Borders NHS Board

HEALTHCARE ASSOCIATED INFECTION CONTROL AND PREVENTION REPORT

Aim

The purpose of this paper is to update Board members of the current status of Healthcare Associated Infections (HAI) and infection control measures in NHS Borders.

Background

In line with the NHS Scotland HAI Action Plan 2008, there is a requirement for a HAI report to be presented to the Board on a two monthly basis.

Summary

This report provides an overview for Borders NHS Board of Infection Prevention and Control with particular reference to the incidence of Healthcare Associated Infections (HAI) against Scottish Government HEAT targets, together with results from cleanliness monitoring and hand hygiene audit results.

Recommendation

The Board is asked to **note** this report

Policy/Strategy Implications	This report is in line with the NHS Scotland HAI Action Plan
Consultation	Not applicable
Consultation with Professional Committees	Not applicable
Risk Assessment	Not applicable
Compliance with Board Policy requirements on Equality and Diversity	Yes
Resource/Staffing Implications	None identified

Approved by

Name	Designation	Name	Designation
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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 April 2013

- NHS Borders is currently on target to achieve the *Staphylococcus aureus* Bacteraemia (SAB) 2013 HEAT target rate.
- NHS Borders currently has a *Clostridium difficile* infection (CDI) rate higher than the 2013 HEAT target rate.
- As the HEAT Target is based on 'per 1000 acute occupied bed days' we are unable to confirm NHS Borders' final position against the respective HEAT targets until official data is made available from Health Protection Scotland.

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.nhsinform.co.uk/Health-Library/Articles/S/staphylococcal-infections/introduction

MRSA: http://www.nhsinform.co.uk/Health-Library/Articles/M/mrsa/introduction

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:

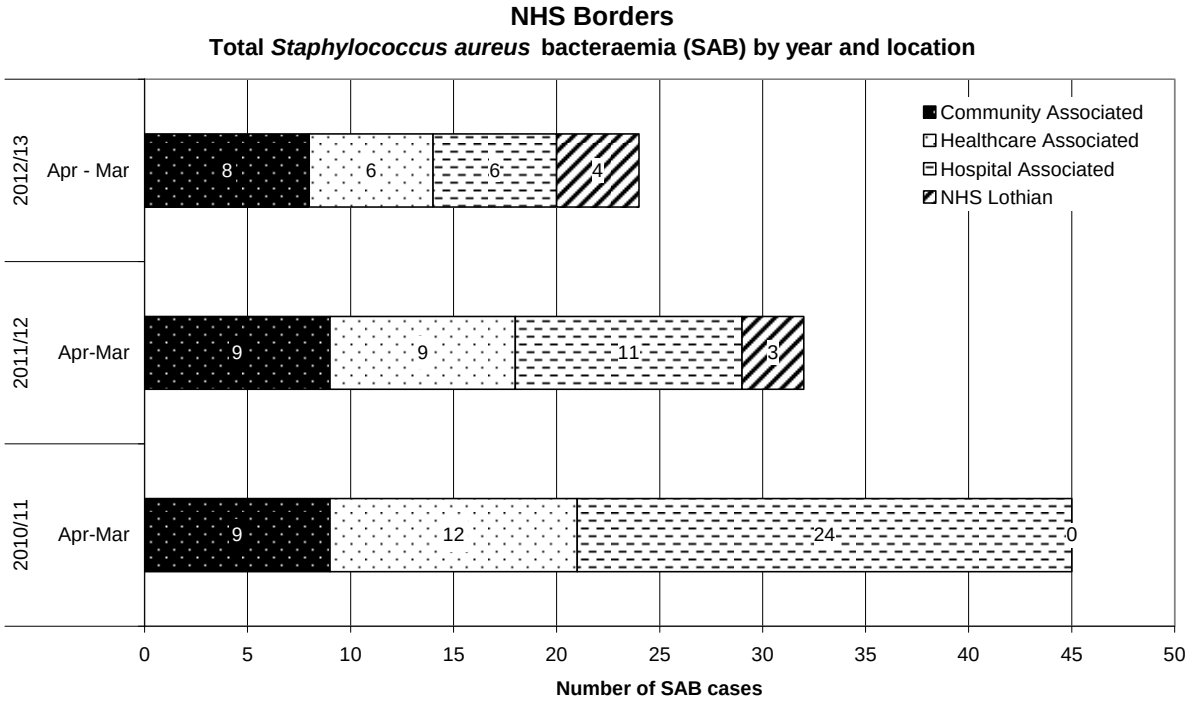
http://www.hps.scot.nhs.uk/haiic/sshaip/publicationsdetail.aspx?id=30248

NHS Borders has a Scottish Government HEAT target to achieve a rate of 0.26 *Staphylococcus aureus* Bacteraemia (SAB) cases or less per 1000 acute occupied bed days by March 2013. This rate was the "best in class" rate achieved by a single Health Board in the year ending March 2010, and is considered to be achievable by all Boards.

Figure 6 page 13 gives an impression of NHS Borders currently having a SAB rate higher than the HEAT target. The latest data point on this graph (January 2012 – December 2012) is the most recent official data available from Health Protection Scotland. However, significant improvements have been made in relation to SAB numbers with initial local data indicating that NHS Borders is currently on target to achieve the HEAT target between April 2012 and March 2013. As the HEAT Target is based on 'per 1000 acute occupied bed days' we are unable to confirm this position until official data is available from Health

Protection Scotland. This overall improvement is better displayed when comparing full year numbers as shown in Figure 1 below.
Figure 1 highlights that NHS Borders has reduced the number of SABs by 25% this year (32 SABs 2011-12 : 24 SABs 2012-13).

