REPORT TO:	REPORT TO BOARD OF DIRECTORS AS RECEIVED BY QUALITY COMMITTEE
DATE:	8 DECEMBER 2017
SUBJECT:	INFECTION CONTROL ANNUAL REPORT 2016-2017
BOARD SPONSOR:	MEDICAL DIRECTOR
PAPER AUTHOR:	HEAD OF INFECTION PREVENTION & CONTROL
PURPOSE:	APPROVAL
APPENDICES:	APPENDIX 1: INFECTION PREVENTION AND CONTROL ANNUAL PROGRAMME – APRIL 2017 TO MARCH 2018

BACKGROUND AND EXECUTIVE SUMMARY

The Director of Infection Prevention and Control (DIPC) is required to produce an Annual Report on the state of healthcare associated infection (HCAI) in the organisation for which s/he is responsible and release it publicly according to the *Code of Practice on the prevention and control of infections and related guidance* (The Health and Social Care Act 2008).

The Board are asked to approve and note the contents of the report.

Management issues

• East Kent Hospitals University NHS Foundation Trust (EKHUFT) is compliant with the Code of Practice on the prevention and control of infections and related guidance (The Health and Social Care Act 2008).

On-going changes in the strategic leadership of IPC team (DIPC post), and a number of resignations and vacancies continued to be a challenge in 2016-17. The Deputy director of Infection Prevention and control commenced in post in September 2016. This culminated in a recruitment drive with the expectation of full complement by September 2017.

These challenges have impacted on the ability and capacity of the team to be as visible in clinical areas as required.

Surveillance

MRSA bacteraemia: NHS objective
 Outturn: 8 cases

no avoidable cases

C. difficile: NHS objective
 Outturn 53 cases

46 post 3 day cases

- *E. coli* bacteraemia: No NHS targets During 2016-17, EKHUFT reported 614 *E. coli* blood stream infections, an increase of 86 on the previous year and remains higher than the national picture. The percentage of cases with onset in the community has increased slightly although approximately the same at 86% described in 2015-16.
- The Infection Prevention and Control Team (IPCT) introduced rectal screening of

admissions in "high Risk" categories for exposure to Carbapenem Resistant Organisms (CRO's) in 2015 and continue to risk assess and screen appropriately.

• Compliance with the MRSA screening policy is provided and there has been evidence that new cases of MRSA carriage have been in decline. The MRSA screening programme is being revisited to determine best practice, cost effectiveness and patient safety.

Outbreaks/Incidents

- In November 2016 there was notification of concerns relating to a case of CRO which evolved into an outbreak scenario the IPC team with input from external entities (Public Health England (PHE) and Clinical Commissioning Group (CCG)) developed action plan with appropriate control measures being put in place.
- A patient notification exercise has been carried out following the discovery that a midwife working in EKHUFT in 2016 was identified as having pertussis. No transmissions of pertussis were notified during the information giving and follow up period from any East Kent patients.
- A patient notification exercise has been carried out following the discovery that a midwife working in EKHUFT in 2016 was identified as having the parvovirus. No transmissions of parvovirus were identified in East Kent patients.

IDENTIFIED RISKS AND MANAGEMENT ACTIONS:	 The increasing risk posed by Carbapenemase Resistant Organisms (CRO) is highlighted and a continued audited screening programme to detect CRO cases has been implemented following the incident in November 2016. The occurrence of the pertussis and parvovirus within the midwifery services has instigated a review of the expected action and procedure in relation to staff illness. 				
LINKS TO STRATEGIC	Patients: ⊢	lelp all patients take control of their own health.			
OBJECTIVES:	People: Identify, recruit, educate and develop talented				
	statt.				
	Provision: Provide the services people need and do it				
	Partnership	: Work with other people and other			
	organisations to give patients the best care.				
LINKS TO STRATEGIC OR	CRR 47: In	ability to prevent deterioration in the number of			
CORPORATE RISK	healthcare a	association infection metrics.			
REGISTER					
RESOURCE IMPLICATIONS:	None				
COMMITTEES WHO HAVE	None				
CONSIDERED THIS REPORT					
PRIVACY IMPACT ASSESSME	ENT:	EQUALITY IMPACT ASSESSMENT: NO			

RECOMMENDATIONS AND ACTION REQUIRED:

To approve the report for recommendation for approval by the Board, and note the recruitment drive has now ensured the IPC team will be at full complement by September 2017.

