

DIRECTOR OF INFECTION PREVENTION AND CONTROL

ANNUAL REPORT APRIL 2020 - MARCH 2021

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1. Executive summary - Overview of Infection Prevention and Control (IP&C) activities in the Trust

The prominent activity of the Infection Prevention and Control Team (IPCT) during this financial period has focused on the preparation and management of the COVID-19 (SARS – CoV2) pandemic. The IP&C team worked collaboratively with operational and clinical teams throughout East Suffolk North Essex Foundation Trust (ESNEFT), aligning national guidance to local policy, advising and supporting clinical teams on patient management as well as maintaining a business as usual IP&C service.

The focus throughout COVID was the categorisation of positive cases of COVID-19, and the management and reporting of outbreaks of COVID-19 infection. All outbreaks were reported on the National NHS England/Improvement (NHSE/I) outbreak system, with attendance at regular incident management team (IMT) meetings.

All mandatory reporting was completed during this time as per the national requirement to Public Health England. From October 2020, the IP&C monthly report started presenting data in the form of a statistical process chart (SPC) for cases of MSSA and *E.coli*, to demonstrate normal variation over time.

Within this financial year there were multiple outbreaks of COVID-19, an outbreak of Group A Streptococcus at the Clacton Hospital birthing unit, an increased incidence of GDH positive *C.difficile* toxin negative on Somersham Ward and increased incidence of *Enterobacter aerogenes* on Critical Care at Colchester Hospital. There were no outbreak of influenza or norovirus during this time.

There were no published *C.difficile* objectives for 2020/2021, and the usual process of review was suspended in agreement with the Clinical Commissioning Group (CCG). There were a total of 100 cases of hospital attributed *Clostridium difficile* disease; 10 of these cases were associated with a breach in key policy, the other 71 cases received care with no breaches in policy. **Please note** – at the current time of publication, 19 of the 2020/21 cases are still awaiting a decision. The delay due to the COVID-19 pandemic.

The IP&C team commenced the year with a vacancy for the Head of IP&C position. The Interim Chief Nurse made provision for the two Deputy Heads of IP&C to act up into Lead IP&C Nurses for their respective sites, it is planned they will become substantive post holders during 2021/22. A Band 7 temporary position was fulfilled by an existing team member. The IP&C nursing team saw a staffing deficit of 1 WTE Band 6 due to long term sickness from February 2021 through to spring 2022, and 0.5 WTE Band 3 IPC support worker also due to long term sickness from February 2021. A vacancy for a Consultant Microbiologist remains unfilled at Colchester Hospital. Since September 2020 there is also a vacant Consultant Microbiologist post at Ipswich Hospital. There has been no Infection Control Doctor at Colchester Hospital since July 2020.

We continued to utilise the High Impact Interventions Saving Lives audit tool, to monitor antimicrobial stewardship. A combined PPE and hand hygiene audit was introduced in November 2020. These results were reported monthly to the board through a board sub-committee. The results were also monitored at local divisional governance groups through to the Infection Control Committee.

Key Achievements

- **Management of COVID-19 patients and outbreaks of COVID-19 infections.**

- **Performance** – *C. difficile* – 10 cases deemed as avoidable (at the time of writing). *E. coli* Bacteraemia – numbers remain high in the community with hospital numbers proportionately lower, please see graphs.
- **'Governance'** – evidence that IP&C reporting is discussed and acted upon at divisional and departmental level. Good attendance and engagement by divisions through Infection Control Committee (ICC). Teams actively engage with Infection Prevention and Control practices through the Accountability Framework.
- **Infection Prevention and Control policies and guidelines** –All IP&C Policies across ESNEFT have been aligned
- **Integrated computerised surveillance system** – the two hospital sites continue to run different versions of the same surveillance system to generate timely clinical reports supporting prompt action to manage IP&C. The Colchester site system was upgraded in November 2020.
- **Mandatory IP&C updates for all staff** – the overall percentage continues to be monitored monthly from the Training Portal. Due to the COVID-19 pandemic face-to-face delivery of training sessions did not occur during 2020/21. The IP&C E-learning packages were updated to include information about COVID-19.
- **Service provision** –The Deputy Heads of IP&C for each site were seconded into Lead Nurses for IP&C to fill the Head of IP&C vacancy, it is planned they will become substantive post holders during 2021/22.

On-going work/plans for 2021/22

- To continue to provide expertise, advice and education for clinical teams during the COVID-19 pandemic situation and the recovery plan, keeping abreast with changes in national guidance.
- To continue the trend of minimal number of patients with an MRSA bacteraemia.
- To minimise rates of both *C. difficile* and of Gram-negative bloodstream Infections so that they are no higher than threshold levels set by NHS England and Improvement.
- Reinstate panel review meetings to discuss all hospital onset healthcare associated cases of *C. difficile*.
- To reduce the likelihood of nosocomial COVID-19 infections in our patients.
- To ensure all nosocomial mandatory reportable organisms are investigated and reported nationally, and lessons learnt are shared.
- Re-establish peer review for Hand Hygiene audit.
- Include PPE compliance within the Trust accountability framework.
- Re-establish programme of IP&C audits of wards and departments.
- Participate in the CPE PPS programme for intensive care units and neonatal units.
- Governance – to continue to embed IP&C throughout the organisation working closely with Clinical Leads/Teams.
- Fulfil the education requirements for trust induction and ad hoc sessions.
- Continue to pursue ward refurbishment requirement, dependent on need/risk.
- Working with Estates and Facilities teams in the extensive investment in the Trust Estate across all locations.
- Continue with work to improve visibility and support from IP&C service across all sites.
- To be part of the National IP&C community and support national programme vision to continually strive to reduce infection risks within our local health economy.
- Resume the Infection Prevention and Control champion meetings.
- Define the IP&C team structure.

Giles Thorpe
Director of Infection Prevention and
Control / Chief Nurse ESNEFT

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Created: June 2021

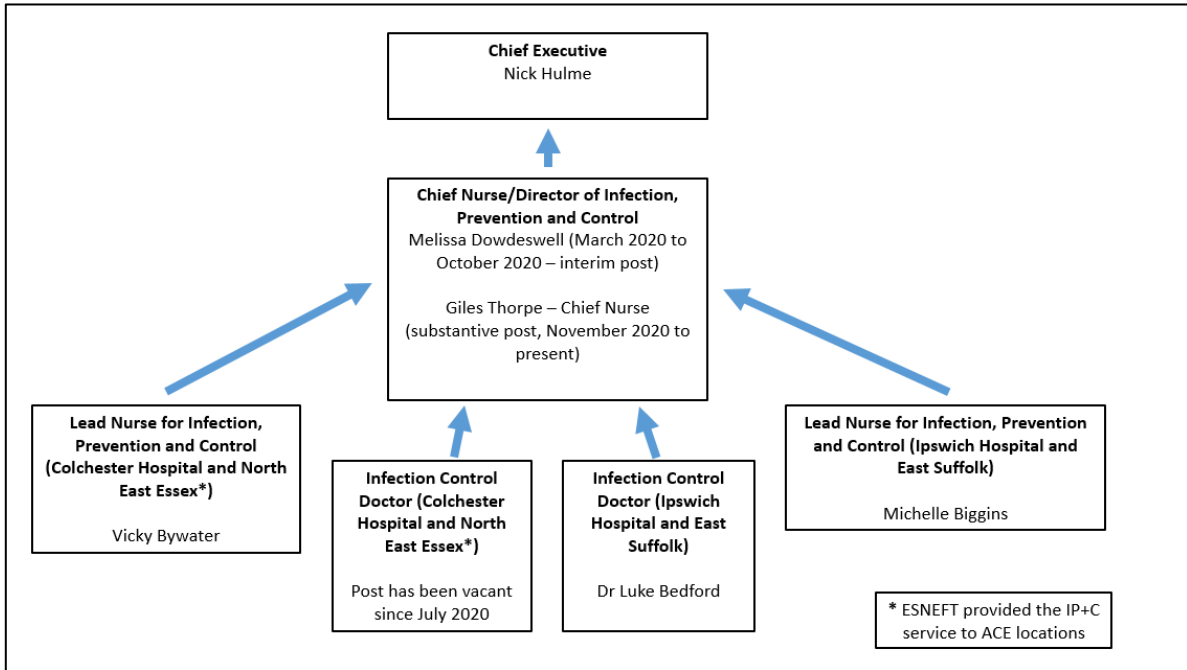
Review: 2022

Author: Giles Thorpe (Director of Infection Prevention & Control/Chief Nurse)

2. INFECTION PREVENTION & CONTROL TEAM ARRANGEMENTS

Organisational structure and reporting line to the Trust Board

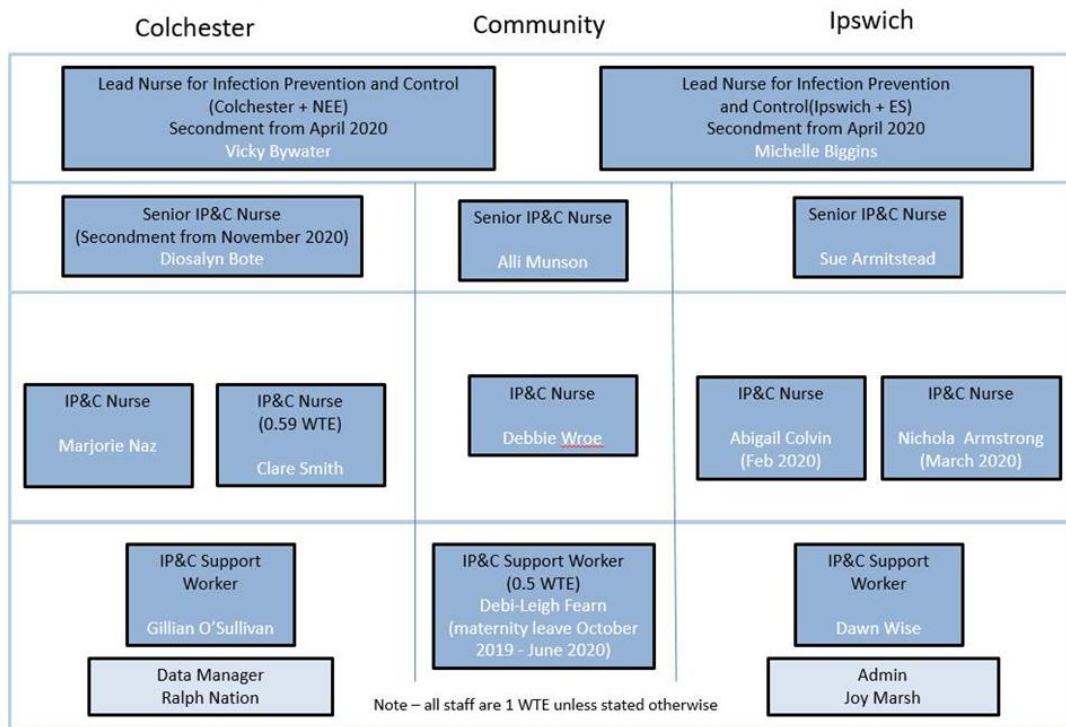
The chart below demonstrates the lines of reporting within the Infection Prevention and Control service.



