The Regulation and Quality Improvement Authority

The Regulation and Quality Improvement Authority

Unannounced Infection Prevention/Hygiene Augmented Care Inspection

Year 2 Inspection

Daisy Hill Hospital
High Dependency Unit

1 and 2 March 2016

informing and improving 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.

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1.0 Inspection Summary

The three year improvement programme of unannounced inspections to augmented care areas commenced in Daisy Hill Hospital High Dependency Unit (HDU) on 17 and 18 July 2014 (Picture 1).

Picture 1: High Dependency Unit Entrance

RQIA use audit tools as an assessment framework to build progressive improvement over the 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.

The findings of the inspection indicated that the unit achieved year two compliance rate of over 90 per cent in:

- The Regional Healthcare Hygiene and Cleanliness Standards and Audit Tool.

As a result, this tool was not included as part of the year two inspection programme.

The HDU did not achieve the set compliance level in the Regional Critical Care Infection Prevention and Control Audit Tool and the Regional Infection Prevention and Control Clinical Practices Audit Tool for year one. An unannounced inspection was undertaken to the HDU on 1 and 2 March 2016 as part of the three-year improvement programme. The inspection team comprised of three RQIA inspectors. Details of the inspection team and trust representatives who received feedback can be found in section 6.

The report highlights strengths as well as areas for further improvement, and includes recommendations and a quality improvement action plan. This can be read in conjunction with year one inspection report www.rqia.org.uk.

Overall the inspection team found evidence that the HDU at Daisy Hill Hospital was working to comply with the regional audit tool inspected.

Inspectors observed:

- The unit achieved year two compliance with the Regional Critical Care Infection Prevention and Control Audit Tool and the Regional Infection Prevention and Control Clinical Practices Audit Tool

Inspectors found that the key areas for further improvement were:

- The layout and design of the unit
- Compliance auditing with best practice in ANTT, invasive device care bundles, blood cultures and enteral feeding

Inspectors observed the following areas of good practice:

- The cleaning of the unit and patient equipment was to a high standard
- Unit staff had been very proactive in addressing the issues identified within the year one inspection
- The infection prevention and control (IPC) team provided good support mechanisms for the unit staff

The inspection resulted in **18** recommendations for improvement listed in Section 5.

The inspection in **2014** resulted in **16** recommendations, related to the Regional Critical Care Infection Prevention and Control Audit Tool**. 12** recommendations have been addressed, **four** have been repeated and there are **four** new recommendations. There were **17** recommendations, related to the Regional Infection Prevention and Control Clinical Practices Audit Tool. **11** recommendations have been addressed, **six** have been repeated and there are **four** new recommendations.

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 would like to thank 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	17&18 July 2014	1&2 March 2016
Local Governance Systems and Processes	77	95
General Environment – Layout and Design	53	58
General Environment – Environmental Cleaning	100	100
General Environment – Water Safety	95	95
Clinical and Care Practice	71	91
Patient Equipment	82	100
Average Score	**80**	**90**

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

Areas inspected	17&18 July 2014	1&2 March 2016
Aseptic non touch technique (ANTT)	75	93
Invasive devices	81	87
Taking Blood Cultures	53	88*
Antimicrobial prescribing	76	88
Clostridium *difficile* infection (CDI)	97	100*
Surgical site infection	91	100*
Ventilated (or tracheostomy) care	N/A	N/A
Enteral Feeding or tube feeding	78	88*
Screening for MRSA colonisation and decolonisation	86	97*
Average Score	**79**	**93**

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

	Year 1	Year 2
Compliant	85% or above	90% or above
Partial Compliance	76% to 84%	81 to 89%
Minimal Compliance	75% or below	80% 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 six 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	17/18 July 2014	1/2 March 2016
Local Governance Systems and Processes	77	95
General Environment – Layout and Design	53	58
General Environment – Environmental Cleaning	100	100
General Environment – Water Safety	95	95
Clinical and Care Practice	71	91
Patient Equipment	82	100
Average Score	**80**	**90**

The findings indicate that whilst overall compliance was achieved in relation to the Regional Critical Care Infection Prevention and Control Audit Tool, inspectors identified that the layout and design of the unit continues to be of specific concern.

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. Good compliance was achieved with this section.

Leadership and Management

Since the year one inspection of the HDU we have observed substantive progress in the management of IPC governance systems and processes within this unit. The unit sister, displayed good leadership, management and knowledge on IPC. There are two dedicated IPC link nurses within the unit. Link staff can avail of protected time for appropriate IPC training opportunities. The IPC team facilitates study sessions/ master classes for all trust link staff. Link staff access IPC link meetings via video conferencing from Craigavon

Area Hospital and cascade information to unit staff via team meetings and safety briefs. Minutes of the IPC link meetings were available via the trust intranet site. Unit staff displayed good awareness of IPC measures, precautions and topical issues.

