



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced inspection of Tallaght University Hospital.

Monitoring programme against the *National Standards for the prevention and control of healthcare-associated infections in acute healthcare services* during the COVID-19 pandemic

Date of inspection: 10 December 2020

About the Health Information and Quality Authority (HIQA)

The Health Information and Quality Authority (HIQA) is an independent statutory authority established to promote safety and quality in the provision of health and social care services for the benefit of the health and welfare of the public.

HIQA's mandate to date extends across a wide range of public, private and voluntary sector services. Reporting to the Minister for Health and engaging with the Minister for Children, Equality, Disability, Integration and Youth, HIQA has responsibility for the following:

- **Setting standards for health and social care services** — Developing person-centred standards and guidance, based on evidence and international best practice, for health and social care services in Ireland.
- **Regulating social care services** — The Chief Inspector within HIQA is responsible for registering and inspecting residential services for older people and people with a disability, and children's special care units.
- **Regulating health services** — Regulating medical exposure to ionising radiation.
- **Monitoring services** — Monitoring the safety and quality of health services and children's social services, and investigating as necessary serious concerns about the health and welfare of people who use these services.
- **Health technology assessment** — Evaluating the clinical and cost-effectiveness of health programmes, policies, medicines, medical equipment, diagnostic and surgical techniques, health promotion and protection activities, and providing advice to enable the best use of resources and the best outcomes for people who use our health service.
- **Health information** — Advising on the efficient and secure collection and sharing of health information, setting standards, evaluating information resources and publishing information on the delivery and performance of Ireland's health and social care services.
- **National Care Experience Programme** — Carrying out national service-user experience surveys across a range of health services, in conjunction with the Department of Health and the HSE.

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1.0 Information about this monitoring programme

Under the Health Act 2007, Section 8(1) (c) confers the Health Information and Quality Authority (HIQA) with statutory responsibility for monitoring the quality and safety of healthcare among other functions. In light of the ongoing COVID-19 pandemic, HIQA has developed a monitoring programme to assess compliance against the *National Standards for the prevention and control of healthcare-associated infections in acute healthcare services*¹ during the COVID-19 pandemic.

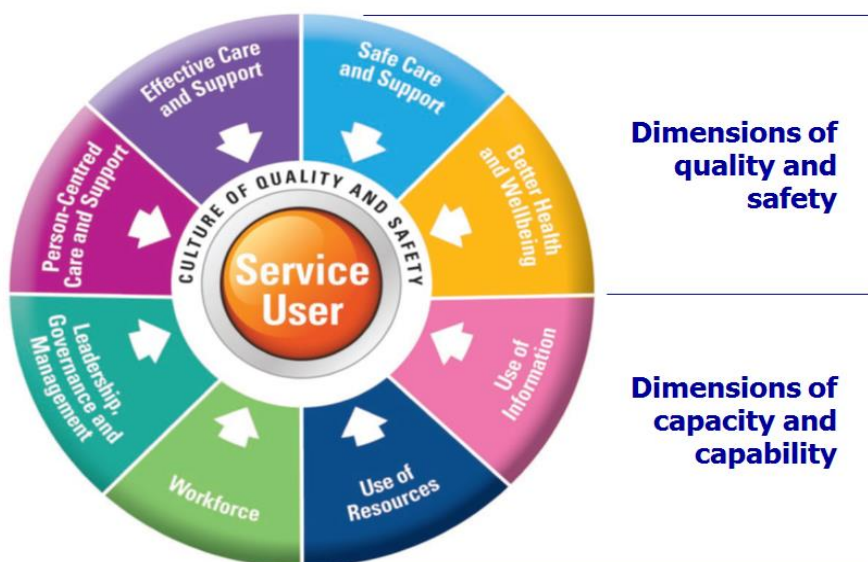
The national standards provide a framework for service providers to assess and improve the service they provide particularly during an outbreak of infection including COVID-19.

Inspection findings are grouped under the national standards dimensions of:

1. Quality and safety
2. Capacity and capability

Under each of these dimensions, the standards* are organised for ease of reporting.

Figure 1: National Standards for the prevention and control of healthcare-associated infections in acute healthcare services



* National Standards for the prevention and control of healthcare-associated infections in acute healthcare services

Report structure

The lines of enquiry for this monitoring programme of infection prevention and control in acute healthcare services will focus on six specific national standards within four of the eight themes of the standards, spanning both the capacity and capability and quality and safety dimensions.

This monitoring programme assesses acute healthcare services' **capacity and capability** through the following standards:

Capacity and Capability	
Theme	Standard
5: Leadership, Governance and Management	Standard 5.3: Service providers have formalised governance arrangements in place to ensure the delivery of safe and effective infection prevention and control across the service
6: Workforce	Standard 6.1: Service providers plan, organise and manage their workforce to meet the services' infection prevention and control needs.

HIQA also assesses acute healthcare services' provision under the dimensions of **quality and safety** through the following standards:

Quality and Safety	
Theme	Standard
2: Effective Care & Support	<p>Standard 2.6: Healthcare is provided in a clean and safe physical environment that minimises the risk of transmitting a healthcare-associated infection.</p> <p>Standard 2.7 Equipment is cleaned and maintained to minimise the risk of transmitting a healthcare-associated infection.</p>
3: Safe Care and Support	<p>Standard 3.1. Service providers integrate risk management practices into daily work routine to improve the prevention and control of healthcare-associated infections.</p> <p>Standard 3.8 Services have a system in place to manage and control infection outbreaks in a timely and effective manner.</p>

Judgment Descriptors

The inspection team have used an assessment judgment framework to guide them in assessing and judging a service's compliance with the National Standards. The assessment judgment framework guides service providers in their preparation for inspection and support inspectors to gather evidence when monitoring or assessing a service and to make judgments on compliance.

Following a review of the evidence gathered during the inspection a judgment has been made on how the service performed. The following judgment descriptors have been used:

Compliant	Substantially compliant	Partially compliant	Non-compliant
A judgment of compliant means that on the basis of this inspection, the service is in compliance with the relevant National Standards.	A judgment of substantially compliant means that the service met most of the requirements of the National Standards but some action is required to be fully compliant.	A judgment of partially compliant means that the service met some of the requirements of the relevant National Standard while other requirements were not met. These deficiencies, while not currently presenting significant risks, may present moderate risks which could lead to significant risks for patients over time if not addressed.	A judgment of non-compliant means that this inspection of the service has identified one or more findings which indicate that the relevant standard has not been met, and that this deficiency is such that it represents a significant risk to patients.

1.1 Hospital Profile

Tallaght University Hospital is a model 4 acute teaching hospital and is part of the Dublin Midland Hospital Group.[†] The hospital provides emergency, medical and surgical services for both adult and paediatric patients. The hospital has a number of specialties and is also a national urology centre and a regional orthopaedic trauma centre. The hospital had 432 inpatient beds at the time of the inspection.

