

## DIRECTOR OF INFECTION PREVENTION AND CONTROL ANNUAL REPORT 2007 – 2008

### ‘Board to Ward Commitment to Infection Prevention’



**Robin Sequeira CBE**  
Chairman



**Jan Bergman**  
Chief Executive



**Dr Andrew Webb**  
Medical Director



**Alison Tong**  
Director of Nursing  
Director of Infection  
Prevention and Control



**Sally Brown**  
Director of Operations  
Decontamination Lead



**Paul Turner**  
Director of Finance



Chief Executive Jan Bergman presents Sister Coral Morris and Housekeeping Assistant Lesley Crabb with the Cleaning Matters Star Performer Award for the Short Stay Surgical Unit

**Creating a safe environment for patients, visitors and staff**

<b>CONTENTS</b>	<b>PAGE</b>
Introduction from the Chief Executive	3
Introduction from Director Infection Prevention & Control	4
Infection Prevention and Control (IPC) Programme 2007-08	5-6
Partnership Working	7-9
Healthcare Associated Infections (HCAI)	10-16
Antimicrobial prescribing	17-22
Decontamination	23
Housekeeping Services	24-26
Policy Review	27
Audit Programme	28-32
Training	33
Conclusion	34
Appendix 1 Proposed Structure for IPC	35
Appendix 2 IPC Work Programme 2008-09	37-43
Appendix 3 C. Difficile action Chart	44

## 1. Introduction from Chief Executive

The last year has been a challenging one for all NHS Trusts to meet the requirements of the 2006 Health Act. This act outlines clear legislative requirements for Trusts, underpinned by a fundamental framework for accountability.

Even more important is the reputation of the hospital to the public and patients we serve. Infection rates are, undoubtedly a major concern and quite rightly so. Reducing infections requires commitment from all Trust staff. I have developed a clear framework for reporting infections that are acquired in my hospital, to ensure that appropriate systems are in place to investigate when things have gone wrong to ensure that we get it right in the future and to ensure that Dorset County Hospital becomes a leading Trust in controlling infection.

The Board is absolutely committed to providing a conducive environment and, as such, we have invested heavily in improving cleaning standards and ward environments. I am determined that all of our patients will be seen and treated in a clean and safe environment

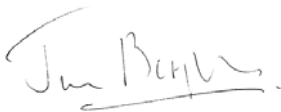
Having invested resources to strengthen the Infection Prevention Control Team (IPCT), there is now evidence that clinical staff are engaging with the programme to prevent infections. We are now starting to see a reduction in Healthcare Associated Infections (HCAI). This is important as, increasingly one of the major concerns that patients have prior to coming into hospitals are concerns about acquiring an infection.

During 2007-08 the rate of MRSA bacteraemia was reduced from 15 cases in the previous year to 9 cases in 2007-08. This represents a reduction of 40%.

Whilst rates of *Clostridium difficile* remain of concern, we have exceeded the reduction targets agreed with Dorset Primary Care Trust for 2007-08. The targets for reduction have been achieved, but as a Trust we are confident we can reduce these further in the forthcoming year.

The requirements of the Health Act (2006) The Code of Practice for the Prevention and Control of Healthcare Associated Infections provide a legislative framework that NHS Trusts are required to meet. The Act outlines the importance of establishing Board to Ward accountability to ensure the assurance framework is robust. The Trust is committed to preventing HCAI. A new Infection Control Committee will be formed in 2008 chaired by myself with senior clinical representation from across the Trust.

I would like to thank all staff groups who have worked extremely hard during 2007-08 to reduce infections and, whilst we will continue to see improvements, we will certainly never be complacent.



**Mr J E Bergman, Chief Executive**

## 2. Introduction from Director of Infection Prevention and Control

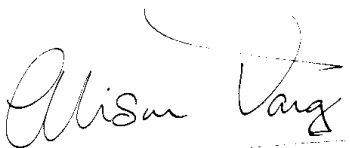
This Annual Report by Alison Tong, Director of Nursing and Director of Infection Prevention and Control provides information on the Trust's progress of the arrangements to reduce the incidence of HCAI.

The reduction of HCAI remains a key priority for service development for the Trust. Infection Prevention and Control is a rapidly evolving arena of contemporary healthcare practice, now underpinned by a strong evidence base for clinicians.

As Director for Infection Prevention and Control I am committed to achieving the highest standards of clinical care, within a clean safe environment. I believe in accountability, and strive to lead investigations openly when patients do acquire infections in the Trust, to ensure we learn from adverse events and develop clinical practice accordingly.

The Trust has underpinned its vision to reduce infections by strengthening the IPCT. Their work programme is underpinned by the importance of engagement with frontline clinical staff to develop practices that have reduced HCAI in the Trust.

A full assessment against the 2006 Health Act, Code of Practice for the Prevention of Healthcare Associated Infections has been undertaken. This assessment forms the basis for the 2008-09 plans to develop true Board to Ward accountability framework. The evolution of this framework is challenging, both for the Trust Board and Clinical Directorates, it is therefore important to underpin this process with a clear operational framework to achieve future success, and the ultimate goal of "zero tolerance to HCAI".



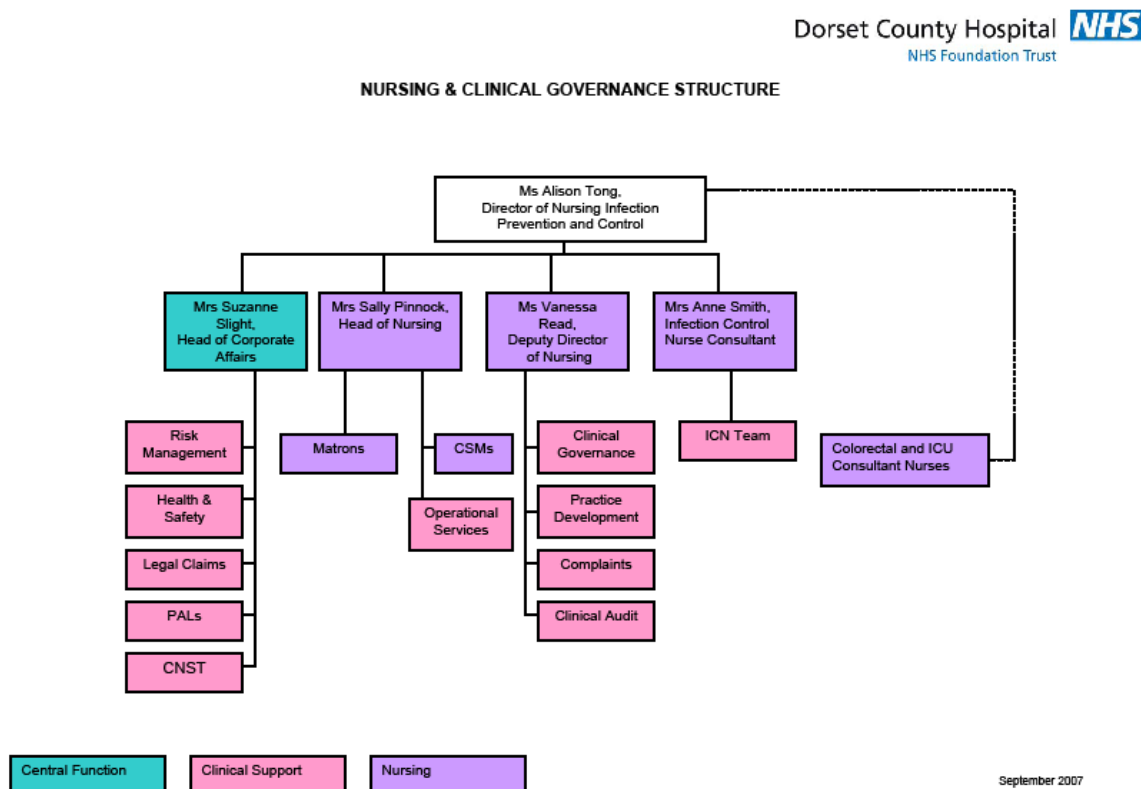
**Alison Tong**  
**Director of Nursing and Director of Infection Prevention and Control**

## 3. Infection Prevention and Control Programme 2007-08

3.1 The Infection Prevention and Control Team is led by Alison Tong, Director of Nursing and Director of Infection Prevention and Control. The team currently consists of:

- Dr Sanja Clements, Consultant Microbiologist, Infection Control Doctor;
- Anne Smith, Nurse Consultant Infection Prevention and Control;
- Gill Payne, Nurse Specialist, Infection Prevention and Control (currently seconded to Dorset Primary Care Trust);
- Rosemary Wareham, Nurse Advisor (currently implementing Saving Lives High Impact Interventions);
- Gloria Moss, Nurse Advisor (currently seconded to facilitate implementation of High Impact Interventions);
- Robin Parsons, Antibiotic Pharmacist;
- Ann Martin, Administrative Assistant for the team.

The structure for the nursing team is outlined in Figure 1.



3.2 The plans to fully implement the “Board to Ward” framework for Infection Prevention and Control will inevitably place increased demands upon the IPCT. The Trust has been set challenging targets to reduce healthcare associated

infections, most importantly cases of hospital acquired cases of *Clostridium difficile* infections (CDI).

A recent consultation document prepared by the Health Protection Agency (HPA) suggests a robust framework to manage cases of CDI; it is clear that to deliver this clinical directorates will need increased surveillance and guidance on individual case management from the IPCT. Following due consideration a model to facilitate the support that directorates will require has been developed and is presented for approval in this report (Appendix 1). The model requires an additional IPC Nurse Advisor. I propose that this can be achieved by a rotational secondment of a link nurse; this will facilitate improved knowledge and competence at local level within Directorates.

***The Director of Infection Prevention and Control recommends that Clinical directorates should consider seconding a link nurse to support improved directorate performance linked to this proposed secondment.***

## 4. Partnership working

### 4.1. DORSET PRIMARY CARE TRUST

- 4.1.1 During 2006-07 the working partnership between Dorset Primary Care Trust (PCT) and Dorset County Hospital has strengthened. The Trust seconded the Senior Infection Control Nurse Specialist for a six month period to support Dorset PCT following the departure of one of its Infection Control Nurse's.
- 4.1.2 The restructuring of PCTs and the evolving community wide programme for IPC requires the development of clear frameworks and consultation for service development.
- 4.1.3 An important development in understanding how HCAI occur is the acknowledgement that the patient journey is often complex, frequently involving many interactions within health and social care settings. It is the complexity of the patient journey that needs to be explored to develop a greater understanding of the factors that present risks of HCAI to the patient. Whilst individual Trust targets for reduction are important, it is important to critically review and evaluate the elements of care that may have contributed to the patient acquiring an infection. It is this knowledge that will support the development of a community based approach to prevent infections. This can only be achieved by working in partnership, sharing information to ensure that the lessons learned from Root Cause Analysis and appropriate action is taken across the arena of healthcare settings. This is a significant shift, the patient being the focus of the action not the Trust's targets.
- 4.1.4 In February 2008 the Director of Infection Prevention and Control and Nurse Consultant attended an Infection Prevention and Control Health Summit facilitated by the commissioning arm of Dorset PCT to review local arrangements for Infection Control Services. The recommendations of this summit were to develop strategies to develop a wider infection control programme incorporating all elements of health and social care providers. The challenges of this approach rest with the limited community resources to support these initiatives and the lack of clarity re: the defined responsibility for service provision in relation to Infection Prevention and Control services within the private sector. This is of particular relevance given the increasing age of the population, whereby the demand for both residential care home placements and privately resourced community care are high. It is essential that the community programme of IPC takes account of key core standards of practice that prevent HCAI. These standards must be uniform across all health and social care settings to protect the most vulnerable groups within the community.

