Infection Prevention & Control
Annual Report 2013-2014

Dr Tim Neal, Director of Infection Prevention & Control
Contents Page

1. Summary of Key Achievements and Main Findings......................................................1
   1.1 Key Achievements 2013/14 ......................................................................................1
   1.2 Main Findings ...........................................................................................................1
      1.2.1 The Team ........................................................................................................1
      1.2.2 The Health & Social Care Act 2008 .................................................................1
      1.2.3 Education .......................................................................................................1
      1.2.4 Guidelines ....................................................................................................1
      1.2.5 Environmental & Clinical Practice Audits .....................................................2
      1.2.6 MRSA .........................................................................................................2
      1.2.7 C. difficile ..................................................................................................2
      1.2.8 Bacteraemia ...............................................................................................2
      1.2.9 Surgical Site Infection Surveillance ..............................................................2
   1.3 The Health & Social Care Act 2008 .........................................................................5
   1.4 Role of the Infection Prevention & Control Team ....................................................3
   1.5 Infection Prevention and Control Committee ..........................................................4
   1.6 External Bodies .......................................................................................................5
      1.6.1 Health Care Act & Care Quality Commission ..................................................5
   1.7 Education ..............................................................................................................5
   1.8 Guidelines/Policies ..................................................................................................6
   1.9 Audits ....................................................................................................................7
      1.9.1 Microfibre Cleaning Audits ............................................................................7
      1.9.2 ICNA Trust audit programme .......................................................................7
   1.10 Other Issues ..........................................................................................................9
      1.10.1 Link Staff .....................................................................................................9
      1.10.2 Building Projects & Design Developments ....................................................9
         1.10.2.1 Gynaecology and Surgical Services Division ........................................9
         1.10.2.2 Maternity Division ..............................................................................10
         1.10.2.3 Team Role in Procurement / Service Contracts ....................................10
         1.10.2.4 Cleaning and Catering Contract ...........................................................11
         1.10.2.5 Waste Contract ....................................................................................11
   1.11 Surveillance of Infection .......................................................................................11
      1.11.1 Alert Organism Surveillance .......................................................................12
         1.11.1.1 MRSA .................................................................................................12
         1.11.1.2 Clostridium difficile ...........................................................................14
         1.11.1.3 Group A Streptococcus ....................................................................14
         1.11.1.4 Glycopeptide Resistant Enterococcus(GRE) .........................................15
      1.11.2 Routine Neonatal Surveillance .......................................................................15
      1.11.3 Bacteraemia Surveillance ..............................................................................16
         1.11.3.1 Neonatal Bacteraemia ......................................................................16
         1.11.3.2 Mandatory Bacteraemia Surveillance ..................................................17
      1.11.4 Surgical Site Surveillance .............................................................................18
   1.12 Outbreaks of Infection .........................................................................................19
      1.12.1 Respiratory Syncitial Virus .........................................................................19
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCG</td>
<td>Clinical Commissioning Group</td>
</tr>
<tr>
<td>CGC</td>
<td>Clinical Governance Committee</td>
</tr>
<tr>
<td>CQC</td>
<td>Care Quality Commission</td>
</tr>
<tr>
<td>DIPC</td>
<td>Director of Infection Prevention and Control</td>
</tr>
<tr>
<td>DNMPO</td>
<td>Director of Nursing Midwifery &amp; Operations</td>
</tr>
<tr>
<td>HCA</td>
<td>Health Care Act</td>
</tr>
<tr>
<td>HCAI</td>
<td>Health Care Associated Infection</td>
</tr>
<tr>
<td>PHE</td>
<td>Public Health England</td>
</tr>
<tr>
<td>IPC</td>
<td>Infection Prevention &amp; Control</td>
</tr>
<tr>
<td>IPCC</td>
<td>Infection Prevention and Control Committee</td>
</tr>
<tr>
<td>IPCN</td>
<td>Infection Prevention and Control Nurse</td>
</tr>
<tr>
<td>IPCT</td>
<td>Infection Prevention &amp; Control Team</td>
</tr>
<tr>
<td>IPS (ICNA)</td>
<td>Infection Prevention Society (Formerly known as Infection Control Nurses Association - ICNA)</td>
</tr>
<tr>
<td>LWFT</td>
<td>Liverpool Women’s NHS Foundation Trust</td>
</tr>
<tr>
<td>MRSA &amp; MSSA</td>
<td>Meticillin Resistant (Sensitive) Staphylococcus Aureus</td>
</tr>
<tr>
<td>NHSLA</td>
<td>National Health Service Litigation Authority</td>
</tr>
<tr>
<td>NLMS</td>
<td>National Learning Management System</td>
</tr>
<tr>
<td>OLM</td>
<td>Oracle Learning Management System</td>
</tr>
<tr>
<td>RLBUHT</td>
<td>Royal Liverpool and Broadgreen University Hospital Trust</td>
</tr>
<tr>
<td>SHA</td>
<td>Strategic Health Authority</td>
</tr>
<tr>
<td>SSI</td>
<td>Surgical Site Infection</td>
</tr>
</tbody>
</table>
1. Summary of Key Achievements and Main Findings

1.1 Key Achievements 2013/14

<table>
<thead>
<tr>
<th>Key achievements for 2013/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>For the fourth consecutive year the Trust had no MRSA bacteraemias. Compliant with target.</td>
</tr>
<tr>
<td>The Trust reported only one episode of adult bacteraemia due to MSSA.</td>
</tr>
<tr>
<td>The Trust has had no major outbreaks of infection in year.</td>
</tr>
<tr>
<td>The Water Safety Group has met, produced a risk assessment for augmented care and tested water systems in compliance with National Guidance on the control of pseudomonas.</td>
</tr>
<tr>
<td>The IPC Team continues to work with the neonatal team on to reduce infection.</td>
</tr>
<tr>
<td>The IPC Team have significantly supported major capital developments that have improved patient experience.</td>
</tr>
<tr>
<td>The IPC Team have worked with the Patient Facilities Manager and the domestic services contractors to monitor standards of cleanliness.</td>
</tr>
<tr>
<td>The IPCT have completed the agreed audit programme for 2013-2014.</td>
</tr>
<tr>
<td>The IPCT have undertaken Root Cause Analysis of significant infections as outlined in last year’s plan.</td>
</tr>
<tr>
<td>The IPCT have developed a bespoke electronic training module for Infection Prevention and Control as outlined in last year’s plan.</td>
</tr>
</tbody>
</table>

1.2 Main Findings

1.2.1 The Team

During the current year the capacity of the infection prevention and control team has remained static 0.6 WTE (24hrs) of professional infection control nurse time available to the Trust, supported by a seconded midwife 16hrs per week.

1.2.2 The Health & Social Care Act 2008

The Health & Social Care Act action plan has been constantly reviewed and forms the basis of a monthly Assurance report. The Trust was granted unconditional registration with the Care Quality Commission in April 2009.

1.2.3 Education

The IPCT has provided 29 general training sessions in 2013-14.

1.2.4 Guidelines

The Trust C. difficile guideline has been updated.
1.2.5 Environmental & Clinical Practice Audits

140 (100%) environmental and 133 (96%) clinical practice audits have been performed in accordance with the Trust plan during 2013 – 2014.

1.2.6 MRSA

53 patients were identified in the Trust with MRSA, 90% were identified by pre-emptive screening. 5 MRSA infections were identified. 3 neonates carried MRSA.

1.2.7 C. difficile

There were 2 *C. difficile* infections in 2013-14. The Trust’s target for this infection is zero.

1.2.8 Bacteraemia

There were no MRSA bacteraemias in 2013-14. The Trust’s target for this infection is zero.

There were 3 MSSA bacteraemias in 2013-14 2 in neonates and 1 adult. The Trust’s target for this infection is zero Trust attributable adult case. For neonatal MSSA infection baseline data are being collected.

8 neonates had significant Gram-negative sepsis (1 congenital) and 12 neonates had significant Gram-positive infections (6 congenital). The IPCT is working with the neonatal unit to ensure all procedures are in place to minimize the risk of infection is this group.

