



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced inspection at South Tipperary General Hospital, Clonmel

Monitoring programme for unannounced inspections undertaken
against the National Standards for the Prevention and Control of
Healthcare Associated Infections

Date of on-site inspection: 6 February 2015

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 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

The Health Information and Quality Authority (the Authority) carries out unannounced inspections in public acute hospitals in Ireland to monitor compliance with the *National Standards for the Prevention and Control of Healthcare Associated Infections*.¹ The inspection approach taken by the Authority is outlined in guidance available on the Authority's website, www.hiqa.ie – *Guide: Monitoring Programme for unannounced inspections undertaken against the National Standards for the Prevention and Control of Healthcare Associated Infections*.²

The purpose of the unannounced inspection is to assess hygiene as experienced by patients at any given time. It focuses specifically on the observation of the day-to-day delivery of hygiene services, in particular environmental and hand hygiene under the following standards:

- Standard 3: Environment and facilities management
- Standard 6: Hand hygiene.

Other Standards may be observed and reported on if concerns arise during the course of an inspection. It is important to note that the Standards are not assessed in their entirety during an unannounced inspection and therefore findings reported are related to a particular criterion within a Standard which was observed during an inspection. The Authority uses hygiene observation tools to gather information about the cleanliness of the environment and equipment as well as monitoring hand hygiene practice in one to three clinical areas depending on the size of the hospital. The Authority's approach to an unannounced inspection against these Standards includes provision for re-inspection within six weeks if standards on the day of inspection are poor. This aims to drive improvement between inspections. In addition, in 2015, unannounced inspections will aim to identify progress made at each hospital since the previous unannounced inspection conducted in 2014.

An unannounced inspection was carried out at South Tipperary General Hospital on 6 February 2015 by Authorised Persons from the Authority, Alice Doherty, Katrina Sugrue, Leanne Crowe and Shane Grogan between 09:10hrs and 14.10hrs. The areas assessed were:

- The **Day Ward** which has 14 bays and is used for surgical day cases.
- The **Theatre Department** which has three theatres and a recovery area.

In addition, Medical One (St Monica's Ward), which was inspected during an unannounced inspection by the Authority on 10 July 2014, was re-visited to assess the level of progress which had been made after the 2014 inspection.

The Authority would like to acknowledge the cooperation of staff with this unannounced inspection.

2. South Tipperary General Hospital Profile[‡]

South Tipperary General Hospital was established in 2007 as a result of the amalgamation of Our Lady's Hospital Cashel and St. Joseph's General Hospital, Clonmel. It is a Level III Acute General Hospital which provides the following services: 24/7 Emergency Department (ED), Acute Medical Assessment Unit (AMAU), General Medicine, General Surgery, ICU, CCU, Obstetrics/Gynaecology, Paediatrics, Day Case Oncology and Outpatient Services.

Activity Statistics for 2014 include the following:

37,887 ED presentations resulting in 28,903 ED attendances, 4,431 Obstetrics/Gynaecology attendances and 4,553 Paediatric attendances, ED Admission rate for 2014: 24.67%.

Inpatient Discharges 12,957, an increase of 5% on 2013 - increase attributable to unscheduled care and increased activity in general medicine.

Average Length of Stay (AvLOS) for General Medicine including AMAU - 5.21 days, and for Surgery - 3.93 days.

Births 2014: 1097, a reduction on 2013 (9%).

Day Cases (excluding Oncology) 2014: 6,294, an increase of 20%.

Outpatients: 44,691 (Consultant/Clinical Nurse Specialist/Health and Social Care Professional Led Clinics), with a New: Return Ratio of 2.5:1.

3. Findings

This report outlines the Authority's overall assessment in relation to the inspection, and includes key findings of relevance. A list of additional low-level findings relating to non-compliance with the standards has been provided to the hospital for completion. However, the overall nature of all of the findings are fully summarised within this report.

The report is structured as follows:

- **Section 3.1** outlines the level of progress made by Medical One (St Monica's Ward) after the unannounced inspection on 10 July 2014.
- **Section 3.2** presents the key findings of the unannounced inspection on 6 February 2015.
- **Section 3.3** describes the key findings relating to hand hygiene under the headings of the five key elements of the World Health Organization (WHO)

[‡] The hospital profile information contained in this section has been provided to the Authority by the hospital, and has not been verified by the Authority.

multimodal improvement strategy³ during the unannounced inspection on 6 February 2015.