***The Director of Infection Prevention and Control (IPC) recommends that the IPC Nursing Team meet with Dorset Primary Care IPC staff to undertake a review of HCAI to gain better understanding of the root causes of HCAI and present findings for discussion with Commissioners.***

## **4.2 DORSET AND SOMERSET HEALTH PROTECTION UNIT (HPU)**

The Trust works closely with the HPU, seeking expert advice as required from both local and national staff of the HPU. During the past year the Trust has sought advice with regard to guidance on Norovirus, decontamination, typing of specimens, MRSA screening of staff, results from water sampling and advice from the Surgical Site Surveillance team.

The Trust has also supported the HPU with outbreaks of infection in the community. This is an established public health function of Microbiology laboratories.

During outbreaks of Norovirus at the Trust the HPU has supported the Trust by advising General Practitioners of the situation locally and providing recommendations for management of symptomatic patients to prevent admission where possible.

Support in formulating the policy for the operational management of negative pressure air rooms for the containment of patients with Multi-drug resistant tuberculosis was also appreciated.

Dr Mark Salter, Consultant in Communicable Disease Control, attends the Trust Infection Control Committee providing feedback on local and national infection control issues. Following the introduction of the policy for Management of Viral Haemorrhagic Fevers, Dr Salter presented to the Grand Round, to facilitate wider understanding of the challenges in diagnosis, which is of particular relevance given the increase in international travel.

## **4.3 DORSET INFECTION CONTROL FORUM (DICF)**

The DICF is a successful collaboration of all Dorset Acute and Primary Care Trusts and the Dorset and Somerset HPU. The forum exists to develop evidence-based practice across the health community, by developing policy in line with national guidance, developing an educational strategy and peer support for Infection Control Practitioners.

The forum meets monthly, and sub group work is undertaken as required. Chief Executives of all service providers have signed up to the Terms of Reference for the group and minutes of meetings are available if required.

## **4.4 PATIENT INVOLVEMENT**

4.4.1 The Team recognise the importance of involving patients and visitors in service improvement. During 2006-07 the Team have actively sought the opinion of PALS (Patient Advice and Liaison Service) for development of patient information leaflets. The Team have also met with patients who have raised concerns about elements of care. These concerns are taken very seriously, as it is recognised that service users provide the most valuable feedback.

**CASE STUDY- Learning from the experience of patients**

A meeting between a patient who was a retired nurse, Surgical Matron, Julie Knight and Anne Smith, Nurse Consultant, IPC to discuss her concerns regarding the information provided to visitors entering isolation rooms.

*The patient stated the information visitors received when visiting her when she was isolated with an infection was inconsistent with regards to the precautions they were required to take.*

Following this meeting an information leaflet was developed.

*The patient shared this with her friends and fed back that they wanted absolute guidance on the precautions required.*

It was explained that it was difficult to produce a totally generic information leaflet as there are many factors that influence the precautions required for specific infections, these include the way the infection is transmitted, the immunity of the visitor and the stage of infectivity of the patient. The IPCT will incorporate these observations into training packages for this year.

*The patient has agreed to attend a Link Nurse meeting to discuss her experience to facilitate learning and dissemination of the patient experience into practice.*

- 4.4.2 During the year, monthly patient surveys are undertaken that include patient opinions on important components like hand washing from staff involved in their care. These results are important and are fed back to staff for action. Sometimes, staff perceive their compliance with hand hygiene differently, whilst the patients observe generally high rates of compliance as a Trust we should not be satisfied until we consistently achieve 100% in this standard. A clear message for patients is “it is ok to ask staff to wash their hands”.

***The Director of Infection Prevention and Control recommends that all hand hygiene audits are posted on ward notice boards to inform the public of standards of practice. The only acceptable standard is 100% which all Directorates must strive to achieve.***

## 5 Healthcare associated infections

The national requirements for mandatory reporting of MRSA bacteraemia and cases of *Clostridium difficile* cases have been further developed during the year. The data required to inform the national programme require more detailed clinical information for every patient entered onto the system.

The Trust successfully bid against the national HCAI monies for development of a surveillance database, feeding information from PAS (Patient Administration Service) and microbiology. This is an essential working tool for the IPCT to facilitate rapid feedback to clinical staff and directorates to support individual patient management and generation of reports for directorates to identify any particular trends. Progress with this project has been delayed due to essential higher priority Trust projects. The original project plan identified a pilot for February 2008. This date has not been achieved, the new planned date is June 2008.

### 5.1 Meticillin resistant *Staphylococcus aureus*

5.1.1 MRSA bacteraemia is a life threatening infection in the bloodstream. There can be many different causes of the infection. Sometimes the cause of infection is not always easy to define. In healthcare settings infections can be associated with intravenous devices, urinary catheters, and prosthetic devices like heart valves or joint replacements, skin diseases like eczema. The bacteraemia (blood stream infection) occurs when bacteria enter the bloodstream. This causes a chain of systemic reactions to the bacteria prompted by the body's immune system as an alert that all is not well. Patients with bloodstream infections feel very unwell, they have raised temperatures which may results in uncontrolled rigors (shivering), body systems may begin to malfunction and they may become disorientated. Sometimes these bloodstream infections are overwhelming and may result in death if not detected early enough for treatment to be effective.

5.1.2 MRSA screening is undertaken to detect skin colonisation. Bacteria are present on skin surfaces of everyone; generally these bacteria cause no problems to people during the normal course of daily activities. However, in a hospital setting, certain skin bacteria can be a source of concern, both for the individual colonised, as there may be risks associated with the care interventions they receive, and the risk they represent to other patients. Current screening identifies patients in certain categories (previous hospitalisation, residential care home, transfers from other hospitals) that are considered to present a higher risk of MRSA colonisation. National guidelines dictate that these patients should be screened either prior to admission or on admission.

5.1.3 The Department of Health (DoH) are recommending that Trusts increase the MRSA screening programme to all elective patients in 2008-09, and screen all emergency patients by 2010.

The evidence base for this approach is limited, but the economical modelling

undertaken by the Scottish Health Executive suggests there are cost benefits. It is difficult for individual Trusts to equate to the economical modelling as nationally the surveillance systems are inadequate, and focus on MRSA bacteraemia infections as a performance indicator. This indicator does not reflect the true burden of infections from MRSA e.g. deep wound infections, urinary infections, pneumonia. Screening all patients will have financial implications for Microbiology and the IPCT. A business case is being developed; this will take account of different available methods for processing laboratory specimens. This national strategy is predicted to have significant cost implications. Lesley Davis, Microbiology Laboratory Manager is currently developing a business case for Microbiology services associated with this initiative. The business case will take account of both the methodology and the agreed screening protocols. These will be dependent upon the timeframe that results are required, and whether results are required 7 days per week. This will require financial support to align the Trust with national policy, and will need clear directives of services from both DCH and Dorset Primary Care trust.

- 5.1.5 The target set for MRSA bacteraemia for 2007-08 was 12. We identified MRSA bacteraemia in 9 patients during the year. This is a significant improvement from the previous year when we identified MRSA in 15 patients, of which 13 were acquired by inpatients at the Trust.
- 5.1.5 We have worked hard to reduce MRSA bacteraemia infections. During 2007-08 the MRSA policy was reviewed. Patients admitted to the Critical Care Unit and the Orthopaedic Trauma ward are all screened for MRSA on admission; in addition to this measure, all patients receive treatment to decolonise them until the results of the screening tests are known. The decolonisation treatment consists of skin disinfection that is used daily in place of soap or shower gel, and some antiseptic ointment into the nasal passages. This has been most effective, there were no patients identified with MRSA bacteraemia during 2006-07 in Critical Care, where the risk is particularly high due to the use of invasive devices like intravenous lines.

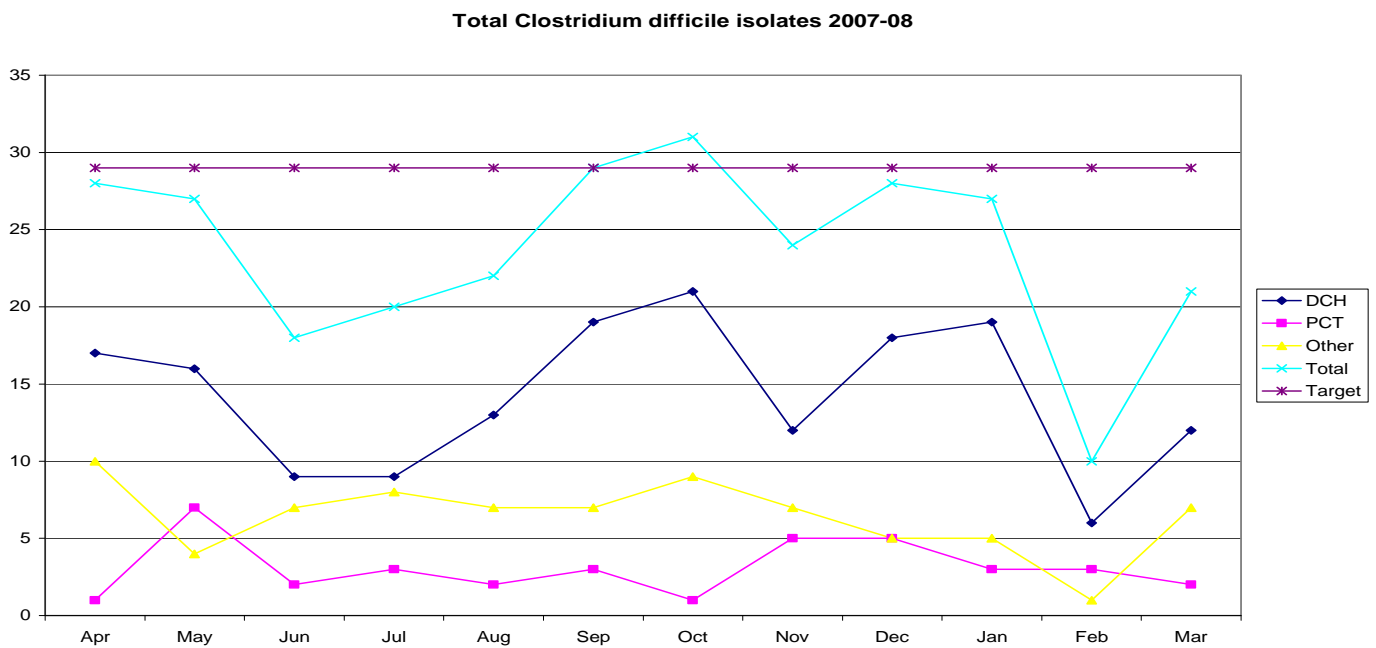
***The Director of Infection Prevention and Control recommends the Trust support the Department of Health initiative to implement screening for all patients. This will reduce the bio-burden of MRSA amongst the inpatients at the Trust, which will effectively decrease the risk of cross infection.***

## **5.2 CLOSTRIDIUM DIFFICILE INFECTIONS**

- 5.2.1 *Clostridium difficile* is an infection of the intestine, an inflammatory response to the bacterium occurs to the surface of the bowel that results in the onset diarrhoea. The spectrum of disease is wide; many people may experience just a slight change in bowel habits, whilst others develop profuse diarrhoea that can take a significant time to resolve. Some patients, but not commonly, may develop severe colitis that may require surgical removal of the affected segment of the bowel. Elderly patients are most commonly affected with *Clostridium difficile*, and the illness may be particularly debilitating given their

existing medical conditions. Antibiotics are usually a precursor for acquiring the infection, but cross infection between patients can be a cause of the disease.

