Liverpool Women's
NHS Foundation Trust

Infection Prevention & Control Annual Report 2012-2013

Dr Tim Neal, Director of Infection Prevention & Control

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TABLE OF ABBREVIATIONS

CGC	Clinical Governance Committee
CHKS	Caspe Healthcare Knowledge Systems
CQC	Care Quality Commission
DIPC	Director of Infection Prevention and Control
DNMPE	Director of Nursing Midwifery & Patient Experience
HCAI	Health Care Associated Infection
HPA / PHE	Health Protection Agency now Public Health England
IPC	Infection Prevention & Control
IPCC	Infection Prevention and Control Committee
IPCN	Infection Prevention and Control Nurse
IPCT	Infection Prevention & Control Team
IPS (ICNA)	Infection Prevention Society (Formerly known as Infection Control Nurses Association - ICNA)
LWFT	Liverpool Women's NHS Foundation Trust
MRSA & MSSA	Meticillin Resistant (Sensitive) Staphylococcus Aureus
NHSLA	National Health Service Litigation Authority
OLM	Oracle Learning Management System
RLBUHT	Royal Liverpool and Broadgreen University Hospital Trust
SHA	Strategic Health Authority
SSI	Surgical Site Infection

1. Summary of Key Achievements and Main Findings

1.1 Key Achievements 2012/13

Key achievements for 2012/13
For the third consecutive year the Trust had no MRSA bacteraemias. Compliant with target
The Trust achieved MRSA elective and emergency screening standards Compliant with target
The Trust reported no episodes of adult bacteraemia due to MSSA. Compliant with target
The Trust reported no episodes of infection due to *Clostridium difficile.* Compliant with target
The Trust has had no major outbreaks of infection in year.
The IPC Team have reviewed, ratified and audited infection control policies against standards for NHSLA
The IPC team have incorporated new national guidance on IV Cannulation and Urinary Catheterisation into IPC Policy
The IPCT have established a Water Safety Group, produced a risk assessment for augmented care and tested water systems in compliance with New National Guidance on the control of pseudomonas.
The IPC Team continues to work with the neonatal team on to reduce infection.
The role of the IPC Link nurse has been reviewed along with the recommendations made by Divisions for improvements in link staff participation 2012.
The IPC Team have significantly supported major capital developments that have improved patient experience.
The IPC Team have worked with the Patient Facilities Manager and the domestic services contractors to monitor standards of cleanliness.
The IPCT have completed the agreed audit programme for 2012– 1213

1.2 Main Findings

1.2.1 The Team

During the current year the capacity of the infection prevention and control team has reduced such that there is now 0.6 WTE (24hrs) of professional infection control nurse time available to the Trust.

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 SHA Assurance report. The Trust was granted unconditional registration with the Care Quality Commission in April 2009. In February 2013 an

unannounced inspection by the CQC was undertaken although Infection Prevention and Control standards were not inspected on this occasion.

1.2.3 Education

The IPCT has provided 30 general training sessions in 2012-13.

1.2.4 Guidelines

The IPCT have incorporated current policy on IV cannulation and urinary catheterization into the Trust Infection Prevention and Control policy.

1.2.5 Environmental & Clinical Practice Audits

154 environmental and 96 clinical practice audits have been performed in accordance with the Trust plan during 2012 – 2013.

1.2.6 MRSA

72 patients were identified in the Trust with MRSA, 81% were identified by pre-emptive screening. 4 MRSA infections were identified. 14 neonates carried MRSA with one infection.

1.2.7 C. difficile

There were no *C.difficile* infections in 2012-13. The Trust's target for this infection is zero.

1.2.8 Bacteraemia

There were no MRSA bacteraemias in 2012-13. The Trust's target for this infection is zero.

There were 4 MSSA bacteraemias in 2012-13 (12 in 2011-12) all in neonates. The Trust's target for this infection is less than 1 Trust attributable adult case. For neonatal MSSA infection baseline data are being collected.

13 neonates had significant Gram-negative sepsis (5 congenital) and 12 neonates had significant Gram-positive infections (3 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 15 E.*coli* bacteraemias in 2012-13 (6 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 2012-13.

1.2.9 Surgical Site Infection Surveillance

The Trust has continued to measure this key quality outcome via clinical coding (CHKS). The IPCT has tried to compare data collected via CHKS with that derived from clinical

incidents and antimicrobial prescribing but believes the most reliable mechanism of collecting meaningful information on surgical site infections is by prospective surveillance.

2. Infection Prevention & Control Team Members

During 2012 – 2013 the Infection Prevention and Control Team (IPCT) has undergone further change as Roisin Stoddern (Infection Prevention and Control Practitioner) retired on 31st December 2012. Since January 2013 the Team has consisted of 0.6WTE Infection Prevention and Control Practitioner.

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)
Mrs R Stoddern
Infection Prevention & Control Practitioner – (part time – 15 hours/week until retirement in December 2012)
Dr T J Neal
Consultant Microbiologist – Infection Control Doctor and Director of Infection Prevention and Control (DIPC) (2 sessions / week worked on LWFT site)

The IPCT is represented at the following Trust Committees:

Clinical Governance	Monthly
Patient Facilities & IPCT & G4S	Monthly
IPC Team	Monthly
Governance Team	Monthly
Instrument Review	Monthly (Since December 2012)
NHSLA	Monthly
Emergency Planning	Monthly (Not attended since reduction in hours)
Health & Safety	Monthly (Not attended since reduction in hours)
Infection Prevention & Control	Bi-Monthly
Medicines Management	Bi-Monthly
Central Alert System	Weekly (Since February 2013)
Pseudomonas Review Meetings	Ad-hoc
PEAT / PLACE	Ad-hoc
Building Planning - Big Push	18 attended
- Ambulatory	5 attended
- Neonatal	2 attended

During the current year the capacity of the infection prevention and control team has been reduced such that there is now 0.6 WTE (24hrs) of professional infection control nurse time available to the Trust. In order to provide some mitigation against the loss of hours it has been agreed that a nurse/midwife can be seconded to the IPCT 16hrs a week for 6 months. Administrative support has remained at the reduced level noted in last year's annual report. The 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

advertised for a Theatre Manager / Decontamination Lead within the new divisional structure and out with the IPC service.

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

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. Terms of reference of the committee were reviewed in compliance with the Trust Clinical Governance template. The Committee receives regular reports on infection prevention and control activities from clinical and non-clinical Divisions/departments. Frequency of receipt of the matron’s reports was reduced from monthly to quarterly but continues 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 demanded 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 2013 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.

- Implementation of specific face mask and eye protection audits during open abdomen surgery in both Theatres
- In line with Pseudomonas action plan the cleaning of sinks has been audited with the wards taking up the process to continually monitor compliance. This also included an audit of the drug / procedure preparation to ensure the areas are not contaminated by locality of sinks
- Review of all Trust agreed IPCT patient leaflets which are available on hospital Intranet for staff to provide to patients in a timely manner. The Internet also has leaflets available for patients and visitors with a link to other leaflets not commonly required in this Trust
- Review of Trust hand hygiene products with procurement department to ensure they are fit for purpose and the recommended product by the Team. They are supplied to individual wards and department and used appropriately by staff patient and visitors and nonconformity to be reported to IPC Team.
- An improved, alcohol based, chlorhexidene skin preparation product has been introduced for use in theatre.
- Compliance with MRSA screening programme is continuously monitored in the gynaecology division
- The tissue viability nurse is now contactable via a bleep and a scoping exercise is being undertaken in relation to establishing wound clinics
- The IPCT audit result database has been filed centrally allowing access by divisions reducing discrepancies in reporting
- Cloth covered chairs in clinical areas have been replaced with those fit for purpose
- A robust audit process monitoring the cleaning of baths and birthing pools has been implemented.
- The Trust is introducing needle safe devices in areas of the Trust where it is practicable to do so
- An assessment of the number and position of non-mains water fountains has been undertaken
- The cleaning strategy has been ratified and is being monitored
- Discrepancies between cleaning audits reported by G4S and those reported through other avenues have been escalated

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

- The IPCT has failed to progress the 3 remaining 'non-compliance' actions from the Health care act
    - Lack of decontamination lead and reduced team
    - Delay in Big Push phase 4 failing to address hand hygiene in MLU
    - Provision of surveillance software
- 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 and although a scoping exercise is underway to identify alternative accommodation this has yet come to fruition
- Root cause analysis following adult bacteraemia is often not completed in a timely manner
- ANTT training in Maternity has not been completed.

