The Regulation and Quality Improvement Authority

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RQIA
Unannounced Infection Prevention/Hygiene Augmented Care Inspection

Daisy Hill Hospital Critical Care Unit

17 and 18 July 2014

Assurance, Challenge and Improvement in Health and Social Care

www.rqia.org.uk

The Regulation and Quality Improvement Authority

The Regulation and Quality Improvement Authority (RQIA) is the independent body responsible for regulating and inspecting the quality and availability of health and social care (HSC) services in Northern Ireland.

RQIA's reviews and inspections are designed to identify best practice, to highlight gaps or shortfalls in services requiring improvement and to protect the public interest.

Our Hygiene and Infection Prevention and Control inspections are carried out by a dedicated team of inspectors, supported by peer reviewers from all trusts who have the relevant experience and knowledge. Our reports are available on the RQIA website at www.rqia.org.uk.

Inspection Programme

The CMO's letter (HSS MD 5/2013) endorsed the use of the Regional Infection Prevention and Control Audit Tools for Augmented Care Settings by all Trusts in Northern Ireland in the relevant clinical areas www.rqia.org.uk.

- Governance Assessment Tool;
- Infection Prevention and Control Clinical Practices Audit Tool;
- Neonatal Infection Prevention and Control Audit Tool;
- Critical Care Infection Prevention and Control Audit Tool;
- Augmented Care Infection Prevention and Control Audit Tool

The introduction of this suite of audit tools is follow-on from development of the existing regional healthcare hygiene and cleanliness standards and audit tool, developed and disseminated in 2011. Both sets of tools should be used in conjunction with each other. A 'Guidance and Procedural Paper for Inspections in Augmented Care Areas' has been developed which outlines the inspection process www.rqia.org.uk.

The inspection programme for augmented care covers a range of specialist facilities and a rolling programme of unannounced inspections has been developed by RQIA to assess compliance with both of these sets of audit tools.

RQIA also carries out announced inspections. These examine the governance arrangements and systems in place to ensure that infection prevention and control and environmental cleanliness policies and procedures are working in practice.

Contents

1.0 Inspection Summary

An unannounced inspection was undertaken to the Daisy Hill Hospital Critical Care Unit (CCU), on 17 and 18 July 2014. The inspection team comprised of four RQIA inspectors. Details of the inspection team and trust representatives attending the feedback session can be found in Section 7.

The unit is based at Daisy Hill Hospital and is part of the Southern Health and Social Care Trust. The unit has ten bed spaces available, however is only commissioned for seven, five high dependency (HD) care beds and two beds dedicated for renal patients.

The unit provides high dependency care services for seriously ill patients who require a high level of nursing and medical support, which cannot be provided in an ordinary ward.

The unit was opened in August 2012 and is connected to the Intensive Care Unit at Craigavon Area Hospital through a 'Telepresence' robot (Picture 1). The Telepresence robot enables intensivists and specialists in different locations to assess patients and discuss patient care with other disciplines in real-time.

Picture 1: The telepresence robot

The critical care unit was assessed against the following regionally agreed standards and audit tools:

- Regional Critical Care Infection Prevention and Control Audit Tool
- Regional Infection Prevention and Control Clinical Practices Audit Tool
- Regional Healthcare Hygiene and Cleanliness Standards and Audit Tool

This inspection is the first of a three year cycle of inspection carried out within this area.

The report highlights strengths as well as areas for further improvement, and includes recommendations and a quality improvement action plan.

Overall the inspection team found that the trust were not able to fully demonstrate that they were working to comply with regional audit tools.

Critical care staff had minimal awareness in the Regional Critical Care Infection Prevention and Control Audit Tool and the Regional Infection Prevention and Control Clinical Practices Audit Tool. However, the infection prevention and control (IPC) team were working to comply with IPC specific aspects of the regional audit tools.

Inspectors observed:

- The unit was compliant in the Regional Healthcare Hygiene and Cleanliness Standards.

Inspectors found that the key areas for further improvement were:

- The unit achieved overall partial compliance in both the Regional Critical Care Infection Prevention and Control Audit Tool and the Regional Infection Prevention and Control Clinical Practices Audit Tool. Specific sections that require urgent attention within these tools include: local governance systems and processes, aseptic non touch technique (ANTT) and collection of bloods culture.

Inspectors observed the following areas of good practice:

- The cleaning in the unit was to a high standard.
- There was good practice and documentation in relation to water safety.
- The IPC team had carried out an environment inspection in preparation for the RQIA audit.

The inspection resulted in 48 recommendations for improvement listed in Section 6.

Detailed lists of the findings are available on request from RQIA Infection Prevention and Hygiene Team.

The final report and quality improvement action plan will be available on RQIA's website. Where required, reports and action plans will be subject to performance management by the Health and Social Care Board and the Public Health Agency (PHA).

RQIA's inspection team thanks the Southern Health and Social Care Trust (SHSCT), and in particular all staff at Daisy Hill Hospital High Dependency Unit for their assistance during the inspection.

2.0 Overall Compliance Rates

The Regional Critical Care and Clinical Practices Infection Prevention and Control Audit Tools

RQIA uses these tools as an assessment framework to build progressive improvement over a three-year inspection cycle. Compliance scores for the first inspection are 85 per cent, rising to 95 per cent by the end of the third inspection.

Compliance rates are based on the scores achieved in the various sections.

Table 1: Regional Critical Care Infection Prevention and Control Audit Tool Compliance Levels

Areas inspected	Compliance Level
Local governance systems and processes	77
General environment – layout and design	53
General environment – environmental cleaning	100
General environment – water safety	95
Critical Care clinical and care practice	76
Critical Care patient equipment	82
Average Score	**81**

Table 2: Regional Infection Prevention and Control Clinical Practices Audit Tool Compliance Levels

Areas inspected	Compliance Levels
Aseptic non touch technique (ANTT)	75
Invasive devices	81
Taking blood cultures	53*
Antimicrobial prescribing	76
Clostridium *difficile* infection (CDI)*	97*
Surgical site infection	91
Ventilated (or tracheostomy) care	N/A
Enteral feeding or tube feeding	78
Screening for MRSA colonisation and decolonisation	86
Average Score	**79**

*Staff practice was not observed during the inspection.
Information was gained through staff questioning and review of unit audits.

Compliant: 85% or above
Partial Compliance: 76% to 84%
Minimal Compliance: 75% or below

The Regional Healthcare Hygiene and Cleanliness Audit Tool

Compliance rates are based on the scores achieved in each section of the Regional Healthcare Hygiene and Cleanliness Audit Tool. Percentage scores can be allocated a level of compliance using standard compliance categories below.

Table 3: The Regional Healthcare Hygiene and Cleanliness Audit Tool Compliance Levels

Critical Care Unit	Compliance Level
Environment	88
Patient linen	95
Waste	97
Sharps	95
Equipment	86
Hygiene factors	98
Hygiene practices	84
Average Score	**92**

Compliant: 85% or above
Partial Compliance: 76% to 84%
Minimal Compliance: 75% or below

Where an inspection identifies issues that are considered to be of high risk, trusts will be asked to take immediate action.

3.0 Inspection Findings: Regional Critical Care Infection Prevention and Control Audit Tool

The Regional Critical Care Infection Prevention and Control Audit Tool contains seven sections. Each section aims to consolidate existing guidance in order to improve and maintain a high standard in the quality and delivery of care and practice in critical care. This will assist in the prevention and control of healthcare associated infections.

Regional Critical Care Infection Prevention and Control Audit Tool Compliance Levels

Areas inspected	**Compliance Levels**
Local governance systems and processes	77
General environment – layout and design	53
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General environment – water safety	95
Critical Care clinical and care practice	76
Critical Care patient equipment	82
Average Score	**81**

The findings indicate that overall partial compliance was achieved in the Regional Critical Care Infection Prevention and Control Audit Tool. Inspectors identified areas for improvement in local governance, the layout and design of the environment, clinical and care practice and patient equipment.

3.1 Local Governance Systems and Processes

For organisations to comply with this section, good governance should be displayed through management that displays effective decision-making and leadership. Systems and processes should be robust, and staff should be aware of their roles and responsibilities. Appropriate policies and procedures should be available. The unit achieved partial compliance in this section of the audit tool.

Leadership and Management

The unit sister, who also manages the Male Surgical Ward, had been in post for two months. Inspectors were informed that she was the fourth manger to be appointed to this post in the past two years. Prior to taking up the position, the sister worked between the two wards as the band six clinical sister. Recruitment for the vacant band six post was under way. In order to develop in this role, support will be required by senior line management.

1. **It is recommended that trust ensure the unit sister receives support to develop in the role.**

Unit staff, displayed good awareness of the importance of infection prevention and control (IPC). There were no IPC link nurses on the unit. The unit sister is currently covering this role but has not attended any link meetings. The DHSSPS document “changing the Culture” 2006 identifies that link staff need to have dedicated protected time for their infection prevention and control activities.

IPC staff do not visit the unit daily. A member of the IPC team visits the unit at least three times a week or more often if required for example outbreak management. No one specific IPC nurse was dedicated to the unit.

