NHS Quality Improvement Scotland National Overview ~ *May 2005*

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Healthcare Associated Infection (HAI); Infection Control in NHSScotland

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Introduction and Acknowledgements

NHS Quality Improvement Scotland (NHS QIS) was set up by the Scottish Parliament in 2003 to take the lead in improving the quality of care and treatment delivered by NHSScotland. NHS QIS does this by setting standards and monitoring performance, and by providing NHSScotland with advice, guidance and support on effective clinical practice and service improvements.

A part of the remit of NHS QIS is to develop and run a national system of quality assurance of clinical services. For each service, NHS QIS establishes a project group to:

- oversee the development and consultation on, the standards and self-assessment framework
- recommend an external peer review.

The Healthcare Associated Infection (HAI) Reference Group was established in June 2001 under the chairmanship of Dr David Old, Reader in Medical Microbiology and Consultant Clinical Scientist (1985–2000), NHS QIS Clinical Advisor in HAI.

The *Standards for Healthcare Associated Infection (HAI) Infection Control* were developed by this Group and published in December 2001 following extensive consultation. The first round of peer review visits to all NHS Board areas in Scotland was conducted between April and October 2002 to assess performance against the standards. The first national overview of performance against these standards was published in January 2003, together with detailed local reports covering each NHS organisation visited. Copies of the standards, national overview and local reports are available on request from NHS QIS or on the website (www.nhshealthquality.org).

Following the launch of the first national overview, NHS QIS was tasked by the Scottish Executive Health Department (SEHD) to provide an update on the progress of NHS organisations against the infection control standards by the summer of 2004.

As there had been limited opportunity for NHS organisations to implement change, further peer review visits were not considered appropriate at this stage. Instead, a modified approach was taken in order to report on the progress made against the standards throughout NHSScotland.

This national overview provides an update on progress made by NHS organisations in meeting the standards for infection control.

The work of Dr David Old and Dr David Parratt, NHS QIS Clinical Advisors in HAI, and every member of the update teams for their contribution to the project, is gratefully acknowledged by NHS QIS.

NHS QIS wishes to record its thanks to those NHSScotland staff who prepared and submitted self-assessments for the update exercise.

Thanks are also due to Health Protection Scotland (HPS), NHS Education for Scotland (NES), the Property and Environment Forum Executive (P&EFEx) and the Scottish Ministerial Healthcare Associated Infection Task Force (HAITF) for their contribution to this report.

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Executive Summary

Introduction

Each year in Scotland, hundreds of thousands of people make use of the services provided by NHSScotland. Over 900,000 inpatient and day case operations are carried out, and around 3 million dental examinations and 15.6 million visits to GPs take place each year[1]. People may need care for a life-threatening disease, complex surgery, relief from constant pain, diagnostic tests, immunisation, or advice on lifestyle. This care could be provided in a hospital, the home, a clinic or GP practice or a dental surgery. Patients may see a doctor, nurse, physiotherapist, dietician or podiatrist, to name only a few of the many different professions who provide care, and are often cared for by more than one person.

NHSScotland is a complex organisation, dependent on team working and the management of risk. One of the biggest risks facing those using and providing health services is infection, and the control of infection has to be at the top of every NHS organisation's risk management agenda. Over 33,000 patients develop one or more infections in hospital each year; while the number of infections developed in the community is not known, it is likely to be at least as great. The cost is high, financially and in human terms: over £186 million every year in Scotland, slower recovery, longer stays in hospital, delays in admissions and discharges, closed wards and operations cancelled resulting in at least 380,000 bed days lost each year. Healthcare associated infection (HAI) is a major factor in about 457 deaths each year, and a contributory factor in a further 1,372 (Walker, 2001)[2].

The factors that drive these high infection rates are well understood:

- an increased number of people who are more susceptible to infection – in particular, in the ageing population
- an increased number of patients undergoing major surgery – infection is still the most common postoperative complication in most forms of surgery
- the use of a wide range of medical devices, such as urinary catheters (used to drain the bladder and associated with 80% of urinary tract infections)
- high bed occupancy, due in part to the drive to reduce waiting times
- poor compliance with basic hygiene such as hand washing
- poor standards of cleanliness in clinical areas.

The bacteria and viruses that cause infection are all around us, all the time and it is accepted that infection rates will never reach zero. The

1 Information and Statistics Division, NHS Services Scotland, April 2003–March 2004.

2 Walker A. Hospital-Acquired Infection: What is the Cost in Scotland? Glasgow: University of Glasgow. 2001.

challenge to the NHS is to keep sources of infection as low as possible and manage the risks of infections being transmitted to patients and staff. The public also has an important role in reducing and controlling infection and needs to know what they can do to help.

Infection Control: The Role of NHS Quality Improvement Scotland

Why did NHS Quality Improvement Scotland get involved?

Following rising infection rates, the then Scottish Office Health Department published a comprehensive Scottish Infection Manual in 1998, following this up with the establishment of a Working Group in 2000, to provide guidance to NHSScotland about assessing and managing risks related to HAI. A key element of the Group's work was the development of standards and the measurement of performance against these. Setting standards is a fundamental way of demonstrating what is done well, and what could be done better, and of establishing a baseline against which to measure improvement over time.

What has NHS Quality Improvement Scotland done?

NHS QIS published the HAI infection control standards in 2001, and has reviewed and reported on performance against these yearly. Reviews are based on self-assessment and on the findings of peer review visits/meetings. Every NHS organisation in Scotland has been involved in each round of reviews and over 63 visits/meetings have taken place to validate self-assessments, and to discuss our findings with those directly responsible for providing care, such as members of Infection Control Teams, as well as those who are accountable for that care, such as chief executives, directors of nursing services and medical directors.

'At all times I felt I was part of the professional dedicated team. The update process was a very positive exercise to have taken part in.'

Eileen Wallace
Lay Representative, Forth Valley

> **As a lay reviewer involved in all stages of this update and the previous HAI review, I always felt a valued and involved member of the team. The process was thorough and transparent and I was pleased to see the honesty of those taking part. Nothing was hidden or glossed over. I was left with the feeling that there was a willingness of those working in the Service to continue to improve the services they provide.**
>
> **Jean Laburn**
> **Lay Representative, Tayside**

Is infection control improving in NHSScotland?

When we first reviewed performance against the NHS QIS standards in 2002, we knew that:

- this was a world-wide problem and Scotland was doing less well than other countries
- not every NHS organisation had the right arrangements in place to control and manage infection. While there was a lot of activity, this was rarely co-ordinated and consistent across NHS organisations, with different approaches in use within individual wards, departments and NHS organisations.
- some infections are very resistant to antibiotics which makes them difficult to treat. One of the best known is methicillin-resistant *Staphylococcus aureus* (MRSA).
- surveillance, or monitoring, of infections had been patchy and information had not always been available to clinical teams and patients.

Following our first round of visits/meetings, it became clear that there was a lot of investment in Infection Control Teams, but that infection control was largely seen as the responsibility of infection control nurses. The challenge was to make sure everyone involved in caring for patients was involved and informed; support from senior management for planning and risk management was singled out as particularly important. A further challenge was to make sure patients, their families and friends also understood the risks and were partners in making sure these were minimised.

Since then, there has been **significant improvement** across Scotland and this summary is presented in four sections that link directly to the standards:

- **Accountability** - does everyone know who is accountable for infection control and how to contact them? (Standards 1-3)
- **Infrastructure** - how does the organisation support people to manage and prevent infection? (Standards 4-12)
- **Monitoring, Review and Audit** - what systems are in place to monitor infection control, how are issues identified and is this followed up by action? (Standards 13 & 14)
- **Translating Process into Practice** - using hand hygiene as an example (Standard 15).

The percentages which appear in the following sections have been calculated by summarising the individual results for the standard criteria within each section. These calculations represent a high level summary of a complex topic and the detailed findings can be found in Chapter 2.

Accountability (Standards 1–3)

In 2002, just over half (57%) of NHSScotland met the standards for accountability. These include clear reporting lines, the development of an infection control programme and regular reporting against this, and the establishment of Infection Control Committees that bring together the key staff in the organisation. At that time, arrangements were somewhat ad hoc and very reactive - responding and reporting after the event, rather than assessing and managing risks proactively.

By 2004, 80% of NHS organisations were able to demonstrate that they met these standards - an improvement of 23%. Where the standards were not met, this is likely to be achieved soon, as the work required was already in hand. In particular, there was a change in the involvement of senior management. In the past, it was evident that infection control was delegated to the Infection Control Team, and that the necessary senior management support was not in place. More worrying was that information coming from the Infection Control Team to Risk Management Committees did not seem to be used for planning purposes, nor was it clear how this information informed decision-making.

We have gained a much greater insight into the issues surrounding infection control by appointing a member of the Board as the HDL(2001)10 lead manager. The appointment ensures that the Ambulance Service can act quickly to address issues as they arise and demonstrates to the Ambulance Service that infection control needs to be taken seriously as a part of everyone's job.

Shirley Rogers
HDL(2001)10 Lead, Scottish Ambulance Service

The standards stipulate that reporting is best achieved using an infection control programme that is developed with the support and approval of the chief executive, and a considerable number of NHS organisations can now demonstrate that they are working in this way. Some further work still has to be done where infection control programmes may not be fully developed or in place, but there is much good practice on which NHS organisations can draw.

Progress has also been made with regard to setting up Infection Control Committees. Every NHS organisation now has some form of Infection Control Committee, although not every Infection Control Committee meets the full membership requirements. This can be easily addressed. There is also good evidence that these Committees are providing advice and support to Infection Control Teams.

Setting infection control standards has raised the profile of local Prevention and Control of Infection Teams. Prevention and control of infection is now better integrated into risk management and clinical governance structures which support safe and effective care.

Jackie Ley
Lead Infection Control Nurse
NHS Greater Glasgow (Primary Care Division)

Such progress puts NHS organisations in a good position to assess and manage the infection control risks that apply to their organisation, and to report openly on the outcome of this.

Infrastructure (Standards 4–12)

There is much evidence that NHS organisations are working hard to develop the infrastructure they need to manage infection control. In 2002, only 51% of organisations could demonstrate that they met these standards. This has risen to 68%, which is encouraging. Key areas where further progress is required are as follows.

Service development

Many Infection Control Teams are working very effectively. However, while NHSScotland is undergoing further organisational change, the development of organisation-wide arrangements to consider prevention and control of infection as part of all service development activity remains a basic challenge. There is little evidence of a strategic or co-ordinated approach to the integration of infection control at all levels within NHS organisations.

> **'NHS Ayrshire & Arran Community Health Division has established a group to co-ordinate infection control in the built environment. This group draws together the expertise of the planning department, estates, hotel services, health and safety, and infection control to ensure that infection control is considered throughout the built environment. There are great benefits for those on the group in being able to work together in this formalised way.'**
>
> **Bob Wilson**
> **Infection Control Nurse Specialist Advisor**
> **NHS Ayrshire & Arran (Community Health Division)**

Infection control programmes

While there are a number of infection control programmes, only 50% of NHS organisations could demonstrate that they had developed these in full consultation with all stakeholders. This is an important part of the process if the programme is to be implemented effectively.

Surveillance

Surveillance of infection remains a challenge to NHS organisations and there continues to be problems with collecting, interpreting and reporting on data at local level. At the time of the update, all but one organisation provided acute surveillance data to Health Protection Scotland (HPS), formerly Scottish Centre for Infection and Environmental Health (SCIEH). All organisations now supply data, although primary care activity is not yet requested by HPS.

Infection control reports

In 2004, 44% of NHS organisations produced annual infection control reports, following the criteria laid down in the standards. In some cases, this reflects the lack of an infection control programme; in other cases, while there is a report, key issues have not been reported on. Further, only 50% of NHS organisations can demonstrate that this report is formally presented to their Risk Management Committees, and onward to the chief executive and senior management team, as required.

Training, education and induction

Not all organisations have included infection control in routine induction for staff, and this is particularly the case for medical staff. NHS Education for Scotland (NES) has been working closely with NHS organisations to help address this. Also of concern is the lack of progress in including infection control and antimicrobial prescribing in postgraduate medical and dental education programmes.

Monitoring, Review and Audit (Standards 13 & 14)

These standards remain challenging, although there has been an increase in compliance from 18% to 37%. Many more NHS organisations now have infection control in their internal audit programme and reported that this was supportive. Others reported plans to include infection control in future programmes.

Translating Process into Practice (Standard 15)

This is an important standard as it is an opportunity to demonstrate whether having a robust and well-monitored infection control infrastructure in place does translate into good practice. While most NHS organisations do have hand hygiene policies and increasingly have resources to promote these, monitoring compliance remains a major challenge, with only 28% of NHS organisations demonstrating that they are able to do this. It is clear, however, that a lot of work is under way to

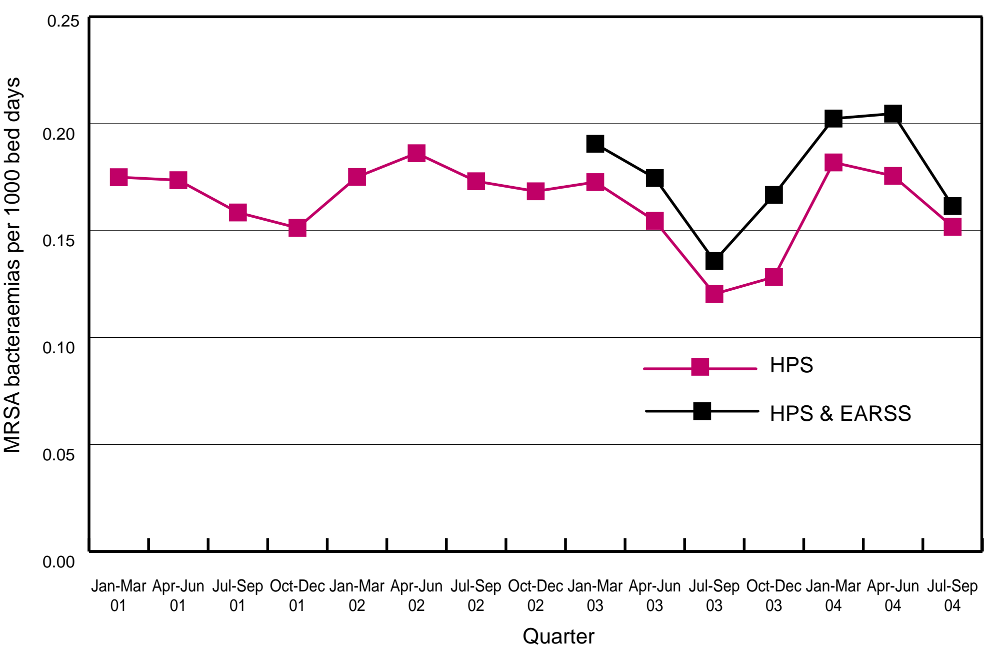
tackle this and a number of very innovative campaigns have been launched across Scotland. It is important to make sure that NHS organisations learn from each other, and that patients, their families and friends are involved in the process.

Conclusion

Every NHSScotland organisation has made progress against these standards since the start of this programme of reviews. There are now many examples of effective working and opportunities to share experience. This momentum must be continued. There is no doubt that NHSScotland is rising to the challenge of reducing infection rates and there is good evidence that clear plans to achieve this are being put in place.

Leading the HAI campaign, the Minister for Health and Community Care announced a number of initiatives, which include investment of an additional £5 million per year for clean hospitals, and prevention and control of HAI over the next 3 years.

Scottish quarterly MRSA bacteraemia rates per 1000 occupied bed days: January 2001 to September 2004



The quarterly rate shown fluctuates between 0.15 and 0.20 (MRSA) bacteraemias per 1000 acute occupied bed days showing a relatively stable rate during the time period reported.

Note: Data from January 2003 onwards is combined Health Protection Scotland (HPS) and European Antimicrobial Resistance Surveillance System (EARSS) data. These data combine the best elements of each system in the Scottish Surveillance of Healthcare Associated Infection Programme (SSHAIP) MRSA bacteraemia reports and will result in a more accurate estimate of the total number of MRSA bacteraemias in Scotland.

This report comes at a pivotal time and is set in the context of a wide range of complementary and supportive activities regarding infection control. The HAITF has set 31 challenging targets to be completed by December 2005, each one informed by, and building on the work in place to meet the standards. HPS will be fully established by April 2005, taking forward the work of SCIEH and continuing as a major player in monitoring, surveillance and the provision of advice. NHS Trusts have been abolished and single-system working has been introduced, pushing the boundaries of joint working even further to make sure that resources are used as effectively as possible across all patient journeys. The Scottish Executive Health Department (SEHD) has reaffirmed commitment to reduce infection rates and has now mandated that alcohol-based gels are used in support of hand hygiene in all Scottish hospitals. Funding has also been provided to support the implementation of this.

Based on the experience of the last 5 years and on the two major reviews carried out by NHS QIS, four key messages have emerged.

- Care will not improve without action and that action has to take place at every level: strategic, managerial and operational. It also has to be relevant and co-ordinated across an organisation.
- Any action undertaken should also involve the public and patients. For example, including a member of the public on Infection Control Committees.
- In order to demonstrate any improvement, core elements of the service have to be monitored. For infection control, this has to be done using data and on an observational basis, to make sure that basic good practice is actually in place.
- Communication is critical. People need to know what is expected of them, how they should communicate and who with. There is evidence that infection control nurses communicate very effectively with their colleagues at ward level – as stated in previous reports. The challenge is for these highly skilled staff to pass the baton for operational infection control on to those directly involved in patient care and to concentrate on developing robust links with risk management and clinical governance departments.

‘As a reviewer, I learned an enormous amount from both my fellow reviewers and colleagues who were being reviewed. It is obvious to me that Infection Control Teams can gain a lot from each other’s good practice.’

Billy Cullinane
Infection Control Nurse Specialist Advisor
NHS Ayrshire & Arran (General Hospitals Division)

Key Recommendations

NHSScotland is to be commended on achieving the progress that has been made. The next step is to demonstrate that having these arrangements in place improves outcomes by reducing infection rates. Taking this work forward requires making sure the basic steps are in place and NHS QIS recommends the following actions.