Infection Prevention and Control Team

SERVICE AREA

Infection Prevention and Control



In addition to the IP&C team, the Microbiologist service includes;

Dr Sima Jalili
Consultant Microbiologist
North East Essex Community and Colchester Hospital

Dr Freda Sundram
Consultant Microbiologist
North East Essex Community and Colchester Hospital

Dr Phillippa King (on Maternity leave from January 2020 – March 2021)
Microbiology Registrar
North East Essex Community and Colchester Hospital

Dr Luke Bedford
Consultant Microbiologist
East Suffolk Community and Ipswich Hospital

Dr Gillian Urwin (left the Trust September 2020)
Consultant Microbiologist
East Suffolk Community and Ipswich Hospital

Dr Beverly Palmer
Consultant Microbiologist/Antimicrobial Microbiology Lead
East Suffolk Community and Ipswich Hospital

Infection Prevention and Control Team Activities

During the COVID-19 pandemic weekly IP&C meetings were convened with the Chief Medical Officer, Director/Deputy Director of IP&C, Infection Control Doctor, Lead Nurses for IP&C and Occupational Health Lead Nurse/Doctor. This group reports to the Trust clinical reference group and in turn site specific tactical groups.

Some of the meetings below were suspended during the pandemic, there would otherwise be attendance at the meetings below

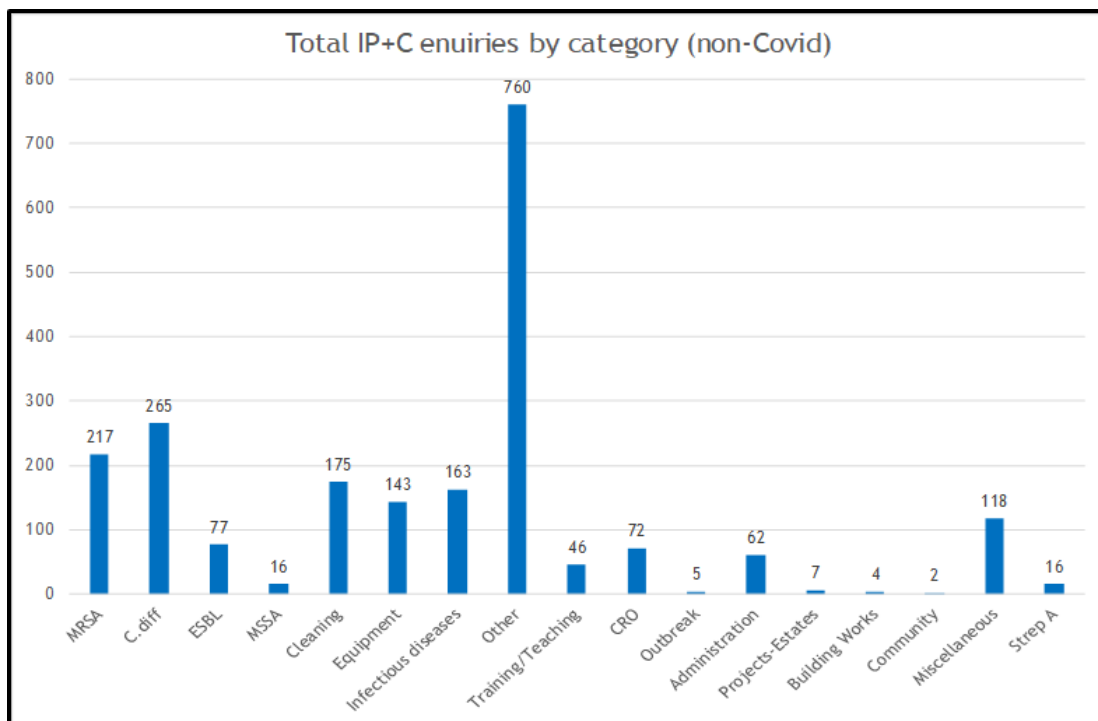
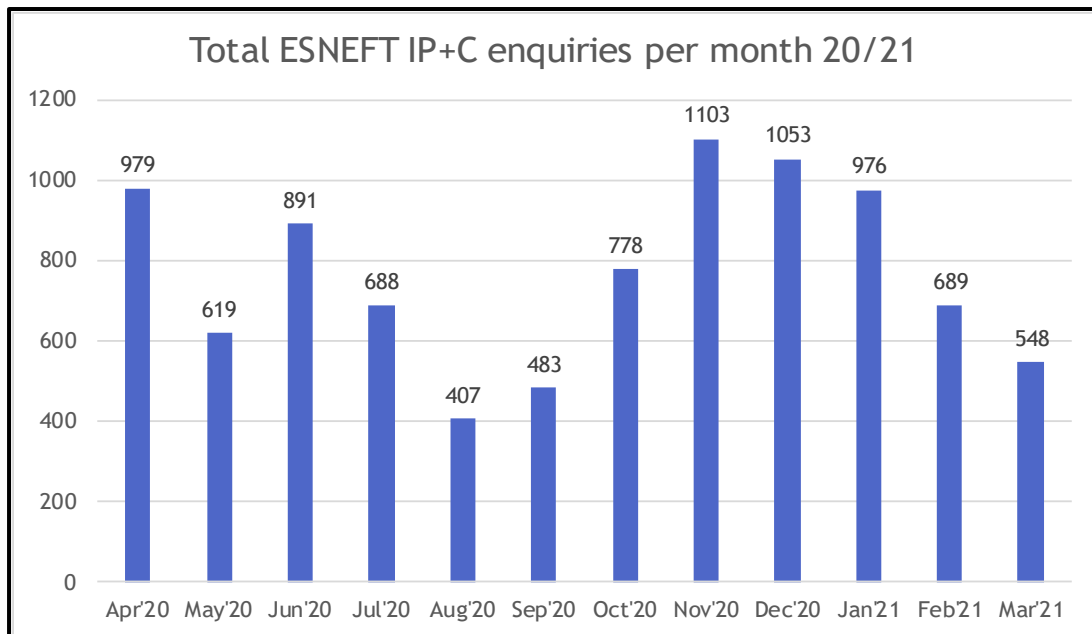
Infection Prevention & Control Team Meetings
Infection Control Committee
Matron and Ward Sisters Meetings
Facilities Contract review Meetings Monthly (Ipswich Hospital site)
Patient Safety and Clinical Effectiveness Group (PSG)
Safer Sharps Group (suspended)
Antimicrobial Stewardship Group
CCG Contract Review Meeting (suspended)
COVID-19 Tactical Meetings
COVID-19 Clinical Reference Group meetings
Decontamination Committee (suspended)
Water Safety Committee
Operational Water Group

The Director of Infection Prevention and Control attends and reports to the following;
Infection Control Committee, Quality and Patient Safety Assurance Committee, PSG, Trust Board, Integrated Assurance Committee, Executive Leadership Team.

Infection Prevention and Control Enquiries

The IP&C team complete an enquiry form for most of the inbound enquiries to the team, it does not include those received via mobile phones and bleeps.

The bar graphs below show the number of recorded telephone calls received each month by subject matter. In total there were 7,073 recorded enquiries about COVID-19.



In addition, there were 7073 COVID related enquiries.

Please note; COVID-19 related enquiries were not classified as 'COVID-19' initially and were marked as 'miscellaneous/other' therefore the number of COVID-19 enquiries may be significantly higher.

Infection Control Committee

Virtual Infection Control Committee meetings were held via Teams throughout 2020/21.

Attendance can be found here:



ICC Attendee List
2020 21.xlsx

3. DIPC REPORTS TO THE TRUST BOARD – SUMMARY

The DIPC reported monthly to the Quality and Patient Safety Assurance Committee, which in turn reports monthly to the Trust board.

Outbreak reports

MRSA

The action plan following the 6 outbreaks of MRSA that occurred at Ipswich and Felixstowe Hospitals during 2019/2020 that was put on hold in March 2020 was presented to the Infection Control Committee during the meeting held in March 2021. The CCG IPC Nurse in attendance agreed this could be closed from a CCG perspective.

Actions Taken

- Ward desk on Shotley Ward required removal due to the tacky surface making cleaning ineffective. Whilst it remains in place, it has been covered with a pliable plastic coating to aid cleaning.
- The Ipswich Hospital site converted to disposable single patient use slings and slide sheets (aligning practice with Colchester Hospital).
- Reinstatement of mattress checks. Conversion of air mattresses onto a managed service (aligning practice with Colchester Hospital).
- Keyboards were all replaced on Sproughton ward.
- Conversion of alcohol based hand sanitiser supplier, and re-introduction of end of bed alcohol based hand sanitiser.
- Bare below the elbow standard added to the ESNEFT uniform policy.
- The MRSA policy was reviewed and it was decided to undertake screening of all emergency admission inpatients and elective admissions with risk factors - this ensured alignment of practice across ESNEFT. In January 2020 the enhanced screening was implemented at Ipswich Hospital prior to the publication of the ESNEFT MRSA policy.

Viral Gastroenteritis

It is expected that there could be outbreaks of viral gastroenteritis and influenza over the winter months. During 2020/21 season, there were no outbreaks of viral gastroenteritis or influenza.

COVID-19

From June 2020 it became mandatory to report all COVID-19 outbreaks.

An outbreak of COVID-19 is defined as “Two or more test-confirmed or clinically suspected cases of COVID-19 among individuals (for example patients, health care workers, other hospital staff and regular visitors, for example volunteers and chaplains) associated with a specific setting (for example bay, ward or shared space), where at least one case (if a patient) has been identified as having illness onset after 8 days admission to hospital” (PHE 2020). The end of an outbreak is declared when there have been “no test-confirmed cases with illness onset dates in the last 28 days in that setting (PHE 2020).

