ANNUAL REPORT

INFECTION PREVENTION & CONTROL

Covering the period

APRIL 2015 to MARCH 2016

Report compiled by Dr Patricia O’Neill and the Infection Prevention and Control Team
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**1. Overview**

In the year 2015/16 we continued our work in reducing avoidable Health Care Associated Infection (HCAI) at Shrewsbury and Telford Hospital NHS Trust (SATH).

We had only one case of MRSA bacteraemia assigned to the trust this year. Although we aim for zero avoidable cases this continues our very low level of cases over the last 5 years and we are below average in our rate of MRSA bacteraemia cases.

We had 30 cases of C difficulte in 2015/16 compared with 29 the previous year. We have hovered around 30 cases for the last 3 years. This represents an 85% reduction on our baseline on 208 in 2007/08. Unfortunately we did not meet our challenging target of not more than 25 cases. However under the new review process 14 of these cases were not considered to be due to a lapse in care.

We have continued to see a rise in Vancomycin Resistant Enterococci this year. Fortunately most patients with this organism are “colonised” rather than showing signs of active infection. Other antibiotic resistant organisms are also an increasing challenge.

The Infection Prevention and Control (IPC) team continue to focus on the basic principles of good hand hygiene, environmental cleanliness, adequate decontamination of shared equipment, and ensuring that good practice in managing medical devices are complied with consistently. Our main challenges are the increasingly high patient flow and lack of capacity to isolate patients with infection effectively. The Trust is also working on reducing unnecessary antibiotic prescribing. Although not within the remit of the IPC team this is critical in reducing the prevalence of resistant organisms.

Dr Patricia O’Neill  
Director of Infection Prevention and Control

**2. Infection Prevention and Control Arrangements**

*Infection Prevention and Control Team (IPC) (March 2015/16)*

- **Dr Patricia O’Neill**  
  Director of Infection Prevention and Control (DIPC) 0.5wte/Consultant Medical Microbiologist 0.6 wte

- **Janette Pritchard**  
  Matron Infection Prevention & Control (1.0 wte Band 8a)

- **Sharon Toland**  
  Nurse Specialist Infection Prevention & Control (1.0 wte Band 7)

- **Leeanne Giles**  
  Nurse Specialist Infection Prevention & Control (1.0 wte Band 7)

- **Debbie Link**  
  Infection Prevention & Control Nurse (1 wte Band 6)

- **Louise Fall**  
  Infection Prevention & Control Nurse (1 wte Band 6)

- **Lynn Marston**  
  Surveillance Nurse (0.8 wte Band 6)

- **Michelle Ellis**  
  Infection Prevention & Control Team Secretary (1.0 wte Band 3, This was reduced to 0.86 wte in February 2016 following maternity leave)

- **Jennie Dagger**  
  Infection Prevention & Control Team Secretary (1.0 wte Band 3)

The Trust Infection Prevention and Control Team had to deal with periods of low staffing levels due to illness. Despite this they were able to maintain a high presence on the ward to deal with urgent problems and were one of the few specialist areas who supported the wards through difficult times when flow was an issue by working on the wards, supporting Emergency Departments and helping
to move patients around the hospital. Throughout the winter pressures the team endeavoured to support frontline staff and continue to prioritise urgent IPC issues.

The Infection Prevention and Control (IPC) Team is managed by Janette Pritchard (Matron Infection Prevention and Control).

Dr Patricia O’Neill as DIPC works 5 PAs (0.5 wte) for IPC. She also works 0.6 wte as a consultant microbiologist. In addition another three consultant microbiologists continue to give support to the Infection Prevention & Control Team. The DIPC meets monthly with the Chief Executive Officer.

The Trust Infection Control Committee is held monthly and is chaired by the Director of Nursing & Quality or Deputy. Each Care Group is invited monthly to report on IPC performance and key actions, however this has proved challenging this year obtaining this information due to winter pressures.

Table 1 shows the attendance at the IPCC 2015/16

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Putting Patients First

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Infection, Prevention & Control issues are raised at the monthly meetings of the Quality and Safety Committee, which reports directly to Trust Board and is attended by the Director of Nursing & Quality.

The IPC service is provided through a structured annual programme of work which includes audit, teaching, policy development and review as well as advice and support to staff and patients. The main objective of the annual programme is to maintain the high standard already achieved and enhance or improve on other key areas. The programme addresses national and local priorities and encompasses all aspects of healthcare provided across the Trust. The annual programme is agreed at the IPC committee and then reported to the Quality & Safety Committee.

The Infection Control Committee within the Trust Committee Structure is shown in the diagram below.

![Board Committee Structure Diagram](image)

**Infection Prevention & Control Team budget 2015/16**

The infection control team had a budget of £272,187 pay budget (nursing and administration/clerical staff) and £17,445 non-pay.

3. Healthcare associated infections statistics

3a MRSA Bloodstream Infections

MRSA, or Methicillin Resistant Staph aureus, is a highly resistant strain of the common bacteria, Staph aureus. Bloodstream infections or bacteraemia cases are the most serious form of infection where bacteria, in this case MRSA, escape from the local site of infection, such as an abscess or
wound infection, and spread throughout the body via the bloodstream. All cases of MRSA detected in the blood are reported by the trust.

A post infection review is carried out for each case. This is a new way of analysing the cause of infection looking at the whole patient journey and does not apportion cases on the basis of the time after admission but instead looks at where the infection was acquired.

Our target for MRSA bacteraemia cases in 2015/16 was zero trust apportioned cases. This is the target for all trusts. We had one case assigned to the trust after post infection review so were unable to achieve this target. However at 0.4 cases per 100,000 occupied bed days we were below the average of acute trusts in England which was 0.8 cases per 100,000 occupied bed days.

The one affected patient was admitted with complications of cancer of the bladder and the source of the infection was thought to be the urinary tract. As the patient was negative for MRSA on admission screening it was considered likely that the MRSA strain was acquired on this admission and therefore the case was “assigned” to the trust ie considered to be the responsibility of the trust. No obvious failings in care were detected and there was no other patient known to have MRSA at the time on the same ward. However we reviewed hand hygiene compliance in the area concerned.

We continue with our ongoing work in reducing MRSA bacteraemia and less severe infections from MRSA including improving compliance with screening of emergency admission patients, continued emphasis on isolation and clearance of colonised patients, and continued improvement in compliance with hand hygiene and prevention of line associated infections. We also monitor less severe infections and colonisations with MRSA and investigate any clusters which occur.

3b Clostridium difficile

![C difficile Cases Shrewsbury & Telford Hospital NHS Trust](image)

Fig 2 C difficile cases in SaTH since 2007/08
The graph above (Fig 2) shows the drop in cases of C difficile in SaTH since 2007/08. Definitions of SaTH-apportioned cases have changed but this graph uses the current definition of cases diagnosed later than the third day after admission for consistency.

The Trust reports all cases of C difficile diagnosed in the hospital laboratory to Public Health England. However only cases where the sample was taken more than 72 hours after admission are considered attributable to the trust. Our target for C difficile in 2015/16 was to have not more than 25 trust apportioned cases in patients over the age of 2 years. This was a challenging target, down from not more than 38 cases the previous year.

We ended our year with 30 trust apportioned cases so failed our target. This was also slightly higher than the number of cases we had the previous year (29). The year before that it was 31 so we have hovered around 30 for the last 3 years. This is an 85% per cent reduction on our baseline of 208 cases in 2007/08 but we would obviously like to achieve continued improvement. However we were below the average for acute trusts in England with 12.18 cases per 100,000 bed days compared with the average of 14.78 per 100,000 bed days. It is also of note that in the first 6 months of the year we had 20 cases, but in the second 6 months this had reduced to 10.

It has been recognised nationally that it is becoming more and more difficult to continue to reduce C difficile cases as 5 to 10% of older patients carry C difficile in the bowel as part of their “normal flora”. If they then require antibiotics to treat an infection this may cause the C difficile to multiply and cause diarrhoea. However; it is vital that we continue to prevent avoidable cases. We have been reviewing all cases for some time but this year, in common with all trusts, a rigorous process for assessing whether there was a “lapse in care” was introduced. Cases where the trust did not feel there was a lapse in care are sent for appeal to be reviewed by an external panel comprising members of the Clinical Commissioning Groups for Shropshire County and Telford and Wrekin, Public Health England, and the Trust Development Agency.

Of these 30 cases, 14 were considered to not have had any lapse in case. In the 16 cases where a lapse in care was identified the following causes were found:

- In 9 cross infection was likely (4 cases) or could not be ruled out (5 cases)
- In 6 there was inappropriate antibiotic prescribing
- One patient was probably admitted with C difficile but no sample was sent for 10 days because the diarrhoea was thought to be due to the underlying condition

Contributing issues identified on some wards were:

- Delay in obtaining a faecal specimen
- Cleanliness Issues identified, including contaminated toilet ‘over seats’
- Poor hand hygiene compliance
- Inadequate documentation of diarrhoea
- Delay in isolating patients (usually due to lack of side rooms) and failure to escalate this to site managers
- Low levels of compliance with Statutory Training and Hand Hygiene assessments on the wards concerned

**Interventions put in place by the Trust to prevent further cases of CDI**

Reduction in C difficile cases relies on prudent antibiotic prescribing, rapid recognition, diagnosis and isolation of affected cases, environmental cleanliness and excellent hand hygiene. We continue to work on all these areas. Our actions include:

- Wherever poor practice is identified as part of the investigation of a case of C difficile, an action plan is put into plan to address this immediately. Common problems are fed back through Ward Manager meetings, ‘episodes of care’, and clinical governance meetings
- Attendance at IPC mandatory training has been increased (this suffered during the winter months when clinical pressure was very high)
• Monthly hand hygiene audits continue. We also assess technique in doing hand hygiene regularly (now in place for doctors also)
• Antibiotic stewardship (audits of prescribing but also all antibiotic prescriptions are checked by pharmacy staff to ensure they are in line with guidelines). All antibiotic prescriptions should also be reviewed within 72 hrs and we are working towards this target.
• Monitoring environmental cleanliness through daily domestic supervisor monitoring (all wards are routinely cleaned with a chlorine based disinfectant once a month on top of routine cleaning), weekly and monthly ward manager audits, multidisciplinary walkabouts (matrons, estates, domestic services, IPC), quality ward walks by IPC staff,
• Reinforcing need for rapid testing and isolation via stat training and link nurses, and reminding staff of need to escalate to site managers if no side room is available

3c MSSA Bacteraemia

MSSA, or Methicillin Sensitive Staph aureus, is the more common sensitive strain of Staph aureus. Up to 25% of us are colonised with this organism. Mostly it causes us no problems but it is a frequent cause of skin, soft tissue and bone infections. As with its more resistant cousin, MRSA, sometimes the infection can escape into the bloodstream producing a “bacteraemia” i.e. bacteria in the blood. Unlike MRSA, the majority of the infections will be acquired in the community, and are not associated with health care. However, some may arise as a consequence of health care, and like MRSA, it can arise from infected peripheral and central intravenous lines and other health care interventions. We were asked by the Department of Health in 2011 to report all MSSA bacteraemia cases, whether acquired in the community or in hospital, so that we can review the sources and identify potentially avoidable cases. So far no targets have been set and we do not have easily comparable information with other hospitals. However, interventions to further reduce infections are being put into place as we gain new information.

Fig 3 Cases of MSSA bacteraemia diagnosed in SaTH (excluding RJAH) since April 2011
As the graph above shows the number of cases of MSSA bacteraemia has increased slightly year on year since 2011/12 when there were 72 cases, to 91 cases in 2015/16. This increase has predominantly been due to an increase in infections acquired in the community. Cases diagnosed more than 2 days after admission to SaTH, which are more likely to have been acquired in the hospital, have remained fairly static with 24 in 2011/12 and 23 in 2015/16.

For the year 2015/16 there were 23 out of 91 cases (25%) where the sample was taken more than 2 days after admission and therefore the infection was more likely to have been acquired in the trust.

All cases are reviewed by a consultant microbiologist to find the source of infection. The causes of infection in the 23 cases taken more than 48 hours after admission were as follows:

- 8 probably had the infection on admission i.e. were not health care acquired (mostly joint infections, and skin and soft tissue infection)
- 5 had infected peripheral intravenous lines
- 3 were associated with infected central venous lines
- 4 had wound infections or other skin and soft tissue infections
- 1 infected arterial line
- 1 hospital acquired pneumonia
- 1 contaminated sample

Looking at the patients admitted with infection there were a further 4 SaTH associated cases: 2 patients with infected dialysis lines, and 2 patients who had a central line for chemotherapy. There was also another patient with an infected central line who was managed by another acute trust,

As seen from these cases, infections of invasive devices such as intravenous lines are the commonest avoidable source of health care acquired infection from MSSA. It is disappointing to see a rise in these cases compared with last year. It is noticeable that compliance with care bundles related to peripheral lines is under target (see audits below). We will continue to work in this area to reduce infection by monitoring compliance with care in insertion and ongoing management of lines and catheters and also reducing use of such devices or length of time they are kept in as much as possible.

**3d E coli Bacteraemia**

E coli is an organism we all carry in our gut, and most of the time it is completely harmless. There is a particular strain, E coli O157, which can cause food poisoning, but it is rare and most strains do not cause any symptoms while being carried in the gut. Instead E coli forms part of our “friendly” colonising gut bacteria. However when it escapes the gut it can be dangerous. E coli is the commonest cause of blood stream infections (bacteraemia) in the community. The most frequent problem it causes is a urinary tract infection, but it can also cause infections in the abdomen such as gallbladder infections or following perforations of the bowel. As E coli bacteraemia cases have been rising nationally and internationally over the last few years, the Department of Health asked us to start reporting all these infections from June 2011 to see how many were associated with contact with health care. As with MSSA no targets have been set but we act on any obvious preventable cause to reduce health care acquired cases.