3.1 Progress since the last unannounced inspection on 10 July 2014

During an unannounced inspection at South Tipperary General Hospital on 10 July 2014, the Authority identified that while environmental hygiene levels in the Intensive Care Unit and Coronary Care Unit were generally good, improvements were required in the maintenance and management of the environment on Medical One. As a result, the 2015 unannounced inspection placed a particular focus on progress achieved on this ward relative to 2014.

On re-inspection of Medical One in 2015, the Authority was informed by the Ward Manager that increased resources for household staff were provided several days each week following the 2014 inspection. The dual role of support staff who are responsible for cleaning and catering was a concern to the Authority in 2014. This practice is still in place on the ward but the Authority was informed by the General Manager that this is due to be addressed shortly. The Ward Manager on Medical One has become an environmental hygiene champion since the 2014 inspection and the Authority was informed that there has been a significant improvement in hand hygiene practices on the ward. Some mattresses on the ward have been replaced, and the Authority was informed that the Tissue Viability Nurse plans to conduct mattress audits on the ward. However, some issues are still outstanding since the 2014 inspection. While the 'dirty'[±] utility room has not yet been refurbished, this issue has been placed on the risk register and the General Manager stated that the work will be carried out. Further work is also required in sanitary facilities. The Authority acknowledges that the hospital has taken on board the recommendations of the 2014 unannounced inspection and is working towards improving the general facilities and clinical environments in other wards.

3.2 Key findings of the unannounced inspection on 6 February 2015

Unsafe injection practices

Unsafe injection practices and medication management in the Theatre Department were deemed to present a high risk to the health or welfare of patients and required mitigation measures to be implemented. Both the Theatre Manager and the General Manager were informed of the findings at the time of the inspection. Details of these findings are further outlined below.

During inspection of the anaesthetic room in Theatre 2, the Authority observed a number of syringes containing reconstituted intravenous medication, insufficiently

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

labelled and stored in an uncovered tray in a refrigerator. The date of preparation recorded on the label was 23 January 2015, two weeks prior to the unannounced inspection. It was explained to the Authority that these medicines had been reconstituted in situ in the Theatre Department rather than in a sterile aseptic compounding unit. Medicines reconstituted in this way should be administered immediately, as delay in administration increases the risk of microbiological contamination and therefore transmission of infection to patients. An unlabelled fluid warmer had also been pre-prepared on the unit. It was suggested this may have been used for training purposes but this could not be confirmed at the time of the inspection. It is of concern to the Authority that the practice of leaving compounded medication sitting in an unprotected injection tray for an undetermined timeframe has the potential to significantly increase the risk of transmission of infectious pathogens to patients. Intravenous medications should be prepared in a clean environment using aseptic techniques and should be administered immediately where possible. Assurances could not be provided that the integrity and sterility of these medications were maintained from compounding to administration. The Authority recommends that the hospital reviews the practice relating to the preparation and administration of intravenous medication, particularly relating to anaesthetic medication, to assure itself that the potential risks to patients in this regard are fully mitigated.

Patient equipment

Patient equipment on the Day Ward and in the Theatre Department was generally clean and well maintained. However, on a patient bed inspected on the Day Ward it was noted that the casing adjacent to the oxygen cylinder was damaged, hindering effective cleaning. The Authority was informed that this matter was identified by the Ward Manager some time ago and an assessment of the costs required to carry out the necessary repairs was undertaken but repairs were not carried out. In the Theatre Department, red staining was visible on the underside of the lower shelf on two dressing trolleys in the 'prep room'.

Patient environment

The Day Ward was generally clean and well maintained. The Authority was informed that the floors were re-sealed recently and the Ward Manager has requested that paintwork be 'touched up'. The Theatre Department was also generally clean and well maintained, however, unacceptable varying levels of dust were observed on floor edges and corners, on door frames and skirting boards, and above wall mounted storage units in the 'prep room'. The dust levels in the 'prep room' was of particular concern as this room is used to prepare sterile instruments prior to surgery.