<https://www.gov.uk/government/publications/covid-19-epidemiological-definitions-of-outbreaks-and-clusters/covid-19-epidemiological-definitions-of-outbreaks-and-clusters-in-particular-settings>

During 2020/21 the total number of COVID-19 outbreaks declared are shown in the table below:

	Total number of outbreaks in wards	Total number of workplace outbreaks
Colchester	30	7
Ipswich	47	5
Community (East Suffolk)	7	2
Total	84	14

Online reporting of outbreaks was completed for the affected wards/departments by the IP&C Nurses. IMT meetings were held by the Integrated Care System (ICS) and attended by representatives from ESNEFT, Suffolk and North East Essex CCG, Public Health England (PHE) and NHSE/I.

Some wards had multiple outbreaks. On some occasions when an outbreak ward was unable to remain closed to admissions (due to the need for capacity) the new cohort of patients admitted were affected resulting in a prolonged outbreak.

The causes of the COVID-19 outbreaks are multi-factorial. Key issues relate to:

- Ventilation in some wards. Bays and side rooms have no mechanical ventilation and rely on natural ventilation through the opening of windows
- Inconsistencies with clinical practices around PPE use, hand hygiene and cleaning of patient equipment
- Lack of offering patients to wear masks, and lack of uptake by patients to wear a mask
- Non-essential bed moves
- Delay in routine COVID screening

Extraction fans have been fitted in the top windows within bays on some wards to facilitate ventilation. It is planned more wards across ESNEFT will have this work completed in due course.

At Ipswich Hospital 5 donated air purifiers were trialed. It is not clear how effective these might be in improving ventilation. They are large units that emit some sound, and can only feasibly sit within larger bays.

Actions taken

- Daily outbreak meetings held virtually with staff on the affected wards and management plan agreed with the ward and site team
- Daily audits of PPE and hand hygiene compliance on affected wards
- Decision to close bay or ward agreed by Infection Prevention and Control team
- Increased and enhanced environmental and equipment cleaning was put into place
- Cohort nursing/care managed as required
- Patients who were an in-patient on a ward where a COVID-19 outbreak was identified who had previously tested COVID-19 negative had a COVID-19 PCR test every 48-72 hours
- Staff who had worked in the affected ward/department within the 14 days before the outbreak was identified were offered COVID-19 PCR test.

Clacton Birthing Unit - Group A Streptococcus (GAS)

Three patients tested positive for GAS emm 75.0, they all had received care at Clacton Maternity birthing unit. As a result of the infection two of the patients were admitted for additional care and one remained at home with antibiotic treatment.

Actions taken

- The birthing unit was closed for 5 days to allow for a high clean and hydrogen peroxide vapour (HPV) fogging of all of the clinical areas and equipment.
- Cleaning instructions for birthing pool revised.
- IP&C annual audit undertaken in all maternity areas within ESNEFT.
- Business case to replace the current birthing pool at Clacton Birthing Unit completed.
- Shared learning from the investigation with individuals involved for reflective learning and evidenced through the appraisal and revalidation process. Wider shared learning with clinical teams and GP surgeries.
- Findings shared with ED to ensure Maternity Early Warning Scores (MEWS) is established for all women who are pregnant or who have recently delivered.

Critical Care (Colchester) – *Enterobacter aerogenes* (Amp C + porin loss present)

Enterobacter aerogenes (AmpC and porin loss present) was isolated from sputum samples obtained from 4 patients whilst they were an inpatient in critical care during the timeframe 20/01/2021-17/02/2021.

Actions taken

- Outbreak meetings were convened 19/02/2021. The CCG and NHSE/I were invited to all outbreak meetings.
- Peer hand hygiene and PPE audits were being undertaken by the IP&C team.
- The unit was thoroughly cleaned including HPV fogging of some of the clinical areas and equipment.
- Additional screening was undertaken amongst patients who had been an in-patient on the main critical care unit for 72 hours or more. No further cases were identified.

Increased incidence of GDH positive *C.difficile* toxin negative Somersham Ward

5 cases of GDH positive, *C.difficile* toxin negative arose in patients on Somersham ward during March 2021. These were investigated and the ward team are following an action plan to improve standards in risk assessing loose stools and time to isolation.

Estates and Planning

The IP&C team have continued to support and provide advice relating to building projects, and schemes to develop or create facilities and services including:

- Completion of an administration area above the retail space at Colchester Hospital to support the relocation of office space from clinical areas.
- Repurposing of administration area within the paediatric area to an elective care area for paediatrics at Colchester Hospital.
- Work continued on a new interventional radiology and cardiac angiography (IRCA) suite, and a new aseptic department for Pharmacy at the Colchester site.
- Creation of an AMSDEC (Acute Medical Same Day Emergency Care) facility at Ipswich Hospital.
- Further refurbishment of Waveney Ward (Ipswich Hospital).

IP&C audits have been utilised to highlight issues with the ward/department environment that can impede cleaning, this results in remedial works occurring to improve the state of the environment. An audit focusing on the environment of all Wards within ESNEFT was conducted during March 2021; the findings facilitated a risk assessment approach to prioritise the wards that require refurbishment. A paper has been submitted to contribute to the Trusts ward refurbishment programme for 2021/22.

Water Safety Management

Please see embedded report below



Water Safety Annual
Report - 20-21.docx

4. BUDGET ALLOCATION TO INFECTION PREVENTION & CONTROL ACTIVITIES

Annual Infection Prevention and Control Budget

There was an under-spend at year end of £10,865.

The under-spend was due to coming under budget in pay and non pay.

Staff

A band 6 IP&C Nurse who joined the IP&C team on the Ipswich site in March 2020 was re-deployed to Critical Care during the COVID-19 surge March-June 2020.

There was a band 6 IP&C Nurse who joined the Ipswich Team in February 2020.

An IP&C Nurse (0.8 WTE) joined the team June 2020-March 2021 having previously supported the IP&C team as a band 3 (0.5 WTE) Feb 2020-June 2020.

During the pandemic period, the Infection Prevention and Control Teams at both sites were supported by staff redeployed from areas of reduced activity and those shielding who could work from home.

There remains understaffing within the Microbiologist cover for Colchester Hospital. During this period Ipswich Hospital had reduced cover. There has been no Infection Control Doctor for the Colchester Hospital since July 2020.

Training and development opportunities for IP&C team 2020/21

Two IP&C Nurses completed MSc programme pathways – SA and MB.

The team's Data Manager is completing Level 4 Data Analyst Apprenticeship course – RN.

The aim of this training is to support succession planning in the delivery of the service across the evolving organisation.

Training requirements for the Team in the coming year 2021/2022

Bids had been submitted (internal and external application) for two IP&C Nurses to attend an IP&C course run by the RCN – MN, DW

An external application for funding for an IP&C Nurse to complete an IP&C MSc - DB

An IP&C Nurse is to be supported to complete a professional doctorate in nursing - MB

Two IP&C Nurses are being supported to attend/virtual attendance at the Infection Prevention Society national conference in September 2021 – MB, SA

It is still the case that infection prevention and control specialists remain difficult to find and it is important that the Trust develops its own team to high standards. The team has been successful in recruiting staff, therefore training is imperative to ensure these new staff become trained Infection Prevention and Control personnel for succession planning.

5. HCAI statistics

Clinical Effectiveness priority 2020/21:

During 2020/21 our quality improvement priority was to reduce the likelihood of nosocomial infections in our patients

Nosocomial infections are those infections confirmed from microbiological samples obtained greater than 48hours after admission. They can cause other complications whilst the patient is in hospital, prolong hospitalisation and potentially lead to patient harm depending on the causative micro-organism. The 48hours only applies to bacteraemia and *Clostridium difficile* (*C.diff*) cases. Nosocomial Covid-19 cases are those confirmed 8 or more days after admission. Progress was reported at the Infection Control Committee, Patient Safety Group and the Integrated Assurance Committee.

The Trust experienced a challenging year managing cases of COVID- 19, however we continue a zero tolerance for avoidable nosocomial infections.

Our key achievements:

- Business Informatics developed an app which offers a daily refresh for patients status with Covid-19 swabbing
- Root Cause Analysis undertaken for all nosocomial cases of COVID-19 to determine the source and identify any lessons learned or changes required
- Comprehensive Personal Protective Equipment (PPE) audit programme commenced, which will be introduced onto the Accountability Framework (AF) moving forward

MRSA bacteraemia

There were 0 cases apportioned to ESNEFT in 2020/21

Clostridium difficile

Clostridium difficile infection (CDI) remains an unpleasant, and potentially severe or fatal infection that occurs mainly in the elderly or other vulnerable groups especially those who have been exposed to antibiotic treatments.

Clostridium difficile cases reported to be healthcare associated are defined as follows:

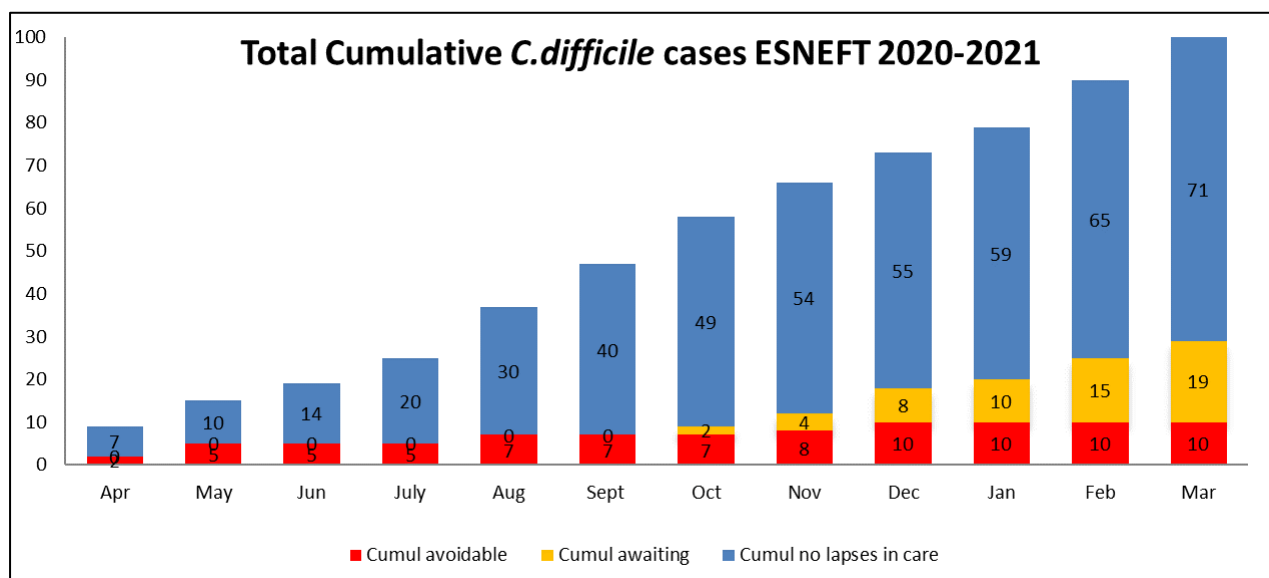
Hospital onset healthcare associated (HOHA): cases that are detected in the hospital three or more days after admission

Community onset healthcare associated (COHA): cases that occur in the community (or within two days of admission) when the patient has been an inpatient in the trust reporting the case in the previous four weeks

Each case meeting the above definitions are subject to an investigation. If all care and treatment is managed within national and local policy, the panel review group can agree that there has not been any breach. In March 2020, with the agreement of the IP&C lead for the CCG, *C.difficile* panel reviews were suspended until April 2021, however investigations continued during this time. Outcome decisions were initially made in-house and then shared with the CCG IP&C Nurse to confirm closure.