BoD/98/17



INFECTION PREVENTION AND CONTROL ANNUAL REPORT

APRIL 2016 – MARCH 2017

Lead and Author	Valerie Harmon/Paul Stevens/Sri Reddy
Approving body	Quality Board
Date Approved	



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Appendix 1: Mandatory Training Compliance and Hand Hygiene/BBE/ Commode Cleanliness Reports

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East Kent Hospitals University NHS Foundation Trust

INFECTION PREVENTION AND CONTROL ANNUAL REPORT

April 2016 – March 2017

This Report has been produced by Dr Paul Stevens, Director Infection Prevention and Control, Valerie Harmon, Deputy Director Infection Prevention and Control and Dr Sri Reddy, Infection Control Doctor, on behalf of the Infection Prevention and Control Team.

1. INTRODUCTION

The Director of Infection Prevention and Control (DIPC) is required to produce an Annual Report on the state of healthcare associated infection (HCAI) in the organisation for which s/he is responsible and release it publicly according to the *Code of Practice on the prevention and control of infections and related guidance* (The Health and Social Care Act 2008). The Annual Report is produced for the Chief Executive and Trust Board of Directors and describes the activity of the Infection Prevention and Control Team (IPCT) during the year, including progress made against the work plan and objectives identified in the Infection Prevention and Control Annual Programme. It also includes Divisional performance against Infection Prevention and Control Key Performance Indicator Targets (KPIs). Divisional compliance with regard to mandatory training and hand hygiene/"bare below the elbows" and commode cleanliness is reported monthly (see Appendix 1).

1.1 Annual Programme and Achievement of Infection Prevention and Control

The Infection Prevention and Control (IPC) Annual Programme (2016/17) was designed to achieve compliance with the standards identified in the *Code of Practice*, and the achievement of National and local infection related objectives:

- 1. MRSA bacteraemia objective for 2016/17
 - NHS objective of no avoidable bacteraemia cases
- 2. *C. difficile* objective for 2016/17
- NHS England objective of 46 post 3 day cases

These results are discussed in more detail in the section on surveillance of infection.

Infection Prevention and Control Key Performance Indicator Targets are reviewed on an annual basis and presented at the IPCC in the 1st Quarter.

1.2 The Infection Prevention and Control Team (links with other Trust committees and working groups are listed in Appendix 2)

The IPCT are the medical and nursing specialists responsible for undertaking the work described in the Infection Prevention and Control Annual Programme.

East Kent Hospitals University NHS Foundation Trust (EKHUFT) IPCT consists of 3.5 Consultant Microbiologists.

Within the current structure there are 7 Infection Prevention and Control (IPC) Clinical Nurse Specialists (one of whom is Deputy Director of Infection Prevention and Control) and 2 trainees. However, following vacancies, the structure of the IPCT was revisited and revised during 2016-17.

The vacancies within the Team throughout 2016 have meant that available resources have had to be completely focussed on clinical reactivity (reviewing patients with alert organisms/conditions; ensuring that risks of HCAI can be reduced. This has impacted on the Team's ability to undertake expected levels and session for training and education activities for staff and addressing the complete IPC Environmental audits and Clinical Practice Standards for all wards and departments across the Trust.

Infection Control Software to Support IPCT Activity (VitalPAC IPC Manager)

A key feature of IPC Manager within the VitalPAC application, is the recording and tracking of all episodes of diarrhoea and/or vomiting on wards where the staff have entered symptomatic patients onto VitalPAC. Whilst significantly improving the pro-active management of infection prevention and control the introduction of IPC Manager has had a large impact on the way in which the IPC Clinical Nurse Specialists work, the current applications are under review to determine more efficacious reporting from the nurses at point of concerns and has involved developing the capacity to record several types of specimen as defined by the Bristol stool chart.

1.3 Infection Prevention and Control Committee

The EKHUFT Infection Prevention and Control Committee (IPCC) is a multidisciplinary Trust committee with outside representation from Public Health England (PHE) and Care Commissioning Group (CCG). The IPCC oversees the activity of the IPCT and supervises the implementation of the Infection Prevention and Control Annual Programme. The IPCC met bimonthly during 2016-17 and this will be continued through 2017-18, with greater emphasis on Divisional representation and engagement.

1.4 The Care Quality Commission

EKHUFT continues to improve the compliance to the essential Care Quality Commission quality and safety standards as they apply to infection prevention and control.

2. EDUCATION AND TRAINING

Introduction

The *Code of Practice* requires that all staff undertake mandatory infection prevention and control training on a regular basis. The specific requirement is:

'that relevant staff, contractors and other persons whose normal duties are directly or indirectly concerned with patients care receive suitable and sufficient training, information and supervision on the measures required to prevent and control risks of infection'.

