**Healthcare Associated Infection Report**

**August 2017 data**

**Section 1 – Board Wide Issues**

**Key Healthcare Associated Infection Headlines**

* ***Staphylococcus aureus* Bacteraemia**- 3 SAB case to report in August.

Routine Enhanced SAB Investigation identified the sources as-

***ICU2***- Arterial line

***ICU2*** - IABP

NB- last SABs reported in ICU2 were in June 16.

***2 WEST***- PVC

*SAB Investigation reports to be presented at the next SSCGG*.

* ***Clostridium difficile* infection**- No CDI to report.
* **Hand Hygiene**- The bimonthly report from July demonstrates 94% compliance with Hand Hygiene. Unusually four episodes of non compliance was noted via our student population. This has been feedback to universities via the Practice Education Facilitator. Next report due September.
* **Cleaning and the Healthcare Environment- Facilities Management Tool**

**Housekeeping Compliance:** 98.21% **Estates Compliance:** 99.06%

* **Surgical Site Infection**- No SSI reported in August.

**Other HAI Related Activity**

**Problem Assessment Groups (PAG**) - Locally convened group to further investigate an HAI issue (not outbreak) which may require additional multidisciplinary controls.

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| **PAGs** | **Update** |
| ***Mycobacterium chimaera*** | Heath Protection Scotland are continuing to lead Scotland’s response to the international investigation of Mycobacterium infections associated the use of cardiopulmonary bypass heater cooler machines. We are continuing to work with HPS to manage the very low risk associated with colonised machines. Scottish Government HAI Policy Unit are also informed of our current position.  A further IMT is to be convened to formally close the PAG – still awaited.  The manufacturer is undertaking an upgrade programme to improve seals and tanks. GJNH heaters are scheduled to commence this process at the GJNH in early October. |

Section 1 of the HAIRT covers Board wide infection prevention and control activity and actions. For reports on individual departments, please refer to the ‘Healthcare Associated Infection Report Cards’ in Section 2.

***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: <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>

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:

<http://www.hps.scot.nhs.uk/haiic/sshaip/publicationsdetail.aspx?id=30248>

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| **GJNH approach to SAB prevention and reduction**  It is accepted within HPS that care must be taken in making comparisons with other Boards data because of the specialist patient population within GJNH. All SAB isolates identified within the laboratory are subject to case investigation to determine future learning and quality improvement.  Small numbers of cases can quickly change our targeted approach to SAB reduction.  **Broad HAI initiatives which influence our SAB rate include-**   * Hand Hygiene monitoring * MRSA screening at pre-assessment clinics and admission * Compliance with National Cleaning Standards Specifications * Audit of the environment and practices via Prevention and Control of Infection Annual Reviews & monthly SCN led Standard Infection Control Precautions and Peer Review monitoring * Participation in National Enhanced SAB surveillance- gaining further intelligence on the epidemiology of SAB locally and nationally.   **SSI Related SAB**   * Introduction of MSSA screening for cardiac and subsequent treatment pre and   Post op as a risk reduction approach.   * Surgical Site Infection Surveillance in collaboration with Health Protection   Scotland and compared with Health Protection Agency data to allow rapid identification of increasing and decreasing trends of SSI.   * Standardisation of post op cardiac wound care. * Development and implementation of a wound swabbing protocol and competency.   **Device Related SAB**   * SPSP work streams continue to aim to sustain compliance with PVC, CVC, PICC and IABP bundles; assessment of compliance locally aids targeting of interventions accordingly. * Ongoing testing of new combined PVC insertion and maintenance bundle * Implementation of arterial line maintenance bundle in Critical Care. |

**SAB Local Delivery Plan (LDP) Heat Delivery Trajectories**

Boards are expected to achieve a rolling target of 0.24 cases per 1,000 acute occupied bed days or lower by year ending March 2018.

Boards currently with a rate of less than 0.24 are again expected to at least maintain this, as reflected in their trajectories. **Our local rate April- June 17 is 0.00 per 1000 occupied bed days.**

The Prevention and Control of Infection Team continue to work closely with the clinical teams and clinical educators to gain insight into the sources of SAB acquisition and associated learning.



**3 EAST**

Sept 16- Art line

Oct 16- Pericardial fluid

Mar 17- x2 PVC/Multiple sources x1

**ICU2**

Aug 17- 1 IABP/1 ART LINE

**CCU**

Jan 17 – IABP

**3 West**

Jul 17 – Chest Drain



**2West**

Aug 17 - PVC



Our work plan for the first quarter of 17/18 focused on PVC maintenance bundle compliance in 3 East. Work to date to inform this work included-

* Final draft of PVC bundles testing planned Sept 17
* Update to CIS system to align to current bundle Sept 17

***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:

<http://www.hps.scot.nhs.uk/haiic/sshaip/ssdetail.aspx?id=277>

|  |
| --- |
| **GJNH approach to CDI prevention and reduction**  Our numbers of CDI cases are low in comparison with other Boards, which is likely to relate to our specialist patient population.  **Actions to reduce CDI-**   * Ongoing alert organism surveillance and close monitoring of the severity of cases by the PCIT. * Unit specific reporting and triggers. * Implementation of HPS Trigger Tool if trigger is breached. * Implementation of HPS Severe Case Investigation Tool if the case definition is met * Typing of isolates when two or more cases occur within 30 days in one unit. |

**CDI LDP Heat Delivery Trajectories**

Boards are again expected to achieve a rolling trajectory of 0.32 cases CDI per 1,000 occupied bed days by year ending March 2018. This relates to people aged 15 and over. Boards currently with a rate of less than 0.32 will be expected to at least maintain this, as reflected in their trajectories. The CDI HEAT target has been achieved but awaits HPS validation.