There were 11 *E. coli* bacteraemias in 2013-14 (5 in neonates). There is no nationally set target for this infection, although baseline data are being collected. In one adult case a review of care suggested some Trust contribution to the incident.

There were no glycopeptide resistant enterococcal bacteraemias in 2013-14

1.2.9 Surgical Site Infection Surveillance

The Trust has continued to measure this key quality outcome via clinical coding (CHKS).

2. Infection Prevention & Control Team Members

During 2013 – 2014 the Infection Prevention and Control Team (IPCT) has been supported by a seconded Midwife from the Maternity division.

**Miss K Boyd**  
Infection Prevention & Control Analyst (part time 30 hours/week Infection Prevention and Control Analyst, 7.5 hours/week Policy Officer for the Governance Team)

**Mrs B Webster**  
Infection Prevention & Control Practitioner - (part time – 24 hours/week)

**Dr T J Neal**  
Consultant Microbiologist – Infection Control Doctor and Director of Infection Prevention and Control (DIPC) (2 sessions / week worked on LWFT site)

**Mrs Anne-Marie Roberts**
Secondment Link Midwife (16 hours)

The IPCT is represented at the following Trust Committees:

- Clinical Governance Monthly
- Patient Facilities & IPCT & G4S Bi-Monthly
- IPC Team Monthly
- Governance Team Monthly
- Instrument Review Monthly
- Emergency Planning Bi-Monthly (Not attended since reduction in hours)
- Health & Safety Bi-Monthly (Not attended since reduction in hours)
- Infection Prevention & Control Bi-Monthly
- Medicines Management Bi-Monthly
- Water Safety Meetings Twice yearly
- PLACE Ad-hoc

During the current year the capacity of the infection prevention and control team has remained at the previously reported staffing level i.e. 0.6 WTE (24hrs) of professional infection control nurse time available to the Trust. In order to provide some mitigation against the previously reported lost hours a midwife was seconded to the IPCT for 16 hours a week. Administrative support has remained at the reduced level noted in last year’s annual report. The previous plan to create a senior nurse post as associate DIPC to provide team leadership and decontamination expertise has not been realised, instead the Trust has appointed a Theatre Manager / Decontamination Lead. The Trust has agreed to the appointment of a full time Infection Prevention and Control Nurse to the existing vacancy in the Team.

The Team is managed by the Head of Governance who also manages the budget. There are no Trust costs associated with the infection control doctor and DIPC.

3. Role of the Infection Prevention & Control Team

The following roles are undertaken by the IPC Team:-

- Education
- Surveillance of hospital infection
  - Baseline data collection
  - National bacteraemia data reporting
  - SHA data reporting
- Investigation and control of outbreaks
- Development of Infection Prevention and Control policies
- Implementation and monitoring of Infection Prevention and Control policies
- Audit
- Assessment of new items of equipment
• Assessment and input into service development and buildings / estate works
• Reference source for hospital personnel
• Patient care/ incident reviews

Due to the reduction in hours available to the IPCT there is no longer an Infection Prevention and Control Nurse or Doctor in the Trust each day of the week. However the Team have organised their hours such that the majority of the week is covered and that telephones will be answered.

Infection prevention and control advice is available from the Infection Prevention & Control Team and 'on-call' via the DIPC or duty microbiologist at RLBUHT. A ‘Service Level Agreement’ is in place with University Hospital Aintree Foundation Trust to provide a microbiology and infection prevention and control service for the Liverpool Women’s NHS Foundation Trust at Aintree. IPC activity on the Aintree site is reported through Division reports to IPCC.

4. Infection Prevention and Control Committee

The IPC Committee meets bi-monthly and is chaired by the Director of Nursing, Midwifery & Operations. The Committee receives regular reports on infection prevention and control activities from clinical and non-clinical Divisions/departments. Matron's reports are presented quarterly but continue to detail infection prevention and control activities for the area on a monthly basis. The report includes Saving Lives Audits, IPS Environmental and Clinical Practice Audits, Decontamination Audits and reports of adverse events relating to infection prevention and control practices. The report is headed by a commentary signed by the Division Manager.

The IPCT report quarterly to IPCC and the DIPC reports monthly to CGC which also receives minutes of the IPCC meetings. The Governance and Clinical Assurance committee (GACA) receives minutes from CGC in addition to IPCT quarterly reports. The Trust Board also receives an annual presentation and report from the DIPC.

Trust IPC issues, processes and surveillance data are relayed to the public via Infection Prevention and Control posters, patient information leaflets, the Trust website (copy of this report) a notice board in the main reception which is updated on a monthly basis and departmental notice boards in ward areas.

Throughout the year many changes in practice have been initiated, facilitated, supported or mandated through the work of the IPCT and IPCC. Some of these are on a large scale, such as input of the IPCT into large capital projects undertaken by the Trust (see section 9.2) however many appear smaller and take place in the clinical areas as a consequence of audit, observations and recommendations. These interventions equally contribute to the provision of clean and safe care in the organisation. In March 2014 the IPCC examined its effectiveness throughout the year by reviewing action plans and ensuring that actions cited were either completed or no longer required. The following detail some of the changes facilitated throughout the year.

- The Trust has appointed a theatre manager who has also undertaken the role of decontamination lead
- The Trust has identified monies to refurbish MLU and the IPCT have ensured that the provision of hand hygiene sinks for staff is included in the refurbishment
- Root cause analysis for adults with bacteraemia have been led by the IPCT and undertaken in a tight timeframe.
- The improved, alcohol based, chlorhexidine skin preparation product introduced last year in Gynaecology theatres has been extended to use in Obstetric theatres.
- A bespoke LWH electronic training package has been developed for both clinical and non-clinical staff training.
- Extension of the saving lives C.difficile audit tool to include all patients with diarrhoea.
- The procedure documentation for ascitic fluid aspiration has been modified to include use of aseptic technique
- Provision of storage in theatres has been improved having been identified as a concern on repeated audits

Although there is progress in some areas, in others significant actions are not addressed in a timely manner

- The IPCT has failed to make progress on one ‘non-compliance’ from the Health care act
  - Provision of surveillance software
- Assurance regarding the integrity of mattresses in Maternity has remained challenging.
- Lack of robust evidence of compliance with the ICNA audit process, (returning action plans and recording completion of actions) was often poor
- The audit process has highlighted the unsatisfactory area allocated for HSSU receipt and distribution
- Monitoring of pool cleaning in Maternity remains inconsistent

5. External Bodies

5.1 Health Care Act & Care Quality Commission

The Health Care Act was published in October 2006 and revised in January 2008 and January 2011 as the Health and Social Care Act. This code of practice sets out the criteria by which managers of NHS organisations are to ensure that patients are cared for in a clean environment where the risk of HCAI is kept as low as possible. Failure to observe the code may result in an Improvement Notice. The CQC have undertaken to perform inspections of NHS organisations to ensure compliance with the code.

The IPCT constructed an action plan for the Trust against the 10 sections (and numerous sub-sections) of the code. The action plan review is a standing item on the IPCC agenda which monitors progress. There are two outstanding standards of the HCA with which the Trust is not fully compliant; these are detailed in Appendix A

6. Education

Mandatory training in Infection Prevention and Control is a requirement for all Trust staff including clinical, non-clinical staff and contractors. The IPCT update the training package annually and ensure that it reflects best practice, national recommendations and issues identified as non-compliant in the previous year. Non clinical staff not working in the clinical areas receive training in infection prevention and control every three years via
workbook. All clinical staff (and non-clinical staff who work in the clinical area) have been required to complete face to face or workbook training and a Hand Hygiene Assessment.

Although the majority of mandatory training sessions are provided by members of the IPCT a limited number of link staff also provide this training within their areas. Training continues to be provided by the IPCT for medical staff which includes consultants, trainees and ad-hoc mandatory training for corporate services.

