The Regulation and Quality Improvement Authority

Inspection Report

9 February 2023

Northern Health and Social Care Trust

Type of service: Adult Critical Care Unit, Causeway Hospital
Address: Newbridge Road, Coleraine, BT51 1HS
Telephone number: 028 7032 7032

Information on legislation and standards underpinning inspections can be found on our website https://www.rqia.org.uk/

1.0 Service information

Organisation/Registered Provider: Northern Health and Social Care Trust (NHSCT)	**Responsible person:** Jennifer Welsh (Chief Executive)
Person in charge at the time of inspection: Louise Boreland (Ward Manager)	**Number of commissioned beds:** 4 **Number of beds occupied on the day of this inspection:** 3
Brief description of the accommodation/how the service operates: The unit provides critical care to patients with life threatening illness, following major, complex surgery and following serious accidents.	

2.0 Inspection summary

An unannounced inspection of the Critical Care Unit (CCU) at Causeway Hospital took place on 9 February 2023, by care Inspectors, and concluded with feedback to the Ward Manager and Lead Nurse.

The inspection focused on four key themes: environment and infection prevention control (IPC); enteral feeding; procedure for obtaining blood cultures; and antimicrobial stewardship.

Background to the Augmented Care Inspection Programme

The Chief Medical Officer endorsed the use of the Regional Infection Prevention and Control Audit Tools for Augmented Care Settings by all health and social care (HSC) Trusts in Northern Ireland in the relevant clinical areas. In 2013 an improvement programme of unannounced inspections to augmented care areas commenced on 28 May 2013 and continued until 2018/19. Within the programme there was an expectation that compliance levels would improve year on year until all HSC Trust areas had achieved a compliance rate of 95%. A compliance level of 95% is now the expected standard.

Following this improvement programme the future approach to assurance of infection prevention and control practices within CCUs moved from compliance dominant to a collaboration-based model in assuring good practice.

This approach required HSC Trusts to undertake regular self-assessment of the care delivered in their augmented care settings with the agreed overall compliance target scores of 95%.

The Critical Care Network Northern Ireland (CCaNNI) works with HSC Trusts to provide a platform for regional sharing of good practice and learning. RQIA have worked collaboratively with CCaNNI and agreed the protocol for the return of twice yearly submission of HSC Trust self – assessments and updated action plans from CCaNNI to RQIA. Inspection visits to CCUs and intensive care units are undertaken by RQIA to independently validate their self-assessment returns and randomly sample aspects of the Regional Infection Prevention and Control Audit Tools for Augmented Care Settings. RQIA reserves the right to visit and independently assess/inspect any CCU at any stage should a particular circumstance require this.

The purpose of this inspection was to validate the findings and actions taken by the Trust following their self-assessment using the three regionally agreed inspection tools for augmented care areas (Regional Infection Prevention and Control Audit Tool for Augmented Care Settings in Northern Ireland, (HSS MD 5/2013), Regional Infection Prevention and Control Clinical Practices Audit Tool for Augmented Care Areas and the DHSSPS Regional Healthcare Hygiene and Cleanliness Audit Tool). Table 1 sets out agreed regional compliance targets and table 2 sets out the Trust's self – assessment compliance levels.

Table 1: Regional Level of Compliance

Compliant	95% or above
Partial Compliance	86-94%
Minimal Compliance	85% or below

Table 2: Self – assessment Level of Compliance May 2022

Inspection Tools	**Self- assessment**
Regional Augmented Care Infection Prevention and Control Audit Tool	**97%**
Regional Infection Prevention and Control Clinical Practices Audit Tool	**98%**
Regional Healthcare Hygiene and Cleanliness Standards and Audit Tool	**98%**

Summary

The unit was in good decorative order with environmental cleanliness maintained to a high standard and overall the unit demonstrated good adherence to IPC standards.

Overall, there were robust measures in place to ensure staff had the appropriate training and competency assessment when taking blood cultures. Staff demonstrated good knowledge on when and how blood cultures should be taken.

Staff demonstrated good knowledge in relation to the appropriate management of enteral feeding systems and the appropriate infection prevention control procedures.

There were good antimicrobial stewardship mechanisms in place which is a healthcare wide approach to the appropriate use of antibiotics and monitoring their effectiveness to improving patient outcomes and help reduce antibiotic resistance.

There was a culture of quality improvement evident through the unit's introduction of a patient diary which was particularly useful during the COVID 19 pandemic; and the development of a following up clinic for patients who have been discharged from the unit has facilitated shared learning in relation to the patient journey and how patients perceive aspects of care.

No areas for improvement (AFIs) were identified during this inspection.

3.0 How we inspect

RQIA's inspections form part of our ongoing assessment of the quality of services. To do this, we review the information we hold about the service, examine a variety of relevant records, speak with visitors, staff and management, and observe staff practices throughout the inspection.

The information obtained is then considered before a determination is made on whether the service is operating in accordance with the relevant legislation and quality standards.

