

Director of Infection Prevention & Control

Annual Report 2005/2006

&

Action Plan 2006/2007

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Mrs C Tripp

Director of Infection Prevention & Control / Director of Nursing

Dr R Kappeler

Consultant Microbiologist / Infection Control Doctor

Mrs B J Connolly

Specialist Nurse in Infection Control

Mrs S Egdell

Infection Control Nurse

1. **Introduction**

All NHS Organisations must ensure that they have effective systems in place to control healthcare associated infection. The prevention and control of infection is part of Papworth's overall risk management strategy. Evolving clinical practice presents new challenges in infection prevention and control, which need continuous review.

The Trust puts infection control and basic hygiene at the heart of good management and clinical practice and is committed to ensuring that appropriate resources are allocated for effective protection of patients, their relatives, staff and visiting members of the public. In this regard emphasis is given to the prevention of healthcare associated infection, the reduction of antibiotic resistance and the improvement of cleanliness in the hospital.

The issues that the Trust must consider include:

- The number and type of procedures carried out across the Trust and the systems in place to support infection control and decontamination.
- The different activities of staff in relation to the prevention and control of infection.
- The policies relating to infection prevention and control and decontamination.
- The staff education and training programmes.
- The accountability arrangements.
- The infection control advice received by the Trust.
- The microbiological support for the Trust.
- The integration of infection control into all service delivery and development activity.

This report has been written to provide information about infection prevention and control at Papworth Hospital. This information is primarily aimed at patients and their carers, but may also be of interest to members of the public in general.

The report aims to reassure the public that the minimisation and control of infection is given the highest priority by the Trust.

In publishing this report we recognise that patients and the public are increasingly concerned about infection risks. Access to information about this aspect of hospital care is rightly needed in order to make informed decisions and choices about their health care needs.

2. **Executive Summary – Overview of Infection Control Activities within the Trust**

The Trust has a proactive infection control team that is very clear on the actions necessary to deliver and maintain patient safety. Equally, it is recognised that infection control is the responsibility of every member of staff and must remain a high priority for all to ensure the best outcome for patients.

The hospital has signed up to the 'Saving Lives' programme, developed by the Department of Health to reduce Healthcare Associated Infections (HCAs), including MRSA.

A new Consultant Microbiologist (0.6 WTE) was appointed in March 2006 and an additional 0.6 WTE Infection Control Nurse in September 2006 to further assist in achieving compliance in the 9 challenge areas set in this programme, including ensuring Papworth does not exceed its MRSA bacteraemia target of 12 cases per annum.

For 2006/07 there has been the introduction of the national Mandatory Enhanced Surveillance System (MESS) that requires sign off by the Chief Executive on a monthly basis. Papworth continues to take part in mandatory surveillance of Vancomycin Resistant *Enterococci* (VRE) and *Clostridium difficile* as well as MRSA.

Papworth continues to have the lowest rates of *C difficile* compared with other Trusts in the East of England.

3. **Description of Infection Control Arrangements**

3.1 **Corporate Responsibility**

The Director of Nursing has lead responsibility within the Trust for Infection Prevention and Control and reports to the Chief Executive and the Board of Directors. Following publication, by the Department of Health in December 2003, of the Chief Medical Officer's strategy for infection control (*Winning Ways: working together to reduce healthcare associated infection*) the Director of Nursing post has been designated as Director for Infection Prevention and Control for the Trust.

The Medical Director and the Head of Clinical Governance and Risk Management, through their respective roles, also exert their influence at a corporate level in areas that have direct impact on infection prevention and control.

3.2 **Infection Control Team**

Specialist advice is provided to clinicians throughout the hospital by the infection control team. Dr Kappeler, Consultant Microbiologist is the Infection Control Doctor (ICD). She is at present employed by the Health Protection Agency based at Papworth. Cover for leave of absence is provided by Dr Karas, ICD for Hinchingsbrooke Hospital and Dr Foweraker, Consultant Microbiologist at Papworth Hospital.

Mrs B Connolly is the Specialist Nurse in Infection Control for Papworth Hospital. Cross-cover is provided by the ICN at Hinchingsbrooke Hospital. Mrs Sharon Egdell was appointed as Infection Control Nurse in September 2006.

Additional support to the team is provided by a Specialist Registrar.

Dr Ruth Kappeler Infection Control Doctor/Consultant Microbiologist Papworth Hospital NHS Foundation Trust	MBChB, MSc, MRCPATH 0.6 WTE
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Mrs Beryl Connolly Specialist Nurse in Infection Control Papworth Hospital NHS Foundation Trust	RGN, Dip Infection Control 0.84 WTE
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Mrs Sharon Egdell Infection Control Nurse Papworth Hospital NHS Foundation Trust	RGN 0.6 WTE
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Cross Cover Arrangements:

Dr Andreas Karas Infection Control Doctor Hinchingsbrooke Healthcare NHS Trust	MB BCh, FCPATH (S.A.) Consultant Microbiologist
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Mrs Marlis Emery
Infection Control Nurse
Hinchingbrooke Healthcare NHS Trust

RGN

Dr Juliet Foweraker
Consultant Microbiologist
Papworth Hospital NHS Foundation Trust

MB BChir, MA, FRCPath, PhD

The infection control team provides expert knowledge, direction and education in infection prevention and control issues across the Trust. The team will therefore liaise with clinicians and directorate managers together with managers who have responsibility for Estates, Hotel Services, Clinical Governance and Risk Management. The remit of the team includes:

- To have in place policies and guidelines for the prevention, management and control of infection across the organisation.
- To communicate information relating to communicable disease to all relevant parties within the Trust.
- To ensure that training in the principles of infection control is accurate and appropriate to the relevant staff groups.
- To work with other clinicians to improve surveillance and to strengthen prevention and control of infection in the Trust.
- To provide appropriate infection control advice, taking into account national guidance, to key Trust committees.

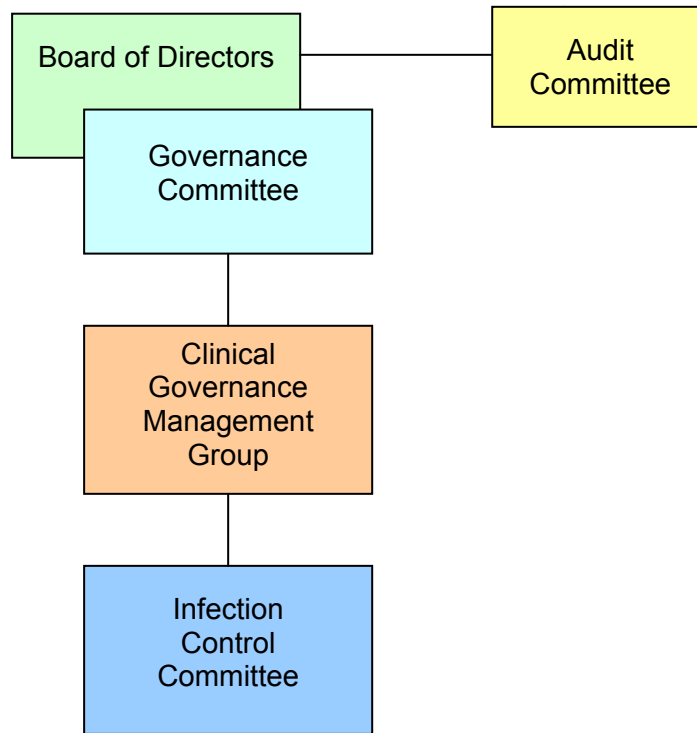
3.3 Infection Control Committee Structure and Accountability

The Infection Control Committee is the main forum for discussion concerning changes to policy or practice relating to infection prevention and control. The membership of the Committee is multi-disciplinary and includes representation from all directorates and senior management. The Committee is chaired by Dr Ruth Kappeler, Consultant Microbiologist, and meets bi-monthly. The committee has a link via the clinical governance management group into the Governance Committee of the Board of Directors. The terms of reference and membership are shown in Appendix 1.

Additionally, clinical champions have been identified in each area who come together as an “Infection Control Link Group”. This group helps to facilitate best practice and acts as a forum for education and discussion. The terms of reference are included in Appendix 2.

The relationship and reporting line between the Infection Control Committee, the Clinical Governance Management Group and the Board of Directors is shown in the following diagram.

