Healthcare Associated Infection Reporting Template (HAIRT)

Recommendation:

The NHS Board is asked to note the latest 2 monthly report on HAI within NHSGGC

INTRODUCTION

The attached HAI report is the latest of the regular two monthly reports to NHS Board as required by the National HAI Task Force Action Plan. The report presents data on the performance of NHSGGC on a range of key HAI indicators at National and individual hospital site level.

This is a revised template as specified by the Scottish Government.
Healthcare Associated Infection Reporting Template (HAIRT)

Section 1 – Board Wide Issues

This section of the HAIRT covers Board wide infection prevention and control activity and actions. For reports on individual hospitals, please refer to the ‘Healthcare Associated Infection Report Cards’ in Section 2.

A report card summarising Board wide statistics can be found at the end of section 1

Key Healthcare Associated Infection Headlines for December 2010

This is the second publication of the revised reporting template for submission to the NHS Board as required by the national HAI Action Plan.

Appendix 1 contains Statistical Process Control Charts (SPC) for nine of the Acute Hospitals within NHSGGC. These contain data on Hospital Acquired Meticillin Resistant Staphylococcus Aureus (MRSA) & Clostridium difficile infections at hospital level. An explanatory text on how to interpret SPCs is also included.

- In 2007 the Scottish Government Health Directorates issued an Local Delivery Plan (LDP) HEAT target in relation to Staphylococcus aureus Bacteraemias (SABs) which required NHSGGC to reduce SABs by at least 35% by April 2010. This target has been achieved. In 2010 this target was extended by an additional 15% reduction to be achieved by the end of March 2011. We are maintaining steady progress towards this target.

- The National Report published September 2010 (April-June 2010) shows the rate of C. difficile within NHSGGC as 0.37 per 1000 occupied bed days and clearly places the Board below the national mean (0.46 per 1000 OBDs in over 65s) and also below the 0.6 per 1000 OBD updated HEAT target for 2011.

- The Surgical Site Infection rates in monitored procedures, for the last available quarter of 2010, remain below the national average for all categories.

- 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. To date NHSGGC have supported 2136 members of staff who are now registered Cleanliness Champions.
Staphylococcus aureus (including MRSA)

Staphylococcus aureus is an organism which is responsible for a large number of healthcare associated infections, although it can also cause infections in people who have not had any recent contact with the healthcare system. The most common form of this is Meticillin Sensitive Staphylococcus Aureus (MSSA), but the more well known is MRSA (Meticillin Resistant Staphylococcus Aureus), which is a specific type of the organism which is resistant to certain antibiotics and is therefore more difficult to treat. More information on these organisms can be found at:

Staphylococcus aureus: [http://www.nhs24.com/content/default.asp?page=s5_4&articleID=346](http://www.nhs24.com/content/default.asp?page=s5_4&articleID=346)

MRSA: [http://www.nhs24.com/content/default.asp?page=s5_4&articleID=252](http://www.nhs24.com/content/default.asp?page=s5_4&articleID=252)

NHS Boards carry out surveillance of Staphylococcus aureus blood stream infections, known as bacteraemias. These are a serious form of infection and there is a national target to reduce them. The number of patients with MSSA and MRSA bacteraemias for the Board can be found at the end of section 1 and for each hospital in section 2. Information on the national surveillance programme for Staphylococcus aureus bacteraemias can be found at:


NHSGGC MRSA Screening Project

Last year the Scottish Government initiated a national plan to screen all elective patients for MRSA prior to or on admission and all emergency admissions to Vascular, Renal, Dermatology and Care of the Elderly. The aim of the project is to reduce the number of patients being admitted into hospital with colonised with MRSA to prevent further cross patient colonisation or infection. The deadline set for the implementation of targeted screening was the 31st January 2010.

The MRSA Screening Project Team developed a phased rollout across the board to ensure completion by the target date. The screening team have reported that all areas outlined in the project plan are now screening for MRSA prior to or on admission and the team are now carrying out local audit to measure compliance. The introduction of targeted screening will mean that GGC will process approximately 86,000 additional screens for MRSA per year.