This need is met through provision of a mandatory e-learning package based on Department of Health evidence-based infection control guidelines. In total, 3400 staff completed this training during 2016-17. This is a decrease from last year but is due to the renewal frequency changing from 2 years to 3 years.

Additional training sessions provided by the IPCT during 2016/17 include:

- All junior doctors receive a short induction session provided by the IPCT. This includes a presentation on infection prevention and control practices, including the education on hand hygiene and the prevention/management of inoculation injuries.
- As part of induction, all Foundation Year 1 (F1) junior doctors also undergo mandatory training and assessment of competence on the insertion of peripheral venous cannulae and phlebotomy skills, including the taking of blood cultures (provided by the Vascular Access Team).
- Participation in the F1 Junior Doctor programme includes 'The Principles of Infection Prevention and Control', antibiotic prescribing and emphasises the role of the microbiology laboratory in diagnosis of infection.
- Ad hoc sessions for Divisions/Departments as requested.
- IPC Management of the Acutely III Patient (as part of the in-house training course) sessions to be recommenced once reviewed and dates organised.
- Education on the management of urinary catheters as part of the induction programme for Healthcare Assistants.
- Practical hand hygiene training for IPC Link Practitioners, Trust wide (training is then undertaken by Link Practitioners for all clinical staff working in their area, annually).
- Site-based teaching for Band 4 Assistant Practitioners as requested.

Full Trust wide Infection Prevention and Control Education and Training figures, are available on application to the IPCT.

3. INFECTION PREVENTION AND CONTROL LINK PRACTITIONER SYSTEM

Infection Prevention and Control Link Practitioners by Site

QEQMH	WHH/BHD/RVHF	K&C
70	112	63

Due to resource issues within the IPC Specialist Nursing Team across the three sites during 2016/17 and the need to prioritise the clinical workload, quarterly site-based IPC LP meetings were recommenced in November 2016.

4. AUDIT

The IPC Clinical Nurse Specialists have undertaken the following audits (with appropriate support from IPC LPs and external agencies, as appropriate):

Audit	Completed	Achievement				
Antimicrobial		Please see Antimicrobial Stewardship Report				
prescribing						
Infection Prevention	Ongoing	Regular audits (every 12-18 months) of the clinical				
and Control Audits of		environments are being resumed now that the team				
Environmental and		are nearly back to full complement. The completed				

Clinical Practice		audit report is sent to the Ward/ Department Manager, who is responsible for both formulating and implementing an action plan. The results of these Audits are being reported monthly in the Infection Prevention and Control Monthly Report. NB: Due to resource issues within the IPC Specialist Nursing Team during 2016/17, annual audits of Wards/Departments have not been completed in all areas across the Trust. The Audit Programme will recommence in Q1 2017/18, with the initial focus on "high-risk" wards
Environmental audits (assessment of compliance with the <i>Code of Practice</i> with regard to the ward environment)	Every 3 months	All bed holding matrons have been trained in the use of the ward/departmental Hygiene Code Environmental Audit tool to enable them to subsequently complete these audits three monthly on each ward with a requirement to report to their relevant Divisional committees

Compliance with the Management of Invasive Devices

Monitoring of compliance with the management of invasive devices, e.g. peripheral cannula, central vascular catheter and urinary catheter, insertion and continuing care, is being reviewed to ensure this is managed effectively, the results of which will be reported to the IPCC as a standing agenda item.

5. HAND HYGIENE

The focus on improving hand hygiene compliance has continued during 2016-17 with increased attention on improving compliance with the annual practical hand hygiene assessment of staff who have contact with patients as well as contract staff (Divisional KPI). This is undertaken by the IPC Link Practitioners and reported in the Infection Prevention and Control Monthly Report to Divisions. Compliance with hand hygiene, including bare below the elbows, is audited and reported via EKBI QlikView and reported in the Infection Prevention and Control Monthly Report to Divisions and the IPCC.

6. HOSPITAL HYGIENE

The IPCT have continued to monitor standards of cleanliness within the Trust and promote good practice in conjunction with the Hospital and Facilities Managers through participation in the following activities:

- Patient-led Assessment of the Care Environment (PLACE).
- Advising contractors/contract management on cleaning and domestic issues.
- Day to day advice/intervention/escalation to facilities management as appropriate, with regard to cleaning issues.

