The National Standards for the Prevention and Control of Healthcare Associated Infection

The View of the Regulator

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Inspector Manager, HIQA
Presentation Overview

• The role and function of the Health Information and Quality Authority
• Infection control and systems failure – A cautionary tale
• How we regulate against the National Standards for the Prevention and Control of Healthcare Associated Infection in Acute Hospitals
• Our key findings from 2014
• New developments in 2015, including a review of Antimicrobial Stewardship in Public Acute Hospitals
• Updating the National Standards – Future Plans
The Authority’s role

“is to promote safety and quality in the provision of health, and personal social services for the benefit of the health and welfare of the public”

(Section 7 of the Health Act 2007).
Continuous Improvement in Patient Care

**Stakeholders**

**Commissioners/Financiers**
- HSE/DoH/Insurers/Patients

**Providers**
- HSE
- Private Providers
- GPs and other contractors
- Health service frontline and support staff

**Researchers and Educators**
- Frontline care providers
- Third level institutions
- Training colleges
- Commercial industry

**Professional Bodies**
- Colleges
- Societies

**Professional Regulators**
- IMC
- An Bord Altranais

**System Regulators**
- HIQA
- MHC
- Optician Board
- PHECC
- PSI
- CORU
- Dental Council

**Patient Advocates**
- eg IPA, Patient Focus etc
- Individual patients and families
- The general public/the media

**Legislators/Courts**
- Oireacteas
- DoH
- CIS
- Coroner's findings
- Legal judgments
- EU Directives
# HIQA – Our Directorates

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Safety and Quality Improvement</th>
<th>Health Information</th>
<th>Health Technology Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration, oversight and scrutiny of designated health and social care services in line with our legal remit and requirements</td>
<td>Improving healthcare quality and safety by setting standards, and providing support to service providers and users</td>
<td>Promoting the efficient, and secure collection, use and sharing of information to advance patient and client care</td>
<td>Providing evidence based advice to inform policy development and the delivery of services</td>
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- Adult Social Care
- **Healthcare (Public Acute Hospitals)**
- Children’s Care Services
- Disability Services
Relevant work by each directorate that will impact on public acute hospitals in 2015

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<thead>
<tr>
<th>Regulation</th>
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<tbody>
<tr>
<td>• Infection Prevention and Control</td>
<td>• Update of the National Standards for the Prevention and Control of Healthcare Associated Infection (2016)</td>
<td>• Patient experience measurement</td>
<td>Rapid HTAs</td>
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<tr>
<td>• Medication Management</td>
<td>• Develop National standards for the conduct of reviews and adverse incidents</td>
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<td>• Atrial Fibrillation Screening</td>
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<tr>
<td>• Nutrition and Hydration</td>
<td></td>
<td></td>
<td>• Use of IT to support early warning scoring and clinical handover</td>
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<tr>
<td>• Unscheduled care</td>
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<td></td>
<td>• Thrombectomy in acute large vessel occlusive stroke</td>
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<tr>
<td>• Maternity services</td>
<td></td>
<td></td>
<td>Other HTAs</td>
</tr>
<tr>
<td>• Chronic disease self management programmes</td>
<td></td>
<td></td>
<td>• Chronic disease self management programmes</td>
</tr>
</tbody>
</table>
### Relevant recent regulatory work

<table>
<thead>
<tr>
<th>Type of Regulatory Activity</th>
<th>Specific Body or Programme of Work</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Continuous Monitoring Programmes</strong></td>
<td>Announced and Unannounced Inspection Against the <em>National Standards for the Prevention and Control of Healthcare Associated Infection</em></td>
</tr>
<tr>
<td>Under Health Act 2007 Section 8 1(c)</td>
<td></td>
</tr>
<tr>
<td><strong>Service Reviews</strong></td>
<td>Pre-hospital Emergency Care Services, Limerick University Hospitals Group</td>
</tr>
<tr>
<td>Under Health Act 2007 Sections 8 1(c) and 8 1(e)</td>
<td></td>
</tr>
<tr>
<td><strong>Investigations</strong></td>
<td>Seven investigations into safety and quality of care published between 2008 - 2015</td>
</tr>
<tr>
<td>Under Health Act 2007 Section 9</td>
<td></td>
</tr>
<tr>
<td><strong>Other Monitoring Activities</strong></td>
<td>Ongoing receipt of Unsolicited Information, Continuous monitoring of other relevant data</td>
</tr>
<tr>
<td>Under Health Act 2007 Section 8 1(c)</td>
<td></td>
</tr>
</tbody>
</table>
Healthcare Regulation Business Intelligence Process