NHS organisations should:

- ensure that an infection control programme is in place that has been developed in consultation with all stakeholders, involves all staff and approved by its Board. The programme should be developed to reflect national and local priorities and should have well-defined actions plans, objectives and outcomes that can be, and are, measured.
- report against this programme annually to the Risk Management Committee, and then forward to its Board.
- ensure that appropriate senior management input and support is available to Infection Control Teams. Particular advice and support in writing programmes, reports and business plans would be beneficial.
- collect the data required for national and local purposes and report openly on these.
- make sure that patients, their families and friends are involved and informed on infection control and the risks of infection so that they can play their part in reducing infection rates.

Health Protection Scotland should:

- improve reporting on infection rates to NHSScotland and the public. This is important if the information is to be used for planning and taking action locally.

NHS Quality Improvement Scotland should:

- review and revise the NHS QIS standards in light of experience, making sure that they reflect current organisational structures and shift the emphasis from monitoring process to monitoring outcomes in association with HPS.
- continue to support the work of NHS organisations in reducing infection rates using a number of different approaches, including audit, best practice statements, health technology assessments (HTAs), clinical governance and patient safety initiatives. A wide variety of different projects are already under way (including an HTA for MRSA screening).

Scottish Executive Health Department should:

- complete and publish the work and outcomes of the HAITF. This work has brought together many strands of activity and will inform the development of the longer term national agenda and priorities.

Postgraduate Medical and Dental Education Programmes should:

- include infection control and antimicrobial prescribing.

> **'The HAI update reviews have meant a considerable amount of work for all involved, both team members and those working within the Service. The team members have found the progress made by NHS organisations encouraging. Those working in the Service have continued to demonstrate their dedication to infection control at all levels.'**
>
> **David Old and David Parratt**
> **NHS QIS Clinical Advisors in HAI – Infection Control**

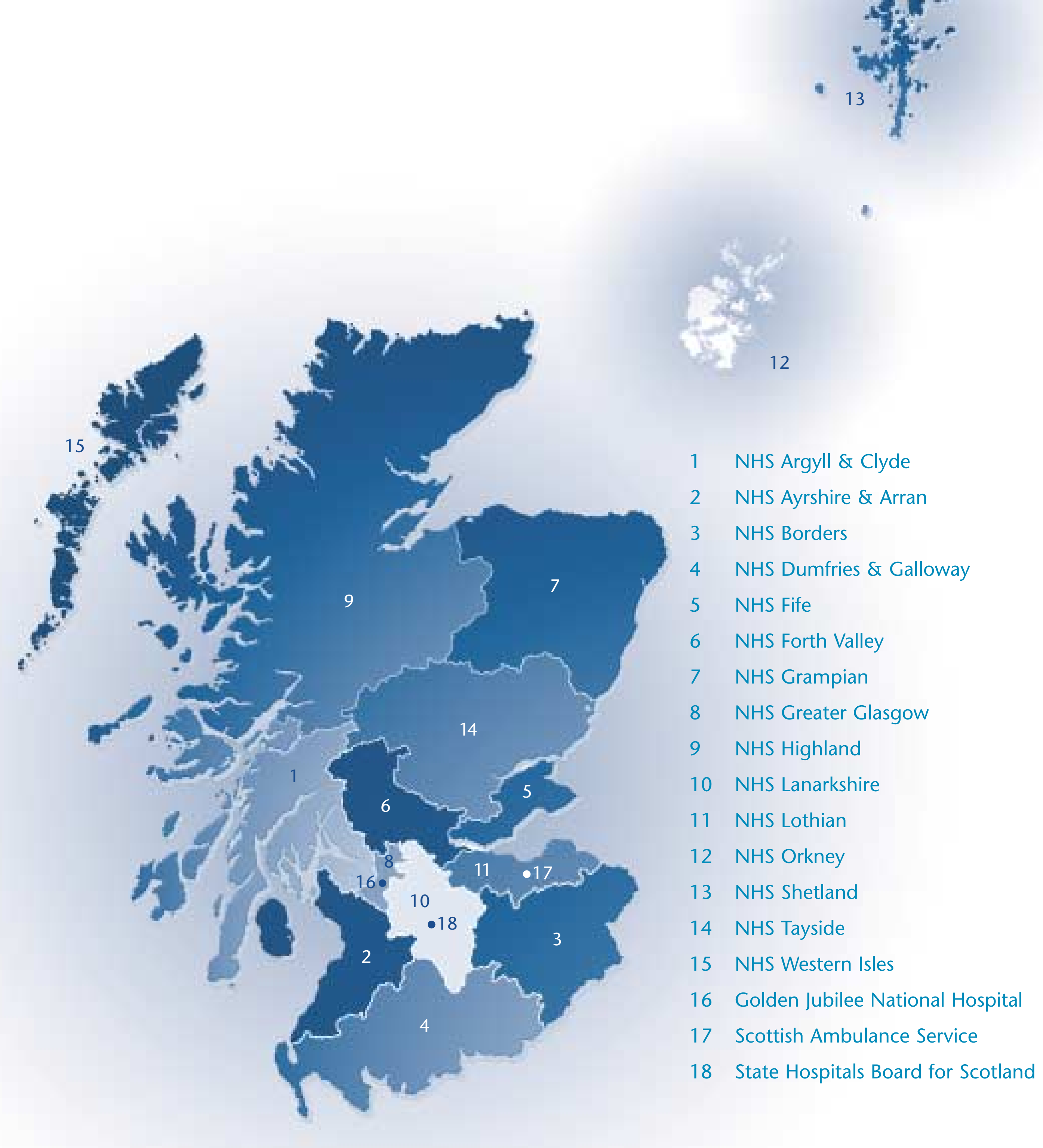
Progress so far is promising and as infection control systems mature, the determination across NHSScotland to tackle infection is evident. We now have many tools to use and the performance against the NHS QIS standards that is evidenced in this report is a sound launching pad for the future. Our recommendations, if implemented, will go a long way towards the shared goal of reduced infection rates in Scotland.

Chapter 1

Setting the Scene

1 Setting the Scene

1.1 NHSScotland Regional Breakdown and Index of Reviews



The following NHS organisations were reviewed during December 2003–November 2004. Local reports, containing findings of each individual peer review and assessment against the standards, are available on the website (www.nhshealthquality.org).

Local Report Area Estimated population[3] Area (square km) Population (per square km)	NHS Organisations Reviewed
1 Argyll & Clyde 417,010 7,531 55	Argyll & Clyde Acute Hospitals NHS Trust Lomond & Argyll Primary Care NHS Trust Renfrewshire & Inverclyde Primary Care NHS Trust
2 Ayrshire & Arran 367,140 3,338 110	Ayrshire & Arran Acute Hospitals NHS Trust Ayrshire & Arran Primary Care NHS Trust
3 Borders 108,280 4,734 23	NHS Borders
4 Dumfries & Galloway 147,210 6,439 23	NHS Dumfries & Galloway

3 Population figures are taken from the General Register Office for Scotland mid-year estimates for 30 June 2003. The tables can be viewed at: www.gro-scotland.gov.uk/grosweb.nsf/pages/03-mid-year-est

Local Report Area	NHS Organisations Reviewed
5 Fife 351,960 1,323 266	Fife Acute Hospitals NHS Trust Fife Primary Care NHS Trust
6 Forth Valley 279,680 2,652 105	Forth Valley Acute Hospitals NHS Trust Forth Valley Primary Care NHS Trust
7 Grampian 523,390 8,742 60	Grampian Primary Care NHS Trust Grampian University Hospitals NHS Trust
8 Greater Glasgow 866,370 560 1,547	Greater Glasgow Primary Care NHS Trust North Glasgow University Hospitals NHS Trust South Glasgow University Hospitals NHS Trust Yorkhill NHS Trust
9 Highland 209,080 25,784 8	Highland Acute Hospitals NHS Trust Highland Primary Care NHS Trust
10 Lanarkshire 553,440 2,189 253	Lanarkshire Acute Hospitals NHS Trust Lanarkshire Primary Care NHS Trust

Local Report Area	NHS Organisations Reviewed
11 Lothian 780,010 1,296 602	Lothian Primary Care NHS Trust Lothian University Hospitals NHS Trust West Lothian Healthcare NHS Trust
12 Orkney 19,310 992 19	NHS Orkney
13 Shetland 21,870 1,438 15	NHS Shetland
14 Tayside 386,550 7,558 51	Tayside Primary Care NHS Trust Tayside University Hospitals NHS Trust
15 Western Isles 26,100 3,134 8	NHS Western Isles

Special Health Boards Reviewed
16 Golden Jubilee National Hospital
17 Scottish Ambulance Service
18 State Hospitals Board for Scotland

1.2 The NHS Quality Improvement Scotland Approach to Assessment

NHS QIS uses a methodology which draws upon other quality assurance models to enable it, in partnership with healthcare professionals and members of the public, to develop standards for clinical services and to assess performance across NHSScotland against these standards.

Further information and definitions of the terms used in the standards and in the assessment of performance are contained in Appendix 6.

Assessment Categories

Each review team assesses performance using the categories 'met', 'not met' and 'not met (insufficient evidence)', as detailed below.

- '**Met**' applies where the evidence demonstrates the standard and/or criterion is being attained.
- '**Not met**' applies where the evidence demonstrates the standard and/or criterion is not being attained.
- '**Not met (insufficient evidence)**' applies where no evidence is available for the review team, or where the evidence available is insufficient to allow an assessment to be made.

A final category '**not applicable**' is used where a standard and/or criterion does not apply to the NHS organisation under review.

1.3 History of Infection Control

One of the major causes of ill health in the general population is infection. Healthcare associated infections are those acquired in hospital or in a healthcare setting. Despite the widespread use of antimicrobial agents, infection remains the most common postoperative complication in many forms of surgery and may even be the cause of the patient's death. Its prevention wherever possible, is therefore, crucial.

Prevention and control of infection has been documented throughout the centuries. However, it was not until the development of true microbiology in the late 19th century, that the existence of bacteria and viruses and their role in infectious diseases was clarified.

The first infection control nurse in the UK was appointed in 1959. However, it was not until the late 1980s and into the 1990s that infection control nurses were found in most acute hospitals. Infection control nurses can now also be found working in public health and primary care areas of the NHS, as well as in acute settings.

1.4 Background to the Standards for Infection Control

The *Standards for Healthcare Associated Infection (HAI) Infection Control* were published in December 2001. These standards are being used to assess the quality of services provided by NHSScotland, in both community (including primary care) and hospital settings. The main aim of the standards is to assess how well the risk of infection to patients, staff and visitors is managed by NHS organisations. As a result, the standards focus on organisational structures and processes within the healthcare setting which are needed to identify, assess, and treat specified risks. The findings of the peer review of performance against the standards were presented in the first round of local reports and national overview published in January 2003.

Following the launch of the first HAI infection control national overview in January 2003, NHS Quality Improvement Scotland (NHS QIS) was tasked by the SEHD to provide an update on the progress of NHS organisations against the infection control standards by the summer of 2004.

As there would have been limited opportunity to implement change by this date, further peer review visits were not considered appropriate. Instead, a modified approach was taken in order to report on the progress made in the interim against the *Standards for Healthcare Associated Infection (HAI) Infection Control* throughout NHSScotland. This approach is described in Appendix 1.

1.5 Frequently Asked Questions

Q. What is the NHS organisation doing about infection?

A. All NHS organisations are taking part in national initiatives and programmes set up by the Scottish Ministerial Healthcare Associated Infection Task Force (HAITF). Each organisation has its own programme of work.

Q. If I have any questions about infection, who should I ask?

A. Any questions about your care should be directed to the doctor or nurse looking after you.

Q. Is there any information that I can read about infection and infection control in the hospital before I am admitted?

A. Each hospital will have its own way of providing information on infection control within the organisation (either verbally or via literature). You may wish to contact the hospital before your admission to find out what information is available.

Q. Will I get tested for infection? What kinds of tests will I have?

A. There are lots of different kinds of micro-organisms (bugs) that can be carried around on the skin that don't cause problems or symptoms of illness. If it is suspected that you have an infection, a swab or other sample may be sent to the hospital laboratory for examination. You would be informed of the test results by medical/nursing staff.

Q. What is MRSA?

A. MRSA stands for methicillin-resistant *Staphylococcus aureus (S. aureus).* This is a common germ, which is resistant to some antibiotics.

S. aureus is a common skin germ that 30-40% of the population carries. There are other kinds of bacteria in the Staphylococcus family, and we all carry at least one of these on our skin throughout our lives. Staphylococci, as a group, are the most common cause of wound and skin infections.

Some people carry *S. aureus* in their noses and on their skin. This is normal and does not require treatment. However, patients in hospital who have *S. aureus* on their skin do sometimes require treatment.

Patients in hospital can be vulnerable to infections due to a number of factors: their underlying condition; the numbers of invasive procedures that have been carried out; the presence of open wounds; and their exposure to antibiotics.

Q. Will I still be allowed visitors if I have an infection?

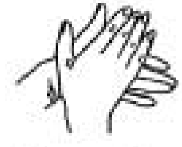
A. If you have an infection, you are unlikely to pass it onto healthy relatives or friends. Even if you have MRSA you can still have visitors; all visitors will be advised to wash their hands before and after visiting.

Q. Is there anything I can do to lower my chance of infection?

A. Infections are not usually a problem to fit and healthy people. Some infections can be quite simply spread by the hands and from the environment. There are many ways to minimise your chances of getting an infection through observing high standards of cleanliness and hygiene. Always wash and clean your hands after using the toilet, before and after eating, and wear shoes and slippers while walking around the hospital. Make sure that staff have washed and cleaned their hands before they touch you. Try to minimise contact with other patients, avoid contact with wounds or material contaminated from wounds.

Q. What is the correct way to wash my hands?

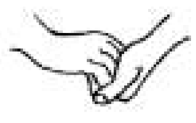
A. The diagram below shows you the correct way to wash your hands. Make sure that all areas of the hands are covered. The hands should be wet before applying soap.



Palm to Palm.

Right palm over left hand and vice versa.

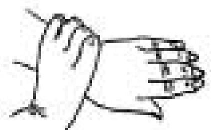
Interlace fingers of right hand over left and vice versa.



Backs of fingers to opposing palms with fingers interlocked.

Rotational rubbing, forwards and backwards with clasped fingers in the right hand in left palm and vice versa.

Rotational rubbing of right thumb clasped in left palm and vice versa.



Grasp left wrist with right hand and work cleanser into skin then vice versa.

Rub hands and wrists for 15 seconds, rinse and dry thoroughly.

Q. Will everyone treating and examining me wash their hands?

A. Everyone treating you should have washed their hands. If you are in any doubt as to whether they have, you can ask them to wash them again. Staff should not be upset or angry with you for asking them to do this.

Q. What kind of treatment am I likely to have?

A. The kind of treatment you get will depend on the type of infection you have. You may be treated with antibiotics; the type of antibiotic and the length of time that you would be required to take it would depend on your individual condition. The Infection Control Team can help to advise medical and nursing staff about the appropriate treatment, depending on what sort of infection you have.

1.6 Advice from the Chief Medical Officer and Chief Nursing Officer: Five Top Tips

The Minister for Health and Community Care launched a poster for NHSScotland highlighting the role that members of the public can play in combating HAI. The poster contains the following five top tips from the Chief Medical Officer and the Chief Nursing Officer for visitors to hospitals.

- Think about keeping patients safe before you visit someone in hospital. If you, or someone you live with has a cold or diarrhoea, or if you feel unwell, try to stay away until you're better.
- Wash and dry your hands before visiting a hospital ward, particularly after going to the toilet. If there is alcohol hand gel provided at the ward door or at the bedside, use it.
- 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 and 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/Charge Nurse know. If you think a healthcare worker has forgotten to wash their hands, remind them about this.

1.7 Useful Contacts

The following organisations can provide information about HAI. Named contacts are current at time of publication, but may be liable to change.

1 **Association of Clinical Microbiologists**
Dr Kenneth Liddell (Vice Chair)
Wishaw General Hospital
50 Netherton Street
WISHAW
ML2 ODP

Tel: 01698 366406
Fax: 01698 366625
Email: ken.liddell@lanarkshire.scot.nhs.uk
www.aclinmicrobiol.org.uk

2 **Audit Scotland**
110 George Street
EDINBURGH
EH2 4LH

Tel: 0131 477 1234
Fax: 0131 477 4567
Email: info@audit-scot.gov.uk
www.audit-scotland.gov.uk

3 **Health Protection Scotland (HPS)**
Clifton House
Clifton Place
GLASGOW
G3 7LN

Tel: 0141 300 1100
Fax: 0141 300 1170
Email: sciehinfectioncontrol@hps.scot.nhs.uk
www.show.scot.nhs.uk/scieh

4 **Infection Control Nursing Association (ICNA)**
Ms Linda Carruthers
(formerly Johnstone)
Co-ordinator, ICNA (Scottish Group)
NHS Fife
Primary Care Operating Division
Hayfield House
Hayfield Road
KIRKCALDY
KY2 5AH

Tel: 01592 643 355
Email: linda.johnstone@faht.scot.nhs.uk
www.icna.co.uk

5 **NHS Education for Scotland (NES)**
Hanover Buildings
66 Rose Street
EDINBURGH
EH2 2NN

Tel: 0131 225 4365
Fax: 0131 225 5891
www.nes.scot.nhs.uk/
www.neshai.info

6 **Property and Environment Forum Executive (P&EFEx)**
4th Floor, Empire House
131 West Nile Street
GLASGOW
G1 2RX

Tel: 0141 332 3455
Fax: 0141 332 0703
Email: enquiries@pefex.scot.nhs.uk
www.show.scot.nhs.uk/pef

7 **Scottish Microbiology Association**
Dr Gavin Lindsay (Chair)
Bacteriology Department
Southern General Hospital
1345 Govan Road
GLASGOW
G51 4TF

Tel: 0141 201 1703
Fax: 0141 201 1704
Email:
gavin.lindsay@sgh.scot.nhs.uk
www.scottish-microbiology.org.uk

8 **Scottish Microbiology Forum**
Dr Mary Hanson and Dr Sheila Burns (Joint Chair)
c/o Health Protection Scotland
Clifton House
Clifton Place
GLASGOW
G3 7LN

Tel: 0141 300 1168
Fax: 0141 300 1170
Email:
barbara.nolan
@hps.scot.nhs.uk
www.scottishmicrobiology
forum.org.uk

9 **Scottish Ministerial Healthcare Associated Infection Task Force (HAITF)**
Mrs Margaret Tannahill
(Project Leader)
Scottish Executive Health Department
St Andrew's House
Regent Road
EDINBURGH
EH1 3DG

Tel: 0131 244 2490
Fax: 0131 244 2069
Email: margaret.tannahill
@scotland.gsi.gov.uk

Chapter 2

National Performance Against the Standards

2 National Performance Against the Standards

This section presents the findings across Scotland in terms of performance against individual standards. A number of examples of innovative local solutions and areas of good practice are highlighted in boxes throughout the text. These examples are not exhaustive - every update team noted examples of good practice during visits and these were often in place in more than one NHS organisation.