The IPCT has provided 29 general training sessions in 2013-14 and 2 Professional Development training days for link staff. Appendix B.

Following the review of mandatory training within the Trust in January 2013, the IPCT proposed that the frequency of training for clinical staff should be reduced to 3 yearly. The IPCT assessed this change as low risk as clinical staff are continuously audited within their clinical practice role and any deficiencies would be addressed locally for the individual or the clinical team. This proposal was monitored over the year was reviewed in January 2014 which concluded the training should remain 3 yearly.

The Mandatory training workbook introduced by the IPCT in April 2011 has been updated annually. There have been some administration issues regarding the provision of the updated versions available to staff which are being monitored by the Trust Education Team. The choice of face to face delivery or completion of a work book is diminishing with many work areas providing work books only.

The National Skills Framework proposed initially by The Cheshire and Merseyside network for an electronic IPC passport has been recognised as a national project but has yet to be agreed and implemented in the North West. The IPC Practitioners have contacted other Teams in the local area regarding the National Skills Framework and none to date have implemented this learning package. One of the criteria for implementation of this training package is that it is to act as a passport for inter-hospital staff transfer.

The IPC Practitioners have reviewed the electronic national IPC training package NLMS and NLMS Lite in the past and reported the findings to IPCC in February 2013. Both packages deliver an IPC programme with NLMS being a longer and more in-depth version. NLMS Lite was devoid of some standard precautions which are essential for IPC

The IPCT recognised the advantages of an electronic training programme and have developed a suitable bespoke version for the Trust’s training needs. The non-clinical package was successfully trialled in December 2013. The Clinical package will be trialled by the Link staff from April 2014 with a plan to implement from the beginning of May 2014. From this date the workbooks will be withdrawn as per Trust recommendation and the face to face presentations for Mandatory training will cease. Both packages will be reviewed annually in line with IPC activity and standards. The Trust will continue to use OLM for documenting the evidence for which the onus is on the Divisions to monitor and report.

As noted in previous annual reports funding is provided for Trust IPC Practitioners to attend the Annual Infection Prevention Society conference. Appendix D details training attended by members of the IPCT.
• No new IPC Policies have been required. The IPCT updated the \textit{C. difficile} best practice guidelines in line with new national guidance.

The IPC Team has also participated in multidisciplinary reviews of the following policies:
• Management of Needle sticks
• Policies within the Occupational Health Service
• Waste Policy

8. Audits

8.1 Microfibre Cleaning Audits
Since implementation of the Microfibre cleaning process in April 2011 the IPCT have constructed a specific audit tool to measure all aspects of the process. G4S were tasked to provide staff training and audit compliance, the results of which would be reported monthly to Patient Facilities Manager and a summary would be documented within the Estates and Operational Services report to IPCC.

However monthly audit data has not been forthcoming. As reported last year the Team and Patient Facilities Manager have afforded a lot of time to monitor the situation, with support from the Director of Nursing Midwifery and Operations who has attended contract review meetings. The contractor had assured the Trust that all staff have now been trained, assessed as competent, and are monitored. Four audits have been completed over the last year by G4S using an adapted tool. The areas include Maternity x 2, the Gynaecology HDU and Rapid response team. The Team acknowledges that this does not give assurance that standards are maintained throughout the organisation. The washing machines for decontamination of cloths have been replaced to ensure standards can be met.

Microfibre is a standing item on the monthly meeting with IPCT, G4S and the Patient Facilities Manager and is discussed at length. A decision will be made within the first quarter of 2014 whether the Trust and Contractor feel this is the optimum method of cleaning this Trust.

8.2 ICNA Trust audit programme
The IP&C Team continue to use the ICNA tool originally devised in 2004.

The programme and the audit process (including standards for communication of findings) is agreed annually by the IPCC. Departmental audits are carried out unannounced by the IP&C Practitioners. The Team have encouraged the link staff and the cleaning contractor staff to accompany them during audits as an opportunity for professional development in their role. The number of department audits carried out was 32 (18 accompanied by department staff and the Training and Compliance Manager for G4S). A total of 153 audits were carried out by the IPC Team.

Clinical practice audits (Hand Hygiene, Personal Protective Equipment and Safe Use and Disposal of Sharps) are carried out by department staff. Each area was to complete a minimum of 2 each of the above audits within a year.

A total of 278 audits are scheduled to be completed (140 Departmental & 138 clinical practice). From October 2013 the programme was modified to include monthly hand hygiene audits from all clinical areas increasing the total number of required audits to 381.
88% (334/381) of all audits have been completed. 100% of departmental audits and 96% (133/138) of all clinical practice audits have been completed ie 98% of the originally planned audit schedule was completed. The change in the programme midway through the year has allowed the overall total to fall to 88% (334/381) while the new process is embedded.

The audit scores (mean and range) are outlined below:

<table>
<thead>
<tr>
<th>Audit</th>
<th>Mean Score (%)</th>
<th>Range (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward Environment</td>
<td>76</td>
<td>47 – 95</td>
</tr>
<tr>
<td>Ward Kitchen</td>
<td>74</td>
<td>48 – 97</td>
</tr>
<tr>
<td>Linen</td>
<td>84</td>
<td>56 – 100</td>
</tr>
<tr>
<td>Departmental Waste</td>
<td>91</td>
<td>68 – 100</td>
</tr>
<tr>
<td>Patient Equipment</td>
<td>87</td>
<td>69 – 100</td>
</tr>
<tr>
<td>Hand Hygiene</td>
<td>97</td>
<td>80 – 100</td>
</tr>
<tr>
<td>Personal Protective Equipment</td>
<td>98</td>
<td>82 – 100</td>
</tr>
<tr>
<td>Sharps safety</td>
<td>92</td>
<td>58 – 100</td>
</tr>
</tbody>
</table>

The audit results are fed back to the department via the ward managers and matrons for actioning. The monitoring of the audit process has been accommodated by providing a shared drive for the wards to monitor their own timetable. The results are also included in the Divisional and IPCT Quarterly reports to IPCC. IPS audit results are summarised in Appendix D.

The audit process has standards for both the number of audits to be completed and the turnaround time for results. The IPCT completed the process within the stipulated timeframe 81% of the time. There were a total of 6 breaches, one was in relation to a trial of new audit tool, two were 1 and 2 days late, and three were late due to annual leave.

**Trust Linen audit**
The audit was carried out in May 2013 by the IPC team and Facilities’ Manager. Issues included temporary location of Trust linen store not being fit for purpose. This was relocated and final situation will be concluded in September 2014 as part of the Trust space utilisation programme. Practices in this area continue to be monitored by the Facilities Manager.

Environmental standards for wards and department linen stores are monitored via the Trust IPC audit programme and reported back to ward / department managers to action and IPCC via Divisional reports.

### 8.3 Mattress audits
Mattress audits are completed 3 monthly in Delivery Suite and Midwifery Led Unit, and 6 monthly in all other areas. The audit examines cleanliness and mattress integrity. Results are reported through the Divisional Report to IPCC. In January the audit process in Maternity revealed a significant number of mattresses which required replacing. Additional mattresses were purchased and a small pool of spare mattresses is now maintained.
9. Other Issues

9.1 Link Staff
The link staff meetings are held bi-monthly although attendance remains poor. Seven link staff not attending any meetings, 2 staff attended all meetings (see Appendix E).

Professional Development Days held twice per year are a means of time out with Link staff and the IPC Team (Session 1 45% attended, session 2 58% of link staff attended). The programme is organised to reflect topical subjects, Trust implementation, reinforcement and non-compliance of IPC standards.

The service programme for the Link staff to work a morning with the Team carrying out audits and attending to specific needs of individual link staff; 21% staff attended in 2013-14. This was discussed at IPCC with the conclusion that the Ward Manager must make themselves available to accompany the Team or the Matron be contacted to attend the audit. The team have been accompanied on most occasions with a member of the ward staff but not always the senior person on the ward/shift.