Figure 1. NHS Borders total staphylococcus aureus bacteraemia (SAB) by year and location.



Every SAB case is subject to a rigorous Root Cause Analysis (RCA) which includes a feedback process to the clinicians caring for the patient. Any actions identified through this process are added to the SAB section of the Infection Control Work Plan.

The Prevention of SABs Group continues to meet every month to monitor the implementation of actions to reduce the risks associated with SABs. Each ward is regularly audited by the Infection Prevention and Control Team for compliance with best practice measures that have been implemented relating to the insertion and maintenance of peripheral venous catheters (PVCs). Work continues with clinical services to continue to improve compliance (Refer to 'Infection Control Audits' section page 7 for additional information).

Clostridium difficile infection (CDI)

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.nhsinform.co.uk/Health-Library/Articles/C/clostridium-difficile/introduction

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/clostridiumdifficile.aspx?subjectid=79

NHS Borders has a HEAT target to achieve a rate of 0.39 or less cases of *Clostridium difficile* infections (CDI) per 1000 total occupied bed days in patients aged 65 and over by the year ending March 2013.
The rate of 0.39 is based on the best performing board as measured in the year ending March 2010, demonstrating that this rate should be achievable by all boards.

Following an increase in cases in July and August the latest data point on figure 5 page 13 (January 2012 – December 2012) indicates that NHS Borders CDI rate is currently above the level of the HEAT target rate at 0.44. This provisional information is based on the most recent official data available from Health Protection Scotland (HPS).

As the HEAT Target is based on 'per 1000 total occupied bed days' we are unable to confirm our position against the HEAT target of 0.39 or less cases per 1000 total occupied bed days until official data is available from Health Protection Scotland.

NHS Scotland has seen huge success in the prevention and control of *C. difficile* infections. However recent surveillance has been showing a levelling of the previous downward trend. In December 2012 the Chief Nursing Officer advised NHS Boards of a revised protocol for microbiology laboratories. This is being implemented within NHS Borders. Revised HEAT targets are expected from HPS for the period 2013-2015.

Figure 2 below shows the excellent overall improvement made by NHS Borders since the 2008/9 period. In addition, Health Protection Scotland Tables 1 and 2 page 5 highlights the improvement in year on year trend analysis for the quarter October – December 2012 compared to the annual incidence rate for year ending September 2012. HPS consider this comparison to represent a substantial decrease. The Infection Control Team is currently liaising with two health boards as a sharing practice exercise to assist with further improvements.

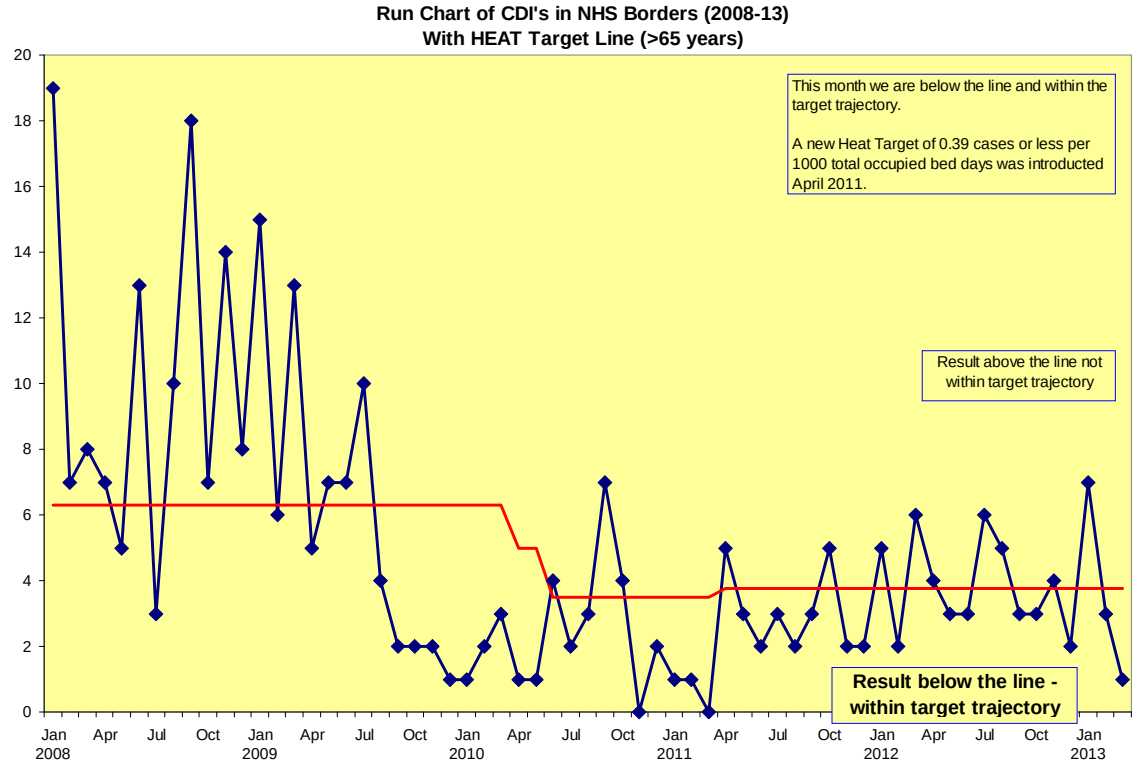


Figure 2. Run Chart of CDI in NHS Borders 2008 – 2013

TABLE 1: CDI cases, bed days and incidence rates by NHS board in patients aged ≥65 years in the period October to December 2012 compared to the annual incidence rate for the year ending September 2012