The unit has a dedicated trust IPC nurse. We were informed that IPC staff visit the unit daily during the core working week to provide advice and support. Visits by IPC staff can be increased for outbreak management.

The unit is commissioned for seven beds however it is sometimes flexed up to full capacity of 10 beds to cope with hospital/trust bed pressures. Staff reported that this increases the footfall within the unit. We were informed that the unit should receive the support of an additional nurse from another hospital ward to assist in managing the increased capacity. This however does not always occur and unit staff have to cover the additional care needs of these patients. Senior staff reported that this has greatly impacted in the availability of staff to carryout auditing of IPC performance indicators

1. **The unit should be staffed appropriately at all times and protected time should be allocated for staff to perform key IPC initiatives. (Repeated)**

Review of Documentation

Staff meetings within the unit occurred monthly. The meeting minutes had a good format with IPC a standing item on the agenda. A review of the minutes evidenced discussion on ANTT, antibiotic prescribing, audit scores and environmental cleaning. The IPC team had facilitated augmented care sisters meetings. These meetings promoted shared learning of IPC issues and collaborative working amongst augmented care areas. The inspection team were disappointed to be informed that meetings had been cancelled due to low numbers attending.

The trust Healthcare Associated Infection (HCAI) Strategic IPC forum meets bimonthly. The forum provides an opportunity for discussion in relation to performance with HCAI targets, water safety, IPC audits and surveillance activity.

A review of documentation evidenced that incidents relating to IPC were appropriately reported and acted on. Root cause analysis (RCA) is carried out for MRSA/MSSA bacteraemia and Clostridium *difficile* infections (CDI). Documentation from these meetings evidenced, that a multidisciplinary approach was taken to this process and evidence provided indicated that staff received timely feedback from such incidents.

All staff questioned, had a good knowledge of IPC guidance documents, policies and procedures, and were able to access the relevant documents on the staff intranet site.

Staff members questioned, were knowledgeable of the appropriate action to take in the event that they develop an infection. We note however that an overarching occupational health/infection prevention and control policy was not available. We were provided with a draft document that outlined guidance on screening, immunisation and the management of infection to negate the risk and transmission of infection to patients. We were informed that this document is currently being reviewed and once completed will be made available for staff guidance on the trust intranet site.

2. **An occupational health policy to negate the risk of the transmission of infection should be available for staff guidance. (Repeated)**

A system was in place for unit staff to identify and report maintenance and repair issues.

Audit

Local audits were undertaken to improve IPC practices within the unit. Audits undertaken included: hand hygiene, commode and environmental cleanliness. Independent validation of hand hygiene practices and commode audits were carried out by the trust audit team. We observed good compliance with these audits throughout 2015/16. A trust escalation process was in place should issues of non-compliance with audits be identified. An action plan was available for a suboptimal hand hygiene score identified in September 2015. The action plan included an increase in audit frequency and continued validation audits. We observed that audit results were not displayed publicly within the unit. It would be good practice to display key results for the public.

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 of infection.

Inspectors noted that mandatory and non-mandatory surveillance programmes were in place. Surveillance data is analysed by the microbiology and the IPC teams and discussed at the trust HCAI Strategic IPC forum. This forum reviews the current trust incidence of CDI, MRSA and MSSA bacteraemia in line with set Public Health Agency (PHA) targets. The local surveillance system alerted staff to a recent flu outbreak within the unit. Reviewed documentation evidenced an investigation and measures taken to control and prevent transmission.

Training and Development

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

Training records available highlighted that all unit staff had participated in the trust's induction programme and all staff are up to date with IPC mandatory training.

The unit does not have a clinical educator; however it would be good practice for unit staff to strengthen links with the critical care unit at Craigavon Area Hospital for support and expertise.

3. **Links should be strengthened with the critical care unit at Craigavon Area Hospital for support and expertise. (New)**

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 resources was available to advise patients, visitors and staff of IPC precautions. Leaflets were provided for relatives on hand hygiene, visiting times and advice in relation to bringing food into hospital. Posters on the seven step hand washing technique and the use of alcohol rub were at each hand wash sink.

A new relative's information leaflet had recently been developed, the leaflet provides guidance for relatives in the appropriate use of clinical hand wash sinks and to use alcohol rub every time you enter and leave the HDU. Relatives/ visitors are signposted by staff to alcohol hand rub stations and clinical hand wash sinks when they enter the unit.

We were informed that advice for relatives in not bringing outside coats into the unit and being 'bare below the elbow' is guided by risk and advice from the IPC team.

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, decontaminate equipment and to ensure effective isolation. The unit has again achieved minimal compliance in the layout and design of the environment.

The HDU consists of 10 bed spaces, incorporating two side rooms. As no bed reconfiguration changes have been made to the unit since the first inspection the allocation of space in the clinical areas of the unit continues to be viewed as inadequate.

The core clinical space around patients' beds for the delivery of care was not within 80 per cent of the minimum dimensions currently recommended for existing units by the DHSSPSNI.