2. **It is recommended that an infection prevention and control link nurse is appointed. Infection prevention and control staffing levels are reviewed to facilitate daily visits to the unit.**

Inspectors were informed that the ratio of nursing and domestic staff is reviewed and increased when required, for example, during an outbreak. Sister stated that there was no long term sickness or vacant staff posts on the unit. If additional staff were required in the HDU inspectors were informed that it could be difficult to obtain authorisation. Staff from male surgical were sometimes used to supplement shortages. Staff can also be moved from the HDU to cover staff shortages on other wards. On occasions the unit has had to close beds when decisions have been made to redeploy staff from the unit to cover staff shortages on other wards. Sister advised that she records these incidents on an IR1 clinical risk form and in the unit communications book. This is of concern to the inspectors as it reduces the number of HDU beds available.

3. **It is recommended that the trust reviews the closure of HDU beds and ensures the unit is staffed appropriately at all times.**

Review of Documentation

The unit sister attended weekly hospital sisters meeting; the minutes recorded attendees but not their designation or actions to take to disseminate information to staff. The minutes had a good format with standing items on the agenda; medical alerts, new policies, audits, training, IPC Governance and RCAs. Sister had introduced staff meetings for high dependency unit staff, but the format for these meeting needs to be standardised. Guidance was available on the management arrangements for an outbreak/incident, including a detailed communication flow chart for outbreak management. Documented evidence of multi professional meetings to demonstrate a collaborative approach to IPC, shared learning or governance was not available.

4. **It is recommended that the unit sister with the support of her line manger establish multi-disciplinary links. Standardised minutes should include IPC as a standing item.**

Serious Adverse Incidents (SAI) related to IPC were reported as outlined on the root cause analysis document. A multidisciplinary review of the incident was carried out and actions proposed, there was no evidence to show actions from the review were completed. Inspectors viewed the details of a root cause analysis for a patient with an infection. There was no evidence of shared learning from this incident with staff. The sister stated that she verbally informs individual staff of the outcome of the SAIs when they were on duty.

5. **It is recommended that a formal process is put in place to ensure information and learning from SAIs can be disseminated to staff and actioned.**

All staff were able to access the Regional Infection Control Manual on the trust intranet. Staff were unable to locate the trust occupational health (OH) policy on the intranet, however OH leaflets on, “group A Streptococcal infection” and “skin care advice” were available on the unit. Staff were aware of action to take in the event of developing an infection.

6. **It is recommended that staff are able to access the Occupational Health policy**.

A system was in place for unit staff to identify and report maintenance and repair issues. The computerised recording system in the estates department captures this information.

Audit

There was minimal auditing of the implementation of high impact interventions. At the time of the inspection the trusts audit team, audits compliance of care bundles for peripheral vascular catheter (PVC)s and central line vascular catheter (CVC)s.

Environmental cleanliness audits were carried out at supervisor, department and managerial level, inspectors reviewed documentation on reports submitted and action plans completed. An IPC nurse carried out an environment audit on the 11 June 2014, a detailed list of issues was forwarded to the unit sister for action. IPC have also carried out an audit of MRSA screening. Hand hygiene audits were independently verified by the IPC team. Records (June 2013- May 2014) of hand hygiene self-audits showed good or full compliance, however independent audits for the same period showed five months partial and one month minimally compliant. Sister stated there was no formal action plan put in place to action poor compliance; staff were just informed verbally of issues. There was no evidence available to show that audit results were reported to unit staff. The hand hygiene audit tool had been amended for augmented care setting to include the use of alcohol hand decontamination following hand hygiene with soap and water.

7. **It is recommended that a robust IPC audit programme is put in place and that a process is put in place to address low or non-compliant audit scores.**

Surveillance

Surveillance, the continuous monitoring of healthcare associated infection (HCAI) is key to the control of infection. A surveillance programme can be used to implement improvement initiatives, assess effectiveness of clinical interventions and can quickly identify outbreaks if infection.

Inspectors noted that infection prevention and control audit and microorganism local surveillance programmes were in place. These monitor and promote improvement in infection prevention and control practices and infection rates. A weekly microbiology ward round and the Clinical and Strategic forum review this data. This information was also reviewed trust wide as part of the healthcare associated infection improvement group.

Training and Development

Staff infection prevention and control knowledge and up-to-date practical skills are a prerequisite for clinical staff to carry out their role in an effective manner.

All unit staff had participated in the trust corporate welcome and introduction to the basic principles of IPC. IPC training was mandatory within the trust. On checking records mandatory training was not up to date. Sister had reviewed the staff training records and training has been arranged over the next three to four months. IPC training is available on line.

8. **It is recommended the trust ensure that IPC mandatory training is up to date.**

Information and Communication

Information on infection prevention and control, and the effective communication of this information, is vital to ensure adherence to good practice.

A range of information resources was in place to advise both staff and relatives or visitors of infection prevention and control precautions; posters on the seven step hand washing technique and the use of alcohol rub were at each hand wash sink.

Relatives received an information sheet titled “Daisy Hill High Dependency Unit relative’s information”; leaflets on hand hygiene, preventing infection and common infections are available at the entrance to the ward (Picture 2).

Relatives/visitors are directed by poster to use alcohol rub. Relatives/visitors do receive information on hand hygiene however this does not explicitly detail information on the concept of bare below the elbow and where if appropriate it

is important for them to adhere to it; not to wear coats, jewellery; stoned rings, watches, bracelets, false nails.

Picture 2: Information leaflets at the door to HDU

Inspectors were advised that the critical care network is in the process of developing a generic leaflet for all critical care units to use.

9. **It is recommended that information leaflets for relatives and visitors include detail on the concept of bare below the elbow and adherence to the dress code policy were appropriate.**

3.2 General Environment

3.2.1 Layout and Design

For organisations to comply with this section of the audit tool they must ensure adequate facilities are available for the delivery of care. This includes the space available to carry out care on the patient, decontaminate equipment and to ensure effective isolation.

The unit was minimally compliant in the layout and design of the environment.


Picture 3: View of bed space area

The unit has ten beds, (Picture 3) but is only commissioned for seven; there were two single rooms available for isolation in the unit. The critical care core clinical space around the patient bed area, for the delivery of care, was not

within 80 per cent of the minimum dimensions recommended by the DHSSPS and outlined in the audit tool. The minimum core space should be 20.8 sqm, with a linear distance of 4.6m between bed head centres. Inspectors were advised by the trust estates department that the core clinical space for the bed area was 19.1 sqm, and 3m between bed head centres.

Inspectors noted that although the space does not meet current recommended requirements, staff are working within these limitations to deliver safe and effective care. Bed spaces were free from clutter and easily accessible.

The ratio of single isolation rooms to bed spaces was not in line with numbers DHSSPS recommendations and as outlined in the audit tool; a minimum of three single rooms per six beds i.e.one room per two beds. The single rooms are not fit for purpose as there was no ventilated lobby for isolation.

At bed space ten, there was insufficient space to locate the clinical and house hold waste bin beside the clinical hand wash sink. Bins were located out of view.

Facilities as outlined in the audit tool were not all available for visitors, relatives or staff. There was no dedicated visitors' toilet, beverage point, overnight accommodation or a relative's room. Toilets are accessible on the ground floor, food and beverages are available at the hospital dining room, café or shop.

There was no staff changing facilities for nursing staff, staff toilets and locker rooms were available.

Ventilation systems are routinely, serviced and cleaned by estates. Ventilation panels are on a planned maintenance programme and cleaned every three months, filters are changed every six months. There was no monitoring of the air flow quality either by estates staff or by independent validation.

10. **As part of any refurbishment/new build planning, core clinical space recommendations should comply with current guidance.**

11. **It is recommended that ventilation systems are monitored and independently validated.**

3.2.2 Environmental Cleaning

For organisations to comply with this section they must ensure cleaning staff display knowledge of cleaning policies and procedures, and are competent in cleaning hand washing sinks. Environmental cleaning audits should be carried out, and the infection prevention and control team should be consulted when infection has been identified.

The unit was fully compliant in the environmental cleaning of the environment.

Good practice was observed and the unit was compliant in the section on environmental cleaning. Environmental cleaning; guidelines, audit and staff competency based training were in place and reviewed. Terminal cleans were validated by supervisors.

There was a trust protocol in place for the cleaning of clinical hand wash sinks in line with the DHSSPS guidance. Good staff practice was observed; domestic supervisors carry out competency assessment.

3.2.3 Water Safety

For organisations to comply with this section they must ensure that an overarching water safety plan and individual area risk assessment plan is in place. Water sampling, testing, flushing and maintenance are carried out correctly, and there is a mechanism in place to report water analysis results.

The unit was overall compliant in relation to water safety. An overarching trust water safety plan and individual unit risk assessment plan were in place. The plan was reviewed in February 2014 and was in final draft. Collection of tap water samples to facilitate microbiological organism testing and analysis was carried out. The trust carries out a quarterly schedule of water sampling from all water outlets. Water sampling and testing regimes was being carried out in line with current DHSSPS guidelines. In augmented care areas taps should be flushed daily. Estates staff advised that taps were only flushed Monday to Friday, no flushing is carried out at the weekends.