Enhanced surveillance methodology in relation to MRSA/MSSA bacteraemias has been reviewed and amended and this programme has been re launched in July 2010. This will give NHSGGC vital information with regards to where and why these types of infections are occurring. In addition Pareto charts have been developed for directorates and this provides a visual representation as to where the potential ‘hot spots’ may be. All this information allows us to target appropriate interventions. Representative from each directorate review this information and plan strategies to prevent avoidable infections locally.

Please note that the data presented in the following report cards are for Staphylococcus aureus bacteraemia infections only.
**Clostridium difficile**

*Clostridium difficile* is an organism which is responsible for a large number of healthcare associated infections, although it can also cause infections in people who have not had any recent contact with the healthcare system. More information can be found at:

http://www.nhs.uk/conditions/Clostridium-difficile/Pages/Introduction.aspx

NHS Boards carry out surveillance of *Clostridium difficile* infections (CDI), and there is a national target to reduce these. The number of patients with CDI for the Board can be found at the end of section 1 and for each hospital in section 2. Information on the national surveillance programme for *Clostridium difficile* infections can be found at:


The National Report published September 2010 (April-June 2010) shows the rate of *C. difficile* within NHSGGC as 0.37 per 1000 occupied bed days and clearly places the Board below the national mean (0.46 per 1000 OBDs in over 65s) and also below the 0.6 per 1000 OBD updated HEAT target for 2011.

Infection Control Teams in NHSGGC complete the Health Protection Scotland Trigger Tool if there are two or more linked HAI cases of CDI in any clinical area in a two week period. Part of this process includes the referral to the Antimicrobial Management Team who will review the use of antibiotics within the area.

**Hand Hygiene**

NHSGGC has demonstrated a steady rise in Hand Hygiene compliance during the national audit periods from a 62% baseline in February 2007 to achieve the 90% target in September 2008, and a current figure of 93%.

Compliance audits are carried out on a monthly basis in the majority of wards and departments in NHSGGC. This information is used at local level to tackle issues that may affect staff practice.

Results are fed back through Directorate based reporting mechanisms which allows management to view the progress of individual wards.

A validation exercise is currently underway in NHSGGC with the compliance scores of 26 wards being checked and compared to results from audits carried out by the Hand Hygiene Coordinator for National reporting.

Joint audits are being piloted with members of the public. This is a useful way of bringing a different perspective to our monitoring and involving the public in our programme of work.
Cleaning and the Healthcare Environment

Keeping the healthcare environment clean is essential to prevent the spread of infections. NHS Boards monitor the cleanliness of hospitals and there is a national target to maintain compliance with standards above 90%. The cleaning compliance score for the Board can be found at the end of section 1 and for each hospital in section 2. Information on national cleanliness compliance monitoring can be found at:
http://www.hfs.scot.nhs.uk/online-services/publications/hai/

Healthcare environment standards are also independently inspected by the Healthcare Environment Inspectorate. More details can be found at:
http://www.nhshealthquality.org/nhsqis/6710.140.1366.html

All areas within NHSGGC scored green (>90%) in the most recent report on the National Cleaning Specification.

Healthcare Environment Inspectorate (HEI)
The Healthcare Environment Inspectorate (HEI) was established in April 2009 to undertake at least one announced and one unannounced inspection to all acute hospitals across NHS Scotland every 3 years. Their focus is to reduce the healthcare associated infection (HAI) risk to patients through a rigorous inspection framework. Specifically they will focus on:

• providing public assurance and protection, to restore public trust and confidence
• contributing to the prevention and control of HAI
• contributing to improvement in infection control and the broader quality improvement agenda across NHS Scotland.

The first annual report was published in November 2010. The report can be accessed at: http://www.nhshealthquality.org/nhsqis/files/HEI_ANNUALREPORT0910_NOV10.pdf

Key Positive Messages

• Most hospitals inspected are generally clean.
• Good infection prevention and control practices are in place.
• Good evidence that infection control, hygiene and cleanliness are examined and discussed at Board meetings and committees.
• All hospitals meet the requirements of mandatory surveillance, and carry out hygiene and ward environmental audits.
• All the hospitals we inspected have an NHS board wide infection control manual which has a range of policies and procedures for all staff to follow.
• All the hospitals we inspected had policies and procedures for using antibiotics correctly.
• Every NHS board has a set of up-to-date HAI information for patients and the public.
• NHS boards are actively involving members of the public in infection prevention and control activities.
• NHS boards have ensured all staff, on starting work with the hospital, have induction training, which includes infection control.