There were no published *C.difficile* infection objectives for 2020/21. Of the 100 cases reported, to date there are 10 cases with a direct lapse(s) in care /breach in policy leading to CDI and 71 cases with no breaches leading to CDI across all sites (at time of writing there are still 19 cases outstanding).

A low number of cases with a direct lapse(s) in care /breach in policy leading to CDI is testament to the vigilance of clinical teams and their compliance with best practice. However, there continues to be a need to improve antimicrobial prescribing and ensuring timely isolation of symptomatic patients (patients are sometimes not isolated until the *C.difficile* result is known).



- Patients with *C.difficile* are reviewed by an IP&C nurse and Consultant Microbiologist, to aid the management of patients with advice and monitoring of care.
- The IP&C team support clinical teams to investigate cases and share investigative findings with CCG IP&C Nurse for closure.
- Outcomes of *C.difficile* infection and learning is shared at the ICC to collate and disseminate learning themes to influence changes in practice, both within the hospital and the wider community e.g. with appropriate antibiotic prescribing, to further reduce cases.
- The importance of keeping the bio-burden of *C.difficile* and other organisms in the clinical environment remains high on the IP&C agenda.

Cases are monitored to identify any themes/trends in ward locations and ribotyping.

In December 2020 2 patients who tested *C.difficile* enterotoxin positive whilst on West Bergholt Ward were identified to have the same ribotype (216). The RCA completed by the Ward Sister was reviewed by the Matron for the area, IP&C Lead Nurse, Consultant Microbiologist and Antibiotic Prescribing Support Technician before being shared with the CCG IP&C team. Both cases were deemed to have occurred due to a direct lapse in care /breach in policy leading to *C.difficile* infection.

Lessons learnt:

- There was a delay in a stool chart being commenced - although it was recorded in the patients focus care pathway when the patient had their bowels opened, the type as per the Bristol stool chart was not recorded.
- There was a delay in isolating the patient - the patient was not isolated until the *C.difficile* result was known.
- There was a delay in discontinuing antibiotic treatment/inappropriate antibiotic prescription.
- Both patients cared for by same cohort of Nurses.
- Both patients used commodes.

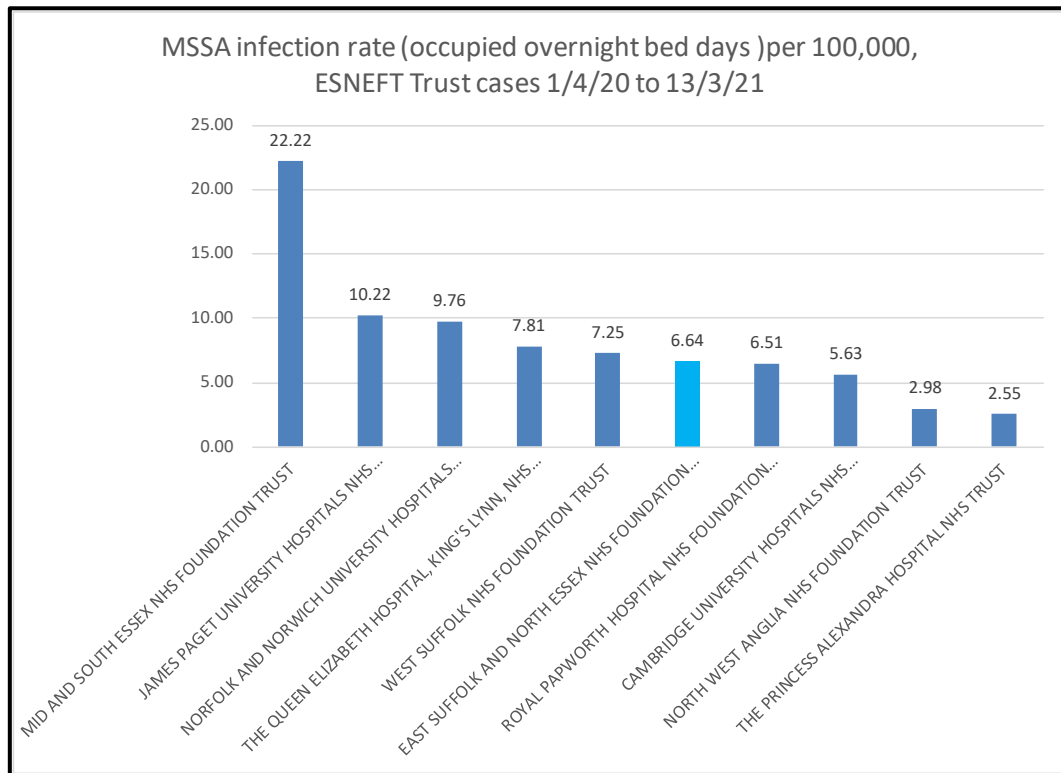
Actions taken:

- Ward Sister discussed the cases and shared the lessons learnt at daily ward huddles.
- Ward Sister and Matron continued to undertake spot checks of the cleanliness of commodes and continued to monitor hand hygiene and PPE compliance.
- The rooms occupied by the patients confirmed to have *C.difficile* were high cleaned and HPV fogged once they were vacated (as per Trust policy).
- Unfortunately there was an outbreak of COVID on West Bergholt ward during January 2021. The ward was emptied of all patients 08/02/2021 to enable the entire ward to be cleaned and HPV fogged prior to re-opening to new admissions. There have not been any further cases of *C.difficile* ribotype 216 occurring on West Bergholt Ward since 14th Dec 2020 to date.

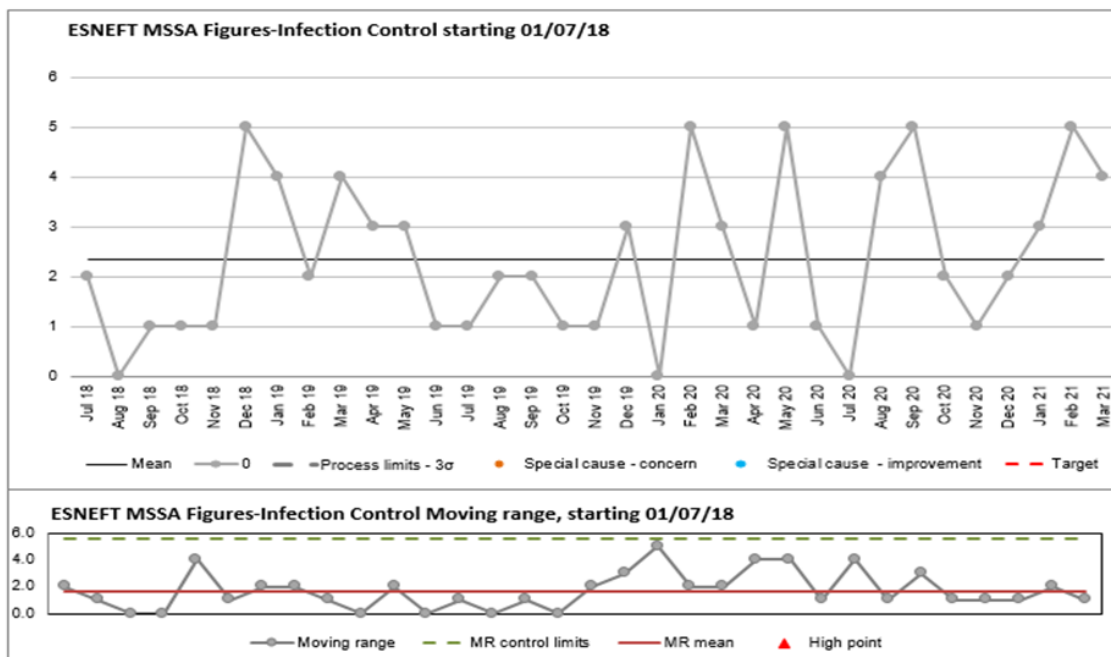
Methicillin Sensitive *Staphylococcus aureus* Bacteraemia

Staphylococcus aureus

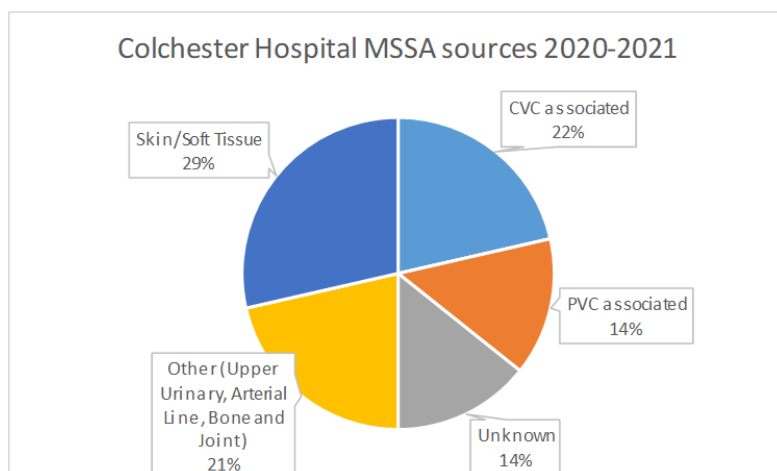
The following graph shows the MSSA rate, occupied overnight beds per 100,000 1/4/20 - 31/3/21, for hospital onset cases of MSSA bacteraemia, compared to other East of England organisations.