7. OTHER WORK

• The IPCT continue to be involved in the planning aspects of Trust wide building and development projects in relation to infection prevention and control.

8. WATER QUALITY AND SAFETY (INCLUDING LEGIONELLA AND PSEUDOMONAS)

(Controlling the risk associated with water supply and air conditioning systems)

The EKHUFT Legionella Control Programme is based on the approved *Code of Practice for Control of Legionella in water systems* (L8) and HTM04-01. Legionella Risk Assessments for all hospital sites have been updated and an active monitoring programme is in place at all of the EKHUFT hospital sites. Environmental sampling of water quality is supervised by the Water Quality & Safety Committee which reports to the Infection Control Committee. Environmental sampling results are discussed in a bi-weekly Legionella Control meeting which also directs remedial action required when Legionella is found in any water samples.

The Water Quality & Safety Committee also manage the risk of Pseudomonas infections potentially associated with contaminated water in augmented care units (ITU, NICU and HCU).

A pseudomonas risk assessment has been prepared and sampling of high risk units is in place.

9. INCIDENTS/OUTBREAKS OF HOSPITAL INFECTION

9.1 Norovirus Diarrhoea 2016/17

In April 2016, Public Health England reported that the National number of laboratory reported cases of Norovirus since week 27 in 2015 was 35% lower than in the five seasons from 2010/11 – 2014/15, and 30% lower than the same period last year. This reflects the very low numbers since across the Trust during 2015/16, which may also have been aided by the daily review of all patients reported on VitalPAC with one or more episodes of diarrhoea and/or vomiting, and the use of hydrogen peroxide vapour (HPV) for the high-level disinfection of single rooms, bays and wards as appropriate.

Table 1 shows the numbers of affected patients per site per year since 2010/11.

Site	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
WHH	140	117	182	0	44	20	
QEQMH	70	101	200	59	11	3	
K&C	138	53	62	0	53	21	
	348	271	444	59	108	44	

Table 1: Patients with confirmed Norovirus infection by year

Ad hoc education sessions were held on the wards once again by the site-based IP&C Clinical Nurse Specialists during November 2016. "Norovirus banners" were displayed at the hospital entrances across the Trust, advising members of the public not to visit the Trust if they had any symptoms that were suggestive of Norovirus infection, and an automated "awareness" message was installed onto the telephone system by the Telecommunications Department during February and March 2016, when there was an increase in Norovirus activity affecting WHH.

The prevention and control of Norovirus remains an ongoing challenge for IP&CTs across the country due to its changing epidemiology, short incubation period, sudden onset, rapid spread, and the fact that it circulates within the community throughout the year; therefore continued surveillance is necessary. Admission-avoidance of symptomatic patients is key within the ECC/ Emergency Departments, along with the rapid isolation of symptomatic patients on the wards and notification to the IP&CT.

9.2 Contact tracing/look-back exercises

Pertussis Incident

During the week of 19th – 23rd September the midwife had been feeling slightly unwell and had a throaty cough.

Midwife received information of positive result for pertussis via Occupational Health on 26th October; however her GP was only informed of the positive result on 28th October.

DDIPC facilitated gathering information and history of the timeline and events during the period of onset of symptoms 19th September 2016 – and identification of positive result 26thOctober 2016. Occupational Health liaised with staff member and work colleagues.

DIPC, Microbiologist and CCDC communicated the investigational requirements.

Multidisciplinary team members worked together to ensure the plan for actions to be taken were logical and professional to determine the risks related to the incident, to manage the contacts and all information made available to staff, the affected patients and GPs.

The leadership communicated with the CCGs. Staff member returned to work Letters sent to relevant patients and GPs

No further notification of symptoms or concerns relating to pertussis from any contacts or their respective GPs

Incident closed

Lessons Learnt

- 1. The staff member presenting with symptoms of coughing and feeling unwell had not been seen as a cause of concern by herself, her ability to be at work, by her line management or concerns for the specialty she would be in contact with.
- 2. When the staff member had consulted with her GP advice had not been forthcoming about her need to stay away from work or the ease of transmissibility of the suspected bacterial infection for the population with whom she was working.
- 3. Effective communication between external and internal specialities. i.e. PHE, Occ. Health and IPC and confused timing for notification to CCGs
- 4. PHE liaisons to be explored methods of communicating with the Trust to ensure relevant messages are received to enable signposting to the relevant staff members.

The IPC team and Occ. Health to further develop educational awareness for staff members feeling unwell and time away from work.