Areas For Improvement
• Infection Control Managers have clear roles and responsibilities as set out in Scottish Government guidance.
• Senior staff, infection control teams and ward staff communicate effectively to ensure a consistent approach to preventing and controlling infection at all levels.
• Systems are in place to manage their infection control manuals effectively, including version control.
• All staff are implementing standard infection control precautions.
• There are effective systems in place to continuously assess the risk of infection to patients, as part of how they care for patients.
• Cleaning schedules for equipment and the environment are in place and completed consistently.
• In addition, patients and the public should be aware of the NHS QIS standards and know the standards of infection control, hygiene and cleanliness which should be in place when they go into or visit a hospital.

What HEI Plan Next?
• Increase the number of unannounced inspections for 2010/11.

NHSGGC have established a Healthcare Environment Inspectorate (HEI) Steering Group under the chairmanship of the Acute Director of Nursing. This group oversees the implementation of the relevant QIS standards and preparation for the programme of announced and unannounced inspections. The Steering Group have undertaken in-house inspections and the feedback from these, together with the requirements and recommendations from HEI Reports, are utilised for continuous improvement in the implementation and maintenance of standards in infection prevention and control.

To date the Inspectorate have undertaken five announced and one unannounced inspection within NHSGGC. The requirements and recommendations from the most recent published reports are:-

HEI Unannounced Inspection Report Royal Hospital for Sick Children
The Royal Hospital for Sick Children had an unannounced inspection in October 2010, the following the specific requirements in relation to Governance & compliance and Communication & public involvement. An action plan to address these issues is in progress and will be returned to the Inspectorate in December.

The report can be accessed at:
NHS Greater Glasgow and Clyde is required to:

- ensure that all staff are aware of the toy cleaning policy in place, to ensure that the policy is fully implemented.
- ensure that all staff groups implement standard infection control precautions in relation to waste management and the disposal of sharps, and that compliance is monitored, to ensure the risk of infection to patients, visitors and staff is minimised.
- ensure that all staff groups observe the local dress code policy and national dress code policy as set out in Chief Executive Letter CEL 53(2008), to ensure the risk of infection and cross-contamination is minimised.
- ensure it meets cleaning standards in all wards to comply with *NHS Scotland National Cleaning Specifications* (2009) and to review the domestic cleaning services monitoring process, to ensure the effectiveness and accuracy of monitoring cleaning activity.
- ensure that patient equipment is cleaned in accordance with national guidance, to ensure a consistent approach.
- undertake a review of the communication between the infection control team and all staff across the hospital site, to ensure that services are appropriately interacting with the infection control team for guidance and support.
- give consideration to the range of leaflets and posters on public display to make these more relevant and suit the needs of children

**Recommendations:**

- It is recommended that NHS Greater Glasgow and Clyde ensures that improvements made following the completion of audit action plans are sustained in the Fraser of Allander unit and intensive care unit.
- It is recommended that NHS Greater Glasgow and Clyde updates the notifiable diseases policy and the standard operating procedure for patients admitted with infection, in order to ensure that the documents reflect current legislation and national guidance.
- It is recommended that NHS Greater Glasgow and Clyde agrees a timescale for finalising and implementing the antibiotic surgical prophylaxis guidelines for the Royal Hospital for Sick Children.
- It is recommended that NHS Greater Glasgow and Clyde ensures that there is increased staff awareness of the correct choice and use of cleaning products.