For E coli we assess each case to see if it is likely to be healthcare acquired rather than simply going by the “48 hour rule” i.e. considering that any cases that arise more than 48 hours after admission are likely to be health care acquired. This rule is not very reliable for E coli.
The graph above shows four years of complete data on E coli bacteraemia cases. We have seen a year on year rise in cases from 241 in 2012/13 to 302 in 2015/16. This follows the national pattern of a continuing rise in cases. As with MSSA bacteraemia this is most likely to be due to an ageing population.

The majority of infection (198 cases or 66%) were not thought likely to be associated with health care. 59% of these (116 cases) were caused by urinary infections but liver and gallbladder infections were also common causing 53 cases (27%).

Figure 4 shows the distribution of cases between healthcare associated infections acquired in an acute trust (most frequently SaTH), cases from healthcare delivered in the community, and infections not associated with healthcare.

In 103 (34%) cases we judged that the infection was probably associated with recent health care. However in 42 (14%) of cases this care was being delivered in the community – almost all were patients in nursing homes or in their own homes who had long term urinary catheters.
In 61 (20%) patients the infection was thought to have arisen either during their current admission in SaTH or a recent inpatient stay.

**Fig 5. Source of infection – E coli bacteraemia associated with healthcare in SaTH**

Figure 5 shows the source of infection for E coli bacteraemia cases acquired in SaTH. The most common source was a urinary tract infection (UTI). In 29 of these 61 cases, the cause of the infection was a current or recent urinary catheter. The next most common source was gastrointestinal (18 patients). In 15 of these patients this was due to recent chemotherapy which allows bacteria from the gut to cause invasive infections because it destroys the white cells which normally protect us. We also saw 5 infections relating to stents placed in the gallbladder to prevent blockage due to cancer. These are probably not preventable.

As seen previously the most frequent health care related risk factor is the presence of a urinary catheter with 62 of the 302 patients having one. So over half of the health care associated infections were catheter related. Of these 40 were long term catheters and 22 were short term. In hospital we usually use short term catheters, inserted as part of the acute care. In the community there are more long term catheters, often in residents of nursing homes.

Both SaTH and our partners in the community continue to work to reduce urinary catheter related infection. This will be achieved by monitoring compliance with correct technique during insertion of the catheter and ongoing management. As with intravenous lines we also need to avoid using catheters except where essential and remove them as soon as possible. The other common risk factor is cancer chemotherapy, which by temporarily destroying white cells, leaves the body at risk of infection from bugs within our own gut. Without the normal immune defences, these can cross from the gut into the bloodstream causing severe infections. These infections show up on Fig 5 as gastrointestinal. It is impossible to completely stop these infections, which are a well recognised risk of chemotherapy. Instead patients are put on prophylactic antibiotics by mouth during the period when their white cell count will be very low. This reduces this risk but cannot prevent all cases. Therefore patients are warned to come to hospital very quickly if they feel unwell, so that they can immediately receive intravenous broad spectrum antibiotics. We monitor the organisms which cause infections in these patients and periodically adjust which antibiotics we give to ensure the best protection for the patients. However, it is difficult to stop these infections completely.

We routinely monitor the avoidable cases of E coli bacteraemia i.e. those related to devices such as urinary catheters, intravenous lines and post surgical infection and report them back to the wards or departments concerned.
3e Surgical Site Infection Surveillance Scheme (SSISS)

It is a mandatory requirement for all acute trusts to submit data for the surveillance of surgical site infections. This was introduced by the Department of Health (now Public Health England (PHE)) in 2004. The national mandate is directed at all NHS trusts and requires those undertaking orthopaedic procedures to carry out a minimum of three months surveillance in each financial year using the Surgical Site Infection Surveillance Scheme (SSISS).

The data set collected as part of the surveillance is submitted to PHE for analysis and reporting, this then can be used as a benchmark allowing individual trusts to compare their rates of surgical site infection with collective data from all hospitals participating in their service. We collect local evidence of surgical site wound infections which develop whilst the patient is in hospital, also infections that develop after discharge. This continues for 30 days post operatively. Cases of identified surgical site infections are considered through Root Cause Analysis (RCA). This ensures a robust process is in place for the identification of any surgical site infection, and identifies were improvements can be made in clinical practice.

We also report post-discharge surveillance to SSISS. This is less reliable than in-hospital surveillance as it relies on self-reporting by the patient rather than diagnosis by a doctor or nurse. National comparative data for post-discharge infections are now available but the reliability of this data is much more questionable.

Surgical site surveillance was carried out for 2 quarters. Results of the surveillance carried out in SaTH from 1st April 2015 to September 30th 2015 are shown in the table below.

<table>
<thead>
<tr>
<th>Type of surgery</th>
<th>Number of Months</th>
<th>Number of cases</th>
<th>Number of In-patient/re-admission Infections (%)</th>
<th>National Infection Rate</th>
<th>Post Discharge Infections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal Hysterectomy</td>
<td>6</td>
<td>102</td>
<td>0 (0%) cf 1.2% E&amp;W</td>
<td>5 (4.9%)</td>
<td></td>
</tr>
<tr>
<td>Vascular</td>
<td>3</td>
<td>55</td>
<td>4 (7.3%) cf 2.7% E&amp;W</td>
<td>3 (5.5%)</td>
<td></td>
</tr>
<tr>
<td>Gastric Surgery</td>
<td>3</td>
<td>47</td>
<td>0 (0%) cf 1.9% E&amp;W</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Neck of Femur</td>
<td>6</td>
<td>286</td>
<td>3 (1.1%) cf 1.3% E&amp;W</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total Hip Replacement</td>
<td>6</td>
<td>118</td>
<td>1 (0.8%) cf 0.6% E&amp;W</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total Knee Replacement</td>
<td>6</td>
<td>113</td>
<td>0 (0%) cf 0.5% E&amp;W</td>
<td>2 (1.7%)</td>
<td></td>
</tr>
</tbody>
</table>

We monitored abdominal hysterectomy for six months; there were no inpatient/readmission infections. The national infection rate is 1.2%. Post discharge surveillance was carried out on all of the 102 patients (74.5% return rate), five of these patients reported a problem with their wound healing, giving us a patient reported infection rate of 4.9%; the national post discharge infection rate is 4.5%. The Gynaecology ward staff will continue surgical site surveillance in abdominal hysterectomy surgery which will include post discharge. The Gynaecology team and surveillance nurse completed RCA’s on the five post discharge infections; these were discussed as their clinical governance meeting. Discussion issues included the standardised use of skin preparation in abdominal surgery & the early removal of wound dressings which have now been changed as per guidelines.

In vascular surgery surveillance we had 4 inpatient/readmission infections in 55 operations, a SaTH infection rate of 7.3%. This is higher than the national infection rate of 2.7%. Post discharge questionnaires were sent out to the 49 eligible patients and were returned by 39 patients (79.6% return rate). Three of these patients reported a problem with their wound, giving a patient reported infection rate of 5.5%, the national rate being 3.8%.

The trust received notification from SSISS that the current surgical site infection rate in vascular
surgery was above the national infection rate. Our numbers in vascular surgery are relatively small, 55 operations during (April-June), which means that a small number of infections can give a high rate. Root Cause Analysis was carried out on the inpatient & readmission infected cases to try & identify learning issues. Our vascular consultants have reviewed each of the four infected cases in detail during their audit meeting. There was one case where they felt the management could have been improved on. We did a further quarter of in house surveillance which showed the rate falling to 2% (see below).

This is the second quarter we have reviewed Gastric surgery. We monitored 47 operations and found 0 inpatient/readmission infections; the national infection rate is 1.9%. No patients recorded problems with their wound post discharge.

We have carried out repair of neck of femur surveillance over 6 months across SaTH. We had 3 inpatient/readmission infections in 286 operations this gives SaTH an infection rate of 1.1% which is slightly lower than the national rate of 1.3%. Of these patients 249 where eligible for contact, (86.7% returns rate) with no reported problems with wound healing. RCAs were carried out on the 3 infected cases, we found that 2 of the infected wounds were classed as deep infections; all were high risk patients with several co-morbidities.

In total hip replacement surgery there was 1 (0.8%) inpatient/readmission infection in 118 operations, which compares well to the national rate of 0.6%. 117 patients were eligible for post discharge contact, we received a 81.2% postal return rate. No patient’s reported a wound healing problem.

The readmission infection was found to be a late, deep infection. Review of the case showed there was no potential contributors for the infection other than the patient had a BMI of over 30. Due to small numbers we tend to look back over the last 4 quarters to give us more robust data. PHE regarded the trust as a high outlier as our infection rates were above the national average, 274 operations with 5 inpatient/readmission infections (1.8%).

Following a review on all 5 patients during their readmissions; we identified minor issues with each case but no consistent problems. Bleeding wounds post operation was identified in 3 of the patients. High BMI continues to be a high risk factor with 4 of the 5 patients having a BMI of over 30. Two patients were diabetics and 2 required further surgical intervention for incision and drainage of the surgical wound.

In total knee replacement surveillance there was no inpatient/readmission infections from 113 operations, the national infection rate of 0.5%. All but one of these patients were eligible for post discharge contact (91.1% returns rate) two patients reported problems with their wounds, giving us a patient reported infection rate of 1.7%. The national patient reported infection rate is also 1.7%. Both patients had been treated with several courses of antibiotics from their GP and required ongoing dressing interventions.

In-house surgical site surveillance was also carried out for three months (Oct-Dec) in vascular surgery, total knee replacement, total hip replacement and repair of neck of femur (across sites). This data was not analysed through SSISS.

<table>
<thead>
<tr>
<th>Type of surgery</th>
<th>Number of Months</th>
<th>Number of cases</th>
<th>Number of In-patient/re-admission Infections (%)</th>
<th>National Infection Rate</th>
<th>Post Discharge Infections</th>
<th>National post discharge infection rate</th>
<th>Post Discharge return rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Hip Replacement</td>
<td>3</td>
<td>64</td>
<td>0 (0%)</td>
<td>0.6%</td>
<td>2 (3.1%)</td>
<td>0.9%</td>
<td>83%</td>
</tr>
<tr>
<td>Total Knee Replacement</td>
<td>3</td>
<td>37</td>
<td>0(0%)</td>
<td>0.5%</td>
<td>0</td>
<td>83.7%</td>
<td></td>
</tr>
<tr>
<td>Neck of Femur (PRH)</td>
<td>3</td>
<td>53</td>
<td>0 (0%)</td>
<td>1.3%</td>
<td>0</td>
<td>89.1%</td>
<td></td>
</tr>
</tbody>
</table>
In THR our post discharge infection rate is above the national infection rate, the two patients indicated ongoing problems with wound healing, requiring antibiotics from their GP’s and further visits for wound dressings.

Neck of femur at RSH site we had one readmission infection, this was a deep infection at 18 days post operation, although there was no reported bacterial growth from arthroplasty tissue, they did require wound drainage and a washout in theatre and VAC therapy was commenced along with intravenous antibiotics.

Our infection rate in vascular surgery has improved from the previous quarter with one readmission infection in 49 operations (2%). Previous inpatient/readmission infection rate was 7.3%. A review of the post discharge questionnaires showed that all three patients had a wound break down from the groin area; positive microbiology swabs were taken from all 3 patients these included anaerobes, proteus, enterococcus, MSSA, and coliforms, two patients were reviewed as an outpatient in clinics, all were prescribed antibiotics and required further wound dressings.

3f Outbreaks

During 2015/2016 period there were a range of outbreaks, the ‘winter vomiting bug’ Norovirus made a late appearance in February and March 2016, with 4 outbreaks at Royal Shrewsbury Hospital and 1 outbreak at Princess Royal Hospital (please see details in table below). Seasonal Influenza did not cause any closures of bays on either site. However VRE cases have continued to cause concerns across both sites, although none of these cases have resulted in prolonged bay closures, all cases have been mainly identified on wards 25, 26, 28 and ITU at RSH and wards 4 at ITU at PRH. Public Health England and the CCG continue to work with the Trust on this issue and a meeting took place in February 2016 to discuss the cases to that point with a further meeting scheduled in July 2016.

Norovirus

The highly infectious winter vomiting bug is the commonest cause of gastroenteritis (infectious diarrhoea and vomiting) in semi-closed environments such as nursing/residential homes and hospitals.

There were a total of 5 outbreaks of diarrhoea and/or vomiting affecting 74 patients across the Trust during the last financial year, of which resulted in the closure of bays or side rooms, no wards were closed to admissions. Stool samples were collected and sent for 43 symptomatic patients and Norovirus was confirmed in 16 of these samples. The outbreak on ward 27 (RSH) lasted for 19 days where it presented a unusual pattern of prolonged symptomatic patients and unusually long incubation periods. Staff were also reported symptomatic in 4 of the outbreaks totalling 22 healthcare staff absent from work until 48 hours clear of symptoms.