Infection Control Committee Structure and Accountability



Committee/ Group Membership:

- Director for Infection Prevention & Control
- Infection Control Doctor
- Infection Control Nurse
- Representatives from each Clinical Directorate
- Hotel Services Manager

3.4 Infection Control Team Representation on Committees at Papworth Hospital:

Infection Control Committee	Dr Kappeler (Chair), Mrs Connolly, Mrs Egdell
CCA infection Control Committee	Dr Kappeler, Mrs Connolly
Clinical Governance Management Group	Mrs Tripp (DIPC)
Audit and Clinical Effectiveness Steering Group	Dr Kappeler Mrs Connolly to be co-opted if required
TCCA	Dr Foweraker
Medical Devices	Mrs Connolly
Tissue Viability	Mrs Connolly
Enteric Feeding	Mrs Connolly
Supplies Users	Mrs Connolly
Domestic Review Group	Mrs Connolly,
Health & Safety	Mrs Connolly
Legionella Steering Group	Dr Kappeler
Public Health TB Forum	Mrs Connolly
Links to Prescribing and Formulary Committee	Ms Cox Ms Bligh
Drugs & Therapeutics Committee	Dr Foweraker

3.5 Assurance

The Assurance process includes internal and external measures. Internally, the accountability exercised via the committee structure described above ensures that there is internal scrutiny of compliance with national standards and local policies and guidelines. Furthermore, external assessments are also used these include the 'Controls Assurance' infection control and decontamination standards, NHSLA standard for Infection Control and the Patient Environment Action Teams (PEAT) review. Progress in these areas during 2005/6 is summarised below.

Controls Assurance	<p>Sterile Services Department has been audited and meets the requirements of disinfection, assembly, packing, moist heat and gas plasma sterilisation of theatre trays and procedure packs and supplementary instruments in accordance with ISO 13485:2003 and ISO 9001:2000. For moist heat and gas plasma sterilisation of theatre trays, procedure packs and supplementary instruments in accordance with Medical Devices Directive 93/42/EEC Annex V, Article 12 (Sterility Aspects Only).</p> <p>There is a national target to reduce the number of MRSA bacteremias year on year for Papworth and this has been as <12 for Papworth.</p>
PEAT	Score for Environment & Cleaning – March 2006 – 90% (5 months after Sodexho took over the contract)
Healthcare Commission Standards	<p>The Trust did not comply with C4a in 2005/6. During this year the MRSA bacteraemia rate was 14, exceeding the target of 12 (see page 16).</p> <p>The Trust demonstrated full compliance with C4b, c, d and e.</p>

C4 (a)	Health care organisations keep patients, staff and visitors safe by having systems to ensure that the risk of health care acquired infection to patients is reduced, with particular emphasis on high standards of hygiene and cleanliness, achieving year-on-year reductions in MRSA.
C4 (b)	Health care organisations keep patients, staff and visitors safe by having systems to ensure that all risks associated with the acquisition and use of medical devices are minimised.
C4 (c)	Health care organisations keep patients, staff and visitors safe by having systems to ensure that all reusable medical devices are properly decontaminated prior to use and that the risks associated with decontamination facilities and processes are well managed.
C4 (d)	Health care organisations keep patients, staff and visitors safe by having systems to ensure that medicines are handled safely and securely.
C4 (e)	Health care organisations keep patients, staff and visitors safe by having systems to ensure that the prevention, segregation, handling, transport and disposal of waste is properly managed so as to minimise the risks to health and safety of staff, patients, the public and the safety of the environment.

3.6 DIPC Reports to Board of Directors

To: Board of Directors

From: Director of Nursing

Date: 23 February 2006

FOR INFORMATION **Infection Control**

Summary

MRSA is one of 6 specific service priorities that the DoH believes will require particular attention in 2006/07 to ensure delivery of national targets by 2008 and beyond. The aim is to achieve a year on year reduction.

MRSA Bacteraemia Rates – Update

Summary

The DoH target is to achieve a 50% reduction in MRSA bacteraemia cases by 2008. Papworth's target, due the small numbers reported, has been set at 12 pa.

Background

On 6 February 2006 the MRSA infection rates were released by the Department of Health, they show that nationally there has been a small rise in infection rates compared to the same period in 2004.

The number of MRSA bacteraemias reported by Papworth Hospital increased by 4 cases (from 5 to 9 cases), when comparing the following 6 month periods - October 2004 to March 2005 and April 2005 to September 2005.

Papworth is a specialist centre and, as such, receives high risk admissions. It is encouraging that the reporting tool for MRSA bacteraemia rates is currently being reviewed, as the hospital that detects the bacteraemia may not always be the hospital where the infection was acquired. This has caused some data anomalies. There are 3 such cases within the 9 cases reported above. It is noticeable that MRSA rates are high within some hospitals within East Anglia, which also serve as feeder hospitals to Papworth.

DoH Initiative to Reduce Healthcare Acquired Infections (HCAI) including MRSA

Summary

The hospital has signed up to "Saving Lives", along with 84% of NHS Trusts nationally. Saving Lives is a programme developed by the DoH to reduce HCAs, including MRSA. A self-assessment exercise is underway and will be reported back to the Board in April 2006. A 1 WTE Band 6 Infection Control Nurse has been identified as an additional post within the corporate nursing budget to facilitate the Trust delivering this target.

Background

To help achieve the NHS goal of halving MRSA bacteraemias by 2008, *Saving Lives: A delivery programme to reduce HCAI including MRSA* has been set up in conjunction with the Modernisation Agency, which emphasises the changes in the acute setting as a priority area. Building on evidence based good practice, Saving Lives draws on comprehensive learning and the best initiatives in combating HCAI. It references extensively the good work of the many organisations targeting HCAI and signposts where to go for further information. The programme supports the good work already underway from both Winning Ways and Towards Cleaner Hospitals.

To: Board of Directors

From: Director of Nursing

Date: 23 March 2006

FOR INFORMATION

Infection Control - MRSA death rates

Summary

Further to the last six monthly MRSA surveillance results released on 6 February 2006. National statistics were released for MRSA mortality rates across the UK. These figures were reported anonymised, with no identifier of specific organisations. There have been no deaths at Papworth Hospital attributed solely to MRSA in the last 12 months.

To: Board of Directors
From: Director of Nursing
Date: 25 May 2006

Infection Control Update

Summary

The Trust signed up to the Department of Health (DoH) Saving Lives Programme to reduce Healthcare Acquired Infections in February 2006. The Self Assessment exercise based on a Framework of 9 key challenges is now complete (See Attached).

Background

The action plan developed from the self assessment exercise is being progressed, via challenge teams and is monitored by the infection control committee.

- The Trust scores Amber (71 – 99%) in 4 of the Challenges.
- The 5 remaining challenges have agreed action plans
- Key actions: Visibility of
- [Challenge 1] responsibility defined within job descriptions/job plans
- [Challenge 1] objectives for seniors managers
- [Challenge 3] feedback to management groups
- [Challenge 4,5 & 7] audit programme, training programmes.

In addition agreeing benchmarking criteria with Liverpool Cardiothoracic Centre and the Royal Brompton and Harefield Hospitals is underway.

Recommendation

The Board are asked to note this report.

Saving Lives: Reducing HCAI including MRSA

Balanced Score Card: Self-Assessment Summary for Infection Control

Papworth Hospital NHS Foundation Trust

18 May 2006

Challenge 1	Challenge 2	Challenge 3
Engage senior management (clinical and non clinical) in order to secure the implementation of best practice in the prevention and control of infection.	Appoint infection control leaders at each level in the organisation to ensure the promotion of good clinical practice and challenge inappropriate behaviour	Implement a local surveillance programme in order to identify in real time the infection status throughout the Trust by the provision of reports to each ward/unit at least quarterly.
Challenge 4	Challenge 5	Challenge 6
Adopt national evidence based guidance in order to ensure that patients are treated according to best practice.	Ensure the effective auditing of infection control practices throughout the Trust through monitoring and implementation.	Ensure that all Trust employees have a programme of education and training on the prevention and control of infection in order to understand their responsibility for infection control and the actions they must personally take.
Challenge 7	Challenge 8	Challenge 9
Review the patient journey for emergency and planned patients in order to reduce the risk of transmission of infection by minimising the movement of potentially infected patients.	Review the status of the built environment and the effectiveness of the facilities management services, including cleaning, in order to provide a safe and clean environment for patient care.	Implement robust Trust-wide policies for decontamination in order to ensure that patients will not get infected by inadequately decontaminated re-usable instruments, including surgical instruments and endoscopes.