During this review of infection control services, 32 NHS organisations[4], based in the 15 NHS Boards, were reviewed to assess performance against the standards. This national overview summarises the 32 local reports.

Note: Scottish National Blood Transfusion Service

The Scottish National Blood Transfusion Service (SNBTS) arrangements for infection control were reviewed as part of the CSBS generic clinical governance visit in June 2002. The review found that SNBTS had a robust risk management strategy and had a number of standard operating procedures relating to infection control in place. The SNBTS was reviewed again as part of National Services Scotland (NSS) in January 2005, during the healthcare governance interim review.

The SNBTS follows appropriate UK, European and World Health Organisation (WHO) procedures and guidelines to ensure that all aspects of its service are appropriately regulated.

4 In 2002, 31 NHS organisations were reviewed. In 2004, this number increased to 32 with the introduction of the Golden Jubilee National Hospital into NHSScotland. A full review visit of this organisation was carried out in June 2004.

2.1 Standard 1 Accountability: Accountability Arrangements at Trust Level

Standard Statement

Responsibility for infection control is clearly defined and there are clear lines of accountability for infection control matters throughout the Trust.

NHS organisations demonstrated some progress in performance against this standard. The majority have close involvement of senior management with the Infection Control Team (c1.4) and a single designated HDL(2001)10 lead (c1.5). Progress was shown in documenting accountability structures for infection control (c1.1), and the development of an infection control programme (c1.2). The number of NHS organisations in which the chief executive and Risk Management Committee/Group receive the annual report on the infection control programme has increased (c1.3). However, this still represents slightly less than half of all NHS organisations.

Inappropriate mechanisms for developing and agreeing accountability structures are apparent in some NHS organisations. Further improvement in senior/executive management accountability for infection control is still required.

Recommendations

NHS organisations should:

- ensure that lines of accountability and responsibility for all individuals, Committees and Groups involved in infection control are clearly defined.
- ensure that appropriate infection control programmes and reports are produced annually. These documents should be distributed widely, with particular emphasis on the chief executive and Risk Management Committee receiving the annual report on the infection control programme.

1.1 There are clear lines of accountability throughout the organisation which define the relationships between the Risk Management Committee/Group, Clinical Governance Committee, Infection Control Committee and Infection Control Team.

Assessment category	NHS organisations	
	2002	2004
met	9	18
not met	17	10
not met (insufficient evidence)	5	4
not applicable	-	-

In 2002, 29% of Trusts were able to demonstrate clear lines of accountability in respect of risk management, clinical governance and infection control.

In 2004, 56% of NHS organisations met this criterion. Some NHS organisations, however, still relied on informal communication and links and did not document their accountability structures with respect to infection control. A number of NHS organisations reported that they were working to address these issues.

1.2 The infection control programme is developed with the support and approval of the Trust chief executive.

Assessment category	NHS organisations	
	2002	2004
met	11	24
not met	18	8
not met (insufficient evidence)	2	-
not applicable	-	-

In 2002, 35% of Trusts met this criterion.

In 2004, 75% of NHS organisations demonstrated that they had an appropriate infection control programme, which was developed with the support and approval of the Trust chief executive.

Some NHS organisations continued to make use of action plans which were insufficiently detailed to be recognised as an infection control programme.

1.3	The Trust chief executive and Risk Management Committee/Group receive the annual report on the infection control programme.		
	Assessment category	**NHS organisations**	
		2002	**2004**
	met	5	15
	not met	25	14
	not met (insufficient evidence)	1	3
	not applicable	-	-

In 2002, only 16% of Trusts met this criterion. It was uncommon for the annual report on the infection control programme to be received by the Trust chief executive and Risk Management Committee.

In 2004, 47% of NHS organisations met this criterion. In some NHS organisations, there continued to be no formal infection control programme on which to base a report.

1.4	The Trust chief executive, or a deputy with authority to make appropriate decisions on the chief executive's behalf, works closely with the Infection Control Team.		
	Assessment category	**NHS organisations**	
		2002	**2004**
	met	22	28
	not met	5	3
	not met (insufficient evidence)	4	1
	not applicable	-	-

In 2002, 71% of Trusts had appointed a deputy to act with delegated responsibility on the chief executive's behalf.

In 2004, 88% of NHS organisations met this criterion. Those NHS organisations which did not have a chief executive or a deputy with delegated responsibility, either reported that there was no senior management involvement with the Infection Control Team or were unable to demonstrate that a deputy with authority had been appointed, or that the nominated person worked closely with the Infection Control Team.

1.5 A senior manager (as per HDL(2001)10) is designated as having overall responsibility for risk assessment and management processes relating to infection control, decontamination and cleaning services.

Assessment category	NHS organisations	
	2002	2004
met	25	27
not met	4	2
not met (insufficient evidence)	2	3
not applicable	-	-

In 2002, 81% of Trusts had designated a senior manager as per HDL(2001)10 with overall responsibility for the risk assessment and management processes relating to infection control, decontamination and cleaning services.

In 2004, 84% of NHS organisations met this criterion. However, a lack of documentation, and no single individual having responsibility, affected the performance of some NHS organisations.

1.6 Senior management support is provided for infection control emergencies out-of-hours.

Assessment category	NHS organisations	
	2002	2004
met	20	25
not met	10	6
not met (insufficient evidence)	1	1
not applicable	-	-

In 2002, 65% of Trusts provided senior management support for infection control emergencies out-of-hours.

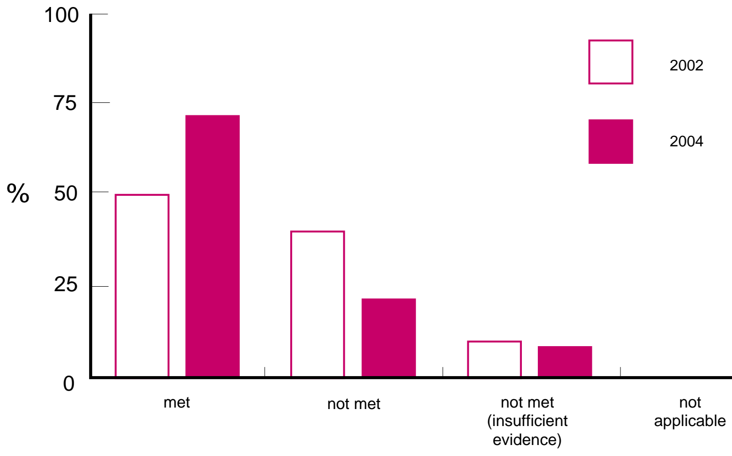
In 2004, 78% of NHS organisations met this criterion. However, a number of NHS organisations still had informal mechanisms for contacting staff, which placed the onus on a member of administrative staff to contact a suitable senior manager.

1.7	The Trust chief executive and the Risk Management Committee/Group are informed of any serious problems or issues relating to infection control.		
	Assessment category	**NHS organisations**	
		2002	**2004**
	met	16	22
	not met	9	4
	not met (insufficient evidence)	6	6
	not applicable	-	-

In 2002, 52% of Trusts had no formal mechanism to ensure that serious problems or issues relating to infection control were communicated to the Trust chief executive and the Risk Management Committee/Group.

In 2004, 69% of NHS organisations had a formal mechanism to ensure effective communication of infection control problems to the chief executive and Risk Management Committee/Group.

Accountability: Accountability Arrangements at Trust Level



Examples of local initiatives

Forth Valley Acute Hospitals NHS Trust

Since the last review, an HAI Project Board has been formed for NHS Forth Valley as a whole, to take forward HAI issues for the whole of the area. The Project Board has looked at priorities arising from the Watt Report and the CSBS first HAI review. A project manager has been appointed to co-ordinate the project.

Yorkhill NHS Trust

The Trust has produced a prevention and control of infection strategy. This document clearly outlines the responsibility and accountability of healthcare staff, HDL 2001(10) lead, Infection Control Team, Control of Infection Committee, Clinical Risk Management Committee and Clinical Governance Committee. The supporting organisational structure chart demonstrates the links between the relevant committees.

2.2 Standard 2 Accountability: Infection Control Committee

Standard Statement

There is an Infection Control Committee that endorses all infection control policies/procedures/guidelines. It also provides advice and support on their implementation and monitors the progress of the annual infection control programme.

Substantial progress has been made in meeting the requirements for the Infection Control Committee. All NHS organisations have some form of Infection Control Committee (c2.1), with most fulfilling all membership requirements. This Committee provides advice and support to the Infection Control Team (c2.4) in all but one instance. However, it was noted that formal mechanisms to ensure comprehensive circulation of the Infection Control Committee minutes (c2.3) is still lacking in a third of NHS organisations.

Recommendation

NHS organisations should:

- ensure adequate formal circulation of the minutes of the Infection Control Committee to appropriate individuals, to ensure all relevant staff are fully aware of infection control issues.

2.1 Membership of the Infection Control Committee includes:

- chief executive or a nominated senior manager with authority to represent him/her
- chief pharmacist or representative
- consultant in public health medicine (communicable diseases and environmental health) for the local NHS Board
- Infection Control Team
- identified representatives, from, for example, sterile services department, estates department, facilities management, Trust risk management co-ordinator, etc
- infectious disease physician (where there is one)
- key representatives from other hospitals/areas covered by the Infection Control Committee, eg general medical or dental practitioners
- nurse executive director or nominated representative(s)
- other experts as required on an ad hoc basis, eg environmental health officer
- representative of the occupational health service
- senior clinical medical staff representatives nominated by the medical director
- senior manager with overall responsibility for risk assessment and management processes relating to infection control/decontamination/cleaning services.

Assessment category	**NHS organisations**	
	2002	**2004**
met	18	26
not met	11	6
not met (insufficient evidence)	2	-
not applicable	-	-

In 2002, 58% of Trusts had an appropriately constituted Infection Control Committee (or committee of a similar name carrying out this function). One of the observations in 2002 was that some Trusts had more than one Infection Control Committee, operating at different sites in the organisation and with little evidence of a cohesive approach.

In 2004, this had largely been addressed and 81% of NHS organisations had an appropriately constituted Committee. All NHS organisations did have an Infection Control Committee; however, not all NHS organisations had appropriate representation on the Committee.

2.2 The Infection Control Committee agrees terms of reference and accountability arrangements and meets at least four times a year.

Assessment category	NHS organisations	
	2002	2004
met	8	24
not met	16	5
not met (insufficient evidence)	7	3
not applicable	-	-

In 2002, 26% of Trusts were able to demonstrate that the Infection Control Committee agreed its terms of reference and accountability arrangements and met at least four times per year.

In 2004, 75% of NHS organisations met this criterion. The remaining NHS organisations submitted information which was incomplete or only satisfactory for one of the Infection Control Committees (where more than one existed) in the organisation.

2.3 Minutes of the Infection Control Committee are circulated to all clinical directors/managers and relevant committees, for example, Clinical Governance and Risk Management Committee/Group.

Assessment category	NHS organisations	
	2002	2004
met	11	21
not met	16	9
not met (insufficient evidence)	4	2
not applicable	-	-

In 2002, 35% of Trusts provided a comprehensive list ensuring effective distribution of Infection Control Committee minutes to all senior medical and nursing staff, general managers and relevant committees, such as the Risk Management and Clinical Governance Committees.

In 2004, 66% of NHS organisations did have adequate circulation lists and were able to demonstrate effective distribution of minutes. Some NHS

organisations, however, relied on informal mechanisms to distribute minutes.

2.4 The Infection Control Committee provides advice and support to the Infection Control Team.

Assessment category	NHS organisations	
	2002	2004
met	24	31
not met	6	1
not met (insufficient evidence)	1	-
not applicable	-	-

In 2002, 77% of Trusts were able to demonstrate that their Infection Control Committee provided advice and support to the Infection Control Team.

In 2004, 97% of NHS organisations met this criterion.

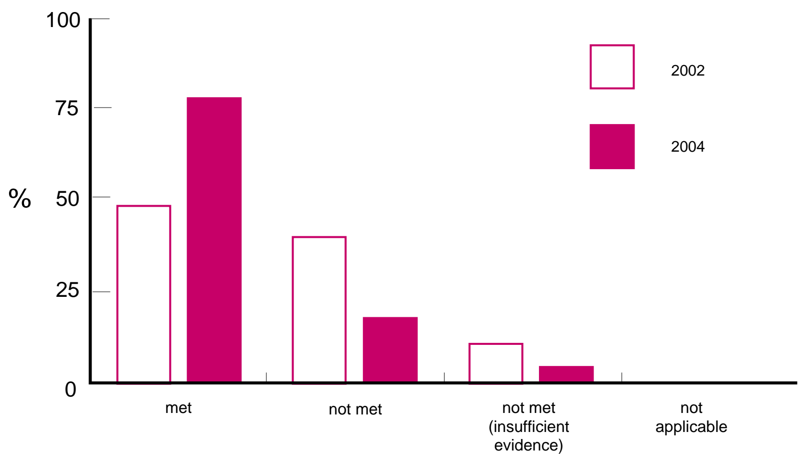
2.5 The Infection Control Committee endorses the annual infection control programme.

Assessment category	NHS organisations	
	2002	2004
met	13	22
not met	14	9
not met (insufficient evidence)	4	1
not applicable	-	-

In 2002, 42% of Trusts were able to demonstrate that the Infection Control Committee endorses the annual infection control programme.

In 2004, this number had increased to 69% of NHS organisations. The remaining NHS organisations were either unable to demonstrate that the Committee endorses the programme or there was no programme in place.

Accountability: Infection Control Committee



2.3 Standard 3 Accountability: Infection Control Team

Standard Statement

There is an appropriately constituted and functioning Infection Control Team.

NHS organisations generally performed very well in relation to the constitution and functioning of the Infection Control Team. Most have an appropriately constituted, trained and supported Team (c3.1, 3.2 and 3.4). All have links in place with occupational and public health (c3.5 and 3.7) and, in all but one case, advice on infection control is available on a 24-hour basis (c3.6). The one exception to this good performance was in having clearly defined and agreed contracted sessions per week for the infection control doctor (c3.3). These arrangements are in place in only one third of NHS organisations.

Recommendation

NHS organisations should:

- ensure that the infection control sessions provided by infection control doctors are defined and contracted.

3.1 The Infection Control Team includes: the infection control doctor(s); the infection control nurse(s); a consultant medical microbiologist if the infection control doctor is from another specialty.

Assessment category	NHS organisations	
	2002	2004
met	25	27
not met	6	5
not met (insufficient evidence)	-	-
not applicable	-	-

In 2002, 81% of Trusts had Infection Control Teams which were appropriately constituted.

In 2004, 84% of NHS organisations had an appropriately constituted Infection Control Team. The NHS organisations which did not comply had no designated infection control doctor.

3.2	The Infection Control Team is supported by: dedicated secretarial staff; IT staff; audit staff.		
	Assessment category	**NHS organisations**	
		2002	**2004**
	met	11	27
	not met	20	5
	not met (insufficient evidence)	-	-
	not applicable	-	-

In 2002, 35% of Trusts had an Infection Control Team which was adequately supported.

In 2004, 84% of NHS organisations had Infection Control Teams which were adequately supported. Lack of dedicated secretarial support for the Team was the reason for non-compliance in the majority of NHS organisations which did not meet this criterion.

3.3	The responsibilities and accountability arrangements of each member of the Infection Control Team are clearly defined and the contracted sessions per week for the infection control doctor are defined and agreed.		
	Assessment category	**NHS organisations**	
		2002	**2004**
	met	8	11
	not met	21	19
	not met (insufficient evidence)	2	2
	not applicable	-	-

In 2002, 26% of Trusts were able to demonstrate that the responsibilities and accountability arrangements for members of the Infection Control Team were clearly defined and that the contracted sessions per week for the infection control doctor were defined and agreed.

In 2004, 34% of NHS organisations were able to demonstrate that they fully met this criterion. A number of NHS organisations reported that work was in progress to formalise the contracted sessions for the infection control doctor(s).

3.4 Members of the Infection Control Team have trained in infection control and can provide evidence of relevant continuing professional development.

Assessment category	NHS organisations	
	2002	2004
met	25	27
not met	6	3
not met (insufficient evidence)	-	2
not applicable	-	-

In 2002, 81% of Trusts had Infection Control Teams which were properly trained and undertook relevant continuing professional development.

In 2004, 84% of NHS organisations met this criterion. Those organisations which were unable to demonstrate compliance with this criterion either had some members of the team who were not formally trained (although a number were undertaking relevant qualifications) or had no evidence to demonstrate continuing professional development.

3.5 The Infection Control Team and the appropriate occupational health services liaise when dealing with infection control advice relating to: the health and safety of healthcare workers; transmission of infection between healthcare workers and other persons.

Assessment category	NHS organisations	
	2002	2004
met	31	32
not met	-	-
not met (insufficient evidence)	-	-
not applicable	-	-

In 2002, all Trusts reviewed had liaison between Infection Control Teams and occupational health services.

In 2004, the additional NHS organisation reviewed also had such liaison.

3.6 The Infection Control Team ensures that advice on infection control is available on a 24-hour basis.

Assessment category	NHS organisations	
	2002	2004
met	28	31
not met	3	-
not met (insufficient evidence)	-	1
not applicable	-	-

In 2002, 90% of Trusts ensured that infection control advice was available on a 24-hour basis.

In 2004, 97% of NHS organisations were able to demonstrate that they had infection control advice available on a 24-hour basis.