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 three outstanding standards of the HCA with which the Trust is not fully compliant; these are detailed in Appendix A

The CQC visited the Trust for an unannounced inspection in February 2013. On this occasion the CQC did not review specific IP&C standards

5.2 NHSLA

In compliance with the NHSLA Standard the IPCT audited the Infection Prevention and Control Organisational Controls and Assurance Framework (Policy section 1). This audit (summary included as Appendix B) identified 6 areas of non-compliance.

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 practices and issues identified as non-compliant in the previous year. Non clinical staff not working in the clinical areas receives 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 training annually. An annual practical assessment of hand decontamination takes place for all staff working in the clinical areas.
Hand hygiene assessments in the clinical areas are also undertaken by the link staff.
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 Division. 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 30 general training sessions in 2012-13 and 2 Professional Development training days for link staff. Please see Appendix C.

Following a review of mandatory training within the Trust in January 2013, the IPCT proposed that the frequency of training for clinical staff should be 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 will be monitored over the next year and the frequency of training reviewed again in January 2014.

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. 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 proposal by The Cheshire and Merseyside network for an electronic IPC passport implementation has yet to be agreed in the North West. The IPC Practitioners have contacted other Teams in the local area regarding the National Skills Framework and none of them have 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 transfers.

The IPC Practitioners reviewed the electronic national IPC training package NLMS and NLMS Lite 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. After discussion it was agreed that additions could be made but these will be limited. The IPCT recognise the advantages of an electronic training programme and with IT support will look to develop a suitable bespoke version for the Trust's training needs, which will be reviewed and updated annually.

As noted in previous annual reports funding has been provided for Trust IPC Practitioners to attend the Annual Infection Prevention Society conference which was held in Liverpool in 2012. Appendix D details training attended by members of the IPCT.

7. Guidelines/Policies

- Infection Prevention and Control Policy Section 2; Guidance on Infection Prevention and Control in Clinical Care underwent a minor update to include 2 new appendices on Peripheral Cannulation and Urinary Catheterisation. The policy was presented to IPCC in January 2013. Audit of clinical practice will be completed via DOH "Saving Lives Strategy" within divisions.
- Dress Code Policy; IPCT were instrumental in the review of this Policy which was ratified in June 2012 via Nursing and Midwifery Board and Medical Staff Committee

- Decontamination of Medical Devices Policy; has been reviewed by the IPCT and ratified in IPCC in February 2013; policy is awaiting assurance from the Policy Assurance Subcommittee.

The IPC Team has also participated in multidisciplinary reviews of the following policies:

- Caesarean section pathway
- Management of Needle sticks
- Dress Code Policy
- Policies within the Occupational Health Service
- Waste Policy

8. Audits

8.1 IP&C Policy Audit

Refer to NHSLA Standard section 5.2 above.

8.2 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. This has been piloted by the Team and the tool accepted. G4S were tasked to provide staff training and audit compliance, the results of which would be reported within the Estates and Operational Services report to IPCC.

However audit data were not forthcoming and the IPCT stepped in to audit, which showed there were significant breaches in compliance. The contractor was instructed to correct deficiencies and provide monthly audits. 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 has assured the Trust that all staff have now been trained and assessed as competent and monthly audits will be completed using the designated tool. This is a standing item on the monthly meeting with IPCT, G4S and the Patient Facilities Manager. An analysis of the Microfibre cleaning audits is provided in Appendix E.

8.3 ICNA Trust audit programme

The IP&C Team continue to use the ICNA tool originally devised in 2004. A new IPS improvement tool (2011) has been reviewed and has been assessed as too lengthy and without significant improvement on the audit practice or process already in place.

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 28 (6 accompanied by link staff and one accompanied by a Ward Manager and 4 accompanied by the Training and Compliance Manager for G4S). A total of 154 audits were carried out by the IPC Team. In addition a Trust wide patient kitchen audit was undertaken in March 2013 by IPCT and Training and Compliance Manager G4S, identified deficiencies are to be addressed by G4S and monitored by the Trust.

Clinical practice audits (Hand Hygiene, Personal Protective Equipment and Safe Use and Disposal of Sharps) are carried out by department staff. Each area is to complete a minimum of 2 each of the above audits within a year. Of the 27 Trust departments required to undertake these audits only 7 completed the required number (commendably the neonatal unit and maternity ward completed 17 and 12 respectively). Of the remaining 21 areas 3 did not complete any clinical practice audits (Midwifery Led Unit and Jeffcoate Ward, Obstetric Day Unit). This is a concern as these areas cannot assure the Trust with evidence of safe IPC practice. This has been monitored and reported to IPCC within the IPC Quarterly report.

The audit results are fed back to the Division via the ward managers and matrons for actioning. They are also included in the Divisional and IPCT Quarterly reports to IPCC. IPS audit results are summarised in Appendix F

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 87% of the time (66% in 2011-12);. There were a total of 4 breaches 2 were in relation to the audit summary (one was 1 day late the other was 4 days late), and 2 were in relation to audit results (one was 22 days late the other was 25 days late). These delays relate to sickness/annual leave.

9. Other Issues

9.1 Link Staff

The link staff meetings are now held bi-monthly (after review in 2012) with the attendance figures not reflecting an improvement (see Appendix G).

Professional Development Days twice per year are a means of time out with Link staff and the IPC Team (45% of link staff attended). The morning 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). On most occasions this meant the IPCN audited the environment unaccompanied.

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.

OLM figures confirm that only 25% of current link staff have had hand hygiene assessments in the last year. (27.5% have attended Trust Mandatory training sessions).

9.2 Building Projects & Design Developments

Monthly meetings between Estates, Facilities & IPC Team have continued. This includes Patient Facilities Manager and G4S staff. 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.

2012-13 projects requiring IPC Team involvement include:

9.2.1 Gynaecology and Surgical Services Division

- *Chemotherapy Suite* on Rosemary Ward – the Team continue 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.
- *Gynaecology OPD* – The ambulatory service required developments to accommodate new procedures as an outpatient service. The IPCT advised on good clinical practice and provisions to support this

9.2.2 Maternity Division

Big push Phase 2 is now completed, and Phase 3 is due to complete in late spring 2013. The IPCT continue to support the Division and Patient Facilities Manager in managing the build and subsequent snagging list on a timely basis. Fortnightly and ad-hoc meetings are supported to ensure the projected plans meet IPC requirements and the process of the build is managed effectively whilst the clinical service continues.

The IPCT are still involved with plans for 1b which includes the isolation facility (which is due for sign off in May 2013). The Team will ensure procedures and guidance for staff are in place once commissioned.

9.2.3 Neonatal Unit

- NICU Laundry – several consultations and building plans were reviewed early in 2012 however the Project is currently postponed. Meanwhile the current NICU laundry, and laundry process, remains on the Trust risk register.

9.2.4 Team Role in Procurement

The IPC practitioners will be involved in the procurement process for the above building projects. The laundry service which has been significantly delayed but is now expected to commence in September 2013 which will involve IPC Practitioners.

9.2.5 Cleaning and Catering Contract

The IPCT has continued to support the monitoring of the G4S contract working alongside the Patient Facilities Manager. The Team escalated to the Trust concerns relating to poor cleaning standards throughout the hospital over the last 12 months and worked with G4S Management and the Patient Facilities Manager to address the non-compliance. The cleaning contractor has appointed a Training and Compliance Manager who has audited with IPCT regularly in 2012-13. The Team had 1 away day in the last 12 months to monitor cleaning standards and made recommendations for regular reports to be included in the Estates report to IPCC.

9.2.6 Waste Contract

The Team have supported the review of the Waste Policy in the last year with the Environmental Manager. Although the implementation of alternative waste streams have been discussed the Trust needs to ensure the extra streams can be physically accommodated in ward areas, are of benefit and do not compromise the work which has, and continues to, ensure disposal of waste is safe.

Although it is a requirement of the HCA the IPCT have not been involved in the recent 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.