**HEI Announced Inspection Royal Alexandra Hospital**

The Royal Alexandra Hospital was visited on the 24th & 25th August. Five recommendations have been addressed in the returned Inspectorate action plan.
The report can be accessed at:


<table>
<thead>
<tr>
<th>Recommendations</th>
<th>HEI recommend that NHS Greater Glasgow and Clyde:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>puts a system in place to monitor the condition of trolley mattresses in the accident and emergency department.</td>
</tr>
<tr>
<td>b</td>
<td>ensures all domestic staff have a good understanding and awareness of infection control policies.</td>
</tr>
<tr>
<td>c</td>
<td>reviews the refurbishment plans for the accident and emergency department to include all surface areas and storage facilities.</td>
</tr>
<tr>
<td>d</td>
<td>introduces standardised cleaning schedules for both domestic and ward staff and ensures consistency in completion.</td>
</tr>
<tr>
<td>e</td>
<td>develops an accessible, central system for recording all staff training, including infection prevention and control.</td>
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</tbody>
</table>

Outbreaks

From September to mid November there have been six wards closed, at three different hospital sites, for suspected Norovirus. Data on the numbers of wards closed due to confirmed or suspected norovirus is available from HPS on a weekly basis. http://www.hps.scot.nhs.uk/haiic/ic/noroviruspointprev.aspx

One continuing care ward was closed in mid August due to an outbreak of Group A strep. Full outbreak control measures were implemented. The ward re-opened on 20th September after a full terminal clean.

Another unconnected Group A streptococcal outbreak, also in a continuing care ward at a different hospital site required the ward to be closed for 7 days and full outbreak control measures were implemented.

A surgical ward was closed in October due to an outbreak of C. difficile infection. The Ward closed to admissions and full outbreak control measures were implemented. The ward reopened 24/10/10.

Other HAI Related Activity

Surgical Site Infection (SSI) Surveillance

NHSGGC participates in the Surgical Site Infection (SSI) surveillance programme that is mandatory in all NHS boards in Scotland. All NHS boards are required to undertake surveillance for hip arthroplasty and caesarean section procedures as per the mandatory requirements of HDL (2006) 38 and CEL (11) 2009.

Readmission surveillance is carried out using prospective readmission data on all 4 Orthopaedic procedure categories under inpatient surveillance up to 30 days post operatively.

Post discharge surveillance until day 10 post operation is also carried out for all caesarean sections performed.

The aims of the National Surgical Site Infection programme are:
• To collect surveillance data on surgical site infections to allow estimation of the magnitude of surgical site infection risk in hospitalised patients throughout Scotland.
• To analyse and report surgical site infection (SSI) data and describe trends in SSI rates throughout Scotland

**Last available quarter (July - September 2010)**

SSI Rates for all five procedure categories are below the national average

<table>
<thead>
<tr>
<th>Category of procedure</th>
<th>Operations</th>
<th>Infections</th>
<th>NHSGGC SSI rate (%)</th>
<th>National dataset SSI rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caesarean section</td>
<td>1296</td>
<td>29</td>
<td>2.24</td>
<td>3.59</td>
</tr>
<tr>
<td>Hip arthroplasty</td>
<td>433</td>
<td>1</td>
<td>0.23</td>
<td>0.83</td>
</tr>
<tr>
<td>Knee arthroplasty</td>
<td>435</td>
<td>3</td>
<td>0.69</td>
<td>1.64</td>
</tr>
<tr>
<td>Reduction of long bone fracture</td>
<td>196</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Repair of neck of femur</td>
<td>178</td>
<td>3</td>
<td>1.69</td>
<td>2.13</td>
</tr>
</tbody>
</table>
NHS Greater Glasgow & Clyde

Data for *Clostridium difficile* Infection cases in ages 15 & over, Meticillin Sensitive Staphylococcus Aureus (MSSA) Bacteraemia cases & Meticillin Resistant Staphylococcus Aureus (MRSA) Bacteraemia cases presented from January 2010 onwards. 2010 HEAT targets achieved. On course to meet 2011 revised targets. Hand Hygiene Compliance data presented from January 2010 onwards- monthly compliance across NHSGGC greater than 93%. Cleaning Compliance data available from September 2009 - monthly compliance across NHSGGC greater than 95%.