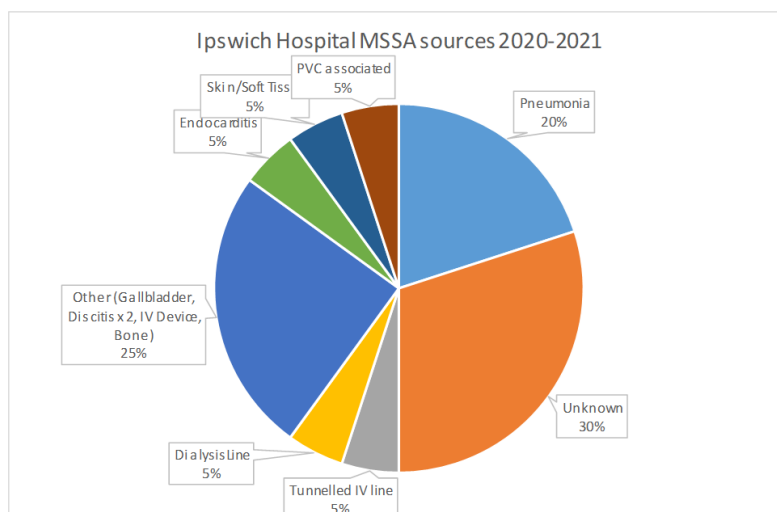
MSSA Trust figures – Statistical Process Chart to show normal variation



Trends in sources of MSSA bacteraemias identified April 2020-March 2021



CVC associated	3
PVC associated	2
Unknown	2
Other (Upper Urinary, Arterial Line, Bone and Joint)	3
Skin/Soft Tissue	4
Total	14



Pneumonia	4
Unknown	6
Tunnelled IV line	1
Dialysis Line	1
Other (Gallbladder, Discitis x 2, IV Device, Bone)	5
Endocarditis	1
Skin/Soft Tissue	1
PVC associated	1
Total	20

All hospital-associated cases of MSSA are investigated and any learning identified shared. Most commonly (as shown in the pie charts above), intravascular devices can be a contributory factor in the acquisition of a MSSA bacteraemia. Cases related to care of intravascular devices is addressed with the ward concerned, and IP&C support education and audit to improve standards. As a skin commensal in approximately a third of the population, this sensitive strain of *S.aureus*, is not difficult to treat. There remains no nationally agreed target reduction for MSSA bacteraemia cases.

There were 3 cases of MSSA bacteraemia relating to invasive devices, on the Colchester Critical Care Unit occurring February – March 2021. Panel reviews were completed for these 3 cases. Actions taken to date include restarting the daily invasive device audits, improving documentation of devices (Inc. Visual Infusion Phlebitis (VIP) scores), sending arterial line tips in addition to CVC line tips when the respective line is removed. Change arterial line dressings to a Chlorhexidine Gluconate impregnated version.

COVID-19

Throughout the pandemic period the IP&C team have been actively engaged with reviewing and interpreting national guidance from Public Health England, engaging with relevant teams, writing local processes, attending relevant pandemic management meetings, educating staff, answering enquiries and providing support to a wide proportion of hospital staff.

A root cause analysis is completed by the clinical team for all nosocomial cases of COVID-19 i.e. those diagnosed 8 or more days after admission.

In accordance with national guidance, all patients who test negative upon admission must have a second test 3 days after admission, and a third test 5-7 days post admission and every 5-7 days thereafter. The IP&C team have worked with the BI team to formulate a report that highlights patients on a daily basis who are due/overdue a COVID test to aid compliance with the screening schedule.

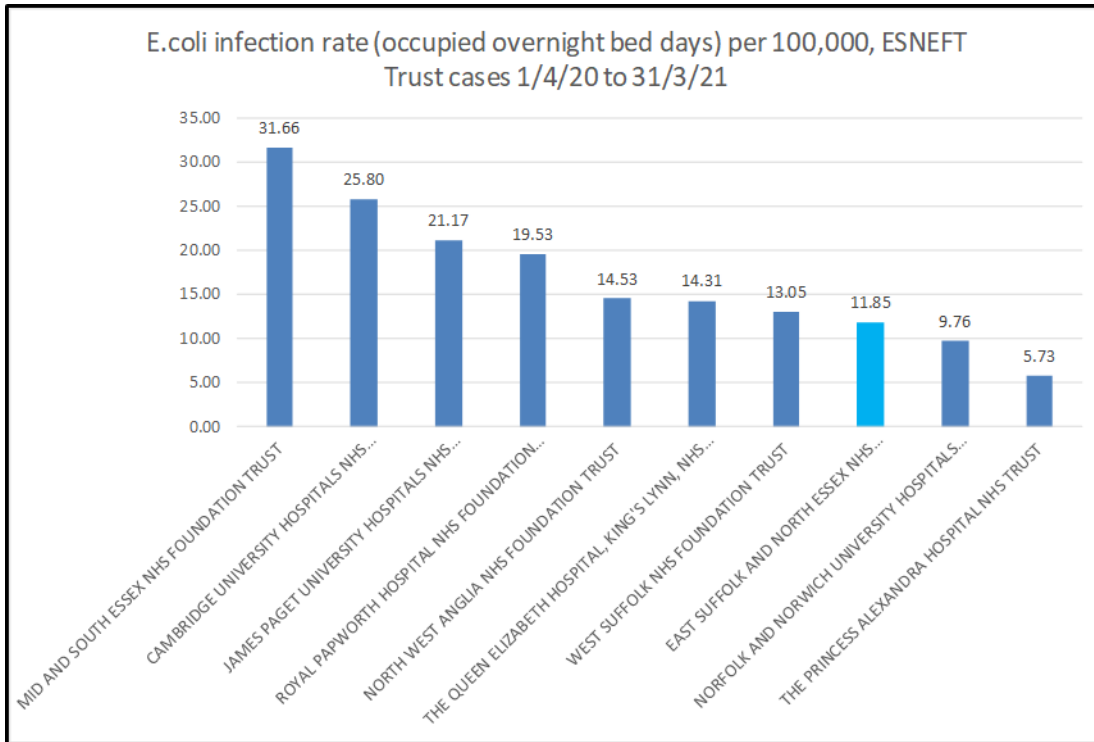
A board assurance framework (BAF) has been completed to self-assess ESNEFT's compliance with PHE's COVID-19 infection prevention and control guidance and to evidence conformity. It identifies gaps in assurance and the subsequent actions to be taken to improve compliance. The Infection Prevention and Control Team endeavor to review and update this BAF on a fortnightly basis where possible.

Carbapenem Resistant Organisms (CRO's)

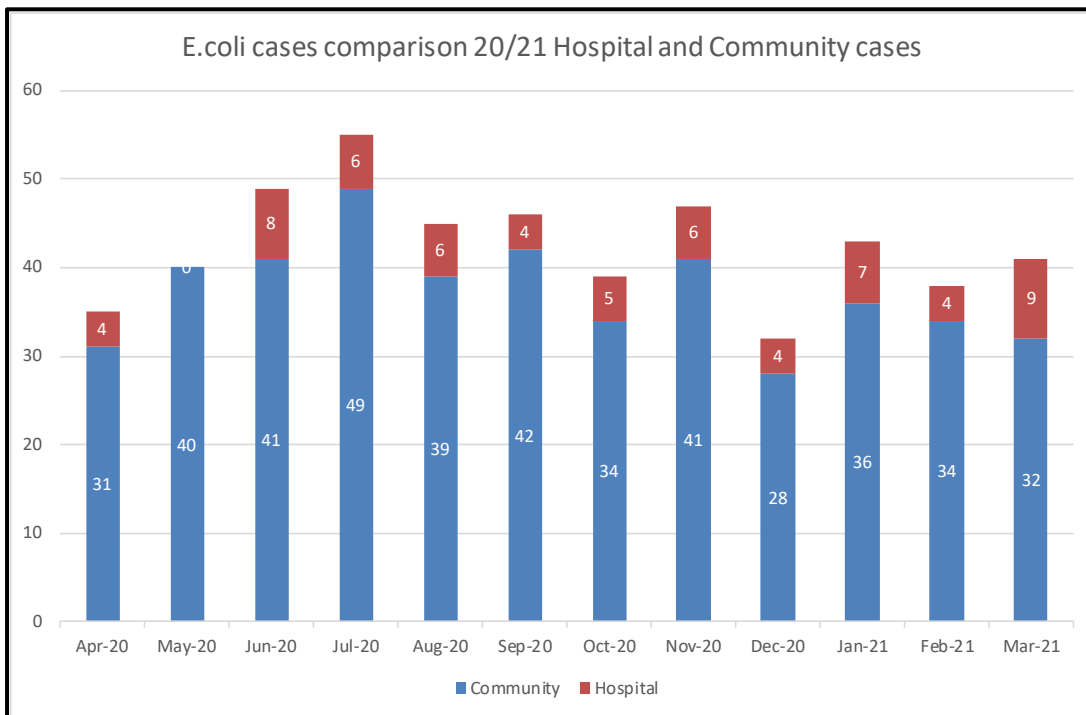
The IP&C team actively promote the screening policy for CRO to ensure compliance to mitigate risks of CRO within the hospital environment.

Escherichia coli (E.coli) bacteraemia

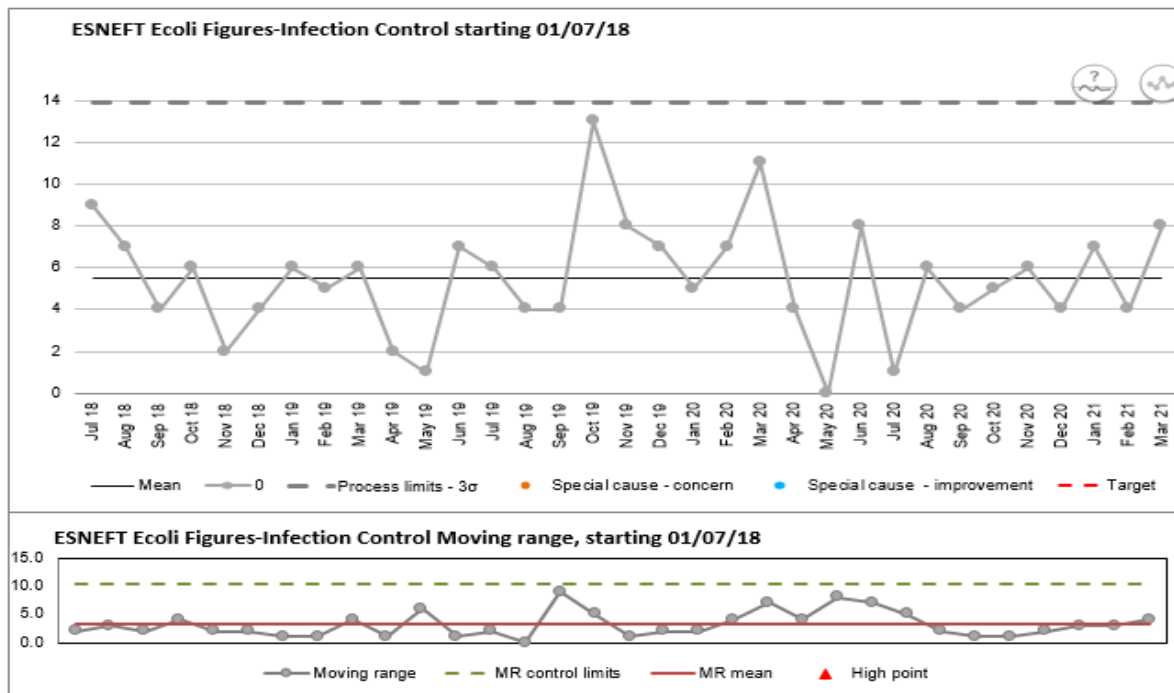
The following graph shows the rate, occupied overnight beds per 100,000 1/4/20 - 31/3/21, for hospital onset cases of *E.coli* bacteraemia, compared to other East of England organisations.



