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Norfolk and Suffolk

NHS Foundation Trust

Report To:	Board of Directors – Public
Meeting Date:	April 2017
Title of Report:	Infection Prevention and Control Annual Report for Norfolk & Suffolk NHS Foundation Trust (NSFT) 2016 - 2017
Action Sought:	To receive the Infection Control Annual Report and give approval, thereby providing assurance that sufficient resources are available to secure the effective prevention and control of Health Care Associated Infection.
Estimated time:	5 minutes
Author:	Elaine Thrower (Senior Infection Control Nurse)
Director:	Bohdan Solomka (Medical Director, Director Infection Prevention & Control)

Executive Summary:

The Trust has a statutory responsibility to comply with the requirements of The Health and Social Care Act (2008). The criteria against which the Care Quality Commission will assess compliance are contained within the Code of Practice on the prevention and control of infections and related guidance (revised 24/07/2015). The purpose of this report is to provide assurance to the Board of Directors that the Trust has effective infection prevention and control services in place and is compliant with requirements.

This report provides an overview of processes in place for the prevention and control of health care associated infections and the progress made against the infection prevention and control annual plan for 1st April 2016 to 31st March 2017.

No cases of Meticillin-resistant *Staphylococcus aureus* (MRSA) blood stream infection or cases of *Clostridium difficile* infection have been attributed to the Trust. Infection incidents of note occurring during the year include three outbreaks of confirmed viral gastrointestinal infection and a period of increased incidence of Group A Streptococcus.

NSFT is required to vaccinate front line staff to protect them and our service users from influenza. This year our overall vaccination uptake rate for frontline staff was 46% compared with 31% in 2015-16.

To support the Infection Prevention and Control service the Trust operates a system of link practitioners who are identified by team leads to support and champion infection prevention and control within their area. NSFT link practitioners are known as Local Infection Prevention and Control Supporters (LIPACS); during 2016, 105 LIPACS received training from the IPAC nurse, this represents a 30% increase in the number of LIPACS receiving training compared to the previous year.

The Infection Prevention and Control Committee continues to monitor compliance with the annual work plan and reports to the Quality Governance Committee for scrutiny with additional reporting to the Trust Board of Directors as required.

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1. Introduction

Norfolk and Suffolk NHS Foundation Trust (NSFT) is committed to ensuring that a robust infection prevention and control function operates within the Trust, which supports the delivery of high quality healthcare, and protects the health of its service users and staff. The Infection Prevention & Control (IPAC) service endeavours to provide a comprehensive and proactive service.

The report is indicative of the Trust's continued pledge to deliver excellent mental health services to the population it serves, by demonstrating ongoing commitment to reducing health care associated infections. The report seeks to give assurance of the commitment to the prevention and control of infection within all services to achieve positive outcomes.

2. Key achievements and challenges for 2017/18

NSFT staff succeeded in maintaining a low rate of Health care Associated Infection; there were no cases of MRSA bacteraemia or *Clostridium difficile* infection attributed to the Trust.

The IPAC team will continue to embed a culture of Infection Control across the whole organisation and all disciplines, supporting colleagues with the prevention and management of cases of infection including advising on the key aspects of control of alert organisms such as *Clostridium difficile*, MRSA, *Norovirus* and antibiotic resistant organisms.

The IPAC team continue to work with colleagues in NSFT to embed the importance of water quality throughout the Organisation. During 2016 the Trust contracted a specialist for the role of Authorising Engineer for Water. In partnership with the Authorising Engineer the Water Safety Group have developed a Water Safety Plan and revised the Trust Water Safety policy to meet requirements for the control of Legionella and other water borne pathogens in our healthcare facilities.

A new suite of audit tools to focus on aspects of Standard Precautions practice was introduced. The findings have initiated close working with Procurement to standardise clinical products and equipment for best value and efficacy, for example; personal protective equipment items, decontamination products and medical devices. There are lists published on the intranet of standardised products to facilitate ordering and governance on clinical items and devices used within the Trust.

Close partnership working with the Trust domestic services contractors continues to ensure the estate meets the requirements as set out in National Standards of Cleanliness. This includes performance review and the development of guidance and protocols to support both clinicians and contractors in ensuring a clean, safe environment.

3. Summary of activity and progress on the IPAC annual programme

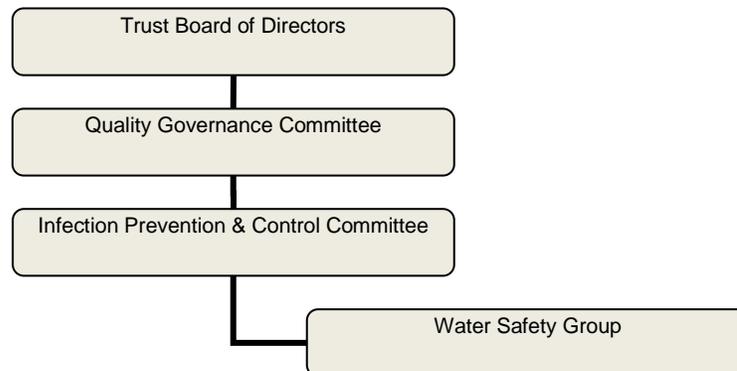
Criterion 1 – Systems to manage and monitor the prevention and control of infection. These systems use risk assessments and consider the susceptibility of service users and any risks that their environment and other users may pose to them.

Description of Service Delivery Arrangements and Reporting Mechanisms

The Health and Social Care Act 2008 requires all Trusts to have clear arrangements for the effective prevention, detection and control of healthcare associated infection (HCAI). The Trust's nominated Director of Infection Prevention and Control (DIPC) is the Medical Director who has Board level responsibility for infection prevention and control. The Deputy DIPC has responsibility for operational planning and oversight of infection prevention and control activities inclusive of Water Safety and Decontamination.