This report reflects how they were performing at the time of our inspection, highlighting both good practice and any areas for improvement. It is the responsibility of the Trust to ensure compliance with legislation, standards and best practice, and to address any deficits identified during our inspections.

4.0 What people told us about the service

Inspectors spoke to a range of staff including the Ward Manager, nursing staff, support service staff, pharmacist, infection prevention and control team (IPCT) and medical staff. Staff where invited to complete an electronic questionnaire about their experience of the service. No completed questionnaires were returned from staff.

One completed relative questionnaire was received and inspectors spoke with one patient during the inspection. This confirmed both were very satisfied with the care and treatment experienced within the unit.

5.0 The inspection

5.1 What has this service done to meet any areas for improvement identified at or since last inspection?

The last inspection to the CCU at Causeway Hospital was undertaken on 1 and 2 December 2015. This formed part of the improvement programme of unannounced inspections to augmented care areas which commenced in 2013. Recommendations for improvement made during this inspection related to the suite of specialised audit tools highlighted in section 2.0.

Subsequent to this the Trust submitted a quality improvement action plan to RQIA with assurance that all actions required for improvement would be taken within the specified timescales.

As with CCUs in all HSC Trusts, Causeway Hospital CCU transitioned from a compliance model to a collaboration based approach in assuring best practice by submitting twice yearly self-assessments of the care delivered within the unit. This continued assurance indicated the unit was maintaining good practice and the expected level of compliance.

5.2 Inspection findings

5.2.1 Environmental Safety and Infection Prevention and Control (IPC)

The CCU was in excellent decorative order throughout with environmental cleanliness maintained to a high standard.

Designated hand washing sinks were clean and accessible at the point of care. Foam hand sanitizer was available at key points in the unit to decontaminate hands following hand washing, in line with best practice for augmented care settings.

Nurse equipment cleaning schedules were reviewed which confirmed that all patient equipment was cleaned daily and a separate cleaning record documented for equipment at each bed space, providing assurance of robust oversight mechanisms in place. One unused clinical space was used to store excess patient equipment. Staff confirmed this was due to lack of adequate equipment storage facilities in the unit. This equipment was observed to be clean and displayed an “I am clean” sticker to confirm date of cleaning. Inspectors were informed of plans to revise the layout of the unit to incorporate a second side room, consideration should also be given to equipment storage areas to maximise available space within the unit.

The resuscitation trolley was easily accessible, and equipment was visibly clean. There was good compliance with equipment daily and monthly checks, however, some gaps were noted in the weekly checks, this was highlighted to the Ward Manager who provided assurance of immediate actions to address.

Personal protective equipment (PPE) dispensers were accessible for staff when in contact with the patient and the patient’s equipment or surroundings. Staff were observed to don and doff PPE appropriately when in contact with the patient and/or patient equipment and surroundings.

Whilst the environment was visibly clean throughout, a review of environmental cleaning records highlighted significant gaps in the environmental cleaning record to confirm that cleaning had taken place. There was no evidence to confirm that the cleaning records had been reviewed and signed off by support services management. The Ward Manager confirmed that they had raised similar concerns in recent weeks. This was brought to the attention of the Support Services Manager during the inspection and assurances given that these issues would be addressed.

Water flushing records were available at all sinks and overall, were well completed, however, inspectors noted gaps in the record over three consecutive evenings, this was also brought to the attention of the Support Services Manager who provided assurance of immediate actions in place to address.

Staff including medical, nursing, allied health professionals and support services staff were observed to carry out a high standard of hand hygiene practices in the unit.

A range of IPC audits were completed including hand hygiene, environmental hygiene, management of invasive devices and taking of blood cultures all of which confirmed good adherence to standards and best practice.

Documentation was reviewed which confirmed Independent validation of audits was carried out by IPC nurses and scores were complaint.

Staff reported good links with the IPC team and review meetings take place to discuss infection outbreaks within the unit. Relevant information from these meetings is shared with staff during the unit safety brief and multi-disciplinary team (MDT) meetings.

Information boards displayed IPC information including routine audit results of hand hygiene and environmental hygiene evidencing good adherence to IPC standards within the unit and providing assurance to visitors and patients.

Overall the CCU demonstrated good adherence to IPC standards and no areas for improvement were identified.

5.2.2 Taking Blood Cultures

A blood culture is a microbiological culture of blood taken to detect infections that are spreading through the bloodstream.

A blood culture policy was in place, in date and staff where observed to access the policy on the Trust internet. Inspectors were unable to observe the practice of taking blood cultures during the inspection, however on questioning staff they displayed good knowledge on the key principles of taking blood cultures.

Blood culture packs were available in the unit, the use of which promotes standardised practice in taking blood cultures and reduces the risk of contamination.