1.2 Information about this inspection

This inspection report was completed following an unannounced inspection carried out by Authorised Persons, HIQA; Kay Sugrue, Bairbre Moynihan, Denise Lawler and Dolores Dempsey Ryan on 10 December 2020 between 09:00 hrs and 15:37 hrs.

HIQA's focus during this inspection included a detailed evaluation of how, on the day of the inspection, Tallaght University Hospital had acted to minimise the spread of healthcare-associated infections; with a particular focus on systems to prevent, detect and manage COVID-19. HIQA noted that the hospital had experienced 19 COVID-19 outbreaks from March to December 2020; five COVID-19 outbreaks at differing stages were ongoing at the time of the inspection. This report presents the findings on the day of inspection, inclusive of how outbreaks of infection were managed.

Inspectors spoke with hospital managers, staff, representatives from the Infection Prevention and Control Committee and patients. Inspectors also requested and reviewed documentation, data and observed practice within the clinical environment in a sample of clinical areas which included:

- Maguire Ward (non COVID-19 pathway)
- Ruttle Ward (COVID-19 pathway).

In addition, inspectors conducted a walkthrough of the Emergency Department.

HIQA would like to acknowledge the cooperation of the hospital management team and staff who facilitated and contributed to this inspection.

[†] Hospital groups: The hospitals in Ireland are organised into seven hospital groups. 1. Ireland East Hospital Group. 2. Dublin Midlands Hospital Group. 3. South/South West Hospital Group. 4. Saolta University Health Care Group. 5. University of Limerick Hospitals Group. 6. RCSI Hospitals Group. 7. Children's Health Ireland Hospital Group.

2.0 Inspection Findings

The following sections present the general findings of this unannounced inspection.

- Section 2.1 High risks identified during the unannounced inspection
- Section 2.2 Capacity and Capability
- Section 2.3 Quality and Safety

2.1 High risks identified during the unannounced inspection

HIQA identified several risks, which when assessed in the context of multiple COVID-19 outbreaks that were ongoing at the time of the inspection, did not provide assurance to the inspection team that measures implemented to address the identified risks were either entirely effective or sufficient.

Inspectors found that screening of patients for exposure risk to COVID-19 on arrival at the emergency department did not take place until registration. This was not in line with HSE guidelines² and presented a potential weakness to the rapid identification and streaming of patients into COVID-19 and non-COVID-19 pathways. In addition, controls in place in the emergency department to limit entry points, reduce entry to accompanying adults, ensure adequate cleaning resources and reduce risks associated with staff crossover were insufficient. These findings will be discussed further in the body of the report.

From a hospital-wide perspective, more stringent monitoring of compliance with infection prevention and control interventions and precautions was required to ensure consistent adherence to recommended precautions. The findings related to this high risk will be discussed in detail under the relevant standards.

This risk was escalated to the Chief Executive Officer (CEO) of the hospital and the CEO of the Dublin Midland Hospital's Group on 15 December 2020.

Response to high risks identified by HIQA

The response received from hospital management on 22 December indicated that it had taken action to address the findings identified by the inspection team. In its response, hospital management indicated that additional medical resources would be needed to facilitate a dedicated medical team to the COVID-19 pathway. A request for these resources would have to be approved at hospital group level. In the meantime, every effort would be made, where possible, to dedicate teams to COVID and non- COVID pathways.

Limited space in the emergency department was cited as a barrier to the implementation of pre-triage assessment of patients. Ways in which this could be

implemented, such as the utilisation of the Rapid Assessment Treatment Unit, were under review. The hospital also aimed to increase patient waiting areas in the department through the installation of pods.

The hospital had increased security levels at the entrance of the emergency department and also had security conduct patrols on the campus with a focus on the main entrance of the hospital. In addition, the importance of limiting accompanying adults to the emergency department was emphasised to the security staff.

A risk assessment was performed on the 15 December 2020 in response to issues identified in relation to compliance with hospital personal protective equipment (PPE) policy. Additional controls including appropriate cleaning was to be encouraged and education sessions were to be provided. This issue is discussed further under Standard 5.3.

The hospital expressed disappointment at the poor compliance observed relating to compliance with local uniform policy and isolation precautions. This was despite the measures already in place. Efforts would continue to improve compliance with hospital policy and national guidance.

2.2 Capacity and Capability

This section describes arrangements for the leadership, governance and management of the service at this hospital, and HIQA's evaluation of how effective these were in ensuring that a high quality safe service was being provided. It includes how the service provider is assured that there are effective governance structures and oversight arrangements in place for clear accountability, decision-making, and risk management and performance assurance. This includes how responsibility and accountability for infection prevention and control is integrated at all levels of the service. This is underpinned by effective communication among staff. Inspectors also reviewed how service providers plan, manage and organise their workforce to ensure enough staff are available at the right time with the right skills and expertise and have the necessary resources to meet the service's infection prevention and control needs.

Theme 5: Leadership, Governance and Management

Standard 5.3: Service providers have formalised governance arrangements in place to ensure the delivery of safe and effective infection prevention and control across the service

Judgment Standard 5.3: Partially compliant

- The composite findings observed by inspectors indicated that stronger oversight and a more coordinated approach to monitoring compliance with infection prevention and control practices was required and should be a focus of improvement following this inspection.
- Improved awareness of COVID-19 governance structure needed amongst all staff.
- Better oversight and coordination needed in occupational health service provided for screening and contact tracing of staff.
- Improved attendance by a consultant microbiologist at the Executive Management Team COVID Pandemic Steering Committee is needed.

Corporate and Clinical Governance

Inspectors found that long established governance and management arrangements for the prevention and control of healthcare-associated infection at the hospital were clearly understood and articulated by staff to inspectors. In these arrangements the Infection Prevention and Control Governance Committee reported to the Quality, Safety and Risk Management Executive Governance Committee and upwards to the Executive Management Committee.

The hospital had developed a COVID-19 governance and reporting structure to ensure appropriate oversight and management of the challenges posed by the pandemic (Appendix 1). The Executive Management Team COVID Pandemic Steering Committee met every two weeks and was responsible for ensuring communication of infection prevention and control updates on COVID-19 management to senior hospital management. Minutes reviewed of meetings held in March, April, October, November and up to the first of December 2020 indicated that consultant microbiology representation could be improved at these meetings.

A number of sub-groups reported into this steering committee, one of which was an operational group comprising the infection prevention and control and occupational health teams. This group met three times a week and was chaired by the Deputy CEO (who was also the chairperson of Infection Prevention and Control Governance Committee) and was attended by hospital senior managers. While senior managers were very clear on their roles and communication lines within the structures outlined, the inspection team were not fully assured that the same understanding

could be applied at all levels. Therefore, following on from this inspection better awareness amongst all staff relating to these COVID-19 governance structures was needed.