NHS board	October 2012 to December 2012			October 2011 to September 2012		
	Number of cases	Bed days	Incidence rate (per 100 000 bed days)	Number of cases	Bed days	Incidence rate (per 100 000 bed days)
Borders	9	28177	31.9	46	104456	44.0

TABLE 2: CDI cases, bed days and incidence rates by NHS board in patients aged 15-64 years in the period October to December 2012 compared to the annual incidence rate for the year ending September 2012

NHS board	October 2012 to December 2012			October 2011 to September 2012		
	Number of cases	Bed days	Incidence rate (per 100 000 bed days)	Number of cases	Bed days	Incidence rate (per 100 000 bed days)
Borders	1	4761	21.0	13	20838	62.4

(Source: HPS weekly Report Vol.47 No.2013/14 14 April 2013)

Table 3 shows total CDI cases for all recorded age groups over the past 2-years. This highlights an overall reduction in 2012/13 compared with 2011/12.

Age	2011/12	2012/13	Variance
65+	39	44	5
15-64	14	6	-8
Total	**53**	**50**	**-3**

Table 3: Total CDI cases comparison for 2011/12 and 2012/13

Each case of CDI is subject to a review including compliance with policies of any prescribed antimicrobials. This process includes discussion and feedback between the Consultant Microbiologist and the relevant doctor.

A Prevention of CDI Group has been established and held its 2nd meeting within BGH. Initial involvement included Infection Control, Laboratories, Pharmacy and Public Health representation. This group will provide additional focus to this agenda and aims to widen its participation to include P&CS. The outcomes and actions of all CDI severe case investigations will be monitored through this group. Although the group is in its infancy, it did however, have the opportunity to test this process with the outcome of a recent severe case investigation being discussed and actions tracked to ensure these are progressed. Each case review will inform the development of work-streams to be progressed through this group and a targeted action plan to support improvement. Development of ICNet will also support local monitoring and analysis to achieve targeted improvement.

The Antimicrobial Management Team continues to monitor antimicrobial prescribing rates in both acute and community Clinical Boards. The Consultant Microbiologist continues to prioritise visits to GP Practices prescribing higher levels of antibiotics more associated with *clostridium difficile*.

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

The hand hygiene data tables contained within figure 4 page 12 and figure 7 page 14 are generated from wards conducting self-audits.

NHS Borders also continues to participate in national hand hygiene audits which are conducted every other month. The most recent published report is from March 2013. During the audit period (21st January 2013 – 1st February 2013) NHS Borders achieved an overall compliance rate of 97%.

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

High levels of cleanliness continue to be recorded through the monitoring process across NHS Borders estate. The data presented is an average figure across the sites using the new national cleaning and estates monitoring tool that was implemented in April 2012. Table 4 below highlights NHS Borders cleaning compliance against NHS Scotland's national average. The green shading indicates compliance above the standard (90%).

Health Board	1st Quarter Apr - June 2012/2013	2nd Quarter July -Sept 2012/2013	3rd Quarter Oct - Dec 2012/2013
NHS Scotland	**95.9**	**95.5**	**95.7**
NHS Borders	**97.5**	**97.0**	**97.5**

Table 4. NHS Scotland National Cleaning Compliance

Infection Incidents

Since the last Board update, there has been three incidences of gastrointestinal symptoms, with confirmed cases of Norovirus positive in two wards. This resulted in the temporary closure of Wards 6, 10 and 12 Borders General Hospital (BGH) at various

periods. A co-ordinated staff approach within BGH ensures wards are re-opened within the first available window of opportunity to meet the balance of patient safety and restoring normal patient flow. Over the same period, there has continued to be a high incidence of Norovirus across the UK, with a number of Health Boards in Scotland experiencing re-closure of wards. A review of HPS data (Norovirus Monday Point Prevalence in NHS Scotland) suggests there has been a similar incidence rate for Norovirus over the period January - April 2013 compared with the same period in 2012.

Other HAI Related Activity

Staff training

- Funding of circa £29,000 has been secured from NHS Education for Scotland (NES) for education on the Aseptic Technique e-learning module. The Infection Control Team is working in collaboration with the Training Dept. to progress a learning and development programme on this module.

Infection Control Audits

- In January, wards in Borders General Hospital (BGH) were audited for compliance with the best practice 'care bundle' relating to the use of peripheral venous catheters (PVCs). Compliance with best practice is important as these devices are commonly used and are a risk factor for patients developing a s*taphylococcus aureus* infection. Overall compliance had dropped since the previous audit in September 2012. Initial improvement in compliance, however, has since been recorded (March 2013). Further work is required to ensure additional improvement is gained and maintained as described below.