TB Incidents

In three unrelated incidents, contact tracing exercises have been required (for Rainbow and and Kings A2 ward) to manage exposure of EKHUFT patients to undiagnosed TB cases on the ward. Contact tracing was not required for ITU WHH.

Carbapenemase-Producing Organism Outbreak

4 patients with CPO organism were identified on Cambridge M2 ward in November 2016 which led to outbreak investigation. 3 further cases were identified in December 2016 and January 2017. Outbreak control measures such as increased laboratory surveillance of suspected cases, active screening of all CM2 ward patients over 3 month period, deep cleaning of CM2 ward and hand wash basin change has led to control of outbreak with no further cases identified to date on Cambridge M2 ward.

Parvovirus

A pregnant midwife was diagnosed with Parvovirus infection which led to follow-up of all pregnant patient contacts. 52 pregnant patients were followed up with antenatal blood sample testing and /or repeat blood sample testing to check for parvovirus immunity. None of the non-immune patient contacts acquired Parvovirus infection during this exposure incident.

9.3 Legionella infection

No hospital acquired cases occurred within this period 2016-17.

10. SURVEILLANCE AND EPIDEMIOLOGY

10.1 Influenza 2016/17

Moderate levels of influenza activity were seen in the community in the UK in 2016 to 2017, with influenza A (H3N2) the dominant circulating virus for the majority of the season peaking in week 01, 2017.

The impact of influenza A (H3N2) was predominantly seen in older adults, with a consistent pattern of outbreaks in care homes noted. In addition, admissions to hospital and ICU/HDU particularly amongst older adults were observed, although the impact on general practice was variable (moderate in England and Wales and low in Northern Ireland and Scotland). Peak admissions to hospital and ICU were lower than seen last season. Levels of excess all-cause mortality were elevated particularly in the elderly, but were lower than the 2014/15 season in which influenza A (H3N2) also dominated.

Experience in East Kent reflected the national picture described above with less pressure on ICU beds compared with recent seasons.

Year	All staff Vaccinated	% uptake Total staff 7,500	Clinical Workforce	Drs		Nurse Midwi	s/ ives	Other Profess Qualifie	ional :d	Clinica Suppor Staff	l t	No Dir Patien Contac	ect t :t
2012	2885	38.5%	37%	341	38.4%	801	34.7 %	495	66.4%	483	27.1%	755	42.6 %
2013	3185	43%	48.4%	418	47.6%	982	42.7 %	592	80.3%	732	42.7%	457	25.8 %
2014	2758	36.7%	36%	342	37.8%	731	31.8 %	506	47.3%	463	33%	717	38.9 %
2015	2939	38.6%	39.6%	356	39.5%	731	32.3 %	445	76.3%	740	37%	667	33%
2016	3530	48%	50%	434	50%	890	40%	472	57%	916	60%	718	41%

The overall level of influenza vaccine uptake by staff was 48%, which was an increase on last years' figure.

10.2 *Clostridium difficile*

There were 53 cases of *C. difficile* infection during 2016-17; the NHS England objective set for 2016-17 was 47 cases. The annual target was breached by 7 cases. The cumulative total of *C. difficile* cases compared with 2014-15 is displayed in Table 2 below.



Table 2: EKHUFT C. difficile Trajectory 2014-15 to 2016-17

Table 3 below compares the rates of *C. difficile* infection within EKHUFT and the NHS average from 2014.

Table 3	2013 14	2014 15	2015 16	2016 17
Post 72hr cases (potentially hospital acquired)	49	47	28	53
EKHUFT rate <i>C. difficile</i> infection/100K bed days	14.8	14.4	8.4	15.12
NHS ave rate of <i>C. difficile</i> /100K bed days	14.7	15.1	14.9	13.35

There has been a significant increase in the number of C. difficile case in 2016-2017. Root cause analysis of C. difficile cases showed non-compliance with Trust Diarrhoea assessment tool. At least 7 cases could have been avoided if staff nurses had performed correct risk assessment for sending stool specimens and noted previous history of C. difficile disease. 3 antimicrobial pharmacists have left organisation at the end of January 2017 and the antimicrobial pharmacy service is currently being reconfigured. This could also be one factor which may have led to an increase in the number. Finally, the reduced IPC Nurse numbers may have reduced oversight of patients with diarrhoea.

The number of cases attributed to each Division for the periods 2014-15 and 2015-16, and whether they were avoidable or unavoidable are shown in Table 4 below.