Documentation viewed showed that formal reports from the hospital to the Dublin Midlands Hospital Group were presented by senior management on a monthly basis. This had decreased from daily meetings held Monday to Friday in the earlier stage of the pandemic. Quarterly reports to the group on infection prevention and control data relating to surveillance, outbreaks, antimicrobial stewardship and infection prevention and control audits were evident in reports viewed by inspectors.

During discussions with hospital management and staff, differing views on occupational health resources and services provided for screening and contact tracing of staff due to outbreaks were identified. Further clarification on this issue was sought by inspectors. While hospital management indicated that there were sufficient resources available which had been supplemented by vulnerable staff cocooning at home, members of the infection prevention and control team indicated that improvements were required. Inspectors were informed that the service would benefit from a screening coordinator.

While it was clear from staff engagement with inspectors that regular meetings between the infection prevention and control team, the occupational health team and senior management occurred, inspectors found that improvements were required. This should be a focus of improvement particularly in the context of several outbreaks ongoing in the hospital at the time of the inspection and rising COVID-19 cases presenting to the hospital. Correspondence provided to inspectors following this inspection indicated that a screening coordinator was now in place.

A multidisciplinary outbreak control committee was in place to manage multiple outbreaks ongoing at the time of the inspection and met on a weekly basis.

Hospital and emergency department capacity

Intensive care facilities were divided into COVID-19 and non-COVID-19 streams with higher bed capacity located in the general intensive care unit. The location of the COVID-19 intensive care unit could be switched to the general intensive care unit if demands on beds increased. Hospital management informed inspectors that agreements were in place with private hospitals to provide additional off site intensive care capacity if required.

Inspectors were informed that elective outpatient activity was continued. Virtual clinics were used to reduce the need for face-to-face attendances.

Some of the radiology service was moved to a community facility off site to reduce the foot fall to the hospital. In addition, the Oncology Day Ward was also moved off site.

The lack of isolation facilities with ventilation systems designed to minimise the spread of infection by the airborne route remained an ongoing issue at the hospital at the time of the inspection. This issue was highlighted during the 2019 HIQA inspection.³ Contingency arrangements were in place to transfer patients requiring airborne isolation to another appropriate facility.

Additional waiting room capacity was provided in the emergency department during the first phase of the pandemic by a paediatric pod left vacant when the paediatric hospital had decanted to another site. The hospital still had access to this pod. Single rooms (26) available to the hospital due to this move at the onset of the pandemic had reverted back to Children's Health Ireland at the end of August 2020. The Acute Surgical Assessment Unit had moved from the emergency department to create more space there. Additional intensive care capacity was created using theatre facilities. The hospital also conducted a review of bed spaces in multioccupancy rooms to ensure compliance with public health physical distancing requirements.

Contingency for additional capacity should the need arise would be provided through the reduction in scheduled surgery.

Monitoring, Audit and Quality assurance arrangements

Tallaght University Hospital had an established infection surveillance programme. The infection prevention and control surveillance programme included surveillance of:

- 'alert' organisms and 'alert' conditions[‡]
- multidrug-resistant organisms
- hospital-acquired *Staphylococcus aureus* bloodstream infection
- hospital-acquired *Clostridioides difficile* infection
- catheter-related bloodstream infection (CRBSI)[§] in the Intensive Care Unit

[‡] Alert conditions include physical symptoms such as skin rashes, vomiting, diarrhoea, respiratory illness that could be due to an infectious illness

[§] Catheter-related bloodstream infection (CRBSI) is defined as the presence of bacteraemia originating from an intravenous catheter.

- data reported to the European Antimicrobial Resistant Surveillance Network (EARS-Net).**

The hospital had implemented a targeted action plan to address increased rates of *Staphylococcus aureus* bloodstream infection which were consistently above national targets. Documentation viewed indicated that much work had been done to lower the rate of these infections with more to do.

The hospital had a system of audit in place to monitor compliance with infection prevention and control practices. Separate audits were undertaken by multidisciplinary teams, members of the infection prevention and control team and ward managers. The infection prevention and control team had devised a COVID-19 audit tool at the onset of the pandemic. Reports showed that 24 of these audits had been completed at the hospital between May and November 2020. Audit results from quarter two and three of 2020 showed better compliance was needed relating to infection prevention and control practices. However, COVID-19 audits conducted in October and November showed greater than 85% compliance was achieved in all nine areas audited which was a significant improvement from those audits completed between May and September 2020.

A project to implement a clinical surveillance software system was underway at the hospital. Notwithstanding some delays experienced due to the pandemic, inspectors were informed that full implementation was expected towards the end of February or early March 2021. This surveillance platform should further support the infection prevention and control team in the surveillance of multi-drug resistant organisms and outbreak management.

Antimicrobial Stewardship Programme

The hospital had an antimicrobial stewardship programme in place implemented by the antimicrobial stewardship team. Weekly antimicrobial stewardship team reviews of the designated COVID-19 ward were conducted. Reports reviewed by inspectors demonstrated regular reporting of antimicrobial consumption rates, monitoring of adherence to restrictive prescribing guidelines and appropriate usage of antimicrobials.

** EARS-Net performs surveillance of antimicrobial susceptibility of bacteria causing infections in humans including; *Escherichia coli*, *Klebsiella pneumoniae*, *Pseudomonas aeruginosa*, *Acinetobacter* species, *Streptococcus pneumoniae*, *Staphylococcus aureus*, *Enterococcus faecalis* and *Enterococcus faecium*.

Policies, Procedures and Guidelines

A suite of infection prevention and control policies procedures and guidelines were in place, which were ratified by the executive management team. The hospital had a contingency plan for COVID-19 in place.

Inspectors found that the hospital had implemented the use of eye protection in the form of re-usable goggles as a universal precaution for all staff when in face to face engagement within one metre from a suspected or confirmed COVID-19 case. Hospital guidance provided to inspectors for review was dated 14 April 2020 and did not reflect updated national public health guidance. The hospital informed inspectors that this decision was taken to provide additional protection to staff from acquiring COVID-19 from unsuspected cases. Hospital management acknowledged this policy was outside national guidelines.⁴ The hospital's PPE policy did not document that eye protection should be worn in other circumstances outside the local one metre rule.

Inspectors visited both COVID-19 and non-COVID-19 wards and found that the application of this policy was inconsistently applied in areas inspected with practices differing in both wards assessed. In addition, a member of staff was observed by an inspector wearing goggles in a non-clinical area where there was no patient engagement seen. Inconsistencies with the application of this policy were also identified by the hospital as an ongoing issue and reported in minutes reviewed by inspectors.