5.2.2 During 2006-07 the Trust antibiotic policies have been extensively reviewed and revised. This work has been led by Consultant Microbiologists and Antibiotic Pharmacist. This review is complex, requiring full co-operation between clinicians and significant changes in treatment regimes. A full report on antimicrobial prescribing has been included in this report. The following chart 1 demonstrates the rates of *Clostridium difficile* isolated in the laboratory for 2007-08.

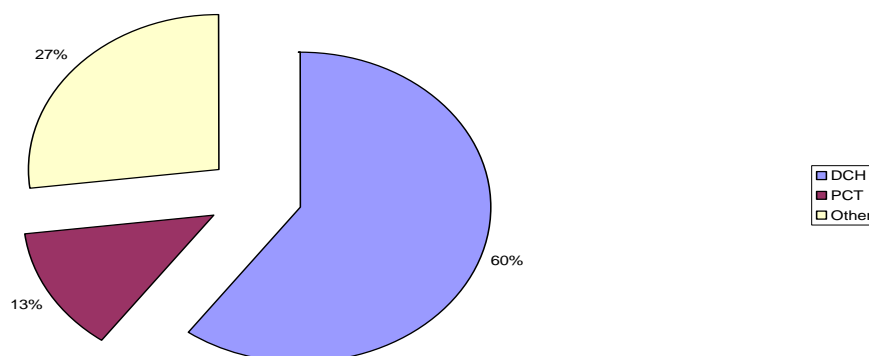


The target set for 2007-08 was 343 cases isolated across the health community. The total number of isolates for this period achieved was 285, representing a further reduction of 17%.

5.2.3 National experts state that the community cases of *Clostridium difficile* decrease when control is achieved in the acute trust. The trends of the Trust data in the above chart support this, when numbers increase in the Trust this is mirrored in the community.

Chart 2 demonstrates a breakdown of the isolates of *Clostridium difficile* for 2007-08.

Distribution of *Clostridium difficile* isolates 2007-08



Whilst the rates have decreased the ratio remains unchanged from 2006-07 data presented to Trust Board. This underpins the requirement to work closely with Dorset PCT to reduce the incidence of *Clostridium difficile*.

- 5.2.4 The targets for HCAI for Acute Trusts have been extensively debated in many different local and national forums. Whilst there is a commitment to reduce HCAI, it is important to develop a greater awareness of the root causes of these infections to facilitate appropriate actions to reduce them.
- 5.2.5 During the year there have been changes to the national reporting systems to facilitate this process. For 2008-09 there are newly established reporting definitions for *Clostridium difficile*. Cases are now considered acquired in the Trust if they are identified within 48 hours of admission. However, there is a need to explore more closely the relationship between patients whose infection is identified in the community and determine whether their infection is associated with treatment received in the Trust.

***The Director of IPC recommends joint working between the Trust and Dorset PCT staff to develop a greater awareness of the root causes of all cases of Clostridium difficile. This work should focus efforts on developing an improved understanding of the patient journey within the context of health and social care settings. This will facilitate preventative actions which will improve patient outcomes.***

- 5.2.6 We have achieved the reduction in *Clostridium difficile* by focusing efforts on prudent antimicrobial prescribing, early isolation of symptomatic patients, continuous reinforcement of the importance of hand hygiene and improved standards of environmental cleanliness. In 2007 we introduced an Integrated Care Pathway, outlining the optimal requirements for the management of symptomatic patients. This has resulted in heightened awareness of the impact of the infection, and the importance of effective management.

Most importantly it has reduced the incidence of cross infection that was more common previously.

5.2.7 We have also introduced new technology for environmental decontamination; alongside the enhanced cleaning we have purchased hydrogen peroxide cleaning machines. These machines locally referred to as “Dorset Daleks”, significantly reduce the numbers of viable bacteria when used in rooms occupied by patients with infections. Hydrogen peroxide is particularly effective in reducing the bacterial spores produced by patients infected with *Clostridium difficile*.



*The “Dorset Dalek”- provides a controlled release of hydrogen peroxide, this acts by reducing viable bacteria. The machines are programmed to release hydrogen peroxide into a closed environment according to the size of the defined area. These machines were purchased from the national funding to reduce healthcare associated funding.*

### 5.3 SURVEILLANCE OF SURGICAL SITE INFECTIONS

During 2007-08 Rosemary Wareham, Infection Prevention and Control has undertaken four modules of surveillance linked to the national Health Protection Agency surgical site surveillance. Surveillance modules undertaken this year have incorporated two for orthopaedic surveillance and two for vascular surgery over a six -month period.

The current requirement for mandatory surveillance is to complete one module of orthopaedic surveillance.

#### 5.3.1 Orthopaedic surveillance of Surgical Site Infection

During 2007-08 the Trust has participated in two modules of surveillance of orthopaedic site infections for patients undergoing total hip replacement.

The data in table 1 shows the Trust rates and comparative data of surveillance undertaken since 2004.

	Jul-Sep 2004	Oct-Dec 2004	Jul-Sep 2005	Oct-Dec 2005	Jul-Sep 2006	Oct-Dec 2006	Jul-Sep 2007	Oct-Dec 2007
No. of operations	66	77	49	56	68	86	77	76
No. of infections	2	2	0	0	4	0	1	0
% infected operations	3.1%	2.6%	0%	0%	5.9%	0%	1.3%	0%

The overall rate of infection for the Trust compares a Trust overall rate of infection for the last four periods of 1.6% to that of a national rate of 1.3%. This comparative rate does not take account of the variance in Trusts who undertake only elective surgery, whereby the risk of infection is significantly reduced by not having the mix of trauma and elective patients.

### 5.3.2 Vascular surveillance of Surgical Site Infections

During 2007-08 vascular surveillance was undertaken for the period July-December. Vascular surgery is associated with a significantly high risk of patients. The risk factors for this surgery relate to the poor perfusion, underlying co-morbidity factors like diabetes and patients will sometimes have existing ulcerated wounds.

The following table demonstrates the results of these two surveillance periods. It is important that these results are considered in the context that the numbers of patients included in the surveillance are small. When small numbers are incorporated into surveillance statistical significance has not been achieved.

	Jul-Sep 2007	Oct-Dec 2007
No. of operations	18	29
No. of infections	3	0
% infected operations	16.7%	0%

The cumulative rate of infections for these periods is 6.4% compared with a national rate of 5.2%. The samples included in the surveillance are too small to confidently compare data or gain statistical significance. It is therefore important to continue with surveillance to achieve confidence in the results.

### 5.4 SUMMARY

One of the major concerns that patients have in relation to planned surgery is the rate of infection for the procedure. In a competitive healthcare market it is important to undertake surveillance to provide this information for patients. Clinical Directors should consider developing further surveillance for surgical procedures to provide patients with appropriate information for them to undertake their own assessment of risk.

***The Director of IPC recommends that Directorate Manager work closely with the IPCT to develop robust systems of surveillance. Surveillance results must be reported via Directorates governance structures.***

## 5.5 OUTBREAKS OF INFECTION

### 5.5.1 Norovirus

During 2007-08 there were two outbreaks of Norovirus. The first outbreak resulted in the closure of three wards, 26 patients were affected between November 23<sup>rd</sup> and 7<sup>th</sup> December 2007 when the wards were all reopened and the outbreak declared over. A second outbreak occurred in January 2008 affecting Ilchester ward. This outbreak was detected early and affected 3 patients and 1 staff member, the ward was closed to admissions for a short period.

These outbreaks demonstrated the Trust is now in a stronger position to respond and contain outbreaks of infection. Nationally the Health Protection Agency (HPA) report a two fold rise in the reported of cases of Norovirus. Locally acute hospitals have been significantly compromised by ongoing outbreaks of the infection, one Trust reporting 71 ward closures since August 2007.

Key to preventing outbreaks of viral gastroenteritis like Norovirus rests with early recognition of symptomatic patients and rapid isolation. This is a fundamental role for clinical teams in admission areas in the Trust. Whilst it is not possible to predict how outbreaks of Norovirus have been prevented, we do know that patients with Norovirus have been cared for in the Trust and their admission has not resulted in ward closures. In these circumstances staff exposed to these patients have subsequently developed symptoms, but this has not resulted in further spread.

### 5.5.2 *Clostridium difficile*

An outbreak of *Clostridium difficile* was declared on Barnes ward on 12<sup>th</sup> October 2007 in response to the IPCT concerns re: an increased prevalence of *Clostridium difficile* infections. Review of the arrangements on the ward identified a major cause of concern related to a patient with dementia who wandered uncontrolled into all areas of the ward. This created pressures on ward staff trying to contain infectious patients, whilst maintaining a safe environment for the confused patient. Ribotyping of available samples identified a common strain of the organism type 106.

The ward was closed to admissions and formal outbreak meetings were held. Following full terminal cleaning of the ward it was reopened to admissions on 22<sup>nd</sup> October as there were no new cases of CDI. Environmental hazards were identified during review of the facilities of the ward. A major refurbishment has subsequently taken place to improve the environment as a result of recommendations of the outbreak committee.

***The Director of IPC recommends that the IPCT work closely with the Clinical Site Management Team to develop clear priorities for early identification of patients with infections and prioritisation of isolation facilities.***

### **5.5.3 MRSA wound infections in patients following Caesarean Section**

An outbreak control meeting was called in February 2007 following the identification of 3 patients who had contracted superficial MRSA wound infections following Caesarean Sections undertaken between 23/11/2007-19/12/2007. All of the infections were identified post discharge.

Advice was sought from the HPU with regard to the approach to management and surveillance.

The advice offered was to undertake staff screening for MRSA. Staff screening was undertaken, one staff member screened positive. The staff members isolate was of the same strain as from one of the patient samples. The Occupational Health department negotiated treatment regimes for the staff member.

The Health Protection Agency are planning to introduce a pilot of Caesarian Section wound surveillance. The Maternity Team have expressed an interest in this surveillance and have expressed an interest in the pilot surveillance module..

The Maternity department undertook a complete review of the maternity unit inpatient and theatre environment, involving Estates Manager, Housekeeping Manager and IPCT. Subsequently, staff now have a heightened awareness of the importance of consistency in hygiene in clinical practice and demonstrated full engagement with recommendations following the review.

Following this review no further MRSA infections have been identified in maternity patients.

## 6. Antimicrobial Prescribing

This section of the report has been prepared by Robin Parsons, Antibiotic Pharmacist.

### **ANTIBIOTICS: USAGE AND COST SUMMARY FOR FINANCIAL YEAR 2007/2008.**

#### **6.1 NEW GUIDELINES**

January 2008 heralded the launch of the new Medical Directorate Antibiotic Treatment guidelines. The Surgical Directorate Antibiotic Treatment Guidelines are currently in draft.

These guidelines have been;

- Produced in line with the Department of Health's Saving Lives Framework (2005)
- Written in part, to reduce the use of certain antibiotics (cephalosporin's and quinolones) with the aim to minimise the risk of Healthcare Associated Infections (HCAI) such as *Clostridium difficile* associated diarrhoea (CDAD) and MRSA.
- Written to encourage "appropriate" prescribing of antibiotics – note that this **does not** necessarily mean using cheaper antibiotics and in fact the opposite may be true.

These guidelines represent a significant change in practice for many clinicians both junior and senior and thus audit work is being undertaken in the form of specialist Microbiology ward rounds to educate prescribers and to help reinforce the message that appropriate antibiotic prescribing will help to reduce the rates of HCAI.

6.1.2 The action chart (see Appendix 3) shows the impact of various interventions on the Trust's CDAD rate. It is likely that in combination with the many interventions made by infection control and the wards themselves, the medical antibiotic guidelines have helped to decrease the CDAD rate at the Trust.

Although the initial results are encouraging more data is required to evaluate the full impact of the guidelines.