Overall Status

Overall Status

Key

	100%	Full Compliance
	71% - 99%	Review Required
	=< 70%	Trust Priority

To: Board of Directors
From: Director of Nursing
Date: 27 July 2006

Infection Control Legislative Proposals – Health Bill 2006

Summary:

MRSA cannot be eradicated it can only be controlled. Treatment costs escalate as a result of increased antibiotic usage and extended hospital stays. Therefore prevention is still better than cure.

There has been 1 MRSA bacteraemia (imported) in the first quarter of this year
Regular performance monitoring will now also include Hospital Acquired Infections (HCAI) other than MRSA.

Background:

The Government's legislative proposals are an attempt to tackle the overall problem of MRSA: There are 4 key components to the Government's package:

1. A new and specific code of practice dealing with the prevention and control of healthcare – related infections;
2. A new duty on NHS bodies to follow the code, with a parallel duty on the Health care Commission to assess compliance with it;
3. A new discretionary power available to the Healthcare Commission to issue an improvement notice; and
4. Directions for improvement or penalties which may be imposed on those who continue to breach the code significantly.

The government has abandoned introducing possible criminal penalties for breaches of the new code, since the powers of the Secretary of State and of the independent regulator, Monitor – to take interventional action in the NHS are considered powerful enough to ensure improvement.

Recommendation:

At the May Board, the action plan developed as part of the saving lives initiative was presented to the Board, showing progress against 9 challenges. The content of the new code of practice is not yet fully understood. But by delivering on the action plans to meet these 9 challenges, Papworth will be well placed to ensure Code compliance.

Further assurance is proposed through Benchmarking activity with Liverpool Cardiothoracic Centre and the Brompton and Harefield Hospitals once benchmark criteria have been agreed.

The Board is asked to note this report and should expect a further update at its November meeting.

3.7 Budget Allocation

Budget allocation for infection control activities:

- 0.84 WTE Band 7 Infection Control Nurse.
- 0.60 WTE Band 6 Infection Control Nurse.
- 0.1 WTE of Consultant Microbiologist time.
- Scientific support and technical capability is funded within the contract that the Trust has with the Health Protection Agency (HPA).
- Administrative support is provided from the administrative team within microbiology and the PA to the DIPC.
- Training and IT support are funded from corporate IT and Education budgets based on any case of need submitted by the infection control team.

3.8 Infection Control Report & Programme for 2005/2006 – What We Have Achieved

The table on the following pages summaries the work undertaken by the Infection Control Team during 2005/6.

The Report covers the following areas:

- Infection Control Team
- Infection Control Committee
- Policies and Procedures
- Audit and Surveillance
- Education
- Department of Health initiatives – Saving Lives / Clean Your Hands Campaign.

Infection Control Report & Programme for 2005/2006 – What We Have Achieved

	Action	Goal	Achieved
1	Infection Control team	Appoint ICD	Completed Jan 2006
		Appoint DIPC	Completed Jan 2006
		Appoint additional 0.6 WTE Infection Control Nurse	Appointed September 2006
2	Infection Control Committee	Increase medical representation (Mr Choong appointed to the Committee)	July 2006
3	Policies and Procedures	Develop policy for SARS	Completed August 2006
		Develop policy for Avian and pandemic 'flu	Completed August 2006
		Norovirus policy	Completed September 2006
		Draft central line insertion policy	Draft circulated July 2006
4	Audit as per Saving Lives	Challenge 4	
		High impact intervention 1	
		o EPIC guidelines for hand hygiene	Last May 2006 (6 monthly)
		o Alcohol gel audit	Last May 2006 (6 monthly)
		o Personal protection	Pilot in CCA done
		o Aseptic technique	Pilot in CCA done
o Sharps disposal	50% hospital 2005/6 – report by September 2006		
	High impact intervention 2		
	o CV catheter		Done CCA July 05 Trust policy draft to ICC, July 06 Repeat audit CCA 07
	High impact intervention 5		
	o EPIC guidelines for urethral catheterisation		Aim for 2007
	Challenge 5		
	o Antibiotic prescribing data analysed by the antibiotic pharmacist		2006
	o Compliance of segregation of MRSA patients		On-going weekly

		Challenge 8 o Audit of cleaning	Peat Feb 2006 - annual
		Challenge 9 o National decontamination strategy guidelines o Compliance with HBN 13 o Central flexible endoscope decontamination unit o Autoclaves maintained to HTM 2010 o Steam quality conform to HTM 2031 o Compliance with HTM 2030 for washer/disinfectors	AG to complete
5	Surveillance	o Participation in the National Healthcare Associated Infection Prevalence survey o MRSA bacteraemias o MRSA other o MSSA bacteraemias o GRE total	Completed May 2006 Report due Autumn 2006 Monthly on-going Monthly on-going Monthly on-going Monthly on-going
		o ESBL total o C. difficile o MRSA acquisition	Monthly on-going Monthly on-going Weekly On-going
	Feedback on surveillance	o Quarterly feedback to ICC o Monthly feedback to CCA o Quarterly feedback to directorates o Feedback of MRSA acquisition	Commenced March 2006, now on-going Commenced May 2006, now on-going Commenced August 2006, now on-going CCA – commenced June 2006, now on-going monthly ICC – commenced July 2006, now on-going quarterly
6	Education	o Induction training to all new Papworth employees o Interactive teaching programme for all staff	On-going Pilot planned Autumn 2006
7	Saving Lives	o Signed up o Self Assessment o Action Plan	Done Jan 2006 Completed April 2006 See Saving lives
8	Antimicrobial Resistance	o Return of antibiotic pharmacist o Development of antibiotic prescribing strategy o Review of current antibiotic policies o Development of antibiotic audit programme	June 2006 In progress In progress In progress

5. HCAI Statistics

Introduction

Papworth Hospital NHS Trust continues to take part in mandatory surveillance of Methicillin-resistant *Staphylococcus aureus* (MRSA) bacteraemias, Glycopeptide (or Vancomycin)-Resistant *Enterococci* (GRE/VRE) bacteraemias and *Clostridium difficile* (in the over 65 years olds). MRSA bacteraemias are reported monthly via the Mandatory Enhanced Surveillance Scheme (MESS) web site and signed off by the Chief Executive.

Feedback on the results for mandatory surveillance is given monthly to the Board of Directors, quarterly to the Infection Control Committee and the Clinical Management Groups. Individual monthly results for Critical Care are fed back to CCA monthly and discussed quarterly at the CCA infection control committee.

Additional surveillance data on MRSA, GRE, C.difficile, and resistant Gram negative isolates expressing Extended Spectrum B-lactamases is also collected and feedback given as that for the mandatory reports (see appendix 3).

Mandatory Reports

MRSA

MRSA bacteraemia figures for the past 5 complete years are represented in the table below.