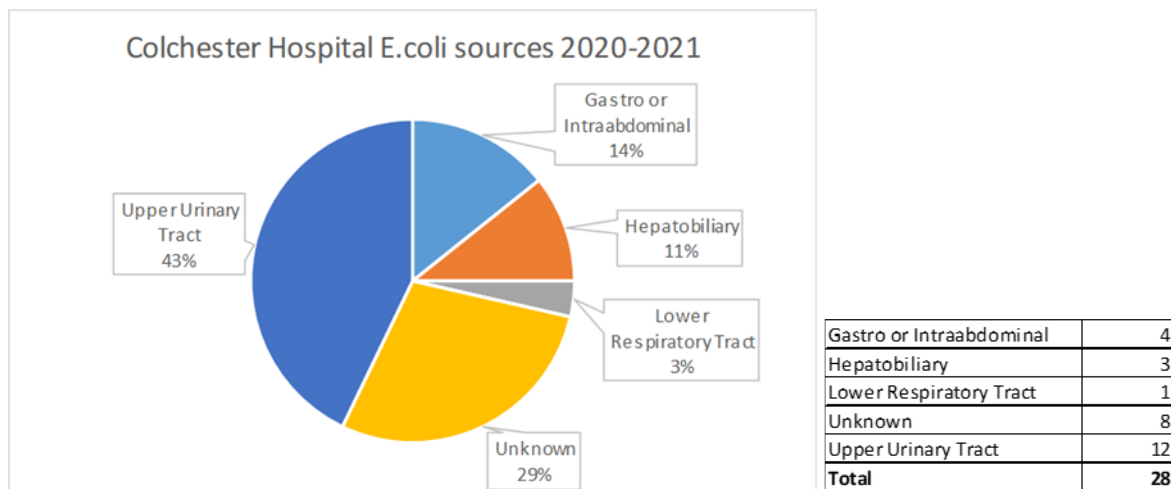
E.coli bacteraemia total cases for ESNEFT and Community Cases



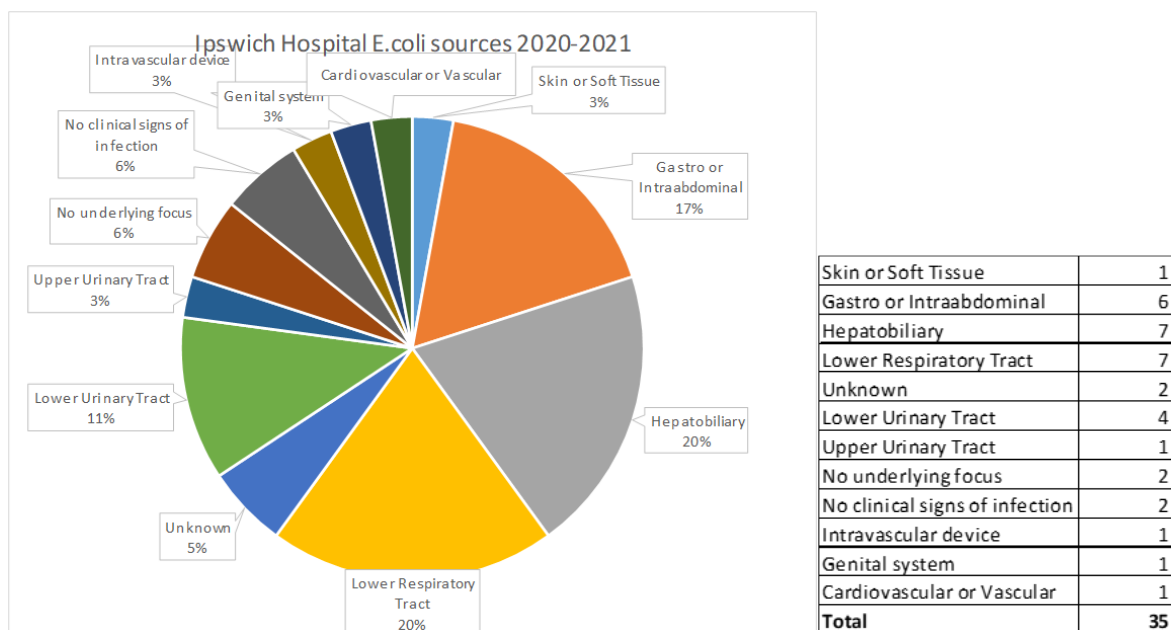
E.coli Trust figures – Statistical Process Charts to show normal variation



Trends in sources of E.coli bacteraemias identified April 2020-March 2021



As it can be seen in the pie chart above the most common source of infection for hospital onset cases of *E.coli* bacteraemia at Colchester Hospital is upper urinary tract (12/28 cases).

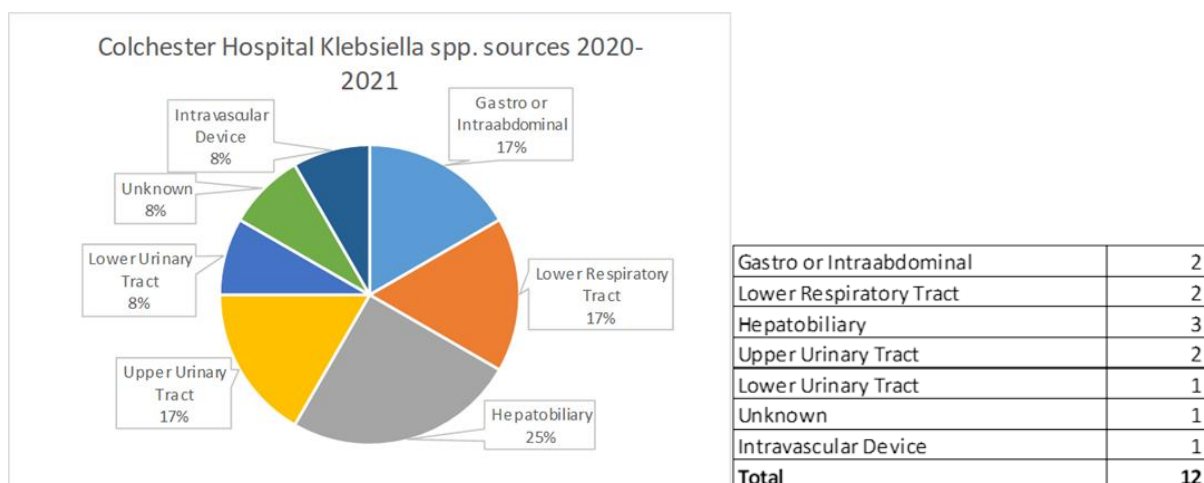


As it can be seen in the pie chart above the most common source of infection for hospital onset cases of *E.coli* bacteraemia at Ipswich Hospital is hepatobiliary/lower respiratory tract

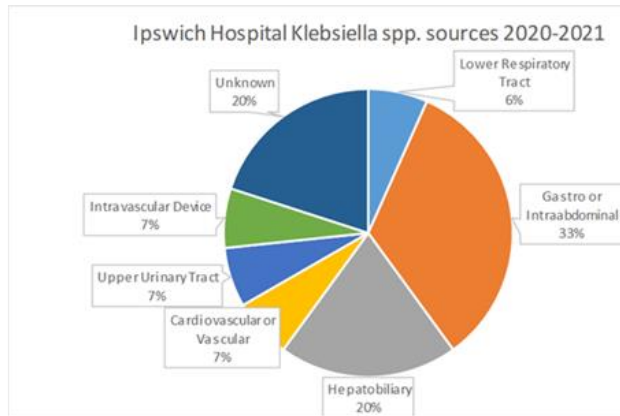
Locally, it is recognised that the majority of *E.coli* bacteraemia occur in the elderly population in a community setting who then present to our hospitals. The proportion of community cases remains comparable in this year as the previous year; 88% (compared to 86% 2019/20) versus 12% (compared to 14% 2019/20) attributed as ESNEFT cases.

***Klebsiella spp.* Bacteraemia**

Trends in sources of *Klebsiella spp.* bacteraemias identified April 2020-March 2021



As it can be seen in the pie chart above the most common source of infection for hospital onset cases of *Klebsiella spp.* bacteraemia at Colchester Hospital is hepatobiliary (3/12 cases).

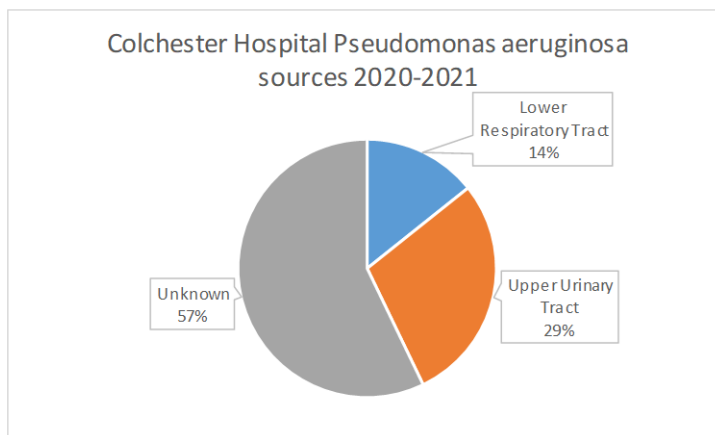


Lower Respiratory Tract	1
Gastro or Intraabdominal	5
Hepatobiliary	3
Cardiovascular or Vascular	1
Upper Urinary Tract	1
Intravascular Device	1
Unknown	3
Total	15

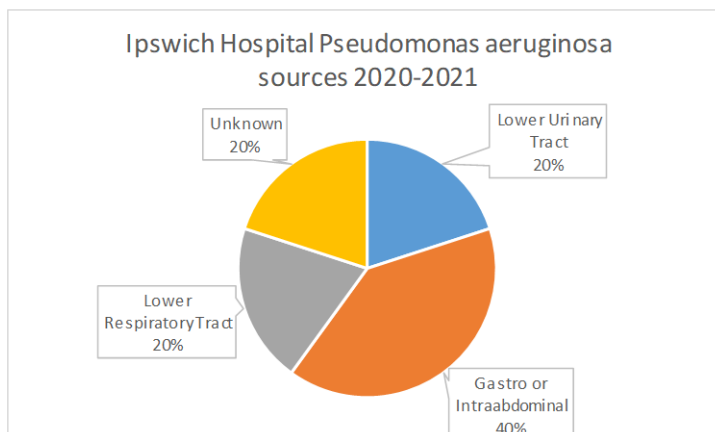
As it can be seen in the pie chart above the most common source of infection for hospital onset cases of *Klebsiella* spp. bacteraemia at Ipswich Hospital is gastro or intra-abdominal (5/15 cases).