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The Infection Control Committee chaired by the DIPC meets three times per year and as required. Attendance includes internal and external staff from both clinical and non-clinical disciplines including the IPAC leads for Norfolk and Suffolk Commissioning organizations. The IPAC Committee reports to the Quality Governance Committee, it is through these committee's the Trust routinely checks that it is maintaining full compliance with the requirements of the Health & Social Care Act 2008. The diagram below identifies the reporting mechanisms.



The Infection prevention and control (IPAC) nurse service consists of 1 full time senior infection control nurse and 1 trainee nurse (0.5 whole time equivalent). The service is centrally based but provides service across the Trust and within all localities. The IPAC trainee nurse currently holds a dual role post with Physical Health. The post holder is currently completing a first degree via a distance learning programme to achieve a qualification in Infection Prevention & Control. Direct line management of the infection control nurse team is presently under the Deputy Director of Nursing.

The contracts team are continuing to work with other providers to ensure that the Trust has appropriate service level agreements for Infection Control Doctor support.

The diagram below summarises the current arrangements for delivery of the Infection Control Service.

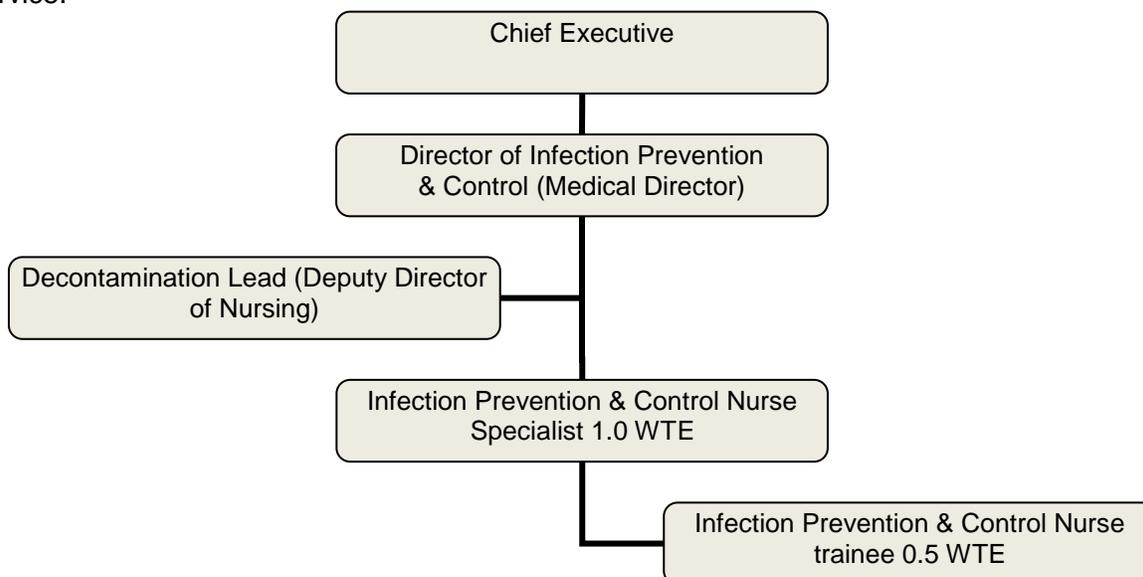


Diagram 1 IPAC Service Arrangements

Administrative support for the IPAC team is shared with the Physical Health team.

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The (IPAC) service arrangements for NSFT are defined in the following documents, reviewed and approved by the IPAC Committee March 2017:-

- Terms of reference and membership of the Infection Prevention and Control Committee
- Assurance framework
- The annual programme and audit schedule
- The policy review timetable

To support the IPAC service the Trust operates a system of link infection control practitioners known as Local Infection Prevention and Control Supporters (LIPACS). LIPACS attend an annual education session delivered by the IPAC nurse to enable them to more effectively monitor and manage their environment and support local staff. In partnership with the LIPACS network the IPAC service through a programme of audits seeks to identify gaps in clinical practice, staff knowledge, environment or equipment. As relevant, actions and issues from audit are addressed locally or discussed centrally where wider implications are identified. Matrons and Locality Managers continue to be influential in the support of the LIPACS and the IPAC agenda and with the monitoring of staff application of standard precautions practice to prevent and control infections.

Out of hours Arrangements

IPAC advice continues to be provided by the general Trust on-call system with written guidance to support this.

Water Safety

The Water Safety Group reports to the IPAC Committee. The Water Safety Group includes infection control nurse representation and is chaired by the Deputy Director of Nursing. The purpose of the group is to ensure safe water maintenance systems are in place in line with current legislation and guidance.

Key activities in 2016 include the revision of Water Safety Group attendees and the allocation of Responsible Persons for Water, and the appointment of an external independent Authorising Engineer (Water) to assist with governance and management of risk associated with water borne pathogens. Additional key activities include the revision and ratification of the Trust policy for water safety and under advisement of the Authorising Engineer (Water) the development and adoption of a Water Safety Plan.

The two leads of Maintenance Services have attended a refresher Responsible Persons course. Public Health England led training on clinical aspects of water management is scheduled for the IPAC team and Water Safety Group Chair in May 2017.

Current initiatives are focused on addressing remedial interventions identified through risk assessments and the engagement of clinical staff in ward areas to identify and flush infrequently used outlets in occupied patient areas.

Criterion 2 Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections
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The Decontamination Lead post has been designated to the Deputy Director of Nursing. Oversight of decontamination is undertaken by the IPAC Committee.