Papworth Annual Bacteraemia rates (from 1st April 2001)

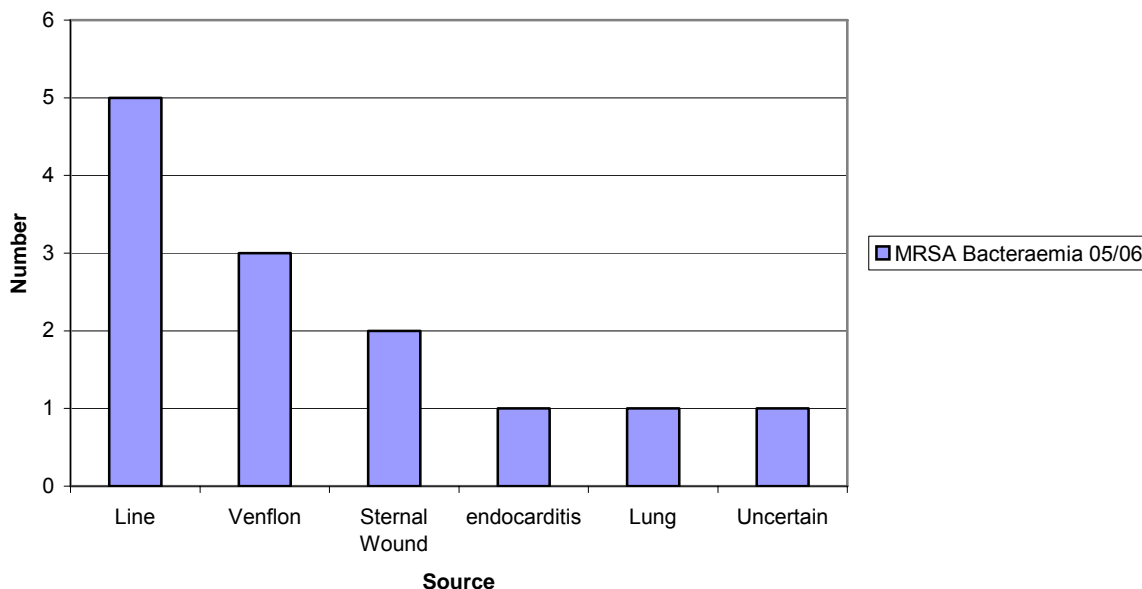
1/4/01- 31/3/02	1/4/02- 31/3/03	1/4/03- 31/3/04	1/4/04- 31/3/05	1/4/05- 31/3/06	1/4/06- 30/09/06	1/4/07- 31/3/08
12	24	13	7	14	5	Target 12

The target for MRSA bacteraemias set for Papworth by the Department of Health is 12 by March 2008.

Additional MRSA data

MRSA Bacteraemia rate by probable source 1/4/05-31/3/06.

Probable source of MRSA Bacteraemia 05/06



In summary, 8 out of 14 MRSA bacteraemias detected between 1st April 2005 and 31st March 2006 were associated with intravascular lines. Two out of 14 bacteraemias were associated with sternal wound infections. The insertion and care of intravascular lines will form a priority for 2006/7. Further information will be gathered on surgical site infection with the commencement of surgical site infection surveillance in October 2006.

MRSA Bacteraemia by provenance of patient 1/4/05-31/3/06

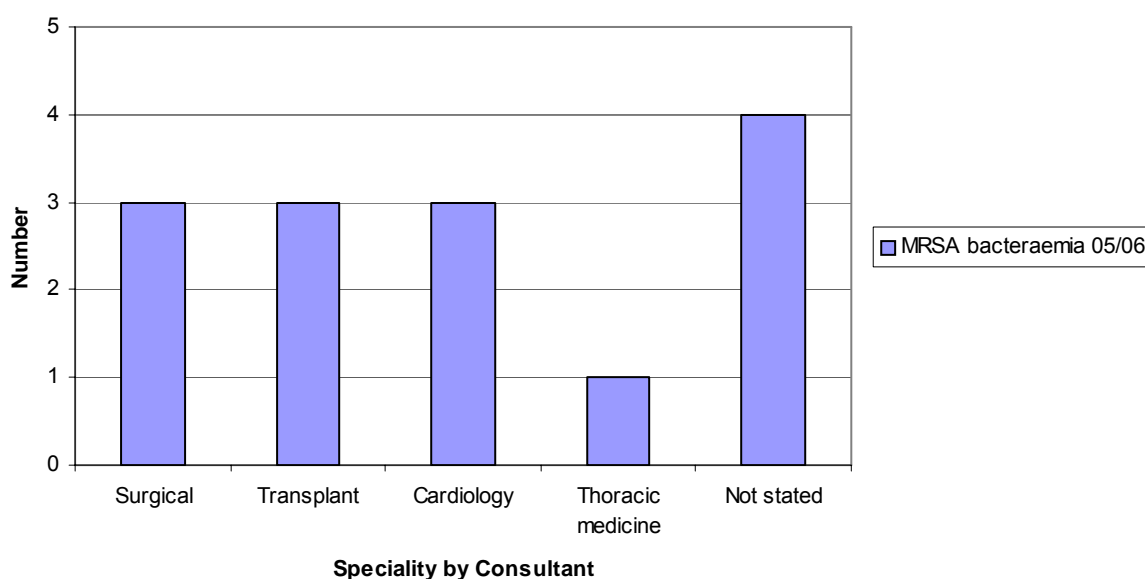
Patient No.	Date Blood Culture Taken	Date of Admission	Provenance if positive within 48 hours of admission	Location when blood culture taken	Likely Source	Comments
1	08/04/05	03/04/05	See comment	CCA	Central Line	Although blood culture taken after 48 hours of admission, had MRSA bacteraemia detected in other Trust on 29/03/05.
2	11/05/05	10/05/05	Other Trust	HEM	Sternal wound	
3	01/06/05	01/06/05	Other Trust	RSSC	Central Line	
4	04/06/05	25/05/05	-	HEM	Peripheral Line	
5	10/07/05	04/05/05	-	MAL	Peripheral Line	
	19/08/05	04/05/05	-	MAL		Same patient as 5 – separate episode as more than 14 days apart
6	31/07/05	17/07/05	-	SUG	Central Line	

7	19/08/05	18/08/05	Other Trust	HEM	Central Line	Transferred from other Trust with infected pacing wire.
8	05/09/05	31/08/05	-	HEM	Central Line	
9	06/10/05	07/09/05	-	CCA	Sternal wound/ICD	.
10	15/11/05	13/11/05	Home	CMU	Uncertain	Clinical team thought MRSA bacteraemia not significant.
11	21/01/06	08/01/06	-	CU	Peripheral Line	
12	05/02/06	05/02/06	Other Trust	CU	Endocarditis	Had MRSA bacteraemia in other Trust and aortic root abscess. Transferred to Papworth but not amenable to surgery.
13	10/02/06	12/12/05	-	CCA	Lung	

In summary, 14 MRSA bacteraemias detected in Papworth from 13 patients for the period 1st April 2005 to 31st March 2006. Of these 14, 5 were detected within 48 hours of admission implying that these were acquired elsewhere. One further bacteraemia, although detected outwith the 48 hour period, was a second episode, the first being detected 5 days earlier in another Trust, again implying that the source of the bacteraemia was acquired elsewhere. This means that 8 of the MRSA bacteraemias for the period 1st April 2005 to 31st March 2006 were acquired at Papworth hospital.

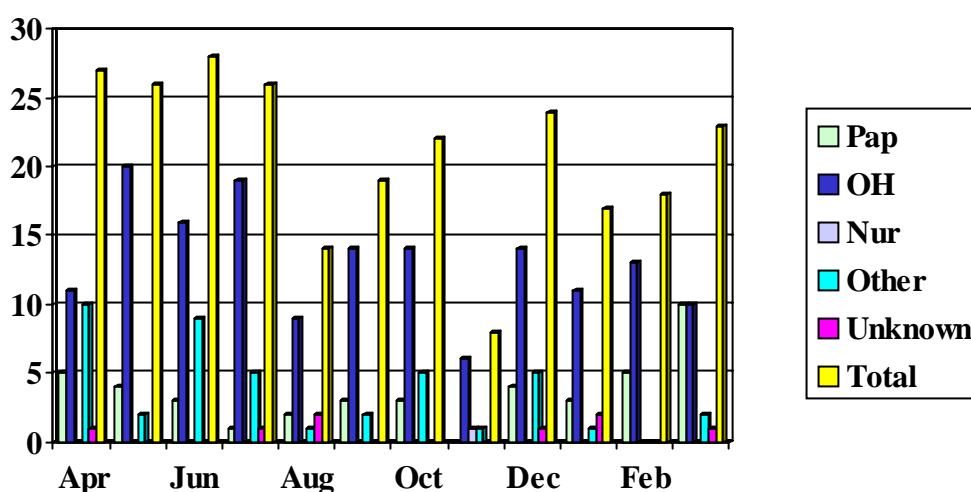
MRSA Bacteraemia by Speciality of Consultant 1/4/05-31/3/06

MRSA bacteraemia 05/06



MRSA acquisition rates (both infection and colonisation) 1/4/05-31/3/06

MRSA acquisition - 2005/2006 (inpatients) Total 252



GRE

Glycopeptide (or Vancomycin)-Resistant *Enterococcus* (GRE/VRE) Annual Bacteraemia Surveillance (from 1st Oct 2003)

1/10/03 – 31/3/04	1/4/04 – 31/3/05	1/4/05 – 31/3/06	1/4/06 – 30/9/06
0	5	5	3

C.difficile in >65year olds

Clostridium Difficile Annual Surveillance (in patients over 65years) (from 1st Oct 2003)

1/10/03 – 31/03/04	1/4/04 – 31/03/05	1/4/05 – 31/03/06	1/4/06 – 30/9/06
3	13	12	4

Papworth continues to have low rates of *C. difficile* compared with other Trusts in the East of England.