Mandatory training in the past has been organised for link staff specifically to go through the annual update of mandatory training package for clinical staff. It also allows the opportunity for assessment of hand hygiene technique of link staff, this was not undertaken this year due to reduced IPC Team staffing levels. The Team have created an electronic version of the clinical and non clinical package. This has been trialled by the non clinical staff.

OLM figures confirm that only 82% of current link staff have had hand hygiene assessments in the last year. (72% have attended Trust Mandatory training sessions 2013-14).

9.2 Building Projects & Design Developments
Meetings between Estates, Facilities & IPC Team have continued. This includes Patient Facilities Manager and G4S staff and more recently The Trusts Health and Safety Manager. The team remain reliant on the Estates Department and the Divisions alerting and involving the Team in impending projects via the Infection Prevention and Control Committee meetings.

IPCT activity in the last year has continued to include involvement with new build and refurbishment projects. The meetings with the Contractor, Trust department staff, Estates and Facilities Team, ensure good Infection Prevention & Control products and practices are implemented. Consultation was co-ordinated and managed with timely consultations in most projects.

The IPCT has been instrumental in ensuring the post project review snagging issues have been addressed by the contractors as parts of their obligations in ensuring standards are met.

2013-14 projects requiring IPC Team involvement included:

9.2.1 Gynaecology and Surgical Services Division
Chemotherapy Suite on Rosemary Ward – the Team continues to be involved in supporting the chemotherapy service in the Trust. Further input was joint infection control
support with Clatterbridge Centre for Oncology of clinical practices and supporting clinicians on site. April 2013, Clatterbridge actioned the clinical practice, Liverpool Women's NHS Foundation Trust actioned the environmental issues.

Gynaecology OPD – The ambulatory service required Department redevelopment to accommodate new procedures as an outpatient service. The IPCT with the Facilities Manager monitored standards during the building project advised on good clinical practice and provisions when the service was operational. There was an issue which has since been resolved around the cleaning of stainless steel sinks.

ER Project – relocation of unit to ground floor. IPCT has been involved regarding the plan development stage. The only issue of concern is the small dirty utility room on the department. The current isolation facility in Emergency Room will be replicated in the new facility.

HSSU – remains a concern regarding the high risk clinical practice of checking used instruments on the staff / public corridor. This is due to initially the department being a temporary location and the department being too small to accommodate the required activity.

The condition of the instrument delivery trolleys has been an ongoing concern for the last 18th Months with no resolution. This is documented in Instrument Review Committee’s and has been escalated to senior staff within the Gynaecology Division and Trust.

Both above situations are on the current Risk Register and managed by Gynaecology and the newly appointed Decontamination Manager.

9.2.2 Maternity Division

Big push Phase 3 completed in late spring 2013. The IPCT continued to support the Division and Patient Facilities Manager in managing the build and subsequent snagging list. Ad-hoc meetings were supported to ensure the projected plans met IPC requirements when the clinical service in this area recommenced. The team have reinforced the standard for decontamination and documentation of the birthing pool, bath and induction suite.

The IPCT are involved with the isolation facility in Maternity base (which is awaiting formal sign off from the Contractor). The Team have collated guidance and have provided training for clinical staff in preparation for commissioning. This may need refreshing once sign off has been completed.

MLU SINKS -- The Team have been notified of impending revamp of this project when external funding has been sourced early 2014. The standard for birthing pools will need to be readdressed within the project.

FETAL CENTRE – The department staff have been supported by the Team for a change of use in one room within the expanded Fetal Centre.

NEONATAL UNIT and HDU – Both areas have been reviewed in light of standards and documentation regarding Pseudomonas in high dependency areas. The systems in place regarding Legionella have been maintained. The cleaning of the sink and surrounding areas have been reviewed and are maintained regularly by ward link staff. The Trust Water Safety Group reviews and reports on progress.
9.2.3 Team Role in Procurement / Service Contracts

- The IPC practitioners will be involved in the procurement process for the above building projects in liaison with the Patient Facilities Manager.
- The team have been involved in the Trust Cost Improvement project in relation to reviewing and assessing clinical supply products. This commenced in September 2013 with presentations by the lead clinicians in December 2013. The drive from the clinical staff was to ensure the products were a quality product and fit for purpose. The Trust procurement service has been tasked to implement the recommendations and report any cost improvements.
- In September 2013 the IPC Team was asked to review specific products e.g. Gloves, Hand Hygiene and decontamination products and also assist other staff in reviewing clinical products purchased within the Trust. The aim of the project was financial saving which clinical staff also felt this should remain based on quality of care. The IPCN produced a paper at the end of November 2013 making recommendations, the implementation of the products is yet to commence and will continue in 2014-15.

9.2.4 Cleaning and Catering Contract

The IPCT has continued to support the monitoring of the G4S contract working alongside the Patient Facilities Manager. The Team has escalated to the Trust concerns relating to poor cleaning standards and maintaining a good standard throughout the hospital over the last 24 months. In the first half of 2013 the Team has met monthly / bi-monthly with the Facilities Manager and G4S representatives and have had 1 away day in the last 12 months. This away day made recommendations for regular reports to be included in the Estates and Facilities report to Infection Prevention and Control Committee.

9.2.5 Waste Contract

The Team have supported the review of the Waste Policy in the last year with the Environmental Manager. The implementation of alternative waste streams as in HTM O4 has been reviewed in the Trust with the IPC Team, Environment, Facilities and Health and Safety Managers. On review in November 2013 it was agreed due to the nature of the Trust Clinical Speciality and the majority of patients self-caring this implementation would not ensure waste was disposed of in a safe manner consistently and the cost savings would not achieve the proposed amount. When benchmarking with other hospitals providing Women’s services they have not implemented in the Women’s service areas even when implemented elsewhere in the hospital. This recommendation was due for completion within the Estates report to IPCC and Health and Safety early 2014. The Team have advised the Trust of the risks of implicating this system Trust wide.

Although it is a requirement of the Health Care Act, the IPCT have not been involved in the current waste contract procurement process.

10. Surveillance of Infection

Hospital infection (or possible infection) is monitored in the majority of the hospital by ‘Alert Organism Surveillance’ this involves scrutiny of laboratory reports for organisms associated with a cross infection risk e.g. MRSA, *Clostridium difficile* etc.

On the Neonatal Unit, which houses most of the long-stay patients, surveillance is undertaken by both ‘Alert Organism’ and by prospective routine weekly surveillance of
designated samples. The IPCT examines results of these samples and action points are in place for the Unit based on these results.

Surveillance of bacteraemias (blood stream infections) for both national mandatory and in house schemes is also undertaken.

The need for surveillance of surgical wound infections has long been recognised as an important quality marker by the IPCT and Trust. Although surveillance was initiated by the IPCT this has not been sustained due to the reduction in time available to the team. The Trust does monitor surgical wound infections via a number of different mechanisms.

### 10.1 Alert Organism Surveillance

#### 10.1.1 MRSA

The total number of patients identified carrying Methicillin Resistant *Staphylococcus aureus* (MRSA) in the Trust during the year 2013-14 was 53, primarily identified from screening samples. This is a decrease in comparison to the 72 identified in 2012-13. The charts below show the number of new patients identified with MRSA per year for the period 1995 – 2014 and the number per month for the current reporting year by provenance.
As outlined in previous Annual Reports the Government have established targets for screening such that all elective admissions and all eligible emergency admissions to hospital should be screened for carriage of MRSA prior to, or on, admission. The IPCT have an MRSA screening policy as part of the infection control policy with outlines actions for patients found to be positive on screening. The percentage of patients screened in line with this policy is detailed in the table below.

<table>
<thead>
<tr>
<th>Month</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective % of eligible patients screened</td>
<td>100</td>
<td>95</td>
<td>94</td>
<td>96</td>
<td>97</td>
<td>98</td>
<td>95</td>
<td>95</td>
<td>96</td>
<td>94</td>
<td>96</td>
<td>95</td>
</tr>
<tr>
<td>Emergency % of eligible patients screened</td>
<td>100</td>
<td>96</td>
<td>94</td>
<td>97</td>
<td>95</td>
<td>92</td>
<td>93</td>
<td>92</td>
<td>93</td>
<td>91</td>
<td>95</td>
<td>92</td>
</tr>
</tbody>
</table>

In the period April 2013 to March 2014 7300 adult patients were screened for MRSA carriage in line with the DoH guidance. 45 (0.6%) were positive (1.2% in 2011-12 and 1.0% in 2012-13).