Table 4

	2014	4 - 2015	2015 - 2016		
	Avoidable	Unavoidable	Avoidable	Unavoidable	
Surgical Services	1	18	1	8	
UCLTC	4	19	3	12	
Specialist Services	1	4	0	2	
Total	6	41	4	22	

(Two cases were not classified)

Periods of Increased Incidence (PII)

There were three periods of increased incidence during 2016-17:

- a) Two PIIs involved two or more cases of *C. difficile* infection occurring on a ward within a period of 28 days, Deal and Cheerful Sparrows Male.
- b) One incident of PII involving Cambridge Male 2 relating to cases of CRO.
- c) Molecular "finger-printing" of the *C. difficile* isolates was carried out to determine if the cases were potentially linked and PII meetings were held. When *C. difficile* strain typing was concluded there was no suggestion of cross-infection in either of the PII's investigated.

Lapses of Care

In April 2014, it became an NHS England requirement that all cases of *C. difficile* are assessed as part of the root cause analysis (RCA) process to determine whether the case was linked to a lapse in the quality of care provided. A lapse in care would be indicated by evidence that policies and procedures consistent with national guidance and standards were not followed.

These are classified 0-3. Classification 1 indicates that there was a lapse of care, but different management would not have made a difference to the outcome. Classifications 2 and 3 indicate that different management *might* have, or would *reasonably have been expected* to have, made a difference to the outcome.

A provisional decision regarding whether or not there have been any lapses of care are made at the RCA meeting, and then reviewed separately with the CCGs.

C. difficile infection were associated with lapses of care (failed cleaning of commodes x 1, transmission proved by molecular typing x 2, missed opportunity for an early diagnosis x 1 and inappropriate antibiotic therapy x 1).

10.3 Staphylococcus aureus Infections (MRSA and MSSA)

Mandatory surveillance by the Department of Health now includes both Methicillin Sensitive *Staphylococcus aureus* (MSSA) blood stream infections as well as Methicillin Resistant *Staphylococcus aureus* (MRSA) infections. However, targets are not set for MSSA infections, most of which originate in the community rather than in hospital.

Figure 1



Meticillin Sensitive Staphylococcus aureus bacteraemia 2011-12 to 2015-16

10.3.1 Methicillin Resistant Staphylococcus aureus (MRSA)

There is no specific NHS England Trust objective for MRSA bacteraemia other than observance of the principle of "zero avoidable cases".

Figure 2: MRSA bacteraemia cases depicted from 2013 - 2017								
2013-14 2014-15 2015-16 2016-17								
Trust assigned MRSA cases	9	1	2					
Trust MRSA rate/100K bed-days	2.7	0.3	0.6	2.52				
NHS rate/100K bed-days	4.2	0.9	0.9	0.91				

The overall rate of Trust assigned MRSA bacteraemia cases for 2015-16 was 2.52/100K bed days compared with the NHS average of 0.9/100K bed days.

10.3.2 MRSA Staphylococcus aureus Admission Screening

Table 5 below shows compliance with pre-admission screening for elective orthopaedic joint surgery 2016-17.

Table 5

(uses PAS data selected by coding linked to Pathology data)								
MRSA screening compliance								
elective orthopaedic joint replacement surgery 2015-16								
	No of	Not		%				
Site	Cases	screened	Screened	compliance				
K&CH	16	2	14	88%				
QEQMH	827	7	820	99%				
WHH	919	22	897	98%				
	1762	31	1731	98%				

(Hips, Knees Elbows, Ankles , Shoulders and intervertebral disks)

Linkage studies of laboratory results to admission episodes has confirmed a high rate of compliance with screening policies for all patients with an overnight stay.

Figure 3:



MRSA isolates that are considered to be hospital acquired continue to be reported on a monthly basis. Two or more ward-acquired cases on a ward within a calendar month are reported via Datix as a "period of increased incidence", and investigated by the IP&C Clinical Nurse Specialists in order to identify any ward requiring additional support and/or intervention.

10.4 E. coli Blood Stream Infections Surveillance

Escherichia coli (*E. coli*) remains the most frequent cause of septicaemia identified across the NHS. Most cases are community acquired infections and case numbers have been increasing year on year.

Chart 1: *E. coli* blood stream infections



E.coli blood stream infections 2005-06 to 2015-16

Post 48 hour cases (in red above) represent the proportion of cases with potential onset of infection after admission to hospital.

During 2016-17, EKHUFT reported an increase in *E. coli* blood stream infections, as depicted in the table above.