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Domestic cleaning services are currently contracted to ISS and GFM. The quality of the service is monitored by a programme of joint audits conducted by the NSFT contract compliance officers and the contract general managers. The IPAC team participate in quarterly contract performance monitoring and continue to work closely with the contract compliance team and the contracted domestic services providers.

Examples of collaborative working with the contracted domestic services providers are the initiation of documentation and guidance to assist with effective cleaning of clinical hand wash sinks as part of control of water borne pathogens, new checklists for discharge cleaning and the development of a communication tool to aid clinicians with ordering adhoc clinical cleaning and the delivery of training for ISS staff by the IPAC team.

In addition cleanliness issues are picked up locally by adhoc quality checks initiated by matrons and/or the IPAC team, or more formally through an IPAC quality improvement visit. The IPAC team implemented a spot check process of environment and equipment cleanliness within the inpatient settings as part of quality assurance. A total of 22 spot checks were undertaken by IPAC with reports issued and action plans drafted to be addressed within the localities.

The Care Quality Commission inspection in July 2016 reported that bar some minor exceptions in seclusion rooms and places of safety, that wards and community team bases were clean, with good infection control practices.

As the Trust review of premises and services continues, the IPAC team have had opportunity to influence on a number of Estates projects for example refurbishment of patient bathrooms, the provision of en-suite facilities in seclusion areas and the review of plans for appropriate clinical environments for carrying out physical health checks and interventions.

The IPAC team were involved in the Patient-Led Assessments of the Care Environment (PLACE) assessments of all applicable in-patient areas. The Trust undertook assessments across 9 sites in Norfolk and Suffolk in 2016. The results of the assessments were 98.75% for cleanliness and 97.33% for condition, appearance and maintenance of premises.

The IPAC team continue to work with the Medical Devices Lead and the Procurement Team regarding the suitability of medical devices and patient equipment specifically seeking assurance with respect to effective decontamination of reusable equipment.

An independent Trust wide audit of mattress was undertaken by Drive DeVilbiss Healthcare Ltd. in October. This identified a requirement to replace a number of mattresses in each area. A revised mattress audit programme has been initiated to support current practice of mattress monitoring undertaken on patient discharge by clinical staff.

Criterion 3 – Ensure appropriate antimicrobial use to optimise patient outcomes and to reduce the risk of adverse events and antimicrobial resistance.
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In line with guidance issued in August 2015 by The National Institute for Health and Care Excellence (NG15), the Trust recognises the importance of effective antimicrobial stewardship. The term “antimicrobial stewardship” is defined as “an organisational or healthcare-system-wide approach to promoting and monitoring judicious use of antimicrobials to preserve their future effectiveness”

Trust guidance for Antimicrobial Stewardship was published in September 2016; this document was prepared by IPAC in partnership with the Pharmacy Department.

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Prescribing clinicians refer to the local CCG led formularies to direct prescribing which take account local antimicrobial resistance patterns. These formularies are available on the Trust intranet and are overseen by the Drugs and Therapeutic Committee. Local oversight of antibiotic prescribing for NSFT inpatients is undertaken by the ward and dispensary pharmacists with support from the IPAC nurse.

Antimicrobial stewardship within the Trust includes the audit of antibiotic usage and prescribing. This audit is led by the Trust Pharmacy department with support and oversight by the members of the Drug and Therapeutics Committee which is led by the Chief Pharmacist.

A Trust-wide audit of antimicrobial prescribing was conducted by the Pharmacy Team during December 2016. The aim of the audit was to evaluate compliance against standards of antimicrobials prescribing. The audit was completed over a two week period between the 5th and 19th December 2016. On a single day during this period, each ward/unit pharmacist examined all drug charts to identify those containing antimicrobial prescriptions. The drug charts were audited using an audit tool which related to the standards shown in Table 1

CLINICAL STANDARDS: The safe use and prescribing of antimicrobials	
Standard One The clinical indication of prescribing an antimicrobial agent must be recorded in the patient's notes / prescription charts.	Compliance Sought 100%
Standard Two A stop or review date for the course of antimicrobials must be recorded in the patient's notes / prescription charts.	100%
Standard Three Prescription of antimicrobials complies with the NSFT guidelines on prescribing antimicrobials BUT exceptions may include: Allergy status, renal impairment, culture results, condition not listed in Policy. The reasons for variation should be recorded in the patient's notes.	100%

Table 1

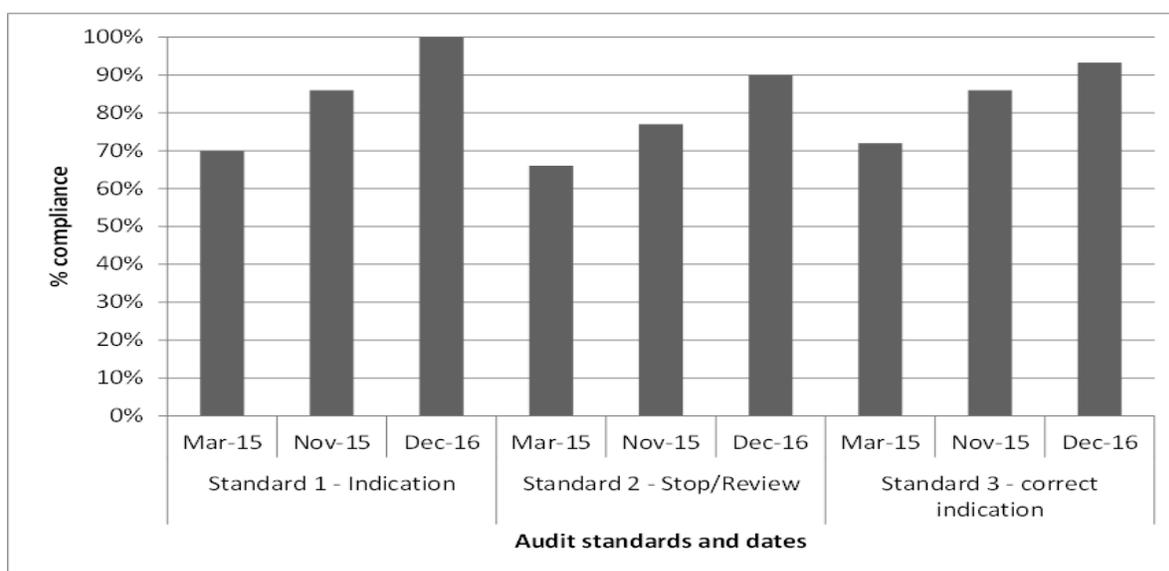
The findings as reported are presented in brief as below.