HIQA recommends adherence to national guidelines which recommends that an individual risk-based approach is taken to determine the PPE required for the task to be performed prior to delivering care. The decision to go beyond national recommended PPE guidance rests with the hospital however, in so doing, the hospital needs to provide better assurances on adherence to local policy. Failure to adequately clean and appropriately store assigned reusable goggles between use has the potential to contribute to transmission of infection. Therefore, increased hospital-wide vigilance and monitoring is required to ensure a high level of compliance is maintained.

Influenza Vaccination

An influenza vaccination programme was underway at the hospital. Inspectors were informed that 80% or more staff had received the vaccine. This uptake is commendable and indicated that the hospital had already met the 2020 national target of 75%.⁵

Quality Improvement Plan (QIP)

The hospital had developed a quality improvement plan following the 2019 HIQA inspection.³ By the 27 April 2020 86% of actionable items had been completed with seven ongoing. Much of the ongoing actions related to refurbishment of sluice rooms to resolve the issue relating to bedpan washers and macerators.

Theme 6: Workforce

Standard 6.1: Service providers plan, organise and manage their workforce to meet the services' infection prevention and control needs.

Judgment Standard 6.1: Substantially compliant

- Infection prevention and control nurse vacancy should be filled as a priority in light of the significant challenges faced by the team on a day-to-day basis.
- PPE training delivered to staff who had patient contact was relatively low and needs to improve.
- Fit testing for clinical staff likely to undertake procedures that involve or may involve the generation of aerosols should be progressed.

The infection prevention and control team comprised;

- 2.6 whole time equivalent (WTE)^{††} consultant microbiologists
- Two WTE non-consultant hospital doctors (NCHDs) in microbiology
- 5.6 WTE infection prevention and control nurses approved but 4.6 WTE in place with one WTE infection prevention and control clinical nurse manager due to be filled in January 2021
- one WTE antimicrobial pharmacist
- one WTE surveillance scientist
- one infection control administrative support
- a consultant infectious diseases physician had been recently approved with recruitment in progress.

Demands placed on the infection prevention and control team increased substantially as a result of the pandemic. This necessitated members of the team to work additional hours from February to April 2020 and also required resources allocated to be supplemented. Supplemented resources to the IPC team included a clinical nurse manager two (18 March to the 12 June 2020) and the temporary re-assignment of

^{††} Whole-time equivalent (WTE): allows part-time workers' working hours to be standardised against those working full-time. For example, the standardised figure is 1.0, which refers to a full-time worker. 0.5 refers to an employee that works half full-time hours.

an infection prevention control nurse from the implementation of the clinical surveillance software system project. During the first phase of the pandemic, infection prevention and control resources were supplemented to the level of 7.6 WTE which had reduced to 4.6 WTE at the time of the inspection. This was due in part to a recent retirement. Temporary re-deployment to the team was inconsistent. For example, the week prior to the inspection, the team received additional support for two days but had not received any additional support during the week of the inspection. This was despite increased demands placed on the resources at the time. Restoring infection prevention and control team resources to its full complement should be a priority following on from this inspection especially in light of the significant challenges faced by the team on a day-to-day basis.

Inspectors were informed that there were 86 PPE champions trained within the hospital with two champions in each ward. Members of the Executive Management Team were also trained as PPE champions.

Infection Prevention and Control Education

It was mandatory for all staff to complete hand hygiene training at the hospital on a two yearly basis. Staff who had contact with patients were also mandated to complete the HSE eLearning module "Breaking the chain of infection" every two years. The hospital hand hygiene improvement strategy indicated that from 2021 it would be mandatory for all staff to complete PPE training every two years.

Training records showed that;

- 88% of staff had completed hand hygiene training between November 2018 and November 2020.
- 1146 out of 2492 (46%) staff who had contact with patients had completed PPE training either through face to face sessions (814) or by video (332) between November 2019 and November 2020.
- 1610 (65%) had completed "Breaking the chain of infection" form November 2018 to November 2020.

The above records indicate that PPE training for staff who had contact with patients needed to improve. This is of particular relevance when considered in the context of observations made by inspectors during the inspection, ongoing outbreaks and poor compliance demonstrated in recent infection prevention and control audits on outbreak wards.

Inspectors were informed that the 165 clinical staff likely to undertake procedures that involve or may involve the generation of aerosols (aerosol generating procedures (APGs)) within the emergency department and intensive care unit were

trained to carry out FFP2 facemasks^{††} fit checks. It is planned that a programme of fit testing^{§§} will be introduced once a consistent supply of FFP2 facemasks have been stabilised.

2.3 Quality and Safety

This section looks at how acute healthcare services ensure that infection prevention and control outbreak/s including COVID-19, are managed to protect people using the healthcare service. This includes how the services identify any work practice, equipment and environmental risks and put in place protective measures to address the risk, particularly during a pandemic.

It also focuses on how these services ensure that staff adhere to infection prevention control best practice and antimicrobial stewardship to achieve best possible outcomes for people during the ongoing COVID-19 pandemic.

Theme 2: Effective Care and Support

Standard 2.6: Healthcare is provided in a clean and safe physical environment that minimises the risk of transmitting a healthcare-associated infection.

Judgment Standard 2.6: Non-compliant

- Measures to prevent crossover of staff between COVID-19 and non-COVID-19 streams was not in place in the emergency department.
- Pre-triage patient assessment for streaming into COVID-19 and non COVID-19 pathways was not in place in the emergency department.
- Designated COVID-19 resuscitation bays were not functionally separated from non-COVID -19 resuscitation bays which potentially increased the risk of transmission of infection due to aerosol generating procedures undertaken there.
- Insufficient cleaning resources were allocated in the emergency department to maintain appropriate levels of cleanliness and decontamination particularly in patient waiting areas.
- Doors to three isolation rooms were open on Maguire Ward.
- Traffic control into the hospital and emergency department required improvement.

^{††} An FFP2 facemask is recommended for patients with respiratory symptoms or suspected or confirmed COVID-19 who require an aerosol generating procedure.

^{§§} Tight-fitting facemasks rely on having a good seal with the wearer's face. In order to be effective the mask must fit tightly to the wearers face, fit testing should be undertaken by a trained professional.

Maguire and Ruttle wards were assessed by inspectors. In addition, inspectors conducted a walkthrough of the emergency department. Staff were observed to maintain physical distancing in areas inspected, communal areas and corridors and walkways. PPE was available at the point of care and in all but two exceptions was observed to be applied appropriately. COVID-19 related signage was evident and clearly displayed in areas visited and inspected. Daily safety huddles were undertaken on clinical areas inspected.

A manned security desk was in place at the main entrance to the hospital, however inspectors observed that there was potential to improve the restriction of visitors at this point of entry. Traffic control into the hospital had been identified by the hospital prior to the inspection as an ongoing challenge and documented in minutes of meetings reviewed by inspectors. As indicated by the hospital's response in section 2.1, additional measures have since been implemented to address this finding.

