

Lanarkshire NHS Board
27 May 2009

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SUBJECT: HAI UPDATE

PURPOSE

This report provides a monthly update of performance in relation to health care associated infection using the national reporting template. Key issues covered include:-

- Performance against Health Efficiency Access Targets
- Infection prevalence rates
- Cleanliness of clinical facilities
- Progress against national Clostridium Difficile action plan
- Progress against key issues within the HAI Task Force 3 year delivery plan
- Surgical Site Infection Surveillance
- Antimicrobial prescribing

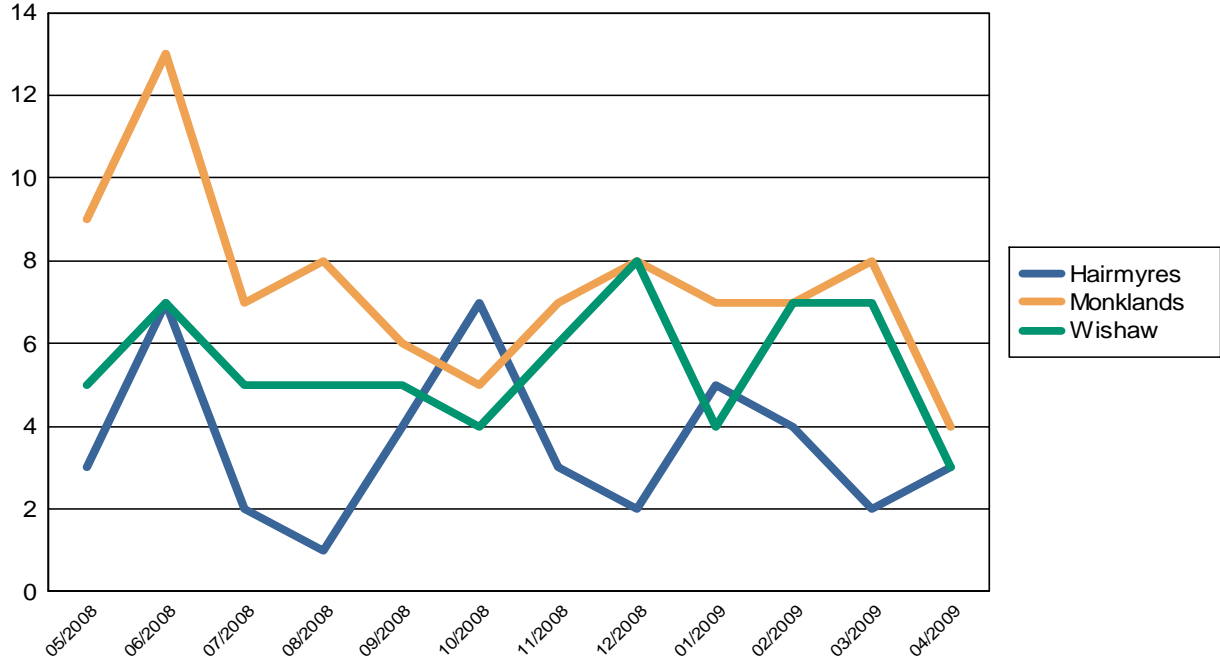
1. STAPHYLOCOCCUS AUREUS BACTERAEMIAS (SAB)

1.1 Short/Medium/Long Term Trends in SAB, plus Methicillin Resistant Staphylococcus Aureus (MRSA), MSSA Bacteraemias

Tables 1 and 2 shows the trend and that the clinical areas with relatively high numbers of Staphylococcus Aureus Bacteraemias continue to be General Medicine, Accident and Emergency, General Surgery and Renal. This is in line with previous reports and the national picture.

Table 1: Staphylococcus Aureus Bacteraemias (SAB) Numbers Showing Hospital Totals (May 2008 – April 2009)

SAB numbers per hospital



	Hairmyres	Monklands	Wishaw	Total
05/2008	3	9	5	17
06/2008	7	13	7	27
07/2008	2	7	5	14
08/2008	1	8	5	14
09/2008	4	6	5	15
10/2008	7	5	4	16
11/2008	3	7	6	16
12/2008	2	8	8	18
01/2009	5	7	4	16
02/2009	4	7	7	18
03/2009	2	8	7	17
04/2009	3	4	3	10
Total	43	89	66	198