Although the core clinical space did not meet current recommended requirements, staff were working within these limitations to deliver safe and effective care. Inspectors observed that bed spaces were clean and free from clutter during the inspection.

There were two single rooms available within the unit. These rooms were used for the isolation of patients to control the spread of infection or for the protection of immunosuppressed patients. This is not in line with numbers recommended by the DHSSPS and outlined in the audit tool; a minimum of four single rooms per eight beds. There is also no dedicated area for the cleaning of equipment.

There was no dedicated visitors' overnight accommodation or a relative's room for quiet confidential conversation; patients and staff use the sister's office. There was no staff changing facilities although staff toilets and a locker room was available.

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

The arterial blood gas analyser is located within the clean utility room. The number of analysers is limited within the hospital. Staff come into the unit from other areas of the hospital to use the analyser. Staff reported that this is a frequent occurrence which contributes to increasing the footfall within the unit.

5. **The placement of the arterial blood gas analyser should be reviewed. (New)**

Inspectors evidenced that ventilation systems are routinely monitored, serviced and cleaned by the estates department.

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.

Good practice was observed and the unit was fully compliant in this section on environmental cleaning. Environmental cleaning; guidelines, audit and staff competency based training were in place and reviewed. On questioning, staff displayed good knowledge on appropriate cleaning procedures. There was a programme of de-cluttering in place as part of the unit cleaning schedule. Terminal cleans are signed off by the ward sister and randomly validated by cleaning staff supervisors.

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 compliant in relation to water safety. An overarching trust water safety plan was in place. A risk assessment had been completed for legionella by external contractors however, we were provided with no evidence that a Pseudomonas risk assessment had been completed within the unit in line with HTM 04-01 Addendum *Pseudomonas aeruginosa* –advice for augmented care areas. .

6. **A pseudomonas risk assessment should be completed within the high dependency unit. (New)**

Collection of tap water samples to facilitate microbiological organism testing and analysis was carried out. The trust carries out a monthly schedule of water sampling for legionella and six monthly sampling for Pseudomonas *aeruginosa* from all outlets in augmented care areas.

All results of water analysis are reported to the trust water safety group. The group is inclusive of staff from IPC, estates and clinical representatives. Water safety data is presented, reviewed and discussed at the HCAI Strategic IPC Forum. All water outlets were flushed regularly within the unit. This ensures that water does not stagnate within the water system and is in line with best practice guidelines. We observed that all flushing records were available and satisfactorily completed.

Hand washing sinks were used correctly - only for hand washing. Bodily fluids and cleaning solutions were not disposed of down hand washing sinks. 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.

Point of use filters (POU) were observed on taps within the unit. We were informed that initially the unit sister had not been informed of the rationale for their use. The POU filters had been put on taps as a precautionary measure as an issue had been identified in another area of the trust. The POU filters were not documented with the date they were put in place or the date that they were to be removed/ changed. (Picture 2)

Picture 2: Point of use Filter

7. **Unit staff should be explicitly informed of the rationale when points of use filters are used within the unit. Point of use filters should be clearly documented with placement and change dates. (New)**

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 critical care.

Compliance was achieved in this section of the audit tool. During the inspection, staff allocation ensured optimal IPC practices. A retrospective patient placement system to identify which bed space the patient is in during their stay in critical care was available. Staff should also ensure that the bed ID number is recorded within each patient's notes.

To facilitate the continuity of care following the transfer of a patient to another unit, staff members complete a HDU Transfer form, which allows staff to document any relevant IPC issues. Screening policies and procedures were in place and known to staff. All patients were routinely screened on admission for MRSA and for CPE dependent on the specific area they were being transferred from.

We were informed that all lab results or pending results are logged onto the electronic care record (ECR) system. This system ensures that when patients are being transferred to other areas that the receiving units are explicitly informed of positive results. We were informed that if admission screens are positive and dependent upon the identified risk of the organism, the transferring unit would also be verbally informed. There is however no set protocol that identifies which staff members are allocated this responsibility.

8. **A protocol should be developed that identifies staff roles and responsibilities in relation to the reporting of laboratory results to receiving or transferring units. (Repeated)**

Staff washed patients in water from a source of known quality and used alcohol rub after hand washing when caring for patients. Staff were aware of risk factors that cause skin injury; patient's skin condition was recorded in care records. Staff compliance with the trust hand hygiene policy throughout the inspection was very good.

3.4 Critical Care Patient Equipment

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

The unit achieved full compliance in this section of the audit tool. Specialist equipment inspected was clean and in a good state of repair. A trigger system was in place to identify when items of equipment were cleaned. Staff displayed good knowledge of single use equipment. There was guidance and routine auditing of the cleaning, storage and replacement of specialised patient equipment (Picture 3).