***Pseudomonas aeruginosa* bacteraemia**

Please see the pie charts below for information regarding the sources of *Pseudomonas* bacteraemias identified April 2020-March 2021



Lower Respiratory Tract	1
Upper Urinary Tract	2
Unknown	4
Total	7



Lower Urinary Tract	1
Gastro or Intraabdominal	2
Lower Respiratory Tract	1
Unknown	1
Total	5

Surveillance

ICNet Surveillance System

The ICNet system at Colchester site was upgraded to the 'NG' system version 7 in December 2020, this version is also in use at Ipswich hospital. There remain two systems in use at Colchester Hospital and Ipswich Hospital until the patient administration system and laboratory reporting systems across the sites is aligned

The ICNet system is able to provide reports and information in a variety of circumstances; antimicrobial resistance patterns and outbreak management data for example.

The continued investment in ICNet must not be lost and the value of this system for reporting and case management cannot be underestimated, particularly in light of the incidence of outbreaks and a pandemic.

Surgical Site Infection Surveillance (SSIS)

It is a mandatory requirement from PHE for each Trust to complete surveillance in a minimum of one module of orthopedic surgery for one quarter per financial year. This provides national data that can be used as a benchmark allowing individual hospitals to compare their rates of SSI with collective data from all hospitals participating in the surveillance programme in England. The Trust has always been keen to be able to benchmark in more areas of surgery and plans to continue this in the coming year.

The tables below summarises the data collected for SSI's by the Trust for the year 2020-21 which has been collected at the Colchester & Ipswich Hospital for all surgeries. Due to a surge in COVID cases no optional SSI modules were completed at Colchester Hospital April-Jun 2020, Jan-March 2021.

Colchester Hospital

Surgery	National Benchmark	Apr-Jun 2020	July – Sept 2020	Oct-Dec 2020	Jan-March 2021
Vascular (non mandatory)	2.5%	----	3.0% (2/67)	2.9% (2/68)	----
Hip Replacement (mandatory*)	0.4%	0% (0/12)	0.8% (2/72)	0% (0/88)	3.2% (1/31)
Knee Replacement (mandatory*)	0.4%	0% (0/2)	0% (0/41)	0% (0/88)	0% (0/13)
Repair of neck of femur (mandatory*)	1.0%	0% (0/145)	0.2% (1/134)	0% (0/145)	0% (0/137)

The infection rates in hip replacement were above the national average during July-September 2020 and January-March 2021. During these periods there were a small number of procedures that met the criteria for inclusion; 72 and 31 respectively.

The infection rate in vascular was 3% during July-September 2020 and 2.9% October-December 2020 (above the national average). During these periods there were a small number of procedures that met the criteria for surveillance; 67 and 68 respectively.

The cases that are classified as a surgical site infection are discussed with the lead clinician, areas for improvement are identified and measures to reduce the risk of reoccurrence in the future are implemented.

Ipswich Hospital

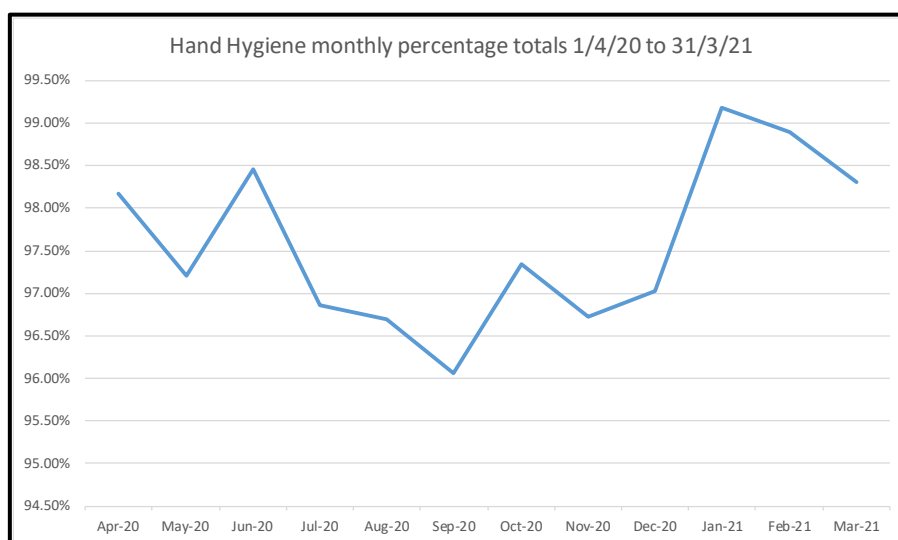
Surgery	National Benchmark	Apr-Jun 2020	July – Sept 2020	Oct-Dec 2020	Jan-March 2021
Hip Replacement (mandatory*)	0.4%	0% (0/3)	2.8% (2/71)	0% (0/71)	0% (0/6)
Knee Replacement (mandatory*)	0.4%	0% (0/2)	0% (0/73)	0% (0/79)	0% (0/3)
Repair of neck of femur (mandatory*)	1.0%	0% (0/102)	0% (0/117)	0% (0/143)	1.9% (2/106)

NB: The national programme for surgical site surveillance suggests that at least 50 cases need to be surveyed in a three-month period in order to obtain good quality figures which are statistically significant.

6. Personal Protective Equipment (PPE) & Hand Hygiene

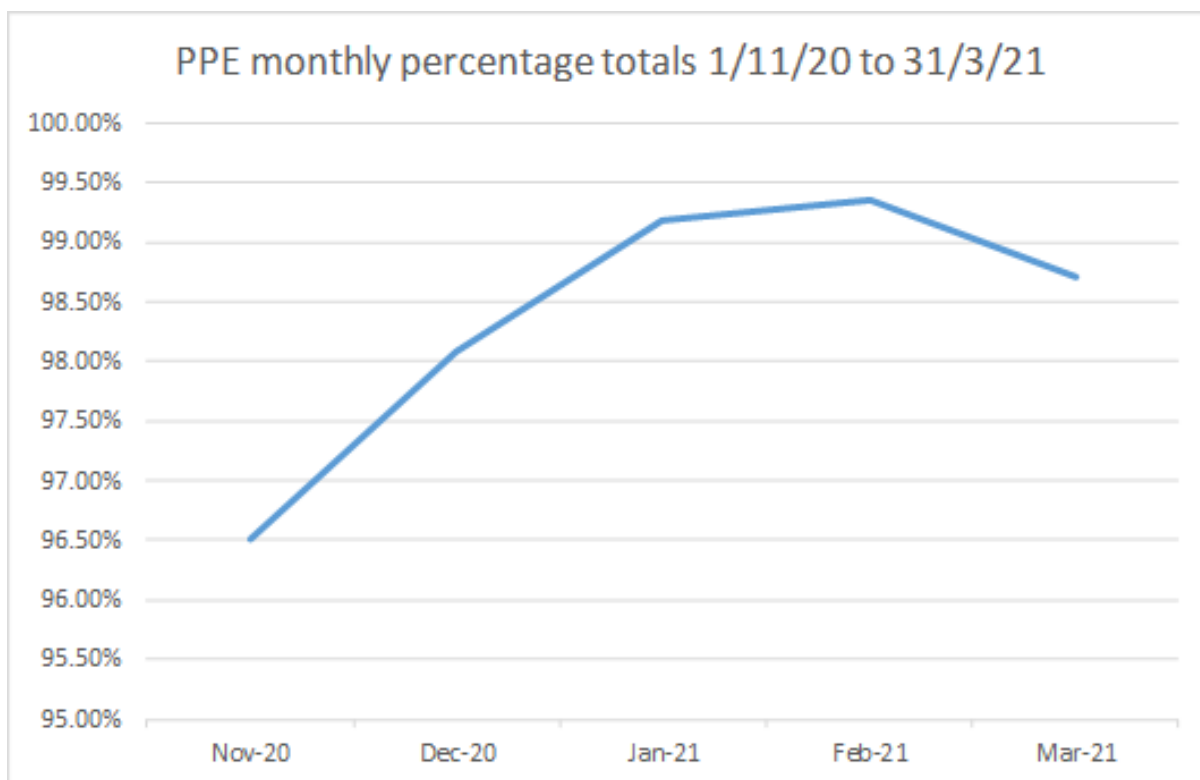
Combined PPE and Hand Hygiene audits were introduced in November 2020. These are undertaken, as a minimum, every month. Peer review audits are undertaken on occasions to ensure the validity of the observational audit data.

The overall monthly hand hygiene compliance has ranged from 96-99% during 2020/21. With the addition of Ipswich locations, the total numbers of hand hygiene observations now exceeds 10,000 per month.



Month	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
HH Percentage	98.17%	97.20%	98.46%	96.86%	96.70%	96.06%	97.35%	96.73%	97.02%	99.18%	98.90%	98.31%

The overall monthly PPE compliance has ranged from 96-99% during 2020/21.