Commodes were reported to be clean and correctly stored during each of the outbreaks, acceptable compliance of hand hygiene and PPE compliance during the outbreaks was also reported. Outbreak Reports were circulated accordingly and signage was displayed in the hospital and ward entrances. Appropriate cleaning was undertaken during each of the outbreaks.
<table>
<thead>
<tr>
<th>Site</th>
<th>Ward</th>
<th>Month</th>
<th>First reported</th>
<th>Symptoms</th>
<th>Bay or ward closed</th>
<th>Dates closed</th>
<th>Bed days lost</th>
<th>No. of Patients affected</th>
<th>No. of Staff affected</th>
<th>No. of sample tested</th>
<th>No. of confirmed causative organism</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSH</td>
<td>S27R</td>
<td>Sept</td>
<td>25/9/15</td>
<td>D</td>
<td>Bay 2, 5, 6</td>
<td>25/9/15 - 29/9/15</td>
<td>3</td>
<td>7</td>
<td>3</td>
<td>5</td>
<td>Noro virus x2</td>
</tr>
<tr>
<td>RSH</td>
<td>S27R</td>
<td>Feb</td>
<td>19/2/16</td>
<td>D&amp;V</td>
<td>Bay 1, 2, 3, 4, 5, 6</td>
<td>19/2/16 - 29/2/16</td>
<td>3</td>
<td>25</td>
<td>9</td>
<td>15</td>
<td>Noro virus x7</td>
</tr>
<tr>
<td>PRH</td>
<td>T4</td>
<td>Feb</td>
<td>21/2/16</td>
<td>D&amp;V</td>
<td>Bay A, B, C</td>
<td>22/2/16 - 1/3/16</td>
<td>7</td>
<td>16</td>
<td>6</td>
<td>13</td>
<td>Noro virus x4</td>
</tr>
<tr>
<td>RSH</td>
<td>S24</td>
<td>Mar</td>
<td>4/3/16</td>
<td>D&amp;V</td>
<td>Bay 1, 2, 3, 4 &amp; 6</td>
<td>4/3/16 - 14/3/16</td>
<td>0</td>
<td>21</td>
<td>4</td>
<td>7</td>
<td>Noro virus x3</td>
</tr>
<tr>
<td>RSH</td>
<td>CDU</td>
<td>Mar</td>
<td>4/3/16</td>
<td>D&amp;V</td>
<td>Bay B</td>
<td>4/3/16 - 10/3/16</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>3</td>
<td>None</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>13</strong></td>
<td><strong>74</strong></td>
<td><strong>22</strong></td>
<td><strong>43</strong></td>
<td></td>
</tr>
</tbody>
</table>

Documentation i.e. Bristol Stool Charts and Outbreak Forms were initially an issue on ward 27 which may have contributed to the prolonged period of the outbreak, where symptomatic patients were not being reported to Clinical Site Managers or IPC. A significant amount of work went into preventing the closure of beds to admissions with patients being moved quickly into side rooms or symptomatic patients cohorted in bays when patients were discharged. In two of the outbreaks it was felt that nobody on the wards took charge of reporting and updating IPC on symptomatic patients and over one weekend at the start of an outbreak Microbiology was not informed of the situation and patients were not isolated, however the ward and Clinical Site Manager made the decision to close the bay.

PPE was being used out of the sluice on Ward 27 as there was no danicentre available by bay 4, this was escalated to the Ward Manager and staff. A danicentre has since been fitted to the wall in the middle of the ward so staff no longer have to walk to each end of the ward or are tempted to use the PPE in the sluice. Inappropriate storage of linen in bays with symptomatic patients was identified on one ward and several unlabelled canisters of cleansing spray foam were found in bathrooms. On one ward a housekeeper was observed to 'double-dip' the Tristel solution whilst cleaning tables in an infected bay. It was felt that staff potentially posed a cross infection risk on night shifts due to reduced staffing numbers as it was not always possible for them to nurse ‘infected’ and ‘non-infected’ bays separately.

Bed days lost due to empty beds in closed bays/side-rooms totalled 13. See table above for data. Although the number of bed days lost was significantly lower than last year, it is felt that the outbreak period and number of patients was increased due to delays in isolation.

The Cleanliness Teams throughout each of the outbreaks were very supportive and reacted quickly and appropriately.

**Influenza A**

During the 2015/16 period the Trust did not report any outbreaks of Influenza.

**Vancomycin Resistant Enterococcus (VRE)**

Enterococci are organisms that live harmlessly in the bowel but can cause infections, most commonly urinary tract infections but sometimes more serious wound infections or infection of central lines and occasionally infections of the heart valves (endocarditis) All enterococci are naturally quite antibiotic resistant but over the past few years there has been an increasing
incidence worldwide of Vancomycin resistant enterococci (VRE). Vancomycin was considered a “last line of defence” antibiotic for this infection and is also very important because it is the commonest antibiotic used to treat MRSA infections. Fortunately VRE infections are mostly very mild and many patients do not require any treatment. There are also new agents developed for MRSA, which we can use against VRE. Nevertheless these bacteria are still difficult and expensive to treat when they do cause serious infections.

Like many other trusts, SaTH has seen a rise in cases of VRE over the last 10 years. In part this is probably artefactual since we now test against vancomycin where we did not previously which allows us to detect the cases. However over the last couple of years we have seen multiple ward clusters of this organism. The graph below shows all new cases diagnosed in SaTH. As can be seen most of these cases are identified in the hospital rather than in the community. In the last year we have had 116 post 48 hours cases of VRE attributed to SATH, most of these were urine samples with a total of 80 of which 47 were MSU, 30 were CSU and the remaining three were not stated.

We have seen clusters of cases on a number of wards. When this occurs strains are sent for typing. We also sent all strains from April to September 2015 to look for possible spread. The graph below shows the distribution of new cases of VRE acquired in SaTH across the wards by month. It can be seen that multiple wards have seen a few cases but ward 25, 26, and 28N at RSH and ward 9 at PRH have seen most cases. Wards 25 and 26 show an increased number in April 2015 because patients were screened for carriage as part of an outbreak investigation after a cluster was noticed across these two wards and RSH ITU. Most of these patients did not have any symptoms. Typing of this cluster showed a mixture of strains but EC 10 was the commonest. We undertook typing of all strains from hospital and community over the 6 months between April and September to see if we could detect a pattern. Hospital and community strains were very similar. The third graph shows the different strains we identified. EC 10 was the commonest strain but multiple strains were seen. Many strains were “unique” ie each unique strain is different from all other strains. To make matters more complex the genetics of the VRE organism means that one
strain can “infect” another different strain with its resistance gene, making disentangling what is and is not cross infection very difficult.

VRE by Ward 2015-16

PFGE Typing of VRE strains acquired in SATH

Putting Patients First
We also noted that VRE could be quite commonly grown from the environment. We grew VRE from notes trolleys, apron dispensers, toilet grab rails, and other environmental sites. This is not something we have seen with other organisms. It is also of note that VRE is increasing while the incidence of other resistant organisms such as MRSA and C difficile are dropping or stable.

We are taking a whole-trust approach with VRE. Environmental cleanliness appears to be key, but we suspect also antibiotic prescribing. Our actions include:

- Closely monitoring the incidence of new cases and investigating clusters when they arise
- Focusing on basics of infection control including hand hygiene and cleaning
- Increasing disinfectant environmental cleans. Each month all areas are cleaned with a chlorine based disinfectant by our domestic staff. We are now including “nurse” cleans eg of beds, notes trolleys and other areas
- We are investigating additional decontamination methods. Many trusts have found that additional decontamination is required to reduce new cases. We are looking at new ultraviolet light based technology among other methods
- Reducing catheterisation as this seems to be a risk factor
- We continue to monitor antibiotic prescribing to try and reduce broad spectrum antibiotics which favour these resistant organisms

Fortunately most of our patients who acquire VRE appear to be colonised rather than infected. The graph below shows the sample types we have grown VRE from over the years. The most serious infections are those where it is grown from blood culture ie the patient has a blood stream infection. As can be seen below the incidence of blood stream infections has not risen in the last 10 years. The most common site of infection is urine and most patients with VRE in the urine do not require treatment. We can see this as we are able to monitor the specific antibiotic used for this infection. In part the increase in urine samples reflects a change in laboratory testing. We also frequently request urine samples to screen for VRE so this will also distort the figures but there has been a genuine increase in the last 3 or 4 years.
Serious incidents (SI) and Period of increased incidents (PII)

Changes to the notification of SI’s has meant that some incidents that may previously been reported as SI’s have been reported as PII’s this year. SI reporting now only encompasses incidents of death/serious harm or where significant damage/potential damage to the reputation of the Trust is present. On the advice of clinical risk and the CCG, MRSA bacteraemias regardless of the level of harm suffered continue to be reported as SI’s. As previously on identification of an SI or PII a ward inspection is carried out by the IPCN team. Staff are asked to complete weekly hand hygiene audits and practice is validated by the IPCN team. Once Root Cause Analysis is completed and an action plan is put together the actions are then monitored by the IPCN team, Ward Manager and Matron for that area and review meetings are held to assure us that the actions identified are being implemented. This year in addition the IPCT has particularly focussed on practice issues relevant to the organism involved in the PII. For example urinary catheter care was specifically examined with the E.coli bacteraemia PII and hand hygiene and practice around PPE use was scrutinised with regard to the VRE PII’s. SI’s and PII’s continue to be reported to the monthly Infection Prevention and Control Committee and Care Groups, when invited to the committee, continue to give an update with regards to outstanding RCA and action plans.

Over the past twelve months the IPCN team has reported seventeen incidents as a PII or SI. PII is defined as two or more new cases within a ward or unit in a twenty eight day period. This is a similar number to previous years; however there has been a change in the distribution of these in terms of causative organisms, most notably:

- The number of VRE PII’s has decreased from 7 in the year 2014 – 2015 to 4 this year. However the Trust has continued to see an increasing background trend of cases (in line with the national picture). The spacing of these has meant that the majority have not flagged as PII’s. Activity remains above that seen in the year 2013-2014 when 2 PII’s were reported
- There has been a continued reduction in C.diff PII’s: 9 in the year 2013-2014 3 in 2014-2015 and 2 this year

Tuberculosis SI
The Trust had one SI reported this year by the TB Nurse Specialist. The patient was smear negative had miliary rather than pulmonary TB. The case was investigated and reported as the patient was an inpatient on several occasions and contacts were followed up. No further cases were identified

\[
\begin{array}{l|c|c|c}
\text{Ward} & \text{Month Reported} & \text{Number of patients affected} & \text{Number of staff affected} \\
\hline
\text{Ward 9} & \text{May} & 1 & 0 \\
\end{array}
\]

MRSA bacteraemia SI
The trust has had one SI reported due to MRSA bacteraemia

\[
\begin{array}{l|c|c|c}
\text{Ward} & \text{Month Reported} & \text{Number of patients affected} & \text{Number of staff affected} \\
\hline
24E & July & 1 & 0 \\
\end{array}
\]

E.coli bacteraemia PII
Three patients were identified within a 30 day period. Two out of the three cases were judged clinically to have been due to urinary catheterisation. RCA investigation of the cases by the IPCT in liaison with the ward clinicians identified frequency (one patient was catheterised 3 times during admission and the second patient 4 times) and poor rationale for catheterisation insertion/removal to be critical factors. The IPCT are taking the issues identified forward into the Trust wide learning programme around catheter and device care for 2016-2017
<table>
<thead>
<tr>
<th>Ward</th>
<th>Month Reported</th>
<th>Number of patients affected</th>
<th>Number of staff affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 10</td>
<td>November</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

**MRSA PII**
The trust has had six PII of MRSA this year.

<table>
<thead>
<tr>
<th>Ward</th>
<th>Month Reported</th>
<th>Number of patients affected</th>
<th>Number of staff affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 28</td>
<td>June</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Ward 21U</td>
<td>September</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Ward 22A</td>
<td>September</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Ward 10</td>
<td>October</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Ward 22S</td>
<td>December</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Ward 26S</td>
<td>December</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

**Clostridium difficile PII**
The trust has had 2 separate PII of Clostridium difficile this year.

<table>
<thead>
<tr>
<th>Ward</th>
<th>Month Reported</th>
<th>Number of patients affected</th>
<th>Number of staff affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 23OH</td>
<td>July</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Ward 10</td>
<td>January</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

**Pseudomonas aeruginosa PII**
The trust has had no PII of Pseudomonas aeruginosa this year

**Stenotrophomonas Maltophilia**
Three cases of this organism were identified on TITU. These cases were not found to be clinically significant. IPCT investigation did not identify any specific issues on the unit that could account for transmission and there have been no further cases

<table>
<thead>
<tr>
<th>Ward</th>
<th>Month Reported</th>
<th>Number of patients affected</th>
<th>Number of staff affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITU</td>
<td>January</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

**Vancomycin Resistant Enterococcus (VRE) PII**
The trust has had four incidents of PII VRE this year. There has been a continuing background number of cases across the Trust throughout the year, mostly involving the wards involved the outbreak reported last year (RSH Wards 25, 26 and 28) At PRH ITU and Ward 9 have also seen a significant number of cases. The timing/spacing of the cases has meant that not all have flagged as PII’s

<table>
<thead>
<tr>
<th>Ward</th>
<th>Month Reported</th>
<th>Number of patients affected</th>
<th>Number of staff affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITU</td>
<td>November</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Ward 4</td>
<td>November</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>26S/SS</td>
<td>December</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>26S</td>
<td>February</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

**Extended Spectrum Beta Lactamase (ESBL) E.coli PII**
There was one PII of ESBL this year within the Trust.
<table>
<thead>
<tr>
<th>Ward</th>
<th>Month Reported</th>
<th>Number of patients affected</th>
<th>Number of staff affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 27R</td>
<td>February</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

**Streptococcus Group B**
There were two cases of Group B strep in babies on the neonatal unit in February. The first case probably represented a case of vertical transmission from the mother who was found to be colonised just prior to delivery, to one of a pair of twins. The second case occurred in one of a second pair of twins who had been in the adjacent cot space to the first baby for a period of approximately 16hrs prior to the first babies’ transfer to another hospital. Both cases were treated and screening did not identify that any further transmission had occurred on the unit. Both of the other babies in the twin pairs were also found to be negative.