Picture 3: Equipment cleaning guidance aide-memoire

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	**17&18 July 2014**	**1&2 March 2016**
Aseptic non touch technique (ANTT)	75	93
Invasive devices	81	87
Taking Blood Cultures	53	88*
Antimicrobial prescribing	76	88
Clostridium *difficile* infection (CDI)	97	100*
Surgical site infection	91	100*
Ventilated (or tracheostomy) care	N/A	N/A
Enteral Feeding or tube feeding	78	88*
Screening for MRSA colonisation and decolonisation	86	97*
Average Score	**79**	**93**

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

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

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 the overall care 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.

The unit achieved compliance in this section of the audit tool. ANTT guidance was available. Ward based ANTT assessor/cascade trainers were in place; nursing staff have received competency based training and assessment on ANTT. A senior member of medical staff has been trained as an ANTT champion and assessor for peer and junior doctors. Medical staff have yet to complete competency based assessment. Due to the large number of medical staff to complete this assessment, thought should be given to a second medical champion.

On questioning, staff were knowledgeable on when ANTT procedures should be applied. Due to staffing issues, already outlined in this report, routine ANTT auditing of practice is not carried out.

9. **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 and issues identified actioned. (Repeated)**

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 were available for specific invasive procedures which include instructions regarding the insertion and maintenance of invasive devices. Work is currently underway to further develop these bundles into trust policies that outline guidance on training and assessment, roles and responsibilities, revision date, monitoring compliance, ANTT etc.

10. **It is recommended that policies should be developed for invasive devices, including enteral feeding, that take into account the principles and protocols of the specific device. (Repeated)**

Inspectors were informed that with the exception of enteral feeding, long term staff have not received any update training in invasive device procedures. Documentation for the insertion of peripheral cannula and urinary catheters was completed. The batch number should be added to the peripheral cannula insertion form. Staff should ensure urinary catheter care is documented.

On questioning, staff were knowledgeable on the management of invasive devices. The last central line infection in the unit was in 2012.

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

There is currently no routine auditing of compliance with care bundles.

12. **It is recommended that care bundles are routinely audited and issues identified actioned. (New)**

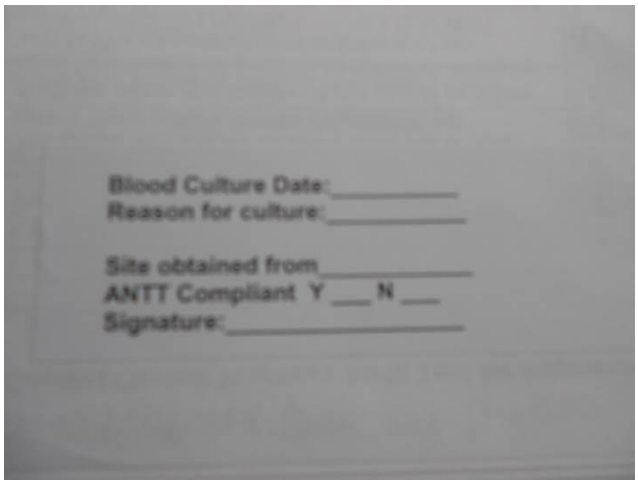
4.3 Taking Blood Cultures

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 compliant in this section of the audit tool. Staff practice was not observed. Information was gained through staff questioning and review of documentation.

Blood culture guidance is in place. This guidance outlines roles and responsibilities, application, ANTT, revision date, etc.

Medical staff are responsible for the obtaining of blood cultures within the unit. Medical staff complete an e-learning training on the procedure for taking blood cultures. A blood culture sticker is in use for recording information when a blood culture is taken; this should be updated to include the time taken. (Picture 4)



Picture 4: Blood Culture sticker

A trust wide surveillance system is in place to monitor and review the rate of positive and false positive blood cultures. However, we were advised that discussion of these rates is no longer on the trust strategic agenda. Augmented care sisters meetings, as discussed earlier, have stopped. The

unit contamination rate is zero per cent. Documentation provided evidenced discussion at local HDU multidisciplinary team meetings.

13. **It is recommended that the rate of positive and false positive blood cultures and contaminate rate is discussed at trust strategic level. (New)**

There are currently no systems in place to monitor compliance with best practice when taking blood cultures.

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

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.

Inspectors observed that antimicrobial guidelines were in place however had past the review date. We were informed by the trust antimicrobial pharmacist that there is a phasing out of this policy, with the development of specific condition targeted guidance e.g. adults with urinary infections, cellulitis. These are accessible to staff on the trust intranet.

15. **It is recommended that the trust continue with the development of new condition targeted antibiotic guidelines. (New)**

New medical staff are signposted to antibiotic guidelines by the microbiologist as part of induction. The antimicrobial pharmacist has a session on the FY0 induction programme.

Electronic/computer aided prescribing tools are not available for use. While there is no dedicated ward based pharmacist available, a pharmacist is available across the surgical floor for advice and guidance. A member of the microbiology team, antimicrobial pharmacist and clinician carries out weekly antimicrobial ward rounds.