Wound Care

Surgical site surveillance for cardiac surgery is not currently mandatory. However, carrying out surgical site infection surveillance for coronary artery bypass graft surgery will commence at Papworth in October 2006 for a three month period. This will be carried out by the infection control nurses and the tissue viability nurse and information gathered fed back to the cardiac surgeons.

Antimicrobial Resistance

Reports on resistant organisms including MRSA, GRE/VRE and Gram negative organisms expressing Extended spectrum B-lactamases are collated and circulated to the infection control committee, CCA infection control committee and the CMGs as previously indicated. With the return of the antibiotic pharmacist in June 2006, further work will be done to audit the current antimicrobial guidelines and to develop an antimicrobial prescribing strategy. A review of the current antibiotic guideline for surgical prophylaxis is underway.

Untoward Incidents and Outbreaks

Incidents and outbreak investigations carried out through the year were reported to the Hospital Infection Control Committee throughout the year.

Papworth has experienced two separate Norovirus outbreaks. The April outbreak was reported to the Regional Health Protection Agency as a Serious Untoward Incident since several wards were shut to admissions and transfers. The table below summarises these two outbreaks.

Outbreak update April 2006 to 8 September 2006

Causative organisms	No. Patients affected	No of visitors affected	No. Staff affected	Ward/Dept closed to admissions
Norovirus 1/4/06	28 (5 confirmed by virology test)	2	36	CMU Cardiac Mallard
Norovirus 21/7/06	12 (5 confirmed by virology test)	0	1 (confirmed by virology test)	Mallard

6. Saving Lives Programme

Challenge 1 Engage senior management (clinical and non clinical) in order to secure the implementation of best practice in the prevention and control of infection.	Challenge 2 Appoint infection control leaders at each level in the organisation to ensure the promotion of good clinical practice and challenge inappropriate behaviour	Challenge 3 Implement a local surveillance programme in order to identify in real time the infection status throughout the Trust by the provision of reports to each ward/unit at least quarterly.
Challenge 4 Adopt national evidence based guidance in order to ensure that patients are treated according to best practice.	Challenge 5 Ensure the effective auditing of infection control practices throughout the Trust through monitoring and implementation.	Challenge 6 Ensure that all Trust employees have a programme of education and training on the prevention and control of infection in order to understand their responsibility for infection control and the actions they must personally take.
Challenge 7 Review the patient journey for emergency and planned patients in order to reduce the risk of transmission of infection by minimising the movement of potentially infected patients.	Challenge 8 Review the status of the built environment and the effectiveness of the facilities management services, including cleaning, in order to provide a safe and clean environment for patient care.	Challenge 9 Implement robust Trust-wide policies for decontamination in order to ensure that patients will not get infected by inadequately decontaminated re-usable instruments, including surgical instruments and endoscopes.

Saving Lives - A delivery programme to reduce Healthcare Associated Infection Including MRSA Self Assessment Action Plan - June 2006

	Challenge	Actions identified following self assessment April 2006	Means of attainment/ Comment	Timescale
1	Engage senior management (clinical & non-clinical) in order to secure the implementation of best practice in the prevention & control of infection.	<ul style="list-style-type: none"> Identify infection control a standing item on the clinical governance/risk management/ committee agendas. Identify a nominated lead for infection control in every service area/clinical directorate. Identify evidence of monitoring, review and action to improve as a part of the routine business of every service area/clinical directorate. Ensure the responsibility of senior managers for infection control clearly identified in managers' on-call handbooks and relevant emergency plans. 	<p>Via DIPC to respective committees</p> <p>Via Operational Executive</p> <p>Via Audit programme (see Challenge 5)</p> <p>Via DIPC to Operational Exec'.</p>	<p>31 05 2006</p> <p>31 05 2006</p> <p>31 05 2006</p>
2	Appoint infection control leaders at each level in the organisation to ensure the promotion of good clinical practice and challenge inappropriate behaviour.	<ul style="list-style-type: none"> Ensure responsibility for compliance with infection control policy and procedures identified in the job description of all staff who work in clinical areas. Ensure that the responsibility for infection control of each clinical area allocated (e.g. to the manager of that area). Ensure each staff group has an infection control lead. Demonstrate that there is evidence that infection control leads are taking responsibility and accountability for promoting best practice. 	<p>Revisit through Performance review process</p> <p>Revisit through performance review process, steer via Operational Exec Confirm via Operational Exec/ICC</p> <p>Via SMF/ Operational Exec.</p>	Ongoing
3	Implement a local surveillance programme in order to identify in real time the infection status throughout the Trust by the provision of reports to each ward/unit at least quarterly.	<ul style="list-style-type: none"> Implement staffing provision sufficient to achieve the surveillance programme. Define and implement information technology and support sufficient to enable the surveillance programme. Define schedule for the Trust to undertake alert condition surveillance. Define schedule for feedback of surveillance to clinical teams. 	<p>Appoint 0.6wte additional infection control nurse</p> <p>Infection Control Team (ICT)</p> <p>ICT/ (Infection Control Committee)ICC</p> <p>ICC</p>	30 06 2006
4	Adopt national evidence based guidance in order to ensure that patients are treated according to best practice.	<ul style="list-style-type: none"> Implement the EPIC guidelines for hand hygiene, personal protection, and sharps disposal being followed. Implement the EPIC guidelines for central venous catheters being followed? Implement the EPIC guidelines for the prevention of surgical site infection being followed. Implement the EPIC (or equivalent evidence-based) guidelines for urethral catheterisation being followed 	To confirm timelines at May ICC	
5	Ensure the effective auditing of infection control practices throughout the Trust through monitoring and implementation.	<ul style="list-style-type: none"> Identify an infection control audit tool Identify the evidence that clinical teams review the results of infection control audits, and incorporate these into their plans for continuing improvement. Identify an individual to undertake the role and responsibility of antibiotic pharmacist 	Agree audit programme through ICC	30.06.06

6	Ensure that all Trust employees have a programme of education & training on the prevention & control of infection in order to understand their responsibility for infection control & the actions they must personally take.	<ul style="list-style-type: none"> • Demonstrate there is a programme of ongoing training including an update on policies and examples of good practice. • Evidence the training in antimicrobial prescribing given to all relevant staff • Evidence that infection control is included in individual annual appraisals and an integral part of Personal Development Plans for all staff. 		
7	Review the patient journey for emergency and planning patients in order to reduce the risk of transmission of infection by minimising the movement of potentially infected patients.	<ul style="list-style-type: none"> • Evidence that there is written infection control guidance on the movement of patients between wards, departments, such as A&E, X-ray, and other clinical areas <ul style="list-style-type: none"> ○ Evidence that there compliance across all relevant wards / departments / clinical areas. • Demonstrate there is local infection control guidance on the assessment of the clinical need for and risk of patient transfer <ul style="list-style-type: none"> ○ Evidence there is compliance across all relevant wards / departments / clinical areas • Evidence there is local written guidance describing the need for risk assessment and segregation before or upon admission. <ul style="list-style-type: none"> ○ Evidence there is compliance across all relevant surgical teams. • Evidence there is a documented treatment pathway for patients colonised with MRSA <ul style="list-style-type: none"> ○ Evidence there is compliance across all relevant wards / departments / clinical areas. • Demonstrate there is evidence of regular liaison between the bed manager, the ICT, ward manager and other relevant staff. 	Practice <u>not</u> consistent across the Trust. Audit of practice required (ICN) Practice <u>not</u> consistent across the Trust. Review corporate practice (ICN) Audit of practice required (ICN) Practice is consistent across the Trust as defined in IC policy Audit of practice required (ICN) Practice consistent across the Trust as Audit of practice required (ICN)	Time line to be agreed at May ICC
8	Review the status of the built environment and the effectiveness of the facilities management services, including cleaning, in order to provide a safe and clean environment for patient care.	<ul style="list-style-type: none"> ○ Identify there is a written cleaning strategy that has been approved and regularly monitored by the Board. ○ Demonstrate that cleaning services available whenever they are required. ○ Identify that the cleaning staff integrated into the relevant clinical team. ○ Demonstrate that the ICT is involved at all stages in the design and building of new healthcare facilities or the refurbishment of existing facilities. ○ Demonstrate that the ICT are consulted at all stages of the contracting process for hotel and other services that have implications for infection control, eg cleaning, laundry, clinical waste, and decontamination. 	Enrolment to 'Saving Lives' programme	

