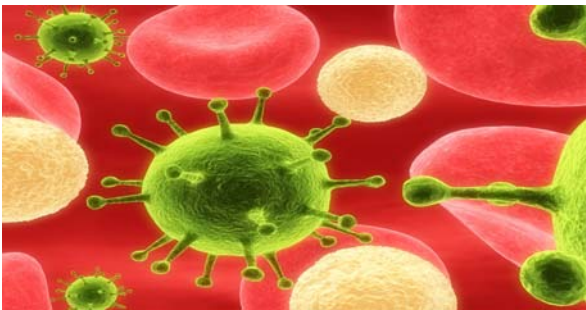




NHS Forth Valley Healthcare Associated Infection Reporting Template (HAIRT)



HEALTHCARE ASSOCIATED INFECTION REPORTING TEMPLATE (HAIRT)

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HEALTHCARE ASSOCIATED INFECTION REPORTING TEMPLATE (HAIRT)

1. PURPOSE OF REPORT

The purpose of this report is to ensure regular and clear reporting to the public on Healthcare Associated Infection (HAI) within NHS Forth Valley. The Cabinet Secretary for Health and Community Care wants to make sure all NHS Boards report in public on a bi-monthly basis on key aspects of HAI. NHS Forth Valley has taken time to develop a report that is user friendly for the public which will help to answer questions as well as providing key information.

The report includes information on:

- C. difficile associated disease (CDAD)
- Staph aureus bacteraemias (SABs)
- Hand Hygiene programme
- Cleaning Services Specification Compliance
- Significant HAI incidents/outbreaks, emerging threats
- Progress on compliance with the national HAI Programme – that is the ‘RAG’ report (Red Amber, Green)
- Additional activities supporting the agenda - What are we doing to prevent HAI and what can the public do to help?

2. WHAT IS HEALTHCARE ASSOCIATED INFECTION?

This is an infection that may affect people when they are receiving healthcare. Most Healthcare associated infections are caused by germs that live normally on or in our bodies and usually do us no harm. Being ill or receiving treatment can make your natural defence system (immune system) weaker than usual.

You can catch this infection when at home or in the community, in hospitals, care homes or in doctor’s surgeries.

The most well known are MRSA, C.Diff and Norovirus which are each described below.

2.1 What happens if you catch an HAI?

This depends on the type of infection that you get and your general health. The health and social care staff looking after you will talk to you about the care and treatment you need. In hospital you may be put into a single room to prevent the infection from spreading to other people; need extra medicine, for example, antibiotics; and receive advice about what you can do to stop the infection spreading.

3.0 C. DIFFICILE

3.1 C. difficile– what is it?

Clostridium difficile (C. diff) is a germ (bacterium) that many people have naturally in their bowel. C.diff normally doesn't cause any problems in healthy people. Studies in hospitals show that 2 out of 10 people will normally have this in their gut and be fine.

3.2 CDAD what is it?

This stands for Clostridium Difficile Associated Disease and is what happens when the germ causes problems. The symptoms include mild to severe diarrhoea and stomach pains. In many cases the infection is mild and will only last a few days and not require treatment. In a few cases the effects are more serious, lasting for several weeks and it will be necessary to treat the infection.

3.3 What are the main causes of CDAD?

Alterations of natural bugs in the gut make it possible for the bug to cause problems. 90% of cases are thought to be related to the use of antibiotics as these alter the natural bugs in the gut. Certain antibiotics kill many of the 'good' bugs in the gut and therefore allow C.diff to cause an infection. It is, of course, important that patients are treated with antibiotics when they need them, and an unwanted effect of this is that the patient may then get CDAD. However, NHS Forth Valley have an Antibiotic Policy to make sure that the best antibiotics are used to treat the patient and lessen the risk of CDAD. Being elderly (85% of all cases are in the elderly) or very unwell can also alter the natural bugs in the gut, and unfortunately these are the individuals who often require antibiotics.

People will either have had the germ already in their own gut or they can pick it up from their environment. C.diff is passed out in the faeces of people who are infected and spreads to the environment. C. diff can survive a long time in the surroundings. People in the community, health care workers, visitors and patients can spread the infection to themselves and others by not washing their hands. You can have the infection more than once.