<table>
<thead>
<tr>
<th>Ward</th>
<th>Month Reported</th>
<th>Number of patients affected</th>
<th>Number of staff affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>NNU</td>
<td>February</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

**Influenza A PII**
Whilst the trust has seen a significant amount of flu activity this year, this has been in the form of single sporadic cases and no PIIs of Influenza have been reported in any one clinical area this year.

**Salmonella PII**
In August there was a transmission of salmonella from a patient admitted with the infection to another patient and a member of staff. The index case was isolated on admission due to symptoms of diarrhoea. She was a confused elderly lady who was heavily incontinent of faeces and in whom maintenance of personal hygiene was extremely challenging, in particular keeping her hands clean. All salmonella strains are sent to the Public Health England reference laboratory for full typing. This revealed a second patient admitted to another ward with salmonella infection with the exact same strain on genetic typing, making transmission highly likely. The IPCT undertook a full investigation of the cases. This showed that the second patient had been on the same ward at the same time as the index case on a previous admission and almost certainly acquired the infection on the previous admission. It is very unusual for salmonella to cause cross infection in a ward environment. The second patient had been in the bay closest to the index patient’s sideroom. The most likely mode of transmission to the other patient was thought to be via contamination and insufficient cleaning of the shared oxygen saturation probe (which is a cap placed on the patient’s finger) on the mobile observation machine used on the index case whilst isolated in a side-room. The staff member was thought to have acquired the organism via insufficient/ineffective hand hygiene practice. The IPCT undertook specific 1:1 training with them and also provided additional support to other ward staff around practice including cleaning of equipment between patient use.

<table>
<thead>
<tr>
<th>Ward</th>
<th>Month Reported</th>
<th>Number of patients affected</th>
<th>Number of staff affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward 7</td>
<td>August</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

**4. Progress against 2015/16 work programme**
From April 2009 the Trust was legally required to register with the Care Quality Commission (CQC) under the Health and Social Care Act 2008 code of practice for the NHS on the prevention and control of healthcare associated infections and related guidance (usually called “the Health Act”). As a legal requirement of registration, the trust must protect patients, workers and others who may be at risk of acquiring a HCAI. Compliance by the Trust will be judged against the ten criteria set in the Health Act.
Our work programme is based on this which includes teaching, audit, policy development and review and progress against the 2015/16 IPC work programme is reported to the Trust Infection Prevention & Control committee (IPCC). This has proved challenging this year due to the requirement of the IPC nurses to support the Emergency Department and wards during the 20 weeks of winter.

The Infection Prevention and Control HCAI Action plan has now been revitalised by the Associate Director of Nursing (Patient Safety) who undertook an assessment of compliance aligned to the Health and Social care Act with assistance from the Infection Prevention & Control Team. The Trust will need to act on any deficiencies & this will need to be reported quarterly to the Trust Infection Prevention & Control committee (IPCC)

Staff Health

The IPC team continues to work with the Occupational Health providers, Team Prevent to ensure that staff are protected from infection and do not pose a risk to others including patients from their own infections. Updating of the Infection Prevention & Control Policies Exposure to Blood Borne Viruses and Management of Infection in Staff come under this duty. The Occupational Heath Team, “Team Prevent” are also responsible for the vaccination programme for staff, including influenza. In 2012/13 the uptake of influenza vaccination throughout the Trust was 46.7%, In 2014/15 this was increased to 68.6%, in 2015/16 this went down to 43.3%. PHE have stated in their bulletin of 28/04/16 that provisional data showed that 50.8% of frontline healthcare workers were vaccinated by 29/02/16 from 96.6% of Trusts. This is compared to 54.9% the previous season by 28/02/16. This is thought to have been related to the mismatch between vaccine and circulating strains the previous year, which undermined staff confidence in the vaccine. However in the 2015/16 Winter season there was a good match between vaccine and circulating strains.

Education

Throughout 2015/16 the IPC Team continued to provide Infection Prevention and Control training to as many groups of staff as possible within the Trust.

All staff employed by SaTH are required to undertake IPC education at the beginning of their employment (usually as part of their induction to the hospital) and have mandatory annual updates during their employment. These education sessions concentrate on current IPC issues essential to reducing HCAI in the Trust & highlight best practice.

Attendance on this training is monitored via the training and education department and attendance is updated on the staff electronic record. The following table shows the number of attendees from April 2015 to March 2016 who had IPC training.

<table>
<thead>
<tr>
<th>Attendance on Induction and Statutory training courses with Infection Control included April 15- March 16 by staff group</th>
<th>Number of staff required to attend</th>
<th>Number of staff attended</th>
<th>% Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add Prof Scientific and Technic</td>
<td>76</td>
<td>69</td>
<td>91</td>
</tr>
<tr>
<td>Additional Clinical Services</td>
<td>835</td>
<td>683</td>
<td>82</td>
</tr>
<tr>
<td>Administrative and Clerical</td>
<td>5</td>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>Allied Health Professionals</td>
<td>301</td>
<td>239</td>
<td>79</td>
</tr>
<tr>
<td>Estates and Ancillary</td>
<td>265</td>
<td>196</td>
<td>74</td>
</tr>
<tr>
<td>Healthcare Scientists</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Medical and Dental</td>
<td>407</td>
<td>240</td>
<td>59</td>
</tr>
<tr>
<td>Nursing and Midwifery Registered</td>
<td>1525</td>
<td>1322</td>
<td>87</td>
</tr>
<tr>
<td>Students</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Putting Patients First
Last year April 2014 to April 2015 the total attendance was 62% this has improved with a total of 80% from April 2015 to March 2016.

The following education has also been undertaken:
- Hand decontamination training
- Assisting Dr O’Neill with hand hygiene training for doctors (three yearly update)
- Healthcare Assistant Induction Training
- Medical students IPC Education
- FY1 and FY2 Induction
- FY1 IPC Education
- Individual Ward training sessions, as requested
- Individual Ward Enhanced Support
- Overseas IPC nurse training
- Senior medical staff induction and statutory update training (given by Dr O’Neill)

Each year the Infection Prevention and Control Team aim to hold four Link Worker meetings on both sites. Link Workers are encouraged to attend at least three out of the four sessions. The attendance rate from April 2015 to March 2016 was 32% which is an improvement on 27% from April 2014 to March 2015.

It is important that staff are supported to attend these meetings to improve the quality of education as the programme provides an opportunity to network with their peers and to take back important elements to clinical areas that have the potential to reduce infections by promoting optimal practice. This will improve the patient experience.

The IPCT have continued to carry out quality and safety ward walks at both sites. This remains to be a good opportunity to reinforce education on a regular basis in key areas; such as device care including the importance of documentation and also practice such as the use of PPE. This has given the team the opportunity to liaise with some link workers whilst on duty to remind them of the importance of attending meetings and give advice on current issues for their area.

The use of the patient experience approach that has been incorporated into training sessions has generated discussion, enhanced education and reinforced the importance of IPC from the client’s perspective.

The IPCT are aiming to organise an Infection Prevention and Control Event for the new financial year, this has been a challenge to organise due to staff sickness and increased support being offered to wards requiring further input.

5. Compliance with the Health and Social Care Act 2008 Updated 2015

Implementing the Code of Practice for Health and Adult Social Care on the prevention and control of infections and related guidance (Health and Social Care Act 2008) is a legal requirement for acute trusts and other health care providers. This Act was updated in July 2015 to reflect the structural changes that took effect in the NHS from April 2013 and the role of infection prevention (including cleanliness) in optimising antimicrobial use and reducing antimicrobial resistance.

The law states that the Code must be taken into account by the CQC when it makes decisions about registration against the infection prevention requirements. The regulations also say that providers must have regard to the Code when deciding how they will comply with registration
requirements. So, by following the Code, registered providers will be able to show that they meet the requirement set out in the regulations. However, the Code is not mandatory so registered providers do not by law have to comply with the Code. A registered provider may be able to demonstrate that it meets the regulations in a different way (equivalent or better) from that described in this document. The Code aims to exemplify what providers need to do in order to comply with the regulations.

The Infection Prevention and Control HCAI Action plan has now been revitalised by Corporate Nursing who completed an assessment of compliance. This action plan will be monitored on a quarterly basis by the IPC Committee.

6. Hand Hygiene

Timely and effective hand hygiene in preventing and controlling infections will always be a foundation of infection prevention and control practice. Supporting high standards of Hand hygiene practice therefore remains a focus for the IPCT and continues to be one of the fundamental messages to all staff. The trust continues to support the work that empowers staff to challenge poor hand hygiene compliance at all grades, and has maintained the Bare Below the Elbows standard for staff in clinical areas

The hand hygiene policy is available to all staff via the trust intranet.

The Trust target for hand hygiene compliance rates is 95%. Audits of compliance are completed every two weeks within all clinical areas. It is the responsibility of all ward managers to ensure that the audits are completed. The IPCT continue to provide training and support to the staff nominated to complete these audits. The results are reported monthly via an electronic report produced by the clinical audit department. These reports are reviewed by the IPCT and are discussed at the trust Infection Control Committee meetings. The overall Trust compliance over the year was 97% and it was above 95% on each individual month. However some individual areas may score below 95%. This is partly related to small numbers – If one out of 10 opportunities for hand hygiene is missed the percentage will be 90%. The IPCT continue to meet with the managers of areas where the compliance rate has fallen below 95%, action plans are agreed and the impact of these actions is monitored through the ongoing audit programme. The frequency of the audits is increased to weekly when the compliance rate falls below 95% as well as when an outbreak or a period of increased incident of a particular organism has been identified in a ward. The IPCT has also focussed on ensuring that escalation protocols for repeated non-compliance are followed as per the Hand Hygiene Policy.

This year the IPCT has also fully incorporated hand hygiene validation audits into the Quality Walk format: a validation audit is completed at the time of Quality Walks and the score is recorded on the IPC Ward specific data graphs available on the X-drive to Heads of Nursing, Matrons and Ward Managers. Hand hygiene has also been a focus in ward areas where the IPCT have had more intensive input either for PII’s or via supported practice visits.

The overall compliance rate for 2015/16 was 97%.
The Trust Hand Hygiene Policy stipulates that staff have their hand hygiene technique assessed within one month of starting their employment and every three years thereafter. It is the responsibility of the IPCT link nurses to ensure these assessments are carried out for nursing and HCA staff. The IPCT monitors compliance quarterly through reports produced by the Training and Development Team. The quarterly reports are presented at the Infection Prevention and Control Committee.

The graph below shows the actual compliance for the last 4 years against the Trust target of 100%. This year the IPCT has made a sustained effort to increase staff compliance with the 3 yearly assessment programme. The training matrix was reviewed to ensure all relevant staff groups are included and the IPCT has supported Link Nurses in providing assessments and also provided support to groups who have difficulty in accessing an assessor e.g. Specialist Nurses. This has resulted in an increase in overall compliance to 69% for nursing and HCA staff. Whilst this is still below the compliance standard of 95% it represents a significant improvement of 17% on last year.

Gojo remain the Trust contracted supplier of Hand Hygiene products, following review this year by procurement and the IPCT. SaTH are part of a procurement group contract with Gojo along with RJAH and the local community Trusts.

IPCT auditing/Quality Walks identified this year that the current alcohol gel dispensers are reaching the end of their lifespan and Gojo have agreed to replace all dispensers free of charge as part of the ongoing contract. At time of this report Gojo are carrying out a scoping exercise with procurement to determine the most acceptable and cost effective product format for the product and dispensers. This and the renewal programme will be incorporated into the IPCT 2016 -2017 annual programme. Due to staffing changes within Gojo the Trust has not received the level of support experienced in previous years in terms of external auditing and visits to wards with the IPCT. It is expected that this will improve in the next year.

This year, as previously, Gojo also attended a joint meeting with the IPCT and the Occupational Health department to discuss their products and how to support staff with skin issues.
Doctors’ Hand Hygiene

On the monthly snapshot audits of hand hygiene compliance of different staff groups is identified. See below. While the overall trust average and nurse and HCA compliance is consistently over 95%, doctors’ hand hygiene compliance fell below 95% in 5 of the 12 months. At its lowest it was 91% (November 2015). This is in part because there are much smaller numbers of doctors included in the audit so a single non compliance causes a significant drop. However we have been focusing on doctors’ hand hygiene. Historically not all doctors were included in the 3 yearly assessment of hand hygiene technique. All junior doctors are assessed when they start. This year we included senior doctors in the requirement to have 3 yearly hand hygiene assessment. This only started part way through the year and by the end of the year 111/407 (27%) of senior doctors had been assessed. Obviously we need to improve this in the coming year.
The “other” group is a heterogenous mix of other health care professionals including physios, pharmacists, occupational therapist etc. Some will not be employed by the trust eg ambulance staff. Numbers may be small skewing the figures down somewhat. Again we are ensuring that all employed by the trust have 3 yearly hand hygiene technique assessments.

7. Audits (including High Impact Intervention)

Audit is a key component of Infection Prevention and Control. Knowing how we are doing is vital to delivering safe quality care. High Impact Intervention (HII) audit tools issued by the Department of Health are used throughout the Trust to monitor practice and implement improvements where necessary. The term “High Impact Intervention” refers to a procedure carried out as part of health care which carries a risk of infection. To minimise the risk staff must comply with nationally agreed steps – often called a “care bundle”. Trends in compliance are monitored locally via Clinical Audit, the Matrons, the Infection Prevention and Control Committee and the Centres.

