



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Monitoring of measures to prevent and control Healthcare Associated Infections in public acute hospitals

Overview report of inspection activity

January 2014

About the Health Information and Quality Authority

The Health Information and Quality Authority (HIQA) is the independent Authority established to drive high quality and safe care for people using our health and social care services. HIQA's role is to promote sustainable improvements, safeguard people using health and social care services, support informed decisions on how services are delivered, and promote person-centred care for the benefit of the public.

The Authority's mandate to date extends across the quality and safety of the public, private (within its social care function) and voluntary sectors. Reporting to the Minister for Health and the Minister for Children and Youth Affairs, the Health Information and Quality Authority has statutory responsibility for:

- **Setting Standards for Health and Social Services** – Developing person-centred standards, based on evidence and best international practice, for those health and social care services in Ireland that by law are required to be regulated by the Authority.
- **Supporting Improvement** – Supporting health and social care services to implement standards by providing education in quality improvement tools and methodologies.
- **Social Services Inspectorate** – Registering and inspecting residential centres for dependent people and inspecting children detention schools, foster care services and child protection services.
- **Monitoring Healthcare Quality and Safety** – Monitoring the quality and safety of health and personal social care services and investigating as necessary serious concerns about the health and welfare of people who use these services.
- **Health Technology Assessment** – Ensuring the best outcome for people who use our health services and best use of resources by evaluating the clinical and cost effectiveness of drugs, equipment, diagnostic techniques and health promotion activities.
- **Health Information** – Advising on the efficient and secure collection and sharing of health information, evaluating information resources and publishing information about the delivery and performance of Ireland's health and social care services.

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1. Introduction and background

Healthcare Associated Infections (HAIs) are a significant patient safety issue and represent the most frequent adverse event experienced by patients receiving healthcare services. It is estimated that each year, hundreds of millions of patients globally are affected by Healthcare Associated Infections. For example, in high-income countries, approximately 30% of patients in intensive care units are affected by at least one Healthcare Associated Infection.[¥]

Research shows that such infections can result in prolonged hospital stays, long-term disability, increased resistance of microorganisms to antimicrobial drugs and high costs for patients and their families. The effect of such infections includes unnecessary harm (up to and including death) and massive additional costs for healthcare systems. The World Health Organization reports an estimated annual cost of approximately €7 billion due to Healthcare Associated Infections in Europe, including direct costs only and reflecting 16 million extra days of hospital stay.[¥]

In recent years, Ireland has made progress in reducing Healthcare Associated Infection rates. For example, the Health Protection Surveillance Centre (HPSC) in the Health Service Executive (HSE) has reported that the number of reported Methicillin-Resistant *Staphylococcus aureus* (MRSA) bloodstream infections has decreased steadily between 2006 and 2012, from 592 to 242 respectively. This represents a reduction of 59%. However, although the overall trend in the proportion of MRSA observed in Ireland is decreasing, the prevalence of MRSA is still relatively high when compared to the United Kingdom and other southern European countries.[±]

The Health Information and Quality Authority (the Authority) has the national statutory role for developing standards for the quality and safety of healthcare services. The *National Standards for the Prevention and Control of Healthcare Associated Infections* (referred to in this report as the Infection, Prevention and Control Standards) were approved by the Minister for Health and Children on 26 May 2009, and published by the Authority. The Authority has the statutory responsibility under the Health Act 2007, amongst other functions, for monitoring compliance with National Standards and advising the Minister for Health as to the level of compliance.

The aim of these Standards, together with the Authority's monitoring programme to assess compliance with them in public acute hospitals, is to contribute to the

[¥] World Health Organization, Health care-associated infections FACT SHEET. Available online from: http://www.who.int/gpsc/country_work/gpsc_ccisc_fact_sheet_en.pdf. Accessed January 2014.

[±] Health Protection Surveillance Centre, *Trends in Staphylococcus aureus/MRSA bacteraemia in Ireland, 2004 to the end of Q3 2013*. Available online from: <http://www.hpsc.ie/hpsc/A-Z/MicrobiologyAntimicrobialResistance/EuropeanAntimicrobialResistanceSurveillanceSystemEARSS/ReferenceandEducationalResourceMaterial/SaureusMRSA/LatestSaureusMRSAdata/File.3989.en.pdf>. Accessed January 2014.

reduction and prevention of Healthcare Associated Infections in order to improve the quality and safety of these healthcare services. The Standards also aim to drive a culture of responsibility and accountability among all staff involved in the management and delivery of health and social care services – all of whom must play their part in preventing and controlling Healthcare Associated Infections. While services may differ in terms of their scale, service-user population, the nature of care provided, staffing levels, location and history, the principles for the prevention and control of Healthcare Associated Infections are applicable to all health and social care services.

1.1 The programme

Given that the Infection, Prevention and Control Standards have been in place since 2009, the Authority expected service providers to have had, by 2013, evaluated their compliance with the Standards, moved towards substantial implementation of them, and put in place the necessary measures to improve compliance where necessary. During inspections carried out in late 2012 and throughout 2013, the Authority accordingly looked for evidence that service providers were meeting the Standards and were using quality and safety measures that prevent and control Healthcare Associated Infections, and therefore were safeguarding service users.

Phase 1 of the Authority's monitoring programme regarding compliance with the Infection, Prevention and Control Standards started in November 2012. Phase 2 began in January 2013 and continued throughout 2013. In that 14-month period up to December 2013, announced and unannounced inspections were undertaken in 49 out of 50 public acute hospitals* in Ireland between Phase 1 and 2 of the monitoring programme. The findings from each inspection were subsequently published by the Authority to provide information and assurances to the public that service providers have implemented and are meeting the Standards.

The findings of these inspections are discussed in this composite report, which notes the experiences and findings observed by the Authority at a point in time. This report also outlines the resultant actions that were required to enable services to become fully compliant with the Infection, Prevention and Control Standards. This area of patient safety will continue to be a priority for the Authority and will remain a core focus in its standards monitoring programme in the next three years and as part of

* The announced inspection report for Cork University Hospital Group covered three hospitals in this group: Cork University Hospital, Cork University Maternity Hospital and Mallow General Hospital. When these three hospitals are counted individually, there are 50 acute public hospitals in Ireland. While the Authority published 54 reports on 47 individual hospitals/hospital groups, these reports covered 49 of the 50 public acute hospitals in Ireland. One hospital was not inspected against the Infection, Prevention and Control Standards.

the future licensing of healthcare facilities when the appropriate legislation and regulations are introduced.

2. Methodology

2.1 Monitoring approach

The Authority's monitoring programme regarding compliance with the Infection, Prevention and Control Standards focuses on the essential capacity and capability factors necessary to implement four of the practices that international research has shown to contribute significantly to reducing Healthcare Associated Infections and improve patient safety, namely:[≡]

1. Hand hygiene compliance.
2. The cleanliness of the environment and equipment.
3. The appropriate use of antimicrobial antibiotics (antimicrobial stewardship).
4. The prevention of Healthcare Associated Infections associated with invasive medical devices such as intravenous lines and urinary catheters.

Phase 2 of the Authority's monitoring programme from January to December 2013 was also used as a preparatory phase aimed at enabling service providers to prepare for the eventual monitoring of services against the *National Standards for Safer Better Healthcare* (referred to in this report as the Safer Better Healthcare Standards). In line with this aim, the Authority reviewed the Infection, Prevention and Control Standards and framed them within three themes of the Safer Better Healthcare Standards. These themes were:

- Infection, Prevention and Control Standards Theme 1: Leadership, Governance and Management[±]
- Infection, Prevention and Control Standards Theme 2: Workforce^{*}
- Infection, Prevention and Control Standards Theme 3: Safe Care.[#]

Two types of inspection were used, announced and unannounced.

The aim of the unannounced inspection was to assess the hygiene as observed by the inspection team and experienced by patients at any given time. It focused specifically on the observation of the day-to-day delivery of services and in particular environment and equipment cleanliness, and compliance with hand hygiene practice (hand washing and/or use of appropriate hand-rub). An unannounced on-site

[≡] International Review-Agency for Healthcare Research and Quality. (2011) *'Evidence-based Practice Centre Systematic Review Protocol. Closing the Quality Gap: Prevention of Health Care Associated Infections'*.