Business Intelligence
► responsive regulation

- Regulatory findings / unsolicited information
- HSE KPI quarterly reports
- Publically reported information
- National Patient Experience Survey?
Applicable National Standards for Acute Hospital Services
The National Standards for Safer Better Healthcare

Dimensions of Quality and Safety
- Safe Care and Support
- Effective Care and Support
- Person-Centred Care and Support

Dimensions of Capacity and Capability
- Better Health and Wellbeing
- Use of Information
- Workforce
- Governance and Leadership and Management
- Use of Resources
- Service User

CULTURE OF QUALITY AND SAFETY
Healthcare Associated Infection and Antimicrobial Use

Hospital Acquired Infection (HAI)

- 1 in 20 patients
- Surgical site infections - 18.2%
- Pneumonia - 17.2%
- Urinary tract infections - 15.0%
- Bloodstream infections - 13.2%

Antimicrobial use

- 1 in 3 patients receiving antibiotics in hospital on any given day
- Scope for improvement in usage to improve outcomes, reduce adverse effects and minimise the emergence of antibiotic resistance

National Standards for the Prevention and Control of Healthcare Associated Infection

12 standards

1. Governance
2. Implementation of infection prevention and control
3. Infrastructure
4. HR
5. Communication
6. Hand hygiene
7. Prevention of cross infection
8. Invasive medical devices
9. Microbiology laboratories
10. Outbreak management
11. Surveillance
12. Antimicrobial resistance
System failure - The Vale of Leven Enquiry

Background

- Publically funded acute hospital, located in Alexandria, West Dumbartonshire, Scotland (Just north of Glasgow)
- In 2002, the hospital provided a broad range of acute services and had 243 beds
- Health region fell into financial difficulties, region was restructured, services started to be withdrawn from the hospital
- By 2008 the hospital had 136 beds – uncertainty around its future,
  - damaging impact on recruitment, moral and the hospitals physical environment
  - Vacuum in relation to forward planning
Nature of the failure

• From 1\textsuperscript{st} January 2007 to 1\textsuperscript{st} June 2008
  • 131 cases of \textit{Clostridium difficile} infection
  • at least 34 deaths where \textit{Clostridium difficile} was the underlying cause of death, or a significant contributory factor

• Likely a series of outbreaks, or one long continuous outbreak, occurred across multiple wards

• Not identified as a problem by the hospital until mid 2008 and persisted during this time

• Patient advocacy group, C. diff justice (largely families and friends of the deceased) worked to see the eventual establishment of a judicial enquiry
Contributory factors

• National failure to learn the lessons from other outbreaks in the UK (Stoke Mandeville, Maidstone)

• The lack of an inspection regime in Scottish hospitals at the time
  • (Healthcare Environment Inspectorate subsequently formed after the problem was uncovered)

• Poor governance and management at the hospital “led to an environment where infection prevention and control was deficient”
  • Failure of questioning
  • A management culture “that relied on being told about problems rather than actively seeking assurance”

• Deficiencies in medical and nursing care
  • Lack of middle grade medical staff meant that juniors largely provided care
  • Delays in treatment identified
Figure 1. The “Swiss cheese” model of human error causation (adapted from Reason, 1990).
“Dysfunctional” Infection Prevention and Control Governance

- Clinical Director role unfilled following retirement - role tasks undertaken by hospital manager. Their responsibilities spanned across multiple hospitals – rarely on site

- Infection Prevention and Control Doctor (Consultant Microbiologist)
  - Unhappy in position, and largely absent from role in hospital – worked elsewhere also
  - Unsupported by line manager
  - Attitude described as “wholly inappropriate and professionally unacceptable” – this was tolerated by the hospital

- Under qualified and unsupervised infection prevention and control nurse, working alone

- Lack of oversight from committees and poor reporting structures – lack of scrutiny from other hospitals

- Failed to spot outbreak(s) and act accordingly
Clinical Governance

“The system through which healthcare organisations are accountable for continuously monitoring and improving the quality of their services, and safeguarding high standards of care”

- Requires both monitoring and reciprocal action
- In practical terms it is about systems – systems of monitoring and of reporting
  - Risk Management
  - Assurance
  - Audit
Looking at this through the lens of the **National Standards for Safer Better Healthcare**