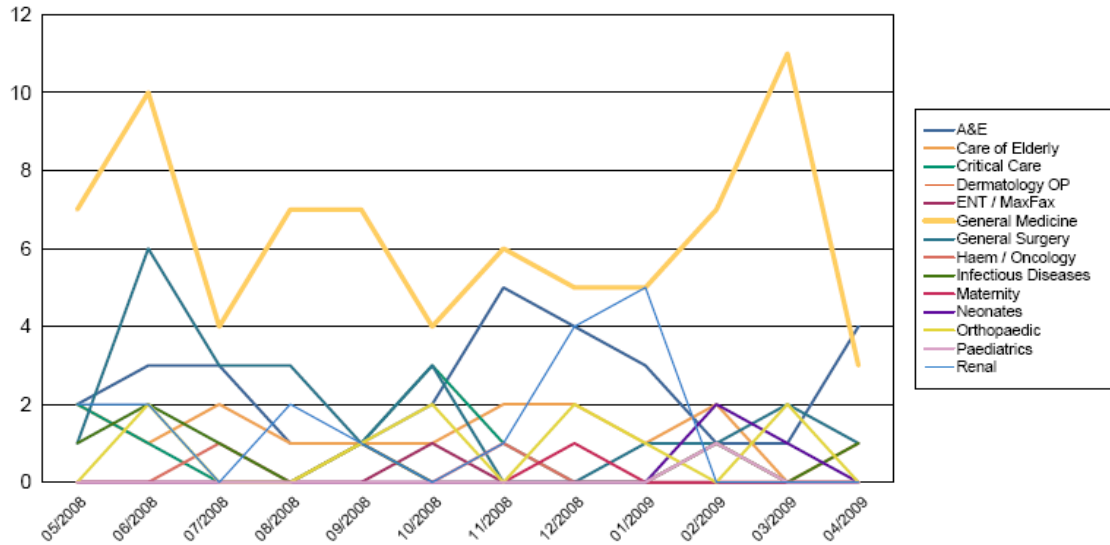
Table 2: Staphylococcus Aureus Bacteraemias (SAB) Numbers Showing Acute Specialties (May 2008 – April 2009)

HAI Monthly Report

Date range: 01/05/2008 - 30/04/2009



SABS - Acute Specialties



	A&E	Care of Elderly	Critical Care	Dermatology OP	ENT / MaxFax	General Medicine	General Surgery	Haem / Oncology	Infectious Diseases	Maternity	Neonates	Orthopaedic	Paediatrics	Renal	Total
05/2008	2	2	2	0	0	7	1	0	1	0	0	0	0	2	17
06/2008	3	1	1	0	0	10	6	0	2	0	0	2	0	2	27
07/2008	3	2	0	0	0	4	3	1	1	0	0	0	0	0	14
08/2008	1	1	0	0	0	7	3	0	0	0	0	0	0	2	14
09/2008	1	1	1	0	0	7	1	1	1	0	0	1	0	1	15
10/2008	2	1	3	0	1	4	3	0	0	0	0	2	0	0	16
11/2008	5	2	1	0	0	6	0	1	0	0	0	0	0	1	16
12/2008	4	2	0	0	0	5	0	0	0	1	0	2	0	4	18
01/2009	3	1	0	0	0	5	1	0	0	0	0	1	0	5	16
02/2009	1	2	1	1	0	7	1	1	1	0	2	0	1	0	18
03/2009	1	0	0	0	0	11	2	0	0	0	1	2	0	0	17
04/2009	4	1	0	0	0	3	1	0	1	0	0	0	0	0	10
Total	30	16	9	1	1	76	22	4	7	1	3	10	1	17	198

1.2 Current Health Efficiency Access Treatment Targets (HEAT) Status and National Context

To reduce all Staphylococcus Aureus Bacteraemia (including MRSA) by 30% by 2010; to introduce and comply with local antimicrobial policies by 2010;

The next National Quarterly report will be published in July 2009.

NHS SCOTLAND Rate per Acute Occupied Bed Day

The next national update for these figures will be published in July 2009.

1.3 Current and New Initiatives to Reduce Staphylococcus Aureus Bacteraemia Cases

The measures and systems currently in place or under development includes:

- The Zero Tolerance Hand Hygiene policy, new Infection Control Hand Hygiene Policy May and uniform and dress code policy launched on 18 May 2009.
- Implementation of the Scottish Management of Antimicrobial Resistance Action Plan (SCOTMARAP).
- Implementation of Health Protection Scotland's Peripheral Venous Cannula Care Bundles continues to be rolled-out to identified areas across all acute sites.
- Audit of Peripheral Vascular Cannulas at Monklands Hospital.
- The Scottish Vascular Access Network have established a group to promote best practice among intravenous therapy nursing staff, educators and infection control nurses across Scotland.

1.4 Pan-Board, Hospital Or Specialty Specific Problems Identified

No new specialty problems have been identified. As previously outlined in section 1.1 General Medicine, Accident and Emergency General Surgery and Renal continue to record the highest number of cases in line with national findings. Further trend analysis is being undertaken on Staphylococcus Aureus Bacteraemia data collection surveillance forms to identify potential sources.

1.4.1 Actions Required

- Implementation of Health Protection Scotland Peripheral Venous Cannula Care Bundles to continue in all high risk areas.
- Corrective Action plans to be formulated based on this Audit.
- Local review of data and practice via the SAB Compliance group to continue.