Inspectors observed hand washing sinks were used correctly, only for hand washing. Patient equipment was not stored or washed in hand washing sinks. A system was in place to address any issues raised with the maintenance of hand washing sinks and taps. All results of water analysis are reported to the trust Water Management Committee. This committee includes staff from infection prevention and control, estates, decontamination technical services and decontamination services.

12. **It is recommended that taps are flushed in accordance with department guidance and the trust water safety plan.**

3.3 Critical Care Clinical and Care Practice

For organisations to comply with this section they must ensure that the delivery of care is provided in a way that negates the risk of transmission of infection. This is provided through adequate staffing, monitoring of neonate movement, infection control screening policies and adherence to DHSSPS and local guidance on cleansing the neonate.

The unit achieved partial compliance in this section of the audit tool.

During the inspection, staff allocation ensured optimal infection prevention and control practices.

The unit was in the process of introducing an IT system which is a 'live' and retrospective patient placement system to identify which bed the patient is in during their stay in HDU. However, the system is only live Monday to Friday and from 8.00 to 17.00. Outside these hours, an update to patient placements were left on an answering machine and information updated at the start of the administration shift. At present no record was maintained of the patient's movements either within the unit or when a patient leaves. Inspectors advised staff that a paper system should be put in place immediately to record patient's movements until the IT system was fully operational.

13. **It is recommended that an immediate system is introduced to record retrospective patients' placements.**

Screening policies and procedures were in place and known to staff. All patients are routinely screened on admission for MRSA and weekly thereafter. Inspectors were informed that if a patients critical care admission screens are positive or if their results following discharge or transfer to another ward are positive the receiving or transferring wards are routinely informed. However, there was no clear protocol/policy to guide staff, which outlines nominated staff responsibilities, set timeframes for completion and the recording of actions taken.

14. **It is recommended that a protocol/policy should be developed that identifies individual staff roles and responsibilities in relation to the reporting of laboratory results to receiving or transferring units.**

Contact precautions were not in place for a patient placed in isolation who was colonised with a multiresistant organism. There was no notification on the door and staff did not wear PPE when entering the room. There was also no risk assessment in place for a patient with a possible infection who was being cared for in the main bed area.

15. **It is recommended that staff ensure they follow contact precautions when caring for a patient with or suspected infection.**

3.4 Critical Care Patient Equipment

For organisations to comply with this section they must ensure specialised critical care equipment is effectively cleaned and maintained. Audits of equipment cleaning and education on the use of equipment should be available.

The unit achieved partial compliance in this section of the audit tool. Specialist equipment inspected was generally clean and in a good state of repair. Staff displayed good knowledge of single use equipment.

There was no guidance or routine auditing of the cleaning, storage and replacement of specialised patient equipment, including when a patient is in isolation or during an outbreak.

Areas noted for improvement; the stored noninvasive positive pressure ventilation equipment (NIPPV) was splashed and the oroscope was grubby.

16. **It is recommended that all guidelines should be developed for the cleaning, storage and replacement of specialised patient equipment. Adherence to guidance should be routinely audited by senior nursing staff.**

4.0 Inspection Findings: Regional Infection Prevention and Control Clinical Practices Audit Tool

The Regional Infection Prevention and Control Clinical Practices Audit Tool contain nine sections. The observations of key clinical procedures have shown to reduce the risk of infection if performed correctly. Each section aims to consolidate and build on existing guidance in order to improve and maintain a high standard in the quality and delivery of care and practice in critical care. This will assist in the prevention and control of healthcare associated infections.

Regional Infection Prevention and Control Clinical Practices Audit Tool Compliance Levels

Areas inspected	**Compliance Levels**
Aseptic non touch technique (ANTT)	75
Invasive devices	81
Taking blood cultures	53*
Antimicrobial prescribing	76
Clostridium *difficile* infection (CDI)*	97*
Surgical site infection	91
Ventilated (or tracheostomy) care	N/A
Enteral feeding or tube feeding	78
Screening for MRSA colonisation and decolonisation	86
Average Score	**79**

* Staff practice was not observed during the inspection.
Information was gained through staff questioning and review of unit audits.

The findings indicate that overall partial compliance was achieved. Inspectors identified that an improvement was required in relation to aseptic non touch technique, taking bloods, invasive devices, antimicrobial prescribing and enteral feeding.

During the inspection, clinical practice was observed in the majority of areas. Staff were questioned on all aspects of the clinical practices audit tool and displayed good knowledge on the practical application of clinical procedures.

4.1 Aseptic Non Touch Technique (ANTT)

ANTT is a standardised, best practice and safe aseptic technique used for care the overall management of invasive clinical practices and preparation of medication. For organisations to comply with this section they must have a policy in place; staff should display knowledge and practical skills on the key principles, and audit of staff competency is carried out.

There was no ANTT policy/guidance currently in place. Inspectors were informed that draft clinical guidelines are being developed, estimated for completion by the end of August 2014

17. **It is recommended that the draft ANTT policy is completed and disseminated to staff.**

High dependency unit staff have not yet received training on ANTT. A training package has been developed. The trust engaged with the ANTT network who provided ANTT training on the 30 June 2014 and competence assessment for two controllers within the critical care unit. The two controllers will be responsible for staff competency assessments. These staff competency assessments have not yet commenced. An element of the training package is for staff to view an ANTT DVD. The lead IPC nurse for DHH reported that they are waiting for the IT department to install the DVD on the trust intranet site.

An audit of staff ANTT practice has not yet commenced. The ANTT audit form was completed, awaiting roll out of ANTT training before commencement of audit. Audits will be carried out by staff identified as quality controllers.

On questioning, staff were knowledgeable on when ANTT procedures should be applied, although staff knowledge was based on expertise from previous roles in different HSC trusts.

18. **It is recommended that all unit staff receive training and are competency assessed on ANTT practices and routine auditing of compliance with best practice is commenced.**

4.2 Invasive devices

Invasive devices are medical devices which in whole or in part, penetrate the body, either through a body orifice or through the surface of the body. For organisations to comply with this section they must ensure that there are systems and process in place to ensure a standardised and consistent approach by staff in the insertion and ongoing maintenance of invasive devices.

The unit achieved partial compliance in this section of the audit tool.

Care bundles are available for specific invasive procedures which include instructions regarding the insertion and maintenance of invasive devices.

Invasive device care bundles are available however, had not been formalised into an up to date trust policy for staff to follow that outlines principles and protocols on training and assessment, ANTT, roles and responsibilities, revision date, monitoring compliance etc. The trust currently audit compliance with care bundles for peripheral venous cannulation (PVC) and central venous catheter (CVC). These audits are carried out by the trust audit team however ANTT is not assessed as an aspect of this audit.

As an element of the training package, the trust has developed a number of ANTT pictorial posters with specific reference to an invasive device. These posters will be available within the critical care unit once the training package has initiated.

A number of nursing staff have been competency trained in the insertion of PVC and urinary catheterisation. These training sessions were undertaken within the HSC leadership centre; however inspectors were informed that staff have not received any update training in these interventions since the initial training session.

The batch/lot number was not completed on the documentation for the insertion of invasive devices. On questioning, a staff nurse informed the inspector that they would let the hub of a PVC dry for three seconds before access. Hubs/ports should be allowed to dry for 30 seconds to ensure sufficient decontamination is achieved before they are accessed.

A patient's urinary catheter bag was observed resting on the floor; this was addressed immediately by a staff nurse.

19. **Policies should be developed for invasive devices that to take into account the principles and protocols of the specific device.**

20. **It is recommended that staff receive update training and ongoing competency assessment in the management of invasive devices.**

4.3 Taking Blood Cultures

A blood culture is a microbiological culture of blood. It is employed to detect infections that are spreading through the bloodstream. For organisations to comply with this section they must ensure that a policy is in place, staff display knowledge and practical skills on the key principles and monitoring of the rate of blood cultures is carried out.

The unit was partially compliance in this section of the audit tool.

Best practice guidance is available however this has not been formalised into an up to date trust policy for staff to follow. This should outlines guidance on training and assessment, roles and responsibilities, revision date, monitoring compliance etc.

Inspectors reviewed the notes of a patient that had blood cultures obtained. Inspectors observed that the documented details of obtained blood cultures which include date, time, site and clinical indicators for taking, were not present.

Medical staff are responsible for the obtaining of blood cultures within the critical care unit. Medical staff at induction are asked to complete an e-learning programme on the procedure of obtaining blood cultures. Completion of this was confirmed by a member of the medical team within the critical care

unit however inspectors were informed that staff have not received update training.

21. **It is recommended that trust guidance on best practice on taking blood cultures be formalised, and medical staff receive up to date training in obtaining blood cultures.**

22. **It is recommended that following the collection of blood cultures all relevant information is recorded within the patient's records.**

There are currently no systems in place to monitor compliance with best practice when taking blood cultures. The SHSCT have been in consultation with (ICNet) a software company to develop an infection surveillance software package to meet with the trust needs. The inspection team was informed that this software will allow for the integration of multiple trust systems to provide the IPC team with robust and timely alert organism identification and management.