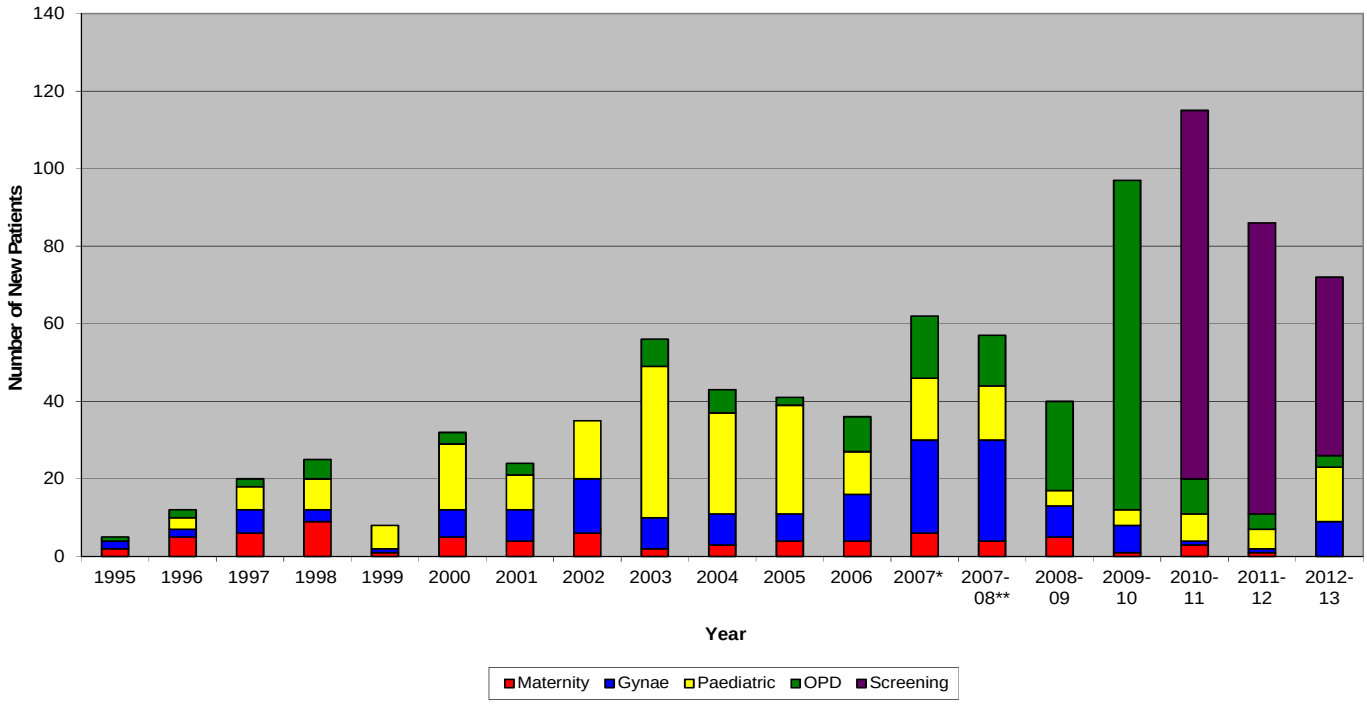
The need for surveillance of surgical wound infections has long been recognised as an important quality marker by the IPCT and Trust. Although surveillance was initiated by the IPCT this has not been sustained due to the reduction in time available to the team. The Trust does monitor surgical wound infections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

10.1 Alert Organism Surveillance

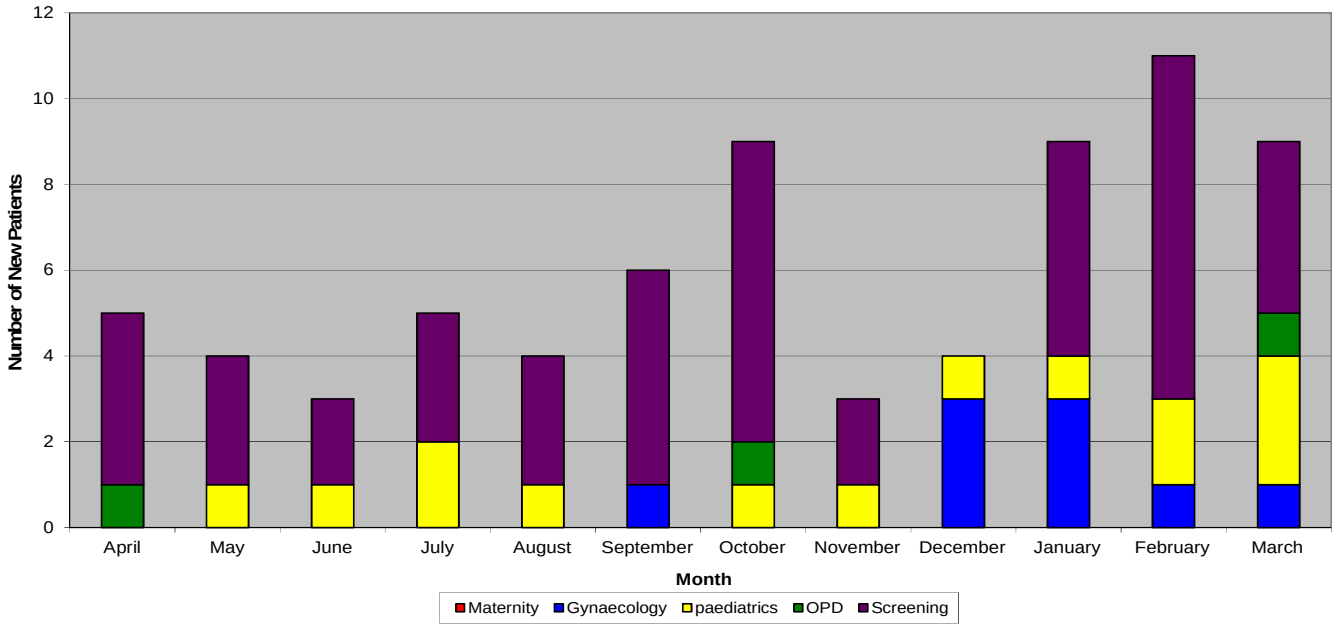
10.1.1 MRSA

The total number of patients identified carrying Methicillin Resistant *Staphylococcus aureus* (MRSA) in the Trust during the year 2012-13 was 72, primarily identified from screening samples. This is a slight decrease in comparison to the 86 identified in 2011-12. The charts below show the number of new patients identified with MRSA per year for the period 1995 – 2013 and the number per month for the current reporting year by provenance.

MRSA LWH 1995-2013



MRSA LWH 2012-2013
n=72



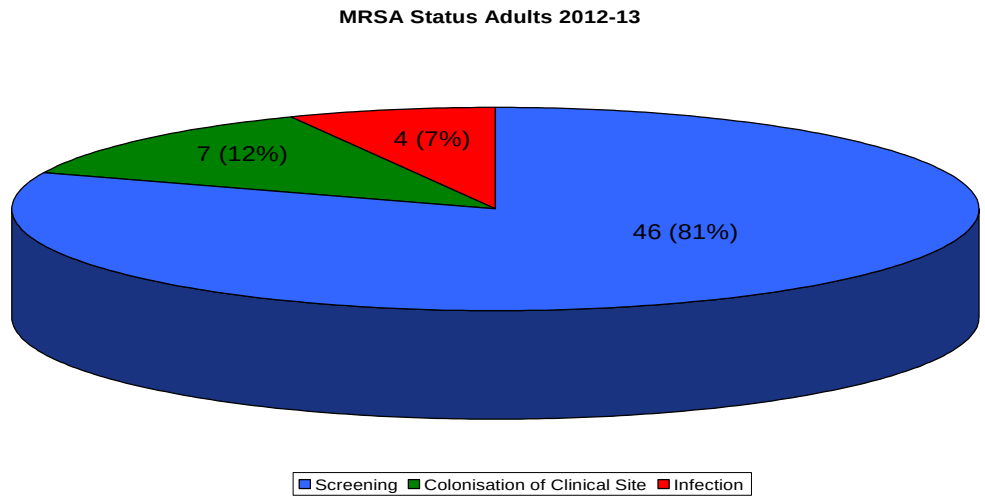
As outlined in previous Annual Reports the Government have established targets for screening such that all elective admissions and all eligible emergency admissions to hospital should be screened for carriage of MRSA prior to, or on, admission. The IPCT have an MRSA screening policy as part of the infection 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. In the majority of months more patients are screened than are required by this initiative. As the government standard requires only the

total number of patients screened divided by the number of eligible patients the figure is often over 100%

Screening of Elective and Emergency Admission 2012-13													
Month		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
% of eligible patients screened	Elective	**118**	**128**	**105**	**120**	**130**	**116**	**119**	**118**	**104**	**111**	**106**	**101**
	Emer-gency	**149**	**143**	**145**	**159**	**145**	**157**	**145**	**154**	**161**	**145**	**155**	**150**

In the period April 2012 to March 2013 4502 adult patients were screened for MRSA carriage in line with the DoH guidance (a reduction from the previous year). 46 (1.0%) were positive (1.2% in 2011 – 2012).