Outbreak management

The Authority was informed that there was a norovirus outbreak on two adjacent wards at the time of the inspection. Inspectors unknowingly walked onto one of the wards during the inspection as one of the doors to the ward was partially open and the sign advising that there was an outbreak had fallen to the floor and was therefore not visible. Individuals other than essential healthcare workers were observed on the ward. The Authority was informed by a staff member that restricting visitors was difficult and the door leading into the ward had to be closed on several occasions on the morning of the inspection. It was explained to the Authority by the General Manager that the individuals observed on the ward were visiting medical students. The decision had been made to allow the students access to the restricted areas to facilitate learning for the students in an outbreak situation. The Authority has concerns regarding this practice as evidenced-based guidance on outbreak management recommends the limitation of movement of staff and patients as an important control measure.⁴ While the Authority acknowledges that other important control measures were in place in the hospital, it is recommended that the limitation of movement of staff during an outbreak should be reviewed.

Endoscopy

The Authority was informed that a limited number of endoscopes are stored in Theatre Department at the request of the surgeons operating in the department. The endoscopes are cleaned by trained staff in a dedicated room within the Theatre Department. It was observed by the Authority that the relative size of the room used results in potential difficulty in ensuring reliability in the required segregation of 'dirty' and 'clean' activities in accordance with best practice.⁵ For example, it was explained to inspectors that a unidirectional work flow from dirty to clean areas is used during the reprocessing of scopes to reduce the risk of scope contamination during cleaning. However, the space restrictions observed in the unit indicated that reprocessed scopes need to travel through a designated 'dirty' area post-cleaning, prior to placement in a drying location, which is not in line with best practice. It was also observed that the entrance to this room was not secure allowing unimpeded access to all theatre department staff.⁵

An Automated Endoscope Reprocessing Machine (AER) is a machine used to decontaminate endoscopes following manual cleaning and is contained in the same room as the sinks used for manual cleaning. There was extensive brown staining of the interior of the AER used in the unit, and brown liquid was pooled in the base of the machine. The Authority was informed that this was a recurring issue and is due to be addressed when the machine is next serviced.

It was explained to the Authority that unlike the practice in theatre, scopes used in the Day Ward are reprocessed by the Central Sterile Services Department, a newer

unit which is in compliance with Health Service Executive (HSE) guidelines. Given the difficulty presented by the relative size of the endoscope reprocessing area in theatre, the Authority recommends that the hospital reviews the ongoing necessity and suitability of this unit, especially given the presence of a larger and more modern facility elsewhere in the hospital.

Water flushing

It was noted that the cleaning checklist and water flushing records for a shower room on the Day Ward were not completed in the week prior to the inspection and were completed intermittently for two weeks in December 2014. The Authority was informed that this shower is not used frequently. The hospital needs to ensure that water flushing is carried out in accordance with hospital policy to minimise the risk of *Legionella* infection.

Waste management

At the beginning of the inspection an unlocked clinical risk waste disposal bin was left unattended on a public corridor leading to the Theatre Department. While the Authority was informed that the clinical risk waste was due to be collected, the bin was accessible to unauthorised persons at that time. It was also noted that the temporary closing mechanisms on some sharps bins in the Theatre Department were not activated and the ends of syringes were protruding through the opening of two sharps bins even though the sharps bins were not overfilled.

3.3 Key findings relating to hand hygiene

3.3.1 System change³: *ensuring that the necessary infrastructure is in place to allow healthcare workers to practice hand hygiene.*

- The design of some clinical hand wash sinks on the Day Ward and in the Theatre Department did not conform to Health Building Note 00-10 Part C: Sanitary assemblies.⁶

3.3.2 Training/education³: *providing regular training on the importance of hand hygiene, based on the 'My 5 Moments for Hand Hygiene' approach, and the correct procedures for handrubbing and handwashing, to all healthcare workers.*

- Overall, 81% of staff in South Tipperary General Hospital attended hand hygiene training in the two years prior to the inspection. All nurses on the Day Ward were up-to-date with training at the time of the inspection and over 91% of staff in the Theatre Department attended hand hygiene training in 2014.