23. **It is recommended that the trust introduce a system to monitor compliance with best practice when taking blood cultures.**

There is no trust wide surveillance system in place to monitor and review the rate of positive and false positive blood cultures. The trust cannot identify if the contamination rate is less than three per cent. The inspection team were provided with no evidence that the incidence of false positive results are discussed by clinical/nursing/IPC staff.

24. **It is recommended that a system is put in place to monitor and review the rate of positive and false positive blood cultures so the trust can identify if the contaminate rate is less than 3 per cent and evidence to show results are discussed with staff.**

4.4 Antimicrobial prescribing

Antibiotic prescribing should be carried out 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 they must ensure that there are systems and process in place to ensure a standardised and consistent approach by staff to prescribing. Prescribing should be monitored and reviewed.

Electronic/computer aided prescribing tools are not available for use. While there is no ward based pharmacist available, a pharmacist is available in the hospital for advice and guidance.

Inspectors observed that antimicrobial guidelines were in place and cascaded to medical staff as part of induction. A trust wide antimicrobial stewardship team is in place, who meets weekly, and centrally reviews audit results, usage and develops action plans to address identified issues.

Weekly antimicrobial ward rounds within the unit are provided by a member of the microbiology medical team.

Antimicrobial usage auditing in line with antimicrobial prescribing guidance has been undertaken. Inspectors were informed that all consultants receive monthly compliance results and explanations of reasons for documented non-compliance. Consultants also receive six monthly and annual summaries that compare their compliance with the average of all the consultants within their specialty.

Relevant documentation for prescribed antimicrobials for a patient within the critical care unit was not available.

25. **It is recommended that all relevant antimicrobial prescribing information is recorded within the patient's records.**

4.5: Clostridium *difficile* infection (CDI)

The detection and treatment of CDI should be carried out in line with best practice guidance. For organisations to comply with this section they must ensure that guidance on care is in place, staff display knowledge and implement the guidance and adherence to best practice is monitored.

A CDI care pathway or equivalent documentation was not available; CDI within the critical care unit was infrequent. The inspection team was informed by the lead IPCN for the hospital that the last occasion the unit had a patient with CDI was in June 2014, it was a year since the previous case. The SHSCT had the lowest incidence of CDI in comparison to the other HSC trusts with 5 cases for year 2013/14.

The trust utilises RCAs to monitor compliance with best practice CDI management. As part of the RCA patient records are reviewed. Due to the infrequency of CDI regular routine audits are not undertaken. The site lead IPCN informed inspectors that learning from CDI RCAs is disseminated to unit staff at team meetings.

26. **It is recommended that a care pathway or equivalent documentation for CDI is available for staff in the event of a CDI case on the unit.**

4.6: Surgical Site Infection (SSI)

Surgical site infection (SSI) is a type of healthcare associated infection, in which a wound infection occurs after an invasive (surgical) procedure. The majority of surgical site infections are preventable. For organisations to comply with this section they must ensure that systems and processes are in place throughout perioperative (pre, intra and post-operative) care to reduce the risk of infection. A programme of surgical site infection surveillance should be in line with DHSSPS guidance.

Mandatory surveillance of SSI was carried out. There was access to an SSI care bundle however presently only four elements of the bundle was being monitored as aspects of the WHO checklist and theatre pathway.

A review of the theatre pathway by inspectors evidenced that razors were being used when contraindicated as per the preoperative phase of the SSI care bundle.

27. **It is recommended that all elements of the SSI care bundle be monitored and that the use of razors be reviewed.**

4.7: Ventilated (or tracheostomy) Care

Ventilator-associated pneumonia (VAP) is pneumonia that develops 48 hours or longer after mechanical ventilation is given by means of an endotracheal tube or tracheostomy. For organisations to comply with this section they must ensure that guidance on the prevention and care of a patient with VAP is in place and monitored.

This section is not applicable as patients with in the HDU are not ventilated.

4.8 Enteral feeding or tube feeding use

Enteral feeding or tube feeding is defined as a mode of feeding that delivers nutrients directly into the stomach, duodenum or jejunum (gastrostomy, jejunostomy, naso/orogastric tubes). For organisations to comply with this section staff should display awareness of guidelines for the management management of an enteral feeding system; insertion, set up and care. Adherence to best practice should be monitored.

Competence based training has not been provided. Guidance on enteral feeding was available, the trust are developing an evidence based training programme in conjunction with the medical nutrition company ‘nutricia’. Nutricia are also collaborating with the trust to develop labels for enteral feeding lines. Staff are not currently labelling enteral feeding lines, not all staff were aware of the documentation to complete for the recording of NG maintenance information. Inspectors were informed by a staff nurse that the remainder of sterile flush water within bottles used for enteral feeding was being inappropriately emptied down clinical wash basins.

There are currently no systems in place to monitor compliance with enteral feeding protocol and guidance.

28. **It is recommended that competency based training on enteral feeding is provided for staff, and that compliance is audited and issues actioned.**

29. **It is recommended that staff label enteral feed lines in line with best practice guidance, and that documentation recording the NG maintenance information is completed.**

30. **It is recommended that clinical hand wash sink are not used for the disposal of sterile flush water.**

Enteral feeds were not stored in accordance with manufacturer's instructions. Enteral feeds were being stored in a cupboard adjoining ward kitchen (Picture 4). Inspectors observed that the storage cupboard was above the kitchen hobs. While food was being cooked on the hobs, rising steam was saturating the exterior of the enteral feed storage cupboard. On inspection of the interior of the cupboard inspectors observed that internal surfaces were covered in condensation.

31. **It is recommended enteral feeds are stored in line with manufactures guidance.**

Picture 4: Enteral feeds stored in inappropriate kitchen cupboard

4.9 Screening for Meticillin Resistant Staphylococcus Aureus (MRSA) colonisation and decolonisation

The detection and treatment of MRSA should be carried out in line with DHSSPS Best Practice on Screening for MRSA Colonisation (HSS MD 12/2008). For organisations to comply with this section they must ensure that a screening and treatment policy is in place, staff display knowledge of the policy and adherence to best practice is monitored.

The unit achieved a compliance score in this section of the audit tool.

An up to date MRSA screening and treatment policy was not in place. Revised guidelines have been developed, and await approval. Adherence to the MRSA policy or completion of the MRSA care pathway or equivalent documentation was not audited by the IPC team.

There is currently no MRSA pathway or equivalent documentation for staff to complete in managing a patient either colonised or infected with MRSA. Staff recorded MRSA management information within the nursing records. Inspectors found it time consuming to locate screening records and results to identify a patient's current MRSA status within the nursing records.

32. **It is recommended that an up to date MRSA screening and treatment policy and pathway be put in place and that completed documentation is audited and action plans developed where issues are identified.**

Inspectors observed that a nurse's handover record for a patient with MRSA was incomplete and therefore did not identify the patient's current MRSA management status. The inspection team were informed that audits are not routinely undertaken for achievement of isolation.

33. **It is recommended that staff ensure at hand over a full report is completed including the status of patients with infections. Achievement of isolation for MRSA be audited and action plans developed where issues are identified.**

5.0 Inspection Findings: Regional Healthcare Hygiene and Cleanliness Standards and Audit Tool

The Regional Healthcare Hygiene and Cleanliness Standards and Audit Tool provide a common set of overarching standards for all hospitals and other healthcare facilities in Northern Ireland. Inspections using the audit tool gather information from observations in functional areas including, direct questioning and observation of clinical practice and, where appropriate, review of relevant documentation.

The audit tool is comprised of the following sections:

- organisational systems and governance
- general environment
- patient linen
- waste and sharps
- patient equipment
- hygiene factors
- hygiene practices

The section on organisational systems and governance was not reviewed during this unannounced inspection.

Standard 2: General Environment

For organisations to comply with this standard they must provide an environment which is well maintained, visibly clean, free from dust and soilage. A clean, tidy and well maintained environment is an important foundation to promote patient, visitor and staff confidence and support other infection prevention and control measures.

The Regional Healthcare Hygiene and Cleanliness Audit Tool Compliance Levels

General environment	**Compliance levels**
Reception	N/A
Corridors, stairs lift	72
Public toilets	85
Ward/department - general (communal)	98
Patient bed area	98
Bathroom/washroom	73
Toilet	95
Clinical room/treatment room	91
Clean utility room	N/A
Dirty utility room	90
Domestic store	77
Kitchen	81
Equipment store	100
Isolation	96
General information	89
Average Score	**88**

The findings in the table above indicate that although the standard of cleaning and maintenance of the environment was overall compliant there were several areas which required urgent attention.

In the public toilets, on the ground floor, there were cleaning issues relating to dust on surfaces and splashes on walls. One of the ceiling light bulbs was not working.

In the corridor, leading to the HDU, there were marks or stains on the walls and skirting. Windows were dirty and doors and window blinds were damaged. There was debris in chair crevices and the top of metal cabinets was dusty.