**MSSA Bacteraemia Cases**

**MRSA Bacteraemia Cases**

**Hand Hygiene Compliance**

**Cleaning Compliance**

*Clostridium difficile* Infection Cases (ages 15 & over)
Quarterly rolling year Clostridium difficile Infection Cases per 1000 total occupied bed days for HEAT Target Measurement

Actual Performance
Target

Quarterly rolling year Staphylococcus aureus Bacteraemia Cases for HEAT Target Measurement

Actual Performance
Target

35% Reduction Target achieved by March 2010
Revised Target of 50% Reduction to be achieved by March 2011
Healthcare Associated Infection Reporting Template (HAIRT)

Section 2 – Healthcare Associated Infection Report Cards

The following section is a series of ‘Report Cards’ that provide information, for each acute hospital and key community hospitals in the Board, on the number of cases of *Staphylococcus aureus* blood stream infections (also broken down into MSSA and MRSA) and *Clostridium difficile* infections, as well as hand hygiene and cleaning compliance. In addition, there is a single report card which covers all community hospitals [which do not have individual cards], and a report which covers infections identified as having been contracted from outwith hospital. The information in the report cards is provisional local data, and may differ from the national surveillance reports carried out by Health Protection Scotland and Health Facilities Scotland. The national reports are official statistics which undergo rigorous validation, which means final national figures may differ from those reported here. However, these reports aim to provide more detailed and up to date information on HAI activities at local level than is possible to provide through the national statistics.

**Understanding the Report Cards – Infection Case Numbers**

*Clostridium difficile* infections (CDI) and *Staphylococcus aureus* bacteraemia (SAB) cases are presented for each hospital, broken down by month. *Staphylococcus aureus* bacteraemia (SAB) cases are further broken down into Meticillin Sensitive Staphylococcus aureus (MSSA) and Meticillin Resistant Staphylococcus aureus (MRSA). Data are presented as both a graph and a table giving case numbers. More information on these organisms can be found on the NHS24 website:

- **Clostridium difficile**: [http://www.nhs24.com/content/default.asp?page=s5_4&articleID=2139&sectionID=1](http://www.nhs24.com/content/default.asp?page=s5_4&articleID=2139&sectionID=1)
- **Staphylococcus aureus**: [http://www.nhs24.com/content/default.asp?page=s5_4&articleID=346](http://www.nhs24.com/content/default.asp?page=s5_4&articleID=346)
- **MRSA**: [http://www.nhs24.com/content/default.asp?page=s5_4&articleID=252&sectionID=1](http://www.nhs24.com/content/default.asp?page=s5_4&articleID=252&sectionID=1)

For each hospital the total number of cases for each month are those which have been reported as positive from a laboratory report on samples taken more than 48 hours after admission. For the purposes of these reports, positive samples taken from patients within 48 hours of admission will be considered to be confirmation that the infection was contracted prior to hospital admission and will be shown in the “out of hospital” report card.

**Understanding the Report Cards – Hand Hygiene Compliance**

Good hand hygiene is crucial for infection prevention and control. More information can be found from the Health Protection Scotland’s national hand hygiene campaign website: [http://www.washyourhandsoftthem.com/](http://www.washyourhandsoftthem.com/)

Hospitals carry out regular audits of how well their staff are complying with hand hygiene. The first page of each hospital report card presents the percentage of hand hygiene compliance for all staff in both graph and table form.

**Understanding the Report Cards – Cleaning Compliance**

Hospitals strive to keep the care environment as clean as possible. This is monitored through cleaning compliance audits. More information on how hospitals carry out these audits can be found on the Health Facilities Scotland website: [http://www.hfs.scot.nhs.uk/online-services/publications/hai/](http://www.hfs.scot.nhs.uk/online-services/publications/hai/)

The first page of each hospital Report Card gives the hospitals cleaning compliance percentage in both graph and table form.

