The Regulation and Quality Improvement Authority

The Regulation and Quality Improvement Authority

RQIA
Unannounced Infection Prevention/Hygiene Augmented Care

Year 2 Inspection

Daisy Hill Hospital Special Care Baby Unit

6 May 2015

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 inspection reports are available on RQIA's website at www.rqia.org.uk.

Inspection Programme

The Chief Medical Officer's (CMO) letter (HSS MD 5/2013) endorsed the use of the Regional Infection Prevention and Control Audit Tools for Augmented Care Settings by all health and social care (HSC) trusts in Northern Ireland in the relevant clinical areas. In these inspections we use the following audit tools 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 a 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. A rolling programme of unannounced inspections has been developed by RQIA to assess compliance with 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

The three year improvement programme of unannounced inspections to augmented care areas commenced in the Daisy Hill Special Care Baby Unit (SCBU), on 10 and 12 September 2013.

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 Neonatal Infection Prevention and Control Audit Tool
- The Regional Healthcare Hygiene and Cleanliness Standards and Audit Tool.

As a result, these tools were not included as part of the year two inspection programme.

SCBU did not achieve the set compliance levels in the Regional Infection Prevention and Control Clinical Practices Audit Tool for year one. An unannounced inspection was undertaken to the Daisy Hill Hospital Special Care Baby Unit, on 6 May 2015 as part of the 3 year improvement programme. The inspection team comprised of two RQIA inspectors. Details of the inspection team and trust representatives who received feedback can be found in section 5.

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 special care baby unit at the Daisy Hill Hospital was working to comply with the Regional Infection Prevention and Control Clinical Practices Audit Tool.

Inspectors observed:

- The unit was fully compliant in four sections of the Regional Infection Prevention and Control Clinical Practices Audit Tool.

Inspectors found that the key areas for further improvement were:

- The management of blood cultures and antimicrobial prescribing.

Inspectors observed the following areas of good practice:

- Introduction of the Neonatal Sepsis checklist.
- SCBU “Snap Shot Data Session” informs staff of audit compliance and specific IPC topics relevant to staff.

The inspection resulted in **six** recommendations for improvement listed in Section 4.

The inspection in **2013** resulted in **nine** recommendations, related to the Regional Infection Prevention and Control Clinical Practices Audit Tool. **Seven** recommendations have been addressed, **two** 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 HSC Trust (SHSCT), and in particular all staff at the Daisy Hill special Care Baby Unit for their assistance during the inspection.

2.0 Overall Compliance Rates

Regional Infection Prevention and Control Clinical Practices Audit Tool

RQIA uses audit 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 Neonatal Infection Prevention and Control Audit Tool Compliance Levels

Areas Inspected	10 & 12 September 2013	6 May 2015
Aseptic non touch technique (ANTT)	76	100
Invasive devices	96	93
Taking Blood Cultures	76	79
Antimicrobial prescribing	57	88
Clostridium *difficile* infection (CDI)	N/A	N/A
Surgical site infection	N/A	N/A
Ventilated (or tracheostomy) care	N/A	N/A
Enteral Feeding or tube feeding	84	100
Screening for MRSA colonisation and decolonisation	100	100
Average Score	**82**	**93**

	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 Infection Prevention and Control Clinical Practices Audit Tool

The Regional Neonatal Infection Prevention and Control Clinical Practices Audit Tool contains nine 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 neonatal care. This will assist in the prevention and control of healthcare associated infections.

The Regional Infection Prevention and Control Clinical Practices Audit Tool Compliance Levels

Areas inspected	**10 & 12 September 2013**	**6 May 2015**
Aseptic non touch technique (ANTT)	76	100
Invasive devices	96	93
Taking Blood Cultures	76	79*
Antimicrobial prescribing	57	88
Clostridium *difficile* infection (CDI)	N/A	N/A
Surgical site infection	N/A	N/A
Ventilated (or tracheostomy) care	N/A	N/A
Enteral Feeding or tube feeding	84	100*
Screening for MRSA colonisation and decolonisation	100	100*
Average Score	**82**	**93**

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

The findings indicate that year two overall compliance was achieved in relation to the Regional Infection Prevention and Control Clinical Practices Audit Tool. Inspectors identified areas for improvement, especially in the management of blood cultures and antimicrobial prescribing.

Inspectors were able to observe staff practice on a number of clinical procedures. Staff questioned on all aspects of the clinical practices audit tool displayed good knowledge on the practical application of clinical procedures.