- The Infection Control Team has supported the BGH Hospital Executive Team to review the PVC audit data for detailed extraction of information to allow a targeted intervention for service improvement. This has identified the insertion bundle and medical staff as areas for potential improvement. PVC insertion is predominantly a medical procedure. The Infection Control Team has made several recommendations with actions allocated to individuals and is collaborating with medical staff and the training dept. to deliver these actions. A re-audit of compliance is scheduled for May 2013.

- In addition, the Infection Control Team has taken a lead role in exploring development of a PVC policy/procedure.

2012/13 Infection Control Work Plan

- Prioritising Norovirus outbreak management and technical delays in implementing an upgraded infection control IT system have impacted on the delivery of the Infection Control Work Plan. The Infection Control Team are currently finalising the 2012/13 work plan and preparing for the year ahead.

Surgical Site Infection (SSI) Surveillance

- NHS Borders participates in a national infection surveillance programme relating to specific surgical procedures. This is coordinated by Health Protection Scotland (HPS) and uses national definitions and methodology which enable comparison with overall NHS Scotland infection rates.

  The Surgical Site Infection (SSI) surveillance is conducted on the following range of procedures:-

  - Caesarean section

- Hip Arthroplasty
- Knee Arthroplasty
- Colorectal Surgery

Table 6 page 10 shows the results of the surgical site infection (SSI) surveillance data for each procedure since surveillance started.

During 2012 there was an increase in SSIs following hip arthroplasty operations. A multi disciplinary short life working group (SLWG) was formed to investigate all aspects of the patient pathway with respect to identifying potential sources of increased environmental infection load, or decrease in patient immuno-competence. A review did not identify any common factors that could have been indicative of an outbreak. The infections are from a range of organisms in both elective and emergency cases, undertaken by different surgeons.

Following a period of no SSIs (October 2012 – January 2013) there were, however, 2 new SSI cases in February 2013 following hip arthoplasty. The SLWG has since reviewed its action trackers. Current action trackers are in place for Ward 9 and Theatres/ASDU, respectively. These are summarised in Table 5, below.

Ward 9: Action tracker themes
Change of dressings prior to discharge; feedback mechanism from community staff and patients; visitor numbers, domestic cover, length of stay, catheterisation, blood transfusions; clinical pathways; and hand hygiene compliance.
Theatres/ASDU: Action tracker themes
Sterile dressings; emergency surgery out with laminar flow environment; case notes review for sterilisation tracing; dress policy; and hand hygiene compliance

Table 5. Short Life Working Group action tracker themes

Healthcare Environment Inspectorate

- In February 2013, the Healthcare Environment Inspectorate (HEI) published a report following an unannounced inspection of Borders General Hospital in December 2012.

The report confirmed that NHS Borders has made improvements since the previous inspection and is complying with the majority of NHS QIS HAI standards to protect patients, staff and visitors from the risk of acquiring an infection.

The inspection resulted in three requirements and two recommendations. A subsequent action plan was developed to address these items. A number of the outlined actions have been completed with the remainder being within their target dates. A 16-week post-inspection follow-up report has been completed.

HEI has circulated a document for consultation that sets out proposals and recommendations for inspections of non-acute/community hospitals. These inspections will be undertaken as part of the current cycle of inspections commencing in autumn 2013. A co-ordinated response from NHS Borders was returned that welcomes the shift in focus from the acute setting to include non-acute/community hospital locations. The first inspection will be announced, which will promote the learning and development process that was experienced during the early acute hospital inspections. This is considered as a valuable step, particularly for staff members entering a new inspection process, which will help ensure the community hospitals meet HEI standards similar to those achieved within BGH.

Surgical Site Infection (SSI) Data Table

	Year	NHS Borders				NHS Scotland		Comments
		Number of Procedures	Number of Surgical Site Infections (SSIs)	SSI Rate %	95% Confidence Interval	National SSI Rate %	95% Confidence Interval	
C-Section	2009	222	1	**0.50**	0.1 to 2.5	**2.6**	2.3 to 2.8	
	2010	257	3	**1.20**	0.4 to 3.4	**2.6**	2.4 to 2.9	
	2011	222	1	**0.00**	0 to 3.3	**1.4**	1.1 to 1.8	
	2012*	244	1	**0.40**	0.1 to 2.5	**2**	1.8 to 2.3	
	2013*	67	0	**0.00**	0.0 to 5.7	**1.3**	0.9 to 1.8	
Hip Arthroplasty	2009	230	2	**0.90**	0.2 to 3.1	**1.2**	1.0 to 1.4	
	2010	239	0	**0.00**	0 to 1.8	**0.8**	0.7 to 1.1	
	2011	222	0	**0.00**	0 to 3.3	**1.4**	1.1 to 1.8	
	2012*	281	8	**2.80**	1.4 to 5.5	**0.8**	0.6 to 1.0	
	2013*	90	2	**2.20**	0.6 to 7.7	**1**	0.6 to 1.7	Refer to table 5, page 8 for action tracker themes
Knee Arthroplasty	2011	154	1	**0.68**	0 to 2.4	**0.2**	0.1 to 0.5	Please note the small number of infections and procedures which impacts on the overall SSI rate.
	2012*	136	0	**0.00**	0 to 2.7	**0.2**	0.1 to 0.3	
	2013*	43	0	**0.00**	0.0 to 8.4	**0.1**	0.0 to 0.7	
Colorectal Surgery	2012*	80	2	**2.50**	0.7 to 8.7	**15**	11.4 to 19.5	Large Bowel
	2012*	4	0	**0.00**	0 to 49.0	**0**	0 to 49.0	Small Bowel
	2013*	16	1	**6.20**	1.1 to 28.3	**16.1**	9.0 to 27.2	Large Bowel
	2013*	1	0	**0.00**	0 to 79.3	**66.7**	20.8 to 93.9	Small Bowel

*NB. 2012/2013 data is provisional and may be subject to revision once validated by Health Protection Scotland

Table 6: Surgical Site Infection Data Table

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 – *delete if appropriate*] 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**

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.