The unit is informed by the Trust laboratory of blood culture results, with systems in place to monitor this data and the incidence of contamination within the unit. Blood contamination may occur during the process of collecting blood for culture while preparing the site or insertion of the needle. Staff were extremely proud to report there had been no abnormal blood culture results reported from the unit for three years and the incidence of blood culture contamination was less than three percent which is within recommended limits; a review of evidence supported this statement. There were systems in place to compare data and incidents of blood culture contamination across the Trust and wider regionally with the Public Health Agency.

Training and competency assessment on taking blood cultures is provided by the IPCT for both medical and nursing staff. It was reported that only medical staff take blood cultures in the unit, whilst nursing staff carry out audits of clinical practice for every blood culture taken. Information is recorded on the patient's electronic record and also in the medical notes. A review of electronic and hard copy data confirmed this, with medical notes displaying a traceability sticker with date, time, clinical indication for taking and practitioner responsible.

On review of medical notes, it was noted that a patient had only one set of blood cultures taken over a 24 hour period, which was outside the current Trust policy which states that:

*"**Two** consecutive sets of cultures taken **back to back** (within minutes) is in keeping with "Surviving Sepsis Campaign: however, this may not be achievable if clinical judgement dictates otherwise. If not taken back to back, ideally two blood culture sets should be taken in a 24 hour period".*

This was discussed with the Ward Manager and Lead Nurse during feedback and assurance given that these would be addressed as a matter of urgency.

Any gaps in blood culture training/competency assessment outside of the ongoing IPC training programme, and blood culture sampling in line with Trust policy were also raised during the inspection. The IPCT provided assurance of additional "mop up'' training sessions for medical staff where this is required.

No areas for improvement were identified.

5.2.3 Enteral Feeding

For Trusts to comply with this section of the audit tool they must ensure guidance is available to inform practice and to assist in the prevention of infection associated with enteral nutrition. Enteral tube feeding is a way of delivering nutrition directly to the stomach or small intestine through a tube. Enteral feed must be stored, used and disposed of in accordance with Trust policy and the administration and maintenance of the enteral feeding system should be carried out in accordance with evidence based practice.

Staff demonstrated good knowledge in relation to the appropriate management of enteral feeding systems and the appropriate infection prevention control procedures.

Enteral feeding products were stored appropriately and members of the pharmacy team monitor and action the replenishment of enteral feeds. Appropriate line labelling of a nasogastric feeding tube was observed to be in place during the inspection.

Compliance with best practice in relation to enteral feeding is audited monthly and results are shared with staff during staff meetings and safety briefs. Review of audit results during inspection indicated a high level of on-going compliance.

An Enteral Feeding Infection Control Policy is available to assist in the prevention of infection associated with enteral feeding and staff have access to this electronically. It was noted that this policy was out of date and assurance was provided during the inspection that plans are in place for appropriate review of this policy.

Staff receive competency training on enteral feeding during induction using the National Competency Framework for Critical Care. On-going competency based training on the insertion and management of a nasogastric tube in line with local policy is maintained through the unit's peer assessment process. The Ward Manager reported this process should occur annually, although there have been gaps in completing this training due to the COVID 19 pandemic and assurance was provided that plans were in place to address this identified deficit.

In line with NICE recommendations[1], it is recommended that local protocols should include how to proceed when the ability to make repeat position checks of a nasogastric tube is limited by the inability to aspirate the tube, or the checking of gastric pH is invalid due to gastric acid suppression. It was established that this is not available within local protocols available to staff, and assurance was provided this would be developed for the unit in line with the relevant guidance.

No areas for improvement were identified.

5.2.4 Antimicrobial Stewardship

Antimicrobial stewardship is the process in which antibiotics are prescribed, monitored and evaluated in an effort to preserve their future effectiveness and in line with evidence-based antimicrobial guidelines. This should improve and reduce the progression of antibiotic resistance and optimise patient outcomes. For organisations to comply with this section of the audit tool they must ensure there are systems and process in place to ensure a standardised and consistent approach by staff to prescribing. Prescribing should be monitored and reviewed.

A unit based pharmacist is in place and antimicrobial ward rounds take place three times per week. Staff report that they have good support and communication from the pharmacist, microbiology and the IPC Teams. Antimicrobial prescribing and management guidelines are available for staff to access on the Trust internet and staff can also access digital prescribing applications. Guidelines are disseminated to new staff members on induction and additional training and study days are provided where necessary.

Antimicrobial usage is regularly audited in line with antimicrobial prescribing guidance and results along with any actions to address identified deficits are shared with staff during the monthly MDT. Further snap shot auditing is also carried out to address any additional identified concerns. It was confirmed that audit results feed into the Trust wide antimicrobial stewardship team dashboard for central review and identification any risk factors in prescribing and antimicrobial resistance.

It was noted there is a dedicated antimicrobial prescribing information board within the unit with relevant information, contact numbers and displayed audit results for staff to view.

Overall good governance and oversight arrangements were confirmed to be in place regarding antimicrobial prescribing and no areas for improvement have been identified.

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[1] NICE Clinical Guidance CG32.

6.0 Quality Improvement Plan/Areas for Improvement

No areas for improvement have been made following this inspection.

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