From a total of 30 antimicrobial prescriptions prescribed during the audit period across the Trust, 24 were for systemic administration (e.g. oral) and 6 for topical administration (e.g. ointments, creams). The total number of antimicrobials prescribed has decreased compared to previous years figures and standards of prescribing practice has improved, as shown in Table 2.

Total antimicrobial prescriptions			Standard 1 - Indication			Standard 2 - Stop/Review			Standard 3 - correct indication		
Mar-15	Nov-15	Dec-16	Mar-15	Nov-15	Dec-16	Mar-15	Nov-15	Dec-16	Mar-15	Nov-15	Dec-16
47	35	30	70%	86%	100%	66%	77%	90%	72%	86%	93%

Table 2

Graph 1 below illustrates the total number of antibiotic prescriptions and compliance to audit standards from the last 3 audit periods.



Graph 1

Areas demonstrating unsatisfactory compliance receive feedback and are required to re-audit. With action plans drafted and senior level input as appropriate.

Antimicrobial prescribing within the Trust is currently at the lowest level since 2011. Prescribing trends for different antimicrobials appear to have remained vastly similar to previous years, which is indicative that guidelines are being followed. Improvements have been demonstrated and continued focus through audit, ward and dispensary pharmacist monitoring ensures that the Trust continues to strive for high standards in prescribing practices for effective antimicrobial stewardship.

Criterion 4 – Provide suitable accurate information on infections to service user, their visitors and any person concerned with providing further support or nursing/medical care in a timely fashion.

Work by senior clinicians to revise the electronic form for Physical Health is anticipated to complete in April 2017. The revised form facilitates the identification of infection issues at admission to services including a prompt to check the MRSA status of inpatients. Revised discharge forms and templates been made available in the Lorenzo electronic patient care record in line with the Trust framework for discharge from Trust services.

Information for patients is available through PALS and can also be found on the IPAC intranet site.

Criterion 5 – Ensure prompt identification of people who have or are at risk of developing an infection so that they receive timely and appropriate treatment to reduce the risk of transmitting infection to other people.

Surveillance and case reporting

The Trust is served by groups of laboratories within the Eastern Pathology Alliance and The Pathology Partnership across the two counties. The current arrangements do not facilitate direct interface with an electronic surveillance database, (for example ICNET, a system that would

automatically notify the IPAC team of patients with new isolates identified in the laboratory). The IPAC nurse team receive information on new cases of infection from two key routes; either directly from clinicians caring for symptomatic patients or via communication from the IPAC teams in the region. To acknowledge the limitations with the surveillance and reporting processes, there is a potential risk that delay in communication could result in a subsequent delay in the instigation of infection control measures or treatment, possibly resulting in the spread of infection within an inpatient area. Close working relationships with clinical staff within the Trust, and externally with provider, commissioning IPAC and Public Health colleagues has resulted in timely action to manage cases of infection.

Laboratory Reporting

The Trust has access to WebICE via the Trust intranet to view laboratory reports. The IPAC service continues to work with IT Business and Change leads and the Physical Health Strategy Group to support clinical engagement with this system.

Documentation

Clinical staff are required to document infection incidents through the Trust incident reporting system (DATIX). This system enables a dashboard for reporting to the Board via the Quality Governance Committee and to Commissioning Organizations. Case and outbreak incident reports are produced by the IPAC nursing team. The resulting action plans are reviewed and managed at operational level within the localities. Findings where relevant are also shared across the Trust and used to inform clinical practice guidance, policy review and the Trust IPAC education programme.

Mandatory Surveillance

All cases of *Clostridium difficile* infection (toxin positive) and blood stream infections due to Meticillin-resistant *Staphylococcus aureus* (MRSA) are required to be reported to Public Health England. Since 2011 blood stream infections due to Meticillin-sensitive *Staphylococcus aureus* (MSSA) and *Escherichia coli* (E coli) have been added to the national mandatory surveillance requirement. Confirmed isolates are reported by the responsible laboratory. Post Infection Review investigations are expected in order to identify lapses in the quality of care, encourage learning and improvement as well as forming part of the relevant contract management processes on all cases of Meticillin-resistant *Staphylococcus aureus* bacteraemia bloodstream infections and Toxin positive *Clostridium difficile*.

Clostridium difficile

There have been no cases of *C. difficile* infection reported to the IPAC team during the 2016/17 period.

Clostridium difficile is a bacterium that releases a toxin which causes colitis (inflammation of the colon). Symptoms range from mild diarrhoea to life threatening disease. *C. difficile* infection occurs mainly in elderly and other vulnerable patient groups, especially those who have been exposed to antibiotic treatment (the use of antibiotics can upset the bacterial balance in the bowel that normally protects against *C. difficile* infection). Asymptomatic carriage also occurs. Infection may be acquired in the community or in a hospital setting, but symptomatic patients in hospital may be a source of infection for others.