**Understanding the Report Cards – ‘Out of Hospital Infections’**

*Clostridium difficile* infections and *Staphylococcus aureus* (including MRSA) bacteraemia cases are all associated with being treated in hospitals. However, this is not the only place a patient may contract an infection. This total will also include infection from community sources such as GP surgeries and care homes and. The final Report Card report in this section covers ‘Out of Hospital Infections’ and reports on SAB and CDI cases reported to a Health Board which are not attributable to a hospital. Given the complex variety of sources for these infections it is not possible to break this data down in any more detail.
Glasgow Royal Infirmary / Princess Royal Maternity

Data for *Clostridium difficile* Infection cases in ages 15 & over, Meticillin Sensitive Staphylococcus Aureus Bacteraemia cases & Meticillin Resistant Staphylococcus Aureus Bacteraemia cases presented from January 2010 onwards. 2010 HEAT targets achieved. On course to meet 2011 revised targets. Hand Hygiene Compliance data presented from January 2010 onwards - monthly compliance in GRI greater than 90%. Cleaning Compliance data available from September 2009 - monthly compliance in GRI greater than 94%.

**MSSA Bacteraemia Cases**

**MRSA Bacteraemia Cases**

**Hand Hygiene Compliance**

**Cleaning Compliance**
This report card includes data for Stobhill Hospital & Stobhill ACH. Data for *Clostridium difficile* Infection cases in ages 15 & over, Meticillin Sensitive Staphylococcus Aureus Bacteraemia cases & Meticillin Resistant Staphylococcus Aureus Bacteraemia cases presented from January 2010 onwards. 2010 HEAT targets achieved. On course to meet 2011 revised targets. Hand Hygiene Compliance data presented from January 2010 onwards - monthly compliance in Stobhill Hospitals greater than 95%. Cleaning Compliance data available from September 2009 - monthly compliance in Stobhill Hospitals greater than 94%.
Royal Alexandra Hospital

Data for *Clostridium difficile* Infection cases in ages 15 & over, Meticillin Sensitive Staphylococcus Aureus Bacteraemia cases & Meticillin Resistant Staphylococcus Aureus Bacteraemia cases presented from January 2010 onwards. 2010 HEAT targets achieved. On course to meet 2011 revised targets. Hand Hygiene Compliance data presented from January 2010 onwards- monthly compliance in RAH greater than 89%. Cleaning Compliance data available from September 2009 - monthly compliance in RAH greater than 94%.

**Clostridium difficile** Infection Cases

**MSSA** Bacteraemia Cases

**MRSA** Bacteraemia Cases

**Hand Hygiene Compliance**

**Cleaning Compliance**
Inverclyde Royal Hospital

Data for *Clostridium difficile* Infection cases in ages 15 & over, Meticillin Sensitive Staphylococcus Aureus Bacteraemia cases & Meticillin Resistant Staphylococcus Aureus Bacteraemia cases presented from January 2010 onwards. 2010 HEAT targets achieved. On course to meet 2011 revised targets. Hand Hygiene Compliance data presented from January 2010 onwards- monthly compliance in IRH greater than 89%. Cleaning Compliance data available from September 2009 - monthly compliance in IRH greater than 97%.

**MSSA Bacteraemia Cases**

**MRSA Bacteraemia Cases**

**Hand Hygiene Compliance**

**Cleaning Compliance**
This report card includes data for the Victoria Infirmary, Victoria ACH & the Mansionhouse Unit. Data for *Clostridium difficile* infection cases in ages 15 & over, Meticillin Sensitive Staphylococcus Aureus Bacteraemia cases & Meticillin Resistant Staphylococcus Aureus Bacteraemia cases presented from January 2010 onwards. 2010 HEAT targets achieved. On course to meet 2011 revised targets. Hand Hygiene Compliance data presented from January 2010 onwards - monthly compliance in Victoria Hospitals greater than 95%. Cleaning Compliance data available from September 2009 - monthly compliance in Victoria Hospitals greater than 96%.
Southern General Hospital

Data for *Clostridium difficile* infection cases in ages 15 & over, Meticillin Sensitive Staphylococcus Aureus Bacteraemia cases & Meticillin Resistant Staphylococcus Aureus Bacteraemia cases presented from January 2010 onwards. 2010 HEAT targets achieved. On course to meet 2011 revised targets. Hand Hygiene Compliance data presented from January 2010 onwards - monthly compliance in SGH greater than 92%. Cleaning Compliance data available from September 2009 - monthly compliance in SGH greater than 95%.