## 6.2 Financial costs –Table and graph

Table detailing annual costs incurred for the last three years due to anti-infective prescribing in “All Clinical Directorates” at DCHFT;

	2005/06	2006/07	2007/08
Total Antibiotics	£484,401	£437,353	£502,165
Total Antivirals (includes HIV drugs)	£204,742	£271,664	£288,469
Total Antifungals	£59,170	£58,965	£67,237
<b>GRAND TOTAL</b>	<b>£748,313</b>	<b>£767,982</b>	<b>£857,871</b>

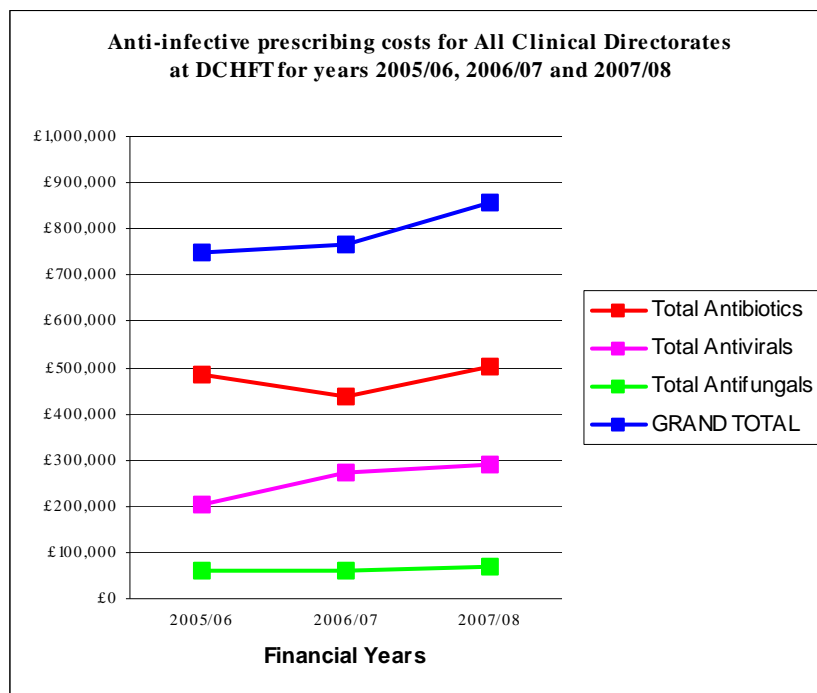
In summary;

Antibiotic spend 07/08 up **3.7%** on 05/06 and up **15%** on 06/07.

Anti-viral spend (majority HIV drugs) up **41%** from 05/06 and up **6%** on 06/07.

Anti-fungal spend up **15%** from 05/06 and up **14%** on 06/07.

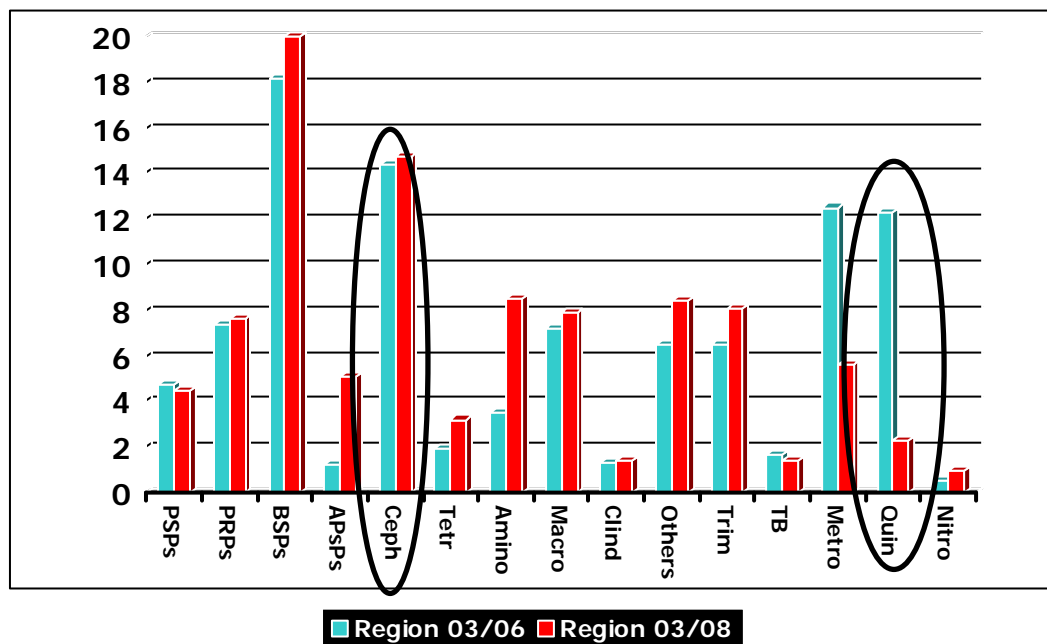
Total spend for all anti-infectives from all clinical directorates is up **12%** on 2006/07.



- Antibiotic spend has increased ~15% during 07/08.
- During 2007, before the Medical Antibiotic guidelines were in place, there was a drive by the Microbiology department and the Antibiotic Pharmacist to encourage the restriction of antibiotics that are more likely to cause *C. difficile* diarrhoea (i.e. quinolones, cephalosporins).

- Annual spend on quinolones decreased by 58% (compared to 06/07).
- Spending on cephalosporins has increased slightly. Currently however, it is difficult to differentiate between the cephalosporins and carbapenems. Work is being prepared to differentiate and detail exact usage to be able to address this increase. However, the above observations are in line with regional findings. See graph below;

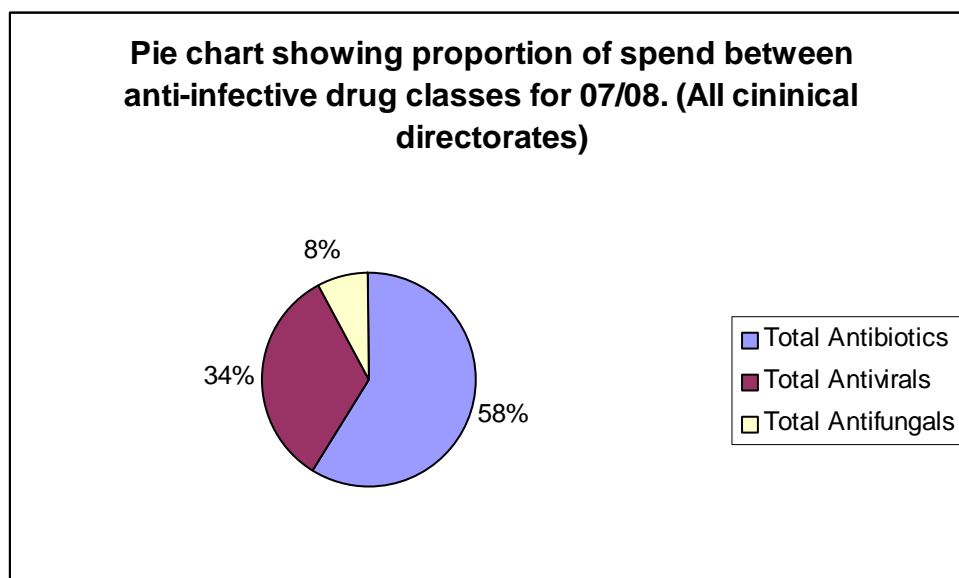
Graph showing percentage of antibiotic class as prescribed in the South West Regional Antibiotic Group Point Prevalence study (Spring 2008). (Data from 15 Trusts; N=7036)



- There have been increases in spending in categories of antibiotics that are less likely to cause CDAD. (i.e. penicillins, teicoplanin), also in line with regional findings.
- The Medical Antibiotic Treatment guidelines was launched in January 2008; it will require another 3 months or so before a proper evaluation on the impact of the guidelines on antibiotic expenditure can be undertaken.
- However, see table below for comparison of antibiotic spend on inpatient wards at DCH 06/07 and 07/08 (after the guidelines in place). (\*Note the incredible coincidence that the cost incurred in Feb 2007 is exactly the same as Feb 2008. The figures have been double-checked!)

Feb-07	Mar-07	Apr-07
£29,277	£29,722	£38,384
Feb-08	Mar-08	Apr-08
£29,277	£33,546	£31,647

- Via the United Kingdom Clinical Pharmacist Association website, (specialist Antibiotic pharmacist forum) it has been noted that some other Trusts (i.e. University Hospitals of Coventry and Warwickshire, Hinchingbrooke Hospital Huntingdon, Queen Elizabeth Hospital Woolwich) have also seen a 15% increase in antibiotic expenditure after restricting quinolones and cephalosporins. This increase was attributed to increased usage of more expensive alternative antibiotics.



#### 6.4 Table showing total inpatient spend on DCH wards against “All Clinical Directorates” at DCHFT;

	Year 07-08	Inpatient spend (on DCH wards) 07- 08	Inpatient spend of total
Total Antibiotics	£502,165	£416,532	83%
Total Antivirals	£288,469	£21,798	8%
Total Antifungals	£67,237	£60,884	91%
<b>GRAND TOTAL</b>	<b>£857,871</b>	<b>£499,213</b>	<b>58%</b>

- Vast majority of expenditure (91%) for antifungals incurred on DCH inpatient wards.
- Majority of antibiotic expenditure (83%) incurred on DCH inpatient wards.
- Minority (8%) of antiviral expenditure incurred on DCH inpatient wards. **The majority of antiviral spend will be due to HIV outpatient prescriptions.**

#### 6.5 COSTS – SUMMARY AND RECONCILIATION

- Estimated costs attributable to CDAD is ~ **£4000 per case** (1996 Wilcox).
- Most of the quoted cost due to extended hospital stay (~3 weeks).
- Estimated cost **did not** include costs associated with physiotherapy, occupational therapy, additional drug prescriptions, cleaning and disinfection, laundry and protective clothing/equipment.

- The 15% increase in antibiotic spend over the financial year equates to approximately £65000. Therefore, using a figure of ~£4000 per case of CDAD, if the change in antibiotic prescribing has prevented more than 16 cases of CDAD over the financial year then the increase in antibiotic expenditure will actually have saved the Trust money through cost avoidance.
- *In financial terms*, a targeted reduction of 1 – 2 cases of CDAD per month would equate to cost-neutrality for year 07/08.
- Please refer to Action Chart; in the month following the introduction of the new guideline there was a reduction in CDAD by ~ 17 cases when compared to the previous month. If this decrease could be attributed to the introduction of the guideline alone, then the annual increase in antibiotic expenditure would have been saved by the avoidance of CDAD-associated costs in one month alone or issues and future plan.

## 6.6 POINT PREVALENCE

- A Point Prevalence study investigating the use of antibiotics at Dorset County Hospital was undertaken (February 2008). It provided a snapshot of antibiotic prescribing on inpatient areas at DCH **on one day**, and was part of a regional study that also included 15 Trusts from the South West of England and included data from over 7000 patients.
- The study showed that of the 337 patients seen on that day at DCH, **30.3% of patients were on antibiotics**. This corresponds with ongoing audit results and compares to a regional average of 29.7%.
- At DCH, the breakdown of antibiotic prescriptions were as follows;

Type of infection	Skin/soft					
	Respiratory	tissue/bone	GI	Urinary	Prophylaxis	Unknown
Antibiotic prescriptions	27%	22%	18%	8%	7%	7%

- The remaining 11% of prescriptions were for miscellaneous infections (endocarditis, septicaemia, GUM). The “unknown” category represents the number of prescriptions where the Doctor has written no indication in the notes and may represent an area of inappropriate prescribing. It is possible that a significant proportion of this ~7% of antibiotic prescriptions are not necessary. (NB 7% of total antibiotic spend (07/08) is £35,000).
- The study found that **99.3% of antibiotic doses at DCH were correct**.
- **46% of antibiotics were being given by the intravenous route** and compares to a regional average of 45% (range 38% to 57.5%).
- **96% of antibiotic prescriptions were given by the appropriate administration route**.
- **46% of prescriptions had a review or stop date indicated on the chart** and compares to the regional average of 40%.