The key findings in respect of the general environment for the unit are detailed in the following section.

High Dependency Unit

The key issues identified for improvement in this section of the audit tool were:

- Cleaning issues were identified in several areas for example; in the male shower room the underside of the shower chair was dirty. There was debris and hair in the drain of the shower. The light pull cord was grubby and there were black mould stains on the hand rails. In the domestic store the hand wash sink was dirty, the floor and wall required cleaning.
- Taps at bed space one, the dirty utility room, kitchen and domestic store had lime-scale present.
- Maintenance and repair; there were water stains on the shower room and toilet ceilings. Damage was noted to some walls and doors. In side room two, the wall behind the bed required repair, the plaster work was damaged, the paint finish was flaking, there was a large score to the floor surface.
- There was inconsistent recording of the drugs fridge temperatures.
- Nursing cleaning schedules were not up to date and there were no daily cleaning schedules.
- There were no isolation posters on the doors of the side rooms in use for isolation purposes.
- The National Patient Safety Agency (NPSA) poster on colour coding of cleaning equipment was not displayed for nursing staff.

34. **It is recommended that staff ensure all surfaces are clean, free from lime-scale and in a good state of repair. A maintenance programme should be in place to ensure all building repairs are carried out.**

35. **It is recommended that nursing staff ensure cleaning schedules are completed and include a daily cleaning programme and drugs fridge temperature checks recorded daily.**

36. **It is recommended that staff ensure isolation posters are displayed when appropriate and that NPSA poster on colour coding of equipment is displayed for nursing staff**

Standard 3: Patient Linen

For organisations to comply with this standard, patient linen should be clean, free of damage, handled safely and stored in a clean and tidy environment. The provision of an adequate laundry service is a fundamental requirement of direct patient care. Linen should be managed in accordance with HSG 95(18).

Compliance of Patient Linen

Patient linen	**Compliance levels**
Storage of clean linen	95
Storage of used linen	94
Laundry facilities	N/A
Average Score	**95**

The above table indicates that the unit achieved good overall compliance in the management of patient linen.

Linen was clean and stored appropriately in the designated store. Staff demonstrated good knowledge on the handling of clean and used linen.

Issues identified for improvement in this section of the audit tool were:

- A made up bed had a top sheet with a large hole.
- There were no white linen bags, only red were in use.

37. **It is recommended that staff ensure bed linen is free from damage and there is a supply of appropriately coloured bags to ensure correct segregation and identification of used linen.**

Standard 4: Waste and Sharps

For organisations to comply with this standard they must ensure that waste is managed in accordance with HTM07-01 and Hazardous Waste (Northern Ireland) Regulations (2005). The safe segregation, handling, transport and disposal of waste and sharps can, if not properly managed, present risks to the health and safety of staff, patients, the public and the environment.

Waste bins in all clinical areas should be labelled, foot operated and encased. This promotes appropriate segregation, and prevents contamination of hands from handling the waste bin lids. Inappropriate waste segregation can be a potential hazard and can increase the cost of waste disposal.

Sharps boxes must be labelled and signed on assembly and disposal. Identification of the origin of sharps waste in the event of spillage or injury to staff is essential. This assists in the immediate risk assessment process following a sharps injury.

Compliance of Waste and Sharps

Waste and sharps	Compliance levels
Handling, segregation, storage, waste	97
Availability, use, storage of sharps	95

4.1 Management of Waste

The above table indicates that the unit achieved good overall compliance in the handling and storage of waste and sharps. Issues identified for improvement in this section of the audit tool were:

- In isolation room two, there was household waste in the clinical waste bin.
- The purple lidded burn bin was not labelled, signed or dated on assembly.

38. It is recommended that staff ensure they dispose of waste in the correct waste stream and that burn bins are labelled signed and dated.

4.2 Management of sharps

- Sharps trays were grubby; there was adhesive tape or residue on the trays.

39. It is recommended that staff ensure sharps trays are clean and free from tape or residue.

Standard 5: Patient Equipment

For organisations to comply with this standard they must ensure that patient equipment is appropriately decontaminated. The Northern Ireland Regional Infection Prevention and Control Manual, states that all staff that have specific responsibilities for cleaning of equipment must be familiar with the agents to be used and the procedures involved. COSHH regulations must be adhered to when using chemical disinfectants.

Any unit, department or facility which has an item of equipment should produce a decontamination protocol for that item. This should be in keeping with the principles of disinfection and the manufacturer's instructions.

Compliance of Patient Equipment

Patient equipment	Compliance levels
Patient equipment	86

The above table indicates that the unit achieved compliance in this standard.

The issues identified for improvement in this section of the audit tool were:

- The laryngoscope handle and blade set was out of date. Sister stated that there was a problem sourcing single use sets. Forceps on the phlebotomy trolley were out of their packaging.
- Castors on IV stands and procedure trolleys were rusted; the portable suction machine on the resuscitation trolley was dusty. Trigger tape was not used on stored equipment to indicate it had been cleaned (Picture 5).
- Nursing staff were unsure of the policy for changing nebuliser and oxygen masks and tubing.

Picture 5: Stored patient equipment, no trigger tape

40. **It is recommended that staff should ensure patient equipment is clean, free from damage and sufficient stock held. Stored equipment has an assurance process to identify that it has been cleaned.**

41. **It is recommended that staff should be aware of the trusts guidance on changing nebulizer and oxygen masks and tubing.**

Standard 6: Hygiene Factors

For organisations to comply with this standard they must ensure that a range of fixtures, fittings and equipment is available so that hygiene practices can be carried out effectively.

Compliance of Hygiene Factors

Hygiene factors	**Compliance levels**
Availability and cleanliness of wash hand basin and consumables	96
Availability of alcohol rub	100
Availability of PPE	93
Materials and equipment for cleaning	100
Average Score	**98**

The above table indicates that the unit achieved compliance in two of the section of this in this standard.

The hand hygiene facilities were in a good state of repair and free from any inappropriate items. A range of personnel protective equipment was available on the unit and stored appropriately away from the risk of contamination.

The issues identified for improvement in this section of the audit tool were:

- The numbers of hand wash sinks were not in line with national guidance for a HDU.
- There was a PPE dispenser in the dirty utility room, there is a risk of aerosol contamination, advice on this placement should be sought from the IPC team.

42. It is recommended that the provision of hand wash sinks is reviewed.

43. It is recommended that the IPC team review the position of the PPE dispenser in the dirty utility room.

Standard 7: Hygiene Practices

For organisations to comply with this standard they must ensure that healthcare hygiene practices are embedded into the delivery of care and related services.

Compliance of Hygiene Practices

Hygiene practices	**Compliance levels**
Effective hand hygiene procedures	76
Safe handling and disposal of sharps	92
Effective use of PPE	94
Correct use of isolation	76
Effective cleaning of unit	83
Staff uniform and work wear	83
Average Score	**84**

The above table indicates that only two of the six sections were compliant. The 4 partial compliant sections require immediate attention to improve practice.

The issues identified for improvement in this section of the audit tool were:

- Several issues were noted in relation to staff hand hygiene procedures and wearing of PPE. A nurse quoted five steps rather than seven for hand decontamination. Nursing staff did not wash their hands on entering or leaving an isolation room, or don PPE. One nurse was unsure about using alcohol rub with Clostridium difficile.
- There was one instance of a re-sheathed needle.
- A doctor from theatre entered the unit to use the ABG machine. The doctor was wearing the same gloves which had been donned in theatre.
- The section in relation to isolation was partially complaint, no care plan or assessment of ongoing need was in place for a patient with an infection.
- Staff were unsure of the procedure or the correct dilution rates for disinfectants used for dealing with a blood and body fluid spill. Some nursing staff were not aware of the NPSA colour coding guidelines.
- Staff were not compliant with the dress code policy; long sleeves, stoned rings, a watch and nail polish were all observed.
- Changing facilities were not available for nursing staff.

44. **It is recommended that staff update their knowledge on seven step procedure for decontamination of hands, when to wash their hands and when not to use alcohol rub. On dilution rates for disinfectants in relation to blood and body spills and the NPSA colour coding guidance for cleaning equipment.**

45. **It is recommended that staff follow the correct guidance in relation to the wearing of PPE and hand hygiene when caring for a patient in isolation.**

46. **It is recommended that staff do not re-sheath needles.**

47. **It is recommended that staff ensure a care plan is in place for patients being nursed under isolation precautions.**

48. **It is recommended the all staff comply with the trust dress code practice.**

6.0 Summary of Recommendations

The Regional Critical Care Audit Tool

1. It is recommended that trust ensure the unit sister receives support to develop in the role.

2. It is recommended that an infection prevention and control link nurse is appointed. Infection prevention and control staffing levels are reviewed to facilitate daily visits to the unit.

3. It is recommended that the trust reviews the closure of HDU beds and ensures the unit is staffed appropriately at all times.

4. It is recommended that the unit sister with the support of her line manger establish multi-disciplinary links. Standardised minutes should include IPC as a standing item.