5 adult patients were identified with MRSA on diagnostic samples from clinical sites. One patient (not a LWH patient) developed line associated MRSA sepsis. 3 of the remaining 4 had wound infections and one patient presented to ER with an infected cyst. There were no clusters or other epidemiological linking of patients with MRSA infections. There was no evidence of spread of MRSA amongst adult patients in the Trust.
There were no MRSA bacteraemias in adult patients in the reported year. There were no MRSA bacteraemias in neonatal patients in the reported year.

During the period of this report 3 babies were identified with MRSA (14 in 2012-13). All 3 were identified on admission swabs suggesting maternal acquisition. There were no secondary cases or other evidence of spread of MRSA on the neonatal unit.

10.1.2 Clostridium difficile

Clostridium difficile is the commonest cause of healthcare acquired diarrhoea in the UK. Mandatory reporting of this disease (for patients over 65) commenced in January 2004 and now includes all patients over 2 years old. Historically the number of cases at LWFT has been small. During the period April 2013 to March 2014 two patients in the Trust were identified with C. difficile infection. The number of cases during this and preceding years is shown in the chart below. Both the patients identified with C. difficile infection were cared for in Gynaecology. Both incidents had a full multidisciplinary review of care conducted and in neither case were any Trust attributable antecedent causes identified. The target for this disease for the Trust in 2013-14 was zero Trust attributable cases.

![Patients with C.difficile toxin positive samples](chart)

10.1.3 Group A Streptococcus

In the period April 2013 to March 2014, 8 patients were identified with Group A streptococcus as detailed below.
7 of the 8 patients with Group A streptococcal infection were maternity patients and the remaining patient was a neonate with presumed maternal acquisition of the organism. As highlighted in previous annual reports Group A streptococcal infection is being increasingly recognised as a cause of mortality and morbidity in maternal patients. One patient had Group A streptococcal bacteraemia, and one patient had tonsillitis. The remaining were all isolated from the genital tract of post-partum or antenatal patients. The bacteraemic patient was reported to PHE as an invasive episode and a multidisciplinary review of the patient’s care was undertaken which concluded that there were no Trust attributable factors which resulted in the bacteraemia and as such the infection was unpreventable.

The peak of activity of this organism occurred in the winter months, and coincided with an increase in activity both regionally and nationally. Isolates were submitted to the national reference laboratory for typing, no epidemiological links were identified.

10.1.4 Glycopeptide Resistant Enterococcus (GRE)

There were no GRE bacteraemia’s reported.

10.2 Routine Neonatal Surveillance

Nearly all infection on the neonatal unit is, by definition, hospital acquired although a small proportion is maternally derived and difficult to prevent. Routine weekly colonization surveillance has continued this year on the neonatal unit. Results are shown in Appendix F.

As colonisation is a precursor to invasive infection the purpose of this form of surveillance is to give an early warning of the presence of resistant or aggressive organisms and to ensure current empirical antimicrobial therapy remains appropriate. Action points are embedded in the neonatal unit and IPC policies linked to thresholds of colonisation numbers to limit spread of resistant or difficult to treat organisms.
As well as resistant or aggressive organisms focus has remained on both *Pseudomonas spp.* and *Staphylococcus aureus* as potential serious pathogens. The median number of babies colonized with pseudomonas each week was 1 (decreased from 2.5 last year), and with *S.aureus* was 4 (3 last year).

### 10.3 Bacteraemia Surveillance

#### 10.3.1 Neonatal Bacteraemia

As always the commonest organism responsible for neonatal sepsis was, the common skin organism, coagulase-negative staphylococcus (CoNS). In the period April 2013 – March 2014 8 babies (13 in 2012-13 and 10 in 2011-12) had infections with Gram-negative organisms, 1 of these infections (*E coli*) occurred in the first 5 days of life and was congenitally acquired. The remaining 7 Gram-negative infections occurred after 7 days (4 *E.coli*, 1 *Enterobacter sp.*, 2 *Klebsiella sp.*).

There were 12 episodes of infection with significant Gram-positive pathogens; in 6 cases (all Group B streptococcus) the infection was congenitally acquired. The remaining 6 (4 Group B streptococcus, 2 *S. aureus*) occurred after the first week of life.

There was 1 baby in 2013-14 who developed invasive infection with Candida.

All non coagulase-negative staphylococcal sepsis on the unit is subject to a review to determine the focus of infection, precipitating causes and the appropriateness of care. The bar chart below describes the pattern of ‘definite-pathogen’ neonatal bacteraemia in the current year in comparison to last year and the median value for each organism for preceding years. Although there is considerable variability in the figures from year to year (probably reflecting the complex of pathogen host relationship in this group) as indicated in last year’s annual report the number of *S.aureus* infections has continued to decrease. There have been no pseudomonas bacteraemias in the last two reported years. There does appear to be an increase in Group B streptococcal bacteraemia, although there have been high values in previous years (8 in 2006-07), and, as noted above, half of the reported cases were congenitally acquired.
The Neonatal Unit continues to monitor standardised infection rates. The most recent results (2012) of the benchmarking exercise against other units in the Vermont Oxford network continue to demonstrate an improvement in the Trust's position.

10.3.2 Mandatory Bacteraemia Surveillance

The IPCT has continued to submit infection data to the national mandatory bacteraemia surveillance scheme (instituted April 2001). All positive blood cultures are reported monthly to PHE. National data are collected on *S. aureus*, (MSSA and MRSA) bacteraemia.
In the period April 2013 to March 2014, for the fourth successive year, there were no cases of MRSA bacteraemia in the Trust. The Trust’s given target for the period was zero. One patient of another Trust attending LWH developed MRSA bacteraemia from an infected line, a multidisciplinary panel reviewed this case and assigned it to the CCG not LWH. No concerns were raised regarding the care or management of the patient at LWH. Although data for Methicillin susceptible *S. aureus* (MSSA) have been collected since 2001 this was not mandatory nor were the data published until January 2011. There have been 3 episodes of MSSA bacteraemia (2 in neonates see section 10.3.1 above and 1 an adult) in the period 2013-14 Unpublished Trust attributable MSSA data for LWFT for the years 2008-2014 are shown below.

Although there are no externally set targets for MSSA bacteraemia the Trust target is zero Trust attributable cases in adult patients. For neonates, where preventative strategies are less well defined, rates are monitored and compared to previous year’s data.

![MSSA Bacteraemia Numbers and Rates](image)

E.coli bacteraemia has also been made mandatorily notifiable although targets have not yet been established. In 2013 – 14 the Trust reported 5 E.coli bacteraemias in neonates (1 categorised as congenital). In the same period there were 6 E.coli bacteraemias in adult patients (9 in 2012-13). The IPCT expect clinical areas to undertake a RCA of all significant bacteraemias to establish any elements of sub-optimal care.

The IPCT has, in addition to the mandatory surveillance, been collecting clinical data on bacteraemic adults in the Trust; 28 patients were identified with positive blood cultures from 338 cultures submitted (9%). 16 (54% of positives, 4% of total) of these were contaminated with skin organisms. Of 12 significant bacteraemias 5 were considered to be possibly healthcare associated. Details are provided in Appendix G

### 10.4 Surgical Site Surveillance

In a surgical hospital the most common infective adverse event is likely to be infection of the surgical site. The IPCT consider the collection of robust data on this form of infection as fundamental to the assurance of the quality of care delivered. The Gynaecology and
Maternity CBUs have appropriately adopted wound infections as a quality indicator and infections recognised in surgical wounds are reported as clinical incidents, also clinical coding data for infections is recorded through CHKS. In last year’s report the IPCT noted the inconsistencies in recording of this important quality metric based on different systems and indicated that it would attempt to monitor surgical site infection rates via the various reporting mechanisms. This has not been possible due to limited manpower and difficulties in obtaining data. The inconsistencies in reporting therefore remain.

