



National Audit Office

NATIONAL AUDIT OFFICE STUDY

The prevention, management and control of
Healthcare Associated Infections (HCAI)
in hospitals (ROCR-LITE/08/014/FT6)

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NATIONAL AUDIT OFFICE STUDY – THE PREVENTION, MANAGEMENT AND CONTROL OF HEALTHCARE ASSOCIATED INFECTIONS (HCAI) IN HOSPITALS (ROCR-LITE/08/014/FT6)

Main findings from National Audit Office (NAO) census of NHS hospital and foundation trusts

1. The NAO conducted a census between October and December 2008 of all 170 NHS and foundation hospital trusts. The census comprised of three questionnaires to be completed by chief executives (Section A), Directors of Infection Prevention and Control (Section B) and infection control teams respectively (Section C). The objective of this census was to: capture facts and figures on trust performance; obtain the views and experience of the initiatives launched by the Department of Health in relation to infection prevention and control, from different perspectives within each trust; and explore what had worked well in tackling healthcare associated infections at trust level, and what barriers to improvement remain. We had a 98 per cent response rate with only four trusts which failed to respond within the specified time frame.

Background to the trust census

2. The National Audit Office highlighted concerns about the management and control of healthcare associated infections in hospitals in 2000¹ and 2004². Both of these reports were followed by a hearing and critical reports by the Committee of Public Accounts. The Committee's second report³, published in 2005, concluded that progress in reducing healthcare associated infection had been patchy, and that there was a distinct lack of urgency on issues such as cleanliness and compliance with good hand hygiene; limited progress in improving isolation facilities or reducing bed occupancy rates; and progress continued to be constrained by a lack of robust data other than on MRSA bloodstream infections, for which mandatory surveillance was introduced in 2001, and a lack of evidence of the impact of different intervention strategies.
3. In 2004, in response to our report, the Department committed to make the control and prevention of healthcare associated infections a top priority. It introduced a target to reduce

¹ National Audit Office, 2000: The Management and Control of Hospital Acquired Infection in Acute Trusts in England (HC 230 Session 1999-00)

² National Audit Office, 2004: Improving patient care by reducing the risks of hospital acquired infection: A progress report (HC 876 Session 2003-04)

³ House of Commons Committee of Public Accounts - Twenty-fourth Report 2004-05: Improving patient care by reducing the risks of hospital acquired infection: A progress report

one specific infection, MRSA bloodstream infection, across all NHS acute hospital and acute foundation trusts by 50 per cent by 2008. The Department told the Committee of Public Accounts that it intended to reduce MRSA bloodstream infection rates by employing the same approach it had used in achieving targets for waiting times; where the Department had secured improvements using a combination of financial incentives, close performance management, and support to trusts.

4. In July 2004, the Department published 'Towards cleaner hospitals and lower rates of infection' and established a Programme Board to provide leadership and direction to its commitment to reduce infection rates. Over the next two years the Department published guidance and enacted new legislation, the Health Act 2006, supported by a Code of Practice for the Prevention and Control of Healthcare Associated Infections (Code of Practice) and brought in new inspection powers for the Healthcare Commission. In 2004, the Department introduced mandatory surveillance arrangements for *C. difficile* for patients aged 65 and over, which was extended to patients aged two and over from April 2007. In October 2007, a target was set for a 30 per cent reduction in the number of cases of *C. difficile* reported in 2010-11 against a 2007-08 baseline. In January 2008, primary care trusts were told to agree local reduction rates with hospitals as part of local contracts.

Overview and Summary of key findings

5. Our hospital trust census revealed an improvement in the governance, process and systems in place around tackling healthcare associated infections within hospital trusts, compared with our last census in 2003. However, infection control teams, Directors of Infection Prevention and Control (DIPCs) and chief executives cited bed occupancy levels, a lack of isolation facilities and community infections as the main barriers to further progress in tackling healthcare associated infection (sections A.1, B.14 and C.18 of trust census).

Some of the main findings are set out below:

- Infection control teams reported that trust boards were taking an active interest in infection prevention and control, giving it sufficient priority and responding rapidly to their recommendations. However their attention was largely directed at consideration of MRSA bloodstream and *C. difficile* infections (section C.2).
- There has been an increase in resource devoted to tackling healthcare associated infections within hospitals, both in terms of staff and revenue expenditure, compared to our last census in 2003 (section B.9 and C.1).

- Infection control teams and DIPCs reported that cleanliness within hospital trusts had improved and that modern matrons and the deep clean had contributed to this. Some trusts however reported that carrying out the deep clean had led to disruptions to hospital activity (section B.7, C.3 and C.4).
- Hand hygiene and the national cleanyourhands campaign were seen as a high priority within trusts (section C.14).
- Infection control is getting sufficient priority in induction and ongoing training for staff (section C.11).
- Root cause analysis is being carried out effectively for all MRSA bacteraemias, but only 57 per cent of trusts carry out root cause analysis for all *C difficile* cases and 70 per cent for *C difficile* deaths. Root cause analyses have generally led to improvements in practice, although in a fifth of trusts is sometimes still seen as the responsibility of the infection control team (section C.12).
- Individual responsibility for infection control is now included in job descriptions and appraisals for many members of relevant staff. Not all trusts consider continual poor performance on infection prevention and control a disciplinary offence (section C.6 and C.16).
- Around three quarters of infection control teams reported that compliance with trust antimicrobial prescribing policies was high, but less than half felt that staff had sufficient training in antimicrobial prescribing and nearly a third of trusts did not have in place effective systems for automatically reviewing prescriptions of anti-microbials after a defined period (section C.8).
- Infection control teams felt they had effective systems of surveillance for providing warning for infection outbreaks and providing wards with comparative data. However, many trusts did not feel they had sufficient IT or clerical resources to support their system of surveillance (section C.13).
- Many trusts do not have in place effective systems for identifying mortality or re-admissions due to healthcare associated infection, or for identifying surgical site infections that occur post-discharge (section C.13).
- DIPCs and chief executives felt that the work of the Department of Health and Healthcare Commission was helping their trusts tackle healthcare associated infections (sections A.2 and B.13).
- Some trusts were unclear about the role of primary care trusts and the Health Protection Agency and its Health Protection Units in tackling healthcare associated infections, and did not always feel they had been effective (sections A.2 and B.13).