The Trust revised the *C. difficile* policy during 2016 to reflect new guidance on testing and management. Clinical staff are encouraged to assess, report and seek timely medical review and testing for new onset of unexplained diarrhoea where an infectious cause is suspected; this is to ensure prompt infection control measures and treatment initiation if clinically appropriate.

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Meticillin-Resistant Staphylococcus Aureus (MRSA)

There have been no cases of blood stream infection with MRSA attributed to NSFT during 2016/17.

Staphylococcus aureus is a bacterium that is present on the skin and in the nose and throat of approximately 30% of the healthy population. On intact skin its presence is harmless. It is a common cause of localised wound and skin infections.

The MRSA admission screening of inpatients is in accordance with the Department of Health's modified approach, which aims to focus screening activity and maximise the clinical impact for patients most likely to benefit. Within this approach the current practice of mandatory MRSA screening of admissions has been streamlined to include only those patients previously identified as colonised with or infected by MRSA. Patients identified with MRSA are offered decolonisation treatment to reduce the risk of bacteraemia, as per Trust Policy.

The IPAC team continue to support clinical teams and work collaboratively with the Physical Health team in the identification of patients at risk of serious infection with MRSA, directing specimen collection and advising on the infection prevention and control management. During the 2016/17 period five services users were identified with MRSA colonisation; of these four were previous carriers and identified either as positive on admission or from clinical specimens taken during their stay. Cases were managed appropriately with the support of the IPAC team, and where wounds were involved additional support either from the physical health nurse, or external specialist support was sought for example tissue viability/ district nurse/ podiatry services hosted by other providers.

Meticillin-Sensitive Staphylococcus Aureus (MSSA)

Most strains of Staphylococcus aureus are sensitive to the more commonly used antibiotics, and infections can be effectively treated. Those that are sensitive to Meticillin are termed Meticillin-sensitive Staphylococcus aureus. No NSFT inpatients have been reported to IPAC as having a diagnosis of Meticillin-Sensitive Staphylococcus aureus blood stream infection during 2016/17.

Gram negative organisms

Species of bacteria collectively referred to as Gram-negative bacilli (thus called due to the staining methodology undertaken within the laboratory during identification of the organism) include Escherichia coli (E. Coli), Klebsiella, Proteus, Pseudomonas, Enterobacter and Acinetobacter. Many of these are commonly found in the bowel. Problems can occur when the organism has the opportunity to migrate to areas such as the bladder (manifesting as a urinary tract infection), a wound (wound infection) or the blood stream. These bacteria, under certain circumstances can become resistant to antibiotics and may require infection control management. One case of blood stream infection with E. Coli was identified in an NSFT inpatient which was attributed to urosepsis.

In line with a new forthcoming (April 2017) national initiative to reduce the burden of gram negative blood stream infections across the health economy, the IPAC team working with Physical Health colleagues have contributed to the Trust revision of the Continence policy and have drafted new guidance on the safe care of the catheterised patient.

Other antibiotic resistant organisms

The management of patients with an antibiotic resistant organism is an increasing priority nationally. Antibiotic resistant bacteria include extended spectrum beta lactamase producing organisms, and glycopeptide resistant enterococci. In addition the emergence of Carbapenemase-producing Enterobacteriaceae (CPEs) is predicted to pose significant challenges nationally in the near future. Carbapenem antibiotics are a powerful group of B-lactam antibiotic used in hospitals. Until recently they have been able to be used to treat infections when other antibiotics have failed. Emerging resistance patterns have rendered in some cases Carbapenems ineffective. Public Health England

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have issued toolkits for use in either acute or community settings to enable the early detection, management and control of CPE. A Trust policy is in place to support and guide staff to provide safe and effective management of patients colonised or infected with resistant bacteria and minimise the risks of transmission in patients accessing mental health services.

Gastrointestinal infection

There have been three outbreaks of confirmed viral gastrointestinal infection (Norovirus) during 2016-2017. Two of these occurred in later life settings, and one was in an adult acute ward. These incidents occurred at a time of increased Norovirus activity within the community. Post incident reviews were conducted with the attendance from operational, clinical and commissioning representatives. The purpose of the reviews is to identify good practice and also learning opportunities to inform guidance and policy review.

One case of *Cryptosporidium* occurred in an NSFT inpatient. *Cryptosporidium* is an infection with a parasite, which causes gastrointestinal symptoms. This organism was identified from a specimen of liquid stool taken from a newly admitted patient; the source was presumed to be from outside the Trust. Infection control measures were promptly initiated and Public Health notification was completed as per legislative requirements.

Other infections

The IPAC service has also been involved in the management of a period of increased incidence of Group A *Streptococcus* occurring in an NSFT inpatient facility. This incident was managed with support from the local medical microbiologist and the Public Health England local health protection team. In this incident strain typing of the organism was undertaken by the national reference laboratory, this identified that the two cases were not identical strains, suggesting that the cases were not related i.e. occurring as a result of cross transmission. At the time of this incident there was a high seasonal background of Group A *Streptococcus* occurring in the community.

Regional reporting of infection incidents

The Trust participates in the East of England outbreak monitoring system hosted by Public Health England (IOLog 2). This is a voluntary regional incident and outbreak logging system which allows organisations to access information on current outbreaks across the region and alert staff to problems in other areas which may affect admission and discharge processes. This system also enables the East of England team to gain an understanding of infection prevalence in the region.

Criterion 6 Systems to ensure that all care workers (including contractors and volunteers) are aware of and discharge their responsibilities in the process of preventing and controlling infection.

The Assurance Framework identifies the roles and responsibilities for staff at all levels of the organisation. These responsibilities are reinforced through the education and training programmes.

Staff compliance with the mandatory training is tracked through an electronic system formerly Staff Pathways. More recently (December) the Trust moved to an alternative system (ESR learning management). Compliance with mandatory training is tracked electronically and monitored for individuals through line management supervision.