- Failures in medical and nursing care identified
- Poor antibiotic prescribing from unsupervised junior Drs
- Delay in treatment post *Clostridium difficile* diagnosis

- Standards of care significantly below what would be expected
- Only patient advocacy led to the foundation of a full investigation

- Culture of passive assurance from management - poor oversight
- Senior managers rarely visited clinical areas
- Tolerated unprofessional practice
- Uncertainty around hospital future – led to low morale and problems with recruitment of staff

- Clinical Director position unfilled
- Absent and unprofessional Infection Control Doctor
- Under qualified and unsupervised Infection Control Nurse
- Shortage of medics - Junior Drs charged with more responsibility than usual
- No onsite Antimicrobial Pharmacist provision

- Hospital trust £84m in debt, lack of investment in infrastructure

- Failure to apply learning
  - From prior incidents

- Poor surveillance, and failure of reporting and monitoring.
  - Lack of subsequent action
  - Lack of scrutiny from other hospitals

- Failure to identify outbreak(s)
  - 131 cases of *Clostridium difficile*
  - At least 34 deaths
Key learning for providers and regulators

• Ultimately, whilst those undertaking the enquiry identified individual failings in care, they assigned the greatest failing to that of the overall governance and management

• This resulted in an environment where infection prevention and control was deficient
National Standards for the Prevention and Control of Healthcare Associated Infection

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HIQA’s Regulatory Approach to Promote Reduction of Healthcare Associated Infection

- Systems regulation
- Use national standards as a framework for onsite announced and unannounced inspection
  - Current main focus is environmental hygiene, hand hygiene and use of infection prevention care bundles
- What do patients experience?
- How do middle managers and frontline staff ensure best practice is reliably implemented?
- How are senior managers assured that the hospital is performing as well as it can, and how are they governing to promote high performance?
Using a lens through which to observe system performance

Case study – Environmental hygiene

• Continuously experienced by patients – poor performance poses both a clinical and confidence risk

• Good performance requires a coordinated, collective and ongoing effort across the hospital

• Effective leadership and governance needed at a senior level

• Collective ownership and good management required at a local level

• Good quality assurance and quality improvement = more consistent overall performance
Standard 3

The physical environment, facilities and resources are developed and managed to minimise the risk of service users, staff and visitors acquiring a Healthcare Associated Infection.
Hand hygiene practices that prevent, control and reduce the risk of the spread of Healthcare Associated Infections are in place.
The regulatory approach taken by the Authority

Aims and Objectives

• Safeguard patients
• Provide an independent objective assessment of performance
• Identify areas of good practice
• Identify areas of poor practice
• Share learning across the system
• Provide an additional incentive for continuous improvement
Triangulation of Evidence

- Documentation
- Compliance
- Observation
- Talk with Staff and Patients
What we are looking for?

Patient experience

Assurance mechanisms

Leadership and governance

Patient experience
The art of risk management is not just in responding to anticipated events but in building a culture and organisation that can respond to risk and withstand unanticipated events. In other words, risk management is about building flexible and robust processes and organizations.”

Thomas Coleman ('A Practical Guide to Risk Management')
Risk Management

- Identification of risks and their causes
- Estimate likelihood and impact of risks
- Quantitative vs. qualitative
- Continuous monitoring of risks and actions to control them
- Actions and mechanisms to minimize risks
- Risk acceptance
HIQA and managing risks

Risk escalation process

Identification

Assess level of risk

Escalation of high risks

Immediate high risks

High Risk letters (2 or 5 day response)
Unannounced Inspections 2014

- Acute publically funded hospitals
- Standard 3 – Environmental hygiene
- Standard 6 – Hand hygiene
- Other standards
- Minimum 1-3 areas inspected
- Triangulation (observation, discussion and documentation)
- Six week re-inspection
- Report
HIQA Hygiene Inspections
in public acute hospitals between February 2014 and January 2015

- 54 HIQA inspections
- 49 hospitals inspected
- >80 clinical areas were visited
- ~20% of the acute hospital sector
- 5 re-inspections within 6 weeks

Unclean patient equipment in inspected hospital areas

- 75.5% unclean commodes in clinical areas
- 24% unclean glucometer
- 49.9% unclean mattresses or mattress covers
- 34.7% unclean temperature probe holders

Key areas of non-compliance resulting in a follow-up inspection in 5 hospitals

- 5 INCIDENTS: Hand Hygiene
- 5 INCIDENTS: Facilities & Environment
- 4 INCIDENTS: Patient equipment
- 4 INCIDENTS: Waste management
- 3 INCIDENTS: Isolation facilities

Key areas for improvement
Cleanliness of equipment.
Hospital collaboration to promote hand hygiene.
Number of hospitals where unclean items of patient equipment were observed in clinical areas inspected during 2014.