11 adult patients were identified with MRSA on diagnostic samples from clinical sites. 4 of these 11 (7%) had clinical or microbiological evidence of infection with MRSA (all wound infections). The remaining 7 had colonisation of clinical wounds without obvious infection. Some of these cases were temporally clustered in gynaecology during December and January. This was investigated but no linking factors were identified.



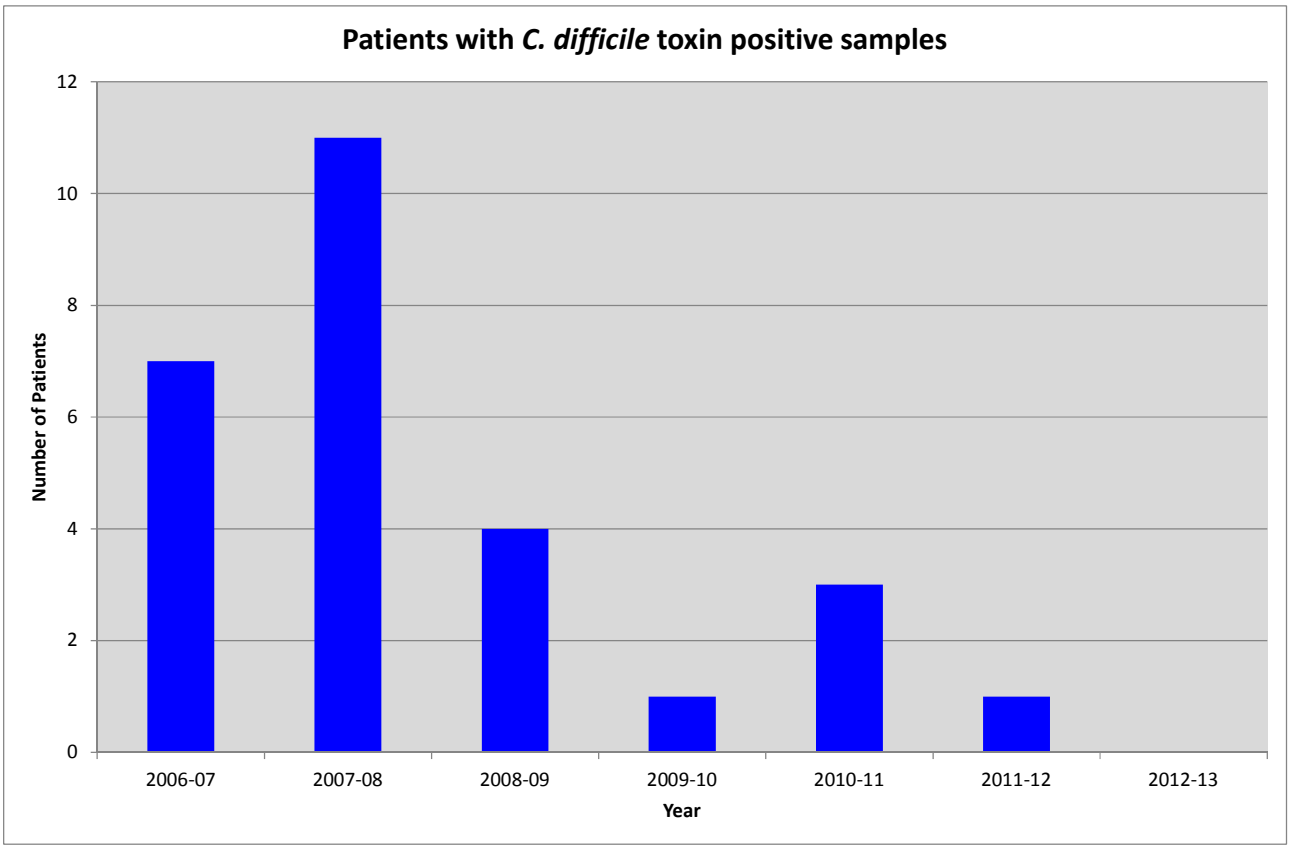
There were no MRSA bacteraemias in adult patients in the reported year.
There were no MRSA bacteraemias in neonatal patients in the reported year.

During the period of this report 14 babies were identified (12 on screening samples, either admission or weekly) with MRSA. 9 of these babies were identified soon after birth and this most likely represents maternal acquisition. 2 further babies were admitted to the neonatal unit from other hospitals with existing MRSA carriage. 3 babies were detected by the surveillance programme with MRSA sometime after delivery, the mode of acquisition for these babies was not determined but there was no evidence of spread on the unit. One neonate with a maternally acquired MRSA was treated for skin infection soon after birth.

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 2012 to March 2013 no patients in the Trust were identified with *C.difficile* infection (either hospital or community attributable). The number of cases during the preceding years is shown in the chart below.



The target for this disease for the Trust in 2012-13 was zero Trust attributable cases per year. The Trust is compliant with this target.

10.1.3 Group A Streptococcus

In the period April 2012 to March 2013, 7 patients were identified with Group A streptococcus (8 in 2011-12, 8 in 2010-11 and 5 in 2009-10).

There were no identified Group A streptococcal bacteraemias. There were two significant skin infections with Group A streptococcus one in an caesarean section wound and the other at an episiotomy site. In 4 of the remaining cases the organism was isolated from the genital tract and represented pelvic infection in patients presenting to ER. There was also a single isolate causing tonsillitis in a patient post-partum. As a consequence of a patient admitted to a neighbouring hospital with severe invasive Group A Streptococcal Disease (iGAS) who had delivered at LWFT an epidemiological exercise was conducted examining all the cases in the preceding year. No epidemiological link between the cases was identified. A report on this exercise is presented as Appendix H.

As highlighted in last year's annual report Group A streptococcal infection is being increasingly recognised as a cause of mortality and morbidity in maternal patients.

10.1.4 Glycopeptide Resistant Enterococcus(GRE)

There were no GRE bacteraemia's reported. 2 patients were identified with glycopeptide resistant enterococcus carriage in the year April 2012 to March 2013 (one adult and one neonate) in neither case was there evidence of spread of the organism and neither patient had infection as a consequence.

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. As indicated in last year's report, the surveillance system was modified in 2010-11 to exclude well babies cared for in the nursery, as a consequence the results of the last two year's surveillance samples may not be directly comparable with previous years however they are provided in Appendix I

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 2.5 (increased from 1 last year), and with *S.aureus* was 3 (reduced from 6 last year).