Emergency Department environment and infrastructure

Tallaght University Hospital Emergency Department was divided into two zones. Zone 1 was dedicated for the management of acute patients and was comprised of both COVID-19 and non-COVID-19 pathways. Zone 2 was dedicated for the management of ambulatory patients.

In Zone 1, there were 18 cubicles, five resuscitation bays and three isolation rooms. One of the isolation rooms had an ante room with a negative pressure ventilation system and two of the rooms had ensuite toilet facilities. Eight cubicles were allocated to the COVID-19 pathway and were segregated from the rest of the department. Patient toilet facilities within the department were described by staff as insufficient to meet the 180+ average presentations to the department each day.

The main entrance to the department was manned by security personnel 24 hours each day, the aim of which was to restrict entry to accompanying adults (except in exceptional circumstances), ensure masks were applied and hand hygiene was completed prior to entering the department. As previously identified in section 2.1, this control measure was not always successful. Inspectors observed accompanying adults in the waiting area during the visit. On seeking further clarification, inspectors were informed that staff working in the department could be faced with challenging behaviour and resistance to complying with entry restrictions by patients and their accompanying relatives. Senior management described this issue as an ongoing challenge which sometimes required additional assistance in securing this entry point.

Inspectors were informed that ambulance staff entered directly to the emergency department. However, if there was a patient with suspected COVID-19, a member of the ambulance team would inform a member of staff who would then risk assess the patient.

The absence of patient streaming into COVID-19 and non COVID-19 pathways pre-registration meant that patients waiting to be registered could inadvertently be exposed to COVID-19 infection. Hospital management informed inspectors that every effort was made to fast track patients through registration to triage where streaming occurred. However, it was agreed that conditions in the emergency department were not always ideal and some delays could occur if and when presentations increased.

The emergency department waiting areas was divided into 24 pods. Patients had access to three toilets. Inspectors identified that there were insufficient cleaning resources allocated to the department in general and this was identified as a notable deficiency in the patient waiting area. Inspectors observed one patient leave a pod which was rapidly taken up by the next patient without the pod being cleaned between use. Staff informed inspectors that the patient waiting area was cleaned every "one to two hours" providing little assurance that these pods were cleaned between each patient use.

The resuscitation room within the department was divided into five cubicles which shared the same ventilation system. The hospital had identified this as a risk in the context of aerosol generating procedures which were undertaken on a day-to-day basis. A risk assessment had been completed and a report was due which aimed to determine if two of the cubicles could be functionally separated. Functional separation if enabled would separate the resuscitation bays into COVID-19 and non COVID-19 streams and provide added protection to staff and patients.

In addition to the lack of a dedicated medical team for the management of COVID-19 patients, cleaning resources were shared across the emergency department which was far from ideal. Cross over of staff between COVID-19 and non-COVID-19 pathways should be limited where possible and should be a focus of improvement following this inspection.

Ruttle Ward

Ruttle Ward was dedicated to the care of COVID-19 patients. The ward comprised 31 beds and had seven single rooms all of which had ensuite toilet and shower facilities. The ward was found to be generally clean with some exceptions. For example, heavy dust was observed on air vents assessed. There was evidence of wear and tear observed throughout the ward such as chipped paintwork and damage to walls and doors. This finding was accepted by ward management and

inspectors were informed that these issues had been highlighted to facilities maintenance.

Both plain soap and antimicrobial soaps were located at hand hygiene sinks. This should be reviewed in line with national guidelines⁴ recommendations that plain soap be used for the mechanical removal of microorganisms when hands are visibly soiled. The use of antimicrobial soap is not recommended in circumstances when alcohol hand rub is available for hand hygiene.

At the time of the inspection, the ward was experiencing an outbreak of COVID-19 which had been declared on 23 October 2020. The inspector was informed that prior to declaring the outbreak, two bays and single rooms were allocated to patients in the COVID-19 stream, however following identification of the outbreak, the whole ward became dedicated to the care of COVID-19 patients on 25 October. To ensure physical distancing was maintained, occupancy in six bedded rooms used for cohorting patients confirmed with COVID-19 was reduced to four.

A COVID-19 audit undertaken on 2 November 2020 by the infection prevention and control team showed 96% compliance was achieved by the ward. Findings were in line with the inspection. Overall, the inspector was satisfied that there were appropriate systems in place to manage the outbreak. Outbreak management will be discussed further under Standard 3.8.

Maguire Ward

Maguire ward comprised 30 single rooms with ensuite facilities plus two four-bedded multi-occupancy rooms, each of which also had ensuite facilities.

Inspectors found that overall, the ward was clean with few exceptions. There was scope to improve the cleaning of hand hygiene dispensers and trays. Inappropriate storage of supplies on the floor of an ante room was observed and suboptimal cleaning of this room was also evident. Inspectors were informed that the cleaning supervisor provided oversight of cleaning schedules and visited the ward daily.

Similar to Ruttle Ward, there was some evidence of wear and tear noted on bed frames, bed lockers, bed tables, the wheels of dressing trolleys and floor covering. Surfaces that are cracked, chipped or otherwise damaged have the potential to impact on the standard of cleaning that can be achieved. Ward management informed inspectors that maintenance issues were reported to facilities maintenance.

Inspectors observed that physical distancing was maintained between patient bed spaces in multi-occupancy rooms.

Doors to three isolation rooms in use for patients requiring contact precautions were observed to be open at the time of the inspection. This issue was addressed at the

time of the inspection. COVID-19 audits conducted in September and October 2020 demonstrated 82% and 91% compliance was achieved respectively.

Standard 2.7 Equipment is cleaned and maintained to minimise the risk of transmitting a healthcare-associated infection.

Judgment Standard 2.7: Partially compliant

- The overall management of patient equipment needs to improve to ensure sufficient supplies of dedicated patient equipment is available and prioritised for dedicated COVID-19 and isolation ward.
- Compliance with patient equipment audits conducted in 2020 was poor and needs to improve.

Overall, inspectors found that patient equipment was clean on both clinical areas inspected with few exceptions. Patient equipment on Maguire ward was generally clean however one out of the three commodes assessed on Ruttle Ward was unclean.

Disposable blood pressure cuffs were in use in both areas inspected. However, there was a lack of patient monitoring equipment noted by the inspector on Ruttle Ward. There were two mobile units for patient monitoring shared between seven single rooms. This was a finding similar to observations made in a recent infection prevention and control audit discussed below. Hospital management informed the inspector that additional equipment had been received but this was not evident at the time of the inspection. In general, equipment observed was clean on the ward. Equipment was observed to be stored appropriately.

Patient equipment Audits

Patient equipment audit results reviewed by inspectors for 2019 and 2020 indicated that there was scope to significantly improve the management of patient equipment in the majority of clinical areas. For example, audit results provided for 2019 demonstrated an average compliance of 70.5% for 18 clinical areas audited. Only two wards achieved 85% or above. Results of audits completed in 2020 did not demonstrate improvement but rather a decline in the overall average compliance rates achieved. A 60% overall compliance was achieved in the seven clinical areas audited with one ward achieving 25% compliance. These results were overall very poor particularly when considered in the context of the pandemic and the number of outbreaks experienced by the hospital in 2020.