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.washyourhandsofthem.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/
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.

NHS Borders Board Report Card

The HEAT target graphs on the following page have been adjusted to include the new targets to be achieved by 31st March 2013. The new targets are a rate of 0.39 cases of CDI per 1000 occupied bed days for patients aged 65+, and a rate of 0.26 SAB cases per 1000 acute occupied bed days. The last data point on these graphs (Mar 12 - Jan 13) is currently provisional and will be revised once official data is available from Health Protection Scotland.

The hand hygiene compliance data is now based on monthly patient safety audit. National hand hygiene monitoring continues on a bi-monthly basis. Due to the implementation of a new national reporting tool, from April 2012, data for cleanliness and estates monitoring is an average figure and subject to future revision.

Hand Hygiene Monitoring Compliance (%)

Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
98.7	97.8	96.8	98.9	98.7	99.4	99.5	97.9	98.4	99.0	98.6	99.1

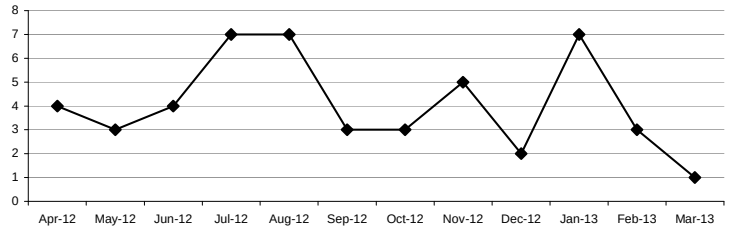
Cleaning Compliance (%)

Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
N/A	96.2	97.6	97.1	98.0	96.7	96.1	96.4	97.8	96.9	97.1	97.8

Estates Monitoring Compliance (%)

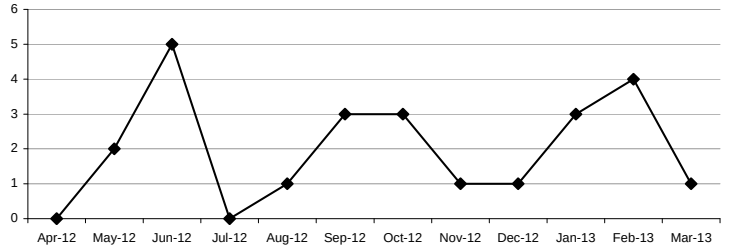
Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
N/A	98.4	98.5	97.3	98.4	97.5	98.5	96.4	98.3	98.3	98.5	98.5

***Clostridium difficile* Cases (ages 15 and over)**



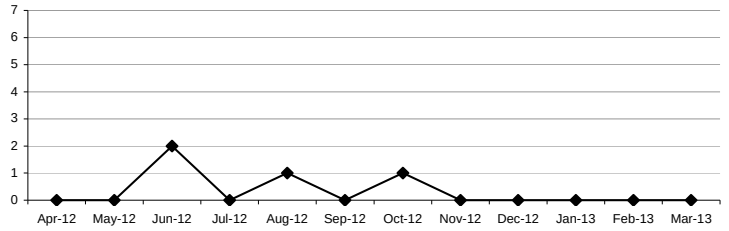
Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
4	3	4	7	7	3	3	5	2	7	3	1

Total *Staphylococcus aureus* Bacteraemia Cases (all ages)



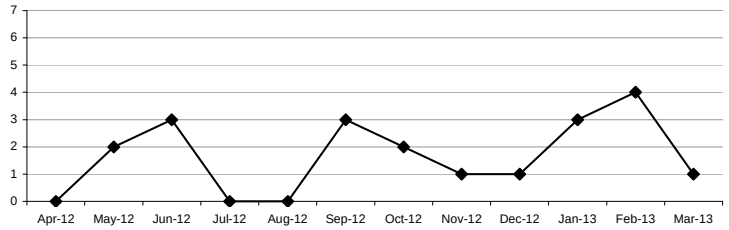
Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
0	2	5	0	1	3	3	1	1	3	4	1

MRSA Bacteraemia Cases (all ages)



Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
0	0	2	0	1	0	1	0	0	0	0	0

MSSA Bacteraemia Cases (all ages)