The unit undertakes observational audits of clinical practice. Results viewed showed that staff adhere to good practice.

3.1 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.

The unit achieved full compliance in this section of the audit tool. This is commendable. A trust ANTT policy is now available for staff to reference and training for staff is ongoing. Audit results evidenced good compliance following training. Staff displayed good knowledge on the principles of ANTT and the unit manager carries out audits of staff compliance for specific procedures. Compliance of ANTT audits is independently verified if self-scoring or validation scores are low.

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 compliance in this section of the audit tool. Evidence of practice was obtained through observation, review of documentation and speaking with staff. Audit results showed evidence of unit compliance with care bundles; supported by good staff knowledge. Training on the insertion and on-going management of invasive devices was available and evident for new staff and newly qualified nursing staff; training includes competency-based practice. Refresher update training is not provided for staff who have been in post for a number of years. Staff should ensure the batch number for all invasive lines is documented in the patient notes.

As audits have demonstrated good practice, it has not been necessary to carry out independently verified audits.

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 achieved minimal compliance in this section of the audit tool. Inspectors were unable to observe practice at the time of the inspection.

Evidence of practice was obtained through review of documentation and speaking with staff. Staff demonstrated good knowledge on how and why to take a blood culture. The blood culture policy/procedure was still in final draft; Trust representatives assured that the updated policy would include a footnote relevant to neonatal practice. Both nursing and medical staff are responsible for the obtaining of blood cultures. Medical staff receive training on the procedure for taking blood cultures however training is not available for nursing staff. Nursing staff adapt their ANTT training for taking blood cultures but this is not specific to neonates.

The incidence of contaminated blood cultures was slightly above the regional agreed level. The system for forwarding of the quarterly results to the unit had just been set up and sister had just received the rates of contaminated and false positive results. Sister confirmed that these rates would be disseminated to medical and nursing staff for review and action.

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.

Partial compliance was achieved in this section of the audit tool. Staff have worked hard to raise compliance levels but further work is needed. Antimicrobial usage is audited in line with anti-microbial prescribing guidance/local targets and although antimicrobial usage in the unit is minimal, antimicrobial ward rounds are carried out

Issues still to be addressed include:

- Electronic/ computer aided prescribing tools have not yet been introduced for use within the unit.
- The antimicrobial prescribing and management guidelines were out of date (due review in October 2014).

As part of the inspection, notes and medicine Kardexes (record management systems) are reviewed to evidence that information to guide prescribing of antimicrobials was recorded. This would include the neonate antimicrobial history, indication to prescribe an antimicrobial, and the planned duration of the antimicrobial. Relevant documentation was available.

Antimicrobial prevalence audits have been carried out in the unit over the last number of years. These audits include the European Surveillance of Antimicrobial Consumption (ESAC) 2011, the Antibiotic Resistance and Prescribing in European Children (ARPEC) 2012 and Point Prevalence Survey (PPS) 2012.

Enteral Feeding or Tube Feeding

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 of an enteral feeding system; insertion, set up and care. Adherence to best practice should be monitored.

The SCBU achieved full compliance for this section of the audit tool. Evidence of practice was obtained through review of documentation and speaking with staff. The issues identified at the previous inspection had been addressed. Staff displayed good knowledge on the management of an enteral feeding system; insertion, set up and care. Compliance with best practice for enteral feeding was routinely audited.

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 full compliance in this section of the audit tool. In SCBU, opportunities to care for a neonate affected with MRSA are limited; however staff were very knowledgeable in the appropriate management. Inspectors were advised that there had been one incidence of MRSA colonisation in the previous year and staff took the opportunity to audit compliance with policy. Evidence of practice was obtained through review of this documentation and speaking with staff.

A detailed care plan for infants receiving decolonization treatment for MRSA in the Neonatal/SCBU environment was in place. This includes, in table format, a five day review of all care and the treatment regime allowing staff to follow a straightforward guide which reflects trust policy.

Inspectors were informed that the trust is currently developing a new MRSA care pathway. Completion of the care pathway should be included as an element of the MRSA management audit process.

4.0 Summary of Recommendations

The Regional Infection Prevention and Control Clinical Practices Audit Tool

Recommendations

1. It is recommended that the trust provides relevant and appropriate refresher training for staff.

2. It is recommended that staff document all elements of the care bundle for the insertion of invasive devices.

3. The blood culture policy should be reviewed and amended to reflect neonatal care. **Repeated**

4. It is recommended that the trust reviews and provides training for nursing staff on blood cultures which is relevant to neonates.