Section A - Chief Executive

Detailed findings from NAO census of NHS hospital and foundation trusts Sections A to C

1. The management, prevention and control of Healthcare Associated Infections

Describe the main actions that you personally have taken in the past year that you believe have made a difference in improving the management, prevention and control of healthcare associated infections, why you feel they have been successful and how you have been able to measure this:

	What actions taken	Reason for their success	How this has been measured
a.	<p><i>The main actions identified were:</i></p> <ul style="list-style-type: none"> ▪ <i>Demonstrating board commitment by leading ward walk rounds, carrying out audits and leading by example;</i> ▪ <i>Chairing the infection control committee;</i> ▪ <i>Implementing a performance management framework; and,</i> ▪ <i>Appointing a Director of Infection Prevention and Control or Expansion of their role</i> 	<p><i>The main reasons Chief Executives felt these had been successful were:</i></p> <ul style="list-style-type: none"> ▪ <i>They have raised the profile of infection control across the trust;</i> ▪ <i>They have demonstrated commitment from the board and made infection control a priority; and</i> ▪ <i>Staff are clear about their responsibilities and are held to account.</i> 	<ul style="list-style-type: none"> ▪ <i>MRSA and C. difficile data</i> ▪ <i>Compliance with Saving Lives/ hand hygiene audits</i> ▪ <i>External assessment e.g. Healthcare Commission, Patient Environment Action Team inspections</i> ▪ <i>Informal feedback from staff/ patients</i>

What are the main mechanisms and procedures that the Trust Board uses to assure itself that tackling healthcare associated infections are the responsibility of everyone in the Trust:

This question was a free text response, the answers have been coded by the NAO and the top three most frequent responses are listed

- i. *Regular performance reports to the Board (57%)*
- ii. *Ensuring individual responsibility through job descriptions/ policy/ appraisals (20%)*
- iii. *Via sub-committees, for instance the infection control committee (15%)*

Section A - Chief Executive

What three things do you think would lead to sustainable improvements in the management, prevention and control of healthcare associated infections within your Trust?

This question was a free text response, the answers have been coded by the NAO and the top five most frequent responses are listed

- i. *Tackling community acquired infections/ taking a health economy approach (33%)*
- ii. *More isolation facilities (22%)*
- iii. *Compliance with trust policies (particularly antibiotic prescribing and hand hygiene) (20%)*
- iv. *Changing culture/ making infection control everyone's responsibility (17%)*
- v. *More training and education (13%)*

What do you see as the biggest barriers to creating a sustained improvement in healthcare associated infections in your Trust (name up to three)?

This question was a free text response, the answers have been coded by the NAO and the top five most frequent responses are listed

- i. *Lack of isolation facilities (24%)*
- ii. *Community acquired infections/ infections transferred in from other trusts (22%)*
- iii. *High levels of bed occupancy/ activity (21%)*
- iv. *Trust building/ infrastructure/ environment (20%)*
- v. *Complacency/ campaign fatigue (18%)*

How effective have actions, guidance and support provided by the Department of Health been to supporting the recognition, management, prevention or control of healthcare associated infections in your Trust (rate on a scale of 1-5, 5 being the most effective and 1 the least effective)?

Average rating: 3.69 (standard deviation 0.79)

What further help would you like to receive from the Department of Health and its arm's length bodies (Healthcare Commission, Health Protection Agency, National Patient Safety Agency, cleanyourhands campaign etc) on tackling healthcare associated infections?

This question was a free text response, the answers have been coded by the NAO and the top three most frequent responses are listed

- i. *Sharing examples of best practice (24%)*
- ii. *Consistent advice from different agencies (21%)*
- iii. *For agencies to address issues across the whole health economy (12%)*

Section A - Chief Executive

2. Inspection and Improvement

Since 1 April 2006 how often have you had the following external reviews, how would you rate their effectiveness in supporting your Trust to improve its management, prevention and control of healthcare associated infections, and why? Note that if you have not had a review by any of these bodies please enter frequency "0" and tick "Not Applicable".

Inspection	Frequency (Mean)	Effectiveness				
		Very Effective	Effective	Not very Effective	Not Applicable	Don't Know
a. Healthcare Commission Inspection against the Hygiene Code	1.02	18	53	19	10	0
b. Department of Health Improvement Team visit	1.36	27	43	10	20	0
Excluding Not Applicable as used in NAO report		33	54	13	0	0
c. Health Protection Unit	0.29	3	15	9	73	0
d. Primary Care Trust	0.52	1	21	16	62	0
e. Strategic Health Authority	0.54	9	32	11	48	0
f. Monitor's Governance Review (if applicable)	0.24	8	16	4	70	2

Have you found any of the above inspections to be particularly disruptive to the operation of your Trust, if so which, and how would you like to see them improved?

Thirty two per cent of trusts commented that they had not found the inspections particularly disruptive. A few felt that the unannounced nature of the Healthcare Commission's inspections was disruptive and that there was a duplication of work between the above agencies.

Section B - Director of Infection Prevention and Control

Respondent details

Other post held by the Director for Infection Prevention and Control within the Trust (e.g. Nursing Director, Consultant Microbiologist etc):	Director of Nursing	44%
	Microbiologist	30%
	Medical Director	19%
	Other	7%

1. The DIPC role

Please estimate what percentage of your working time you spend fulfilling the duties set out in the role of the DIPC for your Trust	35 %
Do you "have practical experience in dealing with or managing all matters of Infection Control, to at least the standard of Diploma in Hospital Infection Control or an equivalent"? (Department of Health letter on Competencies for Directors of Infection Prevention and Control, 24 May 2004, Gateway Reference 3080)	
53% Yes	2% In the process of attaining
42% No	3% Don't know
If you have answered no to question B.2.2, how do you go about accessing expert infection prevention and control advice:	
<i>DIPC's who answered 'No' to the previous question generally relied on advice from specialists in the infection control team.</i>	

Section B - Director of Infection Prevention and Control

2. Strategy and Leadership

Tick which of the following are set out in your plans for infection prevention and control, and rate, in your opinion, how important they have been to date in tackling HCAs.

	In strategy	Importance in tackling HCAs			
		Very important	Somewhat important	Not very important	Not at all important
a. Active surveillance and investigation	95%	94	5	1	0
b. Reducing the infection risk from use of catheters, tubes, cannulae, instruments and other devices	95%	97	3	0	0
c. Increasing use of available isolation facilities	81%	73	24	1	2
d. Improving hand hygiene compliance	96%	98	2	0	0
e. Improving routine cleaning (other than deep cleaning)	86%	84	15	0	1
f. Improving standards of hygiene in clinical practice (use of aseptic techniques)	93%	92	8	0	0
g. Prudent use of antibiotics	96%	97	3	0	0
h. Improving clinical audit and compliance	90%	79	21	0	0
i. Identification of high risk patients	87%	79	19	1	1
j. Other:	<i>The most common 'Other' response was staff education and training, identified by 7 per cent of trusts</i>				

Beyond those mandated by the Department of Health for MRSA and *Clostridium difficile* (*C. difficile*), has your Trust set any internal performance targets on infection control for any of the following (tick as many as applicable):

	Yes	No
a. Reduction in overall prevalence of HCAs	53	47
b. Reduction in cost associated with HCAs	13	87
c. Reduction in Surgical Site Infections	45	55
d. Reduction in mortalities caused by HCAs	40	60
e. Reduction of broad spectrum antibiotic use	68	32
f. Other:	<i>The most common 'Other' response was improved compliance with hand hygiene, identified by 7 per cent of trusts</i>	

Are individual duties/ sections of the Code of Practice for the prevention and control of HCAs allocated to specific, identifiable staff in the Trust?