16. **It is recommended that electronic/computer aided prescribing tools are introduced. (New)**

A trust wide antimicrobial stewardship team is in place, and centrally reviews audit results, usage and develops action plans to address identified issues. Medical staff further discuss antibiotic usage, compliance and prescribing at morbidity and mortality meetings.

Antimicrobial usage auditing in line with antimicrobial prescribing guidance has been undertaken. The unit achieved 100 per cent for the global point prevalence survey carried out in 2015. Inspectors were informed that all consultants receive monthly compliance results and explanations of reasons for documented non-compliance.

Relevant documentation for prescribed antimicrobials for a patient within the unit was available.

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.

Staff practice was not observed. Information was gained through staff questioning and review of documentation.

New trust guidelines are in place for staff to follow 'Guidelines on the Prevention, Detection and Management of Clostridium difficile Infection'. The guidelines are due for review in 2017. CDI within the unit is infrequent. The inspection team was informed by the IPC nurse that last CDI within the unit was in June 2014.

Staff questioned on CDI, were knowledgeable on the actions to take and documentation to complete. A new CDI pathway is in place for the unit. The pathway includes a daily assessment sheet for medical staff to populate and a separate sheet, or care bundle audit, for senior nursing staff. The pathway states the patient must be in isolation within two hours of suspicion of infective diarrhoea. If this cannot be achieved, IPC staff must be informed immediately for escalation. As the IPC nurse visits the unit daily, compliance with the care bundle can be audited.

The trust utilises root cause analysis (RCA) 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 IPC nurse informed inspectors that learning from CDI RCA is disseminated to unit staff at team meetings.

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.

Information was gained through staff questioning and review of documentation.

The trust carry out mandatory surveillance of SSI; caesarean section, orthopaedic surgery. Patient Safety dashboards provided evidenced that for Quarter 3 of 2015, the trust was below the Northern Ireland SSI average for both surgery types. These are discussed a relevant SSI improvement teams. Minutes from SSI caesarean section team meeting in December 2105 advised that the trust return rates for surveillance forms remained below the Northern Ireland average. This was being addressed.

There was access to an SSI care bundle. Four elements of the bundle are being monitored as aspects of the WHO checklist and theatre pathway. In September 2015, Daisy Hill achieved 85 per cent compliance with the bundle.

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 unit 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.

The unit was partially compliant in this section of the audit tool. There were no patients with enteral feeding during the inspection. Information was gained through staff questioning and review of documentation

Guidance on enteral feeding was available however are past the review date. Competence based training is currently being provided; six staff completed. On questioning, staff were knowledgeable on the management of enteral feeds, including correct disposal of unused enteral feeds.

Staff are not currently labelling enteral feeding lines. Staff use a sticky label that comes with NG tube, to affix in notes. This label does not state the size of the tube, which according to trust policy should be documented. Enteral feeds

were stored the pharmacy room, in accordance with manufacturer's instructions.

There is currently no routine auditing of compliance with best practice for enteral feeding bundle.

17. **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. (Repeated)**

18. **It is recommended that compliance with enteral feeding best practice is audited and issues actioned. (Repeated)**

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 compliance in this section of the audit tool. An up to date MRSA screening and treatment policy was in place. An MRSA pathway is currently in draft.

Unit staff audit adherence to the MRSA policy, to include achievement of isolation. Once in place the IPC team should audit the completion of the MRSA care pathway. There had been no patients identified with a MRSA bacteraemia within the unit from April 2015 – March 2016.

5.0 Summary of Recommendations

The Regional Critical Care Audit Tool

1. The unit should be staffed appropriately at all times and protected time should be allocated for staff to perform key IPC initiatives. **(Repeated)**

2. An occupational health policy to negate the risk of the transmission of infection should be available for staff guidance. **(Repeated)**

3. Links should be strengthened with the critical care unit at Craigavon Area Hospital for support and expertise. **(New)**

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

5. The placement of the arterial blood gas analyser should be reviewed. **(New)**

6. A pseudomonas risk assessment should be completed within the high dependency unit. **(New)**

7. Unit staff should be explicitly informed of the rationale when points of use filters are used within the unit. Point of use filters should be clearly documented with placement and change dates. **(New)**

8. A protocol should be developed that identifies staff roles and responsibilities in relation to the reporting of laboratory results to receiving or transferring units. **(Repeated)**

The Regional Clinical Practices Audit Tools

9. 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 and issues identified actioned. **(Repeated)**

10. It is recommended that policies should be developed for invasive devices, including enteral feeding, that to take into account the principles and protocols of the specific device. **(Repeated)**

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

12. It is recommended that care bundles are routinely audited and issues identified actioned. **(New)**

13. It is recommended that the rate of positive and false positive blood cultures and contaminate rate is discussed at trust strategic level. **(New)**

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

15. It is recommended that the trust continue with the development of new condition targeted antibiotic guidelines. **(New)**