5. It is recommended that the trust reviews and updates the antimicrobial prescribing and management guidelines and ensures the timely forwarding of the rates of positive blood cultures and incidence of contaminated and false positives to the SCBU.

6. It is recommended that the trust reviews the availability of electronic/computer aided prescribing tools to assist with auditing current antimicrobial guidelines. **Repeated**

5.0 Key Personnel and Information

Members of RQIA's Inspection Team

Lyn Gawley	Inspector Infection Prevention/Hygiene Team
Thomas Hughes	Inspector Infection Prevention/Hygiene Team

Trust Representatives receiving Feedback

The key findings of the inspection were outlined to the following trust representatives as part of informal feedback delivered on the unit:

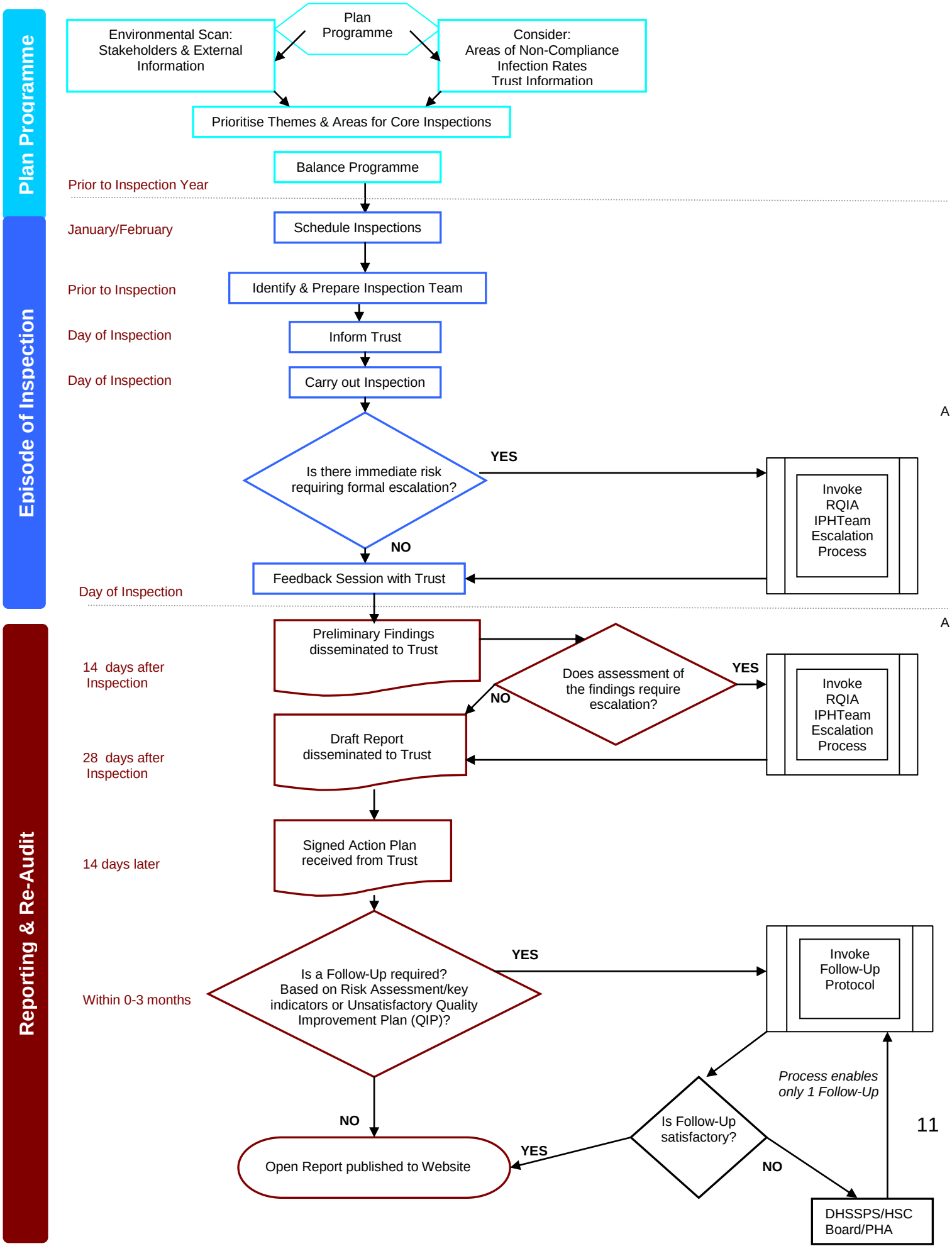
Jane Lynch	SCBU Manager
Maggie Markey	Infection Prevention & Control Nurse