2. CLOSTRIDIUM DIFFICILE ASSOCIATED DISEASE (CDAD)

2.1 Short/Medium/Long Term Trends in CDAD – Number/Graphical Presentation.

Cases of Clostridium Difficile Associated Disease in all 3 District General Hospitals as outlined in Table 7 continues to fall. Whilst there is a slight increase at Hairmyres Hospital for the reporting period of April 2009 this is based on natural variation and is still within the lower third of the range below the mean. Table 8 continues to highlight General Medicine, Care Of the Elderly and General Surgery with the most cases of Clostridium Difficile. This is in line with national findings.

There are weeks where zero values have been reported. This significant deviation from the mean indicates a move towards sustained improvement.

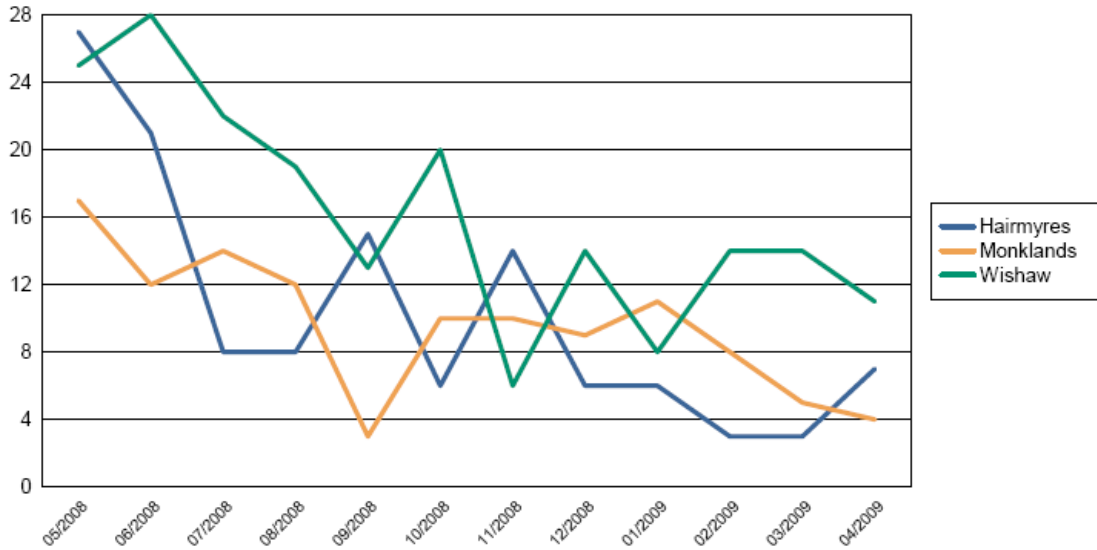
Table 7: Clostridium Difficile Associated Disease (CDAD) Per Hospital

HAI Monthly Report



Date range: 01/05/2008 - 30/04/2009

C Diff cases per hospital



	Hairmyres	Monklands	Wishaw	Total
05/2008	27	17	25	69
06/2008	21	12	28	61
07/2008	8	14	22	44
08/2008	8	12	19	39
09/2008	15	3	13	31
10/2008	6	10	20	36
11/2008	14	10	6	30
12/2008	6	9	14	29
01/2009	6	11	8	25
02/2009	3	8	14	25
03/2009	3	5	14	22
04/2009	7	4	11	22
Total	124	115	194	433

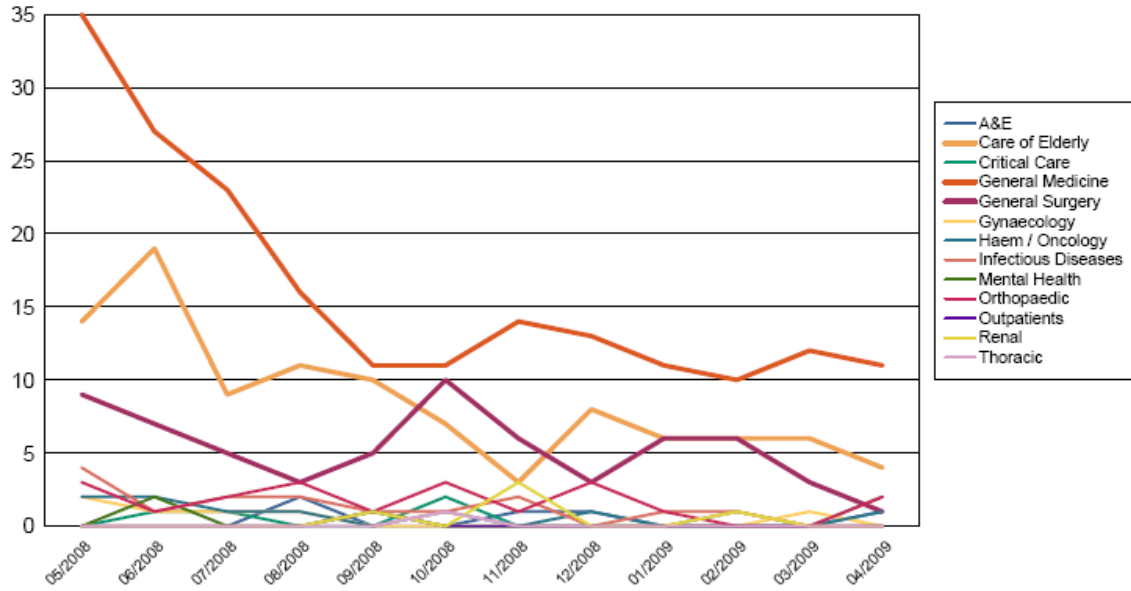
Table 8: Clostridium Difficile Associated Disease Rates per Acute Specialties