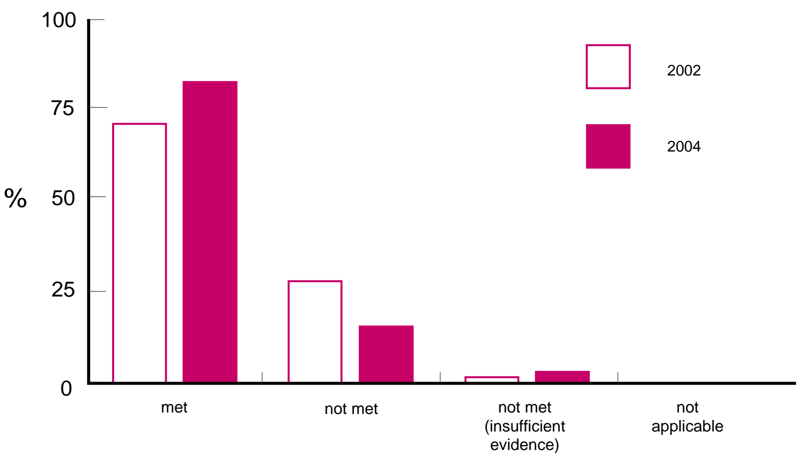
3.7 The Infection Control Team collaborates with the local consultant in public health medicine (communicable disease and environmental health) when dealing with: outbreaks or incidents within the acute and primary care settings; issues relating to infection within primary care settings; areas of work requiring the involvement of environmental health officers.

Assessment category	NHS organisations	
	2002	2004
met	28	31
not met	2	-
not met (insufficient evidence)	-	-
not applicable	1	1

In 2002, 93% of Trusts were able to demonstrate collaboration between Infection Control Teams and public health specialists and, where relevant, environmental health officers.

In 2004, all NHS organisations, to which this criterion was applicable, met this criterion.

Accountability: Infection Control Team



Examples of local initiatives

Ayrshire & Arran Acute Hospitals NHS Trust

The NHS organisation has strong links with the local public health department. In addition to collaboration with the local consultant in public health, the specialist nurse in public health attends the monthly Infection Control Team meetings and is also a member of the Infection Control Policy Review Group.

Tayside Primary Care NHS Trust

The comprehensive infection control strategy document clearly defines the responsibilities and accountability arrangements for members of the Infection Control Team and includes information relating to the infection control doctor, infection control nurse, advisors, support staff and infection control link staff. Accountability for the members of the Team is further clarified by a concise chart.

2.4 Standard 4 Processes: Planning & Development

Standard Statement

Prevention and control of infection are considered as part of all service development activity.

The majority of NHS organisations continue to have difficulty in meeting this standard. This is mainly because of the reliance on ad hoc infection control input into service development, rather than having formalised and comprehensive systems in place to ensure that prevention and control of infection is an integral consideration in the development of services.

Recommendation

NHS organisations should:

- produce and implement a planning and development policy document to formalise the ad hoc work currently taking place.

4.1 There is a system in place which ensures that, where relevant, advice is sought from the Infection Control Team, particularly in relation to the following:

- the development of policies/procedures/guidelines relating to engineering and building services and to the purchase of medical devices/equipment
- early stage planning for advice relating to engineering and building works and the purchase of medical devices/equipment
- all stages of the contracting process for hotel and other services which have implications for infection control, eg cleaning, laundry, clinical waste, catering.

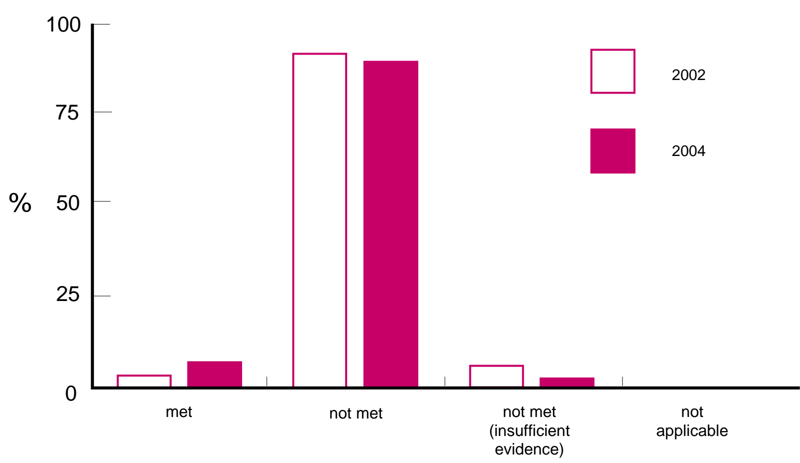
Assessment category	NHS organisations	
	2002	2004
met	1	3
not met	28	28
not met (insufficient evidence)	2	1
not applicable	-	-

In 2002, only one Trust had in place an organisation-wide strategy document which described the mechanisms to ensure that Infection Control Teams provided advice in relation to the purchase of medical

devices/equipment, and were involved in the early stages of all service development activities as described in the criterion.

In 2004, there had been very little progress, with only an additional two NHS organisations meeting this criterion. Much ad hoc work was still evident.

Processes: Planning & Development



Examples of local initiatives

Ayrshire & Arran Primary Care NHS Trust

The NHS organisation has developed a number of mechanisms to ensure that infection control is fully integrated into the planning and development process. A built environment policy statement is in place and this ensures that advice is sought from infection control personnel and that appropriate action takes place throughout the planning and construction processes. An Infection Control in the Built Environment Group exists, which reports to the director of facilities and is chaired by an infection control nurse. Membership of the Group is drawn from infection control, project planning, estates, hotel services, and health and safety.

Fife Primary Care NHS Trust

Members of the Infection Control Team are involved in focus and user groups for hotel services, laundry and infection control. Staff from relevant departments are involved in these groups, which meet regularly to discuss specific items of interest relevant to all parties.

Greater Glasgow Primary Care NHS Trust

The NHS organisation has taken a high level and proactive approach to the management of medical equipment and has established a Medical Equipment Committee. This Committee is chaired by the medical director, and the senior infection control nurse is a member.

2.5 Standard 5 Processes: Infection Control Programme

Standard Statement

An organisation-wide annual infection control programme with clearly defined objectives is produced by the Infection Control Team.

Overall performance relating to the development of an annual infection control programme is disappointing. There has not been significant progress in relation to this standard since 2002.

Only half of all NHS organisations have an infection control programme which fulfils the requirement for full consultation with relevant key stakeholders and involvement of the Infection Control Committee in its development (c5.1). Following on from this, less than half could show that the programme has then been approved by the Management Team using the relevant risk management structure (c5.2). There has been progress in the number of NHS organisations keeping the programme under regular review (c5.4) and producing an annual infection control report that outlines the progress of the programme (c5.6). However, identified priorities arising from the programme are still not regularly incorporated into annual business plan(s) (c5.3).

Recommendations

NHS organisations should:

- ensure that an annual organisation-wide infection control programme, with clearly defined objectives and appropriate content, is developed by the Infection Control Team in full consultation with all relevant stakeholders
- ensure that the infection control programme is signed off by the chief executive and Management Team, through the relevant risk management structure
- ensure that the annual business plan contains identified priorities arising from the infection control programme.

5.1	The Infection Control Team develops and produces an annual infection control programme in full consultation with relevant key stakeholders, including the Infection Control Committee, health professionals and senior managers.	

Assessment category	NHS organisations	
	2002	2004
met	8	16
not met	19	12
not met (insufficient evidence)	4	4
not applicable	-	-

In 2002, 26% of Trusts had a formal, prospective annual infection control programme which had been developed in full consultation with relevant key stakeholders.

In 2004, 50% of NHS organisations met this criterion. A large number of NHS organisations were not able to demonstrate consultation with relevant key stakeholders in the process, and a few had no formal annual infection control programme.

5.2	The programme is approved by the Trust chief executive and Management Team through the relevant risk management structure.	

Assessment category	NHS organisations	
	2002	2004
met	4	12
not met	25	17
not met (insufficient evidence)	2	3
not applicable	-	-

In 2002, only 13% of organisations were able to demonstrate that the infection control programme had been approved both by the Trust chief executive and the Management Team through the relevant risk management structure.

In 2004, 38% of NHS organisations met this criterion. The majority of NHS organisations were able to demonstrate that the chief executive had approved the programme, however, a significant number were unable to demonstrate that the Management Team had approved the programme through the relevant risk management structure.

5.3 Identified priorities arising from the infection control programme are incorporated within the relevant annual business plan(s).

Assessment category	NHS organisations	
	2002	2004
met	8	12
not met	23	18
not met (insufficient evidence)	-	2
not applicable	-	-

In 2002, 26% of Trusts had identified priorities arising from their infection control programme incorporated within relevant annual business plans.

In 2004, this number had increased to 38% of NHS organisations. Considerable progress is required to improve compliance in relation to this criterion.

5.4 The programme is kept under regular review by the Infection Control Committee and Infection Control Team and modified as necessary.

Assessment category	NHS organisations	
	2002	2004
met	6	20
not met	21	10
not met (insufficient evidence)	4	2
not applicable	-	-

In 2002, 19% of Trusts provided evidence that the programme was kept under regular review by the Infection Control Committee and Team and modified as necessary.

In 2004, 63% of NHS organisations kept the infection control programme under review and modified it as necessary.

5.5 The programme includes reference to audit of the implementation of, and compliance with, selected infection control policies/procedures/guidelines.

Assessment category	NHS organisations	
	2002	**2004**
met	10	18
not met	19	14
not met (insufficient evidence)	2	-
not applicable	-	-

In 2002, 32% of Trusts had an infection control programme, which made reference to the implementation of, and compliance with, audit of selected policies, procedures and guidelines in a planned manner.

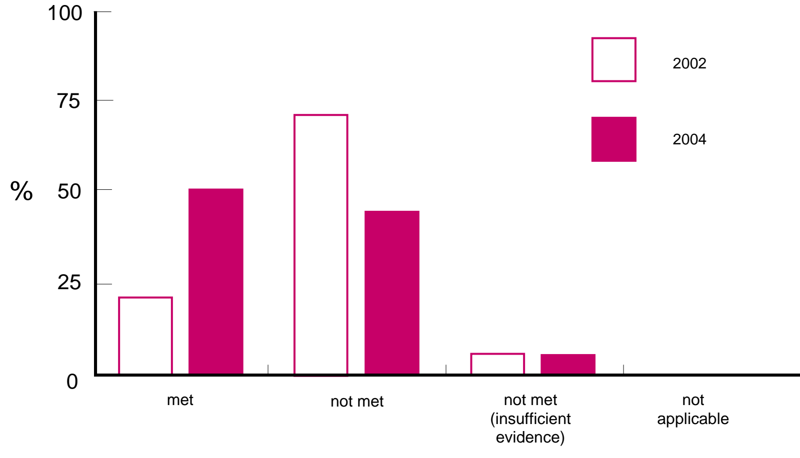
In 2004, 56% of NHS organisations demonstrated compliance with this criterion. Many infection control programmes contained programmes of audit. However, a number of these did not pertain to the implementation of, and compliance with, selected infection control policies, procedures and guidelines.

5.6 The annual infection control report outlines the progress of the infection control programme.

Assessment category	NHS organisations	
	2002	**2004**
met	6	18
not met	25	14
not met (insufficient evidence)	-	-
not applicable	-	-

In 2002, 19% of Trusts had an annual infection control report, which was based on the previous year's prospective infection control programme, and clearly outlined the progress against that programme.

In 2004, 56% of NHS organisations met this criterion. Although this increase illustrated progress, a number of NHS organisations still had no annual infection control report which outlined the progress of their infection control programme. This lack of a report in many cases was due to the absence of a formally approved infection control programme for the previous year.


Processes: Infection Control Programme
100
75
50
25
0
%
2002
2004
met
not met
not met
(insufficient
evidence)
not
applicable
Assessment category

Examples of local initiatives

Forth Valley Primary Care NHS Trust

The infection control programme is widely circulated for consultation before final approval. The distribution list includes the chief executive and representatives from local health care co-operatives, local health council, dentistry, facilities, finance, microbiology, nursing, occupational health, pharmacy, public health and senior/executive management. Once all comments have been collated, the programme is formally approved by the Infection Control and Clinical Governance Committees. The chief executive then signs off the programme.

Greater Glasgow Primary Care NHS Trust

The senior infection control nurse provides comprehensive quarterly progress reports on the infection control programme to the Infection Control Committee and senior management. These reports clearly detail the specific result areas, timescales, progress and the member of staff and/or organisational group responsible. Staff listed as being responsible, range from the chief executive to the infection control nurses.

Lanarkshire Primary Care NHS Trust

A protocol for the development of the infection control programme has been put in place to ensure that the programme is developed in a systematic manner. The protocol details procedures for appropriate involvement of key stakeholders, endorsement, review and timescales.

Tayside University Hospitals NHS Trust

The Trust has developed an infection control issues action plan that identifies priorities arising from the infection control programme. The plan identifies needs, necessary outcomes, progress, lead personnel and any associated costs. This plan is then fed into the annual business plan.

2.6 Standard 6 Processes: Policies, Procedures & Guidance

Standard Statement

Written policies/procedures/guidelines for the prevention and control of infection are implemented and reflect relevant legislation and published professional guidance.

NHS organisations continue to have a range of relevant and up-to-date policies, procedures and guidelines in use for the prevention and control of infection. It was often the case that a very small number of key policies remained outstanding, which prevented many NHS organisations from fully demonstrating that all key policies are in place (c6.3). Procedures are in place in almost all NHS organisations to ensure that policies, procedures and guidelines are approved by the Infection Control Committee (c6.1). The dissemination of these policies throughout the organisation is generally carried out in a systematic manner (c6.2). The inclusion of a timetable for the review of policies in the annual infection control programme (c6.4) and a review date on all policies (c6.5) still requires to be addressed in less than half of all NHS organisations.

Recommendations

NHS organisations should:

- complete policies, procedures and guidelines where omissions have been identified
- ensure that a timetable for review of policies, procedures and guidelines is included in the infection control programme
- ensure that all policies, regardless of age, are clearly marked with a review date.

6.1	Policies/procedures/guidelines are approved by the Infection Control Committee.	
Assessment category	NHS organisations	
	2002	2004
met	27	30
not met	2	2
not met (insufficient evidence)	2	-
not applicable	-	-

In 2002, 87% of Trusts had infection control policies/procedures/ guidelines that were approved by the Infection Control Committee.

In 2004, 94% of NHS organisations were able to demonstrate that the infection control policies/procedures/guidelines were approved by the Infection Control Committee.

6.2	There is a system to ensure each directorate, department or service has a current copy of the approved policies/ procedures/guidelines pertinent to its activities.	
Assessment category	NHS organisations	
	2002	2004
met	20	26
not met	8	5
not met (insufficient evidence)	3	1
not applicable	-	-

In 2002, 65% of Trusts had mechanisms for the distribution and acknowledgement of receipt of policies and guidance documents.

In 2004, 81% of NHS organisations met this criterion. The NHS organisations which did not meet this criterion had no receipt system or evidence that such a system was in place.

6.3 Key policies/procedures/guidelines are in place, and where assessed as relevant, include:

- antimicrobial prophylaxis and therapy prescribing
- control of methicillin-resistant *Staphylococcus Aureus* (MRSA) and other antimicrobial resistant micro-organisms
- collection, packaging, handling, delivery and disposal of laboratory specimens
- control of tuberculosis, including multi-drug resistant tuberculosis
- control of viral haemorrhagic fevers
- decontamination and reprocessing of reusable medical devices
- food hygiene
- hand hygiene
- handling of medical devices in procedures carried out on known/suspect CJD (of any type) patients and on patients in risk categories for CJD as defined in the ACDP/SEAC guidance (including disposal/quarantining procedures)
- insertion and maintenance of central venous catheters
- isolation of patients
- last offices
- laundry
- legionellae control
- management of occupational exposure to blood-borne viruses (BBVs) and post exposure prophylaxis
- outbreaks/incidents of communicable infections and ward/hospital closure
- occupational health policies for prevention and management of communicable infections in healthcare workers, including those infected with blood-borne viruses
- prevention of occupational exposure to blood-borne viruses, including prevention of sharps injuries
- safe handling and disposal of healthcare waste
- single use and single patient use devices and other healthcare products
- standard infection control precautions
- use of indwelling urethral catheters.

Assessment category	NHS organisations	
	2002	2004
met	4	7
not met	27	25
not met (insufficient evidence)	-	-
not applicable	-	-

In 2002, 13% of Trusts produced evidence of a full set of completed and signed-off policies/procedures/guidelines.

In 2004, 22% of NHS organisations were able to demonstrate a full set of completed and signed-off documents. Many NHS organisations were pursuing combined documents within the NHS Board area, which was slowing the process considerably for some NHS organisations. In addition, some NHS organisations still had documents in draft format, or one or two outstanding policies to be addressed.

6.4 The annual programme includes a timetable stating which key infection control policies/procedures/guidelines are to be reviewed or written that year.

Assessment category	NHS organisations	
	2002	2004
met	10	16
not met	19	16
not met (insufficient evidence)	2	-
not applicable	-	-

In 2002, 32% of Trusts had an annual programme which included a timetable stating which key infection control policies/procedures/guidelines were to be reviewed or written that year.

In 2004, 50% of NHS organisations were able to demonstrate that their programme included a timetable. The lack of a formal infection control programme in some NHS organisations resulted in difficulties in meeting this criterion.

6.5 All policies/procedures/guidelines are clearly marked with a review date.

Assessment category	NHS organisations	
	2002	2004
met	4	18
not met	27	14
not met (insufficient evidence)	-	-
not applicable	-	-

In 2002, 13% of Trusts had all policies clearly marked with a review date.

In 2004, 56% of NHS organisations met this criterion. Some NHS organisations reported that they were planning to add review dates when they updated their policies.