Theme 3: Safe Care and Support

Standard 3.1. Service providers integrate risk management practices into daily work routine to improve the prevention and control of healthcare-associated infections.

Judgment Standard 3.1: Substantially compliant

- More assurance is required to ensure that the Infection Prevention and Control Governance Committee retain oversight and receive regular updates as to the progress of infection prevention and control-related risks entered on other hospital wide risk registers.

Risk Management

The hospital had systems in place to identify and manage risks in relation to the prevention and control of healthcare-associated infection risks and clinical incidents were discussed as a standard agenda item at the Quality, Safety and Risk Management Executive Governance Committee meetings held monthly.

Documentation provided on wards assessed demonstrated that risk assessments were performed following reported incidents. Following one such incident, the risk of COVID-19 transmission to staff and patients was assessed resulting in the implementation of additional controls which included increases to staffing resources on the night duty shift, extra equipment and waste bins.

The hospital had a dedicated infection prevention and control risk register with evidence that it was regularly and recently reviewed by the infection control team. Inspectors noted that the risks outlined below were on the risk register for between three to seven years with limited progress made in fully addressing these risks.

There were four IPC risks on the risk register up to 16 November 2020, these were:

- risk of infection from invasive devices (created on 01/10/2013, an action plan was in place)
- lack of respiratory protection coordinator (created on 09/01/2017)
- no in-house testing for norovirus created on (01/10/2013)
- risk of infection from prosthetic joint infection created on (01/10/2013).

Inspectors noted that other risks (five in total) that had been on the infection prevention and control risk register were transferred to other directorates or

departments to address. These included risks related to insufficient operative sampling, dedicated single use equipment, shortage of single rooms, inadequate functions of bed pan washer/macerators and poor integrity of chair and mattress coverings. Although now the responsibility of other departments, the risks as outlined remain infection prevention and control risks which have the potential to impact on the effectiveness on aspects of the infection prevention and control programme.

Documentation reviewed by inspectors indicated that insufficient single rooms was recorded as a risk on the Executive Management Team (EMT) risk register and had been discussed as a standard agenda item at the Quality, Safety and Risk Management Executive Governance Committee held on 28 October 2020. The minutes of this meeting noted that this risk had been escalated to the HSE and the Dublin Hospitals Midland Group in light of increasing demands on isolation facilities due to the pandemic. This risk was also on the EMT risk register at the time of the last inspection in 2019.

Hospital management informed inspectors there were 59 risks on the EMT risk register, nine of which were related to COVID-19. Included in these risks was the lack of intensive care capacity and less than optimal infrastructure. Inspectors were informed that a new build due to be commenced would increase the current intensive care capacity from 12 to 22 beds and was due to be completed by the end of April 2022.

Similar to the findings of the HIQA inspection in 2019, inspectors found that assurances were required to ensure that Infection Prevention and Control Governance Committee retain oversight and receive regular updates as to the progress of infection prevention and control-related risks entered on other hospital wide risk registers.

Incident Reporting

Ward staff informed inspectors that infection prevention and control related incidents were logged on the national incident management systems (NIMS)^{***} and were reported through hospital risk management structures. For example, hospital acquired COVID-19 were reported as incidents.

^{***} The State Claims Agency National Incident Management System is a risk management system that enables hospitals to report incidents in accordance with their statutory reporting obligation.

Standard 3.8 Services have a system in place to manage and control infection outbreaks in a timely and effective manner.

Judgment Standard 3.8: Partially compliant

- Poor compliance with infection prevention and control practices needs to improve significantly across the hospital.

Measures to Prevent and Control the Risk of COVID-19

In addition to the governance and leadership measures discussed in section 2.2, the hospital had implemented a range of measures as part of its COVID-19 preparedness plans. These included but were not limited to:

- Ward based medical teams introduced during the first phase of the pandemic proved difficult to maintain when other hospital services were re-established. A ward based respiratory team was designated to Ruttle Ward. Additional staff resources were provided to medical, laboratory, infection prevention and control, cleaning resources and hospital based contact tracing teams.
- Laboratory capacity (200 + tests per day in two runs, seven days a week) and rapid detection for SARS-CoV-2⁺⁺⁺ testing on molecular diagnostic platform (with one hour turnaround time) enabled improved flow for patients admitted through the emergency department and appropriate patient placement.
- SARS-CoV-2 surveillance testing for all patients on admission.
- Onsite staff screening for SARS-CoV-2 six days a week.
- A COVID-19 website was created as an information resource for staff on 29 January and was reviewed twice a week.
- A specific clinical audit tool for COVID-19 was devised.

The list of measures outlined above and as discussed in section 2.2 demonstrated that much work had been done by the hospital to prepare for COVID-19. Notable efforts were made to enhance resources needed to increase the hospital's testing capacity and support the infection prevention and control team in facing the unique challenges posed by SARS-CoV-2 virus.

Hospital surveillance data reviewed by inspectors showed weekly collated COVID-19 surveillance reports with comprehensive trending and analysis evident. These

⁺⁺⁺ The virus, which causes COVID-19 infection, is called SARS-CoV-2 and belongs to the broad family of viruses known as coronaviruses.

reports demonstrated that a total of 20,253 COVID-19 tests were completed on site up to 02 December 2020.

Many of the measures implemented were done at a time when routine scheduled care had been temporarily suspended which simultaneously created additional resources through staff redeployment. The situation was very different at the time of the inspection when routine services were once again restored, staff were redeployed back to original roles, and the hospital was at full capacity and experiencing rising presentations of COVID-19 cases to the emergency department. Further challenges were also posed by several outbreaks ongoing at the time of the inspection.

Management of COVID-19 Outbreaks

Up to the time of the inspection, the hospital had experienced a significant number of COVID-19 outbreaks. There were 19 such outbreaks in total. Five outbreaks were open at the time of the inspection. The hospital outbreak control committee met on a weekly basis.

The first patient was confirmed positive with COVID-19 in Tallaght University Hospital on 29 February 2020. From that date up until 14 June 2020, 373 patients and 291 staff members had tested positive for the virus. Between 20 March and 14 June 2020, the hospital experienced 11 COVID-19 outbreaks in 10 wards. The duration of these outbreaks varied from 29 days to 63 days. Ward based teams were in place during the first phase of the pandemic to limit footfall in clinical areas but not at the time of the inspection.

Inspectors reviewed final reports on outbreaks declared over, and a summary report of non-conformances observed by members of the infection prevention and control team during audits on outbreak wards. Documentation reviewed indicated that during phase one of the pandemic, 30% of the cases were hospital-associated which were linked to 10 wards. Key learnings and contributing factors from these outbreaks indicated that greater adherence to infection prevention and control practices were required. Pre-symptomatic and asymptomatic presentations of COVID-19 also potentially contributed to onward transmission.