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commodes</td>
<td>37</td>
</tr>
<tr>
<td>Mattresses</td>
<td>22</td>
</tr>
<tr>
<td>Mattress Covers</td>
<td>22</td>
</tr>
<tr>
<td>Temperature Probe Holders</td>
<td>17</td>
</tr>
<tr>
<td>Oxygen Saturation Probes</td>
<td>12</td>
</tr>
<tr>
<td>Blood Glucose Monitors</td>
<td>12</td>
</tr>
<tr>
<td>Blood Glucose Monitor Holders</td>
<td>11</td>
</tr>
<tr>
<td>Temperature Probes</td>
<td>8</td>
</tr>
</tbody>
</table>
Categorisation of overall hospital compliance with environmental observations during 2014 inspections.

<table>
<thead>
<tr>
<th>Area</th>
<th>Compliance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isolation Rooms</td>
<td>Most Compliant</td>
</tr>
<tr>
<td>Waste Disposal</td>
<td>Average Compliance</td>
</tr>
<tr>
<td>Linen</td>
<td>Least Compliant</td>
</tr>
<tr>
<td>Housekeeping Equipment Room</td>
<td></td>
</tr>
<tr>
<td>Hand Hygiene Facilities</td>
<td></td>
</tr>
<tr>
<td>Dirty Utility</td>
<td></td>
</tr>
<tr>
<td>Clean Utility</td>
<td></td>
</tr>
<tr>
<td>Bathrooms</td>
<td></td>
</tr>
<tr>
<td>Patient Areas</td>
<td></td>
</tr>
<tr>
<td>Patient Equipment</td>
<td></td>
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</table>
Changes made in June 2015

• Unannounced inspections to continued

• Two changes to the current PCHCAI program
  • Focus on QIPs
  • Monitoring implementation of Infection Prevention Care Bundles
Infection Prevention Care Bundles

- Care Bundles – a structured collection of evidence based measures which when implemented together reliably, have been shown to reduce infection rates
- Recommended in various national guidelines dating back to 2009
- Our main focus will be on Peripheral Vascular Catheter Care Bundles, and Urinary Catheter Care Bundles
- May also focus on other care bundles relevant to the setting being inspected eg Central Line Insertion bundles, Ventilator Associated Pneumonia prevention care bundles
Care Bundles – What we are looking to incentivise

• Implementation of evidence based care bundle measures
  • Will explore how hospitals achieve this
• Audit of compliance with the implementation of the care bundle measures
• Feedback on performance in achieving compliance with implementation of these measures at ward level
• Allied to this, the measurement of device related infection
• Feedback of these infection rates at ward level, and also at board level
Additional complementary regulatory work

• In tandem with the unannounced inspection – we are conducting a regulatory assurance review around antimicrobial stewardship in public acute hospitals
  • Self-assessment in all hospitals – Completed
  • Onsite verification through announced inspection in approximately 14 hospitals in Q4 2015
• External advisory group input – guide published on the Authority’s website
• Main focus will be on governance, and the widespread implementation of essential stewardship activities in all hospitals
• Aim to publish a single assurance review publication in Q1 2016
Update to the National Standards for the Prevention and Control of Healthcare Associated Infection

• Review and update of 2009 guidelines now underway by the Authority’s Safety and Quality Improvement Directorate
• External Advisory Group has formed and met – extensive representation
• Expect to publish new guidance in 2016
• Preliminary plan still being formulated
  • Will likely include recommendations around procurement
  • May broaden scope to aid application in non-acute settings (eg residential care)
  • Headings may fall in under the 8 themes of the National Standards for Safer Better Healthcare
Overall Conclusions

• The Authority has an established and expanding programme of regulatory activity in the area of infection prevention and control and antimicrobial stewardship

• We are interested in the systems of care provided, and this requires a broad look at what’s happening across an organisation, but especially at the top
  • What are patients experiencing?
  • How do middle managers ensure best practice is enacted?
  • How do senior managers assure themselves that quality and safety is optimal?
Aongus Collins. The Irish Times, Health Lifestyle, March 31 2015