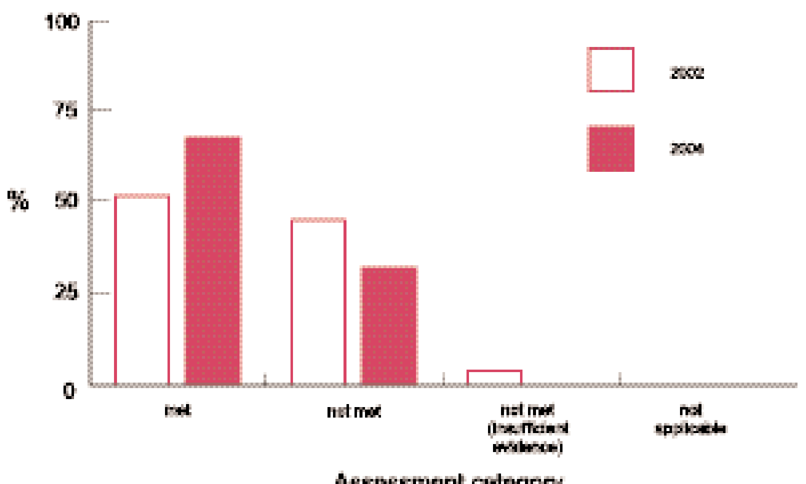
6.6 Relevant parts of key policies/procedures/guidelines are produced in abbreviated form and are accessible for routine use as aides-mémoire by operational staff.

Assessment category	NHS organisations	
	2002	2004
met	30	31
not met	1	1
not met (insufficient evidence)	-	-
not applicable	-	-

In 2002, only one Trust was unable to provide examples of abbreviated aides-mémoire.

In 2004, one NHS organisation still had no examples of abbreviated aides-mémoire.

Processes: Policies, Procedures & Guidance



Example of a local initiative

Golden Jubilee National Hospital

All patients admitted to the Golden Jubilee National Hospital for an overnight stay or longer will be screened for MRSA as part of the admission procedure. Any infection control precautions taken following this screening are then marked in a number of places including: in the patients' clinical notes in the electronic system; within the Integrated Care Plan (ICP); on the pre-operative checklist; on any other departmental checklists; and on the front sheet of the peri-operative nursing care record.

2.7 Standard 7 Processes: Policies, Procedures & Guidelines

Standard Statement

There is an annual programme for the audit of infection control policies/procedures/guidelines.

Performance concerning audit, based on infection control policies/procedures/guidelines remains inconsistent. A considerable amount of audit is carried out (c7.2), the results of which are used to facilitate improved infection control practice (c7.4). However, this work is not generally conducted as part of a documented programme (c7.1). In addition, the results of audits are neither adequately fed back to stakeholders nor included in the annual infection control report (c7.3).

Recommendations

NHS organisations should:

- plan, programme and timetable audit of infection control policies, procedures and guidelines
- make every effort to feed audit results back to stakeholders in a meaningful fashion and ensure that these are included in the infection control annual report.

7.1 There is a written, agreed programme for the audit of infection control policies/procedures/guidelines.

Assessment category	NHS organisations	
	2002	2004
met	11	18
not met	18	14
not met (insufficient evidence)	2	-
not applicable	-	-

In 2002, 35% of Trusts had a formal programme for planned infection control audit.

In 2004, 56% of NHS organisations had a written, agreed programme for the audit of infection control policies/procedures/guidelines. A number of NHS organisations still had no formal infection control programme which led to difficulties in meeting this criterion.

7.2	There is audit of the implementation of infection control policies/procedures/guidelines.	
Assessment category	**NHS organisations**	
	2002	**2004**
met	20	24
not met	10	7
not met (insufficient evidence)	1	1
not applicable	-	-

In 2002, 65% of Trusts carried out some form of infection control audits which pertained to the implementation of infection control policies, procedures and guidelines.

In 2004, 75% of NHS organisations were able to demonstrate that they carried out audit of the implementation of infection control policies, procedures and guidelines. A small number of organisations reported that no progress had been made in this area.

7.3	Audit results are fed back to stakeholders and are included in the infection control annual report.	
Assessment category	**NHS organisations**	
	2002	**2004**
met	7	14
not met	23	18
not met (insufficient evidence)	1	-
not applicable	-	-

In 2002, 23% of Trusts were able to demonstrate that audit results were fed back to stakeholders and included in the annual infection control report.

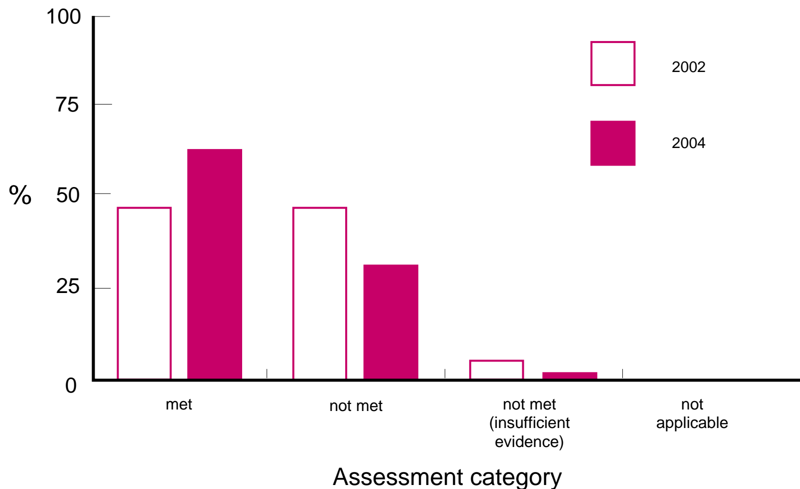
In 2004, there had been limited progress and only 44% of NHS organisations met this criterion. In the small number of NHS organisations which were able to demonstrate feedback to stakeholders, there was no evidence that the audit results were included in the annual report.

7.4	Audit results are used to facilitate improved infection control practice.		
	Assessment category	**NHS organisations**	
		2002	**2004**
	met	20	23
	not met	8	8
	not met (insufficient evidence)	3	1
	not applicable	-	-

In 2002, 65% of Trusts demonstrated that audit results were used to facilitate improved infection control practice, mainly through a timetabled implementation plan for improvements.

In 2004, 72% of NHS organisations met this criterion.

Processes: Policies, Procedures & Guidelines



Examples of local initiatives

NHS Borders

The senior infection control nurse, in conjunction with colleagues from catering and general services, organises and co-ordinates a comprehensive programme of environmental audits such as clinical waste, sharps, food and hand hygiene. Findings from audits are reported to the Infection Control Committee via a quarterly report. Audit results are fed back to stakeholders via email and where necessary, the Infection Control Team, together with general services, meet with units to discuss compliance with infection control policies.

Lomond & Argyll Primary Care NHS Trust

In addition to a programme of ongoing education for existing staff, the Infection Control Team use the results of audits to inform specific education sessions.

North Glasgow University Hospitals NHS Trust

Members of the Infection Control Team have written a programme for environmental audit which is used in conjunction with palmtop computers. Considerable time is now saved when doing environmental audits, as results can be transferred directly from the palmtop to the infection control computer system.

South Glasgow University Hospitals NHS Trust

It is standard practice for all audit results to be fed back to stakeholders. The Trust's Infection Control Team has established good communication links with senior nurses and general managers regarding environmental audit work, ensuring that staff are aware of the distribution of audits and the responsibilities of those receiving the audits.

Wards receive an action plan highlighting areas requiring work and are expected to respond to the Infection Control Team within a 4-week timescale. The action plan is also sent to senior nurses and divisional general managers.

2.8 Standard 8 Processes: Microbiological Services

Standard Statement

Timely and effective microbiological support is provided for the infection control service.

NHS organisations generally performed very well against this standard and only two NHS organisations have not met all the requirements of the standard. Those NHS organisations reported that work is ongoing to correct the situation.

Recommendation

NHS organisations should:

- ensure that microbiological services are provided by Clinical Pathology Accreditation (CPA) accredited laboratory services.

8.1 The microbiology laboratory is Clinical Pathology Accreditation (CPA) accredited and supports the infection control service via processing, data provision, surveillance and specialist testing.

Assessment category	NHS organisations	
	2002	2004
met	26	29
not met	4	2
not met (insufficient evidence)	-	-
not applicable	1	1

In 2002, 87% of Trusts confirmed that they had Clinical Pathology Accreditation (or conditional accreditation) for all their microbiology laboratory services, and provided relevant documentary evidence to confirm microbiological support for the infection control service by the measures specified in the criterion.

In 2004, 94% of NHS organisations met this criterion. The two NHS organisations which did not meet this criterion reported that they would be taking forward the accreditation process.

8.2 There is access to, and provision for, timely specialist microbiology support, including the interpretation of results either on-site, or via reference laboratories.

Assessment category	NHS organisations	
	2002	2004
met	29	31
not met	1	-
not met (insufficient evidence)	-	-
not applicable	1	1

In 2002, 97% of Trusts confirmed access to, and provision of, timely specialist support by microbiology staff.

In 2004, all NHS organisations met this criterion.

8.3 There is a written procedure for the reporting of results on each test.

Assessment category	NHS organisations	
	2002	2004
met	28	29
not met	1	2
not met (insufficient evidence)	1	-
not applicable	1	1

In 2002, 93% of Trusts provided evidence of satisfactory written procedures for reporting results of all tests.

In 2004, 94% of Trusts met this criterion. The two NHS organisations which did not have a written procedure for the reporting of results indicated that they would be working towards this in the near future.

8.4 The Infection Control Team has appropriate access to laboratory results via an effective computer system.

Assessment category	NHS organisations	
	2002	2004
met	29	30
not met	1	1
not met (insufficient evidence)	-	-
not applicable	1	1

In 2002, 97% of Trusts demonstrated that Infection Control Team members had appropriate access to laboratory results via an effective computer system.

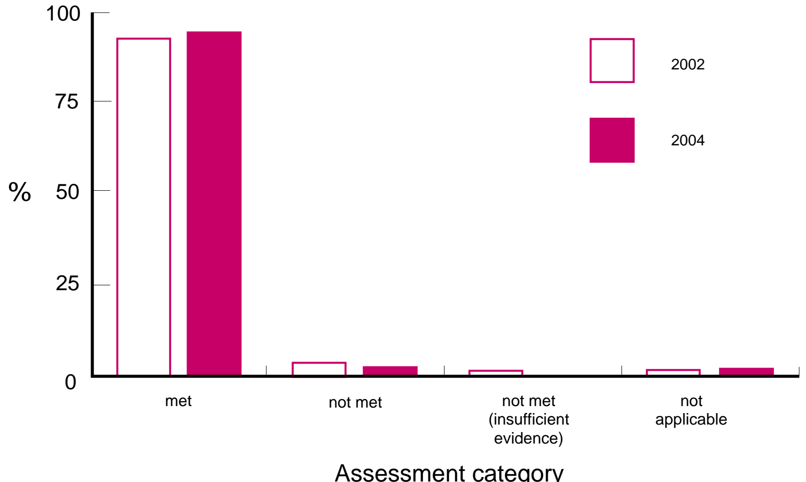
In 2004, one additional NHS organisation met this criterion.

8.5 Microbiology services are available on a 24-hour basis.		
Assessment category	**NHS organisations**	
	2002	**2004**
met	30	31
not met	-	-
not met (insufficient evidence)	-	-
not applicable	1	1

In 2002, all Trusts had microbiology services available on a 24-hour basis.

In 2004, all NHS organisations reported that they continue to meet this criterion.

Processes: Microbiological Services



2.9 Standard 9 Processes: Surveillance

Standard Statement

Surveillance of infection and audit of the results is carried out in accordance with national requirements, and to meet defined local priorities and objectives as specified in communications from the Scottish Executive Health Department and in the annual infection control programme.

There has been some progress with the surveillance of infection according to local and national objectives and this activity is generally carried out well by most NHS organisations. All but one acute NHS organisation provided the national minimum surveillance data sets for collation by the Scottish Centre for Infection and Environmental Health (now Health Protection Scotland) (c9.2). The majority of NHS organisations carried out continuous surveillance to prevent and rapidly detect outbreaks and incidents of infection (c9.3). As noted previously, the lack of a formal infection control programme in some NHS organisations means that details of surveillance activity cannot be included in the programme (c9.1). Work is required to improve the reporting of surveillance results (c9.5) to relevant bodies and personnel within the organisation, as less than half of NHS organisations achieved this (c9.5). In addition, evidence of interpretation of surveillance results was lacking (c9.5).

Recommendations

NHS organisations should:

- ensure they have a surveillance strategy, which is appropriate to the surveillance activity carried out locally
- make every effort to feed results of surveillance back to stakeholders in a meaningful fashion, including interpretation and recommendations.

9.1 National and local objectives and priorities for targeted surveillance of infection, developed by the Infection Control Team and endorsed by the Infection Control Committee, are included in the infection control programme.

Assessment category	NHS organisations	
	2002	2004
met	15	19
not met	12	11
not met (insufficient evidence)	3	1
not applicable	1	1

In 2002, 50% of Trusts provided evidence of surveillance activity, with priorities formulated in respect of both local and national objectives.

In 2004, 61% of NHS organisations met this criterion. Some NHS organisations had no planned surveillance activities included in their infection control programmes. In addition, some organisations had no formal infection control programme in which to include information on planned surveillance activity.

9.2 Trusts implement surveillance according to the standard national protocols and timetable and provide the national minimum data sets for collation by the Scottish Centre for Infection and Environmental Health (SCIEH).

NB - SCIEH facilitated national surveillance requirements did not apply to Primary Care Trusts at the time of the review and update processes.

Assessment category	NHS organisations	
	2002	2004
met	11	18
not met	6	1
not met (insufficient evidence)	1	-
not applicable	13	13

In 2002, 61% of Trusts with acute beds provided minimum data sets for collation by SCIEH in respect of MRSA bacteraemias. In addition, about half of the Trusts had implemented the requirements with regard to surgical site surveillance.

In 2004, 95% of NHS organisations with acute beds met this criterion. The one NHS organisation which did not meet this criterion still had to address an outstanding issue regarding surveillance.

9.3 Methods of surveillance are defined and in place, which includes continuous 'alert organism', 'alert condition' and 'healthcare associated infection' surveillance covering the whole organisation to prevent and rapidly detect outbreaks and incidents of infection.

Assessment category	NHS organisations	
	2002	2004
met	18	24
not met	8	1
not met (insufficient evidence)	4	6
not applicable	1	1

In 2002, 60% of Trusts were able to demonstrate continuous surveillance of alert organism, alert condition and HAI intended to prevent and/or rapidly detect outbreaks and incidents of infection and 'near misses' throughout the organisation.

In 2004, 77% of NHS organisations met this criterion. Those NHS organisations which did not meet this criterion, were unable to demonstrate that surveillance took place, or what methods were used.

9.4 The confidentiality of patients and staff is maintained at all times in accordance with current codes of practice.

Assessment category	NHS organisations	
	2002	2004
met	31	32
not met	-	-
not met (insufficient evidence)	-	-
not applicable	-	-

In 2002, all Trusts adhered to current codes of practice on confidentiality of personal health information.

In 2004, all NHS organisations reported that they continue to adhere to the current codes.

9.5 Results of surveillance with interpretation and recommendations are routinely reported to the Infection Control Committee, clinicians, nurses, managers at all levels; surveillance data for inclusion in national data sets are reported to SCIEH.

Assessment category	NHS organisations	
	2002	2004
met	7	13
not met	19	14
not met (insufficient evidence)	4	4
not applicable	1	1

In 2002, 23% of Trusts had developed satisfactory measures for comprehensive, effective feedback of surveillance findings, along with examples of interpretation and recommendations to all relevant individuals. In addition, these Trusts provided data for inclusion in national data sets reported by SCIEH.

In 2004, only 42% of NHS organisations met this criterion. There continued to be difficulties with the reporting and interpretation of surveillance data.

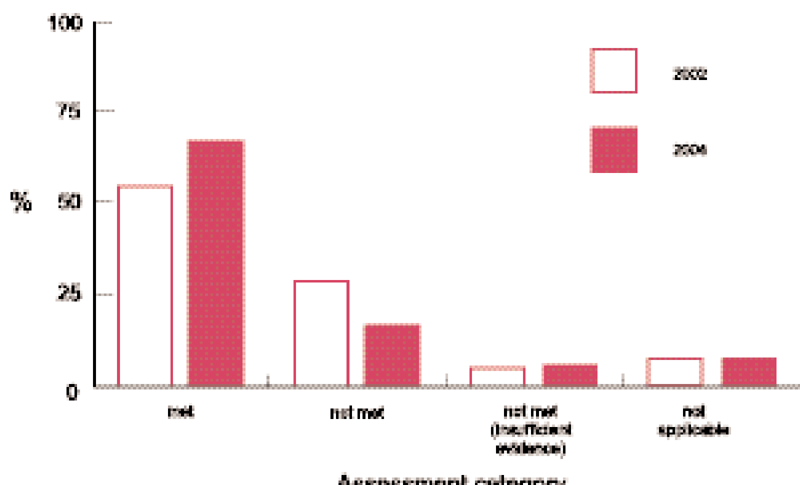
9.6 Any appropriate action is agreed with the Infection Control Team.

Assessment category	NHS organisations	
	2002	2004
met	18	21
not met	10	7
not met (insufficient evidence)	2	3
not applicable	1	1

In 2002, 60% of Trusts demonstrated that they had various mechanisms with which to illustrate satisfactory involvement of Infection Control Teams in decision-making arising from surveillance findings.

In 2004, 68% of NHS organisations met this criterion.

Processes: Surveillance



Examples of local initiatives

Argyll & Clyde Acute Hospitals NHS Trust

The Infection Control Committee of Royal Alexandra Hospital, Paisley, produces a quarterly report on its surveillance activities. This report contains tables and graphs of the results of surveillance and episodes of MRSA, *Clostridium Difficile*, septicaemias, diarrhoea and vomiting, etc. This is accompanied by narrative describing and interpreting the data and giving recommendations for action.

NHS Shetland

There is routine feedback of surveillance results to the Infection Control Committee, clinicians, nurses and mangers via a comprehensive quarterly report. The report includes information on MRSA, chickenpox, immunisation uptake rates and gastro-intestinal infections.

2.10 Standard 10 Processes: Infection Control Report

Standard Statement

A comprehensive infection control report is produced by the Infection Control Team on an annual basis, reviewed by the Risk Management Committee/Group and presented to the Trust chief executive.

There has been little improvement by NHS organisations in the production of an annual infection control report which contains all the required detail (c10.1). In some instances this was a consequence of the performance in Standard 5, where a similar lack of progress was shown in the production of an annual infection control programme. The relevant Risk Management Committee/Group reviews the report (10.2) and highlights any significant risks and other issues to the chief executive (c10.3) in only half of all NHS organisations.