58% Yes - all duties

39% Yes - some duties

3% No

0% Don't know

Section B - Director of Infection Prevention and Control

3. Barriers to Improvement in HCAI rates

Tick which of the following you see as barriers to your Trust achieving improvements in infection prevention and control, and rate how significant you feel they are to your Trust achieving future improvements in reducing infection rates.

	Barrier to improvement in our Trust	Significance to reducing infection rates in your Trust			
		Very significant problem	Significant problem	Some problems	Not a problem
a. Insufficient isolation facilities	56%	9	28	43	20
b. High bed occupancy rates	72%	29	33	28	10
c. Ward design and environment	59%	13	27	45	15
d. Insufficient ward staffing levels	45%	9	16	49	26
e. High levels of temporary or agency nursing staff	27%	2	10	37	51
f. Levels of hand hygiene compliance by senior medical staff	39%	2	9	66	23
g. Levels of hand hygiene compliance by junior medical staff	46%	2	15	68	15
h. Levels of hand hygiene compliance by nursing staff	28%	0	3	52	45
i. Levels of compliance with other infection control practice by senior medical staff	38%	2	7	71	20
j. Levels of compliance with other infection control practice by junior medical staff	45%	2	12	71	15
k. Levels of compliance with other infection control practice by nursing staff	36%	0	4	70	26
l. Insufficient resources for collection of surveillance data	36%	10	24	31	35
m. Inadequate feedback process of surveillance data to clinicians	35%	4	17	41	38

To what extent have you experienced difficulties in reconciling the management of HCAs with the fulfilment of the following targets?

	Significant difficulties	Some difficulties	No difficulties
a. 18 week patient pathway	5	28	67
b. Accident and Emergency 4 hour target	15	44	41
c. Achieving financial stability	6	30	64

Section B - Director of Infection Prevention and Control

4. Risk Management

Have priority areas from the Saving Lives self assessment questionnaire (or similar self assessment process) been incorporated into the Trust's risk register?

84% Yes

15% No

1% Don't know

Do any of the following risks related to infection control appear on your Trust's risk register:

	Yes	No
a. Failure to meet MRSA target	84	16
b. Failure to meet <i>C. difficile</i> target	82	18
c. Risk of infection outbreak	58	42
d. Other risks relating to infection prevention:		
	<i>Lack of adequate isolation facilities (15% of trusts)</i>	
	<i>Decontamination facilities (9% of trusts)</i>	

Please indicate your level of agreement or disagreement with the following statements:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
a. Our Trust formally assesses the risks to infection prevention and control in all wards and clinical areas	35	50	9	5	0	1
b. Our Trust formally assesses the risks to infection prevention and control according to specific clinical procedures	30	54	13	2	0	1
c. Our Trust formally assesses the risks to infection prevention and control according to local microbial problems (e.g. <i>C. difficile</i> , MRSA, Norovirus, other)	55	39	6	0	0	0
d. Our Trust formally assesses the risks to infection prevention and control according to particular patient groups	32	55	8	4	0	1
e. Our Trust formally assesses the financial risk from patients acquiring HCAIs	4	22	31	36	3	4

Section B - Director of Infection Prevention and Control

5. Targets, Inspection and Improvement

Please indicate your level of agreement or disagreement with the following statements:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
a. Having a target for MRSA reductions focused the attention of the Trust on tackling other HCAIs as well (such as central venous catheter or peripheral line infections)	55	38	3	2	2	0
b. Having a target for reducing <i>C. difficile</i> has focused the attention of the Trust on tackling other HCAIs as well	49	36	7	7	1	0
c. Having possible financial penalties for failure to meet targets on <i>C. difficile</i> has focused the Trust's attention on good general infection prevention and control	15	26	21	27	10	1
d. Focusing on MRSA and <i>C. difficile</i> targets have resulted in other infections getting less attention than they would have had otherwise	6	30	12	39	12	1
e. The threat of an Improvement Notice for failure to comply with the Hygiene Code has focused Trust attention on infection prevention and control	34	41	11	11	3	0
f. Political and media attention on high profile infection control cases has focused the attention of the Trust on tackling all HCAIs	26	49	15	9	1	0
g. The awareness of cost implications has helped focus the Trust's attention on HCAIs	10	40	26	15	8	1
h. Monitoring and feedback from the Health Protection Agency's mandatory surveillance system has helped to improve infection control in our Trust	7	34	35	21	3	0
i. Scope to reduce our premium paid under the Clinical Negligence Scheme for Trusts has helped to improve infection prevention and control in our Trust	6	30	38	19	6	1

Section B - Director of Infection Prevention and Control

6. Modern Matrons

	Total	Mean	Beds per matron (mean)
How many 'Modern Matrons' does your Trust employ in total?	3573	22	34
How many of these were new posts created in your Trust (either entirely new posts or where there have been significant changes to the job description)?	1527	9	n/a
Approximately what percentage of their time on average do they spend on infection control duties?	Mean: 29%		
Do your 'Modern Matrons' have to hold a qualification in infection control?	6% Yes	92% No	2% Don't know

7. Deep Clean

	Total	Mean			
In October 2007 the Government announced that all NHS hospitals will carry out a 'deep clean'; how much did your Trust spend in total on this? (150 trusts provided data)	£51,973,000	£ 355,979			
How much funding did you receive from your Strategic Health Authority to carry out your 'deep clean'? (147 trusts provided data)	£44,911,992	£ 311,889			
Did you spend any of this on the following (if you have actual figures please enter the amount)?					
	Yes	No	Don't know	Mean amount	
a. New equipment (18 trusts were able to provide data on expenditure)	73	22	5	£ 98,527	
b. Refurbishments (15 trusts were able to provide data on expenditure)	56	27	17	£ 175,633	
c. Extra cleaning staff (16 trusts were able to provide data on expenditure)	76	10	14	£ 123,935	
d. Saved for on-going cleaning after the 'deep clean' was completed (7 trusts were able to provide data on expenditure)	15	57	28	£ 53,571	
How often do you plan to repeat the 'deep clean', or a similar exercise, in the future?					
6% At least monthly	5% At least quarterly	70% At least annually	8% Less than annually	2% Never	9% Don't know
Have you changed your cleaning schedules in any way as a result of carrying out your 'deep clean'?	65% Yes	33% No	2% Don't know		

Section B - Director of Infection Prevention and Control

Whilst carrying out your 'deep clean', were you able to make a decant ward available?	15% Yes - all wards	37% Yes- some wards	48% No	0% Don't know
What did you see as the main objective of your 'deep clean':				
a. Reduced infection rates	59% Yes	32% No	9% Don't know	
b. Improved cleanliness	90% Yes	7% No	3% Don't know	
c. Improved patient confidence	93% Yes	3% No	4% Don't know	