11. Outbreaks of Infection

There have been no major hospital-wide, or local outbreaks of infection during the period of this report.

11.1 Respiratory Syncitial Virus
A small cluster of RSV cases coincided on the neonatal unit during December 2013 & January 2014. A number of actions were taken to limit spread, although it was not confirmed that this was an outbreak. Details are provided in Appendix H.

11.2 Influenza
There was a limited amount of influenza activity in 2013/14 compared to previous years and the pandemic influenza plans were not activated.

11.3 Pseudomonas
In December 2011 outbreaks of Pseudomonas infection occurred in 4 neonatal units in Northern Ireland, as a consequence a number of guidance documents have been produced including (in March 2013) an Addendum to HTM 04-01 ‘Pseudomonas aeruginosa – advice for augmented care units’ which added to advice provided in March 2012. The IPCT with colleagues from Estates formed a Water Safety Group which has met within its terms of reference. The water safety plan has been reviewed and updated. Testing of water in the high risk areas of the Trust has been undertaken in line with the plan and results have remained compliant.

12. Occupational Health

The Trust Occupational Health Department report monthly to the IPCC including vaccination updates. Staff have historically been screened for TB, Hepatitis B and Rubella immunity. Recent guidance on measles, chicken pox, HIV and hepatitis C have been incorporated for all ‘new starters’ and a catch up exercise is in place for staff already employed. The IPCC supports the Occupational health Team in ensuring that workers in designated areas have appropriate vaccinations and immunity.
13. Infection Control Team Work Plan

### 13.1 Infection Control Team Work Plan 2013-14

<table>
<thead>
<tr>
<th>Work Plan</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Training</strong></td>
<td></td>
</tr>
<tr>
<td>- Continue all Trust mandatory &amp; induction training</td>
<td>Ongoing</td>
</tr>
<tr>
<td>- Continue to support link staff personal development</td>
<td>Ongoing</td>
</tr>
<tr>
<td>- Create a LWH bespoke electronic training module</td>
<td>December 2013</td>
</tr>
<tr>
<td><strong>Audit</strong></td>
<td></td>
</tr>
<tr>
<td>- IPC Policy Section 1 in accordance with NHSLA and CQC</td>
<td>May 2013</td>
</tr>
<tr>
<td>- Review and agree ICNA Audit Programme and Process Map</td>
<td>May 2013</td>
</tr>
<tr>
<td>- Review Reporting of audit:</td>
<td>July 2013</td>
</tr>
<tr>
<td>- Establish reminder system for action plans/audits</td>
<td>Section 6</td>
</tr>
<tr>
<td>- Increase frequency of HH audits to monthly</td>
<td>Section 9.1</td>
</tr>
<tr>
<td>- Escalation of poor compliance</td>
<td>Section 6</td>
</tr>
</tbody>
</table>
### Surveillance
- Continue ‘Alert Organism’ surveillance focused on resistant pathogens
- Continue to monitor cases mandatorily reportable infections
- Wound Infection:
  - Continue task group
  - Expand the remit to examine data relating to wound infection
  - Gather monthly statistics from CHKS/Pharmacy/ACE
  - Start to ‘Join the Dots’

### Health Act
- Monitor through IPCC Trust response to actions outlined in the Health Care Act Gap Analysis

### Root Cause Analysis
- The IPCT will take control of the root cause analysis of adult bacteraemias and C.difficile infections

### 13.2 Infection Control Team Work Plan 2014-15
#### Training
- Continue all Trust mandatory & induction training
- Continue to support link staff personal development
- Implement the bespoke electronic training module devised in 2013-14

<table>
<thead>
<tr>
<th>Ongoing</th>
<th>Ongoing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commence April 2013</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Section 10</td>
<td>Section 10.4</td>
</tr>
<tr>
<td>Ongoing</td>
<td>Section 5</td>
</tr>
<tr>
<td>Commence April 2013</td>
<td>Section 10</td>
</tr>
<tr>
<td>Ongoing</td>
<td>Ongoing</td>
</tr>
<tr>
<td>December 2014</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Audit</td>
<td>May 2014</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>• Review and agree ICNA Audit Programme and Process Map</td>
<td></td>
</tr>
<tr>
<td>• Utilise NUMIS to monitor audit data and compliance</td>
<td></td>
</tr>
<tr>
<td>Surveillance</td>
<td></td>
</tr>
<tr>
<td>• Continue ‘Alert Organism’ surveillance focused on resistant pathogens</td>
<td></td>
</tr>
<tr>
<td>• Continue to monitor cases mandatorily reportable infections</td>
<td></td>
</tr>
<tr>
<td>• Restart alert condition surveillance for surgical site infection</td>
<td>October 2014</td>
</tr>
<tr>
<td>• Implement actions identified through RCA of bacteraemias and C.difficile infections</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Health Act</td>
<td></td>
</tr>
<tr>
<td>• Monitor through IPCC Trust response to actions outlined in the Health Care Act Gap Analysis</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
NICE Quality Standard 61

Statement 1. People are prescribed antibiotics in accordance with local antibiotic formularies as part of antimicrobial stewardship. **Compliant**

Statement 2. Organisations that provide healthcare have a strategy for continuous improvement in infection prevention and control, including accountable leadership, multi-agency working and the use of surveillance systems. **Partial compliance**

Statement 3. People receive healthcare from healthcare workers who decontaminate their hands immediately before and after every episode of direct contact or care. **Compliant**

Statement 4. People who need a urinary catheter have their risk of infection minimised by the completion of specified procedures necessary for the safe insertion and maintenance of the catheter and its removal as soon as it is no longer needed. **Partial compliance**

Statement 5. People who need a vascular access device have their risk of infection minimised by the completion of specified procedures necessary for the safe insertion and maintenance of the device and its removal as soon as it is no longer needed. **Partial compliance**

Statement 6. People with a urinary catheter, vascular access device or enteral feeding tube, and their family members or carers (as appropriate), are educated about the safe management of the device or equipment, including techniques to prevent infection. **Partial compliance**
<table>
<thead>
<tr>
<th>NICE Quality Standard 49</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statement 1.</strong> People having surgery are advised not to remove hair from the surgical site and are advised to have (or are helped to have) a shower, bath or bed bath the day before or on the day of surgery. Partial Compliance requires audit</td>
<td>October 2014</td>
</tr>
<tr>
<td><strong>Statement 2.</strong> People having surgery for which antibiotic prophylaxis is indicated receive this in accordance with the local antibiotic formulary. <strong>Compliant</strong></td>
<td>October 2014</td>
</tr>
<tr>
<td><strong>Statement 3.</strong> Adults having surgery under general or regional anaesthesia have normothermia maintained before, during (unless active cooling is part of the procedure) and after surgery. <strong>Partial Compliance requires audit</strong></td>
<td>October 2014</td>
</tr>
<tr>
<td><strong>Statement 4.</strong> People having surgery are cared for by an operating team that minimises the transfer of microorganisms during the procedure by following best practice in hand hygiene and theatre wear, and by not moving in and out of the operating area unnecessarily. <strong>Partial Compliance requires audit</strong></td>
<td>October 2014</td>
</tr>
<tr>
<td><strong>Statement 5.</strong> People having surgery and their carers receive information and advice on wound and dressing care, including how to recognise problems with the wound and who to contact if they are concerned. <strong>Partial Compliance requires audit</strong></td>
<td>July 2014</td>
</tr>
<tr>
<td><strong>Statement 6.</strong> People with a surgical site infection are offered treatment with an antibiotic that covers the likely causative organisms and is selected based on local resistance patterns and the results of microbiological tests. <strong>Compliant</strong></td>
<td>October 2014</td>
</tr>
<tr>
<td><strong>Statement 7.</strong> People having surgery are cared for by healthcare providers that monitor surgical site infection rates (including post-discharge infections) and provide feedback to relevant staff and stakeholders for continuous improvement through adjustment of clinical practice. <strong>See surveillance section above</strong></td>
<td></td>
</tr>
</tbody>
</table>
14. Appendices