5. It is recommended that a formal process is put in place to ensure information and learning from SAIs can be disseminated to staff and actioned.

6. It is recommended that staff are able to access Occupation Health policy.

7. It is recommended that a robust IPC audit programme is put in place and that a process is put in place to address low or non-compliant audit scores.

8. It is recommended the trust ensure that IPC mandatory training is up to date.

9. It is recommended that information leaflets for relatives and visitors include detail on the concept of bare below the elbow and adherence to the dress code policy were appropriate.

10. As part of any refurbishment/new build planning, core clinical space recommendations should comply with current guidance.

11. It is recommended that ventilation systems are monitored and independently validated.

12. It is recommended that taps are flushed in accordance with department guidance and the trust water safety plan.

13. It is recommended that an immediate system is introduced to record retrospective patients' placements.

14. It is recommended that a protocol/policy should be developed that identifies individual staff roles and responsibilities in relation to the reporting of laboratory results to receiving or transferring units.

15. It is recommended that staff ensure they follow contact precautions when caring for a patient with or suspected infection.

16. It is recommended that all guidelines should be developed for the cleaning, storage and replacement of specialised patient equipment. Adherence to guidance should be routinely audited by senior nursing staff.

The Regional Clinical Practices Audit Tools

17. It is recommended that the draft ANTT policy is completed and disseminated to staff.

18. It is recommended that all unit staff receive training and are competency assessed on ANTT practices and routine auditing of compliance with best practice is commenced.

19. Policies should be developed for invasive devices that to take into account the principles and protocols of the specific device.

20. It is recommended that staff receive update training and ongoing competency assessment in the management of invasive devices.

21. It is recommended that trust guidance on best practice on taking blood cultures be formalised, and medical staff receive up to date training in obtaining blood cultures.

22. It is recommended that following the collection of blood cultures all relevant information is recorded within the patient's records.

23. It is recommended that the trust introduce a system to monitor compliance with best practice when taking blood cultures.

24. It is recommended that a system is put in place to monitor and review the rate of positive and false positive blood cultures so the trust can identify if the contaminate rate is less than three per cent and evidence to show results are discussed with staff.

25. It is recommended that all relevant antimicrobial prescribing information is recorded within the patient's records.

26. It is recommended that a care pathway or equivalent documentation for CDI is available for staff in the event of a CDI case on the unit.

27. It is recommended that all elements of the SSI care bundle be monitored and that the use of razors be reviewed.

28. It is recommended that competency based training on enteral feeding is provided for staff, and that compliance is audited and issues actioned.

29. It is recommended that staff label enteral feed lines in line with best practice guidance, and that documentation recording the NG maintenance information is completed.

30. It is recommended that clinical hand wash sink are not used for the disposal of sterile flush water.

31. It is recommended enteral feeds are stored in line with manufactures guidance.

32. It is recommended that an up to date MRSA screening and treatment policy and pathway be put in place and that completed documentation is audited and action plans developed where issues are identified.

33. It is recommended that staff ensure at hand over a full report is completed including the status of patients with infections. Achievement of isolation for MRSA be audited and action plans developed where issues are identified.

Regional Healthcare Hygiene and Cleanliness Standards and Audit Tool

Standard 2: Environment

34. It is recommended that staff ensure all surfaces are clean, free from lime-scale and in a good state of repair. A maintenance programme should be in place to ensure all building repairs are carried out.

35. It is recommended that nursing staff ensure cleaning schedules are completed and include a daily cleaning programme and drugs fridge temperature checks recorded daily.

36. It is recommended that staff ensure isolation posters are displayed when appropriate and that NPSA poster on colour coding of equipment is displayed for nursing staff.

Standard 3: Patient Linen

37. It is recommended that staff ensure bed linen is free from damage and there is a supply of appropriately coloured bags to ensure correct segregation and identification **of used linen.**

Standard 4: Waste and Sharps

38. It is recommended that staff ensure they dispose of waste in the correct waste stream and that burn bins are labelled signed and dated.

39. It is recommended that staff ensure sharps trays are clean and free from tape or residue.

Standard 5: Patient Equipment

40. It is recommended that staff should ensure patient equipment is clean, free from damage and sufficient stock held. Stored equipment has an assurance process to identify that it has been cleaned.

41. It is recommended that staff should be aware of the trusts guidance on changing nebulizer and oxygen masks and tubing.

Standard 6: Hygiene Factors

42. It is recommended that the provision of hand wash sinks is reviewed.

43. It is recommended that the IPC team review the position of the PPE dispenser in the dirty utility room.

Standard 7: Hygiene Practices

44. It is recommended that staff update their knowledge on seven step procedure for decontamination of hands, when to wash their hands and when not to use alcohol rub. On dilution rates for disinfectants in relation to blood and body spills and the NPSA colour coding guidance for cleaning equipment.

45. It is recommended that staff follow the correct guidance in relation to the wearing of PPE and hand hygiene when caring for a patient in isolation.

46. It is recommended that staff do not re-sheath needles.

47. It is recommended that staff ensure a care plan is in place for patients being nursed under isolation precautions.

48. It is recommended the all staff comply with the trust dress code practice.

7.0 Key Personnel and Information

Members of RQIA's Inspection Team

Lyn Gawley	Inspector Infection Prevention/Hygiene Team
Sheelagh O'Connor	Inspector Infection Prevention/Hygiene Team
Margaret Keating	Inspector Infection Prevention/Hygiene Team
Thomas Hughes	Inspector Infection Prevention/Hygiene Team
Rhoda McFarland	Peer reviewer, Sister ICU, Belfast Health and Social Care Trust

Trust Representatives attending the Feedback Session

The key findings of the inspection were outlined to the following trust representatives:

Ms M Hendry	Patient Experience Manager
MS J Wilson	Patient Experience Manager
MS P Gordon	Sister ICU
MS S Lynam	Clinical Lead Sister ICU
MS M Merron	Infection Prevention Lead
MS A Bradley	Senior Infection Prevention and Control Nurse
Mr M Reid	Consultant ICU
Ms M Byers	Clinical coordinator

Apologies

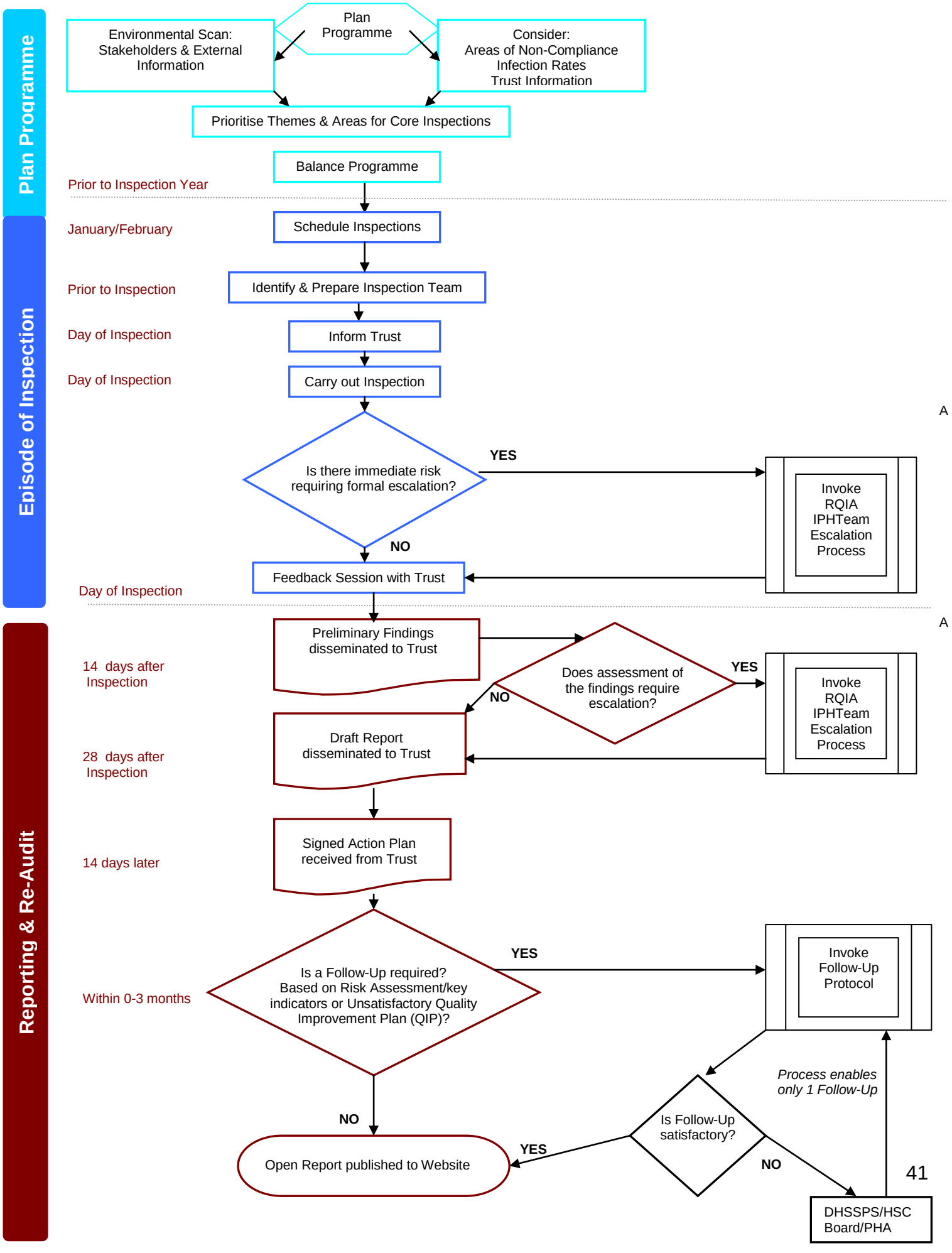
None

8.0 Augmented Care Areas

Based on DHSSPS guidance, the augmented care areas currently identified for inclusion in inspections are:

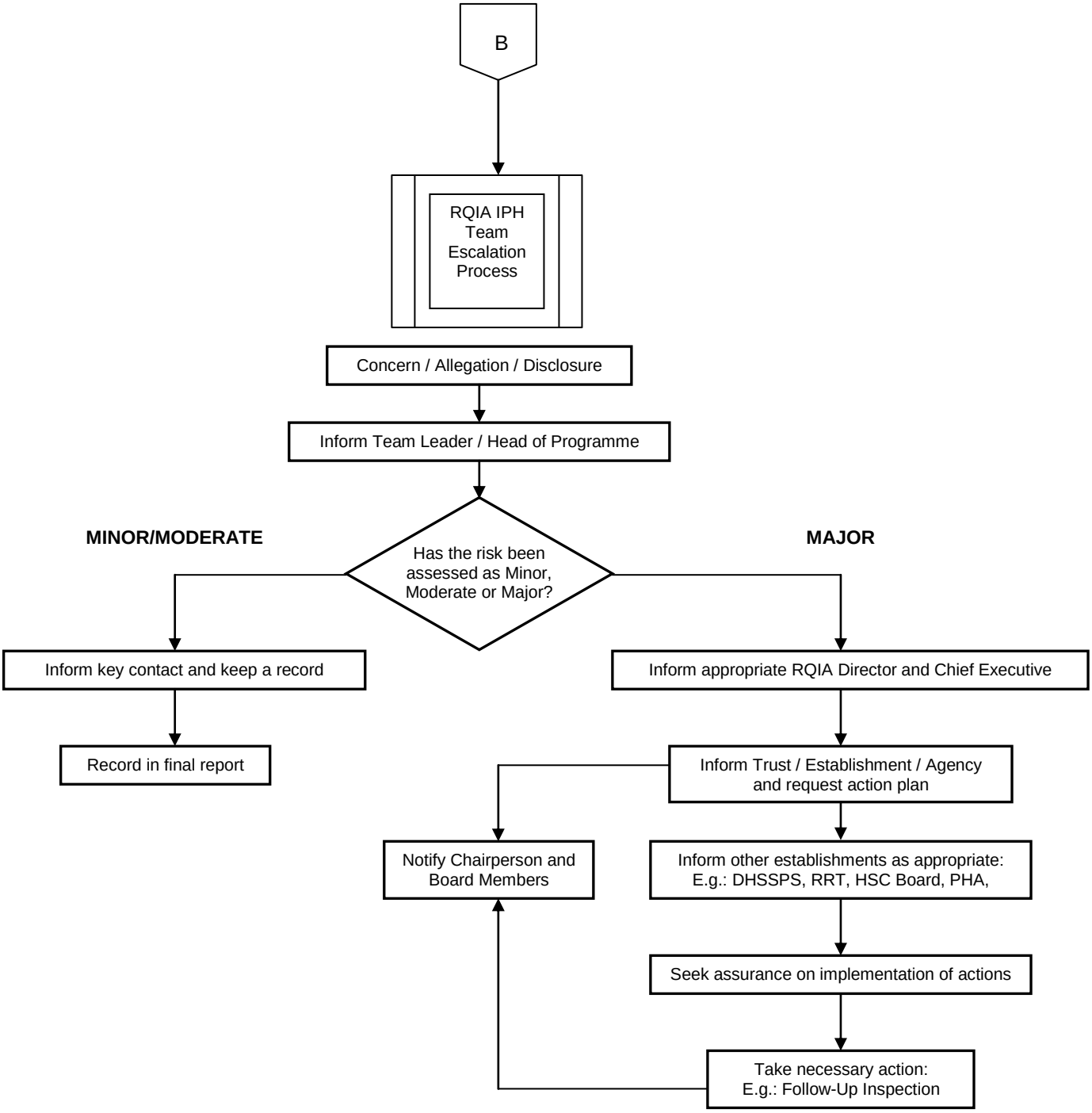
- neonatal and special care baby units
- paediatric intensive care
- all adult intensive care which includes cardiac intensive care
- burns units
- renal (dialysis) units
- renal transplant unit
- high dependency units (HDU)
- haematology
- oncology

9.0 Unannounced Inspection Flowchart



10.0 Escalation Process

RQIA Hygiene Team: Escalation Process



11.0 Quality Improvement Plan

Reference number	Recommendations	Designated department	Action required	Date for completion/ timescale
The Regional Critical Care Audit Tool				
1.	It is recommended that trust ensure the unit sister receives support to develop in the role.	NURSING	Clinical Supervision by Senior ward manager of FSW on a daily basis Head of service to review Clinical sister appointed August 2014	April 2015
2.	It is recommended that an infection prevention and control link nurse is appointed. Infection prevention and control staffing levels are reviewed to facilitate daily visits to the unit.	IPC	• Link nurse appointment is a ward sister's decision. This has been reviewed and 2 link nurse appointed. **<u>Daily IPCN Visits</u>** The Southern Trust approach in relation to infection prevention and control for augmented care areas has been empowerment and support to the clinical staff who staff the ward 24x7. We believe that this is the only sustainable way to change and improve IPC practice. Significant investment of IPCN time is allocated	Completed completed

			to this objective, this includes the provision of targeted support to the clinical teams, creation of the augmented care ward managers forum, development of action plans designed to fulfil the requirements of the augmented care audits, independent audit of clinical practices/ IPC practice and education/training. The daily IPCN workload is determined by clinical priority and infection triggers. This may not always include a daily visit to an augmented care area. The recommendation suggests that staffing is reviewed to facilitate such a daily visit. The IPC team, Consultant Microbiologist and Medical Director have reviewed the practicability and value of undertaking daily visits and has decided that the approach outlined above is more effective in addressing IPC augmented care needs.	

3.	It is recommended that the trust reviews the closure of HDU beds and ensures the unit is staffed appropriately at all times.	NURSING	The Trust does review bed closures in HDU according to staffing levels	completed
4.	It is recommended that the unit sister with the support of her line manager establish multi-disciplinary links. Standardised minutes should include IPC as a standing item.	NURSING	IPC augmented care meetings within the trust are on-going.Following inspection HDU meetings have IPC team member attending and minutes/actions are recorded. Ward meetings all include IPC as standard.	Newly implemented
5.	It is recommended that a formal process is put in place to ensure information and learning from SAIs can be disseminated to staff and actioned.		This is included as part of the Trust's Governance arrangement and feedback/lesson learned are shared at various fora.	complete
6.	It is recommended that staff are able to access Occupation Health policy.	NURSING	Intranet Occupational health policy available Staff can access same Ward sister to ensure all staff can access	completed
7.	It is recommended that a robust IPC audit programme is put in place and that a process is put in place to address low or non-compliant audit scores.	IPC	There is a programme of audit now being embedded in all augmented care areas. The progress of which is monitored at the monthly augmented care sisters meetings. There are elements of this audit programme that are requiring further work at present for us and they are; • Blood cultures • SSI Bundle	March 2015

			However, it has been agreed at HCAI Strategic Forum that the SSI bundle adherence within the Trust is for the moment at an acceptable standard within the Theatre WHO checklist and any further developments will be awaited from a regional direction. The auditing of blood cultures in regard to ANTT and care bundle compliance requires investigation by the trust to agree a suitable workable format for audit. This work will be taken forward at the monthly meetings as above	
8.	It is recommended the trust ensure that IPC mandatory training is up to date.	Nursing	Ward Sister has reviewed and following up with staff who require their update	June 2015
9.	It is recommended that information leaflets for relatives and visitors include detail on the concept of bare below the elbow and adherence to the dress code policy were appropriate.	NURSING	Ward Manager and clinical sister have completed an information leaflet for relatives and visitors	completed
10.	As part of any refurbishment/new build planning, core clinical space recommendations should comply with current guidance.	ESTATES	Due to space restrictions these recommendations could not be fully met. This was deemed a refurbishment for space recommendations.	Completed
11.	It is recommended that ventilation systems are monitored and independently validated.	ESTATES	Ventilation systems are currently being tendered. However, systems are closely monitoring using the BEMS System	April 2015