The High Impact Interventions audits include:

- Central Venous Catheter Care (CVC); Insertion / Ongoing care
- Peripheral Intravenous Cannula Care; Insertion / Ongoing care
- Renal Dialysis Catheter Care; Insertion / Ongoing care
- Prevention of Surgical Site Infection (PSSI)
- Care of the Ventilated Patients
- Urinary Catheter Care; Insertion / Ongoing care
- Patient Environment Checklist

All the above audits are carried out by all Wards and Departments as applicable, on a one to three monthly basis, via the audit programme. Some areas are still struggling to sustain above 95% compliance rates in all audits throughout the year. Support from the IPC Team is always available and any dip in compliance is addressed at the time by Ward Managers and Matrons. Throughout the year we have seen areas with a poor compliance rate make improvements and aim to achieve 100%. It is noticeable that the lower rate for compliance with the peripheral line care bundles coincides with a higher rather of peripheral line associated MSSA bacteraemia. This is an area we will be concentrating on in the coming year.
Other audits have been completed during this period covering specific practices and within specific departments. These include:

<table>
<thead>
<tr>
<th>Planned Audit</th>
<th>Comments and Results</th>
</tr>
</thead>
</table>
| Correct Use of Personal Protective Equipment (PPE) November 2015              | Undertaken November/December 2015  
To ascertain the availability and correct use of PPE and appropriate placement of PPE.  
As part of the IPC Annual Programme, each year the Infection Prevention and Control (IPC) Link Nurses are asked to carry out a PPE Audit in their area.  
A PPE Audit was carried out by the IPC Link Nurses during November/December 2015.  
Conclusions from the audit show that PPE generally seems to be more available and there does appear to be some improvement in PPE use according to the completed audit tools received. BUT only 25 areas audited compared to 37 in 2014’s audit.  
34 areas at SaTH and 4 Community Maternity Units did not audit.  
In Feb and again in March, e-mails were sent out to the individual Ward/Unit Managers (and Matrons) of the areas that did not audit requesting that an audit be completed and returned to IPC by the end of February and April 8th respectively.  
At the time of writing, there are 12 areas outstanding that have not completed an audit. The Deputy Director of Nursing and Quality and the IPC Team are following this up. |
| Isolation/Side Room Availability and Utilisation Audit, including Placement and Management of Diarrhoea Patients August 2015 | Undertaken Aug 2015  
To ascertain if all patients requiring isolation were placed in side rooms on wards.  
To ascertain availability of side rooms  
To ensure all patient who have diarrhoea are isolated as per Trust policy.  
At the time of the audit 175 side rooms were available on the wards audited at both sites.  
We have gained 37 side rooms since the last Isolation Audit in 2014. This is due to the complete opening of all the wards in the Women and Children’s Centre and reconfiguration of other wards within the Trust. The extra side rooms are mainly in the Women and Children’s Centre, so have not benefitted patients in Unscheduled, or Scheduled Care.  
There were 55 patients who required a side room for IPC reasons. 53 of these patients were isolated.  
77 patients were recorded on VitalPAC as having Types 5, 6 or 7 diarrhoea.  
31 patients had Type 5 stools. Of these patients, 11 patients had
possible infective reasons. On investigation, 7 of these 11 patients’ diarrhoea had settled, often after 1 episode only and any stools sent were negative. The other 4 patients were isolated.

25 patients had Type 6 stools. Of these patients, 16 patients had possible infective reasons. On investigation, 9 of these 16 patients’ diarrhoea had settled, often after 1 episode only and any stools sent were negative. The other 7 patients were isolated.

21 patients had Type 7 stools. Of these patients, 2 patients had possible infective reasons and were isolated.

The remaining 48 patients had other non-IPC reasons for having diarrhoea, e.g. they were on laxatives, symptoms were due to a medical condition or following surgery, or they were receiving N/G or PEG feeds which can make stools loose.

### Sluice Audit
November 2015

The purpose of this audit was to ascertain if the sluice rooms within the Trust were clean, had adequate storage facilities, that appropriate items were being stored in the room and review if the rooms required any repairs, maintenance or redecoration.

The standards were as set within SATH NHS Trust. Acceptable standard was a compliance rate of 95% or above.

A total of 50 sluices were audited across the two sites; 27 at PRH and 23 at RSH.

10 (20%) areas scored above 95%, 22 (44%) areas scored between 85 and 94% and 18 (36%) areas scored below 85%.

**Q2. Walls are clean and in a good state of repair:**
24 out of the 50 areas (13 at PRH and 11 at RSH) were shown to have the need for some level of decoration, due to visible damage to the walls, chipped paintwork, holes requiring filling and re-painting.

**Q3. Skirting is clean and in a good state of repair:**
The skirtings around 16 rooms (9 at RSH and 7 at PRH) were also damaged and required some attention.

**Q9. Doors and frames are clean and in a good state of repair**
At the time of audit 27 areas had visible damage to the sluice door and/or door frame. 17 of these were at PRH.

**Q12. High, low and horizontal surfaces are clean, in a good state or repair, uncluttered, made from impermeable material:**
10 areas at RSH compared with 2 areas at PRH were noted to have high dust and dust on ledges. The tops of some cupboards were dusty; however this was usually due to items being stored on the top of the cupboards preventing dusting taking place.

6 of the 23 sluices audited at RSH showed issues with exposed wood usually around the equipment sinks, some of these had missing/damaged laminate exposing the chipboard and there were some which had become warped due to water damage.
There were no issues in this area at PRH.

Q13. Air vents are clean:
At PRH 14 sluice rooms were reported to have visible/excessive dust inside the vents, compared to 6 areas at RSH.

Q15. The room is free from inappropriate items:
The IPC Team identified 16 areas at PRH and 11 at RSH which had inappropriate items stored in the sluice room, these were items such as; patients own shower gel and shampoo, bagged lost property items, empty sharps boxes, rolls of clean linen bags, clean mattress bags, walking sticks and frames and in one sluice staff were storing their bags and even drinks bottles/cups.

Q16. All sluice equipment and products are stored appropriately:
13 sluice rooms at RSH and 13 at PRH were found to have items stored on the floor, these items were mainly boxes of pulp products.

Q18. A dedicated hand wash sink is available, clean and in a good state of repair:
2 areas did not have separate hand wash facilities, both of these were RSH; ITU and X-Ray department. There were no reports of equipment sinks being used as hand wash basins at PRH.

Q19. Taps are clean and in a good state of repair:
14 areas, 7 at either site, had issues with lime-scale around the taps.

Q23. A macerator is available, clean, in a good state of repair and serviced regularly:
The macerators in each of the sluice rooms were inspected and at RSH 13 of them were noted to be dirty around the rim and/or lid, this is compared with 6 at PRH. It is not indicated on the macerators when they were last serviced or when their next service is due. Estates keep a record of this information in their office.

Many of the issues highlighted in the report were related to Estates, and clearly much of this work will require financial investment. The IPC Team presented the audit at IPCC in May 2016 and were advised to further present it at the Trust ‘Patient Environment Group’ meeting in July 2016 with a view to identifying how the maintenance work will be funded to bring the sluice rooms up to acceptable standards.

All other issues relating to Domestic Services were fed back to them via the report, however many of the issues highlighted for them were addressed at the time of the audit. All ward managers were also sent the report for reference to enable them to monitor and maintain standards by the ward staff including their housekeeping teams.

<p>| Commode Audit Undertaken December 2015 – looked at commode condition, types of |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec 2015</td>
<td>commodes used and display of commode cleaning station poster, (which included correct storage), use of the Clinell “I am clean” tape (introduced by the Trust) and supply of cleaning products as per policy.</td>
</tr>
<tr>
<td></td>
<td>A total of 80 commodes were inspected in 40 wards/areas (excluding the Womens Centre).</td>
</tr>
<tr>
<td></td>
<td>Across the Trust Bristol Maid commodes are the most common choice accounting for 65% of all commodes, James Spencer accounts for 19% and Vernacare 16%.</td>
</tr>
<tr>
<td></td>
<td>In 2014 a total of 7 Vernacare commodes were reported as requiring repair or replacement, all of these commodes have now been replaced with either Bristol Maid or James Spencer commodes. The audits shows that a total of 13 Vernacare commodes are still in use within the Trust. With the introduction of the Chlorine wipes, it appears that the chlorine breaks down the coating of the Vernacare lid which causes the green dye to bleed out and cause staining of other components of the commode. We recommended that these commodes are replaced as soon as possible.</td>
</tr>
<tr>
<td></td>
<td>The findings of the audit show mixed results across the Trust on cleanliness of commodes, with RSH showing improvement from 68% in 2014 to 93% in 2015 and PRH showing a slight drop in compliance from 89% to 83%.</td>
</tr>
<tr>
<td></td>
<td>The use of Clinell tape throughout the Trust is patchy and where used does not offer on its own robust assurance of cleanliness, should this be removed from use, this may offer, although only very small, a cost saving.</td>
</tr>
<tr>
<td></td>
<td>The introduction of the PDI Chlor+1000 wipes, has been positive, with most wards having the cleaning product available at all times, however some wards need to ensure that adequate stock of the wipes are maintained at all times – Ward Managers and IPC to continue to monitor availability of wipes in sluices.</td>
</tr>
</tbody>
</table>
| Segregation of Linen Audit July 2015 | Audit start was delayed due to workload and was undertaken January 2016 - To ascertain if linen was stored and handled appropriately within the Trust and if clinical areas are receiving sufficient linen supplies for a 24 hour period. 45 areas were audited across the Trust: 21 at RSH, 24 at PRH. Main issues identified:  
• Dust in Linen Store Rooms (RSH)  
• Inappropriate items in linen store areas (RSH, PRH)  
• Items stored on the floor in linen areas (RSH, PRH)  
• Linen trolley curtain not in place keeping linen covered (PRH)  
• Linen bags over 2/3 full (RSH PRH)  
• Carrying dirty linen (PRH)  
• Linen not bagged at bedside (PRH)  
• Bags left on floor before being taken to Disposal Room (PRH)  
• Gloves and aprons not worn when handling dirty linen (RSH PRH)  
• Clean linen placed on top of linen skips/general waste bins (RSH PRH) |
Where the ward use an additional trolley for clean linen when bed making, issues observed:
- Unused linen is not being returned for re-laundering
- The trolley is not being cleaned after use

The Ward Managers and IPC Link Nurses have been asked for feedback from the report.

### Validation of information that is provided at Pre-op Clinics around infection prevention prior to admission.

To ascertain whether IPC leaflets were given to elective patients at their Pre-op assessment. The expectation being that the following leaflets are provided:
- Hand Hygiene
- Reducing the Risk of Infection in hospital – Patient Information
- Reducing the Risk of Infection in hospital – Visitor information.

A formal audit has not taken place, extensive work has been undertaken with updating and reformatting the IPC leaflets and Booking Support Services are currently working on producing these. A snapshot audit in pre-op would indicate that the current Reducing the Risk of Infection in Hospital leaflet is being given out, unfortunately there has been little response from the postal audit. Plan to repeat this audit in 2015.

### MRSA Screening Compliance (Elective / Emergency Screening) Monthly

An ongoing report for both Elective and Emergency MRSA screening was and still is generated through IT systems.

The graphs below show the compliance rates for the year. A drop was noted in emergency admission screening relating to one of the admission wards. This is being addressed.

The SQL systems can be accessed by the Centres, so that they can address the non-compliance locally.

### MRSA & C.Diff Care Pathway Audits November 2015

The objective was to review the IPC care plans of all patients across the Trust with a positive MRSA or C.diff diagnosis, to ensure that staff are:
- Printing the IPC care plan off the intranet
- Completing the relevant sections on the care plan
- Evaluating the care relating to IPC daily within the nursing documentation

Ward staff still seem to be unclear as to where to find the additional care plans on the intranet and they are rarely in place. Occasionally the staff will use the old IPC Care Plans.

The IPC Team will continue to support the wards in maintaining the relevant documentation for patients’ infection status and will also offer ongoing support and education when the new version of the booklet arrives on the wards.

- The IPC Care Plan to be integrated into the Care Plan Booklet
- IPC will put out a Hot Topic to advertise the new care plan, once it is confirmed that it is included in the new publication
- All other versions of the IPC/Source Isolation care plans to be removed from the intranet ‘Nursing Documentation’ page
- The new IPC ‘Infection Status Sheet’ to be uploaded onto the nursing documentation page.

### Fortnightly Isolation Snapshots

Data was collected fortnightly from January to April 2016, during this period it was identified that:

At PRH 1 patients was not isolated which needed isolating – it is not clear from the data provided if a risk assessment had taken place.
At RSH 11 patients were not isolated which needed isolating during this period; in January one patient was moved out of isolation following a risk assessment making way for a higher scoring patient, during an influenza outbreak in April, 7 flu positive/symptomatic patients were not isolated and the patients were cohort in bays on wards 27 and 24E. The final three patients it is not clear why the patients were not isolated or if a risk assessments had been carried out.

Maternity Audit of Community Hospitals
Bridgnorth, Ludlow, Oswestry, Market Drayton and Whitchurch were audited during visits by the IPCN to these hospitals during December 2015 and February 2016. Any findings were discussed during the visit and also reported back to the Managers in these areas.

Ludlow Renal Audit
Planned for 2015/16, but not undertaken due to workload and restriction of opening times of Unit. Tool devised. To re-schedule for 2016.