9	<p>Implement robust Trust-wide policies for decontamination in order to ensure patients will not get infected by inadequately decontaminated re-usable instruments, including surgical instruments & endoscopes.</p>	<ul style="list-style-type: none"> ○ Identify that there is a central flexible endoscope decontamination unit. 	<p>There is no central flexible endoscope decontamination unit. There are two areas for endoscopic decontamination. Area 1 is for the operating theatres and critical care. Area 2 is for out-patients and the Chest Medical Unit.</p> <p>Investigate environmental improvements. Improvements are underway in CMU, theatres decontamination area for endoscopes is being improved. Plans were raised 4 years ago. Consider priority ranking on risk register.</p>	
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6.1 Decontamination

Sterile Services Department has been audited and meets the requirements of disinfection, assembly, packing, moist heat and gas plasma sterilisation of theatre trays and procedure packs and supplementary instruments in accordance with ISO 13485:2003 and ISO 9001:2000. For moist heat and gas plasma sterilisation of theatre trays, procedure packs and supplementary instruments in accordance with Medical Devices Directive 93/42/EEC Annex V, Article 12 (Sterility Aspects Only).

6.2 Cleaning Services

Management Arrangements:

Sodexo have provided an on site General Manager to oversee the contract and a Domestic Services Manger for the day to day running of the contract, who both support the Zonal Supervisors on a day to day basis.

Monitoring Arrangements:

An IT (Innovise) system is used to provide and monitor data with Quality Assurance in line with an agreed joint monitoring protocol. It is the duty of the Quality and Training Manager to capture and collate the information and present the information at the regular contract meetings. The implementation of zonal supervisors ensures consistent focus on both quality of service delivery and effective communication on monitoring results

Budget Allocation:

Budget allocation for 3 WTE managers and 45 domestic staff (full and part time) supported by a budget allocation for ad hoc cleans which include cleaning of barrier rooms and infection cleans.

Clinical Responsibility:

A Modern Matron attends all contractual meeting and has input into service change and will assist the domestic services supervisors on their quality control rounds.

7. **Infection Control Programme/Action Plan 2006/2007**

	Action	Goal	Timeline
1	Infection Control team	Increase Infection Control Doctor time	Awaiting final sign off, October 2006
2	Policies and Procedures	Review and update MRSA procedure in line with new guidance Review and update TB procedure in line with NICE guidance Generic outbreak plan	Draft for ICC, Nov 2006 Draft for ICC, Nov 2006 Awaiting final version Oct 2006
3	Audit as per Saving Lives	Hand Hygiene – Audit Twice a Year	November 2006
	Challenge 4 HII 1 – Preventing the risk of microbial contamination HII 2 – Central venous catheter care	High Impact Interventions 1 & 2 audited on Critical Care. This pilot highlighted that we do not have a standardised protocol for care of CVC's across the hospital. Procedure for care of central lines written and disseminated for comment. To be taken to the Infection Control Committee for ratification in November 2006. This will take into account personal protection and sharps disposal. Cardiac Directorate Sisters to audit HII's 1 & 2 between August and November 2006. This will provide baseline information for the CVC protocol prior to implementation.	
	HII 3 – Preventing surgical site infection	Three month surgical site infection surveillance commenced (NINSS) October 2006. Pilot commenced to establish if wards are following the MRSA guidelines on the isolation and eradication treatment for patients with MRSA. Plan to complete 10 and then review.	Complete 31 December 2007
	HII 4 – Infection control measures for ventilated patients	Critical Care have already established a checklist. RSSC also use ventilator bundles. Date for audit to be agreed.	Pilot in CCA - ? Date
	Challenge 6	Infection control included in induction program – visibility of attendance data	CT to follow up
	Challenge 7	o Compliance of patient flows o Compliance of segregation of MRSA patients o Compliance of MRSA guidance in surgical patients o Compliance of MRSA guidance across trust	2007 On-going weekly 2007 2007
	Challenge 8	o Compliance with relevant legislation, policies and procedures regarding maintaining a safe environment o Audit of access to suitable cleaning materials o Audit of availability of cleaning services	2007 2007 2007
	4	Education	o Annual infection control update for consultants
5	Saving Lives	o Action Plan	See Saving lives

8. Targets & Outcomes

The main infection control target set by the Department of Health for Papworth Hospital is to have less than 12 MRSA bacteraemias per year by March 2008. In order to achieve this, the infection control team has carried out the Savings Lives self assessment and developed an action plan based on the results of this. In order to comply with Department of Health guidance, the infection control team review and reports each MRSA bacteraemia monthly via the MESS website with sign off by the Chief Executive. This year so far Papworth has reported 5 MRSA bacteraemias. Feedback is given to the relevant clinical team at the time, monthly feedback given to the Board of Directors. Quarterly feedback to the Infection Control Committee, CCA Infection Control Committee and Clinical Management Groups commenced this year.

The main priorities for 2006/2007 are in the areas of intravascular catheter related blood stream infections and surgical site infections as reflected in the infection control report and plan.

We aim to achieve an overall reduction in all hospital-acquired infections in line with Department of Health guidance. As such, Papworth took part in the Hospital Infection Society, National Point Prevalance Study (completed May 2006) to establish a base-line rate for healthcare associated infections in Papworth which can be compared with future and national rates. The national report is due in October 2006.

9. Training Activities

Teaching sessions	Duration	Frequency	Delivered by
Induction session for all new starters	15 minutes	Monthly	ICN
Induction session for all new clinical starters	As above plus 30 minutes on key issues	Monthly	ICN
Induction session for all new SHO, starters	15 minutes	Twice a year	ICD
Update sessions for nurse in cardiac directorate	30 minutes twice a month	Twice a month	ICN
Update for consultant staff	45 minutes	Yearly	ICD
Sessions for other groups of staff as requested e.g. pharmacy, porters	30 minutes		ICN

Appendix 1 – Terms of Reference – Infection Control Committee

Membership

Chair:

- Infection Control Doctor / Consultant Medical Microbiologist

Members:

- Chief Pharmacist (or representative)
- Clinical Governance Manager
- Consultant Microbiologist
- Consultant Surgeon
- Director of Nursing (Director of Infection Prevention and Control)
- Estates Department representative
- Health Protection Agency representative
- Hotel Services Manager (or representative)
- Infection Control Nurse
- Occupational Health Physician or Nurse Advisor
- Radiology Manager (or representative)
- Senior Nurse Cardiac Services (or representative)
- Senior Nurse TCCA Services (or representative)
- Senior Nurse Thoracic Services (or representative)
- Sister Transplant Unit (or representative)
- Sterile Services Manager (or representative)
- Tissue Viability Nurse Specialist

Invited attendees:

- Infection Control Nurse – Hinchingbrooke Hospital
- Specialist Registrar in Microbiology

Secretary:

- Microbiology Secretary

Aims

- To provide specialist advice, to formulate and monitor the implementation of policies and procedures, and to determine and monitor the progress of infection prevention and control at Papworth Hospital NHS Foundation Trust.
- To reduce Healthcare Associated Infection (HCAI) and deliver the target to reduce MRSA bacteraemia, utilising the delivery programme Saving Lives (DoH 2005).

Duties

- i) To commission, approve (or recommend for approval) and monitor implementation of procedures and policies related to infection control, including policies for the hospital response to major outbreaks of communicable disease in the community.
- ii) To develop a comprehensive prioritised action plan that incorporates national guidance and good practice.
- ii) To prepare and review the progress of the annual programme of activities for infection prevention and control.