[±] Theme 5 of the National Standards for Safer Better Healthcare.

^{*} Theme 6 of the National Standards for Safer Better Healthcare.

[#] Theme 3 of the National Standards for Safer Better Healthcare, Safe Care and Support.

inspection focuses on gathering information about compliance with two of the Infection, Prevention and Control Standards.

These are:

- Standard 3: Environment and Facilities Management, Criterion 3.6
- Standard 6: Hand Hygiene, Criterion 6.1.

During both unannounced and announced inspections, the Authority used hygiene observation tools to gather information about the cleanliness of the environment and equipment as well as hand hygiene compliance. See Appendix 1 for an accurate summary of the current process for unannounced and announced inspections.

The aim of the announced inspection was to gather evidence of compliance with the essential elements of the wider themes in the Safer Better Healthcare Standards set out above, through observation, document review and meetings with relevant staff. Contrary to the unannounced inspections, hand hygiene and environmental hygiene formed only one component of the announced inspection approach.

In Irish hospitals in 2011, there were over 1 million attendances at emergency departments⁺ while in 2012 there were over 2.3 million reported outpatient attendances.* Therefore, inspections generally commenced in the emergency department or in the outpatient department and followed a patient's journey to an inpatient ward. This approach was chosen because the emergency department is usually the entry point for patients who require emergency and acute hospital care, with the outpatient department the first point of contact for patients who require scheduled care. This approach provided the Authority with an opportunity to observe and assess the hygiene as experienced by most patients. The observation component of inspections consisted of at least two clinical areas. Although specific clinical areas are assessed in detail using hygiene observation tools, authorised persons from the Authority also observed general levels of cleanliness as they followed the patient journey through the hospital.

In order to facilitate announced inspections, the Infection Prevention and Control Standards and their respective criteria were reviewed and amalgamated in order to develop essential elements which would be representative of what an organisation must have in place as the foundation for the provision of safe, high quality care through the prevention and control of Healthcare Associated Infections.

⁺ Health Service Executive Annual Report and Financial Statements, 2011. Available online from: <http://www.hse.ie/eng/services/Publications/corporate/annualreport2011.pdf>. Accessed January 2014.

* Health Service Executive monthly performance reports for 2012, available online at www.hse.ie. Accessed January 2014.

Accordingly, the monitoring methodology was developed to assess organisations for their compliance with these overarching essential elements. Therefore it is important to note that the Authority did not assess against each of the individual Standards and their criteria. The Authority would also again like to acknowledge the cooperation of hospital staff with the monitoring programme.

2.2 Risk identification and notification

The Authority's Risk Matrix (Appendix 2) is used to assess the likelihood and the impact of specific risks (including those not related to hygiene or infection prevention and control) which are identified during inspections. Any serious risks to the health or welfare of patients which require immediate attention are verbally brought to the immediate attention of the hospital chief executive officer (CEO)/general manager during the inspection to allow them to put the necessary actions in place to address the risks. All serious risks are escalated in line with the Authority's escalation process (Appendix 3). This includes formal written notification of the identified risk to the person(s) accountable for the service[‡] within two working days, with the requirement to formally report back to the Authority with an action plan to reduce and effectively manage the risk within five working days or as otherwise specified.

2.3 Findings and judgments

The Authority uses a process of gathering and analysing multiple sources of information to make a judgment of the level of a service provider's compliance with the Infection, Prevention and Control Standards. A judgment is informed by at least three separate sources of information and may be derived from any combination of observation, documentation and data. The level of a service provider's compliance with the Infection, Prevention and Control Standards is judged to be:

- compliant
- partially compliant
- non-compliant with one or more of the Standards.

2.4 Reports of findings

The findings of inspections are made publicly available and are published on the Authority's website, www.hiqa.ie (see Appendix 4 for full schedule of published inspection reports during Phases 1 and 2 in 2012 and 2013). The purpose of the reports is to provide information and assurances to the public that service providers have implemented and are meeting the Infection, Prevention and Control Standards

[‡] Identified individual who has overall executive accountability, responsibility and authority for the delivery of high quality, safe and reliable services.

and are making the quality and safety improvements that prevent and control Healthcare Associated Infections.

The report findings also allow service providers to develop and publish a quality improvement plan (QIP) that prioritises the improvements necessary to comply with the Infection, Prevention and Control Standards. The QIPs must be approved by the service provider's identified individual who has overall executive accountability, responsibility and authority for the delivery of high quality, safe and reliable services. Each service provider must publish and make the QIPs accessible on their individual websites, or on the HSE website, within six weeks of the date of publication of the Authority's Report.

2.5 Continuous monitoring

The Authority uses a variety of sources of information to inform continuous monitoring. These may include:

- review of data and other relevant documents (including publicly available information)
- review of service providers' QIPs
- information provided by other regulators
- information provided by service users
- meetings with service providers
- meetings with service users.

Once the Authority has analysed the various sources of information and assessed any risk, its responses may include:

- seeking the necessary assurances from the service provider that it is safeguarding service users through the mitigation of serious risks
- meeting with the service provider to find out additional information on the identified issue and how they are dealing with it
- initiate an unannounced inspection
- advising the HSE and/or the Minister for Health of the Authority's concerns
- undertaking an investigation as to the safety, quality and standards of the services if the Authority believes there is a serious risk to the health and welfare of a person receiving services and that the risk may be the result of any act, failure to act or negligence on the part of the HSE or a service provider.

3. Monitoring activity

During the 14 months of Phase 1 and Phase 2 of the monitoring programme from November 2012 to December 2013, the Authority inspected nearly all 50 public acute hospitals against the Infection, Prevention and Control Standards. While the Authority published 54 reports on 47 individual hospitals/hospital groups, one hospital group report covered three hospitals, meaning 49 out of 50 hospitals were inspected. One hospital was not inspected against the Infection, Prevention and Control Standards. Unannounced inspections accounted for 81% of inspection activity. Of the 49 hospitals inspected, seven individual hospitals were inspected twice by the Authority while the remainder were inspected once. At the time of preparation of this report all 54 reports had been published.

In Phase 1 of the monitoring programme which took place in November to December 2012, inspections were carried out in 12 public acute hospitals/hospital groups, covering 14 individual hospitals. These 12 inspections comprised three announced and nine unannounced inspections. In three out of the 12 hospitals/hospital groups, a second inspection was subsequently undertaken in 2013. This second inspection was announced in two of the three hospitals. In the third hospital, the repeat inspection was unannounced. No repeat inspections took place in 2012.

A total of 42 inspections were carried out in Phase 2 in 2013. Of the 42 inspections, seven were announced and 35 were unannounced. In this phase, 38 public acute hospitals/hospital groups were inspected. Of these, 35 hospitals were inspected for the first time while three hospitals were re-inspected arising from their initial inspection in 2012. Furthermore, four of these 35 hospitals were subsequently re-inspected by the Authority during 2013. In three out of the four hospitals that had repeat inspections during 2013, the first unannounced inspection was followed up by an announced inspection later in the year. In the fourth hospital the initial and the repeat inspections were both unannounced.

In summary, inspections have been carried out by the Authority in 49 out of 50 public acute hospitals between Phase 1 and Phase 2 of the monitoring programme (from November 2012 to December 2013). One hospital was not inspected against the Infection, Prevention and Control Standards during Phase 1 and 2 of the monitoring programme as it was the focus of a separate regulatory process by the Authority during this time.[#] In total, 54 inspections (see Chart 1), comprising 10 announced and 44 unannounced inspections, were undertaken in these 49 hospitals

[#] Investigation into the safety, quality and standards of services provided by the Health Service Executive to patients, including pregnant women, at risk of clinical deterioration, including those provided in University Hospital Galway, and as reflected in the care and treatment provided to Savita Halappanavar.

during the 14 months of inspections in 2012 and 2013. Chart 2 shows a breakdown of the number of hospitals that have had a single inspection and that have been inspected twice by the Authority during this time.

Chart 1. Proportion of announced and unannounced inspections in the 14-month inspection period during Phases 1 and 2 (total inspections = 54).