However, the best performing Trust scored ~ 65%. As a Trust we need to improve this aspect of antibiotic prescribing. The best performing Trust has been contacted and their Antibiotic Duration Policy is being evaluated and considered for use here at DCH. Instigating a policy at DCH may reduce the total number of doses given inappropriately and a) reduce risk of side effects associated with prolonged courses of antibiotics (CDAD, and in IV administration - risk of line-associated infection and cellulitis) and b) make financial savings.

- **66% or two-thirds of antibiotic prescriptions seen in the study were in line with current DCH antibiotic guidelines** (regional average 67%).
- **11% of prescriptions were in contravention to DCH guidelines** (regional average 11%). 11% were unknown and 12% of prescriptions were for indications not covered by guidelines.
- To formalise specialist Microbiology Consultant/Antibiotic Pharmacist ward rounds to all inpatient areas in DCH. This will facilitate the education of prescribers (junior and senior), and to monitor and audit all aspects of antibiotic prescribing.
- Consider, write and implement more guidelines/policies (i.e. Antibiotic duration policy, surgical/orthopaedic prophylaxis). Introduce credit card sized summaries of the Medical Antibiotic Guidelines.
- Defined Daily Dosage (DDD) (WHO) database to be created to enable the Trust to monitor antibiotic usage per occupied bed day or finished consultant episode and attempt to link this to HCAI rates. Results may then be used in combination with audit results to create “leverage tools” (i.e. possible to create league tables detailing antibiotic use/inappropriate prescribing and link to CDAD rates).
- To report audit, financial, DDD data and case reports to clinical governance/directorate meetings to raise awareness.
- To use DDD data to compare the Trust to other hospitals in the country (or internationally).
- To forge links with other regional Trusts via the South West Regional Antibiotic Pharmacist group and publish original work as a group in a Medical/Pharmaceutical journal.
- In conjunction with Microbiology, develop a business plan for Outpatient Parenteral Antimicrobial Therapy (OPAT) service. The potential advantages include increased quality of life for the patient; considerable cost savings for the Trust and reduced risk of HCAI due to antibiotic-resistant organisms.

## 7. Decontamination

The Dorset and Somerset decontamination collaboration has yet to reach a final decision on the future for local decontamination services. Inevitably this uncertainty has inhibited the Trust commitment to commit to required service improvements for Sterile Services Department (SSD).

A review is currently underway following consultation with the Trust Authorised Person, Tom Hall, regarding the reprocessing of scopes previously being undertaken within the SSD. A business case is being prepared; agreed interim measures are in place.

There have been two incidents reported as risk events whereby there was a failure to meet the required standards for decontamination. Both incidents have been fully investigated and reported via the Integrated Governance Committee.

Initial planning meetings to discuss proposals for a new build for Endoscopy department have taken place. The IPCT are fully engaged with planning associated with the proposed development.

The Endoscopy department received an excellent quality review report, the review included appraisal of the decontamination facilities. All water samples submitted for bacterial sampling from the endoscopy decontamination system have met the required standards.

***The Director of IPC recommends that the Trust Board consider arrangements for decontamination within the governance framework. Decontamination, whilst closely aligned to Infection Prevention has a significant agenda both locally and nationally. There is a potential risk that with the increasing agenda for IPC that due consideration for decontamination issues is not met at this committee. The Trust should consider a stand alone Decontamination Committee reporting to Integrated Governance Committee.***

## 8. Housekeeping Services

- 8.1 It is a fundamental requirement that healthcare is delivered in a safe, clean environment. Nationally there has been a clear media focus on cleanliness in hospitals, particularly following the Maidstone and Tunbridge Wells report into the investigation of deaths from *Clostridium difficile*.

As Director of IPC I have led a comprehensive review of housekeeping services within the Trust. The review found a lack of systems aligned to the national framework for the minimum standards of cleanliness for NHS Trusts.

### 8.2 Review of Housekeeping Services

- 8.2.1 A formal review of housekeeping services was undertaken during the year. Following this review, housekeeping services have been restructured and are currently as an interim measure managed by Sally Pinnock, Head of Nursing. The review identified the following key points:
- There was significant under-investment in housekeeping services to meet the required minimum standards. This had not been represented to the Trust Board;
  - There was an ad-hoc arrangement for environmental audits and Matrons were not engaged with the process;
  - Cleaning schedules did not represent the national minimum standards;
  - There were no clearly defined cleaning roles and responsibilities for housekeeping and clinical staff;
  - The National Colour coding scheme had not been implemented.

Following this review the Trust invested in software designed to assess the Trust environment in line with the national standards for cleanliness. A business case to increase housekeeping hours was prepared and agreed, cleanliness being a top priority for the Trust.

- 8.2.2 During the year we have achieved full engagement between housekeeping staff and clinical staff. Cleaning schedules and frequencies have been negotiated and agreed between Matrons and housekeeping supervisors. A joint audit programme is now in place and action plans are developed to respond to audit deficits. The audit tool implemented is the National Patient Safety Agency's (NPSA) environmental tool. We acknowledge the tool has longer term limitations, particularly the Estates component, whereby very few elements of Estates responsibility are audited. This results in significantly skewed results for the Estates department. However, the key value rests with the results for housekeeping services and clinical staff. The audits have prompted much greater awareness of the importance of maintaining all elements of the clinical environment to the highest standards.
- 8.2.3 We have an Improvement Team, consisting of Director of Nursing, Head of Nursing, Estates Manager, Housekeeping Manager and Nurse Consultant for IPC. This team are responsible for undertaking weekly spot checks.

The inspections take account of wider environmental issues, and have influenced the extensive refurbishment programme the Trust is currently undertaking.

Staff are now taking great pride in their clinical areas, they are responding to the investment the Trust has made to improve the environment for patients. A major refurbishment programme is now underway and the results of the work have improved the morale of staff. The challenge is to maintain the momentum to achieve the highest standards of cleanliness. The pictures below represent some of the improvements in the ward environments following refurbishment.



**A newly refurbished treatment room.**

*Treatment rooms are areas where preparation for wound dressings and Intravenous Infusions take place.*

*The storage has facilitated improved cleaning standards as the floor surfaces are clear of equipment. Most importantly dust does not collect on sterile supplies.*



**A newly refurbished sluice.**

*Commodes have been replaced from the national HCAI funding stream. These commodes facilitate easier cleaning for clinical staff.*

*Hands free taps have been installed. Wall surfaces are covered with laminated surfaces to prevent contamination of bacteria.*



**A newly refurbished kitchen**

*Ward kitchens are being refurbished to prevent the potential for cross infection.*

Staff report that the refurbishment programme has completely changed the way they work. The improved storage facilities facilitate staff working in a systematic, organised way, and the wards are tidier.

Overall, from the patient's perspective this creates a better impression. Recent letters from patients in the local press are favourable; they are noticing that the wards are cleaner and tidier.

***The Director of IPC recommends the Board maintain support for the Trust wide refurbishment programme. This will ensure that the care is delivered in optimal circumstances and aide the prevention of HCAI.***

## 9. Policy Review

- 9.1 The Health Act 2006 sets out core requirements for IPC policies. During the year the IPCT have reviewed and developed policies to achieve compliance with this standard.

The following policies have been developed / reviewed during 2007-08:

- Medical Antibiotic Guidelines (January 2008)
- Aseptic Technique (June 2007)
- Blood Cultures (July 2007)
- CJD (August 2007)
- Ward Outbreak of Communicable Disease (July 2007)
- Hand Decontamination (May 2007)
- Infection Control Framework (September 2007)
- Isolation Policy (June 2007)
- Major Outbreak of Communicable Infection (February 2008)
- MRSA (June 2007)
- Norovirus (May 2007)
- Pandemic Influenza (August 2007)
- Microbiology Specimen Collection (January 2008)
- Standard Precautions (May 2007)
- Viral Haemorrhagic Fever (January 2008)
- Tuberculosis (April 2008)
- Management of Negative Pressure Rooms (April 2008)
- Draft Extended Spectrum Beta Lactamase Policy.

- 9.3 It is now important to audit compliance with these policies to ensure appropriate systems are in place within the clinical environment. The policy audit plan is incorporated into the 2008-09 Infection Prevention and Control Work Programme (Appendix 2).

- 9.3 Gloria Moss (Nurse Advisor seconded to IPC team) has worked on new documentation forms to facilitate implementation of saving lives High Impact Interventions. The documentation establishes the key principles for safe practice as set out in the policies. This work is due to be rolled out in June 2008.

## 10. Audit Programme

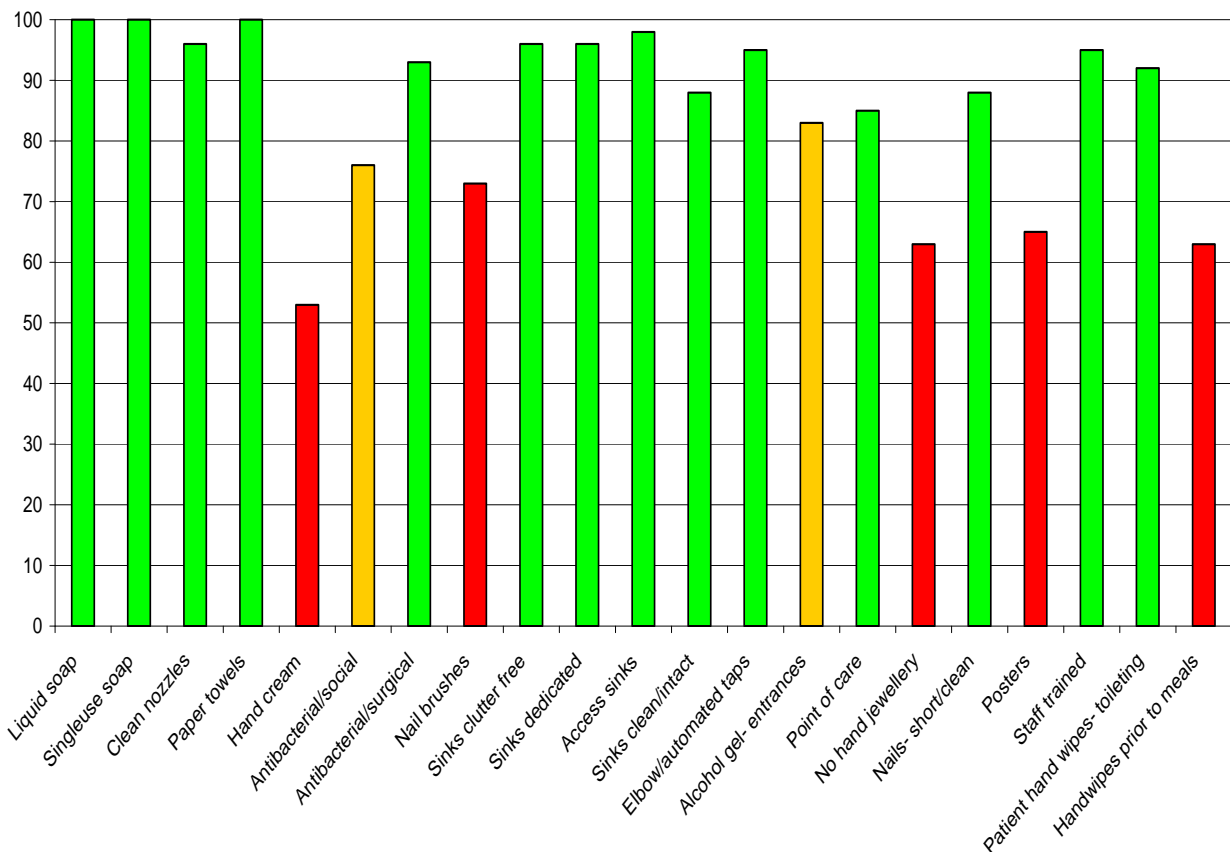
10.1 The priority for the IPCT work programme for 2007-08 has been to review the policies to meet compliance with the Health Act 2006, and meet the requirements for CNST assessment Level 1.