Recommendations

NHS organisations should:

- produce a detailed annual infection control report, which appropriately addresses all aspects of the criterion
- ensure that the Risk Management Committee/Group brings to the attention of the chief executive, and any other appropriate staff, any infection control issues, either from reviewing the annual infection control report or by other means.

10.1 The annual infection control report contains, as a minimum, information on the following:

- any recommendations made on measures taken to prevent recurrence of incidents
- a review of reported adverse incidents, including reports by external agencies, eg environmental health departments
- progress of the infection control programme
- results of audit and proposed action plans
- surveillance reports
- education and training undertaken.

Assessment category	NHS organisations	
	2002	2004
met	5	14
not met	26	18
not met (insufficient evidence)	-	-
not applicable	-	-

In 2002, 16% of Trusts produced infection control reports based on an infection control programme. This low number was, in part, due to the fact that many Trusts were mid-cycle and expected to produce and approve infection control reports in 2003.

In 2004, 44% of NHS organisations met this criterion. The majority of organisations had an infection control report; however, a number of these reports did not include all of the elements described in the criterion.

10.2 The report is submitted to the Risk Management Committee/ Group for review.

Assessment category	NHS organisations	
	2002	2004
met	6	16
not met	24	13
not met (insufficient evidence)	1	3
not applicable	-	-

In 2002, 19% of Trusts had an annual infection control report that was submitted for review to Risk Management Groups or Committees. However, on many occasions there was no infection control report which could have been submitted.

In 2004, 50% of NHS organisations still did not submit their infection control report to their Risk Management Committee or Group.

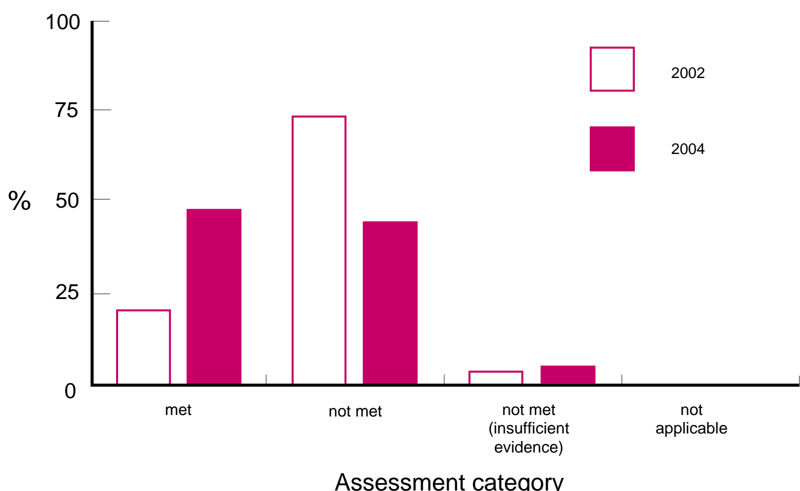
10.3 The Risk Management Committee/Group brings any significant risks or other issues to the Trust chief executive's attention.

Assessment category	NHS organisations	
	2002	2004
met	9	16
not met	19	12
not met (insufficient evidence)	3	4
not applicable	-	-

In 2002, 29% of Trusts had a Risk Management Committee or Group which was able to demonstrate its involvement in bringing infection control issues to the Trust chief executive's attention.

In 2004, 50% of NHS organisations were able to demonstrate infection control issues being brought to the chief executive's attention by the Risk Management Committee or Group.

Processes: Infection Control Report



2.11 Standard 11 Capability: Legislation & Guidance

Standard Statement

The Infection Control Committee and Infection Control Team have access to up-to-date legislation and guidance relevant to infection control.

All NHS organisations reported that they continue to meet this standard.

11.1 The Infection Control Committee and Infection Control Team have access to all current up-to-date legislation and guidance including the Scottish Infection Manual.

Assessment category	NHS organisations	
	2002	2004
met	31	32
not met	-	-
not met (insufficient evidence)	-	-
not applicable	-	-

In 2002, all Trusts demonstrated that Infection Control Committees and Teams have access to current up-to-date legislation and guidance by a wide variety of mechanisms.

In 2004, all NHS organisations reported that they continue to meet this criterion.

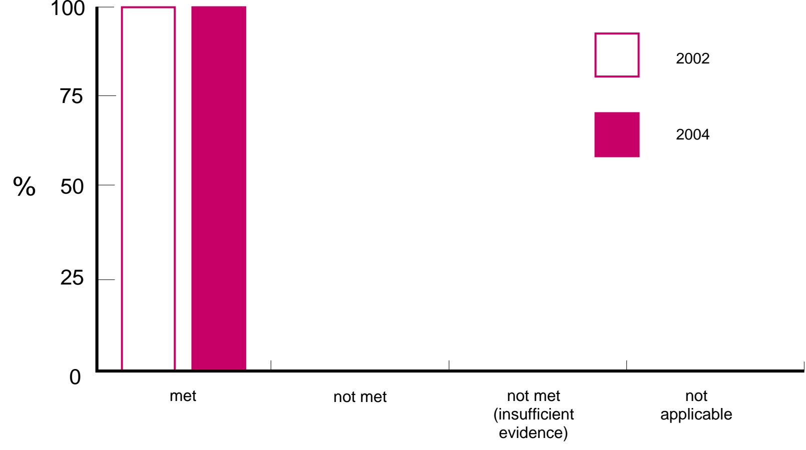
11.2 As a minimum, the Infection Control Committee and Infection Control Team have access to the key references listed on the back pages of these standards.

Assessment category	NHS organisations	
	2002	2004
met	31	32
not met	-	-
not met (insufficient evidence)	-	-
not applicable	-	-

In 2002, all Trusts were able to demonstrate that the Infection Control Committee and Infection Control Team had access to all key references.

In 2004, all NHS organisations reported that they continue to meet this criterion.

Capability: Legislation & Guidance



2.12 Standard 12 Capability: Education

Standard Statement

Education in infection control is provided to all healthcare staff, including those employed in support services, where appropriate.

Progress against this standard has been variable, with some criteria being achieved much better than others. The majority of NHS organisations now include infection control education corresponding to work activity in their induction programmes for new staff (c12.1). However, programmes of ongoing education in infection control for existing staff remain largely ad hoc (c12.2). Most NHS organisations keep attendance records of all staff on infection control education events (c12.4).

There has been, however, no progress in the number of NHS organisations which include infection control and antimicrobial prescribing as part of their postgraduate medical and dental education programme (c12.3).

Recommendations

NHS organisations should:

- formalise on-going education programmes for existing staff
- negotiate with general medical and dental practitioners to provide regular update sessions on infection control and antimicrobial prophylaxis
- ensure that infection control and antimicrobial prescribing is included in the organisation's postgraduate medical and dental education programme.

12.1 Infection control education corresponding to work activity is included in induction programmes for new staff, including support service staff.

Assessment category	NHS organisations	
	2002	2004
met	18	24
not met	10	6
not met (insufficient evidence)	3	2
not applicable	-	-

In 2002, 58% of Trusts had induction programmes which included infection control education, although mechanisms did not always ensure that all staff were included.

In 2004, 75% of NHS organisations met this criterion. In general, induction for medical staff still contained minimal infection control content.

12.2 There is a programme of ongoing education for existing staff, including update of: policies/procedures/guidelines; risk assessment and incident management; feedback of audit results and the action needed to correct deficiencies.

Assessment category	NHS organisations	
	2002	2004
met	10	14
not met	19	18
not met (insufficient evidence)	2	-
not applicable	-	-

In 2002, 32% of Trusts had programmes of ongoing education in infection control which included updates on policies/procedures/guidelines, risk and incident management, audit results and actions to correct deficiencies.

In 2004, there had been limited progress and 44% of NHS organisations met this criterion. A large number of NHS organisations continued to have ad hoc arrangements for the ongoing training of existing staff.

12.3 Infection control and antimicrobial prescribing is part of the Trust's postgraduate medical and dental education programme.

Assessment category	NHS organisations	
	2002	2004
met	9	9
not met	21	21
not met (insufficient evidence)	-	1
not applicable	1	1

In 2002, 30% of Trusts included infection control and antimicrobial prescribing as topics within their postgraduate medical and dental education programme.

In 2004, NHS organisations continued to have problems in meeting this criterion. There were still difficulties for those working within primary

care in trying to influence primary care practitioners with regard to education in infection control and antimicrobial prescribing.

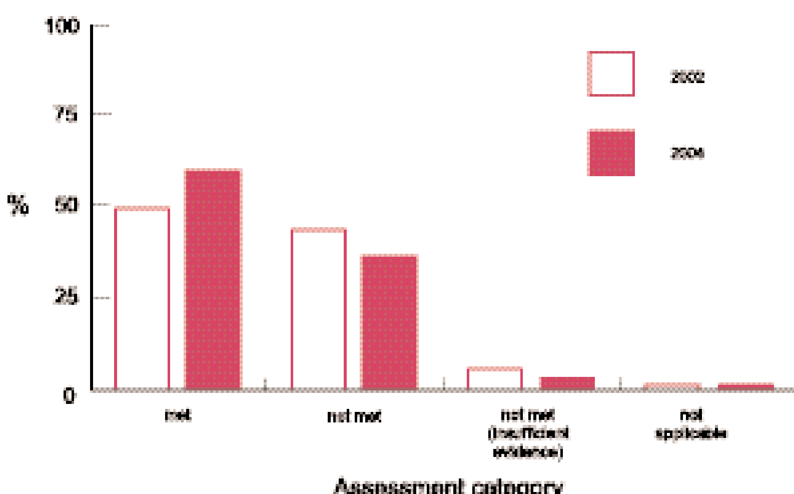
12.4 Records are kept of attendance of all staff on infection control education programmes.

Assessment category	NHS organisations	
	2002	2004
met	24	30
not met	5	1
not met (insufficient evidence)	2	1
not applicable	-	-

In 2002, 77% of Trusts kept records of staff attendance on infection control education programmes.

In 2004, 94% of NHS organisations were able to demonstrate that they kept records of staff attendance.

Capability: Education



Examples of local initiatives

Lothian University Hospitals NHS Trust

The Infection Control Team provides information and updates on its activities in the Trust's staff newsletter. These articles cover subjects such as surveillance projects, new guidelines, infection control study and awareness days, contact details, and infection control champions.

NHS Orkney

NHS Orkney has developed a monthly half-day infection control training session, based on the principles of infection prevention and control, which is targeted at all staff with direct or indirect patient contact. These include all clinical staff, porters, domestic and catering staff. An electronic system for recording uptake of this training is in place.

Scottish Ambulance Service

The Ambulance Service includes training and guidance on infection control, relevant to the nature of the work of the Ambulance Service, in their induction and preceptorship programmes. Staff must demonstrate, following their training, that they are competent in infection control. In addition, a comprehensive document covering infection control training is given to staff.

2.13 Standard 13 Monitoring & Review

Standard Statement

The system in place for control of infection is monitored and reviewed by management in order to make improvements to the system.

There has been a lack of progress in the monitoring and review of the infection control system by senior/executive management in over half of all NHS organisations (c13.1). This lack of improvement suggests that senior/executive management has little or no input into the infection control system within these NHS organisations. As a result the required roles of the Infection Control Committee (c13.2), Risk Management Committee/Group (c13.3), Clinical Governance Committee (c13.4) and relevant committee for audit (c13.5) have not been achieved. This is also reflected in the performance against criteria (c1.1 and c1.3) in Standard 1.

Recommendations

NHS organisations should:

- ensure that monitoring and review of infection control systems take place at the appropriate senior/executive management level
- ensure that Risk Management and Clinical Governance Committees take a formal, active and significant role in monitoring and reviewing infection control.

13.1 Monitoring and review of the infection control system includes:

- accountability arrangements
- capability
- internal audit findings
- outcomes
- processes, including risk management arrangements.

Assessment category	NHS organisations	
	2002	2004
met	7	13
not met	24	18
not met (insufficient evidence)	-	1
not applicable	-	-

In 2002, 23% of Trusts were able to demonstrate senior management monitoring and review of infection control matters relating to accountability arrangements, capability of the infection control system to perform efficiently, audit of the system and its outcomes and processes.

In 2004, 41% of NHS organisations met this criterion. A number of NHS organisations were able to demonstrate monitoring and review by management; however, this was not at the appropriate senior/executive management level.

13.2 The Infection Control Committee reviews the detailed issues surrounding infection control.

Assessment category	NHS organisations	
	2002	**2004**
met	11	14
not met	20	18
not met (insufficient evidence)	-	-
not applicable	-	-

In 2002, 35% of Trusts were able to demonstrate a review by the Infection Control Committee of the outcome of a management process.

In 2004, there had been limited progress, with 44% of NHS organisations meeting this criterion. This limited progress was mainly a result of the lack of senior/executive management review of infection control matters.

13.3 The Risk Management Committee/Group plays a significant role in monitoring and reviewing all aspects of the system as a basis for establishing significant information that is presented to, and dealt with by the Trust management and the chief executive.

Assessment category	NHS organisations	
	2002	**2004**
met	4	10
not met	24	18
not met (insufficient evidence)	3	4
not applicable	-	-

In 2002, 13% of Trusts were able to demonstrate that their Risk Management Committees and Groups played a significant role in reviewing infection control matters.

In 2004, 31% of NHS organisations met this criterion. Some NHS organisations reported that work continued within this area.

13.4 The Clinical Governance Committee plays a significant role in monitoring and reviewing control of infection as it impacts on the quality of clinical service provision.

Assessment category	NHS organisations	
	2002	2004
met	6	11
not met	24	20
not met (insufficient evidence)	1	1
not applicable	-	-

In 2002, 19% of Trusts were able to demonstrate that their Clinical Governance Committees played a significant role in monitoring and reviewing control of infection as it impacted on the quality of service provided.

In 2004, 34% of NHS organisations met this criterion. The remaining NHS organisations were unable to demonstrate compliance with this criterion.

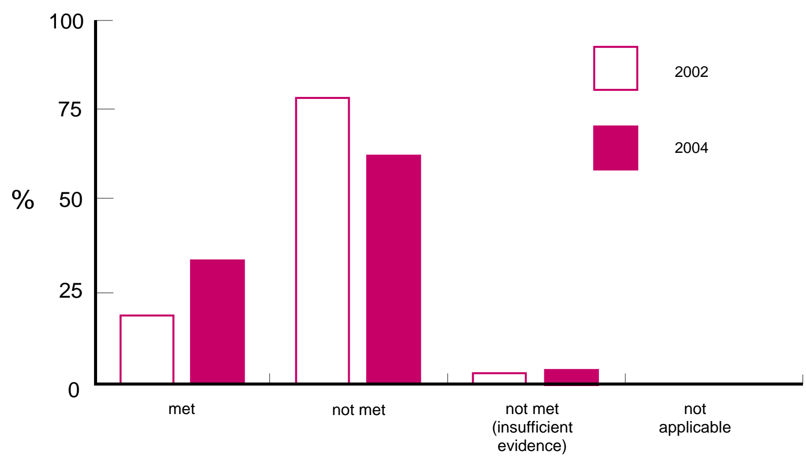
13.5 Infection control audits and findings are reviewed by the relevant Trust committee.

Assessment category	NHS organisations	
	2002	2004
met	3	6
not met	27	25
not met (insufficient evidence)	1	1
not applicable	-	-

In 2002, 10% of Trusts were able to demonstrate that the relevant Trust committee reviewed infection control audits and findings.

In 2004, a small number of NHS organisations reported that no audits had been undertaken, whilst in a number of other NHS organisations, Infection Control Committees had inappropriately reviewed these audits; 19% of NHS organisations met this criterion in 2004.

Monitoring & Review



Examples of local initiatives

Highland Acute Hospitals NHS Trust

A Healthcare Associated Infection (HAI) Risk Working Group was established following the last review. The Group reports to the Risk Steering Group, and has a number of remits, which include monitoring the implementation of the decisions of the Infection Control Committee, acting as a focus for discussion on all operational matters relating to HAI and identifying HAI risks.

Lanarkshire Acute Hospitals NHS Trust

The Trust has an executive director with specific responsibility for monitoring and reviewing the infection control system. The executive director provides progress reports to the Clinical Governance Committee covering issues such as policy implementation, effectiveness of hospital services, multi-skilling and sustainability of improvements.

2.14 Standard 14 Audit: Internal Audit

Standard Statement

The Trust Internal Auditor carries out periodic audits to provide assurance that a system of infection control which conforms to the standard is in place.

Independent audit of infection control systems has increased and NHS organisations are generally either planning to conduct, or have undergone, such an audit (c14.1). Not all NHS organisations who had undertaken independent audit were able to demonstrate that this is based on risk (c14.2). In addition, not all NHS organisations present this information to the relevant committee for consideration (c14.3).

Recommendations

NHS organisations should:

- ensure that an internal audit of their infection control systems is undertaken at regular intervals
- ensure reports from internal audits are considered by the relevant committee.

14.1 The Trust internal auditor periodically verifies that a suitable and effective system of internal control exists with respect to infection control.

Assessment category	NHS organisations	
	2002	2004
met	7	19
not met	23	13
not met (insufficient evidence)	1	-
not applicable	-	-

In 2002, 23% of Trusts had an internal auditor/audit service complete a review of the organisation's infection control system and verify that effective internal control systems were in place.

In 2004, 59% of NHS organisations had undertaken an internal audit. A number of NHS organisations indicated that audit of the infection control system was planned for the future.

14.2 The level of independent audit is based on risk, which will be determined principally by reference to assurances given by the Infection Control Committee and Infection Control Team.

Assessment category	NHS organisations	
	2002	2004
met	7	15
not met	24	15
not met (insufficient evidence)	-	2
not applicable	-	-

In 2002, 23% of Trusts, the same Trusts who met (c14.1), were able to demonstrate that their internal audit was based on risk, with the internal audit measured against either the English NHS Controls Assurance or CSBS infection control standards, and supported by assurances given by the Infection Control Team, Infection Control Committee and risk management department.

In 2004, 47% of NHS organisations were able to demonstrate that their independent audit was based on risk. There were a number of reasons why four NHS organisations who met criterion 14.1, did not meet this criterion. The audit report from one NHS organisation was in draft format at the time of the update, while the other three were unable to demonstrate that the audit had been based on risk.