The majority of cases are thought to be linked to urinary tract infections, bile duct sepsis and other gastrointestinal sources. It is likely that the high rate locally is due to demographic factors, notably the higher proportion of population in the age group > 75 years who account for most *E. coli* infections. Analysis of the *E. coli* rate per head of population demonstrates that the local rate of *E. coli* infection is within the range of variation seen nationally.

Examination of geographical variation in *E. coli* rates reported by Public Health England reveals that the overall East Kent rate of 80.8/100K population is high for the South of England but lower than the average population rates found in many parts of the North. The reason for this regional variation is not known.

The most frequent clinical diagnosis associated with *E. coli* bacteraemia continues to be urinary tract infection. In order to reduce preventable urinary catheter associated infection, EKHUFT implemented the HOUDINI protocol which was an initiative designed to improve the management of urinary catheters and reduce the number of unnecessary catheter placements. The current situation (2016-17) bears out this analysis and monitoring and auditing of the compliances with HOUDINI is to be addressed commencing April 2017.

10.5 Carbapenemase Producing Organisms (CRO's)

In CRO's have become established, asymptomatic gut carriage is far more frequent than clinical infection and such carriers can spread CRO's to other patients particularly if they have been rendered susceptible to colonisation by prior antimicrobial therapy.

In response to this threat the IPCT introduced CRO rectal screening (as recommended by the PHE Acute Trust Toolkit) for all admissions meeting the following conditions:

- Recent hospital stay in UK outside Kent
- Recent hospital stay overseas

- Hospital care in an institution where CRO's are prevalent
- Previous carriage or infection by CRO's.

Since introducing this policy a number of asymptomatic carriers of CRO's have been detected but no symptomatic infections have been encountered.

The screening process did identify a case which culminated in a period of increased incidence (PII) – the ongoing issues relate to isolating appropriately and staff reviewing patient history.

11. ANTIMICROBIAL STEWARDSHIP GROUP

11.1 Chair of Antimicrobial Stewardship Report (Dr Matthew Strutt)

This has been a difficult year for antimicrobial stewardship in the trust. The Trust no longer has any antimicrobial pharmacists in post; all three antimicrobial pharmacists left the trust over a one month period Dec 16/Jan 17 and have not yet been replaced. The current contingency plan offers little support from pharmacy for antimicrobial stewardship activities. As a consequence most aspects of antimicrobial stewardship are in abeyance including training, audit, ward referrals, real time antimicrobial stewardship ward rounds, guideline development, review of trends in antibiotic consumption, Antimicrobial Stewardship Group meetings and implementation of CQUIN action plan.

Unfortunately this collapse of stewardship within the Trust has occurred when the trust has a National Antimicrobial CQUIN worth nearly £900,000, which we had previously predicted achieving. For the first half the year of the year we were on target to meet three of the four CQUIN targets and had an action plan in place to ensure compliance with the fourth (there had been an unexpected rise in Meropenem usage compared to the base line data), but it now seems likely we will only meet one, review of prescription within 72 hours.

The current increase in antimicrobial usage that we are seeing across the trust has left us in a position where patients will be harmed through inappropriate antibiotic prescription and administration. *C. difficile* infection and MRSA bacteraemia rates may increase, antimicrobial CQUINS targets will not be met and the Trust will face financial penalties and scrutiny from CQC and Commissioners.

12. TRAUMA AND ORTHOPAEDIC SURGERY

Surveillance of surgical site infection (SSI) following orthopaedic surgery has been included in the mandatory healthcare-associated infection surveillance system in England since April 2004 although EKHUFT has been participating in this scheme since 1998. The National Surveillance Scheme enables hospitals in England to undertake surveillance of healthcare associated infection, compare their results and national aggregated data, and use the information to improve patient outcomes.

All NHS Trusts where orthopaedic surgical procedures are performed are expected to carry out a minimum of three months surveillance in at least one of the three orthopaedic categories:

- Total hip replacements
- Knee replacements
- Hip hemiarthroplasties

EKHUFT undertake continuous surveillance in all 3 categories (rather than limiting participation to the mandatory single quarter per year).

SSI data for orthopaedic procedures for year 2016-17 reports infection rates for orthopaedic joint replacement surgery remains below the average for Trusts participating in the scheme.

13. CONCLUSION

The Infection Prevention and Control Annual Programme for 2016/17 have been completed and there has been a much reduced level of visibly from the diminished team.