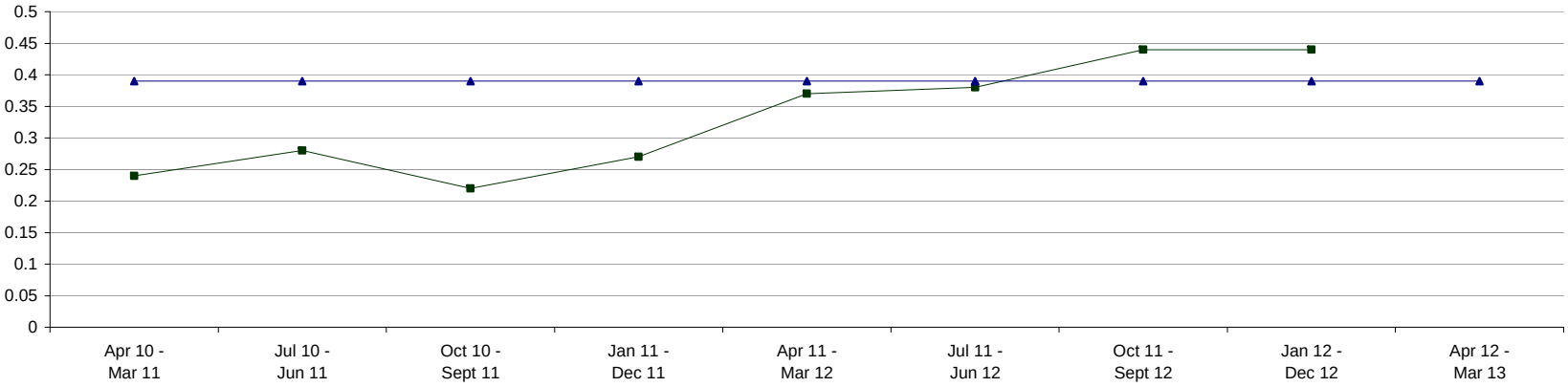


Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
0	2	3	0	0	3	2	1	1	3	4	1

Figure 4. NHS Borders Board Report Card

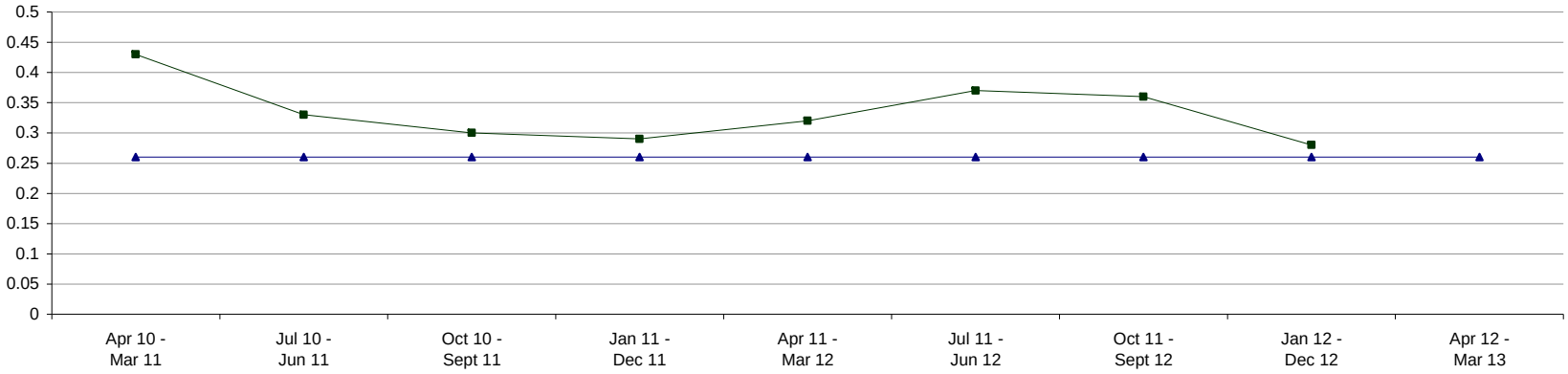
Figure 5. Qtr rolling year CDI cases per occupied bed days

Quarterly rolling year *Clostridium difficile* Infection Cases per 1000 total occupied bed days for HEAT Target Measurement



	Apr 10 - Mar 11	Jul 10 - Jun 11	Oct 10 - Sept 11	Jan 11 - Dec 11	Apr 11 - Mar 12	Jul 11 - Jun 12	Oct 11 - Sept 12	Jan 12 - Dec 12	Apr 12 - Mar 13
Actual Performance	0.24	0.28	0.22	0.27	0.37	0.38	0.44	0.44	
Target	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39

Quarterly rolling year *Staphylococcus aureus* Bacteraemia Rates per 1000 Acute Occupied Bed Days for HEAT Target Measurement



	Apr 10 - Mar 11	Jul 10 - Jun 11	Oct 10 - Sept 11	Jan 11 - Dec 11	Apr 11 - Mar 12	Jul 11 - Jun 12	Oct 11 - Sept 12	Jan 12 - Dec 12	Apr 12 - Mar 13
Actual Performance	0.43	0.33	0.30	0.29	0.32	0.37	0.36	0.28	
Target	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26

Figure 6. Quarterly rolling year SAB cases per 1000 occupied bed days

Borders General Hospital Report Card

The hand hygiene data in this report card is based on monthly patient safety audits conducted by each ward.

The hand hygiene, cleaning and estates data in this report card reflect overall compliance in Borders General Hospital.