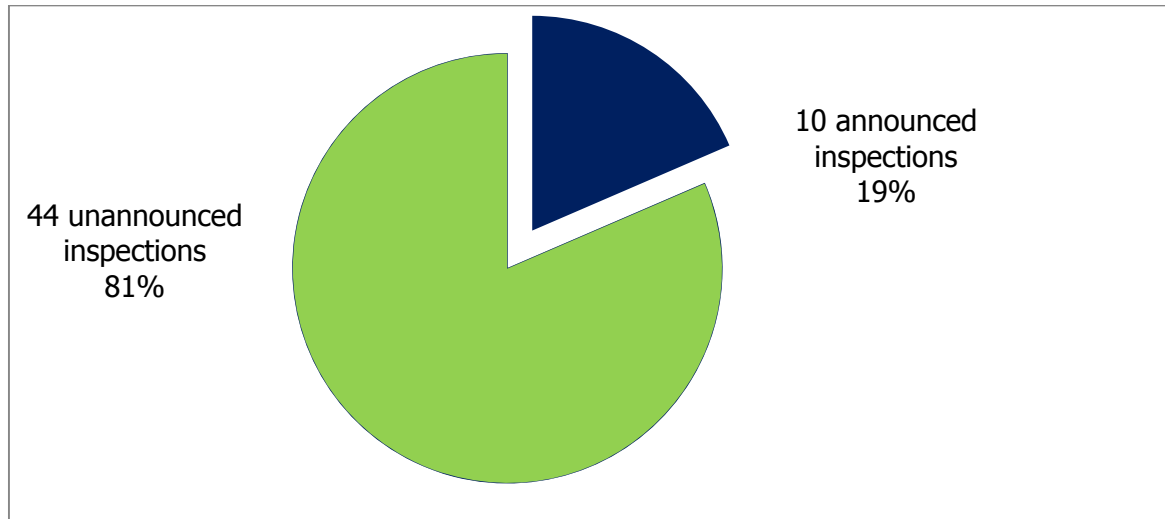
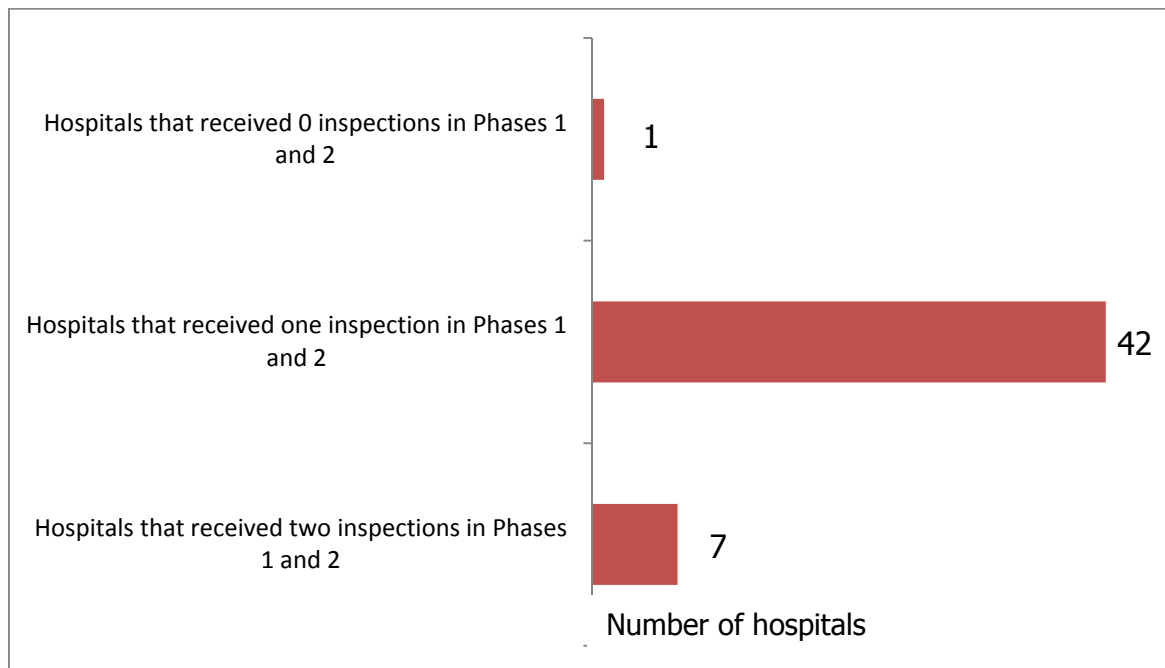


Chart 2. Number of inspections in each public acute hospital between November 2012 to December 2013 (Phases 1 and 2 of the monitoring programme). Total hospitals = 50.



4. Findings and recommendations

4.1 Introduction to findings

In all hospitals inspected, there was evidence of compliance with the Infection, Prevention and Control Standards and much good practice was observed. However, in all hospitals there were areas of non-compliance recorded. In order to disseminate learning from the monitoring programme, the following section looks at areas where hospitals need to improve, and reviews the findings around compliance with best practice hand hygiene in the hospitals inspected.

4.2 Most common environmental non-compliances observed during announced and unannounced inspections

A number of non-compliances with the Infection, Prevention and Control Standards were observed across the different acute hospitals monitored. Non-compliances related to the following themes:

- cleanliness of the physical environment – including light to heavy dust, chipped paint, staining, and damaged equipment
- cleanliness of patient equipment
- waste management practices, including inappropriate storage of waste
- laundry management practices, including clean linen not being stored in appropriate dedicated areas
- lack of appropriate storage space, leading to clutter and rendering some areas impossible to clean effectively
- unsecured clean utility rooms which created the potential for unauthorised access to needles, syringes and medications
- unsecured 'dirty'[‡] utility rooms which created the potential for unauthorised access to chemicals such as cleaning products.

4.3 Hand hygiene results

Hand hygiene opportunities (key moments when staff should wash their hands and/or use of appropriate hand-rub) and compliance with best practice hand hygiene technique were observed by authorised persons from the Authority during both the announced and unannounced inspections. These were observed among a small sample of hospital staff in various locations throughout the hospitals. The underlying principles of hand hygiene opportunities are based on the detection of the '5

[‡] A 'dirty' utility room is a temporary holding area for soiled/contaminated equipment, materials or waste prior to their disposal, cleaning or treatment.

Moments for Hand Hygiene[†] that are promoted by the World Health Organization, which are:

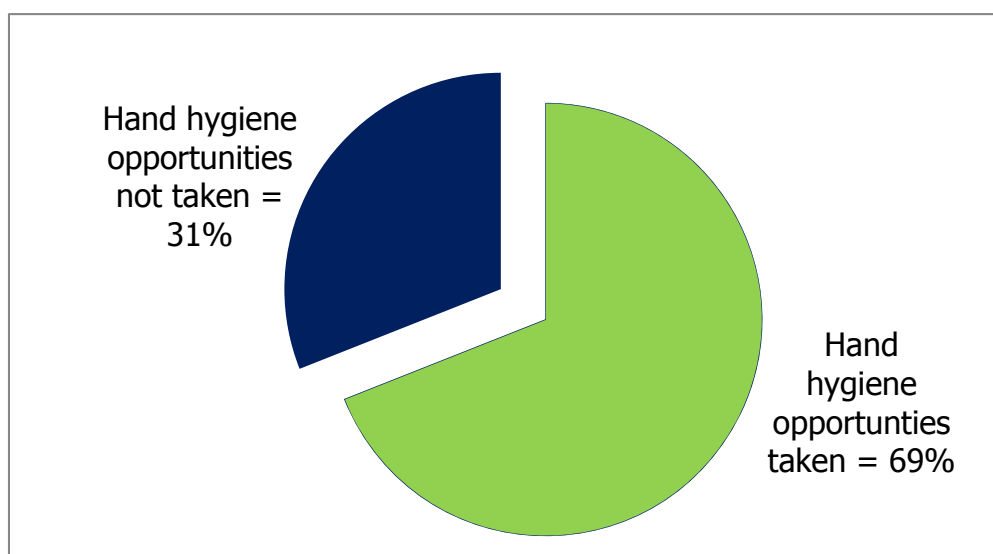
- before touching a patient
- after touching a patient
- before clean/aseptic procedure
- after body fluid exposure risk
- after touching a patient's surroundings.