8. Community Acquired Infections

Has your Trust done any work to estimate the prevalence of HCAs in their local health economy?	65% Yes	35% No	0% Don't know
If you have answered yes to question B.9.1, was this for (please tick as appropriate):			
a. MRSA bacteraemia			56%
b. <i>C. difficile</i>			55%
c. Other (please state): <i>Most common response was ESBL's (6% of trusts)</i>			19%

Section B - Director of Infection Prevention and Control

9. Trust Expenditure (also see further analysis section at the end of the questionnaire)

What was your annual expenditure in 2007/08 for the following activities (do not include funds received from your Strategic Health Authority to fund the 'deep clean'):			
a. Infection Control Team staff (156 trusts provided data)		£ 259,742	
b. Training on infection control for all staff (83 trusts provided data)		£ 38,342	
c. Capital expenditure on improving infrastructure to improve infection control (for instance, putting up alcohol gel dispensers or re-designing wards so that they are easier to clean) (116 trusts provided data)		£ 473,480	
d. Other infection control activities: (57 trusts provided data)		£ 137,021	
Have you approved any real-term changes (i.e. not including any inflationary increases) to the following resources allocated for the Infection Control Team:			
a. Financial resources	66% Yes	30% No	4% Don't know
b. Staffing resources	87% Yes	11% No	2% Don't know
What resource does the infection control team have to use at its discretion (i.e. a separate non-pay budget)? (100 trusts provided data)	Mean: £ 26,865	Median: £3,000	
Proportion of trusts with a separate non-pay budget for the infection control team	61%		

Section B - Director of Infection Prevention and Control

10. Extra Resources

In the December 2007 Comprehensive Spending Review the Government announced £270m of additional recurrent funding per year by 2010/11 to be provided through the tariff to tackle HCAs. Have you estimated how much of this your Trust will receive (if yes enter a number, if no leave blank)?

Mean: £ 655,708 (based on 45 trusts providing data)

Which of the following do you plan to spend this on (if you know how much you plan to spend on each area please enter numbers, otherwise just tick the relevant boxes)?

		Mean
a. Infection control nurses	47%	£ 64,444
b. Infection control doctors	19%	£ 63,488
c. Surveillance and audit nurses	29%	£ 50,439
d. Infection Control Link Practitioners	14%	£ 47,400
e. Infection prevention training	26%	£ 61,933
f. Antimicrobial pharmacists	35%	£ 40,299
g. Information/ data analysts	24%	£ 22,554
h. Isolation nurses	6%	£ 331,000
i. Screening for MRSA	55%	£ 259,315
j. Cleaning	39%	£ 290,139
k. Capital Expenditure	22%	£ 107,980
l. Other	11%	£ 64,112
m. No firm plans yet	19%	n.a.

Section B - Director of Infection Prevention and Control

11. The cost of HCAs to your Trust

Have you attempted to calculate the cost of HCAs to your Trust in terms of:			
a. Increased prescribing costs	22% Yes	73% No	5% Don't know
b. Increased staff time	11% Yes	86% No	3% Don't know
c. Increased patient length of stay	28% Yes	70% No	2% Don't know
d. Increased waiting lists	4% Yes	93% No	3% Don't know
If you have answered yes to question B.12.1, which of the following methods did you use (otherwise leave blank):			
a. London School of Hygiene and Tropical Medicine method based on extended length of stay	3% Yes		
b. The Department of Health's HCAI productivity calculator	17% Yes		
c. Impact on payment by results	4% Yes		
d. Service line accounting	9% Yes		
If you have answered yes to question B.12.1, how much did you calculate the cost of HCAs to be to your Trust (otherwise leave blank)?	Twenty three trusts were able to provide an estimated cost. These varied from 12,000 to £11,000,000.		
If you have answered yes to question B.12.1, what have you used this for (otherwise leave this blank):			
a. Business case for resource allocation decision	18% Yes		
b. Business case for procurement decisions	13% Yes		
c. Business case for the recruitment of additional infection control staff	18% Yes		

Section B - Director of Infection Prevention and Control

12. Communicating with patients, visitors and the public

Please indicate your level of agreement or disagreement with the following statements:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
a. The Trust has an effective policy for communicating the risks and precautions associated with infection control to patients, visitors and the public	23	69	6	2	0	0
b. Elective patients are clearly informed about the risks and precautions associated with HCAs in their appointment letters	11	35	28	18	0	8
c. The Trust has an effective policy for informing patients and the public of an infection outbreak (as defined within your Trust)	32	54	12	2	0	0

Section B - Director of Infection Prevention and Control

13. Roles of external organisations (also see further analysis at the end of the questionnaire)

Please indicate whether you feel the following have a clearly defined role on tackling HCAs, and whether they have been effective in helping your Trust tackle HCAs

	Clarity of role				Effectiveness			
	Clear	Fairly clear	Unclear	N/A	Highly effective	Effective	Ineffective	N/A
a. The Department of Health's Improvement Teams	47	39	9	5	16	55	13	16
b. The Department of Health's Saving Lives programme	70	30	0	0	30	65	3	2
c. Our Strategic Health Authority	33	38	25	4	11	55	24	10
d. Our local Primary Care Trust's performance monitoring	30	40	30	0	3	48	47	2
e. Our local Primary Care Trust's commissioning	28	34	38	0	1	43	52	4
f. The regional Health Protection Unit of the Health Protection Agency	25	35	39	1	7	38	48	7
g. The national Health Protection Agency	28	47	23	2	6	47	38	9
h. The Healthcare Commission's Hygiene Code inspection visits	69	23	5	3	31	53	9	7
i. The Healthcare Commission's annual health check assessments	67	31	1	1	24	67	7	2
j. The National Patient Safety Agency	39	36	25	0	10	60	26	4
k. The cleanyourhands campaign	72	28	0	0	28	67	4	1
l. Monitor (if applicable)	35	10	3	52	14	27	4	55

Section B - Director of Infection Prevention and Control

Please indicate your level of agreement or disagreement with the following statements:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
a. The performance data on HCAs we supply to the above organisations is in a consistent format and are easy to complete	9	38	8	27	18	0
b. Our Trust often reports the same data on HCAs in different formats to different external organisations	44	39	5	10	1	1
c. Our Trust receives feedback from the above organisations based on the performance data we submit which is used to inform infection prevention and control	9	44	15	25	5	2
d. How do you feel the data and feedback could be improved so that it is more useful to your Trust?	<i>Single unified system for reporting data (27%)</i> <i>Feedback presented in a timely manner (12%)</i> <i>Using consistent units of measurement (9%)</i>					

Section B - Director of Infection Prevention and Control

14. Finally

If you could change one thing in your Trust about your current approach to infection prevention and control what would it be?
Coded free text answers

Greater clinical involvement (12%)

Ensuring that infection control is everyone in the trust's responsibility (10%)

Improved surveillance and IT support (8%)

Increase isolation facilities (7%)

Reduce bed occupancy levels (7%)

If you could introduce one new thing to your Trust's approach to infection prevention and control what would it be? *Coded free text answers*

Improved surveillance and IT support (18%)

Increased isolation facilities (10%)