A programme of Audit has been established for 2015/2016. This forms part of the Infection Prevention and Control Annual Programme.

![MRSA Screening - Elective Admissions](image1)

![MRSA Screening - Emergency Admissions](image2)
8. Environmental Cleanliness

Cleanliness Monitoring April 2015 – March 2016

Prior to September 2015 cleanliness monitoring has been carried out on a monthly by a member of the Facilities Team and only the domestic elements of the 49 elements included in the National Specification for Cleanliness have been audited. From September 2015 a Cleanliness Monitoring Team has been set up within Facilities to monitor all 49 elements to include elements that are the responsibility of the Cleaning Team, Nursing Teams and Estates.

The scores for the two different types of audit are as follows:-

<table>
<thead>
<tr>
<th>April 2015 – March 2016</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cleanliness Service Monitoring Score</td>
</tr>
<tr>
<td>Apr</td>
<td>May</td>
</tr>
<tr>
<td>97.67</td>
<td>97.24</td>
</tr>
</tbody>
</table>

The average Trust wide score for Domestic Cleanliness Monitoring for 2015/2016 was 96.22%.

Cleanliness and Hygiene

Formal PLACE assessments for 2015 were undertaken for the following areas:-

- Princess Royal Hospital
- RJ&AH Maternity Unit
- Royal Shrewsbury Hospital
- Bridgnorth Maternity Unit
- Ludlow Maternity Unit
The results of the assessment are shown in the table below.

<table>
<thead>
<tr>
<th>Site Name</th>
<th>Cleanliness</th>
<th>Food</th>
<th>Privacy, Dignity and Wellbeing</th>
<th>Condition Appearance and Maintenance</th>
<th>Dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATERNITY UNIT BRIDGNORTH HOSPITAL</td>
<td>99.23%</td>
<td>92.77%</td>
<td>92.86%</td>
<td>88.73%</td>
<td></td>
</tr>
<tr>
<td>MATERNITY UNIT LUDLOW HOSPITAL</td>
<td>96.54%</td>
<td>86.43%</td>
<td>60.87%</td>
<td>83.85%</td>
<td></td>
</tr>
<tr>
<td>ROYAL SHREWSBURY HOSPITAL</td>
<td>99.15%</td>
<td>87.67%</td>
<td>75.56%</td>
<td>82.96%</td>
<td>52.37%</td>
</tr>
<tr>
<td>PRINCESS ROYAL HOSPITAL</td>
<td>98.60%</td>
<td>87.86%</td>
<td>76.44%</td>
<td>78.97%</td>
<td>49.54%</td>
</tr>
<tr>
<td>OSWESTRY MATERNITY UNIT</td>
<td>99.61%</td>
<td>91.90%</td>
<td>93.52%</td>
<td>85.42%</td>
<td></td>
</tr>
<tr>
<td>National Average for each Domain</td>
<td>97.57%</td>
<td>88.49%</td>
<td>86.03%</td>
<td>90.11%</td>
<td>74.51%</td>
</tr>
</tbody>
</table>

As can be seen from the above table we were around the national average for all except Privacy and Dignity and Dementia:-

- The Trust has no lockable facilities for patients possessions
- The PSAG boards are on public display on wards
- There is a privacy and dignity issue in Fracture clinic at PRH which needs to be resolved – the issue is created due to space and the Department Manager and the Estates Manager are looking at a resolution to the issue
- Ludlow MLU is very cramped with no private spaces – consideration is being given to moving the MLU into the main Ludlow hospital site
- The Trust has not moved as far as it would like to implement the dementia friendly environment due to cost and access issues

Actions from the PLACE inspections are monitored via our Patient Environment Group.

The 2016 PLACE programme is already well underway and results will be available from the Health and Social Care Information Centre by September 2016.

9. Overview of 2016/17 Annual Programme

During the next 12 months the IPCT aims to ensure a high quality and effective service across the whole trust. The IPCT will adopt a zero tolerance approach to HCAI’s and ensure that all staff in the Trust are aware of their responsibilities in relation to IPC. Delivery of Infection Prevention and Control service is unpredictable & can challenge service delivery. During winter months for example outbreaks of Influenza or ‘Winter vomiting’ virus can increase workload suddenly with little warning, therefore the Annual Programme of work is designed for flexibility and if necessary project dates may need to be reallocated.

Our focus for 2016/17 will be:
• Continue to reduce the incidence of Clostridium difficile infection in SaTH based on a strong health economy partnership approach including surveillance, implementation of best practice, audit and root cause analysis

• Ensure cleanliness issues within wards and departments is a priority and review basic standards of practice such as cleanliness and use of commodes in the environment

• Strengthen governance around decontamination of instruments/equipment outside of CSSD and continue to work with the new decontamination lead to focus on outstanding issues.

• Urinary Tract Infections (UTIs) are the most common healthcare associated infection in acute hospitals. The risk of developing a catheter associated urinary tract infection (CAUTI) increases the longer a urinary catheter remains in situ. The IPC Team will continue to support the urology specialists nurses aim to develop a campaign to reduce UTIs as this did not happen as expected in 2015/16.
### Executive Summary

This report describes the work and developments in the last year provided by the Trust’s Safeguarding Team for adults, children and maternity care. The report highlights the achievements over the last twelve months and gives assurances to the Trust Board of how we as an organisation are discharging our statutory duties in relation to safeguarding children under Section 11 of the Children Act (2004) and work within the guidance for Adult Safeguarding. In addition, it outlines how the Trust has responded to local and national developments, both internally, and as a member agency of the Local Safeguarding Children Boards (“LSCB”) and the Local Adult Safeguarding Boards.

The Trust is committed to recognising that all children and adults at risk have a right to be protected for their safety and well being and that all adults have a right to be protected from harm when in our care.

### Strategic Priorities
- [x] Quality and Safety
- [ ] Healthcare Standards
- [ ] People and Innovation
- [ ] Community and Partnership
- [ ] Financial Strength

### Operational Objectives

- [x] If we do not deliver safe care then patients may suffer avoidable harm and poor clinical outcomes and experience
- [ ] If we do not implement our falls prevention strategy then patients may suffer serious injury
- [ ] Risk to sustainability of clinical services due to potential shortages of key clinical staff
- [ ] If we do not achieve safe and efficient patient flow and improve our processes and capacity and demand planning then we will fail the national quality and performance standards
If we do not have a clear clinical service vision then we may not deliver the best services to patients

If we do not get good levels of staff engagement to get a culture of continuous improvement then staff morale and patient outcomes may not improve

If we are unable to resolve our (historic) shortfall in liquidity and the structural imbalance in the Trust's Income & Expenditure position then we will not be able to fulfil our financial duties and address the modernisation of our ageing estate and equipment

<table>
<thead>
<tr>
<th>Care Quality Commission (CQC) Domains</th>
<th>Safe</th>
<th>Effective</th>
<th>Caring</th>
<th>Responsive</th>
<th>Well led</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receive</td>
<td>Review</td>
<td>Note</td>
<td>Approve</td>
<td>Recommendation</td>
<td></td>
</tr>
</tbody>
</table>
Section 1 - Summary and Introduction

This report describes the developments in the last year provided by the Trust's Safeguarding Team for adults, children and maternity care. The report highlights the outcomes over the last twelve months and gives assurances to the Trust Board of how we as an organisation are discharging our statutory duties in relation to safeguarding children under Section 11 of the Children Act (2004) and work within the guidance for Adult Safeguarding. In addition, it describes how the Trust has responded to local and national developments, both internally, and as a member agency of the Local Safeguarding Children Boards (“LSCB”) and the Local Adult Safeguarding Boards including work undertaken within the Trust in relation to the national PREVENT agenda.

The Trust is committed to recognising that all children and adults at risk have a right to be protected for their safety and well being and that all adults have a right to be protected from harm when in our care. Safeguarding encompasses:

- Effective responses to allegations of harm and abuse and that the responses are in line with local multiagency procedures
- Maintaining integrated governance systems and processes in reporting concerns or issues
- Partnership working with Local Safeguarding Boards (Child and Adult), patients, families and community partners to create safeguards for children and vulnerable adults.
- Prevention of harm and abuse through the provision and delivery of high quality care.

Section 2 - Safeguarding Arrangements

2.1 The requirement for organisations to have robust processes were outlined by Lord Laming’s review into Child Protection Procedures (2009) and the Care Quality Commission report reviewing Safeguarding Children within the NHS (2009) and the Care Act (2014) for adults.

2.2 The Care Quality Commission also requires Health Organisations to take reasonable steps to ensure that commissioned services are compliant with healthcare standards relating to arrangements to Safeguard and promote the welfare of children across the following areas:

- Arrangements have been made to safeguard children under Section 11 of the Children Act 2004.
- Works with partners to protect children and participate in reviews as set out in Working Together to Safeguard Children 2015; bringing together all the statutory responsibilities of organisations and individuals to safeguard children
- Making it explicit that safeguarding is the responsibility of all professionals who work with children.
- Agreed systems, standards and protocols are in place about information sharing about a child and their family both within the organisation and with outside agencies, having regard to statutory guidance on making arrangements to safeguard children under section 11 of the Children Act 2004.
- A child centred coordinated approach to safeguarding.
- Assessing the needs of children / unborn and providing early help.
2.3 Section 11 of the Children Act 2004 places a statutory duty on key people and bodies to safeguard children. All NHS Trusts are expected to identify Named Professionals who have a key role in promoting good professional practice within the Trust.

2.4 A report from the NSPCC (2014) suggests that although our children are safer than a decade ago, our society still falls short of protecting children from harm. 1 child per week dies as a result of abuse, the levels of neglect remains the same and 1 in 6 children are exposed to domestic violence. The report highlights the pressure on child protection services suggesting that they are now acting as an emergency service rationing their support only stepping in when children are in need. Babies are particularly vulnerable to abuse, 45% of all serious case reviews were in children under 1 year old (NSPCC 2013).

2.5 CONTEST, the Government’s national counter terrorism strategy, aims to reduce the risk to the United Kingdom and its interests overseas from international terrorism, so that people can go about their lives freely and with confidence. Preventing someone from becoming a terrorist or supporting terrorism is no different from safeguarding vulnerable individuals from other forms of exploitation. Therefore, the Trust’s PREVENT Policy sits alongside the organisation’s Safeguarding Vulnerable Adults Policy and the Safeguarding Children’s Policy.

2.6 The Shrewsbury and Telford Hospital (SaTH) NHS Trust’s Safeguarding Team advise and train staff regarding the management of child, adult protection, welfare cases and PREVENT, reminding all staff that safeguarding is the responsibility of everyone.

The team consists of:

- Executive Lead for Safeguarding / Director of Nursing & Quality: Mrs Sarah Bloomfield
- Associate Director for Patient Safety: Mrs Jo Banks
- Named Doctor for Child Protection: Dr Frank Hinde
- Named Nurse for Safeguarding Children: Mrs Teresa Tanner
- Adult Safeguarding Lead: Mrs Helen Hampson
- Named Midwife: Mrs Sharon Magrath
- Safeguarding Support Nurse: Mrs Sharon Woodland

**Section 3 - Key Activities in 2015/2016 (Looking Back)**

3.1 A key focus for the children Safeguarding Team during 2015/2016 has been to continue to ensure all staff receives appropriate training. A requirement of the SCR Child B, Peer Review was an action for the Trust was to continue to enable learning, improvement and training for our staff. This commenced September 2015 and is held on the fourth Monday of the month. It is an opportunity for medical staff to learn from cases where Child Protection or Safeguarding has been an issue; with the Named Doctor and Named Nurse for Safeguarding. The meetings are minuted.

3.2 Promoting and be involved with multi-agency working in line with revised guidance, which has included ensuring the Trust is compliant as per the recommendations of the Goddard Enquiry and also the Report into the work of Dr. Bradbury.

3.3 Paediatric Liaison Health Visitor, changes to this role has meant that the Named Nurse for Safeguarding Children now provides school nurse liaison activity; which has impacted on the demand and capacity available within the Named Nurse role.

3.4 The Care Act 2014/Local Safeguarding Adult Boards.
The Care Act 2014 became legislation in April 2015 and has replaced the local guidance “No Secrets” in adult safeguarding. The Trust has fully adopted the multi – agency policy and procedures for the protection of adults with care and support needs in the West Midlands. The Care Act requires each local authority to form a Safeguarding Adult Board of which there is one now for Shropshire and Telford and Wrekin. The Trust is represented on both boards. Each Board has various subgroups which are also supported by members of the safeguarding team.

3.5 Local safeguarding board subgroup attendance.
The subgroups play a central role in providing the SAB’s with evidenced assurance that safeguarding systems across the partnerships are sound and effective and also to highlight areas which require improvement.

- Quality, Performance and Operations Sub Group
- MCA and DoLS
- Partnership Training, Learning and Development
- Learning and Development Sub Group
- SUCCE (services user’s consultation and community engagement)

3.6 Quarterly submissions to CCGs and NHS England regarding the Trusts key performance indicators for adult, children and prevent safeguarding.

The following six principles apply to all sectors including health services. These principles underpin all adult safeguarding work within the Trust and are reinforced throughout the safeguarding training within SATH.