HAI Monthly Report



Date range: 01/05/2008 - 30/04/2009

CDiff cases showing Acute Specialties



	A&E	Care of Elderly	Critical Care	General Medicine	General Surgery	Gynaecology	Haem / Oncology	Infectious Diseases	Mental Health	Orthopaedic	Outpatients	Renal	Thoracic	Total
05/2008	0	14	0	35	9	2	2	4	0	3	0	0	0	69
06/2008	0	19	1	27	7	1	2	1	2	1	0	0	0	61
07/2008	0	9	1	23	5	1	1	2	0	2	0	0	0	44
08/2008	2	11	0	16	3	1	1	2	0	3	0	0	0	39
09/2008	0	10	0	11	5	0	0	1	1	1	1	1	0	31
10/2008	0	7	2	11	10	0	1	1	0	3	0	0	1	36
11/2008	1	3	0	14	6	0	0	2	0	1	0	3	0	30
12/2008	1	8	0	13	3	0	1	0	0	3	0	0	0	29
01/2009	0	6	0	11	6	0	0	1	0	1	0	0	0	25
02/2009	1	6	0	10	6	0	0	1	0	0	0	1	0	25
03/2009	0	6	0	12	3	1	0	0	0	0	0	0	0	22
04/2009	1	4	2	11	1	0	1	0	0	2	0	0	0	22
Total	6	103	6	194	64	6	9	15	3	20	1	5	1	433

2.2 Current HEAT Status And National Context

To reduce rate of Clostridium Difficile infection in Hospitals by at least 30% by 2011

The next National Quarterly report will be due in July.

2.2.1 Pan-Board, Hospital or Specialty Specific Problems Identified

No specific problems identified. NHSL have had variable percentage reductions applied, informed by the baseline data now being used and gives a reduction target of **46%**. This is in keeping with NHS Lanarkshire information reported in the previous section suggesting sustainable change has been achieved during this period.

2.3 Current New Initiatives To Reduce Cases

- Antimicrobial Pharmacists implementing the Scottish Management of Antimicrobial Resistance Action Plan (SCOTMARAP).
- Development of Enhanced surveillance of Clostridium difficile to Primary Care Hospitals.
- Gap analysis completed on hand washing facilities and action plan to correct non compliance at Monklands and out lying hospitals.
- The Health Protection Scotland/NHS Quality Improvement Scotland “*Clostridium difficile* Associated Disease (CDAD) – Guidance Framework and Severe Case Investigation Tool” has been tested and findings returned to QIS.
- *Clostridium difficile* Study Day in NHSL in September 2009.
- Development of *Clostridium difficile* ICP – a care guideline.

2.4 Pan-Board, Hospital Or Specialty Specific Problems Identified

No specialty problems identified at present.

2.4.1 Actions Required

- Continued weekly and monthly monitoring reports identifying trends and areas of high risk.
- Monitoring implementation of Hand Hygiene Zero Tolerance, Dress/Uniform and Healthcare Associated Infection Hand Hygiene Policies.

2.5 Norovirus

A national report identifies the prevalence of Norovirus on a weekly basis in Scotland. It includes the number of Wards closed with confirmed or presumed Norovirus Infection for the period June 2008 to 13 April 2009 as outlined in the table below.

4.2 Audit Results for Compliance with Hand Hygiene Opportunities by NHS board

Audit results for compliance with hand hygiene opportunities are presented for each NHS Board for this 1st bi-monthly audit period.