**Overall Apr 17- Jun 17 rate 0.0 per 1000 occupied bed days still well below the national target.**



**Hand Hygiene**

Good hand hygiene by staff, patients and visitors is a key way to prevent the spread of infections. More information on the importance of good hand hygiene can be found at:

<http://www.washyourhandsofthem.com/>

NHS Boards monitor hand hygiene and ensure a zero tolerance approach to non compliance. The hand hygiene compliance score for the Board can be found at the end of section 1 and for each hospital in section 2. Information on national hand hygiene monitoring can be found at:

<http://www.hps.scot.nhs.uk/haiic/ic/nationalhandhygienecampaign.aspx>

**GJNH approach to Hand Hygiene**

The **bimonthly** report from May is demonstrates a Board compliance rate of 94%.Next report due September.









**Cleaning and Maintaining the Healthcare Environment**

**Housekeeping FMT Audit Results**

Cleaning services continue to be monitored against the NHSScotland National Cleaning Service Specifications (NCSS) using the HFS Domestic monitoring tool. All healthcare facilities and component parts, e.g. wards, treatment rooms, corridors etc, are expected to be at least 90% compliant with the requirements set out in the NCSS.

Integral to the updated National Cleaning Services Specifications, the Housekeeping team are reviewing existing task sheets for each area to risk assess the frequency of tasks. Testing is underway and it is expected this work will be complete December.



**Other HAI Related Activity**

**MRSA Screening Compliance**



**Long Term Patient Screening**

* All patients should be rescreened on Day 10 and weekly thereafter.
* Day 10 screen was identified as the initial screen date as it captures patient stay beyond routine pathways
* Compliance is monitored via reviewing a sample of eligible patients against submitted MRSA screens.
* SCN's are informed of results at the time of audit and action plan required to improve compliance

**August Data**

Rationale for non compliance-

Two patients were transferred between departments and screen omitted.

Remaining non compliant screens were omitted by the department.

**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 *(*alsobroken 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). 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>

MRSA: <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.

**Targets**

There are national targets associated with reductions in *C. difficile* and SABs. More information on these can be found on the Scotland Performs website:

<http://www.scotland.gov.uk/About/Performance/scotPerforms/partnerstories/NHSScotlandperformance>

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

Hospitals carry out regular audits of how well their staff are complying with hand hygiene. Each hospital report card presents the combined percentage of hand hygiene compliance with both opportunity taken and technique used broken down by staff group.

**Understanding the Report Cards – Cleaning Compliance**

Hospitals strive to keep the care environment as clean as possible. This is monitored through cleaning and estates 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/>

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

*Clostridium difficile* infectionsand *Staphylococcus aureus (*including MRSA*)* bacteraemiacasesare 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. 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.

**NHS BOARD REPORT CARD**

***Staphylococcus aureus* bacteraemia monthly case numbers**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Aug 16** | **Sept**  **16** | **Oct**  **16** | **Nov**  **16** | **Dec 16** | **Jan 17** | **Feb**  **17** | **Mar**  **17** | **Apr**  **17** | **May**  **17** | **June**  **17** | **July**  **17** | **Aug**  **17** |
| **MRSA** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **MSSA** | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 1 | 3 |
| **Total SABS** | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 1 | 3 |

***Clostridium difficile* infection monthly case numbers**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Aug 16** | **Sept**  **16** | **Oct 16** | **Nov**  **16** | **Dec 16** | **Jan 17** | **Feb**  **17** | **Mar**  **17** | **Apr**  **17** | **May**  **17** | **June**  **17** | **July**  **17** | **Aug**  **17** |
| **Ages15-64** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Ages 65+** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Ages 15 +** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 |

**Hand Hygiene Monitoring Compliance (%)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Aug 16** | **Sept**  **16** | **Oct**  **16** | **Nov**  **16** | **Dec 16** | **Jan 17** | **Feb**  **17** | **Mar**  **17** | **Apr**  **17** | **May**  **17** | **June**  **17** | **July**  **17** | **Aug**  **17** |
| **AHP** |  | 97 |  | 100% |  | 97% |  | 100% |  | 100% |  | 97% |  |
| **Ancillary** |  | 100 |  | 95% |  | 93% |  | 100% |  | 86% |  | 92% |  |
| **Medical** |  | 86 |  | 96% |  | 97% |  | 99% |  | 100% |  | 96% |  |
| **Nurse** |  | 99 |  | 100% |  | 99% |  | 99% |  | 97% |  | 97% |  |
| **Board Total** |  | 96 |  | 99 |  | 98 |  | 99% |  | 98% |  | 94% |  |