16. It is recommended that electronic/computer aided prescribing tools are introduced. **(New)**

17. 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. **(Repeated)**

18. It is recommended that compliance with enteral feeding best practice guidance is audited and issues actioned. **(Repeated)**

6.0 Key Personnel and Information

Members of RQIA's Inspection Team

Thomas Hughes	Inspector Infection Prevention/Hygiene Team
Lyn Gawley	Inspector Infection Prevention/Hygiene Team
Sheelagh O'Connor	Inspector Infection Prevention/Hygiene Team

Trust Representatives attending the Feedback Session

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

Heather Troughton	Assistant Director
Anita Carroll	Assistant Director
Margaret Donnelly	Ward Sister
Jenny Lavery	Clinical Sister
Colin Clarke	Lead Infection Prevention & Control Nurse
Maggie Markey	Infection Prevention & Control Nurse
Josephine Mathews	Infection Prevention & Control Nurse
Annette McKevit	Support Services Manager

Apologies

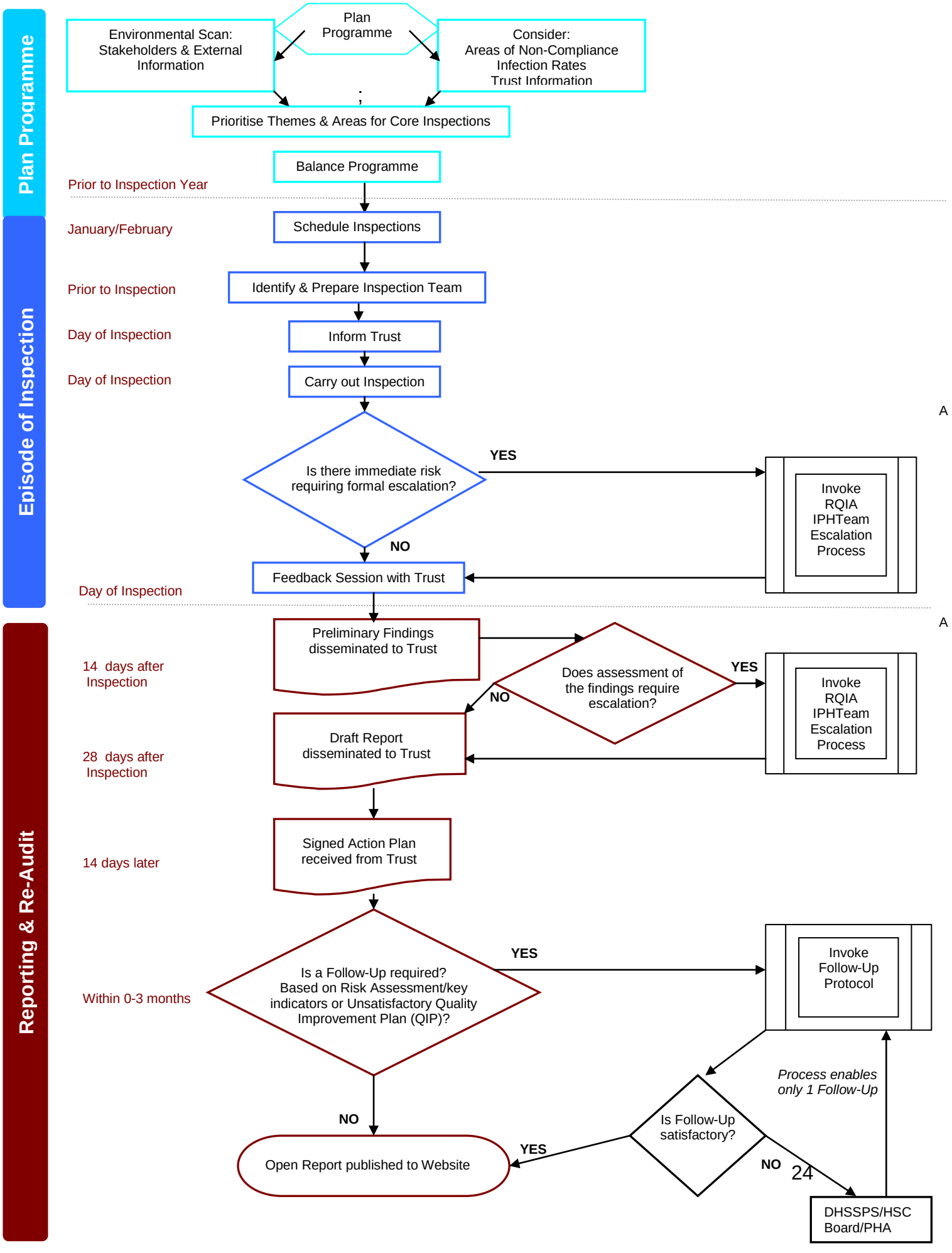
Trudy Reid	Head of Service Surgical/ENT

7.0 Augmented Care Areas

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

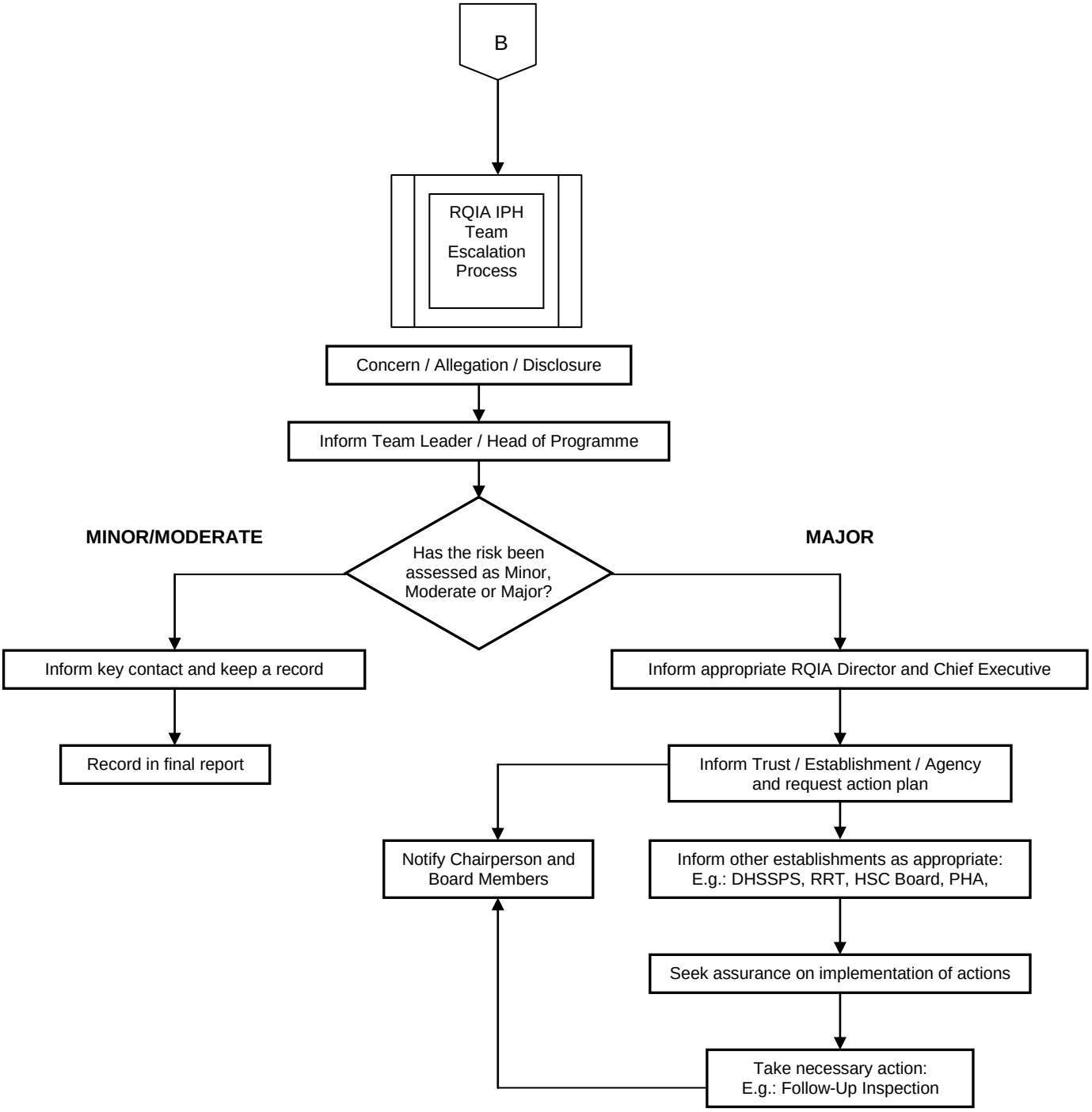
- neonatal and special care baby units
- paediatric intensive care
- all adult intensive care which includes cardiac intensive care
- burns units
- renal (dialysis) units
- renal transplant unit
- high dependency units (HDU)
- haematology
- oncology