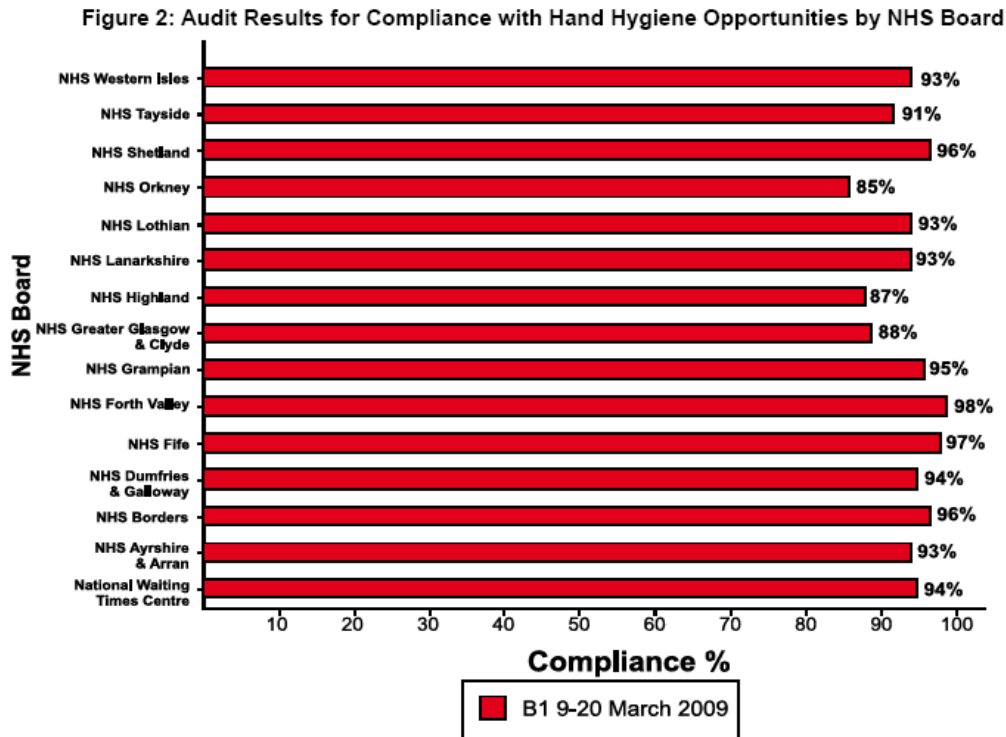


Figure 2 indicates that for the 1st bi-monthly audit period compliance with hand hygiene ranged from 85% to 98% (mean 92%)* by NHS Board.

Current and New Initiatives in Promoting Hand Hygiene

These include:

- Direct involvement of Hand Hygiene Team with Scottish Patient Safety Programme Hand Hygiene spread is underway. The audit tool is firmly embedded in Monklands, will be complete by July/Aug 09 at WGH and a further 2 wards at Hairmyres are at stage 1 of the spread protocol.
- Implementation of new Hand Hygiene products complete at Wishaw General Hospital. Monklands Hospital is scheduled for completion June 09. A site survey for Hairmyres Hospital is planned for June 09.
- Additional glo-boxes have been delivered. They are to be used as part of the spread of the hand hygiene audit tool.
- Large front-of-hospital signs to support and encourage good hand hygiene for both staff and visitors to be provided by hand hygiene products contractor. The signage presentation and visuals are currently being agreed.

- One set of life-size cardboard cut outs of nursing staff advising staff and visitors to stop and carry out hand washing, currently being used at Wishaw General Hospital.
- National Hand Hygiene Campaign Materials now on display in all sites. Second wave of materials currently in design.

3.2 Pan-Board, Hospital or Staff Group Specific Problems Identified

Medical staff compliance has dropped by 4% since the last national audit in March 2009. Implementation of the Hand Hygiene Care Audit tool along with the trio of policies, Hand Hygiene, Zero Tolerance to Non-Compliance and Dress Code and Wearing of Clinical Uniform, will help to support compliance with hand hygiene.

NHSL has reported difficulties with recent national hand hygiene campaign materials, this has been notified to HPS and we are awaiting further delivery.

4. CLEANING SERVICES SPECIFICATION COMPLIANCE

4.1 Short/Medium/Long Term Trends in Compliance – Number/Graphical Presentation

Month to month performance fluctuates, but within a reasonably tight band. Tables 17 and 18 identify that compliance levels have been met with the exception of Monklands Hospital which has remained consistent at 92.7%. Airdrie and Coatbridge localities have increased to 93% compliance within the most recent reporting quarter and this has been due to increased supervision and regular monitoring.

Table 17: Cleaning Services Specification Compliance per District General Hospital April 2009