14.3 Reports from audits are presented for consideration to the relevant Trust committee with responsibility for internal audit.

Assessment category	NHS organisations	
	2002	2004
met	4	14
not met	27	16
not met (insufficient evidence)	-	2
not applicable	-	-

In 2002, 13% of NHS Trusts had submitted their internal audit infection control reports for detailed review to the Trust Audit Committee and, in one case, to the Trust Management Team also.

In 2004, 44% of NHS organisations had submitted their internal audit infection control reports to the relevant Trust committee.

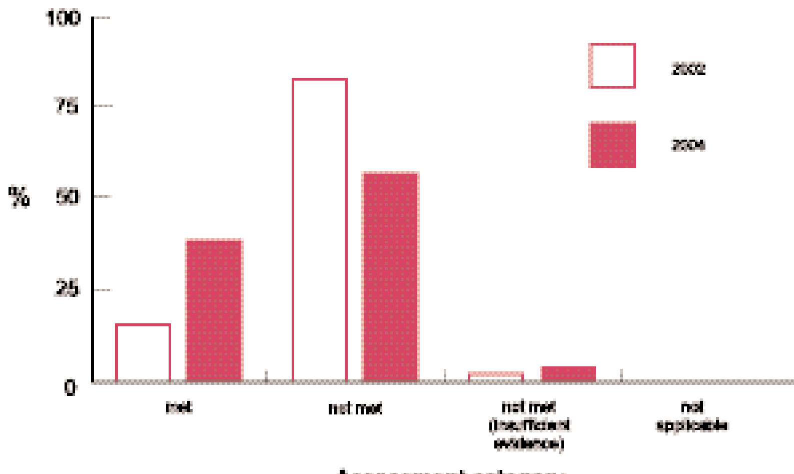
14.4 The relevant Trust committee submits an annual assurance statement on audit findings for consideration and approval by the Trust. The Trust includes the assurance statement in its annual report.

Assessment category	NHS organisations	
	2002	2004
met	1	1
not met	29	30
not met (insufficient evidence)	1	1
not applicable	-	-

In 2002, only one Trust had produced a satisfactory assurance statement on infection control for inclusion in its annual report and for signing-off by the Trust chief executive.

In 2004, the same NHS organisation continued to meet this criterion. A number of NHS organisations reported that they produced a general statement of internal control, which does not specifically refer to infection control.

Audit: Internal Audit



2.15 Standard 15 Practice: Hand Hygiene

Standard Statement 15

A clear hand hygiene policy and mechanism to ensure effective implementation is in place.

All NHS organisations have a hand hygiene policy. However, a small number do not incorporate all the required elements within this policy (c15.1). Similarly, a few NHS organisations have policies which are still in draft format. In addition, the majority of NHS organisations did not demonstrate that compliance with hand hygiene policy is part of the systematic risk review (c15.4).

Recommendations

NHS organisations should:

- ensure that comprehensive hand hygiene policies are in place.
- ensure that there is a method for regularly auditing hand hygiene compliance of all staff. The information from the audit should be fed back to staff in a meaningful way to allow practice to be improved; and used to inform risk review of the infection control system.

15.1 There is a hand hygiene policy/procedure/guidelines which reflects the principles of good practice and includes:

- hand decontamination immediately before and after every episode of direct patient contact/care or any activity that potentially results in hand contamination
- use of liquid soap and water for hands visibly soiled or potentially contaminated with dirt or organic material
- use of alcohol-based hand rub or hand washing with liquid soap and water to decontaminate hands between different patients, or between different caring activities on same patient
- removal of all wrist and, ideally, hand jewellery at the beginning of each clinical shift before regular hand decontamination begins
- covering all cuts and abrasions with a waterproof dressing
- effective hand washing technique including: wetting hands under tepid running water before applying liquid soap or

antimicrobial preparation; hand wash solution must come into contact with all surfaces of hands; vigorous rubbing of hands for minimum of 10-15 seconds with particular attention to tips of fingers, thumbs and between fingers; thorough rinsing; drying with good quality paper towels

- effective alcohol hand rub technique: use only on hands free of dirt and organic material; hand rub solution must come into contact with all surfaces of hands; vigorous rubbing of hands, with particular attention to tips of fingers, thumbs and between fingers, until the solution evaporates and hands are dry
- application of an emollient hand cream regularly to protect skin from drying effects of regular hand decontamination
- access to occupational health advice in the event of skin irritation caused by a particular soap, antimicrobial hand wash or alcohol product.

Assessment category	**NHS organisations**	
	2002	**2004**
met	19	26
not met	12	6
not met (insufficient evidence)	-	-
not applicable	-	-

In 2002, 61% of Trusts had hand hygiene policies/procedures/guidance in place, which met all key aspects of the criterion.

In 2004, 81% of NHS organisations had an appropriate hand hygiene policy in place. NHS organisations which did not meet this criterion, either had a policy which was still in draft format, or did not meet all aspects of the criterion.

15.2 There are arrangements to support and promote hand hygiene by healthcare workers.

Assessment category	**NHS organisations**	
	2002	**2004**
met	27	29
not met	2	2
not met (insufficient evidence)	2	1
not applicable	-	-

In 2002, 87% of Trusts had arrangements in place to support and promote hand hygiene by healthcare workers.

In 2004, 91% of NHS organisations were able to demonstrate that they had arrangements to support and promote hand hygiene. Of the NHS organisations which did not meet this criterion, two reported that work was in progress to address this.

15.3 Induction programmes for all staff include the topic of hand hygiene.

Assessment category	NHS organisations	
	2002	2004
met	25	29
not met	4	2
not met (insufficient evidence)	2	1
not applicable	-	-

In 2002, 81% of Trusts included the topic of hand hygiene in their induction programmes, although it was noted that the amount of time allocated to hand hygiene for medical staff was often limited.

In 2004, 91% of NHS organisations were able to demonstrate that they met this criterion.

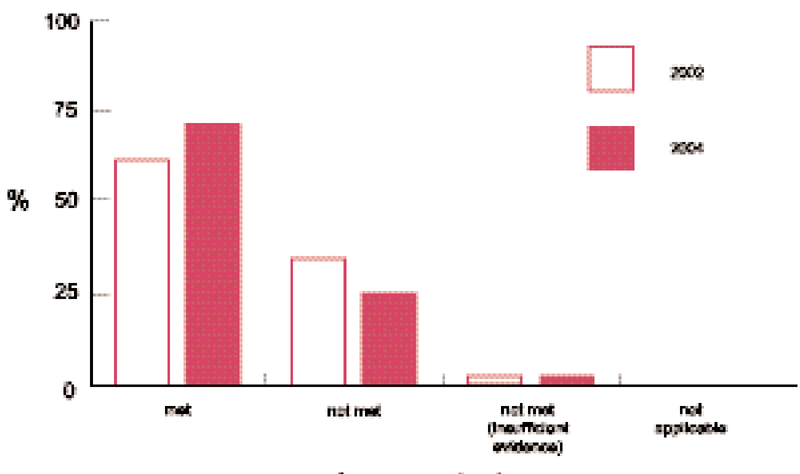
15.4 Compliance with hand hygiene policy/procedure/guidelines forms part of the systematic risk review by Trusts.

Assessment category	NHS organisations	
	2002	2004
met	4	9
not met	27	22
not met (insufficient evidence)	-	1
not applicable	-	-

In 2002, 13% of Trusts were able to demonstrate systematic risk review of compliance with their hand hygiene policies/procedures/guidelines.

In 2004, 28% of NHS organisations met this criterion. Of the NHS organisations which did not meet this criterion, a number reported work was in progress to address this.

Practice: Hand Hygiene



Examples of local initiatives

Grampian University Hospitals NHS Trust

In partnership with Grampian Local Health Council, the Infection Control Team carried out a hand hygiene pilot project, gathering comments from both staff and patients. The project aimed to increase awareness of good hand hygiene, seek patient observations of hand hygiene and assess patients' willingness to 'challenge' staff on the issue of hand washing.

Lothian Primary Care NHS Trust

Systematic risk review for the whole NHS organisation includes compliance with hand hygiene. The Infection Control Team produced a risk management plan to address compliance with the infection control standards. The Infection Control Team also regularly completes a risk register rating form, on which compliance with hand hygiene is highlighted, monitored and assessed.

Chapter 3

Conclusions

3 Conclusions

This national overview and accompanying local reports set out the performance of NHSScotland as a whole and each NHS organisation, against the healthcare associated infection (HAI) infection control standards published in December 2001.

Throughout the update process the update teams were impressed by the commitment, dedication and hard work of all staff involved in providing infection control services. In addition, to their normal workload, staff have been coping with the introduction of single-system working, which in many cases has made the work of the Infection Control Teams more complex. The time spent by staff in completing the self-assessment and attending the meeting with the update team also increased workload. However, staff willingly took part in the process and demonstrated their openness to discuss their work.

Members of the public have played a key part in the update process and have been involved at all stages. They provided a valuable perspective to the process.

Following the update process, a number of general themes have been identified which apply across the country.

Firstly, although we were impressed with the dedication of staff, we did identify in some organisations, a lack of involvement of executive management. Many of them were aware of infection control matters generally within their organisation; however, improvements could have been made in their involvement in many of the specific processes, such as approving the annual infection control programmes and reports.

Much work has been undertaken to encourage staff throughout the organisation that infection control is everybody's business. However, there remains a considerable need for infection control to be considered as an organisation-wide issue. In particular, work continues to be required when considering infection control in planning and development. There is also a need to ensure that all staff are keeping their infection control knowledge and skills up to date.

Finally, we identified considerable specialist knowledge and experience among the Infection Control Teams throughout NHSScotland. Many of these Teams, however, would benefit from increased senior management support and input. In particular the need for advice and support in writing programmes, reports and business plans was identified.

At a time when infection control is increasingly in the public spotlight, it is important that we recognise the considerable amount of effort which

continues daily within each NHS organisation in respect of infection control. Some work, however, still requires to be done in order to address the recommendations highlighted in this report.

Appendices

Appendix 1

The Quality Assurance Process: The approach used in this update

National overview and local reports published January 2003

NHS organisation undertakes self-assessment exercise for 2003/04 update and submits outcomes to NHS Quality Improvement Scotland

NHS Quality Improvement Scotland sends information from self-assessment submission to update team

Update team meets to discuss self-assessment submission

Draft update report produced and sent to update team for comment

Draft update report sent to NHS organisation to check for factual accuracy

Meetings held between NHS organisation representatives and update team to discuss draft update report

Final draft update report produced and sent to update team for comment

Final update report sent to NHS organisation

NHS QIS advisors consider findings of update reports and draft national overview

National overview published

How the Update Process Works

The model developed for the update process closely follows the two part NHS QIS peer review process: local self-assessment against the standards and/or criteria, followed by external review of this self-assessment and evidence submitted.

To promote consistency, a self-assessment template has been developed for use by all NHS organisations. However, where an NHS organisation has had important and specific issues requiring to be addressed from the 2002 peer review, their self-assessment template has been amended to include these.

The team reviewing a completed update self-assessment is made up of NHS QIS advisors and lay representatives, who participated in the peer review visits during 2002. Each team consists of consultant microbiologist(s), infection control nurse(s) and lay representative(s). Following the update review, the team members reach a consensus about the assessment category given for each standard and/or criterion.

The members of each update team varies, which ensures a focus on assessment of performance against the standards rather than on comparison between results of reviews. Team members also have no connection with the NHS organisation they are reviewing. Both these aspects of team make-up promote the sharing of good practice.

Update Reports and National Overview

After each update review, NHS QIS staff, with clinical input as appropriate, draft the findings of the update exercise. This draft report is sent to the update team for comment and then to the NHS organisation to check for factual accuracy. Subsequently, all NHS organisations are invited to meet with members of the update team to discuss their submission.

Once the update reports have been completed for all NHS organisations, the NHS QIS advisors examine the review findings. Thereafter, the advisors oversee the production of a national overview on service provision across Scotland in relation to progress against the HAI infection control standards.

Part of the remit of NHS QIS is to report whether the services provided by NHSScotland, both nationally and locally, meet the agreed standards. This does not include reviewing the work of individual healthcare professionals. In achieving this aim, variations in practice (and potential quality) within a service will be encountered and subsequently reported.

Please note - all reports are available on the NHS QIS website.

Appendix 2

Infection Control Team Members

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Appendix 3

NHS Organisations Involved in Healthcare Associated Infection

Scottish Ministerial Healthcare Associated Infection Task Force

Although Scotland's HAI agenda is well advanced, combating HAI remains a high priority for the Scottish Executive. Since January 2003, the Scottish Ministerial Healthcare Associated Infection Task Force (HAITF), led by the Chief Medical Officer (CMO) and with the Chief Nursing Officer (CNO) as deputy chair, has adopted a multidisciplinary approach to managing the implementation of the Ministerial HAI Action Plan, *Preventing Infections Acquired While Receiving Healthcare* (October 2002).

Now in its third and final year, the HAITF is building a firm foundation for the prevention and control of HAI in Scotland. A substantial body of work has already been delivered:

- **The NHSScotland Code of Practice for the Local Management of HAI and Hygiene**
  The first of its kind in the UK, it outlines specific guidance on staff education, compliance management, management of basic ward equipment and patient information.
- **The NHSScotland National Cleaning Services Specification**
  This document contains information on how hospitals and other healthcare settings should be cleaned and how frequently.
- **HAI education** (in association with NES)
  Work includes a framework for mandatory induction training on HAI and the development of the Cleanliness Champions Programme (included in undergraduate nursing and medical courses and adapted for the Scottish Ambulance Service and dental services).
- **A Teaching Resource Pack for HAI Educators** (in association with NES)
  Work includes a stand-alone hand hygiene resource.
- **Guidance for those involved in media handling in NHSScotland during incidents and outbreaks**
- **The Risk Management of HAI: A Proposed Methodology for NHSScotland**
  Currently out for consultation and piloted in NHSScotland to assess its efficacy and applicability.
- **A Best Practice Statement on Urinary Catheterisation & Catheter Care** (in association with NHS QIS) **and associated HAI surveillance programme**
- **National Standards for Infection Control in Adult Care Homes**

Key priorities for delivery in 2005 include:

- guidance on the management of HAI incidents/outbreaks (including a national policy on staff screening)
- revised guidance on HAI, healthcare and the physical environment (ie *Infection Control in the Built Environment*)
- an HAI research workshop and formation of HAI-related research network through the Chief Scientist Office
- development of a national control strategy for MRSA and guidance on healthcare associated pneumonia
- further development in HAI educational resources, including antibiotic prescribing, primary care decontamination and environmental cleaning and further rollout of the Cleanliness Champions Programme
- guidance on prudent antibiotic prescribing to reduce HAI
- decontamination and sterilisation of instruments in primary care
- an HAI prevalence survey that will provide information on the overall burden of HAI including economic costs, in Scotland. This survey will be piloted in spring 2005.

A new raft of HAI initiatives was announced by the Minister of Health and Community Care in March 2005. These include:

- investment of an additional £5m per year for clean hospitals and prevention and control of HAI over the next 3 years
- ensuring that the extensive guidance coming out from the HAITF is fully implemented at the front line
- ensuring that alcohol-based hand rubs are available near every front line bed by April 2005
- undertaking a national HAI prevalence survey that will provide information on the overall burden of HAI
- clarification of Sister/Charge Nurse responsibilities for ensuring safety in the ward environment, including cleanliness
- ensuring that G Grade nursing staff undergo the Cleanliness Champions Programme
- development of a CMO/CNO poster detailing information and advice for visitors
- further clarification on senior management responsibilities and accountabilities for the prevention and control of infection

- development of a framework for monitoring compliance with HAITF national cleaning specification
- development of an education and training framework for cleaners
- re-introduction and development of role of the ward housekeeper.

Communicating both the risks of HAI and the work of the HAITF to the public at large is essential. The CMO/CNO poster with top tips for combating HAI were devised for members of the public. Other HAI-related information, including MRSA, is also being developed. Much time has been invested in raising awareness of the HAITF programme of work and sharing information with individuals and groups from key NHS and non-NHS organisations, and members of the public. Public involvement remains at the heart of the work of the HAITF.

All HAITF outputs complement and build, where possible, on existing good practice or guidance. While primarily aimed at NHS premises, they can equally apply to the non-NHS sector. The message 'clean healthcare environments, clean hands, clean instruments' applies across healthcare boundaries.

Health Protection Scotland

Health Protection Scotland (HPS) was formed in November 2004. Previously known as the Scottish Centre for Infection and Environmental Health (SCIEH), HPS works in partnership with others, to protect the Scottish public from being exposed to hazards which damage their health and to limit any impact on health when such exposures cannot be avoided.

The Healthcare Associated Infection and Infection Control (HAI&IC) Section, continues to be divided into four teams of multidisciplinary staff who work closely together, covering the areas of surveillance, infection control, antimicrobial resistance and decontamination.

Surveillance

The Scottish Surveillance of Healthcare Associated Infection Programme (SSHAIP) continues to co-ordinate voluntary and mandatory surveillance programmes. The Programme has enhanced MRSA bacteraemia surveillance by combining the results of HPS laboratory reporting with the Scottish MRSA Reference Laboratory contribution to the European Antibiotic Resistance Surveillance System (EARSS). These results have been published on the web and in the HPS Weekly Report.

Infection control

The activities of the Infection Control Team within HPS continue to be wide ranging, in order to meet the needs of the many stakeholders. The Team continues to give expert advice and support, in addition to contributing to the work of the Scottish Ministerial Healthcare Associated Infection Taskforce (HAITF) Working Groups. Currently this work includes:

- leading the development of model infection control policies. A steering group has been convened to oversee this work and many draft policies have been developed for approval. The first policies to be developed are the nine elements of standard infection control precautions (Task 14).
- leading the pilot study in two sites to evaluate the risk-based methodology developed to set priorities for targeting measures to reduce the risk of HAI (Task 12).
- providing expert advice in the updating of Scottish Health Facilities Note (SHFN) 30, *Infection Control in the Built Environment* and the development of the Hazard Assessment and Risk Management (HARM) Control System tool designed to manage risks in the built environment (Task 6/8).
- a hand hygiene research project which has recently received funding from the Chief Scientist Office, and is due to commence in June 2005.