8.0 Unannounced Inspection Flowchart



9.0 Escalation Process

RQIA Hygiene Team: Escalation Process



10.0 Quality Improvement Plan

Reference number	Recommendations	Designated department	Action required	Date for completion/ timescale
The Regional Critical Care Audit Tool				
1	The unit should be staffed appropriately at all times and protected time should be allocated for staff to perform key IPC initiatives. **(Repeated)**	Nursing	The Unit is funded for three nurses 24/7 for 7 Level 2 patients. The Head of Service (HOS), Lead Nurse and Ward Sister will work to ensure staffing levels are appropriate at all times. The Ward Sister endeavours to plan for protected time to perform key IPC initiative.	On-going
2	An occupational health policy to negate the risk of the transmission of infection should be available for staff guidance. **(Repeated)**	Occupational Health	The Trust's Occupational Health Dept. has commenced work on this policy, with a draft version of the document being shared with RQIA on the inspection days. Once this policy has been approved by SMT for final sign off, it will be disseminated to all staff.	31st August 2016
3	Links should be strengthened with the critical care unit at Craigavon Area Hospital for support and expertise. **(New)**	Nursing	The HOS over HDU, Ward Sister, the HOS over ICU & the Lead Nurses are supportive of the clinical educator role. Consideration will now be given as to how this post can be obtained. Within acute services the restructuring of Divisions bringing HDU & ICU within the same Division will foster closer working relationships.	31st August 2016

4	As part of any refurbishment/new build planning, core clinical space recommendations should comply with current guidance. **(Repeated)**	Estates	If there is any further refurbishment/new build planning then core clinical space recommendations will be taken into consideration.	Complete
5	The placement of the arterial blood gas analyser should be reviewed. **(New)**	Nursing & Medical	Following the inspection Acute Services will review the current provision of ABG machines within the hospital, with a view to potentially providing an additional machine, thus reducing the footfall within HDU.	31st August 2016
6	A pseudomonas risk assessment should be completed within the high dependency unit. **(New)**	Water Safety Group	Colin Clarke has tabled this recommendation to be discussed at the next Water Safety Group Meeting.	13th June 2016
7	Unit staff should be explicitly informed of the rationale when points of use filters are used within the unit. Point of use filters should be clearly documented with placement and change dates. **(New)**	Estates & Nursing	Response as above in point 6.	13th June 2016
8	A protocol should be developed that identifies staff roles and responsibilities in relation to the reporting of laboratory results to receiving or transferring units. **(Repeated)**	IPCT & Nursing	IPCT, Ward Sister & senior medics will review and develop a protocol to clarify the roles and responsibilities of HDU staff in forwarding laboratory results to receiving units.	31st December 2016

Reference number	Recommendations	Designated department	Action required	Date for completion/ timescale
The Regional Clinical Practices Audit Tools				
9	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 and issues identified actioned. **(Repeated)**	IPCT & Nursing	IPCT will continue to work with the Ward Sister in achieving ANTT education & competency based assessments. ANTT Quality Controllers are in place in the Unit and undertake the role of assessing each Medical & Nursing in the Unit. Any issues identified are and will be actioned appropriately through the Ward Sister, Lead Nurse & clinical lead.	On-going
10	It is recommended that policies should be developed for invasive devices, including enteral feeding, that to take into account the principles and protocols of the specific device. **(Repeated)**	Nursing & IPCT	Development of policies and protocols for invasive devices used in the Unit is on-going. Input & guidance from CAH ICU & CCANNI will be acquired	On-going
11	It is recommended that staff receive update training and ongoing competency assessment in the management of invasive devices. **(Repeated)**	Nursing	For any new devices - staff do receive recognised competency training. Established devices - only if staff feel they need a refresher. Competency is self-recognised. We would see this recommendation being achievable within the clinical educator role	On-going

12	It is recommended that care bundles are routinely audited and issues identified actioned. **(New)**	Nursing	The Lead Nurse will work with the Ward Sister to draw up a timetable to routinely audit care bundles and implement associated actions. The Ward Sister will plan for a Quality Controller to have protected time to work on this.	31st August 2016
13	It is recommended that the rate of positive and false positive blood cultures and contaminate rate is discussed at trust strategic level. **(New)**	IPCT	IPCT will ensure that this is added to the SF Agenda. These results will be shared through the divisional lines to the ward sisters and clinical lead so that the appropriate action/s can take place	4th May 2016
14	It is recommended that the trust introduce a system to monitor compliance with best practice when taking blood cultures. **(Repeated)**	IPCT	The Trust will communicate with the other Trusts to establish how they meet this requirement, and upon understanding the Regional position the Trust will action as appropriate.	31st December 2016
15	It is recommended that the trust continue with the development of new condition targeted antibiotic guidelines. **(New)**	Medical	The Trust's antibiotic prescribing policy is regularly reviewed and updated. AMPP	On-going
16	It is recommended that electronic/computer aided prescribing tools are introduced. **(New)**	Regional ICT	HSCB working on a regional spec for electronic kardex/prescribing system. This project has been completed and is going to tender. Funding to be addressed.	On-going
17	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. **(Repeated)**	Nursing & IPCT	This piece of work is being progressed regionally. Trust is awaiting distribution and training with the suite of regionally agreed labels.	On-going

18	It is recommended that compliance with enteral feeding best practice guidance is audited and issues actioned. **(Repeated)**	Nursing	The Lead Nurse will link with the Trust's Enteral Feeding Coordinator, and will work with the Ward Sister to draw up a timetable to routinely audit care bundles and implement associated actions.	31st December 2016

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