10.3 Bacteraemia Surveillance

10.3.1 Neonatal Bacteraemia

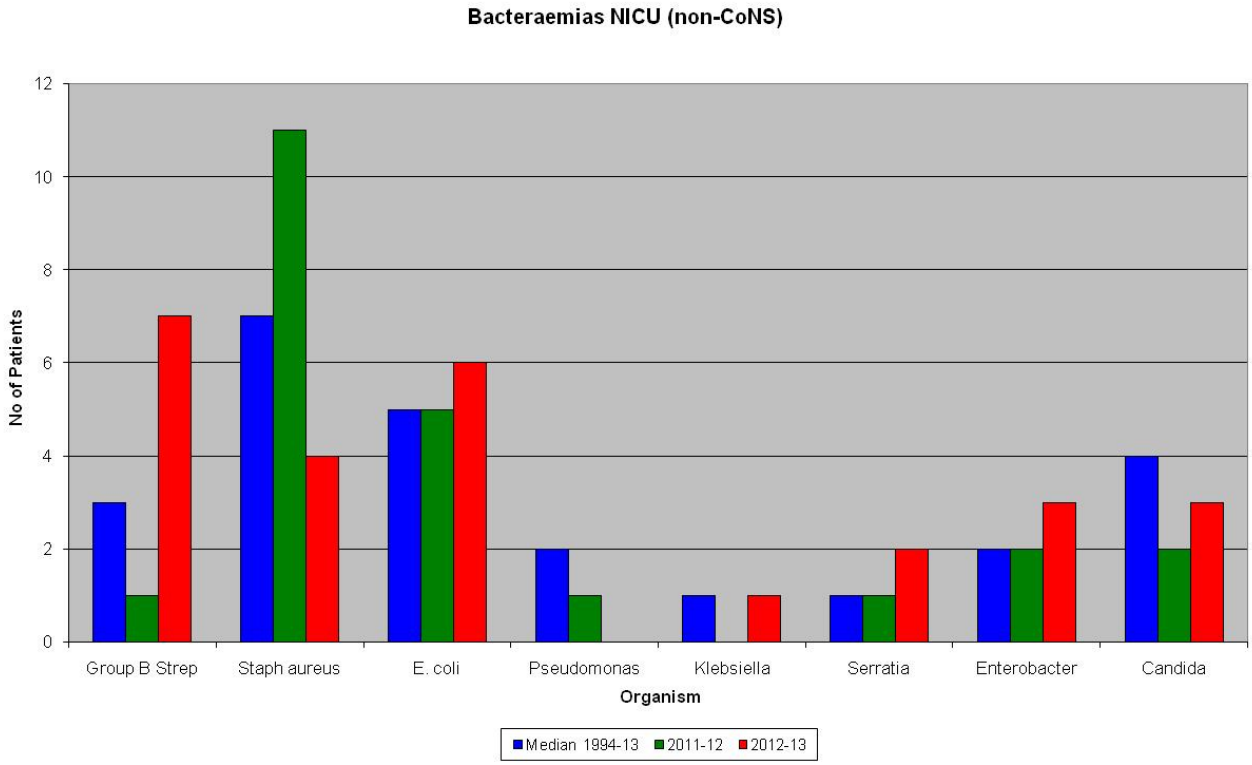
As always the commonest organism responsible for neonatal sepsis was, the common skin organism, coagulase-negative staphylococcus (CoNS). In the period April 2012 – March 2013 13 babies (10 in 2011-12 and 18 in 2010-11) had infections with Gram-negative organisms, 5 of these infections (4 *E coli,* and 1 *Morganella sp.)* occurred in the first 5 days of life and were congenitally acquired. The remaining 8 Gram-negative infections occurred after 7 days (2 *E.coli*. 3 *Enterobacter sp*. 1 *Klebsiella sp*. 2 *Serratia sp*.).

There were 12 episodes of infection with significant Gram-positive pathogens; in 3 cases (all Group B streptococcus*)* the infection was congenitally acquired. The remaining 9 (4 Group B streptococcus, 4 *S. aureus 1 Enterococcus sp.*) occurred after the first week of life.

There were 3 babies in 2012-13 who developed invasive infection with Candida all of who were admitted from neighbouring hospitals and one of whom was candidaemic on admission.

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) last year's annual report drew attention to the high number of *S.aureus* infections and the decision to reintroduce the routine use of Chlorhexidene powder as a prophylactic measure. The number of *S.aureus* infections has decreased this year (as has the median number of babies colonised weekly). There were no pseudomonas bacteraemias in the current reporting year.



The Neonatal Unit continues to monitor standardised infection rates. The most recent results (2011) 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 MRSA 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 2012 to March 2013, for the third successive year, there were no cases of MRSA bacteraemia in the Trust. The Trust's given target for the period was zero. 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 4 episodes of MSSA bacteraemia (all in neonates see section 10.3.1 above) in the period 2012-13 Unpublished Trust attributable MSSA data for LWFT for the years 2008-2013 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.

April 2008-March 2009		April 2009-March 2010		April 2010-March 2011		April 2011-March 2012		April 2012-March 2013	
MSSA bacteraemia reports	Estimated MSSA bacteraemia rate per 10,000 bed days	MSSA bacteraemia reports	Estimated MSSA bacteraemia rate per 10,000 bed days	MSSA bacteraemia reports	Estimated MSSA bacteraemia rate per 10,000 bed days	MSSA bacteraemia reports	Estimated MSSA bacteraemia rate per 10,000 bed days	MSSA bacteraemia reports	Estimated MSSA bacteraemia rate per 10,000 bed days
5	7.2	8	11.5	4	5.8	11	15.9	4	5.8

E.coli bacteraemia has also been made mandatorily notifiable although targets have not yet been established. In 2012 – 13 the Trust reported 6 E.coli bacteraemias in neonates 4 of which were categorised as congenital infections. In the same period there were 9 E.coli bacteraemias in adult patients (6 in 2011-12). In one instance the infection was not manifest within the first 48 hours of admission therefore this case was recorded as Trust attributable the remainder were categorised as community acquired. Despite this categorisation 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; 24 patients were identified with positive blood cultures from 258 cultures submitted (9%). 14 (58% of positives, 5% of total) of these were contaminated with skin organisms. Of 10 significant bacteraemias only one was considered to be possibly healthcare associated although the timing of the infection categorised this as community associated. Appendix J

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. In 2008 the IPCT was enhanced to allow prospective surveillance of surgical wounds to be implemented across the Trust both pre-and post-discharge. Unfortunately due to a reduction in hours available to IPCT from August 2010 this form of prospective surveillance could not be sustained. However 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 and antimicrobial prescription records through pharmacy can provide a surrogate indication of the burden of wound infection morbidity in the Trust.
The table below compares the data from these 3 sources for the period April 2012 to March 2013.

	Number of Wound Infections		
Data Source	**Maternity**	**Gynaecology**	**Total**
CHKS	64	19	83
Incident Reports	4	14	18
Prescription Records	52	107	159

The IPCT selected 4 cases at random from the CHKS database and attempted to triangulate the data to see if these cases were identified by the various methodologies. The table below details the outcome of this exercise. These tables demonstrate poor concordance between the different mechanisms for identifying wound infections and it is likely that the true burden of this infection is under reported through existing channels. It should be noted that the electronic prescribing software in the Trust has a 'mandatory' field when prescribing antibiotics which requires an indication to be entered; however the IPCT identified a large number of antibiotic prescriptions (in excess of 500) where no indication was given.

Patient Identified from CHKS Database	Diagnosis from CHKS database	Patient present on Clinical Incident 'Safeguarding' database	Patient identified through prescription records for 'wound infection'	Patient referred to IPCT?*
1	Obstetric surgical wound infection	Yes	No	No
2	Debridement of Skin NEC	No	No	No
3	Obstetric surgical site infection	No	Yes	no
4	Total hysterectomy readmitted with infection of skin and subcutaneous tissue	Yes	Yes	No

* Referral to IPCT may not always be applicable; although all these patients should be nursed in side rooms they may not have 'alert' organisms necessitating referral.

In January 2013 the IPCT launched a group to consolidate the care and management of wounds in the Trust. Although the primary remit of this group is not surveillance it may be a forum where these data could be interrogated.

11. Outbreaks of Infection

There have been no major hospital-wide outbreaks of infection during the period of this report, although a potential cluster of MRSA episodes and a cluster of Group A streptococcal infections were investigated. (See sections9.1.1 and 9.1.3 above)

11.1 Influenza

There was a limited amount of influenza activity in 2012/13 compared to previous years and the pandemic influenza plans were not activated.

11.2 Measles

There was a significant community outbreak of measles which commenced in the 4th quarter of 2011/12 and continued into the current year. The impact of this outbreak on pregnant women was potentially significant. The IPCT supported the Trust occupational health team's plans to ensure all staff are immune/vaccinated against this infection.

11.3 Whooping Cough

Similarly there were significant national and local concerns relating to the rising incidence of whooping cough. The most severe effects of this illness are seen in the first few months of life and vaccination in pregnancy can be protective of the newborn. The IPCT raised the profile of this issue and although vaccination of patients was delivered through primary care the risk assessment and management of staff was facilitated by the IPCT and occupational health.

11.4 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 and the neonatal unit have met to ensure that the guidance in the document is reviewed and, where appropriate, implemented. A Water Safety Group has been established with members from IPCT, Estates and NICU, a risk assessment was undertaken by the DIPC and presented to IPCC in January 2013. In line with the guidance all taps on NICU have been tested 6 monthly for the presence of pseudomonas. Where positive results have been obtained local decontamination has been performed and the tap retested. All taps were compliant at the last test (January 2013).