It is important to note that the results should not be construed as representative of all groups of staff within any given hospital and hand hygiene compliance across any hospital as a whole. Observations which were reported by the Authority represent a snapshot in time in a particular clinical area. In follow-up inspections the Authority did not necessarily observe the same cohort of hospital staff in the same place and under the same circumstances.

4.3.1 Overall observed hand hygiene – announced and unannounced

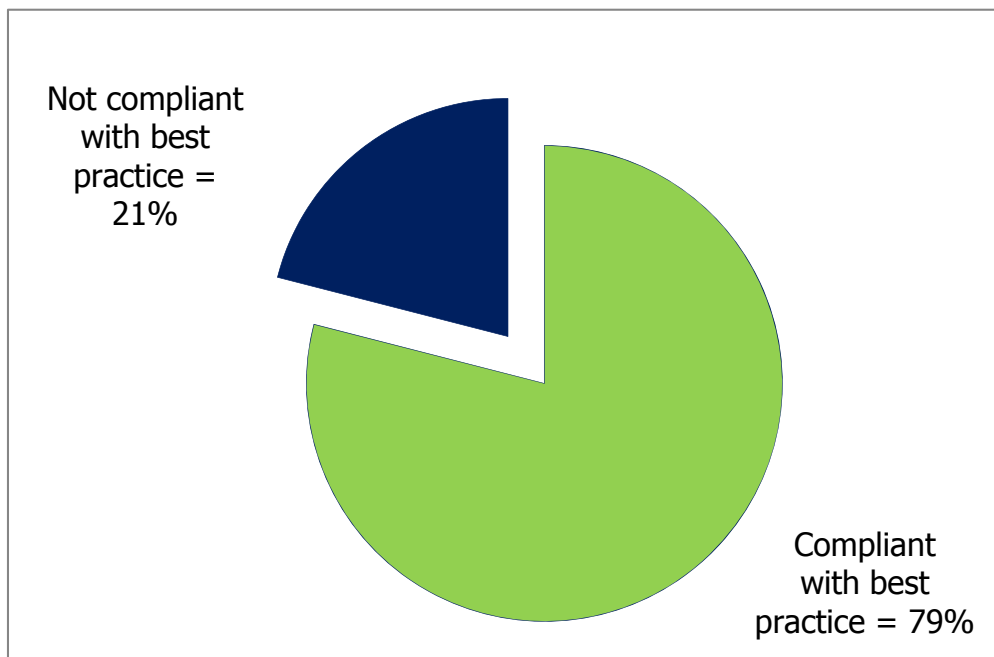
A total of 1,499 hand hygiene opportunities were observed by the Authority during the 54 announced and unannounced inspections carried out in 2012 and 2013. Of the hand hygiene opportunities observed by the Authority, an average of 69% were undertaken by hospital staff at the time of the inspections (see Chart 3). Of these, an average of 79% of the observed opportunities undertaken were compliant with best practice hand hygiene technique (Chart 4).

Chart 3. Proportion of observed hand hygiene opportunities (hand washing and/or use of appropriate hand-rub) undertaken in 54 inspections conducted by the Authority in the 14-month inspection period in 2012 and 2013 (total observed opportunities = 1,499).



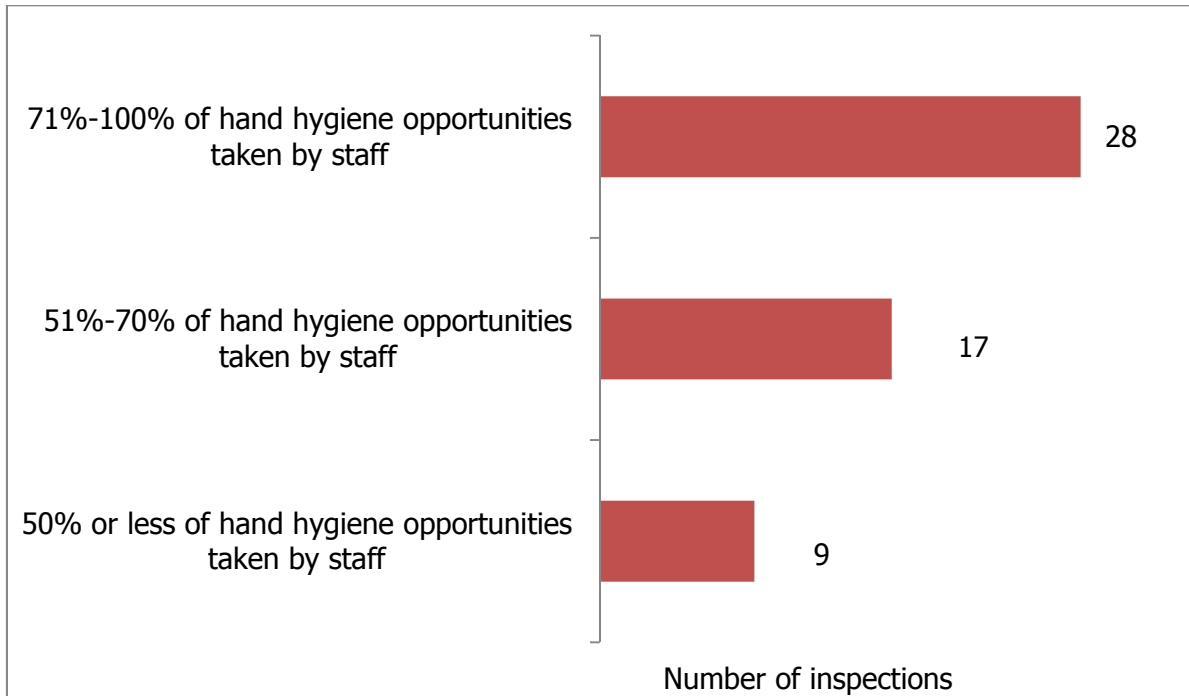
[†]World Health Organization, WHO Guidelines on Hand Hygiene in Health Care, 2009.

Chart 4. Proportion of hand hygiene opportunities (hand washing and/or use of appropriate hand-rub) undertaken that complied with best practice in 54 inspections conducted by the Authority in the 14-month inspection period in 2012 and 2013 (total opportunities undertaken = 820).



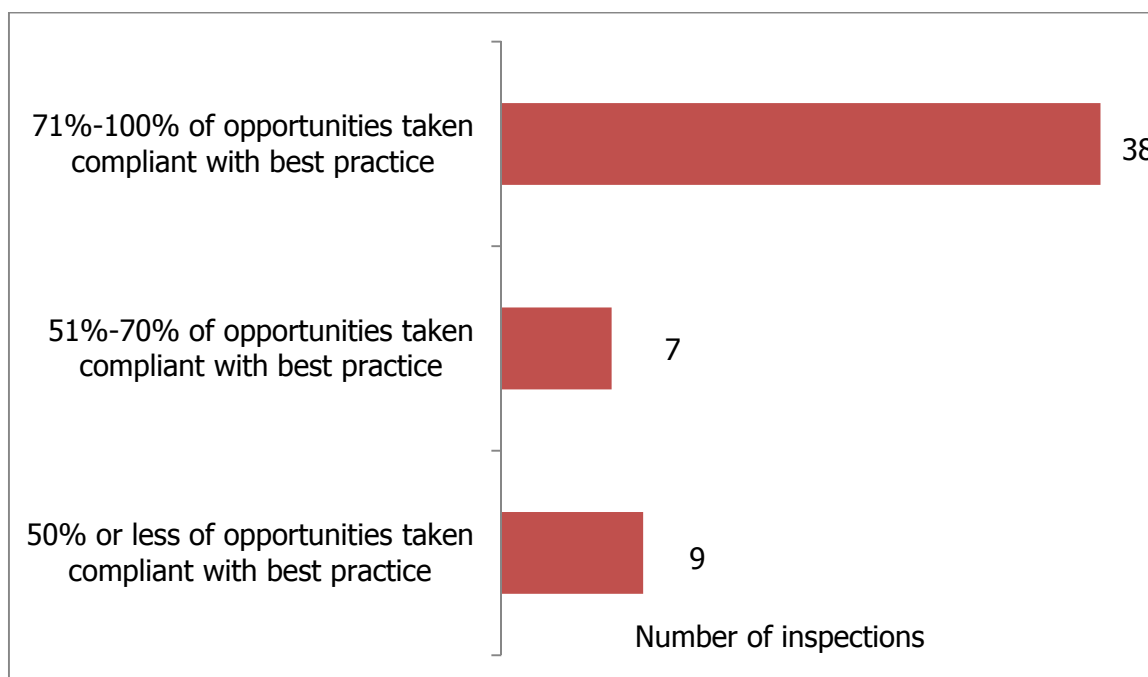
Examination of the figures for individual inspections showed that in 28 out of 54 inspections the percentage of observed hand hygiene opportunities undertaken by staff ranged from 71% to 100% (see Chart 5). In 17 out of 54 inspections, the percentage of observed hand hygiene opportunities undertaken by staff ranged from 51% to 70%. In the remaining nine inspections the percentage of observed hand hygiene opportunities undertaken by staff was less than or equal to (\leq) 50%. It is important to note that the results should not be construed as representative of all groups of staff within any given hospital and hand hygiene compliance across any hospital as a whole. However, they do signal the need for hospitals to carefully consider the findings of each assessment as it relates to them.