**MSSA Bacteraemia Cases**

**MRSA Bacteraemia Cases**

**Hand Hygiene Compliance**

**Cleaning Compliance**

**Clostridium difficile** Infection Cases
Western Infirmary

Data for *Clostridium difficile* Infection cases in ages 15 & over, Meticillin Sensitive Staphylococcus Aureus Bacteraemia cases & Meticillin Resistant Staphylococcus Aureus Bacteraemia cases presented from January 2010 onwards. 2010 HEAT targets achieved. On course to meet 2011 revised targets. Hand Hygiene Compliance data presented from January 2010 onwards - monthly compliance in WIG greater than 86%. Cleaning Compliance data available from September 2009 - monthly compliance in WIG greater than 94%.

**Clostridium difficile Infection Cases**

**MSSA Bacteraemia Cases**

**MRSA Bacteraemia Cases**

**Hand Hygiene Compliance**

**Cleaning Compliance**
This report card includes data for Gartnavel General Hospital & the Beatson West of Scotland Cancer Centre. Data for *Clostridium difficile* Infection cases in ages 15 & over, Meticillin Sensitive Staphylococcus Aureus Bacteraemia cases & Meticillin Resistant Staphylococcus Aureus Bacteraemia cases presented from January 2010 onwards. 2010 HEAT targets achieved. On course to meet 2011 revised targets. Hand Hygiene Compliance data presented from January 2010 onwards - monthly compliance across NHSGGC greater than 92%. Cleaning Compliance data available from September 2009 - monthly compliance across NHSGGC greater than 95%.
Data for Clostridium difficile Infection cases in ages 15 & over, Meticillin Sensitive Staphylococcus Aureus Bacteraemia cases & Meticillin Resistant Staphylococcus Aureus Bacteraemia cases presented from January 2010 onwards. 2010 HEAT targets achieved. On course to meet 2011 revised targets. Hand Hygiene Compliance data presented from January 2010 onwards - overall compliance in VOL greater than 95%. Monthly compliance for August 2010 was 100%. Cleaning Compliance data available from September 2009 - monthly compliance in VOL greater than 95%.
Data for *Clostridium difficile* infection cases in ages 15 & over, therefore no cases for this site. Meticillin Sensitive Staphylococcus Aureus Bacteraemia cases & Meticillin Resistant Staphylococcus Aureus Bacteraemia cases presented from January 2010 onwards. 2010 HEAT targets achieved. On course to meet 2011 revised targets. Hand Hygiene Compliance data presented from April 2010 onwards - monthly compliance in Yorkhill Hospital greater than 90%. Cleaning Compliance data available from September 2009 - monthly compliance in Yorkhill Hospital greater than 96%.
**Community Hospitals [Non Acute & Mental Health Hospitals]**

This is an amalgamation of data from the following hospitals: Lightburn, Drumchapel, Gartnavel Royal, Parkhead, Ravenscraig, Blawarthill, Leverndale, Johnstone, Mearnskirk & Dykebar Hospitals. These hospitals are non acute hospitals & mental health hospitals and have very few cases to report. Data for Clostridium difficile Infection cases in ages 15 & over, Meticillin Sensitive Staphylococcus Aureus Bacteraemia cases & Meticillin Resistant Staphylococcus Aureus Bacteraemia cases presented from January 2010 onwards. 2010 HEAT targets achieved. On course to meet 2011 revised targets.
Out of Hospital Infections

Data for Clostridium difficile Infection cases in ages 15 & over: Out of Hospital CDIs account for 44.4% of all CDI cases reported in NHSGGC January to October 2010.

Meticillin Sensitive Staphylococcus Aureus Bacteraemia (MSSA) cases & Meticillin Resistant Staphylococcus Aureus (MRSA) Bacteraemia cases presented from January 2010 onwards.