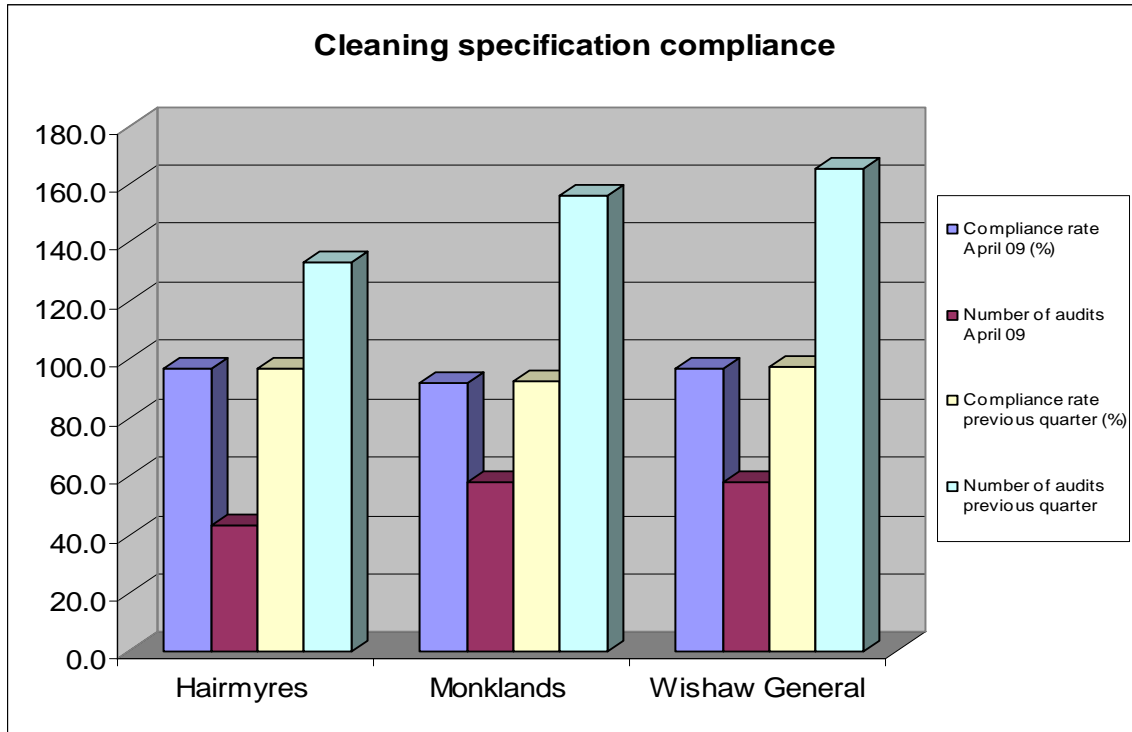
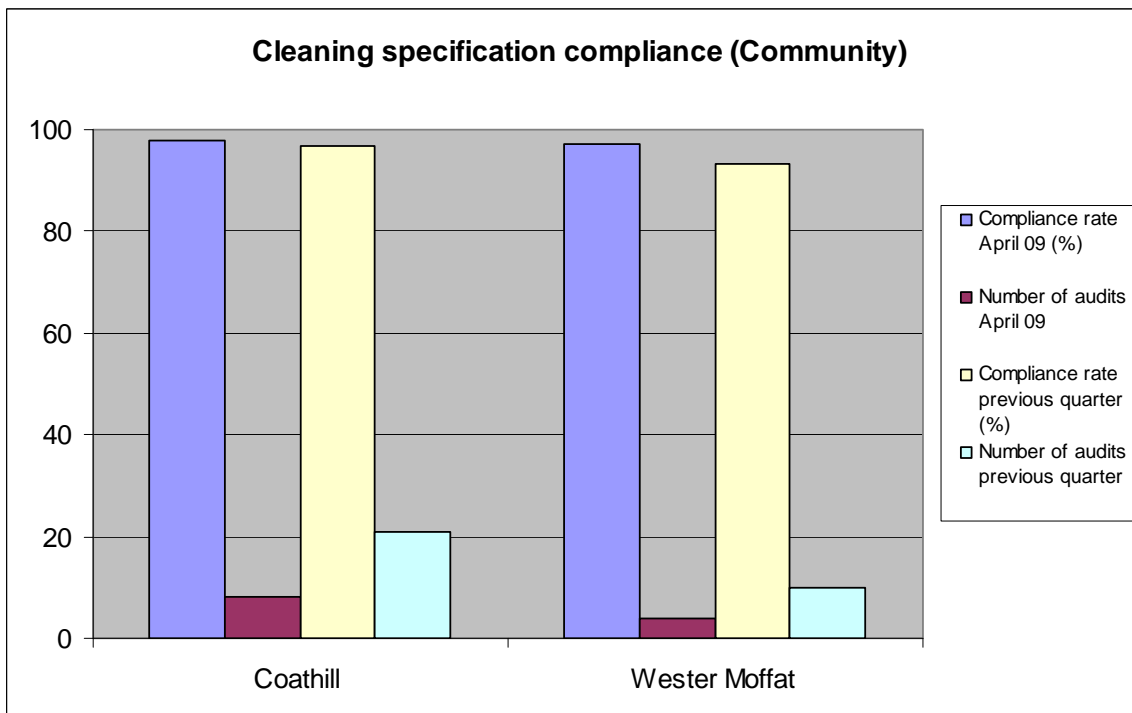