3.7

<table>
<thead>
<tr>
<th>Principles</th>
<th>“I” Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empowerment – People being supported and encouraged to make their own decisions and informed consent.</td>
<td>I am consulted about the outcomes I want from the safeguarding process and these directly inform what happens.</td>
</tr>
<tr>
<td>Prevention – It is better to take action before harm occurs.</td>
<td>I am provided with easily understood information about what abuse is, how to recognise the signs and what I can do to seek help.</td>
</tr>
<tr>
<td>Proportionality – The least intrusive response appropriate to the risk presented</td>
<td>I am confident that the responses to risk will take into account my preferred outcomes or best interests.</td>
</tr>
<tr>
<td>Protection – Support and representation for those in greatest need.</td>
<td>I am provided with help and support to report abuse. I am supported to take part in the safeguarding process to the extent to which I want and to which I am able.</td>
</tr>
<tr>
<td>Partnership – Local solutions through services working with their communities. Communities have a part to play in preventing, detecting and reporting neglect and abuse.</td>
<td>I am confident that information will be appropriately shared in a way that takes into account its personal and sensitive nature. I am confident that agencies will work together to find the most effective responses for my own situation.</td>
</tr>
<tr>
<td>Accountability – Accountability and transparency in delivering safeguarding.</td>
<td>I am clear about the roles and responsibilities of all those involved in the solution to the problem.</td>
</tr>
</tbody>
</table>
3.8 Criteria for an adult at risk

Adult(s) with care and support needs. The adult safeguarding duties under the Care Act 2014 apply to an adult, aged 18 or over whom:

- has needs for care and support (whether or not the local authority is meeting any of those needs) and;
- is experiencing, or at risk of, abuse or neglect; and
- as a result of those care and support needs is unable to protect themselves from either the risk of, or the experience of abuse or neglect.

Care and support is the mixture of practical, financial and emotional support for adults who need extra help to manage their lives and be independent – including older people, people with a disability or long-term illness, people with mental health problems, and carers. Care and support includes assessment of people's needs, provision of services and the allocation of funds to enable a person to purchase their own care and support. It could include care home, home care, personal assistants, day services, or the provision of aids and adaptations. Within the Trust we ensure that the individual has their needs fully assessed and continue to liaise closely with other care providers and external agencies.

3.9 Whilst it is acknowledged that abuse or neglect can take different forms, the Care Act guidance identifies the following types of abuse or neglect and this is being incorporated throughout the safeguarding training at SATH.

3.9.1 Types of abuse

- Physical abuse
- Domestic violence
- Sexual abuse
- Psychological abuse
- Financial or material abuse
- Modern slavery
- Discriminatory abuse
- Organisational abuse
- Neglect and acts of omission
- Self-neglect

3.9.2 Local Safeguarding Children Boards

The Children Act (2004) places a statutory obligation on a number of agencies to safeguard and promote the welfare of children and young people whilst carrying out their normal functions. The Executive Lead represents the Trust on the Telford & Wrekin SCB via the Associate Director for Patient Safety. Following changes to membership; the Shropshire Safeguarding Children Board receives representation from the Trust via the Health Governance Safeguarding Group; a sub group of the SSCB. The Named Nurse and Midwife are members of the various subgroups of both the Telford and Shropshire Boards.
3.9.3 Health Governance Safeguarding Group

The Trust is represented on this cross Shropshire group, which combines health and social care agencies, by the Named Nurse and Named Midwife.

3.9.4 Domestic Abuse and the Multi Agency Risk Assessment Conference (MARAC)

MARAC conferences are held monthly for both Telford and Shropshire and discuss the most high risk cases, many of which will have been seen with our Emergency Departments (ED). Staff in the Emergency Departments are encouraged to make referrals in line with the MARAC process and victims of domestic abuse are alerted on the SEMA system. This ensures that any ‘alerted’ victim who re-attends the ED is automatically referred back to MARAC.

The Trust is currently involved in a Domestic Homicide Review where Domestic Abuse was a key feature of the case; this is due to be concluded later in 2016 and will have an impact on the Emergency Departments and their role in Domestic Abuse.

The Named Nurse has been invited to sit on a West Mercia Regional MARAC steering group to improve the effectiveness of MARAC meetings across the region. Nationally the referrals from Acute Trusts is 4% of cases to MARAC, locally we are achieving 12% as we encourage staff to refer victim of abuse on professionals judgment and not necessarily on whether the criteria is met for a visible high risk.

3.9.5 Operational Safeguarding Group

The group meets to implement the work plan within the Trust and to develop hospital policies in line with national and local guidance; therefore ensuring that the hospital develops practice that meet the hospital’s statutory duty to safeguard children and adults at risk. This group will be reviewing its’ membership and Terms of Reference in 2016.

3.9.6 Adult safeguarding concerns April 2015 – March 2016. All concerns are reported to the CQC and commissioners on a quarterly basis.

<table>
<thead>
<tr>
<th>Month</th>
<th>Total</th>
<th>Instigated by the Trust</th>
<th>Towards the Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 2015</td>
<td>10</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>May</td>
<td>9</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>June</td>
<td>8</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>July</td>
<td>11</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>August</td>
<td>9</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>September</td>
<td>10</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>October</td>
<td>9</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>November</td>
<td>15</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>December</td>
<td>9</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>January 2016</td>
<td>9</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>February</td>
<td>9</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>March</td>
<td>7</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>115</td>
<td>77</td>
<td>38</td>
</tr>
</tbody>
</table>
Adult Safeguarding concerns

There have been a total of 115 concerns raised in the Trust between April 2015 and March 2016. Thirty eight of these concerns were raised towards the Trust regarding issues of care and discharges. The outcomes of these enquiries were shared with all relevant agencies including the CQC, CCG, the local authority and referrer.

Section 4 Governance

4.1 Overall governance in relation to safeguarding within the Trust is overseen externally via the safeguarding children and adult boards. Internally, the Trust has a safeguarding operational group that reports to the Quality and safety committee through to the Trust Board.

4.2 Children Act Section 11 Audit self assessment

A review of Shrewsbury & Telford Hospital NHS Trust’s compliance with Section 11 is completed and submitted to both Local Safeguarding Children Boards by the Named Nurse every 6 months. During 2015/16, the self assessment of the Trust was peer reviewed by the LSCB. This provided assurance to the LSCB that the standards of safeguarding processes and practice within the Trust are robust. One area that the Trust is not compliant relates to Safer Recruitment training. There is a national requirement for organisations that employ staff who work with children to have at least one member of an interview panel who has completed safer recruitment training. Currently, the Trust does not offer this training.

4.3 New Policies and NICE guidance

Prevent policy has been written along with a training strategy for Prevent training.

Section 5 - Audits

5.1 The Trust fully participates in both internal and external monitoring processes such as self-assessments, clinical audits and statutory reviews to ensure systems are in place and functioning effectively.

Serious Case Review and Internal Management Review

As previously mentioned the Trust has been involved with a Domestic Homicide Review for Shropshire, an action plan will be compiled as a result of the panel decisions.

There has been a Serious Case Review for Telford and Wrekin involving Child H and I, this is on-going and will be concluded in 2016. Shropshire has had a learning review of 2 children which was published in October 2015.

Section 6 - Training

Child and Adult Safeguarding training is provided by the Safeguarding Team. The training for both child and adult safeguarding comprises of:

- recognising abuse and the different forms of abuse
- criteria for a vulnerable adult referral
- how to make a referral child or adult alert
- indicators of abuse
- PREVENT
• the investigation/process once a referral has been made
• multi agency working
• legislation

The new Safeguarding People at Risk course continues to be successful and receiving positive feedback.

6.1 MCA and DoLS training

The mental capacity act and deprivation of liberty safeguards training continues to be provided by Shropshire local authority. These sessions have as agreed, been reduced to one and a half hours rather than the original three hour sessions. This has seen an overall increase in staff attendance. The sessions include:

Mental Capacity Act Awareness
Mental Capacity Act level 2
Deprivation of liberty Safeguards

Shropshire Local Authority trainer and Safeguarding Lead Shropshire CCG arranged to visit three wards at RSH. The purpose of this visit was to determine the effectiveness of the training provided and embedding the mental capacity act in our practice. The feedback was positive and found that there was good practice of the mental capacity act including assessments and best interest decisions, although at times the wards did not always recognise that they were assessing for capacity when delivering personal care. A similar visit to PRH has been arranged for April 2016. During the period of April 2014 to March 2015 there have been a total of 88 DoLS referrals made by the Trust.

Learning disability Training

A learning disability competency workbook has been delivered to over a thousand members of staff on the wards and departments. The competency workbook was created by the Learning Disability Team at Mytton Oak House. Each individual member of staff once completed the workbook gains a certificate and is registered with the training and development department as having completed an hour’s training. The plan for next year has been arranged with the local authority to provide four formal sessions covering aspects of a learning disability over a two hour session.

6.2 Child Protection Training

CQC compliance is for 80% of staff to have completed the relevant Child Protection Training. All new starters now receive a combined Safeguarding Children & Adults session as part of Corporate Induction session as part of Corporate Induction.

In 2015, the Named Nurse commenced a new training programme for Level 3 staff (now known as Targeted staff, these being staff who work with children all the time); this was day long course and comprised Child Protection Awareness, Domestic Abuse Awareness and FGM training. This has ensured that the staff in these frontline areas have completed their 3-6 hour training in one session and any further training that is needed can be on an ad hoc basis as part of their annual update.

This training continues to be well received and to date the Trust has over 90% compliance.
The Trust is committed to improving child and adult safeguarding processes across the organisation and aims to safeguard all children and vulnerable adults who may be at risk of harm. Processes will be developed to empower, be person centred, preventative and holistic and we will continue to deliver the safeguarding agenda encompassing a multi agency and partnership approach. The governance arrangements for child and adult safeguarding will continue and systems will be put into place to allow for effective monitoring and assessment of compliance against locally agreed policies and guidelines. The Trust continues to work on the success of the CQC inspection in respect of Safeguarding.

Shrewsbury and Telford Hospital (ShT) continues to work hard in developing processes and systems that ensure that people using the service, staff and others who visit the hospital are as safe as they can be and that risks are effectively managed. As professionals we will continue to deliver the Child and Adult Safeguarding agenda, encompassing a multi-agency and partnership approach.

The known influences and policy drivers that are likely to be the focus of the safeguarding team for the forthcoming year are:

- To continue to provide attendance at LSCB / LSAB sub-groups and the Health Governance Safeguarding Group and develop practices, and contributing to the development of multi agency training strategy and procedures.
- To continue to provide in-house local guidance to complement LSCB/ LSAB procedures, protocols and practice guidelines.
- To ensure that SaTH continues to adhere to the recommendations for staff training in child protection / adult safeguarding procedures.
- Continue communication between the Shropshire Community Trust, Shropshire and Telford and the Shrewsbury and Telford Hospital NHS Trust.
- To participate in Child Death Overview Panels.
- To maintain the effectiveness of the Safeguarding Operational Group.
- To continue to work with Human Resource department in ensuring DBS checks and “Managing Allegations against Staff” policy and process are adhered to.
- To continue to ensure that staff adheres to the training programmes and training figures continue to increase.
- Continue to engage with people at risk of abuse, their family, carers, relatives and external agencies.
- To continue to work with local partners with the National Child Protection Information System which is planned to be in place during the summer of 2016.
- To become an active member of the newly formed West Midlands Regional Named Nurse for Safeguarding (Children) network.
- The need for effective Safeguarding Supervision with Maternity has been shared with the Care Group Board Members. The recommendation is for Safeguarding Supervision to be available in each Community Location; this would require more Midwives to undertake Safeguarding
Supervision Training to promote effective supervision and monitoring of practice in relation to safeguarding children and the unborn. This has been added to the Maternity Risk Register.

- A model for offering safeguarding supervision to Maternity staff will be considered and a Safeguarding Supervision Policy developed to support this process.

- Review Community Midwifery capacity to ensure safeguarding responsibilities can be met has also been shared with the care group Board members. This has been added to the maternity Risk Register.

- Maternity Models of care are being considered in 2016/17. In light of the maternity Review 2016, Women with complex social factors would be better supported by a Named Community Midwife who can offer more flexible one to one care in the antenatal and postnatal period. This would also support information sharing and working together with other agencies.
Executive Summary

Research activity continues to flourish in the Trust with 2041 patients entered into National Research Ethics Committee approved studies. Additionally R&I provided practical support, advice and training to staff for 11 own account or further education research projects.

National High Level Objectives (HLOs) were met for recruitment, time to approve new studies and time to recruit first patient. We continue to work towards HLOs related to overall time and recruitment target achieved. Our priority for the coming year will be to increase our commercial activity, and, in particular, to initiate commercial trials in areas we have previously not conducted any commercial research.

We shall continue to work with partner organisations to increase the opportunities for our patients to enter clinical trials in order to improve patient outcomes and to provide access to novel and innovative treatments.