The hospital developed a quality improvement plan following the first phase of the pandemic which identified 34 areas of improvement. On review of this plan, inspectors found that the majority of actionable items were completed. This review had resulted in the identification of nine high level recommendations for implementation.

It was clear to inspectors from documentation reviewed that the infection prevention and control team were actively managing outbreaks in very challenging

circumstances. The hospital had also endeavoured to learn from the experiences with COVID-19 to better prepare for future outbreaks which was good practice.

COVID-19 surveillance reports from the end of August up to 2 November 2020 showed that increasing rates in COVID-19 cases were identified. Community-acquired cases were higher during September and October but as case numbers increased so too did the number of hospital-acquired cases. At the time of the inspection, the incidence of hospital-acquired cases was higher than those acquired in the community.

Despite the numerous infection prevention and control measures implemented by the hospital, several COVID-19 outbreaks continued to occur. Traffic control into the hospital and the mingling of some patients (from outbreak wards) in the smoking hut at the front of the hospital were identified by staff as contributing factors in onward transmission. As previously mentioned, inspectors found that there was scope to improve occupational health resources. Ongoing lack of isolation facilities was an also an added challenge. Breaches in PPE and physical distancing between staff members during breaks was a reported recurring issue.

Other outbreaks

In addition to the 19 COVID-19 outbreaks experienced by the hospital up to the time of the inspection, the hospital also had two influenza outbreaks, two outbreaks relating to multi-drug resistant organisms and two *Clostridioides difficile* outbreaks since the beginning of 2020. There was also an ongoing carbapenemase-producing *Enterobacteriaceae* (CPE)^{***} outbreak over a long duration. It was clear from the data reviewed by inspectors that the hospital faced significant challenges in managing multiple outbreaks some of which occurred within similar timeframes.

Clostridioides difficile outbreaks

The hospital declared a *Clostridioides difficile* outbreak on Ella Webb Ward between 18 January and 8 April 2020. Two cases were identified and found to have the same ribotype (020) isolated on samples processed. Appropriate measures were taken and the outbreak was limited to these two identified cases. An action plan was developed and recommendations were implemented following this outbreak.

A second *Clostridioides difficile* outbreak was declared on the same ward on 8 October and was ongoing but nearing conclusion at the time of the inspection. Nine actionable items were identified as part of an action plan created on 5 November

^{***} Carbapenemase-Producing *Enterobacteriales* (CPE), are a family of bacteria which can cause infections that are difficult to treat because they are resistant to most antimicrobials, including a class of antimicrobials called carbapenems which have typically been used as a reliable last line treatment option for serious infection. Bloodstream infection with CPE has resulted in patient death in 50% of cases in some published studies internationally.

2020 in response to an identified increase in *Clostridioides difficile* cases in 2020.

Five of these actions were completed.

Following on from this inspection, the prevention and control of *Clostridioides difficile* must remain a priority for all relevant hospital staff and hospital management.

Carbapenemase-producing *Enterobacteriaceae* (CPE)^{§§§} Outbreak

The hospital has experienced an ongoing outbreak of CPE since August 2016 and was being managed by a CPE outbreak committee. A gap analysis was completed by the infection prevention and control team to determine compliance with national CPE guidance in September 2020 and a quality improvement plan was developed.

A decision as to whether this outbreak should be declared over was under review at the time of the inspection. Minutes from the Infection Prevention and Control Governance Committee meeting held on 1 December 2020 indicated that input from the Public Health Department would be sought to advise on how to proceed in relation to the possibility of closing this outbreak.

These findings together with those observed by the inspection team indicated that improvements are required if further outbreaks of COVID-19 or other outbreaks are to be prevented and staff and patients are to be better protected.

^{§§§} Carbapenemase-Producing *Enterobacterales* (CPE), are a family of bacteria which can cause infections that are difficult to treat because they are resistant to most antimicrobials, including a class of antimicrobials called carbapenems which have typically been used as a reliable last line treatment option for serious infection. Bloodstream infection with CPE has resulted in patient death in 50% of cases in some published studies internationally.

3.0 Conclusion

Overall this inspection identified that Tallaght University Hospital was substantially compliant with two of the six of the *National Standards for the Prevention and Control of Healthcare-Associated Infections in Acute Healthcare Services* assessed. A judgment of partially compliant was made against three standards and a judgment of non-compliant was made against one standard.

Leadership, Governance and Management

Inspectors identified numerous weaknesses in infection prevention and control measures implemented at the hospital to protect staff and patients against COVID-19. The inspection team identified multiple risks found namely under Standard 5.3, 2.6 and 3.8. These risks collectively presented a high risk particularly in the context of rising community COVID-19 cases, increasing presentations to the hospital and the numerous outbreaks ongoing at the time of the inspection. HIQA escalated these risks to the hospital CEO and CEO of the Dublin Midlands Hospital Group to be addressed.

Inspectors noted that despite the significant challenges posed by COVID-19 and multiple outbreaks, multidisciplinary audits and infection prevention control audits continued with some curtailment to normal schedules. This was commendable given the circumstances. A total of 24 infection prevention and control audits were conducted and where poor compliance was observed, reaudit of the clinical area was undertaken.

Inspectors found that the hospital should review occupational health resources provided to ensure they are sufficient to support the infection prevention and control team in investigating outbreaks.

High standards of infection prevention and control practices helps to promote the delivery of safe clinical care. Overall responsibility for ensuring the effectiveness of the infection prevention and control programme rests with the hospital CEO. However, each and every staff member and service user also play an important role in promoting good infection prevention and control practices. Based on the multiple findings from this inspection, inspectors concluded that leadership and management at all levels needs to be strengthened. Hospital management need to improve the monitoring of breaches in infection prevention and control practices if they are to be improved and consistently maintained across the hospital.

Workforce

Inspectors found that the hospital had supplemented the infection prevention and control team resources in 2020 up to 7.6 WTE. These resources had since reduced

to 4.6 WTE at the time of the inspection. Recruitment to fill a recent vacancy was underway. Inspectors found that restoring the infection prevention and control resources back to its full complement (at a minimum) should be a priority in light of the significant challenges posed by the pandemic and multiple ongoing outbreaks.

Uptake of PPE training at the hospital among staff who engage directly with patients required improvement. Fit testing for clinical staff likely to undertake procedures that involve or may involve the generation of aerosols should be progressed.

Effective Care & Support

Inspectors identified several areas for improvement in the emergency department. Pre-triage assessment of patient by a clinical decision maker was not in place which meant that patients potentially mingled in the waiting area prior to being streamed into COVID-19 and non-COVID-19 pathways. This risk was further potentiated by limited waiting capacity, less than optimal entry control of accompanying adults, and insufficient cleaning resources.