6.0 Augmented Care Areas

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

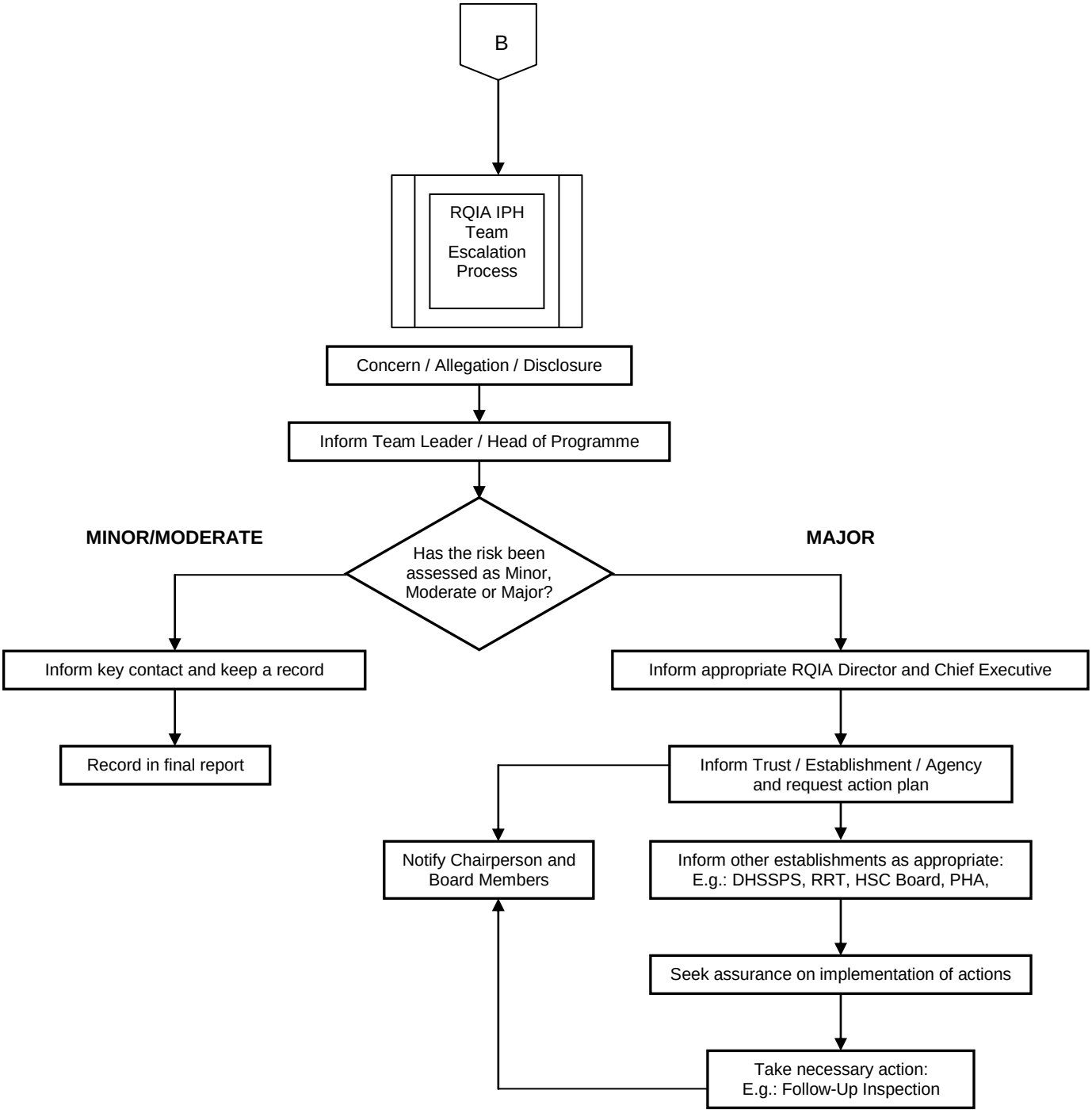
- neonatal and special care baby units
- paediatric intensive care
- all adult intensive care which includes cardiac intensive care
- burns units
- renal (dialysis) units
- renal transplant unit
- high dependency units (HDU)
- haematology
- oncology