<table>
<thead>
<tr>
<th>Strategic Priorities</th>
<th>Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Quality and Safety</td>
<td>Reduce harm, deliver best clinical outcomes and improve patient experience through our Quality Improvement Strategy</td>
</tr>
<tr>
<td>2a) Healthcare Standards: Operational Performance Standards</td>
<td>To develop a transition plan, with supporting mitigation actions and contingency plans, that ensures the safety and short term sustainability of challenged clinical services, 2014/15</td>
</tr>
<tr>
<td>2b) Healthcare Standards: Service Reconfiguration</td>
<td>To address the existing capacity shortfall and process issues to consistently deliver national healthcare standards, 2014/15</td>
</tr>
<tr>
<td>3. People and Innovation</td>
<td>To undertake a review of all current services at specialty level to inform future service and business decisions, 2015/16</td>
</tr>
<tr>
<td>4. Community and Partnership</td>
<td>Complete and embed the successful reconfiguration of Women and Children’s services</td>
</tr>
<tr>
<td>5. Financial Strength: Sustainable Future</td>
<td>Develop a sustainable long term clinical services strategy for the Trust to deliver our vision of future healthcare services through our Future Fit Programme</td>
</tr>
<tr>
<td></td>
<td>Develop our leaders and promote staff engagement to make our organisation a great place to work through our People Strategy</td>
</tr>
<tr>
<td></td>
<td>Develop a robust Investment Strategy to modernise our equipment and estate to support service transformation and increase productivity through the use of technology</td>
</tr>
<tr>
<td></td>
<td>Embed a customer focussed approach and improve relationships with our GPs through our Stakeholder Engagement Strategy</td>
</tr>
<tr>
<td></td>
<td>Develop a transition plan that ensures financial sustainability and addresses liquidity issues pending the outcome of the Future Fit Programme</td>
</tr>
</tbody>
</table>
| Board Assurance Framework (BAF) Risks | ☒ If we do not deliver safe care then patients may suffer avoidable harm and poor clinical outcomes and experience  
☐ If we do not implement our falls prevention strategy then patients may suffer serious injury  
☒ Risk to sustainability of clinical services due to potential shortages of key clinical staff  
☐ If we do not achieve safe and efficient patient flow and improve our processes and capacity and demand planning then we will fail the national quality and performance standards  
☒ If we do not have a clear clinical service vision then we may not deliver the best services to patients  
☒ If we do not get good levels of staff engagement to get a culture of continuous improvement then staff morale and patient outcomes may not improve  
☒ If we are unable to resolve our (historic) shortfall in liquidity and the structural imbalance in the Trust's Income & Expenditure position then we will not be able to fulfil our financial duties and address the modernisation of our ageing estate and equipment |
| Care Quality Commission (CQC) Domains | ☒ Safe  
☒ Effective  
☒ Caring  
☑ Responsive  
☐ Well led |
| Receive | Review | Note | Approve | Recommendation |
Research & Innovation Annual Report
2015/16

September 2016

Authors:
Dr Nigel Capps, Director of Research & Innovation
Angela Loughlin, Research & Innovation Manager
Sister Helen Moore, Clinical Trials Manager
1. INTRODUCTION

The NHS Constitution, published in January 2009, commits to innovation and to the promotion and conduct of research to improve the current and future health and care of the population. The commitment features in one of seven key principles - the principle that the NHS aspires to high standards of excellence and professionalism. Essentially, research is a core part of the NHS, and research enables the NHS to improve the current and future health of the people it serves. (Handbook to the NHS Constitution, January 2009).

NHS patients therefore can expect to be informed of approved research that is relevant to their health and care.

Research ultimately is about developing and delivering more effective and more efficient care to patients. There is good evidence that organisations that are active in research routinely have improved patient outcomes; thus the benefits are not restricted to just those individuals who volunteer to participate in research activities. (Ozedemir et al 2015)

2. PURPOSE

This report provides an overview of the Research and Innovation (R&I) activity in the Trust from April 2015 to March 2016. It presents the activity in terms of measured progress towards mandated targets and performance metrics.

3. BACKGROUND

Research is vital in providing the new knowledge needed to improve health across the population.

There is evidence that the public expects NHS services to include research activity.

Research provides the evidence base for improving care and health outcomes. It crosses all clinical services and our R&I team provide the essential infrastructure for all specialties to have the opportunity to offer their patients appropriate participation.

With funding from the National Institute for Health Research (NIHR), since 2008/09, to develop our research infrastructure, activity has grown significantly and has increased year on year. We are part of the West Midlands Clinical Research Network (CRN), the largest CRN in the country.
4. AIMS

- To improve outcomes in healthcare through research within a high quality caring environment.

- To promote high quality research across the Trust within a framework of effective, efficient research governance and Good Clinical Practice (GCP) and develop the infrastructure to support this core NHS work.

- To meet national requirements for recruitment into portfolio trials to time and target.

- To maintain good financial governance.

5. NATIONAL METRICS

The NIHR CRN High Level Objectives are the CRN’s agreed performance objectives for CRN activity. The High Level Objectives include targets to increase the proportion of studies in the NIHR CRN Portfolio that deliver to their planned recruitment time and target, to reduce the time taken to achieve NHS permission through the Coordinated System for gaining NHS Permission (CSP), and to reduce the time taken to recruit first participants into NIHR CRN Portfolio studies. They were introduced in April 2010.

8.1 THE OBJECTIVES

HLO 1: Increase the number of participants recruited into NIHR CRN Portfolio studies.
Measure: Number of recruits to NIHR Portfolio Studies in 2015-16, as a percentage of agreed target.

HLO 2: Increase the proportion of studies in the NIHR CRN Portfolio delivering to recruitment target and time.
Measure: Percentage of studies that recruited to time and target. CLOSED studies only.

HLO 3: Increase the number of commercial contract studies delivered through the NIHR CRN.
Measure: Number of Commercial studies initialised (given NHS Permission) to date this year, compared with last year.

HLO 4: Reduce the time taken for NIHR studies to achieve NHS permission through CSP.
Measure: Proportion of studies achieving the 15-day CSP Process Improvement target.

HLO 5: Reduce the time taken to recruit first participant into NIHR CRN Portfolio studies
Measure: Percentage of studies achieving first recruit within 30 days of permission.
8.2 PERFORMANCE AGAINST THE METRICS

**HLO 1:** Increase the number of participants recruited into NIHR CRN Portfolio studies

- The Trust achieved excellent recruitment this year with 2041 patients entering Research Ethics Committee approved research.
- The recruitment in 2015-2016 against our target for portfolio trials was 113%: an increase of 12% on last year. **Green RAG rating.**
- SaTH contributed 3.2% of the West Midlands CRN recruitment, an increase from 2.9% last year, SaTH was 8th out of 31 organisations, an increase of one place.

![Graph showing recruitment]

**HLO 2:** Increase the proportion of studies in the NIHR CRN Portfolio delivering to recruitment target and time for studies which closed in 2015-2016.

- For commercial studies only 1 out of 3 studies which closed recruited to time and target: 33% - **RED RAG rating**
- For non-commercial studies 7 out of 16 studies which closed recruited to time and target: 44% - **RED RAG rating**
• In the previous year 3 out of 4 commercial studies which closed recruited to time and target. In 2015-16 our challenge has been studies with competitive recruitment which have closed early due to reaching their national or global recruitment target.

• For non-commercial studies we have improved slightly, by 2%. The main challenge here is that many of the studies not recruiting to target involve rare diseases with very low expected patient numbers.

**HLO 3:** Increase the number of commercial contract studies delivered through the NIHR CRN

• Number of commercial studies initialised during 2014-15 = 16

• Number of commercial studies initialised during 2015-16 = 7  **RED RAG rating**

• In 2015-16 we saw a disappointing reduction in the number of commercial studies. This was due to capacity issues in Pharmacy and difficulty in PI engagement. These blocks will be a priority objective for 2016-17.

• There was also a reduction in the number of commercial studies opening across the West Midlands CRN as a whole.

**HLO 4:** Reduce the time taken for NIHR studies to achieve NHS permission through CSP.

41 new studies were processed through CSP during 2015-16. 100% of those studies were processed within the 15 day target.  **GREEN RAG rating.**

**HLO 5:** Reduce the time taken to recruit first participant into NIHR CRN Portfolio studies

Measure: Percentage of studies achieving first recruit within 30 days of permission

<table>
<thead>
<tr>
<th></th>
<th>&lt;=30 days</th>
<th>&gt;30 days</th>
<th>% Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>5</td>
<td>2</td>
<td>71.4%</td>
</tr>
<tr>
<td>Non-Commercial</td>
<td>10</td>
<td>2</td>
<td>83%</td>
</tr>
</tbody>
</table>

**GREEN RAG rating**
6. RESEARCH ENGAGEMENT

An important aspect of the development of R&I within the Trust is engagement, internally with staff, service users and carers, and externally with partnership organisations, including the NIHR CRN, other NHS Trusts and academic institutions.

Ultimately our ambition is to ensure that service users have equity of access to research opportunities in all areas of the Trust and to link in with primary care and community colleagues to maximize recruitment potential.

The Research & Innovation Committee provides strategic oversight of the implementation of the National Research Governance Framework and supporting the implementation of the NIHR and CRN objectives to:

- Increase the number of patients participating in clinical trials
- Improve the speed, quality and integration of research
- Provide equity of access to high quality research

The membership of the Committee comprises the R&I Director, R&I Manager, Lead Research Nurse, Clinicians, Pharmacists, Finance link, Librarian, Allied Health professionals and two patient representatives. The Committee meets once a month.

The R&I department has an internal clinical trial audit and monitoring programme which reviews projects at the recommendation of the Committee or, if an issue is identified during the running the study either by the study sponsor, by the Principal Investigator or the R&I team. Findings are fed back to the relevant parties and the R&I Committee.

7. SUCCESSES

- The Trust acts as a subsidiary site for the South Staffordshire and Shropshire Healthcare NHS Foundation Trust, generating income for R&I, Pathology and Radiology by performing investigations for their commercial studies.

- We currently act as a continuing care site for Birmingham Children’s Hospital (BCH) Oncology trials – where patients are recruited at BCH and receive their treatment at the Shrewsbury & Telford Hospital NHS Trust (SaTH) to be nearer their homes. This can be challenging as we receive no funding in R&I for this activity.

- SaTH has a research training programme facilitated in-house. The mandatory Good Clinical Practice Training (GCP) is facilitated by the Trust Lead Research Nurse and 78 SaTH staff were trained during 2015-16.
• We have 3 trained facilitators for the Principal Investigators Master Class Training including the Trust Lead Research Nurse and Senior Research Sisters. During 2015-16 a further 4 Consultant Principal Investigators and 28 research healthcare professionals employed by SaTH were trained.

• SaTH currently has 4 Nurse Principal Investigators in currently-recruiting non-interventional trials.

• During 2015-2016 R&I gave advice on developing research ideas, protocol writing and submission for regulatory approval on 11 own-account research projects.

• SaTH employees produced a total of 51 publications during 2015-2016. A list of which can be found on the library internet site http://www.library.sath.nhs.uk/research/

• We have received confirmation that we can recruit patients to participate in the 100,000 Genomes Project

• SaTH held promotional events once again this year on International Clinical Trials day in May. Information stands were present on both sites and the clinical teams visited the wards to talk to patients and staff about participating in clinical trials. The OK to ASK campaign was incorporated into the day.

8. CHALLENGES

• There have been issues in Pharmacy that have resulted in a lack of capacity to support any new studies which involve the aseptic unit. This resulted in us having to turn down 2 commercial and 2 non-commercial studies in Oncology in 2015-2016.

• Clinician engagement remains challenging as many Principal Investigators (PI’s) will not participate or increase their research activity due to competing clinical job plan activities.

• In order to further increase our activity the department needs to physically expand, however we still do not have space, both office and clinical, which is fit for purpose.
9. FINANCIAL

The Research & Innovation Department continues to be fully self-funded from external income, mainly from the NIHR CRN. This income is ring-fenced and can only be used for staff and service support costs resulting from involvement in portfolio research. In addition to this funding stream we compete to conduct commercial trials to generate additional income.

- A quarterly breakdown of named research staff costs, including pay point and whole time equivalent, is required by the CRN for reporting back to the Department of Health.

- Some of the CRN funding is used for additional work from support services and monthly amounts are given to Pharmacy, Radiology, Radiotherapy Physics and Pathology to support their involvement in research activity in the Trust.

- Commercial studies are costed using the national costing template. A Standard Operating Procedure is in place for apportioning research income based on national guidelines. The income is shared between the service where the study is taking place, the support services involved and the R&I department who provide the clinical and administrative staff to support the PI in the running of the study.

- Research income is held for services in an account within R&I, to be used by them for own account research, education or other appropriate and agreed activity.

- The R&I portion of commercial income is used for non CRN-supported staff costs and all non-pay costs.

- During 2015-16 R&I operated within budget. The Income was:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH/NIHR income</td>
<td>£986,908</td>
</tr>
<tr>
<td>Commercial income to R&amp;I</td>
<td>£123,879</td>
</tr>
<tr>
<td><strong>Total R&amp;I income</strong></td>
<td>£1,110,787</td>
</tr>
<tr>
<td>Commercial income for research active services</td>
<td>£90,891</td>
</tr>
<tr>
<td><strong>Total Income to the Trust</strong></td>
<td>£1,201,678</td>
</tr>
</tbody>
</table>
10. OBJECTIVES & PRIORITIES 2016-17

- Grow commercial activity in the Trust and, in particular, in areas where we have not conducted any commercial research.

- Increase the NIHR CRN income by optimising breadth and balance of non-commercial research and improving our CRN time and target metrics.

- Increase the profile of R&I within the Trust and in the community,

- Increase the number of Principal Investigators within the Trust,

- Have a clinician act as research link in all departments within the Trust.

- Establish a link with the primary care network to enable appropriate colleagues to act as a patient identification centres for our studies.

- Involve the Patients Representatives more in the wider work of R&I.

- Assist Pharmacy in the appointment of a designated trials pharmacist to improve capacity and give R&I one point of contact.

- To encourage and facilitate participation in the 100,000 genomes project.

11. LONG TERM OBJECTIVES

- Work with the STP Programme to ensure fit-for-purpose facilities for the R&I team and trial participants.

- Increase engagement with all professional groups to encourage more researchers to develop their own research and have their study adopted onto the CRN portfolio.

- Have SaTH sponsored Clinical Trials of Investigational Medicinal Products.

- Develop our own Chief Investigators to conduct multi-centre portfolio research.