3.4 How do you test for it?

A sample of faeces (bowel movement) is sent to a laboratory to be tested for the presence of a poison (toxin) the germ can produce.

3.5 How are we doing in NHS Forth Valley?

All samples that are positive for C. diff are counted up. We divide them into 4 categories depending on how much the patient is affected by having c.diff in their gut: - Non-affected; mild; moderate and severe (all of the last three together are called affected).

The usual number of C. diff positive patients found in patients in NHS Forth Valley in 2008 was 30 per month. Looking at the graph below (Figure 1) you can see how we have been doing since 2006, which is the baseline year for the data, and when we started collecting information. On the left hand side of the graph 'ave count' means the average number of cases per month.

Figure1 Chart showing the number of C. diff positive samples from Apr 06-present

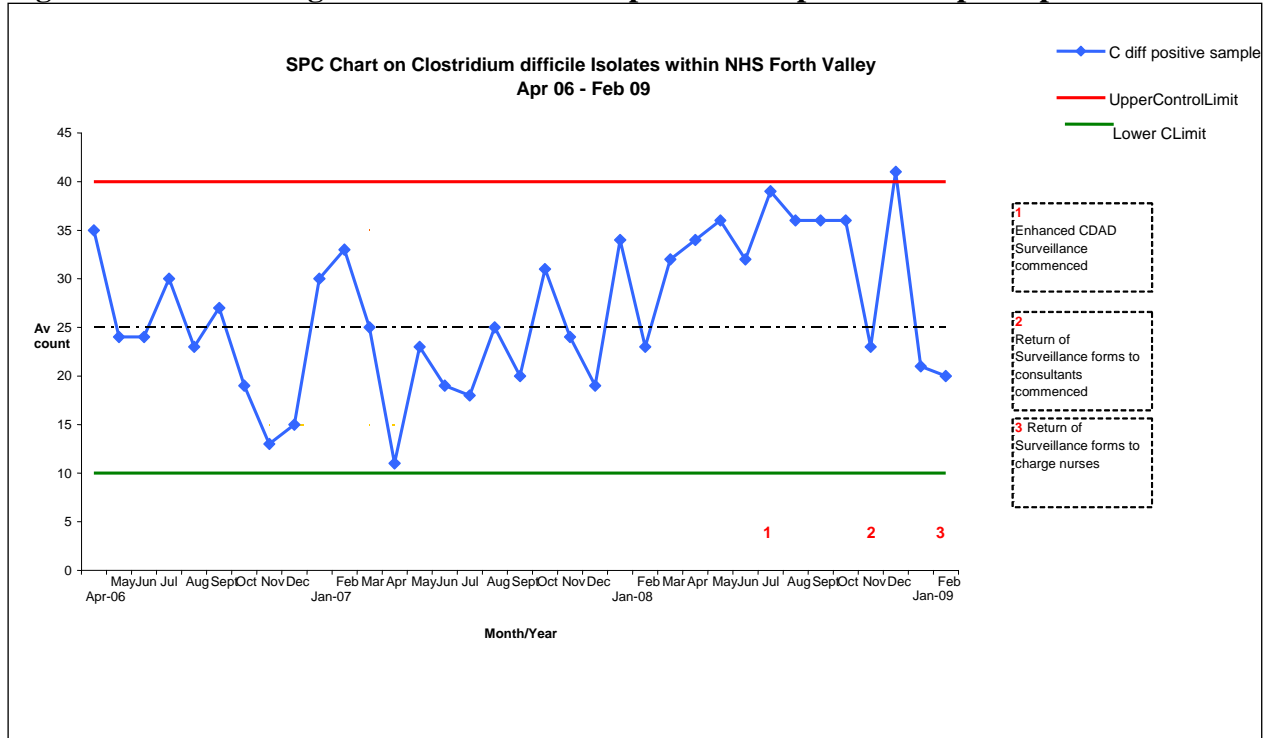


Chart code:

UCL = Upper control limit. LCL = Lower control limit. Crossing these lines indicates that something has happened within the system which is not due to chance and needs to be carefully looked at.

Infections come from the community as well as hospitals and other healthcare facilities. We have broken down this information for the last two months – January and February 2009, they are in the table below.