Prior to switch over to a new system the percentage for non-clinical staff compliant was indicative of 89% compliance, with annual update training for clinical staff averaging 80% uptake. At the commencement of 2017 compliance with mandatory education has fallen with averages in the region of 66% uptake for clinical staff. This requires focus by the IPAC team but also requires support from Trust initiatives to improve compliance.

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A bespoke and comprehensive e-learning package for completion by clinical staff annually and on induction is available. Non-clinical staff also have an e-learning package available for meeting a 3 yearly update requirement for infection control training. In addition the IPAC team have plans to increase learning opportunities through a range of initiatives and will need to ensure these are captured on attendance recording systems.

All clinical staff are expected to receive local induction pertaining to the specific arrangements for infection prevention and control in NSFT. This is undertaken by the LIPACS through completion of a checklist in the workplace.

A continuing focus throughout the forthcoming year is the strengthening of the LIPACS role to embed infection prevention and control within inpatient and community teams. During 2016 105 LIPACS received training from the IPAC nurse – this is 30% increase on the previous year.

Medical training in 16/17 continued to be lecture based. Medical staff joining NSFT on rotation received an education session from the IPAC/Physical Health team as part of the induction process. The prescribing of antimicrobial agents was included within this session.

Criterion 7 – Provide or ensure adequate isolation facilities

The majority of the Trust in-patient environments consist of single patient rooms with en-suite shower and toilet facilities. Within Norfolk there remains some wards with multi-occupancy patient bedrooms and in these wards patients share bathroom and toilet facilities. Patients requiring dedicated toilet / bathroom facilities for infection isolation in wards that do not have single occupancy rooms and en-suite bathroom/ toilet facilities staff are required to risk assess with the support of Infection Prevention and Control and senior clinicians to ensure appropriate placement.

Criterion 8 – Secure adequate access to laboratory support

Following the national reorganisation of laboratory services, the work of the contracts team to revise contracts with microbiology services has been supported by the IPAC team to ensure robust service specification and access to advice for clinicians.

Criterion 9 – Have and adhere to policies, designed for the individual's care and provider organisations that will help to prevent and control infections.

Policies

There is a suite of policies and guidance documents relating to infection prevention and control available on the intranet for staff to access. These documents are consulted on by the Infection Control Committee and reviewed in response to change in national policy and guidance and in accordance with the policy review tracker which is monitored by the IPAC Committee.

Intranet Resources

In addition practice guidance, learning resources, posters, and reports are made available to all staff via a dedicated Trust intranet site for Infection Prevention & Control.

Audit

Compliance with a number of key practice policies is been monitored through the annual audit programme.

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Hand Hygiene

Hand decontamination audits are completed quarterly; with inpatient teams are expected to submit data every quarter. In line with agreed changes to the hand hygiene audit schedule, the IPAC team instituted a rolling programme for community based teams in 2015 which continued in 2016.

The hand hygiene audit scores for the year are represented in the tables below. Audits completed by LIPACS are collated by the IPAC team; quarterly reports are disseminated across the organisation. The audit assesses the availability of resources for hand hygiene, it also audits against policy standards for hand decontamination technique and staff knowledge in relation to hand hygiene and dress code. LIPACS are also required to observe colleagues to ascertain if hand hygiene is undertaken in accordance with the World Health Organisation standards identifying the opportunities for hand hygiene.

Quarter 1

Norfolk Central	West Norfolk	GYW	Secure Services	NRP	East Suffolk	West Suffolk
98%	100%	99%	99%	99%	99%	99%

Quarter 2

Norfolk Central Acute	Norfolk DCLL Central	West Norfolk	GYW	Secure Services	East Suffolk	West Suffolk
99.4%	98%	100%	100%	96.5%	99.5%	99.8%

Quarter 3

Norfolk Central Acute	Norfolk DCLL Central	West Norfolk	GYW	Secure Services	East Suffolk	West Suffolk
97.5%	99.8%	100%	99.6%	98%	97.6%	99.6%

Quarter 4

Norfolk Central	West Norfolk	GYW	Secure Services	East Suffolk	West Suffolk	East Suffolk Community services	GYW community services

100%	100%	100%	98%	99%	98%	98%	100%
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As part of organisational assurance the IPAC team developed a suite of bespoke audit tools based on the principles within Standard Precautions practice and incorporating the Infection Prevention Society standards. The purpose of these tools is to identify gaps in practice, facilitate the development of staff knowledge, and ensure focus on maintaining a safe and clean environment. The tools have included attention on toy cleanliness, specimen handling, laundry and waste handling and segregation, safe sharps practice, commode, manual handling and physiological observation equipment cleanliness. The audit tools have been drawn from NSFT policies on infection prevention and control, NICE guidance, and the Infection Prevention Society's Quality Improvement tools. Actions are identified within the Trust wide published reports for remedial attention by the clinical teams.

Quarter One

Practice auditing in quarter one covered a breadth of elements including toy cleanliness, specimen handling, display of IPAC related posters, and cleanliness of patient equipment (including commodes and manual handling equipment and the condition of patient pillows). This audit identified that a number of areas did not have a toy cleaning schedule in place, staff knowledge on the schedule for the regular cleaning patient equipment on the ward required improvement, staff knowledge on the use of specimen transport containers required remedial action. This audit had a wide circulation with sixty-five teams returning data from both community and inpatient teams. A number of the elements included had previously not been audited. The overall Trust score was 94%.