- iii) To advise General Managers and the Trust Executive on funding both for the infection control programme and any contingencies.
- iv) To advise directorates of problems in the control of infection in any of the clinical areas in the trust (as raised by members of the committee), and monitor the uptake of recommendations.
- v) To circulate the minutes of its meetings widely and liaise with medical, nursing and other committees as appropriate.

Quorum

The Committee shall be deemed quorate if there is representation of a minimum of five members. This must include at least one member of the infection control team. In the absence of the Infection Control Doctor, the Committee will be chaired by the Director of Nursing.

Frequency of Meetings

The Committee will meet on a bi-monthly basis and may convene additional meetings, as appropriate.

Minutes and Reporting

The agenda and briefing papers will be prepared and circulated in sufficient time for Committee Members to give them due consideration.

Minutes of Committee meetings will be formally recorded and distributed to Committee Members within 10 working days of the meeting. Subject the approval of the Chair, the minutes will be submitted to the Clinical Governance Management Group at its next meeting.

The minutes should also be circulated for information to the following:

- Cardiac Management Group.
- Thoracic Services Management Group.
- Transplant Steering Group.
- TCCA Directorate.

An annual report and programme of activities from the Infection Control Team should be submitted and presented to the Clinical Governance Management Group.

An annual report from the Director of Infection Prevention and Control (DIPC) should be submitted, following approval by the Committee, to the Governance Committee. This should be produced to conform to national reporting expectations.

The Committee should also report to the Chief Executive and the Board of Directors, by exception, to inform of any untoward or serious issues relating to infection prevention and control.

Acknowledgement

These Terms of Reference have been drawn up with due regard to the recommendations for the composition and conduct of infection control committees contained in *Standards in*

Infection Control in Hospitals (prepared by the infection control standards working party) 1993.

The Terms of Reference have been revised to incorporate Saving Lives: A Delivery Programme to Reduce HCAI, Including MRSA (DoH 2005). Signing up to this programme by the Trust will demonstrate their commitment to patient safety and reduction of HCAI.

Revised: April 2006

Appendix 2 – Terms of Reference - Infection Control Link Group

INTRODUCTION

These terms of reference facilitate the implementation of the current best practise guidelines for the reduction of risk of infection of staff and patients.

1. GROUP COMPOSITION

The group shall be multi disciplinary in nature and have the following permanent membership.

Representation from each ward/clinical area:

- Infection control
- Physiotherapy

Additionally the following will be co-opted as required:

- Education and Training
- Supplies
- Risk Management
- Pharmacy
- Sterile Services
- Biomedical Engineering

2. MEETINGS

Group meetings shall be on a bi-monthly basis. Ideally they will be set to correspond with meetings of the Infection Control Committee meeting.

3. FEEDBACK MECHANISMS

Minutes of group meetings will be made available to all members within two weeks of each meeting.

All group members will be responsible for reporting back to their relevant ward / department managers.

The chair of the Group will meet with the consultant microbiologist with overall responsibility for infection control.

Additional minutes of group meetings will be circulated to the Director of Nursing

4. AREAS OF RESPONSIBILITY:

- 4.1 To ensure a consistent and standard level of infection control practice throughout the hospital.
- 4.2 The provision of expert advice on infection control issues relevant to each member's clinical area.

Relevant infection control developments and issues affecting Papworth
Education session

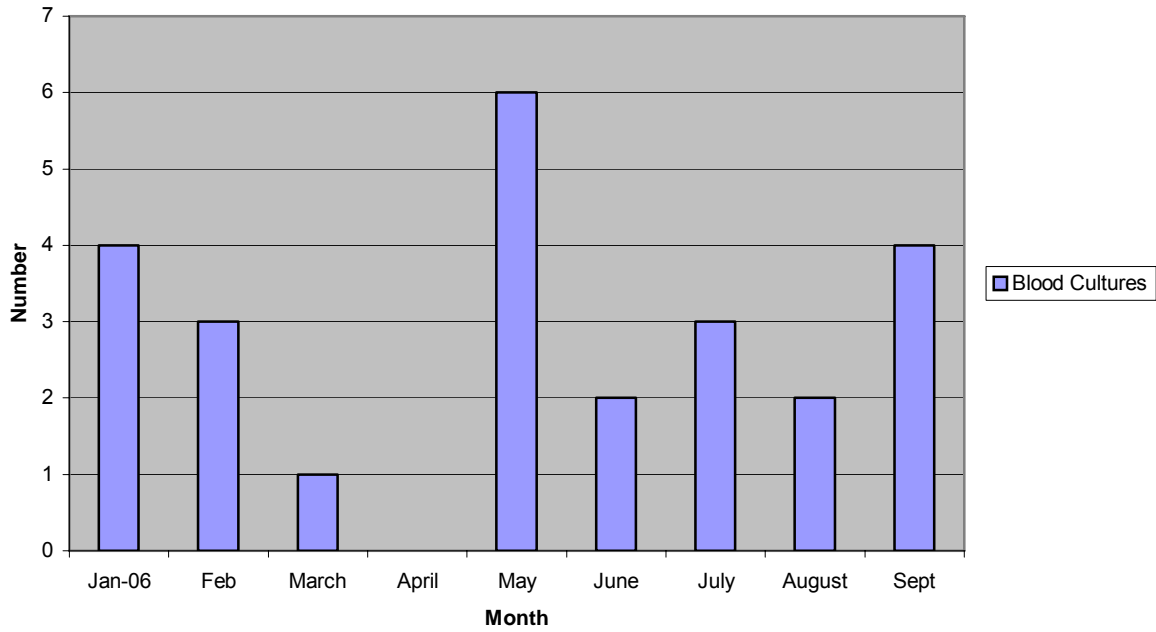
- 4.3 A forum for discussing infection control practice.

- 4.4 Continual review of existing hospital policies relating to infection control
- 4.5 Undertake audits to establish if polices are being followed.
- 4.6. Formulation of action to be taken in response to:
 - National and Trust objectives
 - Safety Information Notices from the Medical Devices Agency
 - Hazard Notices from the Medical Devices Agency

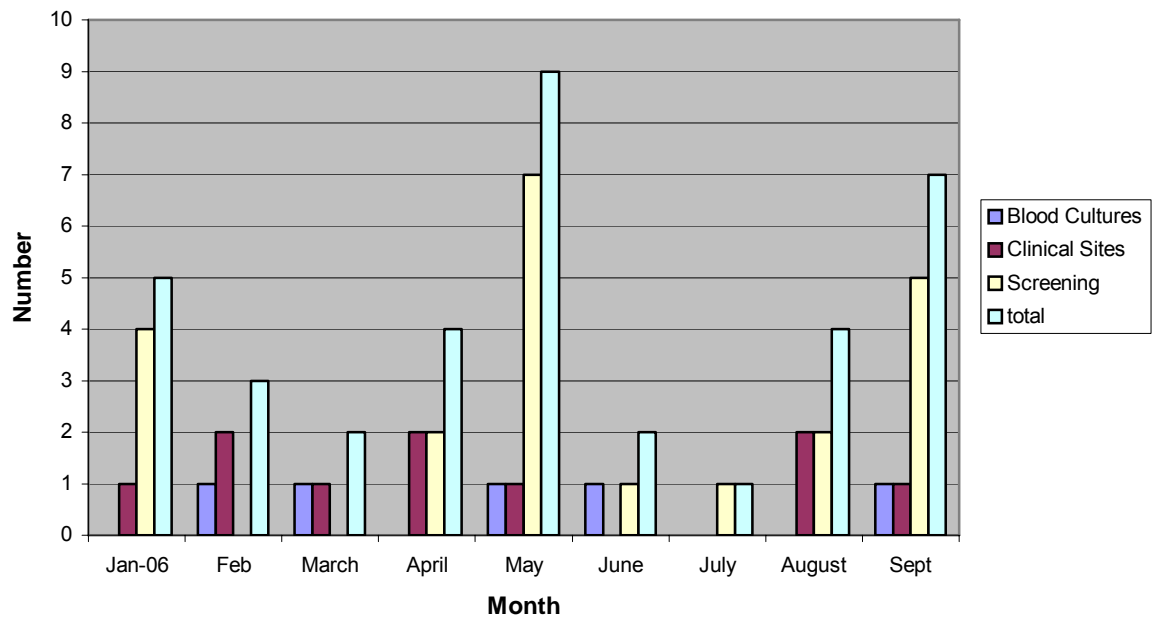
Appendix 3 – Additional Surveillance Reports (commenced January 2006)