Table 1 Source and category of C.diff positive samples

Source of Infection	2008* Average per month	January 2009	February 2009
Community**	2	0	3
Healthcare***	4	2	3
Hospital****	21	19	14
Category			
Affected	8	12	12
Non-Affected	5	9	8

*July – December 2008 (earlier average figures are also available)
 **community – stool sample is taken within 48 hours of admission to the hospital and the patient has had no contact with any part of the healthcare system i.e. GPs/District Nurse/Outpatients in the last month
 ***health care – stool sample is taken <48 hours after admission or has been transferred from another hospital and receives regular care between community services/hospital services/regular care at an outpatient department
 ****hospital - stool sample is taken >48 hours after admission to hospital

In January 20% (4/21) and in February 35% (7/20) of the cases had the infection for a second time. Patients can re-infect themselves if they do not have adequate hygiene. There have been no cases of person to person spread. It looks like the number of cases of C diff was increasing over the last year but it is important to realise that many of these cases were 'not affected', so the patient was fine and no treatment was needed

3.6 What are we aiming for?

Our target in Forth Valley is to reduce problems from C.Diff to as low a level as possible. It will be impossible to completely stop them as we cannot remove the bug from all the environments in which we live in. However we do have a target to reduce our C diff cases to 17 per month by December 2009.

3.7 Antibiotic prescribing policy

We are working within NHS FV to make sure that patients only get antibiotics when they are needed and that they get the best one for the bug they have. A new policy on antibiotic prescribing is to be started by the end of March 2009. A second antimicrobial pharmacist is about to start working in NHS FV to help guide doctors on the best antibiotics to prescribe.

3.8 Surveillance

Surveillance is an important aspect of the control and management of infection. All HA infections are subject to surveillance. In the case of C.diff, surveillance is the monitoring of the number of C.diff positive samples each month alongside the collection of information on each patient. Analysing this information and discussing it with health care workers allows them to see if the actions they are taking to reduce infections are being effective.

Enhanced surveillance is where more information is collected to improve understanding of the cause of infections. Enhanced surveillance was started for C.diff in August 2008.

4.0 STAPHYLOCOCCUS AUREUS BACTERAEMIA (SABS)

4.1 SAB - What is it?

Staphylococcus aureus bacteraemias (SABs) are infections of the blood stream caused by the *Staphylococcus aureus* (SA) bug. SA lives on the skin, nose, or mouth of 3 out of 10 healthy people. SA only becomes a problem to people who are vulnerable to infection (for example, the elderly, the very young and those with conditions such as diabetes or kidney disease). The germ is more likely to cause infection if it is able to enter the body, such as through wounds, or tubes (for example, catheters) placed in the body for treatment.

4.2 What is the difference between MRSA and MSSA?

MRSA is one of the bugs often referred to in the papers as a “super bug,” MRSA and MSSA are the same bug except MSSA can be killed by many antibiotics but MRSA can only be killed by some antibiotics. MRSA stands for Meticillin Resistant *Staphylococcus aureus* and MSSA stands for Meticillin Sensitive *Staphylococcus aureus*.

4.3 How are we doing in NHS Forth Valley?

The usual number of SABs found in patients in NHS Forth Valley in 2008 was 10 per month. Looking at the graph below (Figure 2) you can see how we have been doing since 2006. (Going back further NHS FV has actually had little change in rates since 2001).