3.3.3 Evaluation and feedback³: *monitoring hand hygiene practices and infrastructure, along with related perceptions and knowledge among health-care workers, while providing performance and results feedback to staff.*

National hand hygiene audit results

- South Tipperary General Hospital participates in the national hand hygiene audits which are published twice a year and achieved 90% compliance in Period 6.⁷ While compliance decreased in Period 7, it increased again in Period 8 to 89% which is just below the HSE's target of 90% for 2015.⁸

Period 1-7	Result
Period 1 March/April 2011	71.9%
Period 2 October/November 2011	72.9%
Period 3 May/June 2012	86.7%
Period 4 October/November 2012	84.3%
Period 5 May/June 2013	88.6%
Period 6 October/November 2013	90.0%
Period 7 May/June 2014	86.2%
Period 8 October/November 2014	89.0%

Source: Health Protection Surveillance Centre – national hand hygiene audit results.⁷

Local hand hygiene audit results

- The Day Ward was included in the national hand hygiene audit in May/June 2014 and achieved 93% compliance. Local audits have not been carried out on the ward since.
- Hand hygiene audits in the Theatre Department are carried out by an infection prevention and control link nurse. Compliances of 70% and 87% were achieved in audits carried out in May and July 2014 respectively.

Observation of hand hygiene opportunities

Authorised Persons observed hand hygiene opportunities using a small sample of staff in the inspected areas. This is intended to replicate the experience at the individual patient level over a short period of time. It is important to note that the results of the small sample observed is not statistically significant and therefore results on hand hygiene compliance do not represent all groups of staff across the

hospital as a whole. In addition results derived should not be used for the purpose of external benchmarking.

The underlying principles of observation during inspections are based on guidelines promoted by the WHO⁹ and the HSE.¹⁰ In addition, Authorised Persons may observe other important components of hand hygiene practices which are not reported in national hand hygiene audits but may be recorded as optional data. These include the duration, technique^γ and recognised barriers to good hand hygiene practice. These components of hand hygiene are only documented when they are clearly observed (uninterrupted and unobstructed) during an inspection. Such an approach aims to highlight areas where practice could be further enhanced beyond the dataset reported nationally.

The Authority observed six hand hygiene opportunities in total during the inspection. Hand hygiene opportunities observed comprised the following:

- three before touching a patient
- two after touching a patient
- one after touching patient surroundings.

Four out of the six hand hygiene opportunities were taken.

3.4.4 Reminders in the workplace³: *prompting and reminding healthcare workers about the importance of hand hygiene and about the appropriate indications and procedures for performing it.*

- Hand hygiene advisory posters were available, up-to-date, clean and appropriately displayed in the areas inspected at South Tipperary General Hospital.

3.4.5 Institutional safety climate³: *creating an environment and the perceptions that facilitate awareness-raising about patient safety issues while guaranteeing consideration of hand hygiene improvement as a high priority at all levels.*

- Compliance in the national hand hygiene audit at South Tipperary General Hospital at the end of 2014 was 89%. It is noted that four out of the seven areas included in this audit in October/November 2014 achieved a compliance of 90% or above. The hospital needs to continue to build on hand hygiene compliances achieved to date to ensure that good hand hygiene practice is improved and maintained in all areas.

^γ The inspectors observe if all areas of hands are washed or alcohol hand rub applied to cover all areas of hands.

4. Summary

Overall, the two areas inspected during the 2015 unannounced inspection were clean and well maintained. Moreover, progress had been made on Medical One Ward with respect to environmental hygiene compared to previous findings identified by the Authority during the unannounced inspection in 2014. Opportunities for improvement were identified in particular relating to medication and outbreak management and the processing of scopes in the Theatre Department.

The performance of South Tipperary General Hospital in the national hand hygiene audit in the second quarter of 2014 was just below the HSE's target of 90%. On the day of the inspection, the Authority observed a small sample size of hand hygiene opportunities in both the Day Ward and within the confines of the recovery setting in the Theatre Department. Based on the sample size, the compliance observed by the Authority cannot be considered a full reflection of hand hygiene practices in either area.

5. Next steps

South Tipperary General Hospital must now revise and amend its quality improvement plan (QIP) that prioritises the improvements necessary to fully comply with the Standards. This 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 this report and at that time, provide the Authority with details of the web link to the QIP.

It is the responsibility of South Tipperary General Hospital to formulate, resource and execute its QIP to completion. The Authority will continue to monitor the hospital's progress in implementing its QIP, as well as relevant outcome measurements and key performance indicators. Such an approach intends to assure the public that the hospital is implementing and meeting the Standards, and is making quality and safety improvements that safeguard patients.

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[‡] All online references were accessed at the time of preparing this report.

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