environment</td>
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<td>SPSP</td>
<td>Scottish Patient Safety Programme</td>
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<tr>
<td>SSI</td>
<td>Surgical Site Infection</td>
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<tr>
<td>TBP</td>
<td>Transmission Based Precautions</td>
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<tr>
<td>VAP</td>
<td>Ventilator Associated Pneumonia</td>
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<tr>
<td>4c ANTIBIOTICS</td>
<td>Cephalosporins, Co-amoxiclav, Ciprofloxacin (and the other quinolones) and Clindamycin</td>
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