Extra pharmacy resource/ training (6%)

Closer working with primary care trust/ focus on health economy (5%)

Section B - Director of Infection Prevention and Control

Further Analysis - Trust Expenditure

Calculating total expenditure and average expenditure in NHS Trusts (as used in Part 4 of the report)					
Total annual expenditure = (Infection Control Team staff costs) + (Training on infection control team staff) + (Capital expenditure on improving infrastructure relating to infection control) + (Infection control team budget)					
Total annual revenue expenditure = (Infection Control Team staff costs) + (Training on infection control team staff) + (Infection control team budget)					
	Mean	Expenditure per bed			
		Mean	Median	1 st Quartile value	3 rd Quartile value
Total annual expenditure	£706,797	£971	£632	£384	£1,330
Total annual revenue expenditure	£328,464	£451	£369	£262	£557
Expenditure by trust type					
	Mean total expenditure per bed		Mean revenue expenditure per bed		
Teaching		£1,289			£508
Large		£788			£336
Medium		£963			£540
Small		£896			£477
Specialist		£1,144			£619
Children's Specialist		£481			£374
Expenditure by region					
East of England		£951			£713
East Midlands		£684			£348
London		£1,261			£484
North East		£839			£596
North West		£1,157			£449
South Central		£749			£416
South East Coast		£1,744			£567
South West		£584			£314
West Midlands		£772			£387
Yorkshire and Humber		£903			£347
East of England		£951			£713
<i>Note: analysis is based on data provide by trusts through the trust census. The NAO has not audited this data for completeness or accuracy</i>					

Section B - Director of Infection Prevention and Control

Strategic Health Authorities – Clarity of Roles and Effectiveness

Please indicate whether you feel the following have a clearly defined role on tackling HCAs, and whether they have been effective in helping your Trust tackle HCAs

	Clarity of role				Effectiveness			
	Clear	Fairly clear	Unclear	N/A	Highly effective	Effective	Ineffective	N/A
a. East Midlands	50	13	37	0	63	25	12	0
b. East of England	44	37	19	0	33	54	13	0
c. London	38	42	17	3	10	66	17	7
d. North East	14	29	57	0	0	43	57	0
e. North West	11	46	29	14	11	46	29	14
f. South Central	55	36	9	0	9	73	18	0
g. South East Coast	42	16	42	0	0	64	36	0
h. South West	24	41	29	6	12	35	29	24
i. West Midlands	42	37	16	5	17	56	6	21
j. Yorkshire and Humber	53	34	13	0	0	47	33	20

Section C - Infection Control Team

1. Infection Control Team – Staffing Resource

	Mean	Standard deviation	Mean beds per staff resource	Trust with resource (%)
How many beds does the Infection Control Team cover (please include all beds which you cover in the Trust, for example acute, elderly care etc.)?	738	411	n.a.	n.a.
How many infection control nurses (Whole Time Equivalent (WTE)) did the Trust have in post at 1 October 2008?	3.90	2.10	189	100
How many infection control doctors (WTE) did the Trust have in post as at 1 October 2008?	1.12	0.99	641	94
How many dedicated antimicrobial pharmacists (WTE) did the Trust have in post as at 1 October 2008?	0.85	0.67	872	86
How many audit/ surveillance nurses (WTE) did the Trust have in post as at 1 October 2008?	0.53	0.90	1392	43
How many WTE information technology support staff do you have for audit/surveillance/antibiotic management?	0.28	0.49	2636	31
How many WTE clinical scientists do you have to support audit/surveillance programmes?	0.14	0.43	5271	13
How many WTE clerical or support staff for infection prevention and control did your Trust have in post as at 1 October 2008?	0.91	0.77	811	83
How many dedicated Infection Control Link Practitioners or nurses did your Trust have in post as at 1 October 2008?	71	61	11	94
If your Trust is carrying any infection control nurses vacancies, please state how many WTE vacancies you had at 1 October 2008?				0.77
In the past year has your Trust experienced any difficulties recruiting staff with infection control qualifications or experience to the Infection Control Team?				
26% Yes - more difficult than in other areas in the Trust		22% Yes - similar to other areas in the Trust		47% No
5% Don't know				
In the past year has your Trust experienced any difficulties with retaining staff with infection control qualifications or experience in the Infection Control Team?				
7% Yes - more difficult than in other areas in the Trust		18% Yes - similar to other areas in the Trust		71% No
4% Don't know				
How many of your infection control nurses hold a formal infection control qualification?			73%	
Please estimate what percentage of their working time infection control doctors spend on infection prevention and control on average			65%	

Section C - Infection Control Team

Do Infection Control Link Practitioners have protected time for infection control duties	37% Yes	58% No	5% Don't know
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2. Leadership, Strategy and Risk Management

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
a. The Trust Board takes an active interest in infection prevention and control in the Trust	73	26	0	0	0	1
b. The Trust Board gives sufficient priority to infection prevention and control	62	33	4	0	1	0
c. The Trust Board responds rapidly to recommendations of the Infection Control Team	42	44	12	0	0	2
d. Trust management has shown by its actions that the cleanyourhands campaign has been a high priority	45	45	8	2	0	0
e. In relation to infection prevention, the Trust Board is only interested in achieving Government targets	3	9	13	47	27	1
f. Infection prevention and control has been fully incorporated into the Trust's wider risk management programme	44	50	4	2	0	0
g. Infection prevention and control has been fully incorporated into the Trust's wider clinical governance programme	45	50	3	1	0	1
h. Action on infection prevention and control within the Trust is effectively targeted at its high risk areas	38	53	5	3	1	0
i. Infection prevention and control is incorporated into the Trust's overall approach to patient safety	54	44	1	0	0	1

Section C - Infection Control Team

3. Cleaning

Please indicate your level of agreement or disagreement with the following statements:						
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
a. Cleaners are seen as an integral part of the ward team	21	45	20	11	2	1
b. Cleaning and cleanliness is seen as the responsibility of all staff in our Trust	29	51	10	7	2	1
c. Cleaners and facilities staff are well informed about the best methods to reduce the risk of infections	33	59	5	2	1	0
d. Cleanliness in the Trust has improved since carrying out the 'deep clean'	15	44	32	7	2	0
e. Guidance provided by the Chief Nursing Officer (PL/CNO/2007/6) was useful in carrying out the 'deep clean'	6	42	35	13	4	0
f. Carrying out a 'deep clean' caused significant disruption to hospital activity	21	32	16	30	1	0
g. Responsibility for who cleans what (for instance, specialist equipment) is clearly defined	27	59	7	6	1	0
h. The role of cleaners and cleanliness in the Trust is highly valued by clinical staff	23	51	19	6	1	0
i. We have regular PEAT, or other assessments of ward cleanliness including toilet facilities and equipment	68	30	2	0	0	0
j. We have effective systems for ward managers, cleaning teams, matrons and the infection control team to discuss the results of PEAT, or other assessments of ward cleanliness	43	45	10	2	0	0
k. We have effective systems in place to enable patients to report concerns over day-to-day cleaning or infection prevention and control	25	59	12	2	1	1
l. We have effective systems in place to enable staff to report concerns over day-to-day cleaning or infection prevention and control	35	60	4	1	0	0
m. Cleaning schedules are sufficiently flexible to deal with an outbreak of infection	48	43	3	5	1	0
How often do you carry out PEAT or other assessments of ward cleanliness including toilet facilities and equipment?						
71% Monthly		16% Quarterly		13% Annually		0% Not at all
How often are the results of PEAT, or other assessments of ward cleanliness, discussed with cleaning staff, modern matrons and the infection control team?						
74% Monthly		15% Quarterly		9% Annually		2% Not at all