7.0 Unannounced Inspection Flowchart



8.0 Escalation Process

RQIA Hygiene Team: Escalation Process



9.0 Quality Improvement Plan

Reference number	Recommendations	Designated department	Action required	Date for completion/ timescale
The Regional Infection Prevention and Control Clinical Practices Audit Tool				
1.	It is recommended that the trust provides relevant and appropriate refresher training for staff.	IPC and SCBU Ward staff	Assess staff refresher training needs at annual appraisal and implement action plan to achieve training needs. This will be based on the development of a NI regional Career, education and competency framework document for nursing staff based on level of training required for the new registrant/ novice, /the competent neonatal nurse/the proficient neonatal nurse and the expert neonatal nurse. This work has commenced regionally in May 2015. Staff will access any face to face at Clinical Education centre or e learning training in house as required	Ongoing as part of annual appraisal and KSF process

2.	It is recommended that staff document all elements of the care bundle for the insertion of invasive devices.	SCBU Staff	Medical and nursing staff in SCBU to focus on completion of all care bundle documentation. At hand over nursing staff on a daily basis to check all care bundle information in relation to invasive device in use is in place and updated as required during the shift . Ward manager to raise awareness of this requirement in next “snap shot Data session” with MDT.	Ongoing on a daily basis
3.	The blood culture policy should be reviewed and amended to reflect neonatal care. **Repeated**	IPCT	Draft Blood culture policy for Adults with an appendice for neonates is currently going through approval process. It has been raised at SHSCT HCAI meeting , will be presented at next Strategic forum meeting in July before final approval and dissemination to clinical staff	July 2015

4.	It is recommended that the trust reviews and provides training for nursing staff on blood cultures, which is relevant to neonates.	SCBU	There is an E learning module for medical staff on the Trust homepage- Doctors in training - on Best practice in relation to Taking blood cultures. This module is Adult based and the Best practice principles will be used alongside the Neonatal Blood culture written guidance which is currently going through the approval process. All nursing staff in SCBU DHH will undertake this module re Key principles and Best practice. The clinical procedure of taking blood cultures in SCBU DHH is predominantly the role of medical staff. For Nursing staff who have undertaken the Enhanced practice course at QUB and have an extended scope of practice and who may be involved in the clinical procedure of venepuncture / taking blood cultures. Consideration will be given to medical staff training these key nursing staff in SCBU.	Nursing staff to complete doctors in training –e learning module within 1 month Practical training will role out following approval of Neonatal written guidance on "Taking blood cultures" – anticipated approval early July 2015

5.	It is recommended that the trust reviews and updates the antimicrobial prescribing and management guidelines and ensures the timely forwarding of the rates of positive blood cultures and incidence of contaminated and false positives to the SCBU.		The Neonatal Network group have produced EONS guidance (Early onset neonatal sepsis) which has been issued regionally and is being implemented across N Ireland. In addition the Regional Neonatal Network group have established a Task and Finish group to review antimicrobial use in neonates, and to produce guidelines to support consistency in care. The group was established January 2015 and anticipated completion date Autumn 2015. The generation of reports to identify contamination rates in blood culture samples is now an on-going action within the microbiology department. The reports will be shared with the Lead Clinician and the Unit Sister /Lead Nurse and actions developed as and when required	Autumn 2015

6.	It is recommended that the trust reviews the availability of electronic/computer aided prescribing tools to assist with auditing current antimicrobial guidelines. **Repeated**	Trust Pharmacy IPCT and Antimicrobial Stewardship team	The regional 'Northern Ireland Electronic Prescribing and Administration Project' is working to implement total e-prescribing and administration recording across hospitals in NI. At the moment the planned implementation date is not until 2017 - this programme will be able to produce audit data	2017

The **Regulation** and
Quality Improvement
Authority

The Regulation and Quality Improvement Authority
9th Floor
Riverside Tower
5 Lanyon Place
BELFAST
BT1 3BT

Tel: (028) 9051 7500
Fax: (028) 9051 7501
Email: info@rqia.org.uk
Web: www.rqia.org.uk