Chart 5. Inspections conducted by the Authority in the 14-month period in 2012 and 2013 categorised by the percentage of observed hand hygiene opportunities that were undertaken by staff (total inspections = 54).



The figures for observed compliance with best practice hand hygiene technique (see Chart 6), showed that the level of compliance was in the range of 71% to 100% in 38 out of 54 inspections. A compliance rate of 51% to 70% was observed in seven out of 54 inspections. In the remaining nine inspections, a compliance rate of less than or equal to (\leq) 50% was observed.

Chart 6. Inspections conducted by the Authority in the 14-month period in 2012 and 2013 categorised by the percentage of hygiene opportunities undertaken compliant with best practice (total inspections = 54).



According to the World Health Organization's guidelines, hand hygiene actions are more effective when hand and forearms are free of jewellery (the wearing of a simple wedding band during routine care may be acceptable) and are left uncovered. Non-compliances with best practice observed by the Authority during inspections related to issues such as not taking long enough to perform the hand hygiene technique, not performing the correct hand hygiene technique, or wearing a wrist watch, jewellery or long sleeves.

4.3.2 Announced inspections – hand hygiene results

This section of the report analyses the findings solely in relation to hand hygiene practice during announced inspections, when the hospitals received six weeks' advance notice of the inspection taking place. During the 10 announced inspections undertaken in 2012 and 2013, an average of 80% of the hand hygiene opportunities observed by the Authority were undertaken by hospital staff. A further 80% on average of these observed opportunities complied with best practice hand hygiene technique. Given that the hospital is informed in advance of announced inspections, it is significant that under these circumstances 20% of observed hand hygiene opportunities were not undertaken and 20% of the observed opportunities that were undertaken did not comply with best practice hand hygiene technique. This finding might suggest that training provided to hospital staff needs to be reviewed. This is because some staff, although aware that their hand hygiene practice may be

observed, were either unaware of the World Health Organization's '5 Moments for Hand Hygiene' in healthcare, or that they failed to take these hand hygiene opportunities.

4.3.3 Repeat inspections – hand hygiene results

Phase 1, 2012 and Phase 2, 2013

In total, the Authority re-inspected seven hospitals. Three hospitals initially inspected in 2012 had another inspection carried out in 2013, while four hospitals first inspected in 2013 each had a repeat inspection in 2013. Examination of the results for these seven hospitals that had two inspections showed that overall, the number of observed hand hygiene opportunities undertaken by staff increased from an average of 58% to 76% between the first and second inspections. There was also an increase in the observed level of compliance with best practice hand hygiene technique, among staff who were observed performing hand hygiene, from an average of 53% to 93%. However, it is worth noting that there was some variation in the results for individual hospitals, and room for further improvement in the culture of hand hygiene in the hospitals inspected.

4.3.4 Further breakdown of repeat inspections

The number of observed hand hygiene opportunities undertaken by staff in four out of the seven hospitals increased from an average of 53% at the first inspection to 83% at the second inspection. Of the observed opportunities, the level of compliance with best practice hand hygiene technique also increased in these hospitals from an average of 68% at the first inspection to 95% at the second inspection. Two out of the four hospitals achieved 100% compliance in best practice hand hygiene technique among the staff observed performing hand hygiene at the second inspection.

However, in two hospitals, the number of observed hand hygiene opportunities undertaken by staff either decreased (65% to 56%) or did not change appreciably (59% to 58%) between the first and second inspections. Nonetheless, in both these hospitals, the percentage of staff who did take up the opportunity to perform hand hygiene and who complied with best practice hand hygiene technique increased (48% to 95% in one hospital and 38% to 100% in the second hospital) between the first and second inspections.

The number of observed hand hygiene opportunities undertaken by staff in one hospital increased from 28% at the first inspection to 58% at the second inspection. However, the percentage of those staff who were observed performing hand hygiene

and who were complying with best practice hand hygiene technique did not change appreciably between the two inspections (73% to 74%).

4.4 Risk identification and notification

Formal notifications of serious risks were issued to 13 of the 49 hospitals inspected during 2012 and 2013, two in 2012 and 11 in 2013. Of the 13 risk notifications, five related solely to the Infection, Prevention and Control Standards, while a sixth notification referred to both the Standards and separate issues. These notifications were issued verbally by the Authority during the inspection, and in writing subsequent to the inspection. Risks identified in relation to the Infection, Prevention and Control Standards during the inspections related to Standard 3 on the environment and facilities management, Standard 6 on hand hygiene and Standard 7 on communicable and/or transmissible disease control. Of these, observed hand hygiene practice was the most commonly identified serious risk, with six out of the 13 hospitals warranting an on-site verbal and subsequent formal notification of serious risk from the Authority.

Seven notifications concerned other risks not related to the Infection, Prevention and Control Standards, which were also observed by authorised persons from the Authority. These included drug trolleys not being maintained in accordance with best practice as described in the 2009 medication management guidelines from An Bord Altranais (the Nursing Board), and inappropriate accommodation of patients, for example, on trolleys located outside of screened treatment bays in the emergency department and on extra beds placed into wards.

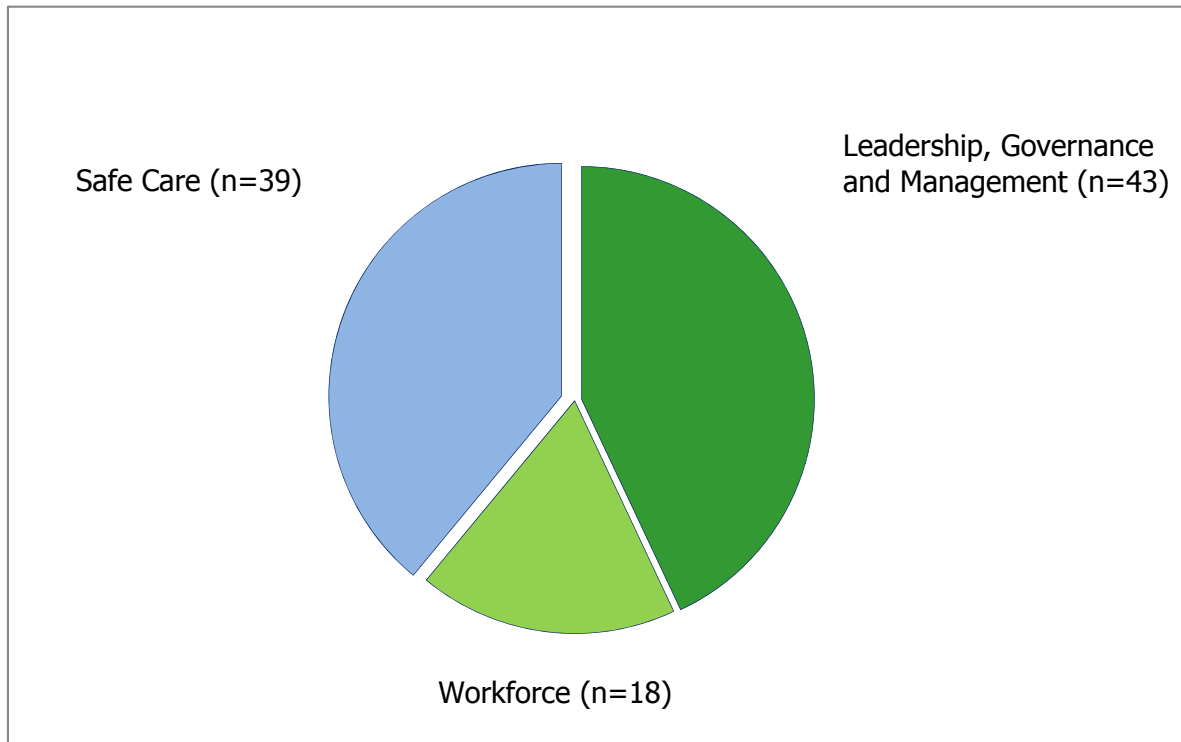
4.5 Recommendations made by the Authority during announced inspections

The reports of unannounced inspections do not contain recommendations and instead request hospitals to draft quality improvement plans (QIPs) in response to those reports. Conversely, while the reports of announced inspections also request QIPs, these reports may also make a series of recommendations for hospitals to implement.