Table 18: Cleaning Services Specification Compliance, Community: April 2009



4.2 Current and New Initiatives In Improving Cleaning

- A programme of visits to areas with lower performance is in place by the Head of Planning and General Manager PSSD together with representatives from the PFI Consortia and Hotel Services Management Team. Visits have taken place to Monklands, Hairmyres and Cleland Hospitals with visits planned to other acute & Primary Care locations over the coming months.
- The HAI Team have arranged a Steam Cleaner demonstration / training session from Osprey on Steam Cleaners on MAY 26 / 27 which will be attended by key PSSD Managers / Supervisors, PFI Representation and Nursing Staff. Thereafter a programme of cascade training and distribution of the allocated steam cleaners will follow, co-ordinated by the HAI Team.
- Public and peer reviews of cleaning standards have been undertaken across a total of 8 Primary Care locations and 4 locations within Monklands Hospital during March 2009. These visits recorded compliance scores of 98 – 99% with public members expressing satisfaction of the cleanliness levels witnessed.

4.3 National Context – Most Recent Health Facilities Scotland Quarterly National Report

Next National report due June 2009

Table 19: Cleaning Service Specification Performance Nationally (April 2008 – April 2009)

	<i>1st quarter April-June 2008/2009</i>	<i>2nd quarter July-Sept 2008/2009</i>	<i>3rd quarter Oct-Dec 2008/2009</i>	<i>4th quarter Jan-Mar 2008/2009</i>	<i>Annual April 2008 – April 2009</i>
Health Board	Total % Pass	Total % Pass	Total % Pass	Total % Pass	Total % Pass
SCOTLAND	96.1	96.0	95.5	95.7	95.9
Ayrshire and Arran	96.4	95.9	95.9	95.6	95.9
Borders	97.8	97.2	96.9	96.9	97.2
Dumfries and Galloway	97.3	97.4	97.2	96.7	97.2
Fife	96.5	97.0	97.2	97.2	97.0
Forth Valley	95.5	94.7	92.9	93.4	94.1
Grampian	97.2	97.1	96.2	95.7	96.5
Greater Glasgow and Clyde	96.2	96.4	96.4	96.1	96.3
Highland	95.1	95.3	95.5	95.6	95.4
Lanarkshire	95.5	94.8	95.0	95.2	95.1
Lothian	94.7	94.5	94.9	94.7	94.7
Orkney	92.8	96.1	93.0	87.6	92.1
Shetland	97.8	97.1	98.0	97.2	97.5
Tayside	96.1	95.9	95.7	95.2	95.7
Western Isles	95.9	95.6	95.7	96.4	95.9
The State Hospitals Board for Scotland	93.8	94.0	92.7	93.2	93.4
Golden Jubilee National Hospital	93.4	93.4	92.2	92.0	92.8
NSS Blood Transfusion Services		98.6	98.8	95.1	98.0
Scottish Ambulance Service	94.3	93.3	94.8	96.1	94.6

4.4 Current New Initiatives In Improving Cleaning

- Weekly visits to areas demonstrating poor performance by the Head of Planning, General Manager PSD, and Clinical lead PSD and the Head of Hotel Services to ascertain cleaning difficulties in these areas and look at resolution.
- Increased supervision and monitoring of locations where scores fell below 90% compliance to ensure standards maintained.
- Steam cleaners to enhance existing cleaning practices - awaiting commissioning of equipment to commence training and national steer from SG re usage.
- Retraining of all domestic staff, management, supervisory and operational to ensure improved cleanliness levels.
- Monthly meetings with the Director of Strategic Planning / GM PSSD / Head of Support Services / Business Support Manager and HR to monitor & review

management actions being taken in terms of sickness absence in line with NHS Lanarkshire's Management of Sickness Absence Policy (ongoing).

4.5 Pan-Board, Hospital or Specialty Specific Problems Identified

Issues identified during support visits is the lack of knowledge from Nursing staff about actual cleaning responsibilities and further discussion is underway with HAI Services regarding the progression of cleaning schedules for clinical areas and clinical staff

4.5.1 Actions Required [Timescales]

- Vacancies being managed in line with recruitment policy. Interviews commenced in all areas with vacancies due to be filled end April.
- Review of all staff rosters ongoing [May 2009].
- Review of resource allocation within domestic services particularly in relation to peak leave periods and cover for sickness being undertaken. Staff representative meeting arranged to agree policy for planned leave and allocation of same.
- Review of National Cleaning Services Specification minimum inputs against current staffing levels continues to be on schedule for completion may 2009.
- Pro active sickness absence management in conjunction with HR / Occupational Health [Ongoing].
- Production of monthly report detailing sickness absence details, management action taken across all Hotel Services Disciplines [Ongoing].
- 60% of domestic staff have received refresher training on the Domestic Assistant Workbook.
- Staff competency has improved with 80% of Domestic Assistants and 98% of supervisors being retrained to improve cleaning and monitoring standards. All managers have received training in the RAG tool.
- 99% of Domestic staff have completed PDP's. Some specific training needs have been identified through this process and will be actioned as appropriate.