This work has been essential to underpin the framework for clinical practice. An audit programme aligned to the Infection Control Nurses Association audit tools was introduced and three audits were undertaken across the Trust.

### 10.2 HAND HYGIENE.

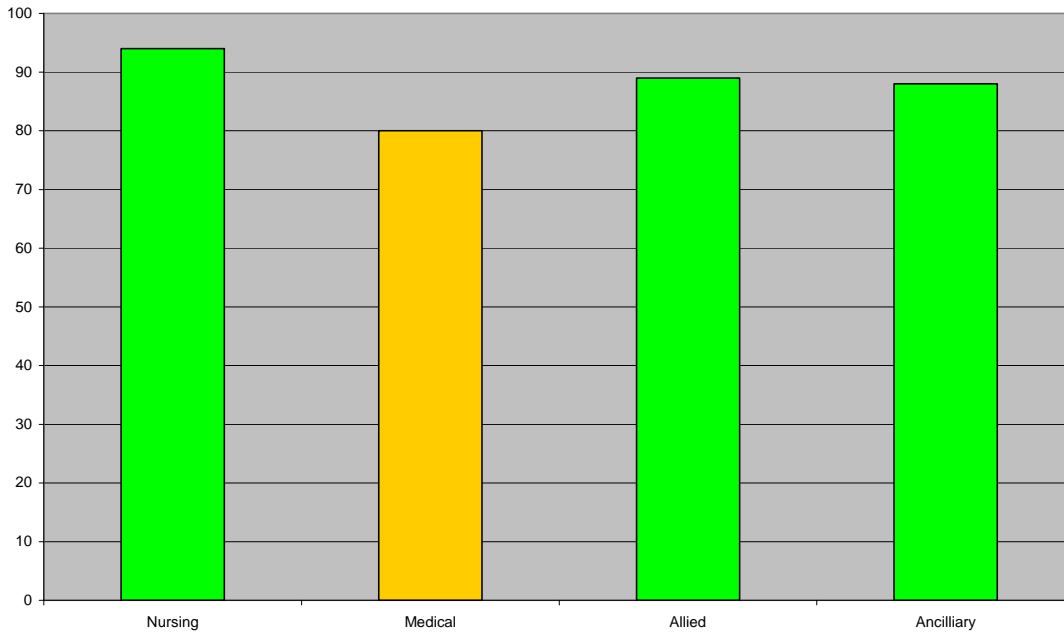
The hand hygiene audit tool reviews both the facilities available for hand hygiene, the level of compliance for staff and the facilities for patients. The chart below demonstrates the Trust wide results. There were a total of 50 completed audit returns from clinical areas throughout the Trust.

INFECTION CONTROL HAND HYGIENE AUDIT (2007)



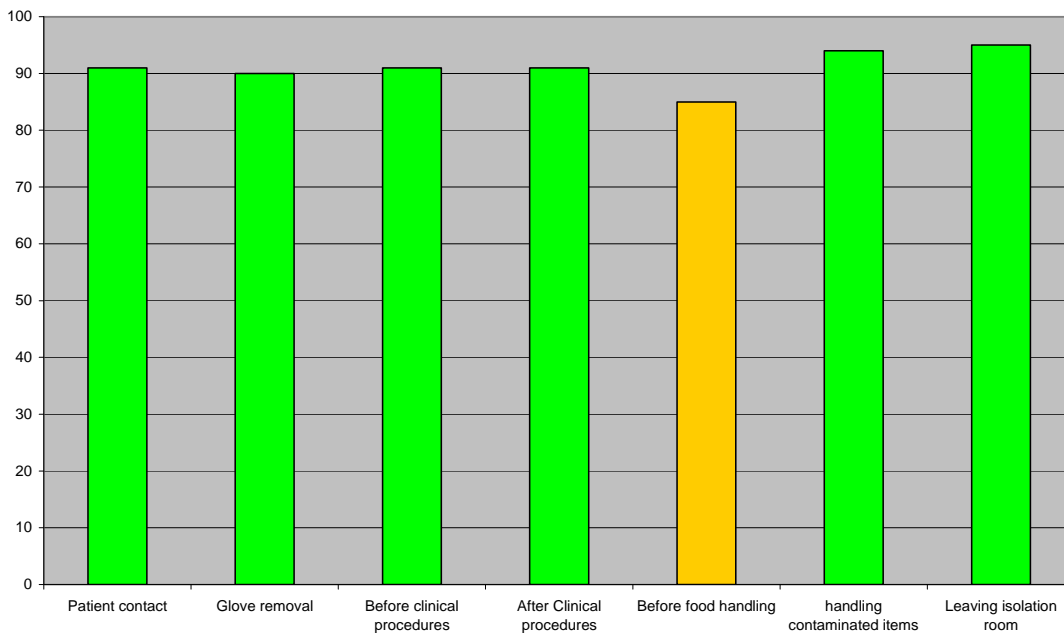
Compliance was measured against different staff groups and the chart below demonstrates the results.

**Infection Control Hand Hygiene Observational Audit (Jan 2007)**  
**Staff use correct procedure for decontaminating hands**



The chart below demonstrates the observations of application of hand washing.

**Infection Control Hand Hygiene Observational Audit (Jan 2007)**  
**Hand hygiene is performed in the following circumstances**



The key recommendations following this audit were:

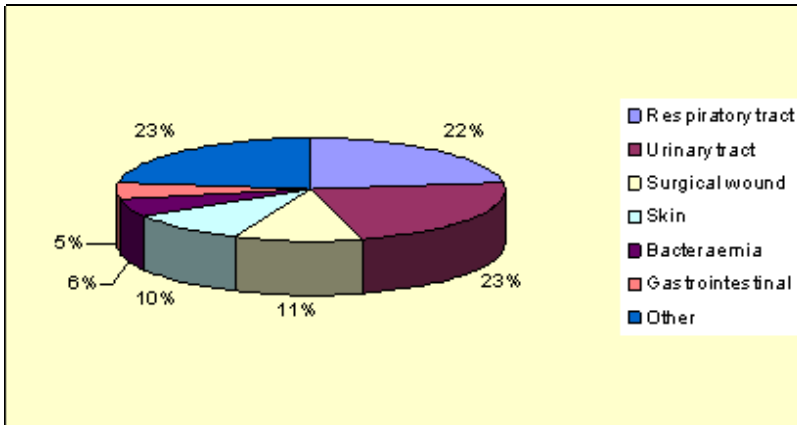
- To secure hand wipes for patients;
- To develop a more frequent audit of hand hygiene across the Trust.

Both these requirements have been achieved.

### 10.3 URETHRAL CATHETER AUDITS

This audit of the management of short-term urethral catheter management was undertaken during July - September 2007 as part of the annual Infection Control Audit programme.

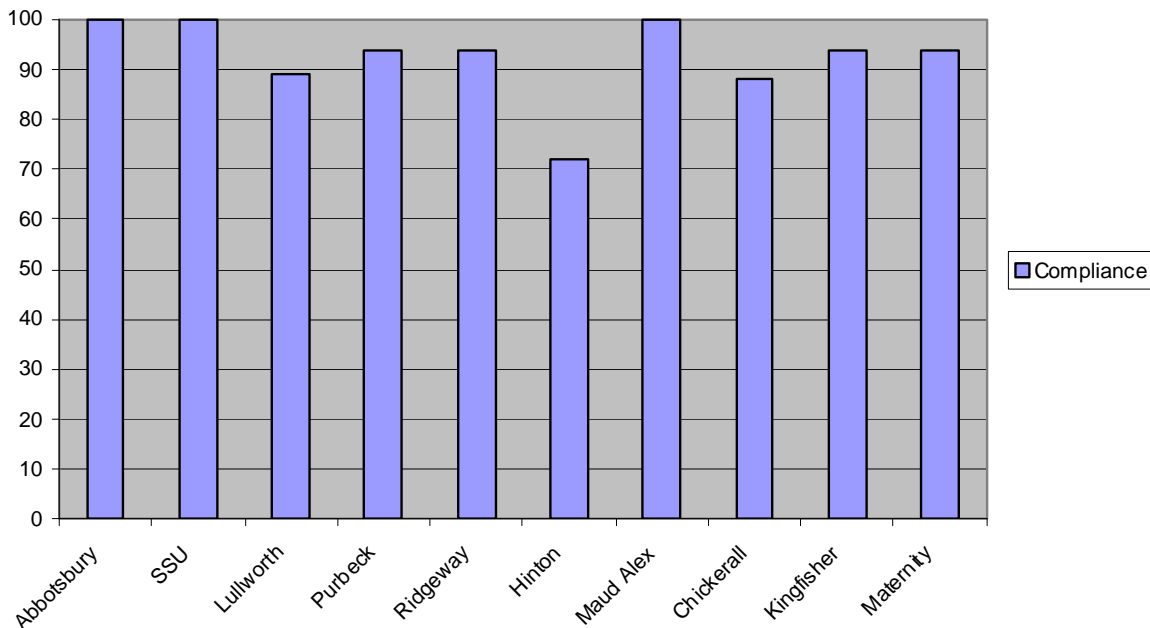
Urinary tract infections present a significant socio-economic burden for healthcare providers. They are the most common HCAI and are a cause of significant morbidity and mortality for patients, particularly the elderly. The chart below demonstrates a breakdown in the common infections associated with hospital admissions.



Source: Health Protection Agency (2007)

The chart below demonstrates the results of completed audits and the level of compliance achieved.

Management of Short Term Urethral Audit (July-August 2007)



Overall the results of this audit demonstrate high-level compliance with the standards.

The key points from this audit that have been taken forward for improvement are:

- Improved documentation to demonstrate that a review process for removal/management of urinary catheters is established;
- Review the use of lubricants during insertion of catheters, if not used document rationale;
- Review and introduce available products to secure catheters to leg to prevent urethral trauma;
- Ensuring consistent use of Personal Protective Equipment (PPE) during manipulation of urinary catheters in line with recommendations of Trust Standard Precautions policy;
- Use of single use night drainage bags.

There is a proposal to introduce silver coated urinary catheters for patients with long term indwelling urinary catheters. This work is being led by Ann Little, Matron, Elderly Care. This work needs to be supported with local data on urinary tract infections to support the economic business case for practice change.

Full environmental IPC audits were undertaken in the following wards:

- Prince of Wales
- Dialysis Unit
- Satellite dialysis unit
- Abbotsbury
- Lulworth
- Purbeck
- Ridgeway
- Special Care Baby Unit

Following these audits individual actions plans to respond to the audit findings were developed by the Ward Sisters.

#### **10.4 SAVING LIVES HIGH IMPACT INTERVENTIONS**

Rosemary Wareham, IPC Nurse Advisor was seconded from the team to support implementation of the DoH High Impact Intervention audit programme. High Impact Interventions (HII) consist of care bundles, these care bundles focus upon clinical interventions that when consistently applied reduce the potential for HCAI's. The audit tools are undertaken frequently to demonstrate the level of consistency in practice. Each element is then charted and the results are rapidly fed back to clinical staff. The cycle of feedback is important; staff need to be aware of any deficits to facilitate practice change with a process of rapid audit feedback.