Monthly Cumulative Reports

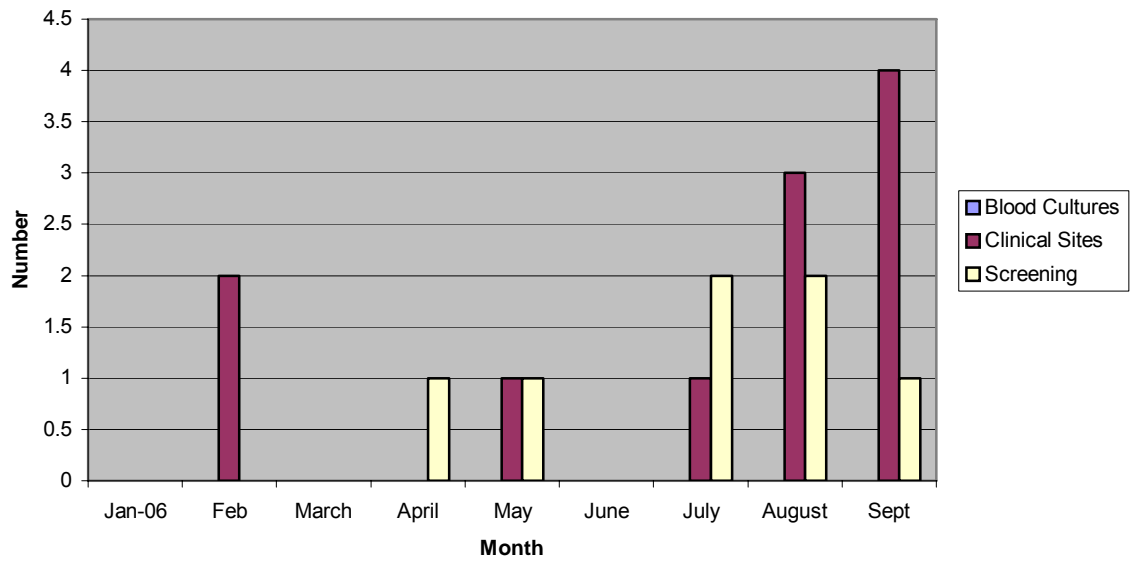
Total S. Aureus



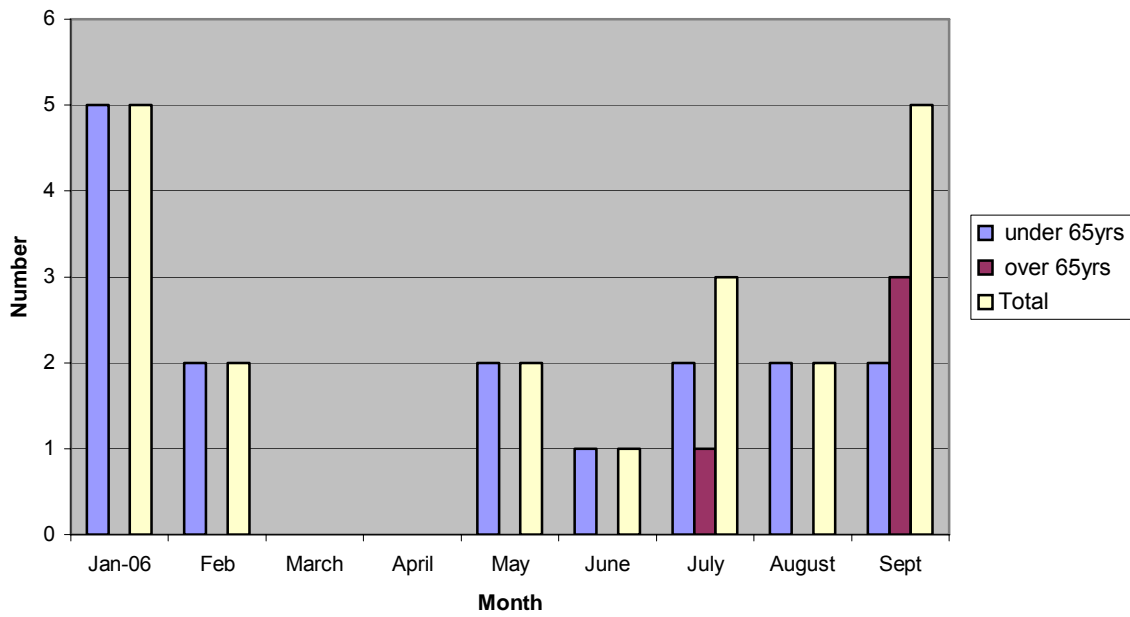
Total GRE



Total ESBL



C. Difficile



Critical Care Cumulative Reports

MRSA	05/06 Q4			06/07 Q1			06/07 Q2			06/07 Q3		
	Jan-06	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Blood Cultures	0	1	0	0	0	0	0	0	0			
Clinical Sites	3	3	6	2	2	5	1	1	3			
Screening	3	1	4	1	1	1	2	0	0			
Total	6	5	10	3	3	6	3	1	3			
No. acquired on unit	2	1	5	2	1	3	2	0	1			

MSSA	Jan-06	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Blood Cultures	3	0	1	0	0	0	0	0	0			

VRE	Jan-06	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Blood Cultures	0	1	1	0	1	1	0	0	1			
Clinical Sites	0	2	1	1	1	0	0	2	1			
Screening	3	0	0	2	7	1	1	2	5			
Total	3	3	2	3	9	2	1	4	7			

ESBL	Jan-06	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Blood cultures	0	0	0	0	0	0	0	0	0			
Clinical Sites	0	0	0	0	1	0	0	0	0			
Screening	0	0	0	1	1	0	2	3	1			
Total	0	0	0	1	2	0	2	3	1			

C. difficile	Jan-06	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
under 65yrs	0	0	0	0	1	0	0	1	1			
over 65yrs	0	0	0	0	0	0	0	0	1			
Total	0	0	0	0	1	0	0	1	2			

Cumulative Quarterly Report for Clinical Management Groups October 2006
Alert Organism Surveillance 2006/7

MRSA (BC)				
Location	Q1	Q2	Q3	Q4
RSSC	1	4		
CMU	0	0		
CU	0	0		
HEM	0	0		
SUGF	0	0		
MAL	0	0		
CCA	0	0		
VJ	0	0		
<i>Tx</i>	0	0		
Total	1	4		

MSSA (BC)				
Location	Q1	Q2	Q3	Q4
RSSC	1	0		
CMU	1	1		
CU	1	3		
HEM	0	0		
SUGF	0	0		
MAL	4	1		
CCA	0	0		
VJ	0	0		
<i>Tx</i>	2	0		
Total	7	5		

Total S. aureus (BC)				
Location	Q1	Q2	Q3	Q4
RSSC	2	4		
CMU	1	1		
CU	1	3		
HEM	0	0		
SUGF	0	0		
MAL	4	1		
CCA	0	0		
VJ	0	0		
<i>Tx</i>	2	0		
Total	8	9		

GRE (BC)				
Location	Q1	Q2	Q3	Q4
RSSC	0	0		
CMU	0	0		
CU	0	0		
HEM	0	0		
SUGF	0	0		
MAL	0	0		
CCA	2	1		
VJ	0	0		
<i>Tx</i>	0	1		
Total	2	1		

ESBL (BC)				
Location	Q1	Q2	Q3	Q4
RSSC	0	0		
CMU	0	0		
CU	0	0		
HEM	0	0		
SUGF	0	0		
MAL	0	0		
CCA	0	0		
VJ	0	0		
<i>Tx</i>	0	0		
Total	0	0		

C.difficile >65yrs				
Location	Q1	Q2	Q3	Q4
RSSC	0	2		
CMU	0	0		
CU	0	0		
HEM	0	0		
SUGF	0	0		
MAL	0	1		
CCA	0	1		
VJ	0	0		
<i>Tx</i>	0	0		
Total	0	4		

Q1: April -June
 Q2: July - Sept

Q3: Oct-Dec BC: Blood Cultures
 Q4: Jan - March *Tx*: Transplant patients