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 2012-13

Work Plan	Completion Date	Sections
Training		
• Continue all Trust mandatory & induction training	Ongoing	6
• Continue to support link staff personal development	Ongoing	Appendix G
• Explore electronic modality for IPC training e.g. NLMS (carried over from 2011-12)	June 2012	6
• Updated new NMLS Lite 2012	December 2012	6
Policies		
• Review and update Urinary Catheterisation Policy (carried over from 2011-12)	December 2012	7
• Review and update Decontamination Policy	December 2012	7
• Review and update Peripheral Cannulation Policy	December 2012	7
Audit		
• IPC Policy Section 1 in accordance with NHSLA and CQC	May 2013	8.1 & Appendix B
• Review and agree ICNA Audit Programme and Process Map	May 2013	8.3
• Decontamination Policy	March 2013	Saving Lives
• Urinary Catheterisation Policy	March 2013	Saving Lives

Surveillance		
• Continue 'Alert Organism' surveillance focused on resistant pathogens	Ongoing	10.1
• Continue to monitor cases mandatorily reportable infections	Ongoing	10.3.2
• Continue to work with the neonatal unit to assess changes observed in colonization and infection status and the effect of intervention on this status	Ongoing	10.2 & 10.3.1
• Implement pseudomonas monitoring programme in Augmented Care areas	November 2012	11.4
Health Act		
• Monitor through IPCC Trust response to actions outlined in the Health Care Act Gap Analysis	Ongoing	5.2 & Appendix A

13.2 Infection Control Team Work Plan 2013-14

Work Plan	Expected Completion Date	
Training		
• Continue all Trust mandatory & induction training	Ongoing	
• Continue to support link staff personal development	Ongoing	
• Create a LWH bespoke electronic training module	September 2013	
Audit		
• IPC Policy Section 1 in accordance with NHSLA and CQC	May 2013	
• Review and agree ICNA Audit Programme and Process Map	May 2013	
• Review Reporting of audit:	July 2013	
- Establish reminder system for action plans/audits		
- Increase frequency of HH audits to monthly		
- Escalation of poor compliance		

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'	Ongoing Ongoing Commence April 2013	
Health Act • Monitor through IPCC Trust response to actions outlined in the Health Care Act Gap Analysis	Ongoing	
Root Cause Analysis • The IPCT will take control of the root cause analysis of adult bacteraemias and C.difficile infections	Commence April 2013	

14. Appendices

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

Criterion	Additional Quality Elements	Baseline Assurance June 2012	Update December 2012	Responsibility
1.1 Appropriate management and monitoring arrangements should ensure that: A decontamination lead is designated where appropriate	The decontamination lead is an integral member of the Infection Prevention and Control Committee. An annual decontamination report is produced.	Reformed JD submitted to HR for banding awaiting response.	Role of decontamination to be removed from IPCT and integrated with post of Theatre Manager. Awaiting combined job description and recruitment	Divisional Manager Gynaecology Director of Infection Prevention and Control

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		Awaiting Trust decision re tendering process for Pathology Services	1.8 IPCT further reduced by 0.4wte to 0.6wte Infection Prevention and Control Practitioner and reduction of co-located administration support, No Trust decision known to IPCT on ICNET surveillance software or ongoing tender of pathology services.	Head of Governance Director of Infection Prevention and Control
Criterion 2: There is adequate provision of suitable hand washing facilities and antimicrobial hand rubs	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)	Concerns re timescale for Big Push to address this issue. IPCT to discuss with estates possibility of an interim decision.	Phase 4 of Big push on hold. Alternative plan for sinks on MLU required	Director of Infection Prevention and Control IPCT Facilities Divisions

14.2 Appendix B - NHSLA Audit of IPC Policy 1

NHSLA / CQC Standards Audit Report 2012- 2013
Outcome 8 (Infection Control)

Document Control	
Version:	1
Reviewing Committee	IPCC
Date Reviewed	31st May 2013
Report Author :	IPCT
Name of policy originator/author:	IPCT
Date issued:	May 2013
Target audience:	All Staff

1. Background

1.1 This Trust wide audit took place during May 2013 to determine the Trusts compliance with the standards set in the Infection Prevention & Control Policy Section 1 Organisation Controls & Assurance Framework this includes the requirement from the Healthcare & Social Care Act 2008 and also covering the NHSLA standard (4) Criterion (9) minimum requirements. The audit period selected for the purpose of this audit was April 2012 to March 2013.

2. Overview of results

2.1 The audit results demonstrate compliance with the policy in all areas with six exceptions'.

3. Standards & Non-compliance

12 Link staff not available in each clinical area

38 Poor evidence of clinical practice audits,

39 Poor link staff attendance at meetings and Professional Development days.

41 Review of attendance at IPCC revealed one occasion when committee was not quorate in compliance with terms of reference (TOR).

42 Review of attendance at IPCC revealed six members who failed to attend meetings in compliance with the minimum attendance outlined in the TOR.

46 Divisional quarterly report not presented on 2 occasions

14.3 Appendix C - Training Sessions in Infection Control provided by IPCT

General Training

Corporate Induction Mandatory IPC Training – 9 sessions face to face, 2 workbook sessions due to no IPCN
Medical Staff Training (SHOs Registrars Consultants) – 6 + sessions (including OSCEs)
Link Staff Mandatory Training - 1 session (01.03.12)
Departmental Mandatory Training – 11 sessions and Hand Hygiene assessments
Clinical Teaching x 3

Specific Education Activities

Audit process Maternity Division - x 2
Neonatal Teaching (TJN) – 2 medical & ANNP 1
Global hand hygiene day – 06.05.12
'Clean your hands' visitors' week 13.06.12 Staff hand hygiene +assessment + skin hydration
Away day's Patient facilities manager / G4S manager, IPC Team x 1

IPC Week Oct 2012

Departmental Hand Hygiene promotion
Sink Cleaning audits NICU in line with Pseudomonas action plan
Personal protective Equipment in Theatres audit and promotion of good practice
Professional Development Days Link Staff

Professional Development Day topics

May 2012

Decontamination Assurance and Compliance
Role of the link staff
Peripheral Cannulation
Feedback IPC Team audits

November 2012

Gojo skin hydration
Influenza
Wound care
MRSA
What's happening with safer devices
Snap shots – Patient Equipment and PPE
Washer disinfectors
P.L.A.C.E
Hand Hygiene Compliance
Laboratory specimens
Action on cleanliness
Flu Swabs
Barrier Nursing

14.4 Appendix D - Training Opportunities attended by IPCT

In House

Great day 18.09.12 (KB, TJN, BW)
Pseudomonas 22.01.13 (BW, TJN)
Excel Training 11.05.12 (KB)
Governance Away Day 02.04.12 (TJN, BW)
Great Day Francis Report 20.03.13 (BW)
Fire Safety Mandatory Training 14.05.12 (BW)
PDR 01.02.13 (BW)
PDR 14.03.13 (KB)

External

Infection Prevention Society Annual conference Liverpool (BW) September 2012
HISS Liverpool (TJN) October 2012

14.5 Appendix E - Microfibre Cleaning Audits

Since implementation of cleaning standards and the introduction of microfibre by G4S a monitoring and audit tool was constructed in April 2011. The audit tool was piloted and agreed by the Trust and contractor; the following results have been reported:

Audit Date	Auditor	Score	Comments
April 2011	IPCT	42%	Pilot of audit tool, no changes required to tool
April 2011	IPCT	69%	Action required to address non compliance
Jan 2012	New training and compliance manager appointed by G4S to ensure staff were trained and assessed as competent in process		
June 2012	G4S	79%	
June 2012	G4S	93%	Re-audit
Oct 2012	Some aspects of the tool incorporated into the G4S monitoring tool by Supervisors. As the tools differed comparison and monitoring improvement was difficult.		
Jan 2013	IPCT	65%	As part of the action plan from the January audit a New mop and cloth washing machine has been installed (March 2013)
Jan 2013	G4S	93%	Delivery Suite

Areas of Concern

System
Staff reported equipment was not always available or stock levels inconsistent.
Staff sharing equipment voiced concern that the equipment was not always available when they need to be flexible in busy working environments.
A mop adaptor is required and should be available to staff to enable corners to be cleaned
Dilution of cleaning products was inconsistent

Observation
Use and management of Microfibre cleaning trolleys by staff and decontamination process is inconsistent
Not all staff compliant with process

Ward Domestic Service Rooms (DSR)
Work needs to progress as soon as possible to bring old DSR rooms up to the standard of the new rooms

Decontamination of Cloths and Mops Although discussions had taken place over the reporting period regarding the upgrade of the facility for decontaminating cloths and mops ie replacement of machines, this had not progressed. By January 2013 the room

was not fit for purpose and this was escalated to G4S managers, Patient Facilities Manager and IPCT

Regular visual audits of current facility cleanliness were conducted over the next few weeks with a plan to progress upgrade of facility and purchase new machines.