Quarter Two

A new tool was drafted to audit the laundry room environment, laundry handling and waste segregation and receptacle cleanliness in the inpatient wards. Twenty-six wards submitted data with the overall score for the audit calculated as 94%. Themes for action included:

- the need for written guidance for use of machinery in laundry room,
- the timely reporting of damage to floors, walls and surfaces to Maintenance Services,
- removal of other items from the laundry area,
- ensuring clear separation of clean laundry to reduce contamination,
- reminding staff to not overfill laundry bags and
- the inclusion of laundry skips/ baskets within the ward clinical cleaning schedules.

New IPAC guidance has been drafted for laundry handling in the ward laundry rooms. This guidance and the key actions from this audit will be highlighted in the LIPACS annual training update. Spot checks of laundry areas will also continue during 2017 by the IPAC team to ensure continued focus on the laundry room environment. The Trust Waste Policy drafted by the Facilities team was ratified in 2016.

Quarter Three

Safe handling and disposal of sharps was the focus for quarter 3. Trust-wide compliance was 97% demonstrating year on year improvement from 2014. There was also an increase in the number of teams submitting data from 49 to 53 teams. The lowest scoring elements in this audit were the non-completion of sharp container assembly labels, the lack of use of the temporary closure mechanism after use and ensuring display of a sharps injury first aid poster. The report drafted by the IPAC team identifies actions for individual areas to address.

Quarter Four

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Three new bespoke tools for use by the LIPACS to audit against the standards contained within the Trust policy for cleaning and decontamination of medical devices, equipment and the clinical environment were introduced for quarter four. The inpatient services audited the ward clinic room environment and equipment for cleanliness, specimen storage practice, dirty utility environment and equipment cleanliness, commode and manual handling equipment cleanliness and staff knowledge on reporting of suspected/ confirmed infection cases. The overall score for the inpatient services was 97%. The community treatment teams audited the contents of community cases. This audit was aimed at teams who deliver a service that requires the administration of injectable antipsychotic medication in patient homes. The focus on this audit was sharps and PPE use and handling. The overall score for the 16 participating teams was 93%. The third audit tool circulated was directed to teams delivering outpatient clinic services. This audit focused on the clinic room environment which is commonly used for undertaking phlebotomy services, the administration of oral and injectable anti-psychotic medication and physical health checks. The audit focused on the cleanliness of the environment, the availability of facilities for safe infection prevention and control practice, sharps and PPE use and handling. The overall score for the five returns was 100%.

Criterion 10 – Providers have a system in place to manage the occupational health needs and obligations of staff in relation to infection.

This is achieved by staff education and training and the monitoring of compliance with key policies, for example the use of personal protective equipment and safe sharp handling as in the audits undertaken as detailed within this report.

NSFT has a contract with the Norfolk & Norwich University Hospital Workplace Health and Wellbeing Service to deliver employment screening, immunisation against communicable diseases and post inoculation exposure management.

The contracted occupational health service has not had to participate in any serious outbreak management programmes during the year. Advice has been offered to staff as required where they have had queries concerning communicable disease and their fitness to work, staff immunity status as required for events, such as, Shingles, Chicken pox, and queries relating to impetigo, staff cases of pertussis and diarrhoea and vomiting.

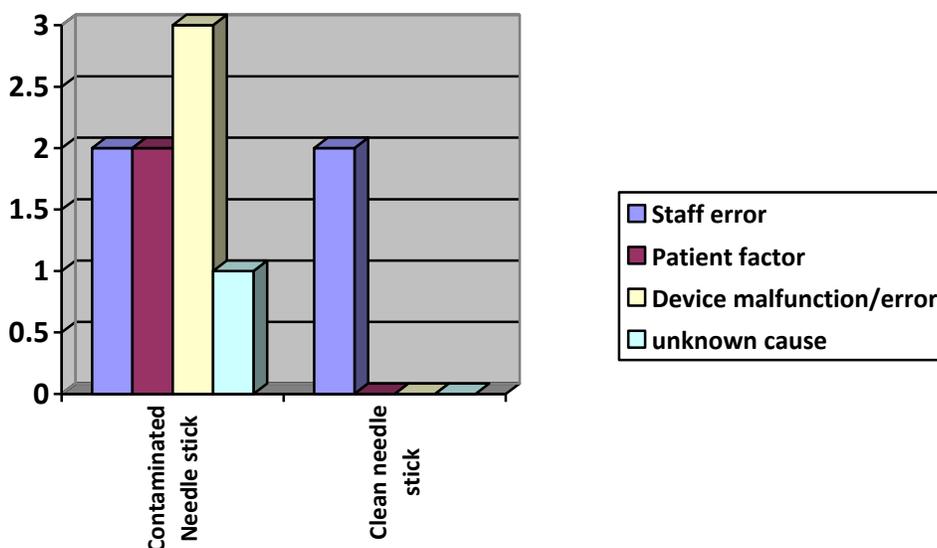
Needlestick and body fluid inoculation incident reduction is a key issue for the IPAC and Health and Safety team and for the Trust as a whole. To protect staff from needlestick injuries, safety engineered devices are available in all clinical areas in line with Regulatory requirements. The Procurement team are instrumental in ensuring restricted ordering of sharps devices to a published list of products. Additionally, the availability of these safer devices continues to be monitored by spot checks of clinic rooms and by root cause analysis of all needlestick injuries.

In total there were 18 percutaneous incidents relating to needle stick injuries and sharp objects. A percutaneous injury (also known as a sharps injury) is when the skin is penetrated (broken). Skin may be broken through injection needles (clean or contaminated), sharp objects (clean or contaminated). All these incidents were related to staff members. The table below illustrates the results and trends for the past three years.