**Cleaning Compliance (%)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Aug 16** | **Sept**  **16** | **Oct**  **16** | **Nov**  **16** | **Dec 16** | **Jan 17** | **Feb**  **17** | **Mar**  **17** | **Apr**  **17** | **May**  **17** | **June**  **17** | **July**  **17** | **Aug**  **17** |
| **Board Total** | 98.46 | 98.16 | 98.27 | 98.48 | 98.5 | 99.05 | 97.65 | 98.61 | 99.17 | 98.42 | 98.6 | 98.48 | 98.21 |

**Estates Monitoring Compliance (%)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Aug 16** | **Sept**  **16** | **Oct 16** | **Nov**  **16** | **Dec 16** | **Jan 17** | **Feb**  **17** | **Mar**  **17** | **Apr**  **17** | **May**  **17** | **June**  **17** | **July**  **17** | **Aug**  **17** |
| **Board Total** | 98.55 | 98.62 | 99.44 | 98.77 | 98.77 | 99.5 | 98.75 | 99.34 | 99.15 | 99.04 | 98.9 | 99.17 | 99.06 |

**Surgical Site Surveillance**

**Valve +/- CABG**

Nov16- 1 Superficial Sternum

Dec 16 – 2 Deep Sternum

Jan 17 – 4 Superficial Sternum

Feb 17- 2 Superficial Sternum

Mar 17- 1 Superficial Sternum

May 17- 1 Superficial Sternum

Jun 17- 2 Superficial Leg

Jul 17 – 1 Superficial Sternum

**CABG and CABG +/- Valve SSI Local Data**



**CABG**

Jul 16- I Sup Sternum

Sept 16- 3 Sup Sternum

Oct 16- 1 Organ Space

Dec 16 – 2 Superficial Sternum

Jan 17 – 2 Superficial Sternum

Feb 17- 2 Superficial Sternum

Mar 17-2 Superficial Sternum/ 1 Superficial Leg

May 17- 2 Superficial Sternum

Jun17- 1 Superficial leg



**\***A surgical site infection is defined a superficial, deep or organ space infection occurring within 30 days of operation.

Definitions of superficial, deep and organ space are defined in Health Protection Scotland Surgical Site Infection Surveillance Protocol.

**Orthopaedic SSI Local data**

**Infection rates remain below the upper control limit**



**THR**

Aug 16- 1 Superficial Infection

May 17 – 1 Deep Infection

July- 1 Deep Infection



**\***A surgical site infection is defined a superficial, deep or organ space infection occurring within 30 days of operation. Definitions of superficial, deep and organ space are defined in Health Protection Scotland Surgical Site Infection Surveillance Protocol.

HAIRT Table of Abbreviations

|  |  |
| --- | --- |
| AHP | Allied Healthcare Practitioner |
| CABG | Coronary Artery Bypass Graft |
| CCU | Coronary Care Unit |
| CDI/C.*difficile* | Clostridium Difficile Infection |
| CVC | Central Venous Catheter |
| DMT | Domestic Monitoring Tool |
| E.coli | Escherichia coli |
| FMT | Facilities Monitoring Tool |
| GJNH | Golden Jubilee National Hospital |
| GP | General Practitioner |
| HAI | Healthcare Associated Infection |
| HAIRT | Healthcare Associated Infection Report Template |
| HA MRSA | Hospital Acquired Meticillin Resistant Staphylococcus aureus |
| HEI | Healthcare Environment Inspection |
| HFS | Healthcare Facilities Scotland |
| HH | Hand Hygiene |
| HIS | Healthcare Improvement Scotland |
| HPA | Health Protection Agency |
| HPS | Health Protection Scotland |
| IABP | Intra aortic balloon pump |
| IC | Infection Control |
| ICAR | Infection Control Audit Review |
| LDP | Local Delivery Plan |
| MRSA | Meticillin Resistant Staphylococcus Aureus |
| MSSA | Meticillin Sensitive Staphylococcus Aureus |
| NAT | National |
| NCSS | National Cleaning Standard Specification |
| PAG | Problem Assessment Group |
| PCIC | Prevention & Control of Infection Committee |
| PCINs | Prevention & Control of Infection Nurses |
| PCIT | Prevention & Control of Infection Team |
| PICC Line | Peripherally inserted central catheter line |
| PNE | Patient Notification Exercise |
| PVC | Peripheral Venous Cannula |
| SAB | Staphylococcus *aureus* bacteraemia |
| SCN | Senior Charge Nurse |
| SICP s | Standard Infection Control Precautions |
| SPSP | Scottish Patient Safety Programme |
| SSI | Surgical Site Infection |
| TBPs | Transmission Based Precautions |
| THR | Total Hip Replacement |
| VAP | Ventilator Associated Pneumonia |