Figure 2 Chart showing number of SABs from Sep 06-present

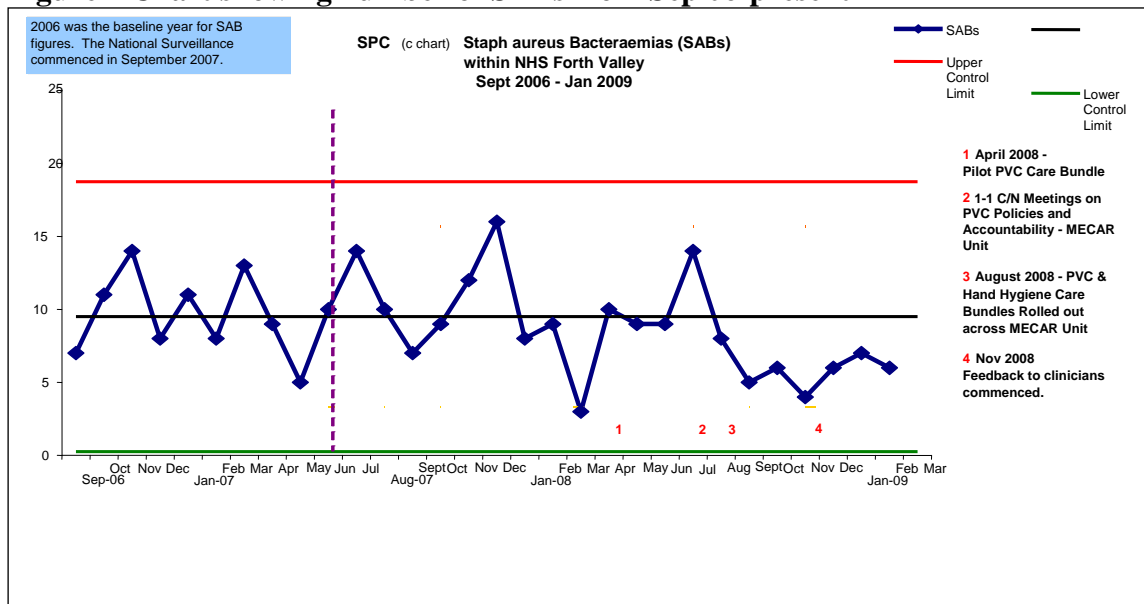


Chart code:

UCL = Upper control limit. LCL = Lower control limit. Crossing these lines indicates that something has happened within the system which is not due to chance and needs to be carefully looked at.

Infections start in different places and we count them depending on where they started. We have broken this information down for the last two months – January and February 2009, they are in the Table 2 below.

Table 2 Source and Type of SAB

Source	2008 Average	January 2009	February 2009
Community*	2	3	5
Healthcare**	2	2	2
Hospital***	4	2	5
Type			
MRSA	2	1	7
MSSA	5	6	5

*community – blood culture was taken within 48 hours of admission to the hospital and the patient has had no contact with any part of the healthcare system within the last month

**healthcare – blood culture is taken <48 hours after admission or has been transferred from another hospital and receives regular community care services/hospital services/regular care at an outpatient department

***hospital – blood culture was taken >48 hours after admission to hospital

4.4 What are the main causes of SABs?

In hospitals the main cause is through intravenous devices (tubes that enter into veins from outside the body) although infection through wounds and broken skin are also major causes. In the community the more common causes are intravenous drug use and septic arthritis and healthcare practises which break the skin or enter a body cavity.

The infection control team involving the nurse specialists and the infection control Doctor meet to review individual patient cases to identify the root cause of the infection or source of the SAB and identify whether the infection is making the patient' unwell. SABs are then divided into 2 categories, significant and non-significant; depending on how affected the patient is by the SAB. The category non significant is used when the patient is not unwell from the presence of the bug. These SABs are probably a result of contamination of the blood sample when it was taken rather than a true bacteraemia.

Table 3 SABs Significant and non-significant

	2008 Average	January 2009	February 2009
Significant infection	7	7	7
Not significant	1	0	1
Still to be reviewed			4

4.5 What are we aiming for?

Our target in Forth Valley is to reduce infections as far as possible. We have a target to reduce all SABs to 7 per month by December 2009 (that is reducing by 30% from 2007 to 2010).

4.6 Surveillance

As noted in Para 3.8, surveillance is an important aspect of the control and management of infection. In the case of SABs surveillance is the monitoring of the number of SABs each month alongside the collection of information on each patient. Analysing this information and discussing it with health care workers allows them to see if the actions they are taking to reduce infections are being effective.

Enhanced surveillance is where more information is collected to improve understanding of the cause of infections. Enhanced surveillance was started for SABs in August 2007.

5.0 SIGNIFICANT HAI INCIDENTS / OUTBREAKS

During the months of January and February 2009 there were several outbreaks of Norovirus. The outbreak management plan was fully implemented and control measures, such as closure of wards were successfully applied. There were some staffing pressures as staff were also affected by norovirus. A weekly update from Health Protection Scotland can be found at: <http://www.hps.scot.nhs.uk/>.