Month	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
ESNEFT PPE Percentage Compliance	96.50%	98.08%	99.19%	99.36%	98.70%

7. Cleaning Services

Please see embedded report below



Cleaning services
report 2020 21.docx

8. Decontamination

Please see embedded report below



Decontamination
report 2020-21.docx

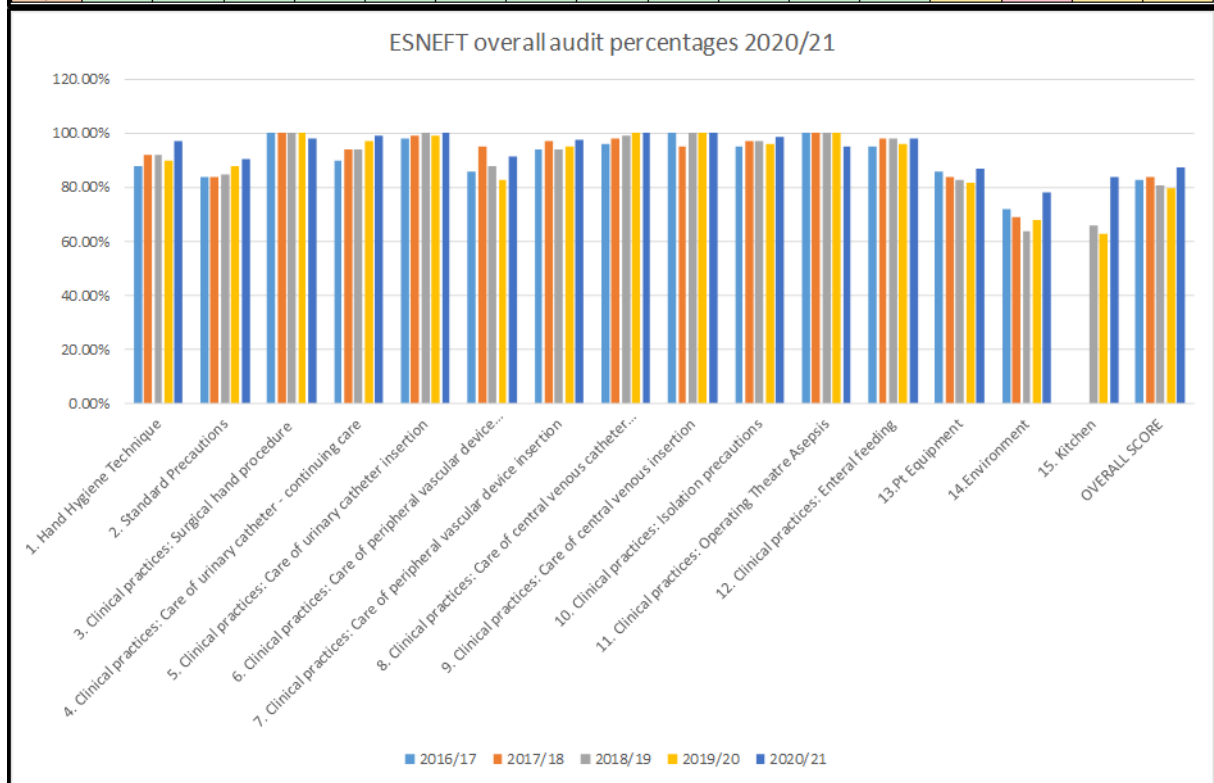
9. Audit

Audit programme and outcomes

IP&C environment, cleanliness and clinical practices audits

The annual audit of wards and departments undertaken by the IP&C team has continued. Not all areas were audited during this period. The frequency of these audits is prioritised in accordance with the National Standards of Cleanliness risk stratification. These IP&C led audits review over 200 items over 15 standards to assist in the reducing the risk of infection in the environment and by clinical practices. It is noted that the lowest compliances continue to be the physical aspects of environment and the upkeep of the kitchen areas. The results have remained relatively consistent over the years. It is a good opportunity to support clinical teams in highlighting best practice and practices which could be improved upon.

	1. Hand Hygiene Technique	2. Standard Precautions	3. Clinical practices: Surgical hand procedure	4. Clinical practices: Care of urinary catheter - continuing care	5. Clinical practices: Care of urinary catheter insertion	6. Clinical practices: Care of peripheral vascular device continuing care	7. Clinical practices: Care of peripheral vascular device insertion	8. Clinical practices: Care of central venous catheter continuing care	9. Clinical practices: Care of central venous insertion	10. Clinical practices: Isolation precautions	11. Clinical practices: Operating Theatre Asepsis	12. Clinical practices: Enteral feeding	13. Pt Equipment	14. Environment	15. Kitchen	OVERALL SCORE
2016/17	88.00%	84.00%	100.00%	90.00%	98.00%	86.00%	94.00%	96.00%	100.00%	95.00%	100.00%	95.00%	86.00%	72.00%	N/A	83.00%
2017/18	92.00%	84.00%	100.00%	94.00%	99.00%	95.00%	97.00%	98.00%	95.00%	97.00%	100.00%	98.00%	84.00%	69.00%	N/A	84.00%
2018/19	92.00%	85.00%	100.00%	94.00%	100.00%	88.00%	94.00%	99.00%	100.00%	97.00%	100.00%	98.00%	83.00%	64.00%	66.00%	81.00%
2019/20	90.00%	88.00%	100.00%	97.00%	99.00%	83.00%	95.00%	100.00%	100.00%	96.00%	100.00%	96.00%	82.00%	68.00%	63.00%	80.00%
2020/21	97.05%	90.69%	97.97%	99.16%	100.00%	91.59%	97.58%	100.00%	100.00%	98.56%	95.00%	98.40%	86.76%	78.10%	84.05%	87.27%



Saving Lives monthly compliance scores

Although the saving lives audits were suspended during the pandemic, some wards/departments continued to submit audit data.

Saving Lives/High Impact Interventions ESNEFT monthly totals 2020/21												
Month	Prevent Ventilator associated Pneumonia	Peripheral Vascular Access Devices (Insertion)	Peripheral Vascular Access Devices (ongoing)	Central Venous Access Devices (Insertion)	Central Venous access Devices (Ongoing)	SSI (pre-op)	SSI (inter-op)	Infection in Chronic Wounds	Catheter Associated Urinary Tract infection (insertion)	Catheter Associated Urinary Tract Infection (continuing)	Stewardship in Antimicrobial prescribing (all care settings)	Stewardship in Antimicrobial Prescribing (Secondary Care)
Apr-20		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%		100.00%	98.70%	100.00%	75.00%
May-20	100.00%	99.37%	92.59%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	86.36%	83.33%
Jun-20	100.00%	98.58%	93.62%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	98.55%	91.04%
Jul-20	100.00%	99.69%	99.27%	100.00%	95.16%	100.00%	100.00%	100.00%	100.00%	98.94%	82.53%	72.00%
Aug-20	100.00%	98.97%	99.04%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	99.44%	84.01%	83.78%
Sep-20	100.00%	99.66%	89.87%	100.00%	100.00%	100.00%	100.00%	96.67%	99.03%	97.37%	85.59%	84.79%
Oct-20	100.00%	98.70%	95.76%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	99.05%	83.26%	85.11%
Nov-20	100.00%	99.48%	95.68%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	99.48%	82.94%	85.12%
Dec-20	100.00%	99.66%	95.35%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	98.37%	83.66%	83.92%
Jan-21	0.00%	97.89%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	96.67%	86.84%	89.19%
Feb-21	100.00%	92.67%	92.02%	87.50%	100.00%	100.00%	100.00%		100.00%	97.59%	95.00%	96.72%
Mar-21	100.00%	98.71%	99.71%	98.21%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	83.97%	86.21%

10. ANTIBIOTIC STEWARDSHIP GROUP (ASG) REPORT

Please see embedded report below



ANTIBIOTIC
STEWARDSHIP GROU

11. IP&C Training Activities

Induction and Mandatory update for all staff

Due to the COVID-19 pandemic and the importance of maintaining physical distancing face-to-face delivery of training sessions did not occur during 2020/21. The Infection Prevention & Control E-learning was reviewed to incorporate COVID-19.

Training compliance is reported in the monthly IP&C ICC report. Any deficits are highlighted to divisional teams to action.

Other training activities

Educational videos on the donning and doffing of PPE were prepared by the IP&C team in collaboration with the Digital Team, specifically for the COVID-19 pandemic. These were made available on the intranet for staff to access.

Infection Prevention & Control champions

The infection prevention and control champion meetings were suspended during 2020/21. Resuming these meetings is a priority for 2021/22.

12. IP&C programme for 2021/2022

Plan for 2020/21	Key points
Compliance with Hygiene Code (2008 updated 2015)	<ul style="list-style-type: none"> To continue to review action plan against the code on a regular basis
Responding to the needs of the COVID-19 pandemic	<ul style="list-style-type: none"> To continue to provide expertise, advice and education for clinical teams during the COVID-19 pandemic situation and the recovery plan. To be responsive to national guidance updates.
Management of MRSA	<ul style="list-style-type: none"> To assist divisions in compliance with all aspects of the MRSA procedure. To update the MRSA procedure in light of any learning from cases of MRSA Pursue investigations into cases of new hospital associated MRSA isolates and MRSA bacteraemias
Surveillance	<ul style="list-style-type: none"> COVID-19 case reporting including outbreaks <i>E coli</i> bacteraemia RCA and reporting MSSA bacteraemia RCA and reporting MRSA bacteraemia RCA and reporting <i>Pseudomonas</i> bacteraemia reporting <i>Klebsiella</i> bacteraemia reporting <i>C diff</i> RCA and reporting CPE reporting and RCA (participation in CPE PPS in intensive care and neonatal units) Alert organism reporting and Management
Annual IP&C audits	<ul style="list-style-type: none"> Support the inclusion of all clinical areas in the programme of Infection prevention and control audits with timely feedback to clinical teams. Areas to continue to be prioritised as per the updated National Standards of Cleanliness risk stratification.
Saving Lives audits	<ul style="list-style-type: none"> Continue to support clinical teams in the education and use of the tools To improve the number of returns from wards and departments post COVID-19 pandemic Use audit results to review and revisit areas requiring improvement. To continue to promote peer review of audits to facilitate learning across the divisions
Facilities /Estates Project review	<ul style="list-style-type: none"> Collaborate with Estates to assist with the progression of ward refurbishments. To work with Trust Facilities Management team to review National Standards of Cleanliness. Work with Projects team to manage IP&C through feasibility/design, build and handover stages of projects
Promote e-learning programme and audit uptake	<ul style="list-style-type: none"> Continue updating programme as required To audit uptake and report to ICC/QPSC monthly
Mandatory updates for Infection Prevention & Control and antimicrobial stewardship for all staff groups	<ul style="list-style-type: none"> To continue to support the Trust programme at induction and mandatory update sessions – update as required Programme available in e-learning format for induction Antimicrobial e-learning package – aim for mandatory training within the Trust
Update IP& C policies	<ul style="list-style-type: none"> Ongoing programme to review and update ESNEFT IP&C policies and procedures, and as required by national guidance.
Continue with Surgical site surveillance	<ul style="list-style-type: none"> In addition to completing the mandatory modules, continue with agreed additional optional modules
Infection Prevention and Control Link System	<ul style="list-style-type: none"> To continue to develop the link role into other healthcare disciplines. To resume these meetings is a priority for 2021/22 as the national guidance permits.