The document, *Key Infection Control Related Publications* has also been made available by the Team on the infection control web pages. The aim of this document is to provide ease of access to details of key publications for reference purposes. They are listed in chronological order in order to highlight the sequence of events that might have contributed to changes occurring within infection control practice over time.

Antimicrobial resistance

The Antimicrobial Resistance (AMR) Team has been working on a laboratory-based project for the rapid detection of MRSA directly from clinical specimens. To date, more than 1,800 nasal swabs have been processed and the results compared with conventional microbiological culture. The rapid test exploits real-time Polymerase Chain Reaction (PCR) technology which enables results to be available within 2 hours, compared with an average of 48 hours for conventional methods. The rapid test is more sensitive than conventional methods and has identified an additional 20% of positive results. This project is due for completion in April 2005.

Decontamination

Much of the work of the Decontamination Team continues to be on behalf of the Scottish Executive Health Department (SEHD) and is directed at upgrading Scottish decontamination facilities.

A Community of Interest Group was established in 2004 to look at contingency arrangements between Central Decontamination Units (CDUs); current work includes investigation of compatibility of procedures between CDUs, capacity, instrument marking and preparation of a model agreement between contingent units.

A review of the acute and independent hospital sectors is expected to be carried out during 2005 to verify compliance with the Glennie full technical requirements.

An improved IT-based audit tool to assess decontamination processes has been developed. This has been used to provide audit tools for primary care and for investigation of endoscopy decontamination.

The Team has published consultation drafts on guidance for endoscopy decontamination and for local decontamination units. The final documents are expected to be published in summer 2005.

Members of the Decontamination Team participate in the Joint Dental Decontamination Working Group and the National Dental Advisory Committee. The Team also worked closely with Glasgow University Dental School on a review of decontamination in general dental practice in Scotland. The report was published at the end of 2004.

Advice is provided also on decontamination and infection control issues concerned with Creuzfeldt-Jakob disease (CJD). Increased activity in primary care has generated a significant number of enquiries on detergents and other issues related to local decontamination units. Additional activity has also arisen as a result of changes in CJD guidance and concerns over decontamination of endoscopes.

NHS Education for Scotland

The HAI Education Initiative at NHS Education for Scotland (NES) was established in spring 2002 to develop a range of educational solutions to help deal with the major problems presented by healthcare associated infections in Scotland.

The main focus of the work articulates with the directives of the HAITF and the reports on HAI produced by NHS Quality Improvement Scotland (NHS QIS). Key areas of development are:

- **Cleanliness Champions Programme**
  NES has produced, implemented and supported the Programme, including its adaptation for dental services and the Scottish Ambulance Service.
- **Framework for mandatory induction training for all staff**
  This framework was developed by NES and launched by the CMO, chair of the HAITF in autumn 2004. NES has worked with the Service to develop an audit tool to demonstrate compliance with the mandatory framework.
- **Educational resource to support in-house HAI education**
  This resource has been developed primarily to support Infection Control Teams and includes:
  - a video/DVD with associated teaching notes
  - a stand-alone hand hygiene programme
  - information on developing the specialist HAI portal of the e-Library
  - a basic competency framework on HAI prevention and control.
- **Decontamination of reusable medical devices**
  The HAITF has requested that NES works with HPS to develop an education programme for staff in Local Decontamination Units.
- **Framework for training 'on call' staff managing outbreaks**
  NES is working with HPS to construct a more sophisticated programme to replace the current provision.
- **Education programme to support antimicrobial prescribing policy and practice in Scotland**
  Generic education of prescribers is one of the core recommendations of the policy document, *Antimicrobial Prescribing Policy and Practice in Scotland*. NES will be taking forward in 2005-06 work developed by Dundee University on antimicrobial prescribing. The aim is to produce a web-based version for postgraduate prescribers, ie doctors, nurses, pharmacists and podiatrists.
- **Multidisciplinary framework for infection control education for Scotland**
  The incremental development of a framework will emerge as possibly the most significant aspect of the initiative. Elements of this framework have already been completed. The 'specialist' component will be developed in 2005.

NHS Quality Improvement Scotland

Health Technology Assessment: The provision of alcohol-based products to improve compliance with hand hygiene

Health Technology Assessment (HTA) is a process used by NHS QIS to advise NHSScotland about a specific health intervention (eg medicine, equipment or diagnostic test). HTA evaluates the clinical and cost effectiveness of the various ways in which the health intervention can be used, comparing alternative interventions where appropriate. Patient and organisational, including professional, legal and ethical issues are considered if appropriate. Hand hygiene is considered to be a primary measure in reducing the spread of HAI. However, non-compliance with hand hygiene is a problem in the majority of healthcare settings. Alcohol-based hand hygiene products are an alternative to conventional hand washing when the skin is not visibly soiled. As these products require less time for use and may be more accessible than washing with soap and water, they may facilitate improvements in compliance.

The aim of the hand hygiene HTA is to determine the effectiveness, costs and benefits of alcohol-based hand hygiene products for improving hand hygiene compliance and reducing HAI. A systematic review of the clinical effectiveness literature was undertaken, and existing economic evaluations were critically appraised. The literature suggests that while most types of interventions generate at least transient improvements in hand hygiene compliance and infection rates, the most successful interventions in terms of achieving sustained improvements are generally multi-component in nature and involve long-term interventions.

The costs of providing alcohol-based hand hygiene products to the healthcare provider are likely to be small by comparison to the costs incurred by the healthcare provider in treating HAI, and greatly outweighed by the benefits associated with reducing HAI. Two economic evaluations show that if only a 1% reduction in the HAI rate is achieved, hand hygiene programmes using alcohol-based hand hygiene products are cost effective.

This HTA will be published in final form in June 2005.

Property and Environment Forum Executive

The principal activity of the Property and Environment Forum Executive (P&EFEx) is to consider government policy in terms of healthcare facilities management in areas such as health engineering, technology, energy, environment, estate management, architecture, planning, cleaning, catering and building systems procurement with a view to how best to achieve the execution of such policy on a national scale and set common

agreed technical standards. The objectives of the P&EFEx are to procure expert definitive operational guidance, in association with other UK Health Departments where necessary, to allow NHS Boards and others to act as responsible providers of healthcare and achieve this economically by working together.

Part of the HAITF 3-year framework involves producing guidance on updating the physical environment for older buildings and reviewing the current guidance relating to infection control in the built environment. The HAITF Working Groups 6 and 8 led by the P&EFEx are undertaking this work.

Groups 6 and 8 have been involved in the following:

- **holding stakeholder conferences**
- **updating SHFN 30, *Infection Control in the Built Environment***
  This document provides guidance on infection control in the built environment. The completed document should be available to the Service by summer 2005.
- **producing a risk assessment methodology: The HARM (Hazard Assessment and Risk Management) Control System**
- **producing the MSc module, Controlling the HAI Risk in the Healthcare Environment**
  The module is part of a Masters degree course in healthcare property and facilities management and was developed in conjunction with Glasgow Caledonian University.

Future work includes the development of a software-based tool to accompany the HARM Control System document. The software-based tool would present the same infection control questions in relation to each particular development stage of a project. This tool will be useful to those responsible for implementing the HARM Control System and for training purposes. It will build on the original system by providing access to a readily available online reference source to help answer the questions in the question set, thus providing a more user-friendly and cohesive system.

Appendix 4

Key Developments: Healthcare Associated Infection 1995–2005

Date	Key Developments	Health Department Letters (HDLs)/ Reports
1995	SEHD Advisory Group on Infection established by the Chief Medical Officer to assist in the provision of professional advice.	*Scottish Infection Manual*, 1998
1999	SEHD Working Group established to examine decontamination services throughout the NHS in Scotland, in response to concerns about the transmission of vCJD.	Report on *The Decontamination of Surgical Instruments and Other Medical Devices*, February 2001 **HDL(2001)10**
1999	Cleaning services reviewed by Audit Scotland.	*A Clean Bill of Health? A Review of Domestic Services in Scottish Hospitals*, April 2000
November 2000	Carey Group established to "address and make recommendations for a comprehensive framework for managing risk in healthcare settings with respect to infection control, decontamination and cleaning services".	Carey Report, *Managing the Risk of Healthcare Associated Infection in NHSScotland*, August 2001 **HDL(2001)53**
December 2000	Glennie Group established to "consider NHSScotland sterile services provision". Report included risk categorisation in relation to vCJD.	*NHSScotland: Sterile Services Provision Review Group: 1st Report – The Glennie Framework* **HDL(2001)66**
April 2001	SCIEH began producing quarterly reports on rates of MRSA within NHSScotland.	Quarterly reports available from SCIEH
June 2001	SCIEH commissioned by SEHD to carry out baseline assessment of decontamination processes in all Acute Trusts and Island Health Boards. Additional funding made available to education providers to train additional infection control nurses.	
June 2001	CSBS Healthcare Associated Infection Reference Group established.	Published standards on infection control (December 2001) and cleaning services, June 2002
July 2001	Subgroup of SEHD's Advisory Group on Infection established to "advise on the development of a national framework for surveillance in Scotland". Additional funding made available to SCIEH to support this.	*A Framework for National Surveillance of Healthcare Associated Infection in Scotland*, July 2001 **HDL(2001)57**
August 2001	In response to the Framework, SCIEH established a multidisciplinary Scottish Surveillance of Healthcare Associated Infection Programme (SSHAIP) Team, to facilitate the collection of standardised surveillance data by Trusts, for national reporting. National Healthcare Associated Infection Surveillance Steering Group set up to monitor and advise SEHD on the progress of SSHAIP.	
November 2001	Additional funding of £5 million provided in relation to new/additional decontamination instrumentation.	
March–May 2002	Follow-up review of cleaning services by Audit Scotland, including a review of performance against CSBS cleaning services standards.	*Hospital Cleaning*, January 2003
April 2002	CSBS HAI Interim Report published.	Interim Report – *Improving Clinical Care in Scotland*, April 2002

Date	Key Developments	Health Department Letters (HDLs)/Reports
April–October 2002	First round of national review of performance against CSBS infection control standards.	
May 2002	Campaign to appoint 3,500 Cleanliness Champions launched. Additional funding provided for the central procurement of decontamination washer/disinfectors.	
May 2002	Watt Group established to "review the circumstances surrounding the onset of the outbreak of salmonella infection at the Victoria Infirmary, Glasgow, in December 2001 and January 2002 and identify the likely causal factors".	
June 2002	Ministerial Convention on HAI to canvass opinion, gain consensus and generate publicity for further measures to improve infection control.	
August 2002	Tannahill Group formed to develop national standards for infection control in adult care homes, for appropriate inclusion in the monitoring of care providers by the Scottish Regulation of Care Commission.	
November 2002	The *Watt Group Report* was published along with the Scottish Executive's action plan to reduce the risk to patients, staff and visitors from healthcare associated infection, and an HAI and patient care environment questionnaire.	Action Plan, *Preventing Infections Acquired While Receiving Health Care*, November 2002 *The Watt Group Report*, November 2002 **HDL(2002)82**
January 2003	**HDL(2002)82** specified the establishment of an HAI Task Force, to be chaired by the Chief Medical Officer. The Task Force had its first meeting in January 2003, and is a major 3-year project which has been charged with overseeing development and implementation of a wide range of policies and strategies for control of HAI, including issues raised by the Watt Report and the Ministerial Convention on HAI (June 2002). Many areas of work are already in progress. The aim is to produce an integrated approach to the problem through multidisciplinary working and by building directly on achievements already in place. See Appendix 3.	
January 2003	NHS QIS Healthcare Associated Infection (HAI); Infection Control National Overview and local reports published.	Published 31 local reports and *National Overview – Improving Clinical Care in Scotland*, January 2003
September 2003	Cleanliness Champions Programme launched (under leadership of NES).	
October 2003	SCIEH published first national report on surveillance of surgical site infections (SSI) in acute NHS Boards/Operating Divisions within NHSScotland.	*Surveillance of surgical site infection – for procedures carried out from 01/04/02–30/06/03*, October 2003
November 2003–January 2004	SCIEH developed an IT-based audit tool to facilitate the review of Sterile Services Departments (SSDs).	
December 2003	Update process on the progress of NHS Boards/Operating Divisions against the NHS QIS (formerly CSBS) infection control standards begins.	

Date	Key Developments	Health Department Letters (HDLs)/Reports
May 2004	HAI Task Force published: guidance on media handling during incidents and outbreaks; Hygiene and National Cleaning Services Specification; and The NHSScotland Code of Practice for the Local Management of HAI.	*Guidance on Training and Support for those involved in media handling in NHSScotland*, May 2004 **HDL(2004)7** *Hygiene and National Cleaning Services Specification*, May 2004 **HDL(2004)8** *The NHSScotland Code of Practice for the Local Management of HAI and Hygiene*, May 2004 **HDL(2004)9**
June 2004	NHS QIS Best Practice Statement on Urinary Catheterisation & Catheter Care is published.	*Urinary Catheterisation & Catheter Care*, June 2004
July 2004	CMO announces Five Top Tips for visitors to healthcare premises on how to combat HAI.	
August 2004	NES framework for mandatory induction training for HAI published.	*A Framework for Mandatory Induction Training for HAI in NHSScotland*, August 2004
September 2004	NHS QIS HAI National Progress Report published.	*HAI National Progress Report*, September 2004
November 2004	NES published a Teaching Resource for Educators in Healthcare Associated Infections.	*A Teaching Resource for Educators in Healthcare Associated Infections*, November 2004
November 2004	HPS is launched and takes over the role of SCIEH.	
November 2004	Risk Management of HAI: A proposed methodology for NHSScotland consultation document produced.	*Risk Management of HAI: A proposed methodology for NHSScotland consultation document*, November 2004
December 2004	NHSScotland Sterile Services Provision Review Group survey of decontamination in General Dental Practice published.	*Survey of Decontamination in General Dental Practice*, December 2004
January 2005	HPS published updated Key Infection Control Related Publications list.	*Key Infection Control Related Publications*, January 2005
February 2005	CNO issues guidance on provision of alcohol hand rubs to be provided at every frontline bed by April 2005.	*Alcohol-based hand rubs and infection control*, February 2005 **CNO(2005)1**
March 2005	Ministerial announcement made on new campaign to protect patients from hospital infection and to ensure clean wards. Campaign included: issue of HDL clarifying responsibilities of sister/charge nurse for ensuring safety in ward environment, including cleanliness and ensuring G Grade nursing staff undergo Cleanliness Champions Programme; issue of HDL further clarifying senior management responsibilities and accountabilities for prevention and control of HAI; and issue of corporate NHSScotland poster from the CMO and CNO detailing information on HAI for visitors.	*Infection Control and Cleaning: Nursing Issues*, March 2005 **HDL(2005)7** *Infection Control: Organisational Issues*, March 2005 **HDL(2005)8**
March 2005	SEHD published infection control standards for adult care homes.	*Infection Control in Adult Care Homes: Final Standards*, March 2005
May 2005	NHS QIS HAI local update reports and national overview published.	Published 32 local reports and *National Overview – Healthcare Associated Infection; Infection Control in NHSScotland*, May 2005

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Appendix 6

Glossary of Terms

Term	Definition
AHP	allied health professional
antimicrobial	An agent that kills micro-organisms.
bacteraemia	When bacteria are present in the bloodstream.
bacteria	A simple microscopic single-celled organism(s) that lacks a true nucleus.
catheterisation	The insertion of a hollow tube (a catheter) into an organ of the body – for example, the bladder, either for investigational purposes or to give some form of treatment. Performed under strict sterile conditions.
CPA	Clinical Pathology Accreditation. UK-based company created to set standards for laboratories. It enables an external audit of the ability to provide a service by declaring a defined standard of practice, which is confirmed by peer review.
decontamination	A process which removes or destroys contamination and thereby prevents micro-organisms or other contaminants reaching a susceptible site in sufficient quantities to initiate infection or any other harmful response. Three processes of decontamination are commonly used: cleaning; disinfection; and sterilisation.
HAI	Healthcare associated infection. An infection acquired via the provision of healthcare in either a hospital or community setting.
HDL	Health Department Letter (formerly known as Management Executive Letter – MEL), formal communications from the Scottish Executive Health Department to NHSScotland.
HPS	Health Protection Scotland (formerly know as SCIEH – Scottish Centre for Infection and Environmental Health).
induction training	Learning activities designed to enable newly appointed staff to function effectively in their new job.
infection	Invasion and multiplication of harmful micro-organisms in body tissues.

infection control doctor	Normally a consultant medical microbiologist with knowledge of infection control. The infection control doctor normally provides leadership to the Infection Control Team.
infection control nurse	A registered general nurse, normally with higher specialist training in infection control.
Infection Control Team	A team within an NHS Board which has prime responsibility for all aspects of surveillance, prevention and control of infection.
Island NHS Board	There are three Island NHS Boards (Orkney, Shetland and the Western Isles). They have always had a combined strategic and operational role. See NHS Board and NHS Operating Division.
microbiology	The science of micro-organisms. Microbiology in relation to medicine is concerned mainly with the isolation and identification of the micro-organisms that cause disease.
micro-organism	An organism too small to be seen with the naked eye. The term includes bacteria, fungi, protozoa and viruses.
MRSA	methicillin-resistant *Staphylococcus aureus*
NHS Board	NHS Boards are responsible for the strategic planning, service delivery, performance management and governance of each of Scotland's 15 local health systems.
NHS Operating Division	NHS Trusts were abolished on 1 April 2004. Single-system working is now being introduced across NHSScotland. NHS Operating Divisions are committees of an NHS Board, with schemes of delegated authority setting out operational freedom for the delivery of services. They have no separate legal identity from the NHS Board. See NHS Board.
NHS Quality Improvement Scotland (NHS QIS)	NHS Quality Improvement Scotland is a statutory body, established as a Special Health Board in January 2003. Its role is to focus on improving the quality of patient care and the health of patients. It has a particular emphasis on the quality of care and the patient journey for vulnerable groups. Website: www.nhshealthquality.org

resistance	The capacity of an organism or a tissue to withstand the effects of a harmful environmental agent or disease.
SCIEH	See Health Protection Scotland.
surveillance	The ongoing systematic collection, analysis and interpretation of health data essential to the planning, implementation, and evaluation of public health practice, closely integrated with the timely dissemination of these data to those who need to know.

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