5.1 What are noroviruses?

Noroviruses are a group of viruses that cause gastroenteritis (a tummy bug). They are commonly called winter vomiting virus.

5.2 What are the symptoms of illness caused by noroviruses?

The symptoms of norovirus illness usually include nausea, vomiting, diarrhea, and some stomach cramping. In most people the illness is self-limiting with symptoms lasting for about 1 or 2 days. Problems with dehydration are usually only seen among the very young, the elderly, and persons with weakened immune systems.

5.3 How do you get noroviruses?

Noroviruses are found in the stool or vomit of infected people. People can become infected with the virus in several ways, including:

- eating food or drinking liquids that are contaminated with norovirus;
- touching surfaces or objects contaminated with norovirus, and then placing their hand in their mouth;
- having direct contact with another person who is infected and showing symptoms.

This virus is very contagious and can spread rapidly throughout environments.

People infected with norovirus are contagious from the moment they begin feeling ill to at least 3 days after recovery. Some people may be contagious for as long as 2 weeks after recovery. Therefore, it is particularly important for people to use good hand washing and other hygienic practices to prevent spread.

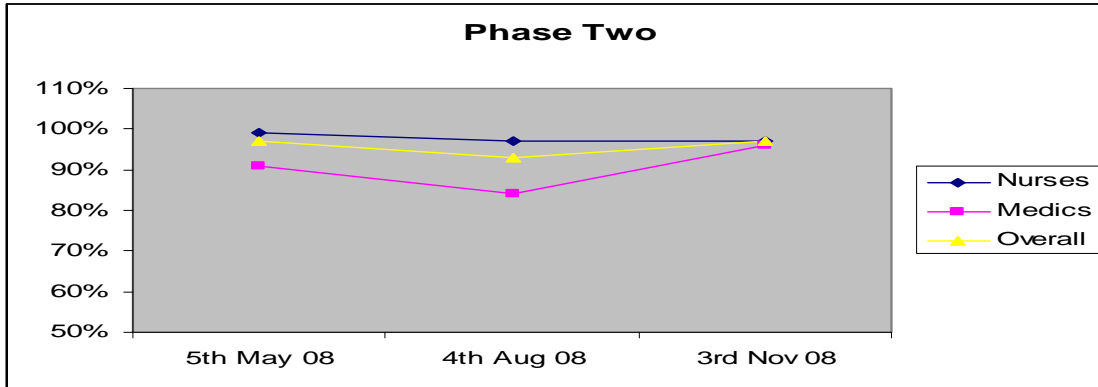
5.4 What treatment is available for people with norovirus infection?

There is no specific treatment at present, except supportive care.

6.0 HAND HYGIENE (HH) PROGRAMME

NHS Forth Valley has had good compliance with hand washing in the years 2007-08. This means that all staff are observed on how often they wash their hands when they are required to. Forth Valley staff do very well at this and wash their hands when they should over 90% of the time. This is a high figure but NHS Forth Valley is not complacent and is working to achieve a zero tolerance to non-compliance with hand hygiene from January 2009 onwards. There is also now a focus on improving audit of staff washing their hands when they are not aware that someone is watching them. Figures 3 below shows that while the doctors' hand washing was not as good as the nurses' in May or August 2008 it had improved to be just as good by November 2008.