Section C - Infection Control Team

4. Modern Matrons

Please indicate your level of agreement or disagreement with the following statements:

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't Know
a. The appointment of 'Modern Matrons' has contributed to improved standards of cleanliness in clinical areas	2	63	29	5	1	0
b. The appointment of 'Modern Matrons' has contributed to improved infection prevention and control	2	66	25	5	1	1
c. Staff employed as 'Modern Matrons' carry out duties that are consistent with what was expected, as set out in 'A Matron's Charter: An action plan for cleaner hospitals'	2	65	18	12	1	2
d. 'Modern Matrons' get sufficient support from senior management to carry out their duties as expected	1	60	18	9	2	10
e. The roles and responsibilities of 'Modern Matrons' in our Trust are clearly defined	2	64	19	9	0	6

Section C - Infection Control Team

5. MRSA Screening

Which patients does your Trust currently screen for MRSA on or before admission?		
a. All admissions		18%
b. Patients at increased risk of carrying MRSA (e.g. recent hospital admissions, nursing home residents)		79%
c. Patients admitted for high risk procedures (e.g. orthopaedic/ cardiothoracic surgery)		76%
d. All elective admissions		34%
e. No routine screening		4%
Given that all Trusts will be required to screen elective patients (other than specific exclusions detailed in CNO's letter of 31 July 08) for MRSA by April 2009, how do you plan to achieve this? (please tick all that apply)		
a. Screen in the community and decolonise patients in advance of admission		15%
b. Screen at outpatients clinic and decolonise in advance of admission		83%
c. Screen and decolonise on the date of admission		29%
d. Screen and cohort colonised patients on the date of admission		10%
e. Screen in advance of admission and cohort colonised patients		22%
f. Not yet decided		6%
Which patients does your Trust currently screen for MRSA upon discharge?		
25% Screen on discharge or on exit from specialist/ high dependency unit	12% Screen on transfer to another healthcare setting, some routinely, some by request only	63% Other

Section C - Infection Control Team

6. Defining and Managing Individual Responsibility for Infection Prevention and Control

Please indicate your level of agreement or disagreement with the following statements:

	Always	Generally	Sometimes	Never	Don't know
a. Personal responsibility for compliance with infection control policy and procedures is identified in the job description of all staff	62	29	7	1	1
b. Infection prevention and control is an important part of individual appraisals and performance reviews for all relevant staff	32	44	21	0	3
c. Poor performance on infection prevention and control is challenged	31	57	12	0	0
d. Continual poor performance on infection prevention and control is a disciplinary offence	33	18	26	11	12
e. Infection prevention and control is an important part of Personal Development Plans for all relevant staff	28	43	24	1	4

7. Bed Management and Isolation

Please indicate your level of agreement or disagreement with the following statements:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
a. Our Trust has sufficient facilities to isolate patients effectively	12	24	13	40	10	1
b. Our Trust has sufficient numbers of nursing staff to utilise our isolation facilities effectively	7	40	25	23	4	1
c. Our Trust takes a risk based approach to isolating patients	51	47	1	1	0	0
d. Bed managers seek and follow the advice of the Infection Control Team before making decisions around patient isolation	38	51	9	2	0	0
e. The length of laboratory turnaround times contributes to difficulties in isolating potentially infected patients effectively	4	24	14	43	15	0
f. Our Trust has effective cleaning procedures in place to decontaminate a ward/ room after isolation	54	44	1	1	0	0
g. Bed occupancy levels in our Trust represent a significant barrier to improvements in our infection rates	29	37	15	15	3	1

Section C - Infection Control Team

In the last year how many times was the advice of the Infection Control Team to isolate, or cohort, infected patients overruled?						
68% Never	9% 1	4% 2	1% 3	1% 4	2% 5	15% More than 5
What was the main reason for this?						
<i>Comments reflected that generally advice from the infection control team was not overruled, but facilities were simply not available</i>						

In the last year how many times was the advice of the Infection Control Team to close down a ward to new admissions overruled?						
89% Never	4% 1	3% 2	0% 3	1% 4	1% 5	1% More than 5
What was the main reason for this?						
<i>Sixteen trusts reported this as happening, the reasons given were mainly bed pressures and A & E waiting times</i>						

Please provide details of the current isolation facilities within your Trust:	
	Mean number of beds
a. Isolation ward	3.8
b. Infectious disease ward	2.1
c. Cohort bays on general wards	<i>26.4 (note that many trusts stated that facilities to cohort were variable, and could be instigated when required)</i>
d. Single rooms on general wards	114

How many of the single rooms in general wards have en suite facilities?	<i>50.9 (45% of single rooms)</i>
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Have you increased the number of single rooms in your Trust since 2004?			
65% Yes	17% No - they have stayed the same	14% No - they have decreased	4% Don't know

Have you increased your isolation facilities (other than the single rooms mentioned above) in the last four years?			
48% Yes	45% No - they have stayed the same	4% No - they have decreased	3% Don't know

If you have answered yes to questions C.8.8 and C.8.9, have you increased the numbers of nursing staff in line with this (otherwise leave blank)?		
41% Yes	36% No	23% Don't know

Do you have designated nursing staff (i.e. staff that do not nurse other patients on the same shift) for infectious patients in either single rooms or cohort bays on general wards?			
4% Always	58% On occasion	37% No	1% Don't know

Section C - Infection Control Team

How many patients are in isolation (single rooms or cohort/ isolation wards) today for the following conditions:			
	Mean response		
a. MRSA	23		
b. <i>Clostridium Difficile</i> (<i>C. Difficile</i>)	6		
c. Extended spectrum beta lactamase positive organisms (ESBL)	2		
d. Glycopeptide resistant enterococci (GRE)	1		
e. Multi-resistant <i>Acinetobacter</i> spp	1		
f. Tuberculosis	1		
g. Norovirus	2		
h. Co-infections (i.e. two or more of the above in same patient)	2		
i. Protective isolation	6		
j. Patient overflow (i.e. use by non-infectious patients when wards are overcrowded)	6		
k. Non-infectious reasons	31		
l. Other infections not listed above:	7		
Are these numbers typical for this time of the year?			
57% Yes	4% More than usual	33% Less than usual	6% Don't know
Do you produce annual analyses of use of isolation facilities?			
36% Yes	61% No	3% Don't know	
How many other patients are awaiting isolation today?	Mean: 23		
Has your Trust carried out a review of the adequacy of its isolation facilities since 2004?			
84% Yes	13% No	3% Don't know	
If yes, what were the findings of this? (144 respondents)			
67% Sufficient isolation facilities	31% Insufficient isolation facilities	2% Don't know	