Hand Hygiene Monitoring Compliance (%)

Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
98.7	97.2	98.7	99.0	98.7	99.4	99.4	97.7	98.0	98.7	98.4	98.9

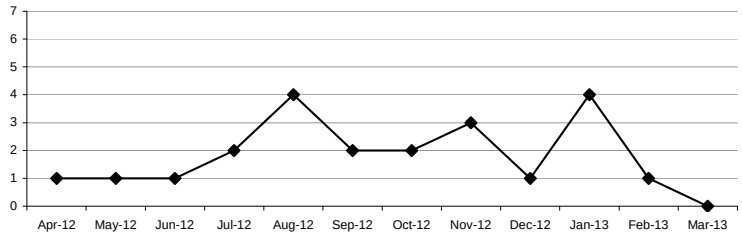
Cleaning Compliance (%)

Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
N/A	97.8	97.5	97.3	98.0	97.2	97.2	97.0	98.2	96.8	97.7	97.8

Estates Monitoring Compliance (%)

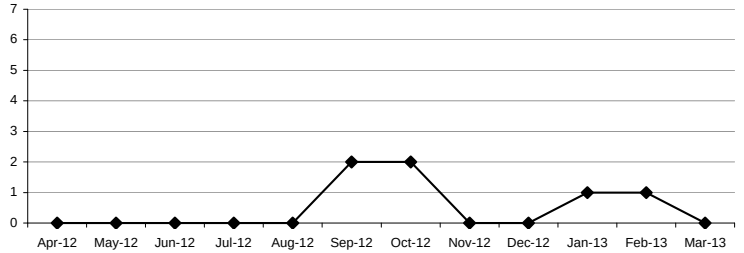
Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
N/A	98.7	97.8	97.3	98.5	98.3	98.4	98.0	98.7	98.3	98.4	98.5

***Clostridium difficile* Cases (ages 15 and over)**



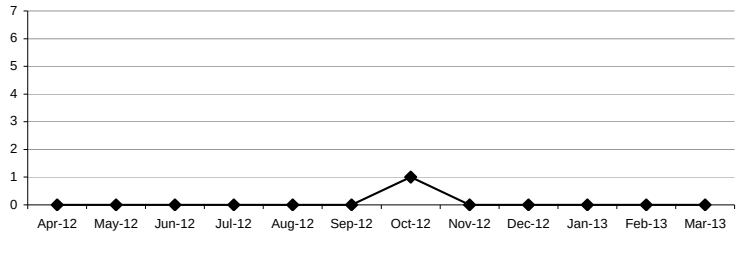
Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
1	1	1	2	4	2	2	3	1	4	1	0

Total *Staphylococcus aureus* Bacteraemia Cases (all ages)



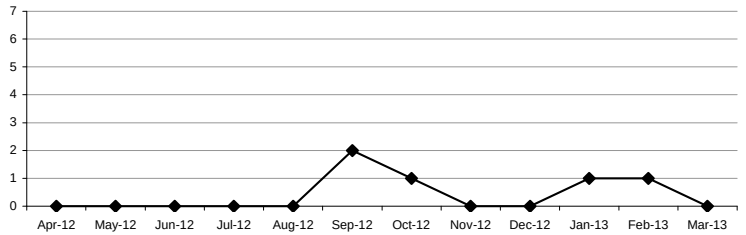
Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
0	0	0	0	0	2	2	0	0	1	1	0

MRSA Bacteraemia Cases (all ages)



Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
0	0	0	0	0	0	1	0	0	0	0	0

MSSA Bacteraemia Cases (all ages)



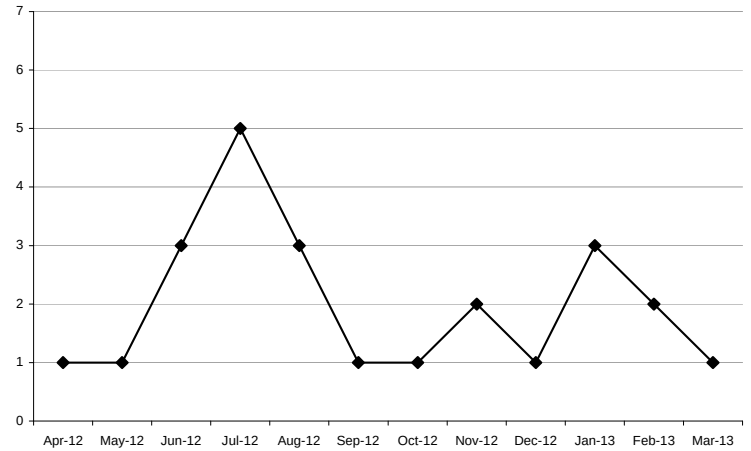
Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
0	0	0	0	0	2	1	0	0	1	1	0

Figure 7. Borders General Hospital Report Card

Out of Hospital Infections

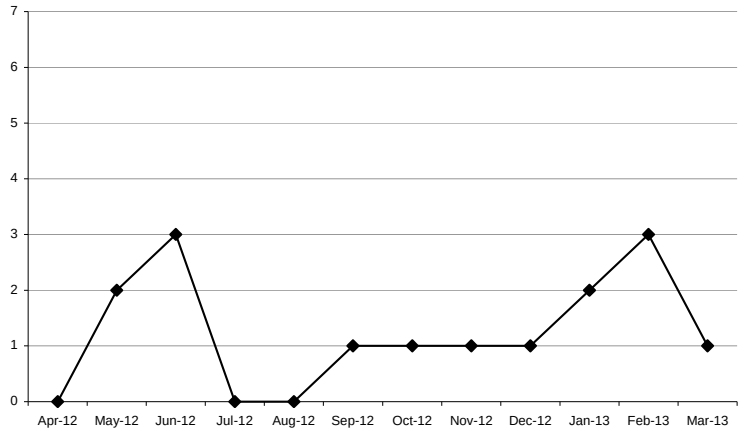
Out of Hospital and Community Hospital CDI cases increased in July 2012, however there is an overall downward trends since this peak.