Figure 3 FV Hand Hygiene compliance

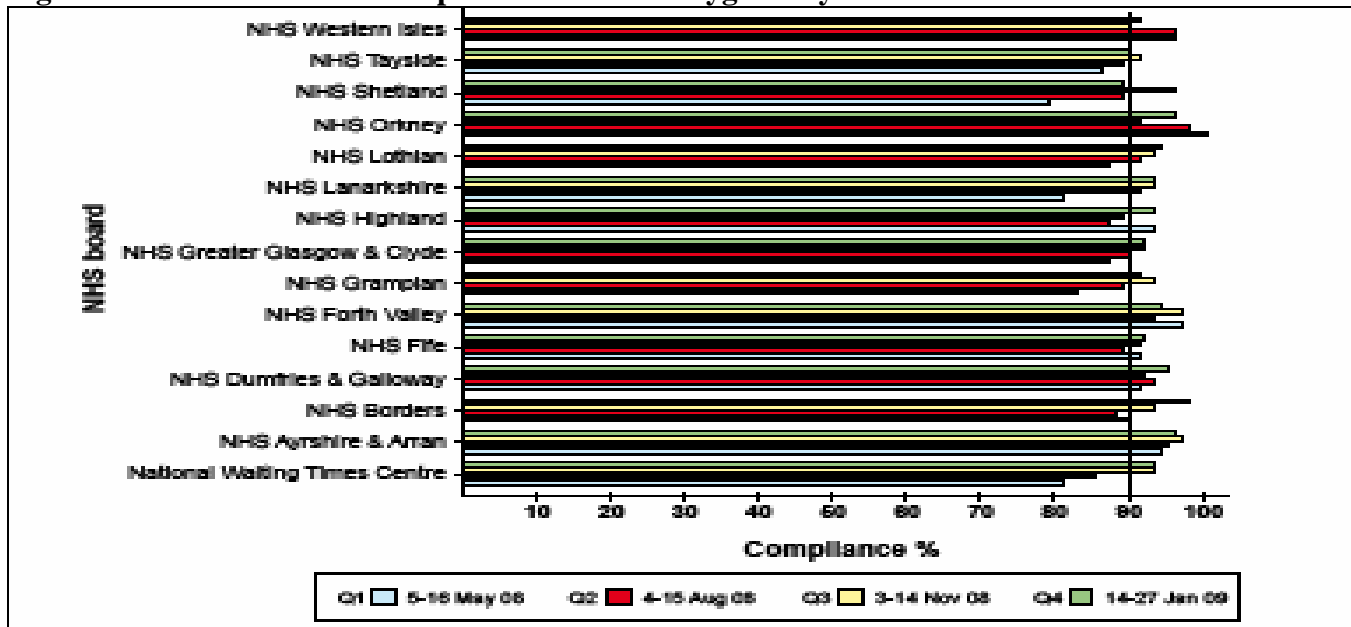


We completed an audit again in January and February 2009 and were well above the 90% compliance.

National Comparison

The most recent Health Protection Scotland (HPS) national report figure 4 below, shows that NHS FV performs better than most other health boards in hand hygiene.

Figure 4. Audit results for compliance with hand hygiene by NHS Board



(The vertical line represents the at least 90% compliance target)

7.0 CLEANING SERVICES SPECIFICATION COMPLIANCE

There are national cleaning specifications on how to clean different areas in healthcare establishments effectively. There is a compliance target of 95%. Local results for the cleaning monitoring tool in Jan and Feb 2009 are for 3 separate areas across NHS FV: (1) Falkirk Royal Infirmary, (2) Stirling Royal Infirmary (3) Primary Care : health centres and community hospitals. These are in table 4 below

Table 4 Cleaning services specification compliance in NHS FV

	Percentage pass in January 2009	Percentage pass in February 2009
Falkirk Royal Infirmary	94	95
Stirling Royal Infirmary	93	92
Health centres and community hospitals	96	94

National comparison for acute hospitals in Health Boards

A national comparison for cleaning compliance in acute hospitals can be seen in table 5. Along with other health boards NHS FV performs its cleaning duties well

Table 5 Compliance with cleaning specification by board

<i>Health Board</i>	<i>3rd quarter Oct-Dec 2007/2008</i>	<i>4th quarter Jan-March 2007/2008</i>	<i>1st quarter April-June 2008/2009</i>	<i>2nd quarter July-Sept 2008/2009</i>
	<i>Total % Pass</i>	<i>Total % Pass</i>	<i>Total % Pass</i>	<i>Total % Pass</i>
SCOTLAND	96.0	96.1	96.1	96.0
Ayrshire and Arran	96.1	96.4	96.4	95.9
Borders	97.6	97.1	97.8	97.2
Dumfries and Galloway	97.7	97.3	97.3	97.4
Fife	96.4	96.5	96.5	97.0
Forth Valley	95.0	95.3	95.5	94.7
Grampian	97.6	97.3	97.2	97.1
Greater Glasgow and Clyde	96.0	96.3	96.2	96.4
Highland	95.1	95.3	95.1	95.3
Lanarkshire	95.6	96.0	95.5	94.8
Lothian	94.8	94.6	94.7	94.5
Orkney	97.7	95.2	92.8	96.1
Shetland	98.3	97.8	97.8	97.1
Tayside	95.5	95.8	96.1	95.9
Western Isles	96.0	95.6	95.9	95.6
The State Hospitals Board for Scotland	91.8	93.6	93.8	94.0
Golden Jubilee National Hospital	93.2	93.6	93.4	93.4
Blood Transfusion Services				98.6