Out of Hospital MSSA bacteraemias account for 48.6% of all cases from January to October 2010. Out of Hospital MRSA bacteraemias make up 36.5% of all cases for the same timeframe. This equates to 46.1% of all Staphylococcus Aureus Bacteraemia cases being Out of Hospital infections.
This section includes Hospital level SPCs for acute sites in NHSGGC

The SPCs include data on
- Hospital Acquired MRSA cases (includes wound swabs, sputum & urine samples etc.)
- Hospital Acquired Clostridium difficile cases

Surveillance data can be used to detect any change in the incidence of disease, which in turn facilitates the early identification outbreaks of infection and leads to prompt initiation of preventive measures. It also allows local infection control teams to focus their interventions in areas where the greatest benefit to patients can be achieved.

Statistical Process Control Charts (SPCs) are the application of statistical theory to Quality Control. They show process data chronologically (per month in most cases). Some examples of where they have been used in healthcare include; queuing analysis of appointment access and delays and forecasting bed needs.

The most common use for SPCs in infection control practice is in relation to healthcare acquired MRSA and C. difficile infections. Calculations are made based upon the ward/unit’s historical infection rate to produce 3 lines, the upper and lower control limits and the centre line (mean). The setting of the upper control limits allows the local teams to ‘trigger’ actions promptly in response to any increase in the number of patients identified.

![Statistical Process Chart (SPC)](image-url)
Although SPCs are a method of viewing what is going on at a local level the SPC can also be used to drive improvements in care. This is shown by reducing the mean (centre line) which indicates that fewer patients are acquiring infection in our wards and hospitals.

This chart demonstrates that infection control practice on a ward has improved. This in turn has resulted in fewer cases and the mean for this ward has been reduced to reflect this. Now that SPC’s are available across the whole of NHSGGC we will be actively targeting improvements in areas with historically high levels of infection and sustaining improvements in areas with low infection rates.

**Trigger Events/Charts that Breach the Upper Control Limits**

An SPC will only identify that a problem exists – it will not identify what is causing the problem. If a chart is seen to be above the upper control limit the ICT with the local clinical team will review the area to determine the likely cause and develop appropriate
Glasgow Royal Infirmary

Hospital Acquired MRSA - Glasgow Royal Infirmary, 2008 - 2010

This chart is within normal control limits.

Hospital Acquired C. difficile - Glasgow Royal Infirmary, 2008 - 2010

Chart Comment: The CL for this chart has been dropped. This downward trend indicates a statistically significant improvement in the number of cases of CDI on this site.

Stobhill Hospital

Hospital Acquired MRSA - Stobhill, 2008-2010

This chart is currently within normal control limits.

Hospital Acquired C. difficile - Stobhill, 2008-2010

Apr-10: Two wards breached their UCL and one has reached its trigger level. All these wards have been investigated. One ward was closed. Daily cleaning with a chlorine-based detergent introduced to the whole hospital.

This is currently within normal control limits.
Royal Alexandra Hospital

Hospital Acquired MRSA - Royal Alexandra Hospital, 2008-2010

Chart Comment - This chart is currently within normal control limits.

Hospital Acquired C. difficile - Royal Alexandra Hospital, 2008-2010

Chart Comment - This chart is currently within normal control limits.

Inverclyde Royal Hospital

Hospital Acquired MRSA - Inverclyde Royal Hospital, 2008-2010

This chart is currently within normal control limits.

Hospital Acquired C. difficile - Inverclyde Royal Hospital, 2008-2010

This chart is currently within normal control limits.
Victoria Infirmary

Hospital Acquired MRSA - Victoria Infirmary, All Directorates Total 2008-2010

Hospital Acquired C. difficile - Victoria Infirmary, All Directorates, 2008-2010

Southern General Hospital

Hospital Acquired MRSA - Southern General Hospital, All Directorates Total, 2008 - 2010

Hospital Acquired C. difficile - Southern General Hospital, All Directorates, 2008-2010

Chart comment - This chart is within normal control limits.

Chart comment - This chart is currently within normal control limits. CI dropped to reflect reduction in total number of cases.
Vale of Leven Hospital

Hospital Acquired MRSA, VOL Total, 2008-2010

- Chart comment: This chart is currently within normal control levels.

Hospital Acquired C. difficile - VOL Total, 2008-2010

- Chart comment: This chart is currently within normal control limits.