14.1 Appendix A - Summary of Health Care Act Partial Non-Compliance

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Additional Quality Elements</th>
<th>Baseline Assurance June 2012</th>
<th>Update Mar 2014</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.8 An infection prevention and control infrastructure should encompass: In acute healthcare settings for example, an ICT consisting of appropriate mix of both nursing and consultant medical expertise (with specialist training in infection control) and appropriate administrative and analytical support, including adequate information technology. The DIPC is a key member of the ICT</td>
<td>Awaiting Trust decision re tendering process for Pathology Services</td>
<td>1.8 No Trust decision known to IPCT on ICNET surveillance software</td>
<td>Head of Governance Director of Infection Prevention and Control</td>
<td></td>
</tr>
<tr>
<td>Criterion 2: There is adequate provision of suitable hand washing facilities and antimicrobial hand rubs</td>
<td>There is an audit programme for the facilities required for hand hygiene and actions implemented. The Trust has an ongoing hand hygiene programme (e.g. the NPSA clean your hands campaign)</td>
<td>Concerns re timescale for Big Push to address this issue. IPCT to discuss with estates possibility of an interim decision.</td>
<td>Plan for sinks on MLU defined money identified start date not identified</td>
<td>Director of Infection Prevention and Control IPCT Facilities Divisions</td>
</tr>
</tbody>
</table>
14.2 Appendix B - Training Sessions in Infection Control provided by IPCT

General Training
Corporate Induction Mandatory IPC Training – 7 sessions face to face
Medical Staff Training (SHOs Registrars Consultants) – 5 + sessions (including OSCEs)
Link Staff Mandatory Training - 1 session (07/05/13)
Clinical Teaching x 3 (TJN)
Hand Hygiene Sessions – 13

Specific Education Activities
Support for Maternity Division - x 7, Gynaecology x1
Neonatal Teaching (TJN) - x1
Away day’s Patient facilities manager / G4S manager, IPC Team x 1
Wound task and finish sessions - x2 within this financial year the outcome was reported
to the Trust in July 2013
Governance Away Day 11/04/13
Health and Wellbeing display September 2013
ANTT Training (AMR) 11/03/14

IPC Week 04.11.13
WHO 5 moments of care displays and activities
Screen savers – best practice PPE, Sharps, 5 Moments
Hand Hygiene Assessment Session

Professional Development Day topics
June 2013
Haemolytic Strep A case review
Snapshots
How clean is your house? - NHS Cleaning Standards Monitoring
Microfibre demonstration,
Standard cleaning in relation to:- Pseudomonas actions and the water safety group.

October 2013
Influenza
WHO – 5 Moments hand hygiene
LWFT Audit review and outcomes
Urinary Catheter Pack and review
What’s new? – Urine Pots,
  Procurement Project,
  MRSA Screening Process,
  Decontamination Process,
  Laboratory Form Filling

Wound Care ACE Reviews and outcomes
14.3 Appendix C - Training Opportunities attended by IPCT

In House

In-house Anne-Marie Roberts induction to IPC Service April 2013 as a secondment.
Website workshop - KB
Mandatory Training – All
Great Day 24/09/13 – BW
Nursing and Midwifery Strategy Away Day 13/09/13 / 28/01/14 – BW
PDR – BW / KB
Loggist Training 09/12/13 - KB
Business Administration Diploma, Distance Learning January 2014 – Present day KB

External

Pseudomonas Workshop 2014 – BW / TJN

Educational IPC Training Reviews

Core skills framework LWFT Sessions 29/07/13 / 02/09/13 / 03/05/13
Attendance at Regional Workshop Facilitated Liverpool John Moores University
September 2013 - BW
### Appendix D - ICNA Audit and Clinical Audit Results Summary

#### Summary of Environmental Audits carried out Apr 2012 - Mar 2013

**Gynae and Surgical Services Division 2013-14 (Including RMU / Genetics)**

<table>
<thead>
<tr>
<th>Summary of Issues Identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 Environmental Audits (Range 55 - 90) mean 73%</td>
</tr>
<tr>
<td>The domestic cleaning standards remain a challenge with 12/15 areas not teaching standard</td>
</tr>
<tr>
<td>14 Ward / Staff Kitchen Audits (Range 57 - 97) Mean 79%,</td>
</tr>
<tr>
<td>5 areas reached minimal standard only</td>
</tr>
<tr>
<td>The staff rooms are non-compliant around storage of food and environmental cleaning, microwaves and fridges, monitoring fridge temperatures are not consistent. This reflects in the overall score</td>
</tr>
<tr>
<td>16 Linen Audits (Range 56 - 100) 86%</td>
</tr>
<tr>
<td>Audits in 2013 showed storage had been reduced in some areas and linen being stored with other dry clean goods in store rooms. This was replicated this year with some poor practice during bed changes noted.</td>
</tr>
<tr>
<td>17 Departmental Waste Audits (Range 88 - 100) Mean 93%</td>
</tr>
<tr>
<td>Non-compliance is in cleanliness of this, internal storage area not locked.</td>
</tr>
<tr>
<td>18 Patient Equipment Audits (Range 69 - 100) Mean 83%</td>
</tr>
<tr>
<td>Some concerns remain around the cleaning and documenting the decontamination process in some areas by all staff. This has been a regular discussion at Link Staff meetings over the period of this report.</td>
</tr>
</tbody>
</table>

**Maternity and Neonatal Division 2013-14 Including Radiology and Pharmacy**

<table>
<thead>
<tr>
<th>Summary of Issues Identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 Environmental Audits (Range 55 - 93) Mean 74%</td>
</tr>
<tr>
<td>Little improvement for the 2nd year. Deficits are addressed following audits but consistent compliance is required to maintain this standard. Some areas compliance reflect a noncompliance elsewhere in the Trust</td>
</tr>
<tr>
<td>14 Ward / Staff Kitchen Audits (Range 48 - 100) Mean 76%</td>
</tr>
<tr>
<td>The majority of the noncompliance is around staff areas in particular storage and preparation of food regulations as reported last year. Some areas had no clear process for maintaining standards at time of the audit. Patient kitchens that do not have Hostess' need to achieve same standards within current workforce.</td>
</tr>
<tr>
<td>13 Linen Audits (Range 60 - 100) Mean 87%</td>
</tr>
</tbody>
</table>
Not all areas have designated linen room. In some areas linen is now stored with other items. Access to rooms / areas is required to maintain cleanliness. NICU remain partially compliant regarding in-house laundry service. This is on the Risk Register. This year issue with linen left on corridors.

<table>
<thead>
<tr>
<th>14 Departmental Waste Audits (Range 60 - 100) Mean 87%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remains compliant on the whole. Areas of noncompliance are not consistent across the Trust.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13 Patient Equipment Audits (Range 60 - 100) Mean 87%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement from individual areas from last report. All areas need to ensure they have a robust decontamination and documentation system within their wards and departments. The ward manager is responsible for area maintaining standard</td>
</tr>
</tbody>
</table>
Summary of Clinical Practice Audits carried out in 2013-14

Three clinical practice audits; Hand Hygiene (HH), Personal Protective Equipment (PPE) and Sharps use and disposal are completed by Division/Ward staff twice yearly. The audit is processed by the IPC Team and scores are returned to the Division. This information is included within the divisional report to IPCC.