8.0 PROGRESS ON COMPLIANCE WITH A NATIONAL HAI PROGRAMME (THE RAG REPORT)

In November 2008 the government asked each health board for a monthly report back on how they are meeting several targets concerning reducing HAI. There are 24 targets in total. Progress is marked by a colour code against the target:-

- Purple - achieved
- Green - on track, to be completed as expected
- Amber - nearly complete but a few issues outstanding
- Red - not reached

Table 6 Progress on compliance with a national HAI programme

Code	Progress
Purple	15
Green	8
Amber	0
Red	1

The one 'red' issue is to do with applying standards to buildings that help to reduce HAI. There is still clarity required for all health boards around the detail of this issue and it has been raised nationally with the government and a response is currently awaited.

9.0 WHAT ELSE ARE WE DOING TO PREVENT INFECTION IN NHS FORTH VALLEY?

NHS FV has an Area Prevention of Infection Control team which oversees all that is going on. Our infection control policies include hospital and community healthcare. In NHS Forth Valley we comply with statutory government requirements including the:

- Government HAI Task Force Action Plan
- Quality Improvement Scotland's standards for HAI 2008
- Scottish Patient Safety Programme
www.patientsafetyalliance.scot.nhs.uk/programme
- National Hand Hygiene Campaign
www.hps.scot.nhs.uk/haic/ic/nationalhandhygienecampaign.aspx
<http://www.washyourhandsofthem.com/>
- National Cleaning Services Specification

Local Infection Control Team

NHS FV has an Infection Control Team which:

- Advises and trains staff in how to prevent infection and to ensure no transfer of infection occurs.
- Develop infection control programmes, e.g. hand hygiene.

Public and Patient Involvement

Forth Valley is fortunate to have a committed patient and public involvement through the Patient Public Forums in the 3 CHPs and the Public Patient Panel who are actively engaged in improving healthcare services including preventing HAI and monitoring domestic services.

Horizon Scanning

At the moment 3 Health Boards are piloting MRSA Screening.(see section SABspg 6) It is anticipated that this will become a national programme and be started in NHS Forth Valley late 2009/2010.

10.0 WHAT CAN THE PUBLIC DO TO HELP REDUCE AND CONTROL INFECTION?

There is a lot that members of the public friends and relatives can do to prevent HAI, such as:-

- Think about keeping patients safe before you visit someone in hospital or a Carehome - If you, or someone you live with has a cold or diarrhoea, or if you feel unwell, try not to visit friends or relatives in hospital until you're better.
- Wash and dry your hands before visiting a hospital or care home. Always wash your hands after going to the toilet. If there is alcohol hand gel provided at the ward door or at the bedside, use it. Please also wash your hands when directed by ward staff.
- Ask ward staff for advice before you bring in food or drink for someone you are visiting in hospital.
- If you visit someone in hospital,
 - don't sit on their bed
 - keep the number of visitors to a minimum at any one time.
 - never touch dressings, drips, or other equipment around the bed.
- If you think NHS premises are not as clean as they should be, let the sister or charge nurse know.
- If you think a healthcare worker has forgotten to wash their hands, remind them about this.

Specifics about laundry. The risk of infection from laundry is low but staff will put clothes in a plastic bag that they will secure. At home remove items from bag and put them directly into the washing machine at the highest temperature suitable for the garment. More advice is available from <http://www.documents.hps.scot.nhs.uk/hai/infection-control/publications/washing-clothes-home.pdf>

Advice leaflets are available in ward areas and provided by staff along with advice given as to whether the item is soiled or not.

For further information please contact:

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Stirling FK9 4SW

01786 463031

www.show.scot.nhs.uk/nhsfv