G4S have been tasked to produce action plans and monitor compliance with the microfibre process. It was requested that this be reported to the monthly meetings with IPCT and Patient Facilities manager.

14.6 Appendix F - ICNA Audit and Clinical Audit Results Summary

Summary of Environmental Audits carried out Apr 2012 - Mar 2013

Gynae and Surgical Services Division 2012-13 (Including RMU / Genetics)
Ward Audits total – 76 48 Compliance (63%) 14Partial Compliance (18%) 14 Minimal Compliance (18%)
Summary of Issues Identified
17 Environmental Audits (Range 58 - 98) mean 81% The domestic cleaning standards remain a challenge with 5/10 areas being non-compliant.
13 Ward / Staff Kitchen Audits (Range55 - 100) Mean 79%, One patient kitchen minimal compliance at 55% not refurbished in recent programme, 44% Staff rest area in Obstetric Theatres asked to use Delivery Suite rest room. One area standards had not been maintained despite refurbished kitchen. The staff rooms are non-compliant around storage of food and environmental cleaning, microwaves and fridges, monitoring fridge temperatures are not consistent.
14 Linen Audits (Range 70-100) 92% Audits earlier in 2012 identified specific storage areas allocated for linen. Audits later in the year show storage areas being reduced in some areas and linen being stored with other dry clean goods in store rooms.
16 Departmental Waste Audits (Range 72 - 100) Mean 94% Non-compliance in Catharine Suite and Gynaecology Outpatient Department highlights policy procedure not followed
16 Patient Equipment Audits (Range 67 - 100) Mean 88% 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.
Maternity and Neonatal Division 2012-13 Including Radiology and Pharmacy
Ward Audits total – 68 35 Compliance 15 Partial Compliance 18 Minimal Compliance
Summary of issues identified
14 Environmental Audits (Range 53-92) Mean 80% Little improvement over this last year. Deficits addressed following audits but consistent compliance is required to maintain this standard. Some areas compliance reflect a noncompliance elsewhere in the Trust
12 Ward / Staff Kitchen Audits (Range 52-97) Mean 96% Improvement in the mean percentage. 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.

12 Linen Audits (Range 33-100) Mean 80%
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

14 Departmental Waste Audits (Range 81-100) Mean 93%
Remains compliant on the whole. Areas of noncompliance are not consistent across the Trust.

14 Patient Equipment Audits (Range 65-100) Mean 78%
Some 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

Corporate Audits 2012-2013

HSSU
90% overall compliance.

- Noncompliance included inappropriate equipment stored in sterile pack room
- Damaged chairs and environment. It has been acknowledged the department is not fit for purpose and is on the Trust Risk Register The department is still in temporary accommodation
- Condition of HSSU trolleys provided by contractor Synergy Healthcare to transport sterile and used instruments around the Trust have been audited (Jan-March 2013) following concerns raised by HSSU staff. Issues noted are being monitored and escalated through appropriate channels

Occupational Health
93% overall compliance

- Some de-cluttering of department required mains supplied water cooler require and attention to storage of staff food in department.

Summary of Clinical Practice Audits carried out in 2012-13

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 2012-13 (Including RMU / Genetics)
16 Hand Hygiene Audits completed of 24 expected Average score 96% (Range 84-100) 15 compliant, 1 partial
15 Personal Protective clothing Audits completed of 24 expected Average score 97 % (Range 80-100) 14 complaint, 1 partial
20 Sharps use and disposal Audits completed of 24 expected Average score 95% (Range 79-100) 19 compliant, 1partial
Complete Data not available for the following areas: Rosemary* GOPD Crown St GOPD Aintree Emergency Room Gyn Theatres Obstetric Theatres Catharine Suite Genetics - Alder Hey site
Maternity and Neonatal Division 2011-12 Including Radiology and Pharmacy
23 (9 NICU) Hand Hygiene Audits completed of 30 expected Average score 97% (Range 92-100) 23 compliant
7 Personal Protective clothing Audits completed of 28 expected Average score 94.8 % (Range 92-100) 7 Compliant
15 (7 NICU) Sharps use and disposal Audits completed of 23 expected Average score 95% (Range 71-100) Compliant 14, 1minimal
Complete Data not available for the following areas: Fetal Centre Imaging Dept Obstetric day unit* Antenatal clinic Aintree Jeffcoate Ward* Midwifery Led Unit* Neonatal Unit Antenatal Clinic Delivery Suite

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

* No audits received

14.7 Appendix G - Link Staff Review

5 meetings took place (including professional Development and Mandatory Training sessions), as meetings have now changed to bi-monthly following a revue in 2012

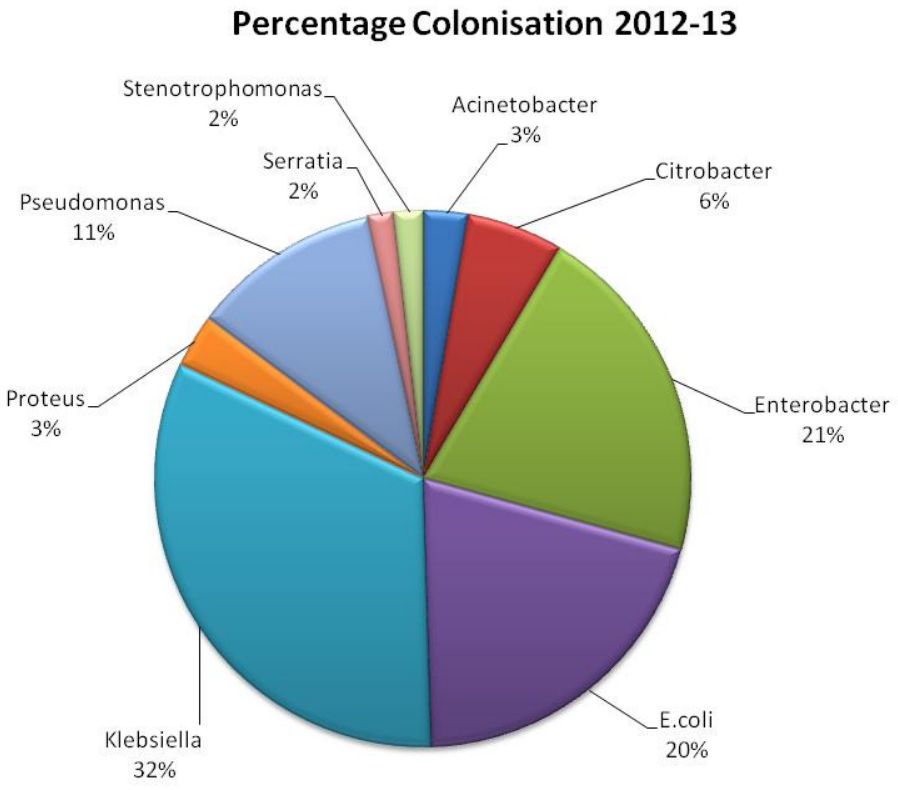
Division	No's of Link Staff	% of Attendance at meetings	No of meetings without representation	Professional Development	Shadowed the IPCT	Mandatory Training with IPCT	Hand Hygiene Training
Maternity & Imaging	11	16%	4 meetings had 2 or less represented	3/11	2/11	6/11	6/11
Neonatal & Pharmacy	4	75%	All meetings represented	3/4	3/4	3/4	3/4
Gynae & Surgical Services	15	53%	2 meetings had 4 or less	8/15	2/15	7/15	8/15
RMU & Genetics	3	33%	1 meeting had no representative 3 meetings had 1 representative	2/3	0/3	2/3	2/3

Issues reported for poor / non attendance over the year

- Always rostered to night duty
- Ward managers do not have meeting dates
- Link staff not requesting meetings
- Allocated on duty rota to attend but ward too busy to release on the day
- Some meeting dates changed to accommodate IPCT annual leave
- Venue change to accommodate other Trust meetings