Ten announced inspections were undertaken in 2012 and 2013. In the reports published for each inspection, a total of 100 recommendations were issued to the hospitals under the different themes, with a significant proportion of the recommendations relating to governance of infection, prevention and control practices. The Authority framed the Infection, Prevention and Control Standards within three themes of the Safer Better Healthcare Standards. Forty three of the 100 recommendations related to Infection, Prevention and Control Standards Theme 1, concerning Leadership, Governance and Management. Of the remaining

recommendations, 18 came under Theme 2: Workforce, and 39 related to Theme 3: Safe Care (see Chart 7).

Chart 7. Breakdown of 100 recommendations made by the Authority, framed within three themes from the *National Standards for Safer Better Healthcare*.



Several common topics clearly emerged from the recommendations issued to hospitals. Key themes of the recommendations concerned:

- communication strategies around Healthcare Associated Infections
- care bundles
- antimicrobial stewardship
- mandatory theoretical and practical training on the prevention and control of Healthcare Associated Infections.

The Authority found examples of communication strategies in need of improvement around Healthcare Associated Infections, both internally, and with patients and other people using services. In 9 out of the 10 announced inspections by HIQA, the Authority recommended that each hospital establish and implement a communication strategy to ensure that information relating to Healthcare Associated Infections is communicated and responded to in an efficient, timely, effective and accurate manner to all service users. Service users include patients, general practitioners (GPs) and community services.

During the monitoring programme, the Authority also found that care bundles – structured ways of improving the process of care and patient/service-user outcomes – were not in place, or if in place were not always embedded in daily practice. Some care bundles were at the early stage of being implemented, or were not being properly utilised or there was incomplete documentation around them. In 9 out of the 10 announced inspections, hospitals were advised by the Authority to ensure that care bundles were communicated, implemented and managed in line with evidence-based best practice, and that their efficacy be monitored.

In 6 out of the 10 announced inspections, the development and implementation of an antimicrobial stewardship programme was recommended.

The Authority also found that in some hospitals, staff did not attend infection prevention and control training, attendance at training was not tracked, certain training was not mandatory, or if mandatory, attendance remained an issue. In 5 of the 10 announced inspections, it was recommended that arrangements be put in place to ensure all staff attend mandatory theoretical and practical training in relation to the prevention and control of Healthcare Associated Infections.

4.6 Judgment

All hospitals which underwent announced inspections were found to be partially compliant with the Infection, Prevention and Control Standards. Similarly, of the unannounced inspections, all hospitals were found to be partially compliant with the Standards. During 2012 and 2013, no hospital was found to be fully compliant with all of the Standards at the time of their individual inspection.

4.7 Quality improvement plans

Following the publication of an announced or unannounced inspection report by the Authority, a hospital must develop a quality improvement plan (QIP) that prioritises the improvements necessary to fully comply with the Infection, Prevention and Control Standards. The QIP must be approved by the service provider's identified individual who has overall executive accountability, responsibility and authority for the delivery of high quality, safe and reliable services. The QIP must be published by the hospital on its website within six weeks of the date of publication of the inspection report, or on the HSE website.

In December 2013, a review was undertaken by the Authority of all QIPs developed in response to inspection reports and which had been published at the time. At the time of the analysis, 40 hospitals were required to publish a QIP on their website or on the HSE website. The Authority found that 98% (39) of the hospitals had

published their QIP online as required. Of these 39 hospitals, 92% (36) of hospital QIPs reviewed had satisfactorily addressed the findings outlined by the Authority in relation to Standard 3 on environment and facilities management, while 92% (36) had satisfactorily addressed the findings outlined by the Authority in relation to Standard 6 on hand hygiene. The analysis also showed that 82% (32) had satisfactorily addressed the findings outlined by the Authority in relation to both Standards 3 and 6. There was evidence that 69% (27) of the 39 hospitals had reviewed and updated their QIPs. However, it was noted that many of the QIPs required updating to reflect progress by the hospitals concerned.

The Authority continues to monitor the hospitals' QIPs as well as relevant outcome measurements and key performance indicators, in order to provide assurances to the public that they are implementing and meeting the Infection, Prevention and Control Standards and are making quality and safety improvements that safeguard patients.

5. Summary and conclusion

The aim of the Infection, Prevention and Control Standards, together with the Authority's monitoring programme, is to contribute to the reduction and prevention of Healthcare Associated Infections in order to improve the quality and safety of health services. The Authority, through its monitoring programmes and periodic monitoring of outcomes and key performance indicators, aims to provide assurances to the public that service providers are meeting the Infection, Prevention and Control Standards.

The Authority noted improvements in most hospitals that required a repeat inspection and generally the feedback from the hospitals show a positive and constructive response to the recommendations made by HIQA as a result of its inspection programme. This demonstrates the impact and effectiveness of an inspectorate on both leadership and practice within healthcare settings. This is further reflected in the ongoing updates of QIPs on relevant websites.

Overall, 100 recommendations were issued to the 10 hospitals which had an announced inspection in 2012 and 2013. The recommendations most commonly issued related to:

- the establishment and implementation of communication strategies
- arrangements regarding care bundles
- the development and implementation of antimicrobial stewardship programmes
- training of staff on the prevention and control of Healthcare Associated Infections.

5.1 Next steps

The monitoring programme for 2014 will continue to include both announced and unannounced inspections in individual hospitals and across group hospitals. There is evidence to suggest that robust antimicrobial stewardship and surgical site surveillance can contribute to a significant reduction in Healthcare Associated Infections. As such, these inspections will include the broader remit of assessing the adequacy of antimicrobial stewardship in acute hospitals and the arrangements in place in hospitals to monitor surgical site infection and actions undertaken to reduce/prevent same. At the time of this report, the Authority is examining how it monitors compliance with the Standards. The methodology used in monitoring compliance during Phase 1 and 2 is under review and any changes resulting from this review will be published on the Authority's website in early 2014.

Appendix 1 – Summary of inspection processes against the *National Standards for the Prevention and Control of Healthcare Associated Infections*

Announced inspection	Unannounced inspection
<ul style="list-style-type: none">▪ Notification will be given to hospital 6 weeks in advance of the assessment▪ Required data and documentation should be returned, electronically, to HIQA within 10 working days of receipt of the request.▪ 1 x day monitoring assessment (more if group)▪ On-site review of at least 2 (normally 3) x clinical areas▪ 2 x service provider meetings on site▪ HIQA drafts report▪ Draft report issued to hospital for factual accuracy review▪ 5 working days for factual accuracy review and feedback from hospital▪ Report published by HIQA on www.hiqa.ie▪ Hospitals must publish quality improvement plan within 6 weeks of HIQA publishing report.	<ul style="list-style-type: none">▪ No notification provided▪ 1 x day monitoring assessment▪ On-site review of at least 2 (normally 3) x clinical areas▪ 2 x service provider meetings on site▪ HIQA drafts report▪ Draft report issued to hospital for factual accuracy review▪ 5 x working days for factual accuracy review and feedback from hospital▪ Report published by HIQA on www.hiqa.ie▪ Hospitals must publish quality improvement plan within 6 weeks of HIQA publishing report.

Appendix 2 – Risk matrix

Risk assessment process: the authorised persons from the Health Information and Quality Authority will assess the consequence of the risk to patients and the probability of reoccurrence to determine the level of risk.