The preparatory work has been undertaken and Matrons are responsible for facilitating the process within their clinical areas.

These audits are part of the contemporary IPC programme aligned to Saving Lives initiatives. They move from the focus of environmental elements as these are collated in environmental audits and PEAT (Patient Environment Action Team) audits

***The Director of IPC recommends that the Infection Prevention Committee monitor the uptake and standards of HII across the Trust. These tools must be implemented across all inpatient areas during 2008-09.***

A programme of planned audit against IPC policies is outlined in the IPC work programme for 2008-09.

### **10.5 PEAT**

The PEAT audits were undertaken in February and March 2008 over a 2 day period. The results of the audit are expected in June 2008, but initial feedback from the audit team was very positive.

## 11. Training Activities

- 11.1 During 2007-08 there have been changes to the recording of training activities, essentially the introduction of the OLM system. This has presented some difficulties with accurate recording of training. Administrative staff did not receive appropriate training for the system to collate the training records, which has created a backlog to enter onto the system. This failure undermines the efforts of staff undertaking training in a variety of settings.
- 11.2 During Link Nurse meetings it has been established that the current cascade training system is not working well. Therefore a comprehensive review of IPC training is currently being undertaken. This will also incorporate a review of the methodology and the requirement for annual Mandatory IPC Training. We will be utilising the DoH IPC e-learning training, particularly for non-clinical staff. This will free up resources to concentrate efforts on training clinical staff, where the biggest gains for practice improvements are possible.
- 11.3 Dr Clements is reviewing the training for Medical staff, particularly associated with antimicrobial prescribing.
- 11.4 Line Managers need to ensure that Mandatory IPC training is incorporated into annual appraisal, and that there are effective systems in place for monitoring attendance. The Infection Prevention Committee must receive regular updates on progress against staff attendance at training sessions to ensure the IPCT are able to respond to their training needs.

## 12. CONCLUSION

Overall during 2007-08 the Trust has made significant progress to achieve compliance with the Health Act. This progress has demonstrated significant reductions in HCAI.

The national IPC initiatives being driven centrally by the DoH will require Information Technology Resources to facilitate a more robust process for the required audits. The requirement is that the Saving Lives HII audit cycle is the responsibility of clinical teams. The audit cycle is rapid, supporting early feedback of the results to clinical staff. This process cannot be delayed; staff need to be able to identify audit results with their clinical practice. It is this process that will develop consistency and will save lives. It is therefore essential that the IT programme for the forthcoming year is linked to supporting IPCT staff to facilitate development of the audits and surveillance at ward level.

Perhaps the most encouraging change this year is the engagement of clinical staff with the emerging IPC programme. The programme has challenged traditional patterns of working, Matrons and Ward Sisters have a renewed interest in their clinical environments and they feel supported of the Trust Board to develop high standards of care in environments they are proud of. The support of medical staff for the "Bare below the elbows" campaign is evident by the posters and the emerging dress code for Doctors.

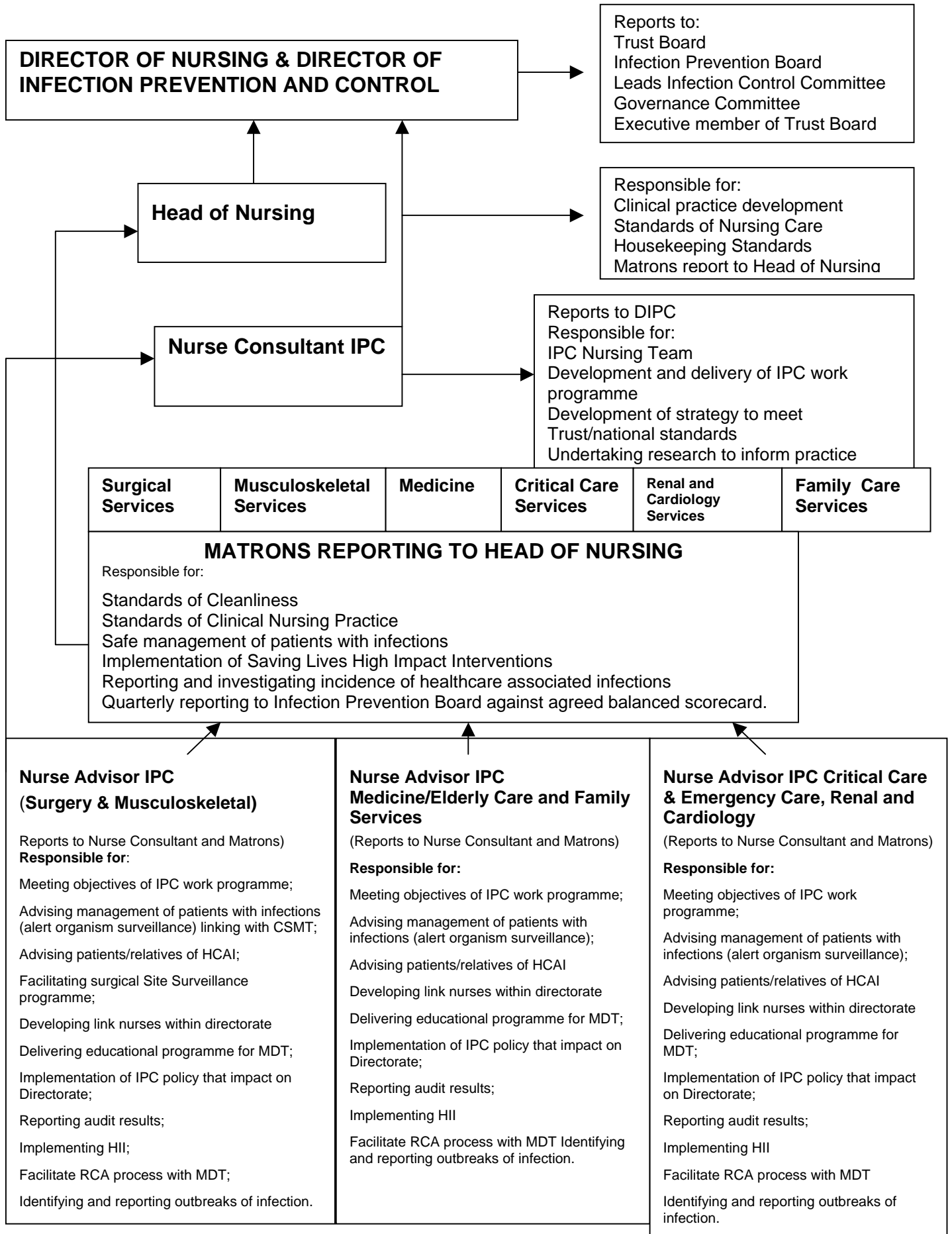
The process of change is always challenging, particularly when in clinical practice staff are experienced. HCAI do not manifest themselves at the point when the failure to practice safely occurs; if they did, the challenge to change practice would be easily achieved. It is therefore important to build on the progress made to reduce infections this year, taking account of the many interlinked dimensions that facilitate the reductions. The fundamental principles for the improvement programme are outlined by the DoH:

- **People-** *leadership, training, Directorate responsibilities, Infection Prevention & Control Team;*
- **Performance-** *establishing performance frameworks, use and reporting of data, partnership working with PCT's;*
- **Practice-** *hand hygiene, HII, screening and decolonisation, documentation, use of antibiotics and Root Cause Analysis;*
- **Process-** *Bed Management and flow, care pathways, the environment and cleaning.*

During 2007-08 we have made progress underpinning development with these key principles. It is important that we maintain this momentum, particularly in relation to integrating the performance framework into clinical directorates, it is this process that will save lives.

**Appendix 1**

**PROPOSED STRUCTURE OF IPC SERVICES**



**Appendix 2**

**INFECTION PREVENTION AND CONTROL WORK PROGRAMME 2008-09**

Key Development Area	Actions Required	Criteria for achievement	Lead Responsibility	Date
To ensure an effective functioning Infection Prevention Committee to meet the requirements of the Health Act 2006.	Annual review of the terms of reference of the Infection Prevention Committee to ensure compliance with legislative requirements.	<ul style="list-style-type: none"> <li>• Inaugural meeting of newly formed Infection Prevention Committee (IPC) chaired by the Chief Executive in June 08.</li> <li>• Terms of Reference for the Infection Prevention Committee agreed and ratified by Trust Board.</li> <li>• Attendance at IPC meetings monitored by the Chair.</li> <li>• Directorate IPC framework agreed by the IPC.</li> </ul>	Chief Executive Director of Infection Prevention and Control (DIPC)	June 2008
Annual Infection Control Report.	Draft Annual Infection Control Report presented to IPC and Trust Board.	<ul style="list-style-type: none"> <li>• Draft report prepared by May 2008.</li> <li>• Report presented to IPC June 2008.</li> <li>• Report presented to Trust Board June 2008.</li> </ul>	DIPC Nurse Consultant IPC Infection Control Doctor	May 2008 June 2008
A Trust-wide annual IPC programme will be produced and subsequently agreed by the Clinical Directorates.	1. Development of Infection Control Work Programme	<ul style="list-style-type: none"> <li>• Present and ratify at IPC in June 2008</li> <li>• Incorporate as appendix in Annual Report.</li> </ul>	DIPC Nurse Consultant IPC Infection Control Doctor	1 June 2008
	2. Matrons to report on status of IPC within their realm of responsibility.	<ul style="list-style-type: none"> <li>• Introduce Matrons balanced scorecard to be reported quarterly via Trust Board.</li> <li>• Balanced scorecard to incorporate monthly environmental audits, hand hygiene audits, rates of C. Diff and MRSA, HII Root Cause Analysis, Link Nurse protected time.</li> </ul>	Nurse Consultant Matrons Head of Nursing.	April 2008 June 2008
Responsibilities for IPC will be effectively devolved to appropriate persons across the Trust to meet legislative requirements of Health Act 2006.	Review all Executive Directors must incorporate IPC responsibilities.	<ul style="list-style-type: none"> <li>• All executive job descriptions to be reviewed and developed to incorporate core IPC responsibilities.</li> <li>• All clinical staff to have clearly defined IPC responsibilities in job descriptions.</li> </ul>	Human Resource Director  Human Resources Director Directorate Managers  Directorate Managers	June 2008  September 2008