MRSA and *C. difficile* infection rates remain the concerns for staff and IPC team. These concerns and areas of non-compliance have been part of the action plans developed for renewed communication with ward staff, to reflect on the themes and to take the learning from these to the wards, to staff forums – to reiterate the infection prevention and control standards to ensure patient safety and quality of care.

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Appendix 1: Mandatory Training Compliance and Hand Hygiene/BBE/Commode Cleanliness Reports

Mandatory	/ Training	Compliance:
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Mar-17

	Infecti	on Control
		NEW 3 Years
Clinical Support Services	Total	97%
	Clinical Support Divisional Management	100%
	Outpatient Services	99%
	Pathology	96%
	Pharmacy	100%
	Radiological Sciences	96%
	Therapies	97%
Corporate	Total	94%
	Clinical Quality, Patient Safety and Operations	89%
	Finance & Performance Management	98%
	Human Resources	99%
	PGME/Library	98%
	Research & Development	96%
	Trust Board	75%
Specialist Services	Total	90%
	Cancer, Clinical Haematology & Haemophilia	93%
	Child Health	91%
	Dermatology	98%
	Renal Medicine	91%
	Specialist Services Divisional Management	90%
	Womens Health	88%
Strategic Development & Capital		
Planning	Total	97%
	Facilities	98%
	Hospital Management K&C	100%
	Hospital Management QEQM	88%
	Hospital Management WHH	96%
	Information Technology	98%
	Procurement	98%
	Strategic Development	100%
	Strategic Estates	100%
Surgical Services	Total	91%
	Anaesthetics	92%
	General Surgery	92%
	Head & Neck	86%
	Surgical Services Divisional Management	96%
	Trauma & Orthopaedics	91%
	Vascular, Inter Radiology & Urology	84%
Urgent Care & Long Term Conditions	Total	91%
	Accident & Emergency	93%
	Acute Medicine	85%
	НСООР	94%
	Specialty Medicine	96%
	UC<C Divisional Support	96%

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March 2017

Infection Control Audit Performance

	Clinical	Specialist	Surgical	Urgent & Long Term		
AHP Staff	100.0 %	100.0 %	100.0 %	100.0 %		
Medical Staff	98.7 %	81.6 %	100.0 %	97.0 %		
Nursing Staff	100.0 %	100.0 %	100.0 %	99.6 %		
Support Staff	100.0 %	92.9 %	96.5 %	100.0 %		
Commode Audit						
	Clinical	Specialist	Surgical	Urgent & Long Term		
Commode	100.0 %	100.0 %	97.9 %	93.5 %		
Hand Hygiene Audit						
	Clinical	Specialist	Surgical	Urgent & Long Term		
AHP Staff	100.0 %	100.0 %	98.5 %	90.1 %		
Medical Staff	100.0 %	94.3 %	96.9 %	97.2 %		
Nursing Staff	100.0 %	100.0 %	98.7 %	93.3 %		
Support Staff	98.1 %	100.0 %	99.3 %	95.8 %		

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Appendix 2: Infection Prevention and Control Team Committee/Group Membership

The Infection Prevention and Control Team Committee/Group Membership (IPCT members contributed to the following committees in 2016-17)

- Clinical Advisory Board
- Drugs and Therapeutics Committee
- And Antibiotic Sub-Group
- Infection Control Committee
- Trust wide Matrons Forum
- Infection Prevention and Control Team meetings
- Patient Safety Board
- Medical Devices Group
- Health and Safety Committee
- CSSD Divisional Risk and Governance Committee
- Surgical Division Clinical Governance Board
- Soft FM Partnership Board
- Endoscopy User Groups
- Heads of Nursing meetings
- UCLTC Quality and Assurance Board
- Endoscopy Decontamination Steering Group
- Procurement Assurance Group
- Portering Task and Finish Group
- Chief Nurse fortnightly catch up
- Trust Board
- Mortuary Task and Finish Group
- Bed and Mattress Task and Finish Group
- Senior Quality Leadership Forum
- Strategic Investment Group
- Pillows Project Working Group
- Microbiology and Infection Control meeting
- EKHUFT Quality meetings

External

- Kent-wide Infection Control Committee
- Kent Director of Infection Prevention and Control Forum
- Eastern and Coastal Kent NHS Primary Care Trust Infection Prevention and Control Committee
- Eastern and Coastal Kent NHS Primary Care Trust Infection Prevention and Control Project Group
- NHS South East Coast Directors of Infection and Control Committee
- HCAI Assurance Panel
- Kent and Medway HCAI Improvement Working Group
- Kent and Medway Infection Prevention and Control Forum
- HCAI Operational Group

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