Consequence of the risk: What is the actual impact of the risk?

Consequence category	Impact on individual/future service users
1 Negligible	<ul style="list-style-type: none"> ▪ No obvious harm. ▪ No injury requiring treatment.
2 Minor	<ul style="list-style-type: none"> ▪ Minor injury. ▪ No permanent harm.
3 Moderate	<ul style="list-style-type: none"> ▪ Significant injury or ill health. ▪ Some temporary incapacity.
4 Major	<ul style="list-style-type: none"> ▪ Major injuries or long-term incapacity or disability. ▪ Major permanent harm as result of clinical or non-clinical incident injuries or long-term incapacity or disability. ▪ Major permanent harm.
5 Catastrophic	<ul style="list-style-type: none"> ▪ Death.

Probability of reoccurrence: What is the chance of this event occurring or reoccurring? Identify the 'probability rating' for reoccurrence from the following table:

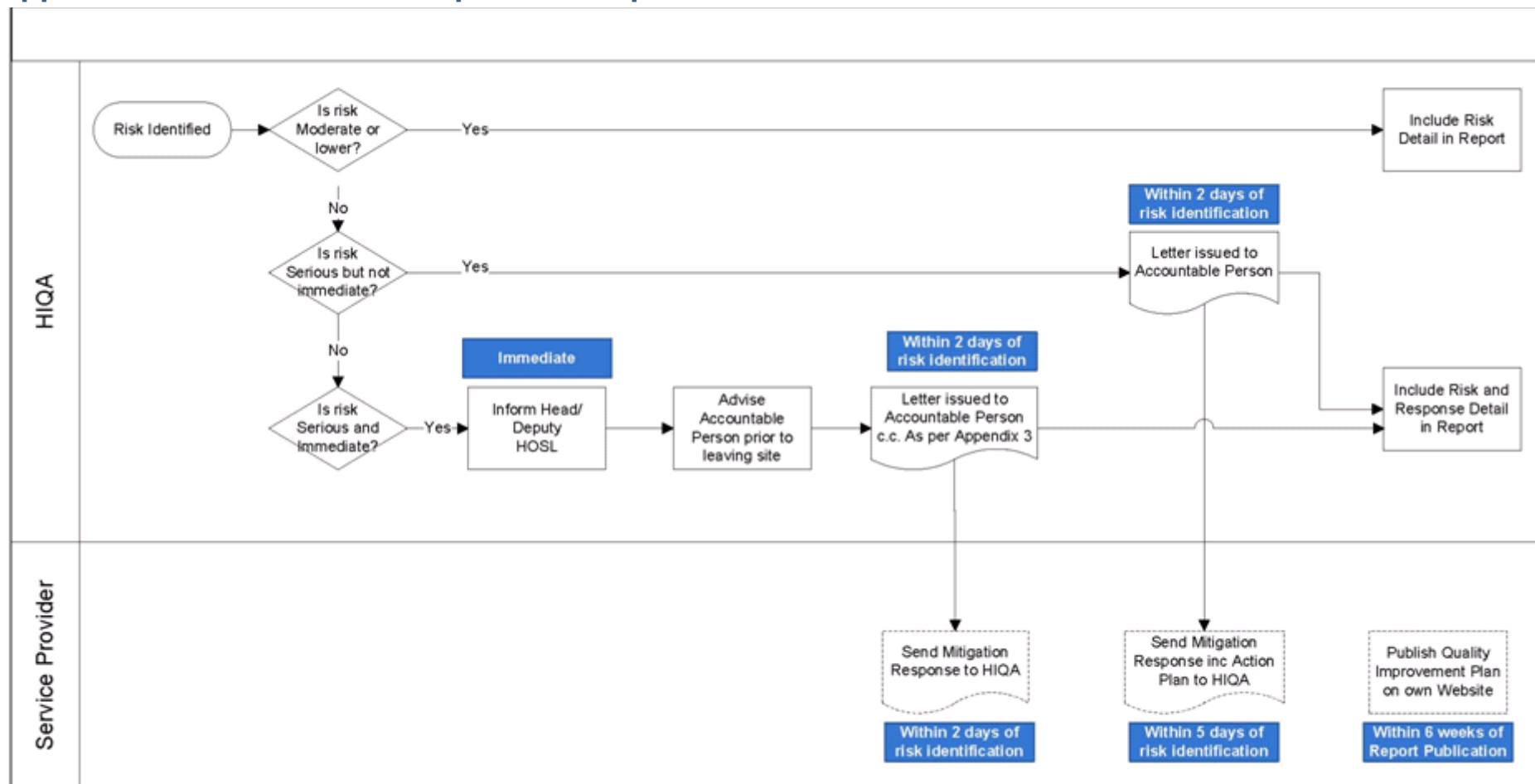
Probability score	Descriptor	Frequency
1	Rare	This will probably never happen/reoccur.
2	Unlikely	Do not expect it to happen/reoccur again but it is possible.
3	Possible	Might happen or reoccur occasionally.
4	Likely	Will probably reoccur, but it is not a persistent issue.
5	Almost certain	Will undoubtedly recur, possibly frequently.

The lead authorised person classifies the risk using the risk matrix below and documents the findings that indicate the risk.

Risk Matrix

Probability ↓	→ CONSEQUENCE CATEGORY				
	Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)
Almost Certain (5)	5	10	15	20	25
Likely (4)	4	8	12	16	20
Possible (3)	3	6	9	12	15
Unlikely (2)	2	4	6	8	10
Rare (1)	1	2	3	4	5

Appendix 3 – Risk escalation process map



Note:
 Accountable Person: identified individual who has overall executive accountability, responsibility and authority for the delivery of high quality, safe and reliable services.
 HOSL: Healthcare Operations, Safety and Learning, HIQA

Appendix 4 – HIQA inspections during 14-month Phase 1 and 2 of its infection prevention and control monitoring programme, 2012–2013. Fifty four inspection reports covering 49 hospitals.*

Name of hospital	Report	Date inspected	Report published
Adelaide and Meath Hospital Dublin Incorporating the National Children's Hospital	Report of the unannounced monitoring assessment at the Adelaide and Meath Hospital Dublin, Incorporating the National Children's Hospital Tallaght, 14 August 2013	14 Aug 2013	17 Oct 2013
Bantry General Hospital	Report of the announced monitoring assessment at Bantry General Hospital, Bantry, Co Cork	22 Jan 2013	4 Apr 2013
Beaumont Hospital	Report of the announced monitoring assessment at Beaumont Hospital, Dublin, 31 October - 1 November 2013	31 Oct 2013 - 1 Nov 2013	19 Dec 2013
Beaumont Hospital	Report of the unannounced monitoring assessment at Beaumont Hospital, Dublin, 23 July 2013	23 Jul 2013	4 Sep 2013
Cappagh National Orthopaedic Hospital	Report of the unannounced monitoring assessment at Cappagh National Orthopaedic Hospital, 1 October 2013	1 Oct 2013	19 Dec 2013
Cavan General Hospital	Report of the unannounced monitoring assessment at Cavan General Hospital, part of the Cavan Monaghan Hospital Group	8 Nov 2012	30 Jan 2013
Connolly Hospital, Blanchardstown	Report of the announced monitoring assessment at Connolly Hospital, Blanchardstown, Dublin	29 Nov 2012	30 Jan 2013
Coombe Women's University Hospital	Report of the unannounced monitoring assessment at Coombe Women & Infants University Hospital, Dublin	12 Nov 2012	30 Jan 2013

* Links to reports on www.hiqa.ie current at time of publication of this report.