Key Development Area	Actions Required	Criteria for achievement	Lead Responsibility	Date
		<ul style="list-style-type: none"> <li>All clinical staff will have IPC included in annual appraisals and is a mandatory component of CPD. Compliance to be reported via the IPC.</li> </ul>		April 2009
Requirement to undertake mandatory surveillance of alert organisms.	<p>Develop surveillance database.</p> <p>Implement rapid feedback to clinicians to facilitate effective patient management.</p>	<ul style="list-style-type: none"> <li>Pilot surveillance database.</li> <li>Feedback to clinician's daily alert organisms that may have an impact in clinical practice and case management.</li> <li>Feedback monthly data of C. Difficile infections and MRSA bacteraemias via Matrons balanced scorecard.</li> </ul>	<p>Head of ICT IPCT</p> <p>IPCT</p> <p>IPCT</p>	<p>May 2008</p> <p>Ongoing</p> <p>April 2008 onwards</p>
Mandatory surveillance of Healthcare associated infections to meet requirements of the Health Act 2006.	Maintain accurate records for inclusion on national MESS database of MRSA bacteraemia, <i>Clostridium difficile</i> , Glycopeptide resistant enterococcus.	<ul style="list-style-type: none"> <li>Continuous monitoring of alert organisms and provision of identified risk factors for each individual patient.</li> <li>Facilitate Risk Reporting for all cases of hospital acquired <i>Clostridium difficile</i> and MRSA.</li> </ul>	<p>Information department Infection Control Doctor IPC Nurse Consultant</p> <p>IPC Nurses</p>	<p>Ongoing</p> <p>Ongoing</p>
Investigate all MRSA bacteraemia and cases of <i>Clostridium difficile</i> and outcomes and action plans are monitored by directorate governance meetings to meet requirements of the Health Act 2006.	<p>Ensure that Root Cause Analysis is undertaken for all cases of C. diff and MRSA acquired by inpatients in the Trust.</p> <p>Ensure that all deaths associated with HCAI are appropriately reported as Serious Untoward Incidents and investigated</p>	<ul style="list-style-type: none"> <li>Matrons to lead MDT review of all cases.</li> <li>Action plans developed following review and reported via the Operational Risk Group and Directorate Governance structure.</li> <li>Rates of HCAI will be available on the Trust Internet.</li> <li>Ensure that staff leading RCA investigations have received appropriate RCA training.</li> </ul>	<p>Matrons Directorate Managers</p> <p>Integrated Governance Manager. Communications Lead/ Nurse Consultant.</p>	<p>June 2008</p> <p>September 2008 Quarterly update.</p> <p>April 2008</p>

Key Development Area	Actions Required	Criteria for achievement	Lead Responsibility	Date
		<ul style="list-style-type: none"> <li>Ensure that full investigation into SUI is undertaken and results reported to Integrated Governance Committee.</li> </ul>	DIPC Medical Director Integrated Governance Manager	When necessary
To proactively engage with Dorset Primary Care Trust to investigate the Root Causes of Healthcare Associated Infections.	Establish monthly meetings with IPC lead for Dorset PCT.	<ul style="list-style-type: none"> <li>All cases of MRSA bacteraemia and <i>Clostridium difficile</i> are comprehensively reviewed to gain greater awareness of the root cause of the HCAI.</li> <li>Development of joint action plans across the health community to facilitate best practice.</li> <li>Present joint report at IPCC of findings of above review.</li> </ul>	Nurse Consultant IPC DCHFT Lead Nurse IPC Dorset PCT.	June 2008  Quarterly
All parts of the hospital are suitable for the purpose and are kept clean and maintained in good physical repair and condition to meet the requirements of the Health Act 2006.	Environmental audits will be undertaken by the Housekeeping and clinical Teams in line with National Patient Safety Agency requirements.  Weekly spot checks  Requirement to undertake annual PEAT inspection.	<ul style="list-style-type: none"> <li>Standards of cleanliness will be monitored by the Matrons balanced scorecard and results reported to Trust Board quarterly.</li> <li>Results of environmental audits will be displayed on Ward notice boards.</li> <li>Weekly environmental spot checks will be undertaken.</li> <li>Annual PEAT inspection will be undertaken.</li> <li>PEAT results will be available on the Trust internet.</li> </ul>	Housekeeping Manager/ Matrons/ Ward Sisters  Ward Sisters  DIPC/Head of Nursing/ IPCN/Estates/Housekeeping Manager.  DIPC/ Head of Nursing/ IPCN/ Estates/ Public representatives Communications Lead.	Ongoing  June 2008  Ongoing  February 2009 May 2008
There is suitable hand washing facilities available and antibacterial hand rub to meet the requirements of the Health Act 2006.	Install hand washing facilities are available at the entrances to all ward areas.  Maintaining supply of alcohol gel at the point of care.  CleanyourHands Campaign	<ul style="list-style-type: none"> <li>Hand washing sinks available at entrances to all ward areas.</li> <li>Alcohol gel available at entrances to wards.</li> <li>Alcohol gel available at point of care throughout the Trust.</li> <li>Full engagement with Clean your Hands Campaign e.g. posters and campaign material will be distributed throughout the Trust.</li> </ul>	Estates Manager.  Housekeeping staff maintain supply. Ward staff maintain supply.  IPCN	August 2008  Ongoing  Ongoing  Ongoing

Key Development Area	Actions Required	Criteria for achievement	Lead Responsibility	Date
	Hand Hygiene audits	<ul style="list-style-type: none"> <li>All inpatient areas to complete monthly hand hygiene audits.</li> <li>Results of hand hygiene audits to be reported quarterly to Trust Board via the Balanced Scorecard.</li> <li>Results of hand hygiene results to be displayed on Ward Notice Boards.</li> <li>Web based system to input audit results.</li> </ul>	Ward Sisters  Matrons  Ward Sisters  ICT/ IPCN	Monthly  Quarterly  Monthly  September 2008
There are appropriate arrangements for decontamination of instruments and other equipment.	Instruments and clinical equipment will be effectively decontaminated.	<ul style="list-style-type: none"> <li>Standards for decontamination will be met.</li> <li>Decontamination lead Director reports on progress with the Dorset and Somerset strategic review to Trust Board.</li> <li>Incidents where failure to meet the required standards for decontamination are escalated and reviewed by the Integrated Governance Committee.</li> </ul>	SSD Manager Endoscopy Manager Housekeeping Manager  Operational Services Director  Operational Services Director	Ongoing  Ongoing  Ongoing
The Trusts Communication strategy reflects the need to inform the public in respect of HCAI to meet the requirements of the Health Act.	Rates of HCAI need to be available to the public. Patients and the public receive suitable information regarding specific conditions and the general systems and arrangements for preventing and controlling HCAI.	<ul style="list-style-type: none"> <li>Annual IPC report to be published on internet.</li> <li>Rates of infection reported on internet quarterly.</li> <li>Information leaflets developed for key HCAI infections e.g. MRSA / C. <i>Difficile</i>.</li> <li>Patient information leaflet developed re Intravenous Cannula.</li> <li>Visitor information leaflet re visiting patient with infection.</li> </ul>	Communications Lead.  Communications Lead/ Information Manager.  IPCT  IPCN  IPCN	July 2008  Quarterly  Ongoing  July 2008  July 2008

Key Development Area	Actions Required	Criteria for achievement	Lead Responsibility	Date
The appropriate core policies outlined in the Health Act 2006 are in place.	Core policies in place.	<ul style="list-style-type: none"> <li>• Core polices available on the intranet.</li> </ul>	Nurse Consultant.	June 2008
	Audit programme in place to monitor compliance with policies across the Trust.	<ol style="list-style-type: none"> <li>1. MRSA in line with policy recommendations- <ul style="list-style-type: none"> <li>• Review preadmission screening.</li> <li>• Review decolonisation protocols.</li> <li>• .Audit patient placement.</li> </ul> </li> <li>2. <i>Clostridium difficile</i> in line with policy recommendations <ul style="list-style-type: none"> <li>• Patient placement following onset of diarrhoea;</li> <li>• Correct entry/exit precautions within isolation rooms;</li> <li>• Correct use of colour coded cleaning equipment;</li> <li>• Correct documentation e.g. maintaining fluid balance/stool charts</li> <li>• Correct timing of discontinuation of isolation precautions;</li> </ul> </li> <li>3. Isolation precautions <ul style="list-style-type: none"> <li>• Evidence in nursing documentation of risk assessment and rationale for isolation;</li> <li>• Correct precautions implemented according to the transmission of the infectious agent;</li> <li>• Correct signage outside of the isolation room;</li> <li>• Patient and relative aware of the rationale for the advised precautions.</li> </ul> </li> <li>4. Hand Hygiene <ul style="list-style-type: none"> <li>• Ongoing return of monthly hand hygiene audits;</li> <li>• IPCN's undertake audits within areas of direct responsibility.</li> <li>• Audit provision of alcohol gel at the point of care.</li> </ul> </li> <li>5. CJD in line with policy recommendations <ul style="list-style-type: none"> <li>• Compliance with pre surgical/endoscopy assessment.</li> </ul> </li> <li>6. Sharps management</li> <li>7. Management of staff exposure to BBV's.</li> </ol>	IPCN facilitate audit programme with Clinical staff.	August 2008
			October 2008	
			Monthly	
			December 2008	
			January 2008	
			Occupational Health Manager	TBA

Key Development Area	Actions Required	Criteria for achievement	Lead Responsibility	Date
To provide/facilitate the delivery of IPC education for both induction of new staff and ongoing mandatory education for all staff groups to meet requirements of Health Act	Review and update Education Programme	Develop revised Trust wide Educational strategy to meet needs of staff groups employed by the Trust.	Nurse Consultant IPC Education and Development Manager Dr Blake	August 2008
		Introduce NHS e-learning for non clinical staff.	Nurse Consultant IPC ICT Manager	September 2008
		Develop IPC package for outside contractors working within clinical areas.	Nurse Consultant IPC Estates Manager	August 2008
		Directorate Managers to monitor attendance at IPC training and report progress via OLM reporting system working towards 100% attendance via the Infection Prevention Committee.	Directorate Managers	Quarterly progress report
DoH requirement to introduce MRSA screening for all inpatients.	Develop strategy to achieve MRSA screening for all patients admitted for surgical procedures.	All patients admitted for surgical procedures where an overnight stay is involved will be screened for MRSA.	Relevant Directorate Managers/IPCT	August 2008
		Develop and present business case for screening programme for elective patients.	Assistant Director of Operations / Microbiology Laboratory Manager.	October 2008
		Introduce screening for elective surgical patients not currently screened for MRSA.	Outpatients Manager / PAU Manager	January 2009
		IPCT review MRSA positive results for preadmission screening and develop strategy for decolonisation.	IPCN	Ongoing
			DIPC	March 2009.

Key Development Area	Actions Required	Criteria for achievement	Lead Responsibility	Date
	Develop strategy to introduce MRSA screening for all emergency patients for 2009-10.	Develop full business case to incorporate strategy for managing positive patients, screening methodology, treatment costs, and increased laboratory/ IPCT costs.		
Effective management of patients with <i>Clostridium difficile</i> .	Implement Trust wide action plan in line with HPA consultation document.			See Appendix 1.
Review IPCT structure to develop closer working relationships with clinical areas.	Produce IPCT strategy document. Develop revised Job Descriptions for IPCN.	Present strategy to IPC.	Nurse Consultant IPC	June 2008
		Draft job descriptions developed.	Nurse Consultant/ DIPC	April 2008
Compliance with Health Act.	Review Saving Lives Action Plan and progress towards full compliance.  Directorates implement Saving Lives High Impact Interventions.	Present current position to IPC. Present Action Plan to IPC Present quarterly report on progress to IPC.	DIPC/Nurse Consultant. DIPC/ Nurse Consultant. DIPC/Nurse Consultant.	June 2008 June 2008 Ongoing
		Saving Lives High Impact Interventions to be implemented across the Trust. HII modules to be registered with Clinical Audit Department. Results of HII audits to be presented to IPC	Matrons/ IPCT  Matrons.	Apr 2008- March2009 Ongoing
		Action plans and progress to be reported via IPC.	Directorate Managers/ Matrons	Quarterly
			Directorate Managers.	Quarterly
There is an effective antimicrobial prescribing strategy that monitors compliance with Trust policies in place to meet the requirements of the Health Act 2006.	Antibiotic policies are in place. An effective strategy for monitoring compliance is in place. An educational programme for medical staff re prudent antimicrobial prescribing is in place.	Present current position to IPC.  Strategy for feedback to Clinical Directorates.  Report via IPC.	Infection Control Doctor/ Antimicrobial Pharmacist  Infection Control Doctor/ Antimicrobial Pharmacist	June 2008 and quarterly reports. Quarterly reports

C. Diff Action Chart Jan 2007-Mar 2008