Gynaecology and Surgical Services Division 2013-14 (Including RMU / Genetics)

<table>
<thead>
<tr>
<th></th>
<th>Provide details here</th>
</tr>
</thead>
<tbody>
<tr>
<td>53 Hand Hygiene Audits completed</td>
<td>This included the monthly 5 moments of care commenced October 2013</td>
</tr>
<tr>
<td>Average score (Range 81 - 100)</td>
<td>98%</td>
</tr>
<tr>
<td>25 Personal Protective clothing</td>
<td>Average score (Range 92 - 100) 99%</td>
</tr>
<tr>
<td>32 Sharps use and disposal</td>
<td>Average score (Range 91 - 100) 94%</td>
</tr>
</tbody>
</table>

Maternity and Neonatal Division 2013-14 Including Radiology and Pharmacy

<table>
<thead>
<tr>
<th></th>
<th>Provide details here</th>
</tr>
</thead>
<tbody>
<tr>
<td>43 Hand Hygiene Audits completed</td>
<td>This includes monthly 5 moments introduced September 2013</td>
</tr>
<tr>
<td>Average score (Range 82 - 100)</td>
<td>96%</td>
</tr>
<tr>
<td>18 Personal Protective clothing</td>
<td>Audits completed</td>
</tr>
<tr>
<td>Average score (Range 91 - 100)</td>
<td>Compliant</td>
</tr>
<tr>
<td>20 Average score (Range 58 - 100)</td>
<td>88% non compliance temporary closure</td>
</tr>
</tbody>
</table>

Divisions have been charged with taking remedial action to ensure that a minimum of 2 audits for each clinical element are completed in 2013-14

1. Some areas have embraced monthly hand hygiene audits some yet to comply. The numbers of audits are improving.
2. Areas not compliant with auditing twice per year April – March: - Physiotherapy, Obstetric Theatres, Triage and Assessment, Imaging and Antenatal Clinic Aintree
14.4 Appendix E - Link Staff Review
5 meetings took place (including professional Development and Mandatory Training sessions), as meetings have now changed to bi-monthly following a review in 2012

<table>
<thead>
<tr>
<th>Division</th>
<th>No’s of Link Staff</th>
<th>% of Attendance at meetings</th>
<th>No of meetings without representation</th>
<th>Professional Development</th>
<th>Shadowed the IPCT</th>
<th>Mandatory Training with IPCT</th>
<th>Hand Hygiene Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternity &amp; Imaging</td>
<td>11</td>
<td>30%</td>
<td>2 meetings had a representative</td>
<td>4/11 4/11</td>
<td>1</td>
<td>/11</td>
<td>/11</td>
</tr>
<tr>
<td>Neonatal &amp; Pharmacy</td>
<td>6</td>
<td>40%</td>
<td>2 meetings had no representative</td>
<td>2/4 4/4</td>
<td>1</td>
<td>/6</td>
<td>/6</td>
</tr>
<tr>
<td>Gynae &amp; Surgical Services</td>
<td>11</td>
<td>51%</td>
<td>All meetings had a representative</td>
<td>6/11 8/11</td>
<td>1</td>
<td>/11</td>
<td>/11</td>
</tr>
<tr>
<td>RMU &amp; Genetics</td>
<td>3</td>
<td>33%</td>
<td>2 meeting had no representative from RMU 4 meetings had no representative from Genetics</td>
<td>1/3 1/3</td>
<td>0</td>
<td>/3</td>
<td>/3</td>
</tr>
</tbody>
</table>

**Issues reported for poor / non-attendance over the year**

- Link staff not requesting time to attend meetings
- Allocated time given to facilitate attendance but ward too busy to release on the day
### 14.5 Appendix F - Neonatal Surveillance

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Acinetobacter</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Citrobacter</td>
<td>3</td>
<td>6</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Enterobacter</td>
<td>24</td>
<td>22</td>
<td>17</td>
<td>19</td>
<td>15</td>
<td>12</td>
<td>16</td>
<td>15</td>
<td>21</td>
<td>21</td>
<td>17</td>
</tr>
<tr>
<td>E.coli</td>
<td>33</td>
<td>31</td>
<td>27</td>
<td>23</td>
<td>26</td>
<td>29</td>
<td>30</td>
<td>30</td>
<td>23</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Klebsiella</td>
<td>33</td>
<td>32</td>
<td>34</td>
<td>29</td>
<td>34</td>
<td>32</td>
<td>33</td>
<td>31</td>
<td>38</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td>Proteus</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Pseudomonas</td>
<td>2</td>
<td>3</td>
<td>9</td>
<td>16</td>
<td>14</td>
<td>18</td>
<td>10</td>
<td>9</td>
<td>6</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Serratia</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Stenotrophomonas</td>
<td>0.5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

### Percentage Colonisation 2013-14

- **Klebsiella**: 34%
- **Enterobacter**: 17%
- **E.coli**: 30%
- **Pseudomonas**: 5%
- **Proteus**: 1%
- **Serratia**: 2%
- **Acinetobacter**: 3%
- **Citrobacter**: 4%
14.6 Appendix G - Adult Bacteraemia Surveillance 2013 - 14

28 Positive blood cultures

16 Coagulase-negative staphylococcus or other contaminant.

12 Pathogens

<table>
<thead>
<tr>
<th>Directorate</th>
<th>Organism</th>
<th>Potentially Hospital Associated</th>
<th>Likely Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gynaecology</td>
<td>E.coli</td>
<td>No</td>
<td>Pelvis</td>
</tr>
<tr>
<td></td>
<td>S. aureus</td>
<td>Yes(^1)</td>
<td>Pelvis</td>
</tr>
<tr>
<td>Maternity</td>
<td>Group A streptococcus</td>
<td>No</td>
<td>Endometritis</td>
</tr>
<tr>
<td></td>
<td>Group B streptococcus</td>
<td>No</td>
<td>Chorioamnionitis</td>
</tr>
<tr>
<td></td>
<td>Group B streptococcus</td>
<td>No</td>
<td>Chorioamnionitis</td>
</tr>
<tr>
<td></td>
<td>Streptococcus constellatus</td>
<td>No</td>
<td>UTI(^2)</td>
</tr>
<tr>
<td></td>
<td>Klebsiella pneumoniae</td>
<td>Yes(^3)</td>
<td>Endometritis</td>
</tr>
<tr>
<td></td>
<td>E.coli</td>
<td>Yes(^1)</td>
<td>Endometritis</td>
</tr>
<tr>
<td></td>
<td>E.coli</td>
<td>Yes(^1)</td>
<td>Endometritis</td>
</tr>
<tr>
<td></td>
<td>E.coli</td>
<td>No</td>
<td>Chorioamnionitis</td>
</tr>
<tr>
<td></td>
<td>E.coli</td>
<td>No</td>
<td>Chorioamnionitis</td>
</tr>
</tbody>
</table>

1) RCA did not identify any deficiencies in care which may have led to this infection

2) Clinical diagnosis of UTI

3) Multiply resistant organism leading to failure of standard prophylaxis
14.7 Appendix H – RSV Incident Dec 13 – Jan 14

1. Introduction and summary

On 26/12/13 a preterm infant being cared for in the intensive care area was diagnosed with Respiratory Syncytial Virus (RSV). Infection Prevention and Control precautions were immediately implemented for that infant.

On 14/01/14 the Director of Infection Prevention and Control (DIPC) escalated general infection control precautions as the number of babies being cared for on the unit increased.

On 17/01/14 two further babies were diagnosed with RSV although they had no direct contact with the initial case or with each other.

2. Actions

- Additional nursing time was acquired to support the increased activity and allow cohort nursing of the babies with RSV.
- Barrier cleaning of all areas was introduced
- Visiting was restricted to parents where practicable
- Public Health England were informed of the situation
- The situation was reviewed daily by the DIPC / Infection Prevention and Control Team / Neonatal Team

3. Conclusion

27/01/14

- No further cases of RSV infection identified
- Initial infected baby discharged, 2 remaining babies are asymptomatic
- Barrier nursing precautions reduced in nurseries but maintained on remainder of unit, unit activity reduces to 37 babies

4. Recommendation/s

- Barrier cleaning maintained only for the HDU room caring for the two RSV positive infants
- Normal cleaning for rest of unit
- Visiting restriction will be lifted when unit enhanced barrier nursing precautions reduced.