Cross over of staff, namely medical and cleaning staff, between COVID-19 and non-COVID-19 pathways required improvement as did the allocation of cleaning resources. The functional separation of designated COVID-19 and non-COVID-19 resuscitation bays should be progressed.

Overall patient equipment in the wards inspected were generally clean with some exceptions. Improvements in transmission-based precautions were applied in Maguire Ward. Maintenance issues were observed in both wards inspected and should be addressed.

Safe care and support

Systems were in place to identify and manage risk in relation to the prevention and control of healthcare-associated infections. However, more assurance is required to ensure that the Infection Prevention and Control Governance Committee retain oversight and receive regular updates as to the progress of infection prevention and control-related risks entered on other hospital wide risk registers.

The hospital had experienced 19 COVID-19 outbreaks since March 2020 which has increased its ability to manage and limit the extent of each outbreak. There was strong evidence to show that the hospital had taken steps to identify contributory factors and collate learnings from each outbreak. It was clear to inspectors from documentation reviewed, that the lowering of guard or lapses in concentration leading to breaches in protective precautions in place had contributed to these outbreaks. Better controls in the footfall into the hospital and restricting the movement of patients from outbreak wards required improvement. Discussion with

staff and documentation viewed indicated that closer monitoring of patient adherence to physical distancing in the smoking outside the hospital was also needed.

No one measure can eliminate the risk of hospital acquired COVID-19 infection. Stringent adherence to a combination of infection prevention and control measures should certainly help to limit exposure to both staff and patients.

Inspectors found overall that the hospital needed to provide greater assurances relating to the effectiveness of the controls and measures implemented to date to limit the transmission of the virus. This can only be achieved through a cohesive and collaborative commitment by all hospital staff to supporting the infection prevention and control programme and practices.

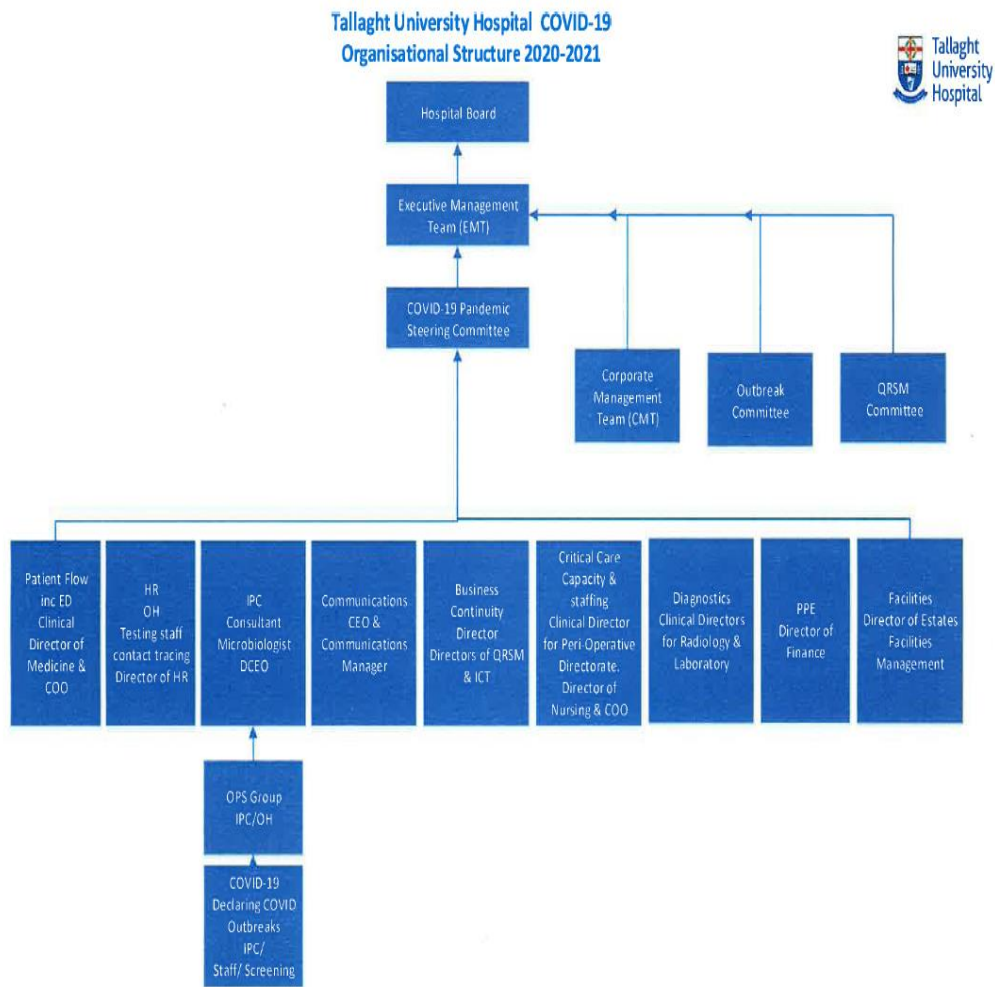
Following this inspection the hospital needs to address the areas for improvement identified in this report and requires the support of the hospital group to effectively address issues highlighted in order to facilitate compliance with the *National Standards for the prevention and control of healthcare-associated infections in acute healthcare services* and other existing national healthcare standards.

4.0 References

- 1 Health Information and Quality Authority. National Standards for the prevention and control of healthcare-associated infections in acute healthcare services. Dublin: Health Information and Quality Authority; 2017. [Online]. Available online from: <https://www.hiqa.ie/sites/default/files/2017-05/2017-HIQA-National-Standards-Healthcare-Association-Infections.pdf>
- 2 Health Services Executive. Guidance for the Adult Unscheduled Care Pathway in the COVID-19 era: The Acute Floor 2020. [Online]. Available online from: https://hse.drsteevenslibrary.ie/ld.php?content_id=33212096
- 3 Health Information and Quality Authority. Report of the unannounced inspection at Tallaght University Hospital, Dublin. 2019. [Online]. Available online from: <https://www.hiqa.ie/system/files?file=inspectionreports/tallaght-university-hospital-%2002-may-2019.pdf>
- 4 Health Protection Surveillance Centre/ Health Service Executive. Current recommendations for the use of Personal Protective Equipment (PPE) for Possible or Confirmed COVID-19 in a pandemic setting. V2.2. September 2020. [Online]. Available online from: <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/guidance/infectionpreventionandcontrolguidance/ppe/Current%20recommendations%20for%20use%20of%20Personal%20Protective%20Equipment.pdf>.
5. Health Service Executive. National Service Plan. Dublin: Health Service Executive; 2020. Available online from: <https://www.hse.ie/eng/services/publications/national-service-plan-2020.pdf>.

5.0 Appendix 1

Appendix 1: COVID-19 Governance organogram



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