Name of hospital	Report	Date inspected	Report published
Cork University Hospital*	Report of the announced monitoring assessment at Cork University Hospital Group, 11 and 12 December 2012	11 Dec 2012 - 12 Dec 2012	26 Apr 2013
Croom Hospital: UL Hospitals	Report of the unannounced monitoring assessment at Croom Hospital, Croom, Co Limerick, 11 December 2013	11 Dec 2013	28 Jan 2014
Kerry General Hospital	Report of the unannounced monitoring assessment at Kerry General Hospital, Tralee, 22 August 2013	22 Aug 13	19 Sep 2013
Letterkenny General Hospital	Report of the announced monitoring assessment at Letterkenny General Hospital, Letterkenny, 5 June 2013	5 Jun 2013	19 Sep 2013
Letterkenny General Hospital	Report of the unannounced monitoring assessment at Letterkenny General Hospital, Letterkenny, Co Donegal, 27 February 2013	27 Feb 2013	26 Apr 2013
Lourdes Orthopaedic Hospital	Report of the unannounced monitoring assessment at Lourdes Orthopaedic Hospital, Kilcreene, 19 July 2013	19 Jul 2013	4 Sep 2013
Louth County Hospital	Report of the unannounced monitoring assessment at Louth County Hospital, Dundalk, Co Louth, 1 July 2013	1 Jul 2013	16 Aug 2013
Mater Misericordiae University Hospital	Report of the unannounced monitoring assessment at the Mater Misericordiae University Hospital, Dublin, 6 August 2013	6 Aug 2013	17 Oct 2013
Mayo General Hospital	Report of the unannounced monitoring assessment at Mayo General Hospital	8 Jan 2013	30 Jan 2013

* This inspection report covered three hospitals: Cork University Hospital, Cork University Maternity Hospital, and Mallow General Hospital.

Name of hospital	Report	Date inspected	Report published
Mercy University Hospital	Report of the unannounced monitoring assessment at Mercy University Hospital, Cork	20 Nov 2012	30 Jan 2013
Merlin Park Hospital	Report of the unannounced monitoring assessment at Merlin Park Hospital, Galway, 9 July 2013	9 Jul 2013	4 Sep 2013
Mid Western Regional Hospital (St. Joseph's General)	Report of the unannounced monitoring assessment at Nenagh Hospital, Co Tipperary, 5 September 2013	5 Sep 2013	17 Oct 2013
Mid Western Regional Hospital Ennis	Report of the unannounced monitoring assessment at Ennis Hospital, Ennis, Co Clare, 4 September 2013	4 Sep 2013	17 Oct 2013
Mid Western Regional Maternity Hospital	Report of the unannounced focused monitoring assessment at the Mid Western Regional Maternity Hospital, Limerick, 10 July 2013	10 Jul 2013	4 Sep 2013
Mid Western Regional Maternity Hospital	Report of the unannounced monitoring assessment at Mid Western Regional Maternity Hospital Limerick, part of the Mid Western Regional Hospital Group	7 Nov 2012	30 Jan 2013
Midland Regional Hospital at Mullingar	Report of the unannounced monitoring assessment at Midlands Regional Hospital, Mullingar, Co Westmeath	14 Nov 2012	30 Jan 2013
Midland Regional Hospital at Portlaoise	Report of the announced monitoring assessment at Midland Regional Hospital Portlaoise	4 Dec 2012	30 Jan 2013
Midland Regional Hospital at Tullamore	Report of the unannounced monitoring assessment at Midland Regional Hospital, Tullamore, 20 May 2013	20 May 2013	4 Sep 2013
Monaghan General Hospital	Report of the unannounced monitoring assessment at Monaghan Hospital, Co Monaghan	13 Feb 2013	4 Apr 2013

Name of hospital	Report	Date inspected	Report published
Naas General Hospital	Report of the unannounced monitoring assessment at Naas General Hospital, Naas, Co Kildare	4 Feb 2013	4 Apr 2013
National Maternity Hospital, Holles Street	Report of the unannounced monitoring assessment at the National Maternity Hospital, 7 October 2013	7 Oct 2013	19 Dec 2013
Our Lady of Lourdes Hospital Drogheda	Report of the unannounced monitoring assessment at Our Lady of Lourdes Hospital, 22 October 2013	22 Oct 2013	19 Dec 2013
Our Lady's Children's Hospital, Crumlin	Report of the announced monitoring assessment at Our Lady's Children's Hospital, Crumlin, 20 March 2013	20 Mar 2013	21 Jun 2013
Our Lady's Children's Hospital, Crumlin	Report of the unannounced monitoring assessment at Our Lady's Children's Hospital, Crumlin	19 Dec 2012	30 Jan 2013
Our Lady's Hospital, Navan	Report of the unannounced monitoring assessment at Our Lady's Hospital, Navan, Co Meath, 4 July 2013	4 Jul 2013	16 Aug 2013
Portiuncula Hospital, Ballinasloe	Report of the unannounced focused monitoring assessment at Portiuncula Hospital, Ballinasloe, Co. Galway, 9 July 2013	9 Jul 2013	16 Aug 2013
Portiuncula Hospital, Ballinasloe	Report of the unannounced monitoring assessment at Portiuncula Hospital	9 Jan 2013	30 Jan 2013
Roscommon County Hospital	Report of the unannounced monitoring assessment at Roscommon County Hospital, part of the Galway Roscommon University Hospital Group	7 Nov 2012	30 Jan 2013
Royal Victoria Eye and Ear Hospital	Report of the unannounced monitoring assessment at the Royal Victoria Eye and Ear Hospital, Dublin, 20 August 2013	20 Aug 2013	19 Sep 2013

Name of hospital	Report	Date inspected	Report published
Sligo Regional Hospital	Report of the announced monitoring assessment at Sligo Regional Hospital, Co Sligo, 30 April 2013	30 Apr 2013	21 Jun 2013
Sligo Regional Hospital	Report of the unannounced monitoring assessment at Sligo Regional Hospital, Sligo, 28 February 2013	28 Feb 2013	26 Apr 2013
South Infirmity Victoria University Hospital	Report of the unannounced monitoring assessment at South Infirmity Victoria University Hospital, Cork, 23 April 2013	23 Apr 2013	21 Jun 2013
South Tipperary General Hospital	Report of the announced monitoring assessment at South Tipperary General Hospital, Clonmel, Co Tipperary, 9 April 2013	9 Apr 2013	21 Jun 2013
South Tipperary General Hospital	Report of the unannounced monitoring assessment at South Tipperary General Hospital, Clonmel	6 Nov 2012	30 Jan 2013
St Columcille's Hospital	Report of the unannounced monitoring assessment at St Columcille's Hospital, Loughlinstown, Dublin, 7 August 2013	7 Aug 2013	19 Sep 2013
St James's Hospital	Report of the unannounced monitoring assessment at St James's Hospital, Dublin, 13 August 2013	13 Aug 2013	19 Sep 2013
St John's Hospital, Limerick	Report of the unannounced monitoring assessment at St John's Hospital, Limerick, 11 December 2013	11 Dec 2013	28 Jan 2014
St Luke's General Hospital, Kilkenny	Report of the unannounced monitoring assessment at St Luke's General Hospital, Kilkenny	15 Jan 2013	30 Jan 2013
St Luke's Hospital, Rathgar	Report of the unannounced monitoring assessment at St Luke's Hospital Rathgar, 8 October 2013	8 Oct 2013	19 Dec 2013

Name of hospital	Report	Date inspected	Report published
<u>St Michael's Dún Laoghaire</u>	<u>Report of the unannounced monitoring assessment at St Michael's Hospital, Dún Laoghaire, 19 June 2013</u>	19 Jun 2013	16 Aug 2013
<u>St Vincent's University Hospital</u>	<u>Report of the unannounced monitoring assessment at St Vincent's University Hospital, Dublin, 10 September 2013</u>	10 Sep 2013	17 Oct 2013
<u>The Children's University Hospital</u>	<u>Report of the unannounced monitoring assessment at Children's University Hospital, Temple Street, Dublin</u>	13 Nov 2012	30 Jan 2013
<u>The Rotunda Hospital</u>	<u>Report of the unannounced monitoring assessment at the Rotunda Maternity Hospital, Dublin, 15 May 2013</u>	15 May 2013	21 Jun 2013
<u>University Hospital Limerick</u>	<u>Report of the unannounced monitoring assessment at University Hospital Limerick, 10 December 2013</u>	10 Dec 2013	28 Jan 2014
<u>Waterford Regional Hospital</u>	<u>Report of the unannounced monitoring assessment at Waterford Regional Hospital, Waterford, 25 June 2013</u>	25 Jun 2013	16 Aug 2013
<u>Wexford General Hospital</u>	<u>Report of the announced monitoring assessment at Wexford General Hospital, Co Wexford, 12 February 2013</u>	12 Feb 2013	26 Apr 2013

Published by the Health Information and Quality Authority.

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