Section C - Infection Control Team

8. Antimicrobial Prescribing Policy

Please indicate your level of agreement or disagreement with the following statements:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
a. Compliance with the Trust's anti-microbial prescribing policy amongst clinicians is high	17	60	14	6	1	2
b. Prescribing patterns are analysed and fed back to the clinical teams responsible	13	46	22	18	1	0
c. Staff are given sufficient levels of training in anti-microbial prescribing	6	42	29	19	1	3
d. Training in antimicrobial prescribing is refined/ targeted in response to an analysis of prescribing data	9	31	25	29	2	4
e. Our Trust has in place an effective system for automatically reviewing prescriptions of anti-microbials after a defined period?	12	35	24	27	1	1
f. Pharmacists in our Trust are actively engaged with re-enforcing antibiotic prescribing policy	44	45	8	1	1	1
g. Prescribing clinicians were consulted / involved in the development of the Trust's antibiotic policy/guidelines	54	42	2	1	0	1
h. Antibiotic policies are easily available to medical staff (e.g. via pocket guides, admission proformas)	64	31	4	1	0	0
i. Our Trust has a formulary which is effectively targeted at tackling HCAs	56	40	2	1	0	1
j. Use of Fluoroquinolones and Cephalosporins requires approval of a consultant microbiologist/ infectious disease physician	25	24	16	27	7	1

Section C - Infection Control Team

9. Role and work of the Infection Control Team

Please describe briefly how you feel the work of the Infection Control Team has changed in the last four years:

Answers described how the work load of the infection control team had increased in the last four years reflecting the higher profile that infection control has taken within trusts, but also the increase in external reporting and administration associated with targets and regulation.

Please complete the following summary of the Infection Control Team's activities (please note we are looking for rough estimates of the percentage, not detailed calculations):

	Estimated percentage of time in 2007/08 (mean)	In an ideal situation what would be the most effective split (%) of time spent on each activity (mean)
a. Education and training of others	13	16
b. Surveillance	12	12
c. Reporting to external bodies	6	3
d. Clinical Audit	8	9
e. Carrying out Root Cause Analysis	5	4
f. Dealing with infections	11	10
g. Screening	4	3
h. Dealing with outbreaks/ giving advice	10	8
i. Producing internal guidance	7	6
j. Producing policy documents for external review	4	3
k. Routine ward visits	13	16
l. Other	2	2

Section C - Infection Control Team

10. Clinical Audit

Please indicate your level of agreement or disagreement with the following statements:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
a. We (the Infection Control Team) were able to carry out our full plan of clinical audit for the last year	12	39	9	33	7	0
b. Results of clinical audits were fed back to individual staff/ clinical units and led to improvements in practice	20	68	6	6	0	0
c. Processes have been changed where appropriate as a result of infection control audit	25	70	5	0	0	0
d. Based on the results of our audits compliance with 'High Impact Interventions' in our Trust is high	14	49	27	8	2	0

11. Training and Education

Please indicate your level of agreement or disagreement with the following statements:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
a. Infection prevention and control gets sufficient coverage in the induction programme for all new staff	31	50	4	13	2	0
b. Infection prevention and control gets sufficient coverage in ongoing training for all staff	21	51	8	18	2	0
c. Our Trust has enough infection control staff to provide annual updates in infection prevention and control to all Trust staff	10	42	12	31	4	1
d. Infection prevention and control has been given a higher level of priority in staff training in the last four years	37	55	7	1	0	0
e. Infection prevention and control training has led to a noticeable improvement in practice	18	68	12	1	0	1
f. Training on infection prevention and control is informed by analysis of surveillance data and audit of infections	19	63	12	4	1	1
g. All clinical staff have a good understanding of what needs to be done to reduce infection rates	13	65	16	5	1	0
h. The Board has sufficient understanding of infection control to implement effective infection control assurance processes	26	65	3	5	1	0

Section C - Infection Control Team

12. Root Cause Analysis (RCA)

Please state in which of the following instances your Trust currently carry out a Root Cause Analysis (RCA) (or similar techniques):

a. All MRSA bacteraemias	100%
b. All <i>C. difficile</i> cases	57%
c. <i>C. difficile</i> outbreaks (as defined within your Trust)	86%
d. <i>C. difficile</i> deaths	79%
e. Other infections	42%
<i>Any outbreak (12%)</i>	
<i>MSSA (5%)</i>	
<i>Serious clinical incidents (4%)</i>	

Please indicate your level of agreement or disagreement with the following statements relating to RCA of HCAIs:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
a. RCA is always carried out on a timely basis	26	52	12	9	0	1
b. Results of RCA are fed back to the staff involved on a timely basis	21	51	19	7	0	2
c. Our Trust carries out reviews of RCA to determine the main causes of infection	37	56	6	1	0	0
d. Carrying out RCA and feedback has led to an improvement of practice on infection prevention and control in our Trust	37	50	13	0	0	0
e. Our Trust has forums in place to discuss feedback from RCA with the clinical teams involved	29	49	14	7	1	0
f. The toolkit provided by the National Patient Safety Agency is helpful for carrying out RCA	15	34	28	17	6	0
g. RCA is seen as the responsibility of the multi-disciplinary clinical team involved with the infected patient, not the Infection Control Team	28	39	12	18	3	0

Section C - Infection Control Team

13. Surveillance and Reporting

Within the system of compulsory surveillance, please indicate the clinical areas that have a large problem with MRSA and *C. difficile* infection (CDI) (Please tick all that apply):

	MRSA (%)	CDI (%)
a. ICU	7	0
b. Cardiothoracic	1	0
c. General surgical	7	8
d. General medical/ elderly care	7	17
e. Orthopaedics	3	2
f. Neurosurgery	1	1
g. Re-admissions/ transfers from other hospitals or residential care facilities	30	4

Beyond the system of compulsory surveillance, do you have a system of surveillance for any of the following HCAs/ organisms:

	No surveillance (NAO analysis) (%)	Trust wide (%)	Targeted on high risk groups (%)
a. Surgical Site Infections (other than orthopaedics)	53	18	29
b. Bacteraemia (caused by any pathogen)	44	42	13
c. IV Catheter-related infection (e.g. bacteraemia; phlebitis)	48	38	12
d. Pneumonia (e.g. ventilator-associated pneumonia)	60	11	29
e. Skin and soft tissue infections	85	6	9
f. Catheter-associated urinary tract infections	80	15	6
g. Extended Spectrum Beta lactamase producing gram negatives (ESBLs)	40	54	5
h. Multi-resistant acinetobacter	51	40	8
i. Other: <i>Particular alert organisms or multi-resistant organisms</i>	83	16	1