12.	It is recommended that taps are flushed in accordance with department guidance and the trust water safety plan.	ESTATES	Since the audit, all taps are flushed daily and records kept on site.	Completed
13.	It is recommended that an immediate system is introduced to record retrospective patients placements.	NURSING	Immix system in place. Continues to be up graded to facilitate this Electronic hand over records kept on HDU to capture bed placement.	December2014
14.	It is recommended that a protocol/policy should be developed that identifies individual staff roles and responsibilities in relation to the reporting of laboratory results to receiving or transferring units.	NURSING	This is part of the patient handover protocol and has been reinforce with both nursing and medical staff.	completed
15.	It is recommended that staff ensure they follow contact precautions when caring for a patient with or suspected infection.	NURSING	IPC refresher training in place for HDU staff Staff aware of IPC on intranet Visit from IPC to discuss cases IPC audit to observe this	completed
16.	It is recommended that all guidelines should be developed for the cleaning, storage and replacement of specialised patient equipment. Adherence to guidance should be routinely audited by senior nursing staff.	NURSING	Ward manager /Clinical sister are working on this to find What process would work for the HDU	April 2015
The Regional Clinical Practices Audit Tools				
17.	It is recommended that the draft ANTT policy is completed and disseminated to staff.	IPC	ANTT policy on the intranet all staff have access to this	September 2014
18.	It is recommended that all unit staff receive training and are competency assessed on ANTT practices	NURSING	ANTT Training via E learning by staff champion nurses with the role of	March 2015

	and routine auditing of compliance with best practice is commenced.		rolling out the ANTT in the HDU and auditing it	
19.	Policies should be developed for invasive devices that to take into account the principles and protocols of the specific device.	NURSING/ IPC	ICU and HDU staff are working on the guideline for arterial line management Work has started on a CVC guideline Peripheral line guideline has yet to be started	March 2015
20.	It is recommended that staff receive update training and ongoing competency assessment in the management of invasive devices.	NURSING	Any new devices staff receives recognised competency training. Established devices Updated training provided in accordance with changes in practice and guidelines	March 2015
21.	It is recommended that trust guidance on best practice on taking blood cultures be formalised, and medical staff receive up to date training in obtaining blood cultures.	IPC	The existing document will be formatted into a guideline. Training will develop alongside the rolling programme of ANTT and care bundles	March 2015
22.	It is recommended that following the collection of blood cultures all relevant information is recorded within the patient's records.	IPC	This requirement is being addressed at meetings and a system for recording is under review	March 2015
23.	It is recommended that the trust introduce a system to monitor compliance with best practice when taking blood cultures.	IPC	This will be achieved with the rolling programme for care bundles	March 2015
24.	It is recommended that a system is put in place to monitor and review the rate of positive and false positive blood cultures so the trust can identify if the contaminate rate is less than three per cent and evidence to show results are discussed with staff.	IPC	This recommendation is being considered strategically with the input of the CEO and investment in laboratory resources	June 2015

25	It is recommended that all relevant antimicrobial prescribing information is recorded within the patient's records.	Medicine	There is a system in place to monitor appropriate antimicrobial prescribing and documentation This is fed back on a monthly basis to medical staff. This system will continue	completed
26	It is recommended that a care pathway or equivalent documentation for CDI is available for staff in the event of a CDI case on the unit.	IPC	The IPCT have developed a robust c diff guideline which allows for all information in the care of a new case to be accessed via the intranet	completed
27	It is recommended that all elements of the SSI care bundle be monitored and that the use of razors be reviewed.	Theatres	The SSI care bundle has not been implemented in all specialties – currently only in T&O & maternity, neither group of patient is cared for in HDU. Electric razors with single use heads are used for prepping patients in theatre	completed
28	It is recommended that competency based training on enteral feeding is provided for staff, and that compliance is audited and issues actioned.	NURSING	Competency based training on enteral feeding is provided for staff, and compliance is now in place. Audit will roll with the care bundles	June 2015
29	It is recommended that staff label enteral feed lines in line with best practice guidance, and that documentation recording the NG maintenance information is completed.	IPCT Nursing	The labelling of all lines is presently out for consultation regionally Once accepted this will be actioned within the unit in its totality as per regional guidelines Iv fluids have labels with date to be recorded/pegs and NG are purple sets/CVC are blue and labelled/Arterial are fed and labelled	June 2015

			/Epidural are yellow and labelled/PCA are labelled.	
30	It is recommended that clinical hand wash sink are not used for the disposal of sterile flush water.	nursing	**Hand washing sinks are for hand washing only All nursing staff aware**	Completed
31	It is recommended enteral feeds are stored in line with manufactures guidance.	nursing	Enteral feeds are now stored in the pharmacy room	completed
32	It is recommended that an up to date MRSA screening and treatment policy and pathway be put in place and that completed documentation is audited and action plans developed where issues are identified.	IPC	There is an up to date guideline now available and action is being taken on the design and introduction of a MRSA care pathway	June 2015
33	It is recommended that staff ensure at hand over a full report is completed including the status of patients with infections. Achievement of isolation for MRSA be audited and action plans developed where issues are identified.	NURSING	Full hand over will include patient infection status on nursing notes Look at redesigning the SBAR for electronic hand over MRSA audit is now developed and available on the intranet	December 2014
Regional Healthcare Hygiene and Cleanliness Standards and Audit Tool Standard 2: Environment				
34.	It is recommended that staff ensure all surfaces are clean, free from lime-scale and in a good state of repair. A maintenance programme should be in place to ensure all building repairs are carried out.	SUPPORT SERVICES /ESTATES	All cleaning issues have been actioned. Maintenance and repair issues are reported and being actioned Building repairs are actioned on request	Completed 5/11/14

35.	It is recommended that nursing staff ensure cleaning schedules are completed and include a daily cleaning programme and drugs fridge temperature checks recorded daily.	NURSING	A cleaning schedule has been put in place Audited weekly by Manager and actioned. A new fridge ordered that will allow the recording of max and minimum temperature for HDU	March 2015
36.	• It is recommended that staff ensure isolation posters are displayed when appropriate and • that NPSA poster on colour coding of equipment is displayed for nursing staff.	NURSING	Staff advised to display Isolation posters when appropriate and are readily available. NPSA posters are available in the dept	completed
Standard 3: Patient Linen				
37.	It is recommended that staff ensure bed linen is free from damage and there is a supply of appropriately coloured bags to ensure correct segregation and identification of used linen.	NURSING / SUPPORT SERVICES	Linen room supervisor has been advised to ensure sufficient coloured bags are supplied to the ward Nurses not to put damaged linen on to beds	completed
Standard 4: Waste and Sharps				
38.	It is recommended that staff ensure they dispose of waste in the correct waste stream and that burn bins are labelled signed and dated.	NURSING	This has been actioned and checked by Sister on weekly spot checks	completed
39.	It is recommended that staff ensure sharps trays are clean and free from tape or residue.	NURSING	Daily spot checks	completed
Standard 5: Patient Equipment				
40.	It is recommended that staff should ensure patient equipment is clean, free from damage and sufficient stock held. Stored equipment has an assurance process to identify that it has been cleaned.	NURSING	Assurance process still to be developed. Label to be developed to place on equipment Designated person to clean, report any damage to manager and ensuring that there is adequate and sufficient stock at unit level	March 2015

			This will be monitored by ward manager	
41	It is recommended that staff should be aware of the trusts guidance on changing nebulizer and oxygen masks and tubing.	NURSING	Unit nursing staff have reviewed practice and are implementing guidance	completed
Standard 6: Hygiene Factors				
42	It is recommended that the provision of hand wash sinks is reviewed.	ESTATES/ IPC	IPC have reviewed provision of hand washing sinks and due to layout of unit have decided not to increase number of sinks	completed
43	It is recommended that the IPC team review the position of the PPE dispenser in the dirty utility room.	IPC	The IPC have reviewed the location of the PPE dispenser in the sluice room; this location addresses the risk to staff in having to deal with body fluids and cleaning.	completed
Standard 7: Hygiene Practices				
44.	It is recommended that staff update their knowledge on seven step procedure for decontamination of hands, when to wash their hands and when not to use alcohol rub. On dilution rates for disinfectants in relation to blood and body spills and the NPSA colour coding guidance for cleaning equipment.	IPC	The NPSA colour coding for nursing staff has not been agreed regionally or locally for training. Should this be agreed regionally this will be embedded in training Following the inspection IC training was provided to the unit staff and all aspects of hand hygiene and dilution was covered	completed
45.	It is recommended that staff follow the correct guidance in relation to the wearing of PPE and hand hygiene when caring for a patient in isolation.	NURSING	Staff have had update by IPC	completed

46.	It is recommended that staff do not re-sheath needles	NURSING	This is hospital policy Highlighted to all staff	completed
47.	It is recommended that staff ensure a care plan is in place for patients being nursed under isolation precautions.	NURSING	This is being monitored by the Clinical sister. That staff complete care plans	completed
48.	It is recommended the all staff comply with the trust dress code practice.	NURSING	Post RQIA visit meeting took place and this was highlighted to all staff	completed

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