***Clostridium difficile* Infection Cases**



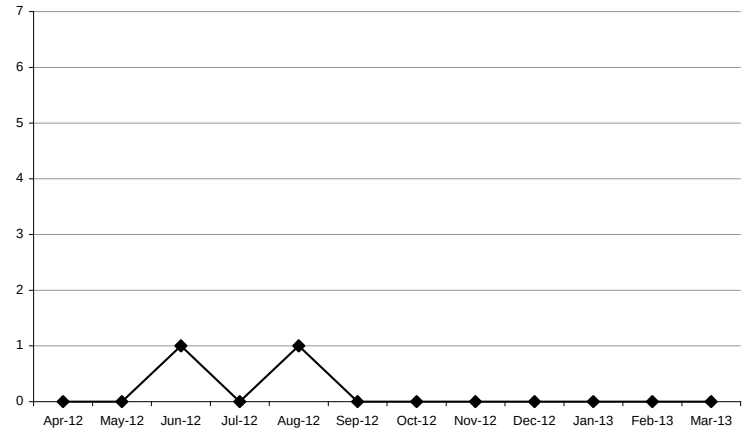
Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
1	1	3	5	3	1	1	2	1	3	2	1

MSSA Bacteraemia Cases



Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
0	2	3	0	0	1	1	1	1	2	3	1

MRSA Bacteraemia Cases



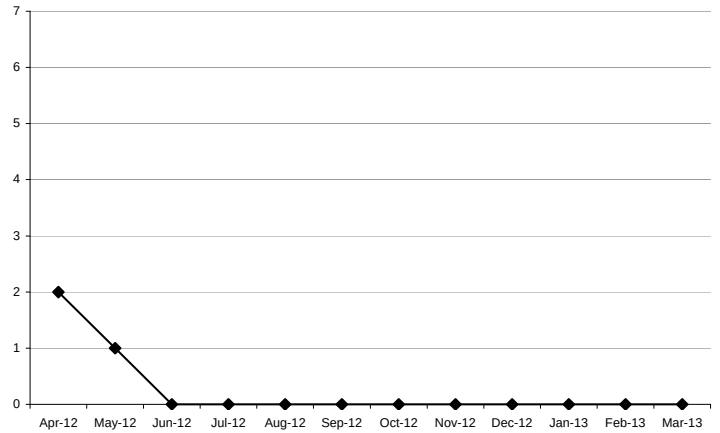
Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
0	0	1	0	1	0	0	0	0	0	0	0

Figure 8. Out of Hospital Infections Report Card

Community Hospitals

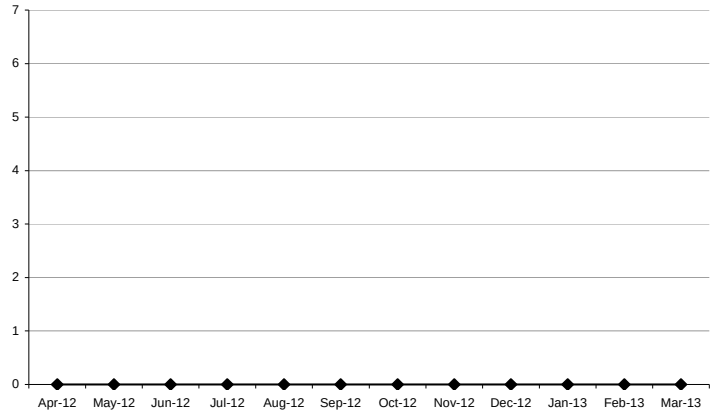
The one case of MRSA bacteraemia came from a patient admitted from a Care Home. All cases of MSSA bacteraemia were admitted via A&E, blood cultures were taken within 48 hours of admittance.

Clostridium difficile Infection Cases



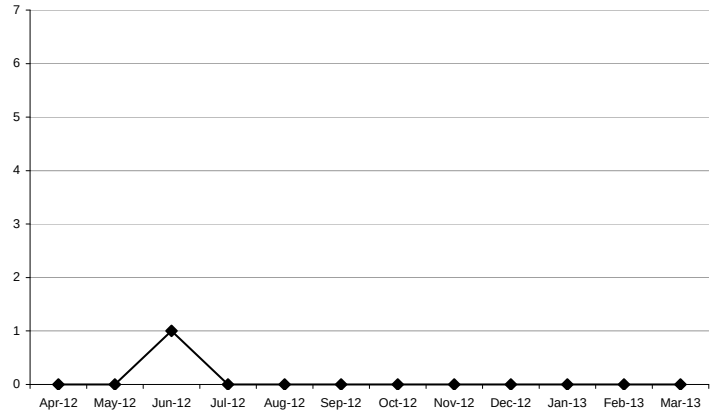
Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
2	1	0	0	0	0	0	0	0	0	0	0

MSSA Bacteraemia Cases



Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
0	0	0	0	0	0	0	0	0	0	0	0

MRSA Bacteraemia Cases



Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
0	0	1	0	0	0	0	0	0	0	0	0

Figure 9. Community Hospitals Report Card