Category	2016-17	2015-16	2014-15	Trend
Contaminated needle stick	8	10	12	-2
Clean needle stick	2	6	3	-4
Contaminated Sharp Object	6	1	7	+5

Clean Sharp Object	2	3	5	-1
Total cases	18	20	27	(-2)

The cause of contaminated sharps injury is attempted to be determined for each incident. The graph below illustrates the themes of incidents over the 16/17 period. Of note in the analyses is device malfunction/error which was the cause of three injuries; injuries were sustained from the needle separating from the syringe after antipsychotic medication injection. This was addressed by a Trust-wide recommendation to change syringes from luer slip (push on) to luer lock (screw on) syringes when administering viscous medications. Of the six contaminated sharp object injuries, no trends were identified.



Other potential routes of exposure to blood or other body fluids include bites and scratches and mucocutaneous injuries which are injuries caused by blood or other body fluid splashes into the eyes, nose or mouth or onto broken skin. The numbers of reported injuries during 2016/17 period are given below

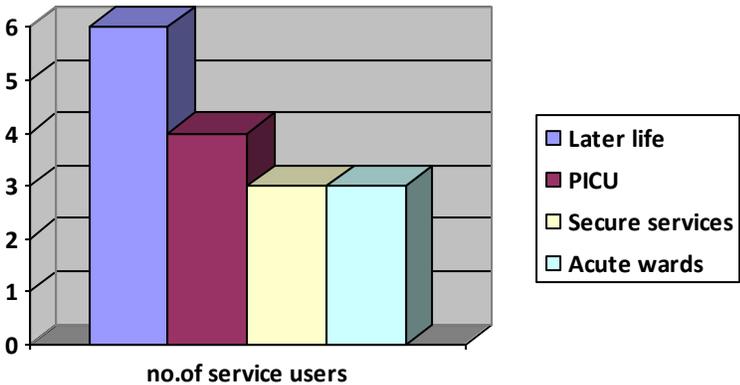
Category	2016-17
Body fluids exposure	6
Exposure to infection	0
Spits	116
Total	122

Category	2016-17
Human bites	16
Animal bites	4
Scratches	57

Total	77
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Of the human bites, these incidents occurred within in-patient areas, with all bites reported as a service user biting a staff member. Nine incidents occurred during restraint or safe holds, three occurred due to patient factors; two occurred during staff providing personal care; one during assisting patient with food; one during examination.

The graph below illustrates the services where the human bites injuries occurred.



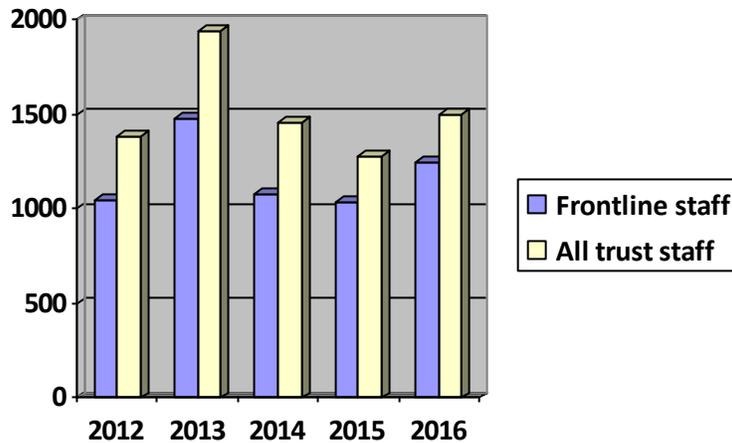
Of the animal bites, these were from dogs and occurred in service users homes. Three staff members had skin broken from the bites. All staff received appropriate care and follow up either through self-management, occupation health services and general practice.

Seasonal Flu Vaccination Campaign for staff

There was an intensive flu vaccination campaign this year to vaccinate front line staff to protect them and our service users from influenza. The campaign resulted in 46% of frontline staff vaccinated, an improvement on 31% in 2015-16.

The Trust campaign enabled a number of options for staff to get vaccinated including the contracted Occupational Health service who operated 23 dedicated clinics and facilitated access to the NNUH flu tent drop in clinics. 32 Registered Nurses volunteered to peer vaccinate- known as ‘flu crew’. Norfolk Recovery Partnership provided 8 clinics delivered by 12 staff across the Norfolk area. The Infection Prevention and Control service supported additional clinics and adhoc vaccination by arrangement.

The graph below represents comparison uptake for the previous 4 years



Whilst the campaign was well supported by the Trust Executive team and also by the Communications team; achieving Department of Health targets continues to challenge.

4. Priorities for improvement for 2017-18

To continue to embed infection prevention and control throughout NSFT

Continue to monitor 'alert organisms' and advise clinical areas accordingly. Where required the IPAC team will work closely with staff regarding patient management with particular reference to MRSA, *C. difficile*, Norovirus and emerging antibiotic resistant organisms.

Continue to building the suite of clinical practice audits to include specific tools for services delivering ECT and venepuncture procedures.

To continue to work in collaboration with the Strategic Estates team on new builds and refurbishment projects to ensure compliance with requirements for infection prevention and control in the built environment.

As members of the Water Safety Group, the IPAC team will continue to work with clinical and non-clinical staff to ensure water safety and quality as per legislative requirements and national best practice guidance.

Working with prescribing colleagues and the pharmacy team to continue to improve compliance with best practice for antibiotic prescribing to promote and sustain effective antimicrobial stewardship.

To implement and embed a co-ordinated programme of mattress integrity monitoring following a Trust-wide audit.

To increase the number of staff vaccinated against seasonal Flu aiming to meet the Public Health England target of 75%

Improve compliance with IPAC training and education through a range of learning and assessment opportunities. Including, collaborating with the Physical Health team to deliver an education event focusing on key aspects such as MRSA management, tissue viability, urinary catheter care and SEPSIS recognition.

Background Papers / Information

The Health and Social Care Act 2008: Code of Practice on the prevention and control of infections and related guidance, DH (revised 2015)

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