14.8 Appendix H - Neonatal Surveillance

	2002	2003	2004	2005	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Acinetobacter	1	1	1	1	1	1	1	1	2	1	3
Citrobacter	2	3	6	8	3	3	2	4	2	6	6
Enterobacter	20	24	22	17	19	15	12	16	15	21	21
E.coli	30	33	31	27	23	26	29	30	30	23	20
Klebsiella	36	33	32	34	29	34	32	33	31	38	32
Proteus	4	2	3	2	4	1	3	2	4	0	3
Pseudomonas	2	2	3	9	16	14	18	10	9	6	11
Serratia	1	1	0	1	3	4	1	3	4	2	2
Stenotrophomonas	4	0.5	1	1	2	2	2	1	3	3	2



14.9 Appendix I - Group A Streptococcal Incident April 2013

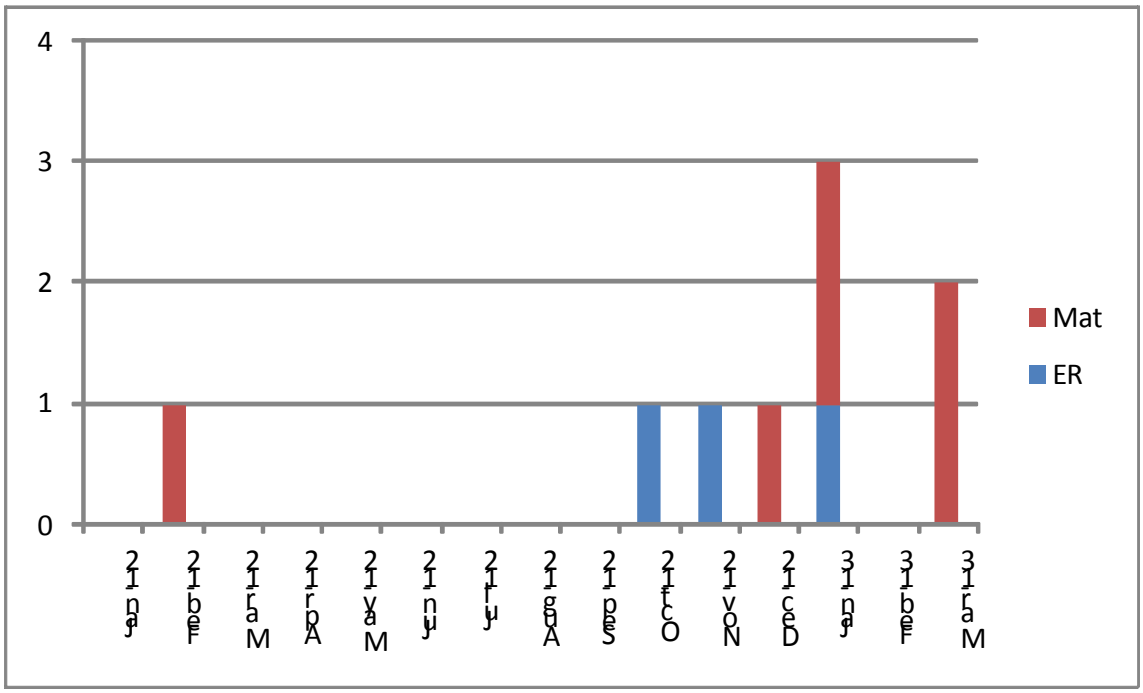
Background

The potential for Group A streptococci (*S.pyogenes*) to cause severe invasive disease particularly aggressive skin and soft tissue infection (necrotising fascitis) and septic shock has long been recognised. However it has recently (2010) been highlighted as a particular risk in the peri-partum period and new guidance was issued (2012) to support the management of individual cases and outbreaks occurring in health care settings.

Incident

On 2nd April 2013 the DIPC was notified that a patient who had delivered at LWH on 26/03/13 had subsequently been admitted to a neighbouring hospital with clinical features consistent with severe sepsis. A superficial review of key elements of care conducted on 02/04/13 did not identify any immediate significant issues. On 05/04/13 the DIPC was informed by the neighbouring Trust that a sample from the patient had grown Group A streptococcus and that they had defined this as severe invasive peri-partum infection and notified the Health Protection Agency (now Public Health England PHE).

The IPCT reviewed the laboratory database at RLBUHT for other cases of group A streptococcus from LWH and identified 8 other cases between January 2012 and March 2013. There was a temporal association of cases at the end of 2012 / beginning of 2013.



Of these 8 cases there were 5 isolates available for serological typing and these were submitted to the reference laboratory.

The IPCT along with the Governance Lead for Maternity reviewed the case-notes and care of the index case and the 8 previous cases to identify geographical or temporal commonalities. No linking factors were identified between any of the cases.

When typing results were received this identified two patients (December 2012 and January 2013) with an uncommon serotype 75 strain, and two patients (January 2013 and March 2013) sharing a less uncommon serotype 3.1. A further detailed review of these 4 cases once again failed to identify any common factors which could link the cases to care provided at LWH (Although the two patients with serotype 75 strain were resident in the same area of Liverpool).

As no linked episodes were identified the DIPC and the CCDC for Merseyside agreed that no further action was required at this stage. The IPCT will continue to monitor the activity of group A Streptococcus in the Trust

	Location	Date Collected	Site	ORG	Clinical	In Pt dates	Serological M type	Epidemiologically Linked to Index Case
1	DS	04/02/2012	HVS	HSA		04/02 - 07/02/2012		Not known but unlikely
2	ER	07/10/2012	LVS	HSA	ER only			No
3	ER	23/11/2012	VUL	HAS	ER only		50	No
4	ER	10/12/2012	HVS	HSA	17/7 post natal	17/11 - 26/11/2012	75	No (but same serotype as case 5)
5	MAT1	10/01/2013	EPI	HAS	Episiotomy wound	07/01 - 16/01/2013	75	No (but same serotype as case 4)
6	JOBS	26/01/2013	T/S	HSA	Incidental sore throat	18/01 - 27/01/2013		Not known but unlikely (no isolate stored)
7	ER	28/01/2013	HVS	HSA	ER only		3.1	No hospital link but same serotype as case 9
8	ANC	26/03/2013	W/S	HSA	Post C/S wound inf'n	14/03 - 17/03/2013	4	No
9 Index Case	MLU	30/03/2013	INDEX	HSA	MLU-> ITU Aintree	26/03- 27/03/2013	3.1	Not linked to other inpatients but same serotype case 7

Review

It was reassuring that no Trust linking was established through the investigation into this incident however the process did highlight some issues.

The co-operation between the IPCT and the maternity division was excellent and there were good records of e.g. pool decontamination/cleaning between patients. The review did highlight some areas of clinical management which are to be investigated by the clinical team but were not relevant to this infection incident. Also the communication between the IPCT and PHE was excellent and supportive.
However the investigation of this cluster of cases was complicated by the recent decrease in the Infection Prevention and Control Team (since January 2013 there has only been 0.5 WTE Infection Prevention and Control Practitioner in the Trust). Due to annual leave at the time the index case was identified there was no Infection Prevention and Control Practitioner expertise in the Trust. Furthermore the lack of access to 'real-time' surveillance data and a reliance on either laboratory reports delivered by post (up to 10 days delay) or retrospective gathering from the laboratory database introduces a delay in information, analysis and subsequent action. The DIPC and IPCT have made representations to the Trust regarding both the current inadequacy of staffing in the Team and the need to purchase surveillance software (business case submitted February 2010) to allow access to 'real-time' data and facilitate the management of potential infection and cross infection risks.

Dr Tim Neal
Director of Infection Prevention and Control
Liverpool Women's NHS Foundation Trust

10th May 2013

14.10 Appendix J - Adult Bacteraemia Surveillance 2012 - 13

24 Positive blood cultures

14 ⇒ Coagulase-negative staphylococcus or other contaminant.

10 Pathogens

Directorate	Organism	Potentially Hospital Associated	Likely Source
Gynaecology	E.coli	Yes*	Urinary
	E.coli	No	Pelvis
	E.coli	No	Pelvis
Maternity	Streptococcus agalactiae	No	Peri-partum
	E.coli	No	Peri-partum
	E.coli	No	Peri-partum
	E.coli	No**	Urinary
	E.coli	No	Urinary
	E.coli	No	Urinary
	E.coli	No	Urinary

* although there were some elements of hospital of care which may have contributed to this infection the timing of the infection categorised this episode as ‘community asscoicated’

** categorised a Trust attributable as occurred more than 48hours after admission however review of care did not identify any elements of care which could be linked to the bacteraemia.