5 SIGNIFICANT HEALTHCARE ASSOCIATED INFECTION INCIDENTS/OUTBREAKS/EMERGING THREATS.

Infection Control Nurses were alerted on 17.04.09, to an increased incidence of *Stenotrophomonas maltophilia* from respiratory secretions in four patients in the ITU at Monklands Hospital by the Consultant Microbiologist. Water cultures before and after disinfection procedures performed in April 2009 did not grow *Stenotrophomonas maltophilia* eliminating concerns that water supply may have been a source. Additionally all ITU sink drains have been disinfected as part of this investigation reducing the risk of

persistence of *Stenotrophomonas* in the environment. A hand hygiene audit was carried out on 12/05/09 and 100% compliance was achieved.

6 PROGRESS ON COMPLIANCE WITH NATIONAL HEALTHCARE ASSOCIATED INFECTION PROGRAMME

6.1 Red Amber Green System (RAGS) Status on Healthcare Associated Infection Action Plan

Progress against the Scottish Government Health Department Healthcare Associated Infection Action Plan was provided at the last meeting of the Board.

	Actions
PURPLE (complete)	18
GREEN (on track to complete by the deadline)	2
AMBER (substantially complete but either awaiting national materials or with some possibility of slippage beyond the deadline)	1
RED (unable to complete by the deadline)	0

One area remains in amber. This is;

- Implementation of HAI SCRIBE (Healthcare Associated Infection System for Controlling Risk in the Built Environment) sections 3 &4 to be applied to all existing buildings to ensure fabric of healthcare facilities maintained to minimise risk of infection. **National Guidance is still awaited from Health Facilities Scotland regarding this.**

7.1 Compliance With Healthcare Associated Infection Task Force Programme – Outstanding Issues

The organisation remains on track to deliver against the Task Force programme.

7.2 Actions Required And Timescales For Implementation

NHS Quality Improvement Scotland Healthcare Associated Infection Self assessment Tool is to be completed and submitted to the Scottish Government by 22nd June , this is being co-ordinated between the HAI services and Clinical Effectiveness and information will inform the unannounced inspections.

7.3 Surgical Site Surveillance

The aims of the Surgical Site Infection programme are:

- To collect surveillance data on surgical site infections to permit estimation of the magnitude of surgical site infection risk in hospitalised patients throughout Scotland.
- To analyze and report surgical site infection (SSI) data and describe trends in SSI rates throughout Scotland.

7.4.1 Orthopaedic Surveillance

SSI Surveillance of elective and trauma hip arthroplasties for the period 1 January-31 March 2009 has shown no incidence of infection. SSIRS website is currently undergoing work and April's SSI data is unable to be entered.

7.4.2 Caesarean Section

SSI Surveillance of elective and emergency caesarean sections for the period from 1 January-31 March 2009 has shown.;

Elective Presentation

A total of 346 operations, 40 infections which give an SSI rate 11.56%.132 were elective and 21 of those had infections which is an SSI rate of 15.91%.

Emergency Presentation

A total of 214 operations, and 19 of those had infections which gives an SSI rate of 8.88%

Infection Types

There were 39 superficial infections and 1 presentation of organ/space.

7.4.3 SSHAIP Surgical Site Infection Surveillance Quarterly Exceptions Report

Nil exceptions this reporting period.

7.4.4 Pan-Board, Hospital or Specialty Specific Problems Identified

There has been an increase of surgical site infection at Hairmyres Hospital within the Orthopaedic specialty. A Problem Assessment Group has been convened and the Consultant Surgeon is working closely with the microbiologist, surveillance and Infection Control team to review environmental factors. It is expected that this will contribute to an exception report in the next SSI reporting period. Health Protection Scotland have been informed.

Actions Required and Timescales for Implementation

- Awaiting feedback from DMT re further voluntary surveillance criteria with that could be met.(June 2009)
- HPS have again changed CS forms regarding antibiotic prophylaxis- staff involved informed.

8 ANTIMICROBIAL PRESCRIBING

Update regarding Antimicrobial prescribing will be presented on a quarterly basis and will be part of the July Board Report.

9.1 Horizon Scanning

A stakeholder event will be held on the 22 June to inform NHSL about the National MRSA screening programme implementation.

9.2 NHSL HAI Review

The review has now been ratified by the board and the next stage will be to form an implementation group to drive forward the recommendations.

10 CONCLUSION

Whilst good progress is being made, significant work is required to ensure the organisation is fully compliant with the national Healthcare Associated Infection agenda over the next 3 years. The NHS Lanarkshire Board is therefore asked to:-

- Note the report.
- Continue to receive a monthly progress report.

11 FURTHER INFORMATION

For further information or clarification of any issues in this paper please contact:
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