Section C - Infection Control Team

Please indicate your level of agreement or disagreement with the following statements:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
a. Our system of surveillance is capable of identifying trends and providing an early warning for infection outbreaks (as defined within your Trust)	28	60	5	6	1	0
b. Having a system of compulsory surveillance of MRSA and <i>C. difficile</i> has led to improved surveillance of all HCAs	24	34	19	20	3	0
c. Clinical units/ wards are provided with comparative data on their rates of HCAs	34	44	7	12	2	1
d. All relevant clinical units/ wards are provided with comparative data on relevant levels of antibiotic resistance	6	14	14	58	4	4
e. We have sufficient IT resources to carry out effective surveillance of HCAs	5	22	18	34	21	0
f. We have sufficient clerical resources to support a system of effective surveillance of HCAs	4	31	11	36	17	1
g. We have an effective system of surveillance for identifying mortality due to HCAs	7	29	18	38	6	2
h. We have a system in place to effectively identify patients who have been re-admitted due to an HCAI	7	25	14	46	8	0
i. We have an effective system of surveillance for identifying Surgical Site Infections that occur post-discharge	4	9	10	53	24	0

Section C - Infection Control Team

14. Hand Hygiene

What percentage of wards have alcohol hand rub at the bedside/end of bed/on patient locker?						
39% 100 per cent		55% 75 to 99 per cent			6% Less than 75 per cent	
If you have answered less than 100 per cent of wards to question C.16.1, in which wards is AHR unavailable at the bedside/end of bed etc?						
11% Elderly		67% Paediatric		5% Hepatic		17% Other
What percentage of in-patient wards use the cleanyourhands campaign posters?						
73% 100 per cent		15% 75 to 99 per cent			12% Less than 75 per cent	
In what proportion of wards in the Trust has hand hygiene compliance been directly monitored by a member of the infection control team or a member of ward staff in the past 6 months?						
68% 100 per cent		21% 75 to 99 per cent			11% Less than 75 per cent	
If your Trust has a rolling programme of hand hygiene audits, how often is this done?						
42% Weekly	37% Monthly	6% Quarterly	1% Annually	11% Other	3% No rolling programme of audit	
What is the average compliance with hand-hygiene in the Trust in the last year?				83%		
Please indicate your level of agreement or disagreement with the following statements:						
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
a. The cleanyourhands campaign materials promoting patient involvement are reaching patients in our Trust	15	46	22	9	0	8
b. The cleanyourhands campaign has encouraged patients to ask staff to clean their hands	5	28	30	23	4	10

Section C - Infection Control Team

15. Consultation of the Infection Control Team

How often, if ever, is the Trust Infection Control Team consulted on the following matters (either directly, or indirectly through the Director of Infection Prevention and Control):

	Always	Generally	Sometimes	Never	Not Applicable
a. Provision of infection control services in Service Level Agreements with your Primary Care Trust	28	23	16	14	19
b. Reviewing contracts for catering services	28	22	12	21	17
c. Reviewing contracts for laundry services	46	30	10	8	6
d. Reviewing contracts for domestic and cleaning services	49	24	5	3	19
e. Reviewing plans for alterations and additions to the clinical buildings	40	51	8	1	0
f. Reviewing private finance initiative building plans	29	22	5	1	43
g. Disinfection and sterilisation of equipment	43	48	9	0	0
h. Theatre ventilation	45	42	11	1	1
i. Air conditioning/ air pressure control systems	25	49	20	2	4
j. Purchase of new equipment	13	56	31	0	0
k. Water quality (drinking water and water used for haemodialysis and showers etc)	28	48	19	3	2
l. Bed management	36	53	11	0	0

16. Responsibility for infection prevention

Please indicate your level of agreement or disagreement with the following statements:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
c. Our Trust has clear lines of responsibility for infection prevention and control from Board to ward	62	34	2	1	1	0
d. Performance of staff (at an individual level, or at a clinical unit/ ward level) on infection prevention and control is measured and reported	23	52	12	9	0	4
e. Staff (at an individual level, or at a clinical/ ward level) are encouraged to create solutions to infection control problems on their ward/ team	25	65	8	2	0	0

Section C - Infection Control Team

17. Organisational culture and the prevention, management and control of HCAIs

Please indicate your level of agreement or disagreement with the following statements:

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
a. Our Trust has an open and fair culture for reporting HCAI incidents and 'near misses'	40	54	4	2	0	0
b. Our Trust has a blame based culture with regard to infection prevention and control	1	5	15	58	21	0
c. Infection prevention and control is seen as the responsibility of all staff in our Trust, not just the Infection Control Team	39	49	9	3	0	0
d. Our Trust has in place effective mechanisms for staff to raise concerns regarding infection prevention and control	38	57	5	0	0	0
e. Our Trust has in place effective mechanisms for patients to raise concerns regarding infection prevention and control	33	60	6	1	0	0
f. Our Chief Executive acts as a role model on the promotion of good practice on the prevention, management and control of HCAIs	55	35	10	0	0	0
g. Our Board members act as role models on the promotion of good practice on the prevention, management and control of HCAIs	39	43	18	0	0	0
h. Senior medical staff act as role models on the promotion of good practice on the prevention, management and control of HCAIs	9	48	38	5	0	0
i. Senior nursing staff act as role models on the promotion of good practice on the prevention, management and control of HCAIs	42	50	7	1	0	0
j. Staff are rewarded for exhibiting good practice on the prevention, management and control of HCAIs	16	28	30	21	1	0
k. Our Trust is supportive towards individual staff members identifying and promoting best practice in infection prevention and control	30	57	12	1	0	0
l. Our Trust has a standard terminology on infection prevention, management and control of HCAIs that is understood by doctors, nurses and support staff	26	60	13	1	0	0
m. Infection prevention and control has a high profile throughout our Trust	72	26	2	0	0	0
n. The approach our Trust has taken to tackling HCAIs is sustainable in the long term	36	49	13	2	0	0

Section C - Infection Control Team

18. Finally

What do you see as the main actions that your Trust has taken in the past year that you believe have made a difference in improving the management, prevention and control of HCAIs? (name up to three)

This question was a free text response, the answers have been coded by the NAO and the top five most frequent responses are listed

- iv. *Leadership/ engagement from senior management (33%)*
- v. *Increased resources to the infection control team (26%)*
- vi. *Improved antibiotic management (24%)*
- vii. *Improved isolation/ cohort facilities (21%)*
- viii. *Higher profile of infection control throughout the trust (19%)*

What do you see as the biggest barriers to creating a sustained improvement in HCAIs in your Trust (name up to three)?

This question was a free text response, the answers have been coded by the NAO and the top five most frequent responses are listed

- i. *Bed occupancy levels/ low staffing numbers (44%)*
- ii. *Inadequate isolation facilities (23%)*
- iii. *Lack of ownership amongst staff (16%)*
- iv. *Infection control team resources (15%)*
- v. *Resources to carry out surveillance (14%)*