Infection Prevention

& Control

Report

April 2012 – March 2013

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1.0 Purpose of the Paper

The purpose of this report is to provide assurance to the Quality and Performance Committee that infection prevention and control arrangements are in place and making good progress in reducing the risk of Health Care Associated Infection (HCAI) and to highlight the main developments in the management of infection prevention and control activity for the period April 2012 to March 2013 for NHS Hull.

2.0 Background

In December 2010 the Department of Health published an update of the Health and Social Care Act 2008: Code of Practice on the prevention and control of infections and related guidance. This document sets out the main requirements for registered providers to ensure compliance with the Care Quality Commission's (CQC) registration requirements for cleanliness and infection control. The code sets out 10 criteria by which a registered provider will be assessed on their compliance with the registration requirements.

As commissioners of services, NHS Hull CCG will need to assure themselves that the services they commission are compliant with the Health and Social Care Act 2010 update and Infection Prevention & Control of Healthcare Associated Infection in Primary & Community Care. National Institute for Clinical Excellence (2012): (Clinical Guideline 139), London (March 2012).

NHS Hull CCG has action plans in place to monitor and review progress with reducing incidents of Clostridium *difficile* and MRSA Bacteraemia. The actions associated with the plans have assigned leads and timescales. Progresses against the plans are monitored via the Quality and Performance Committee.

The report and action plans are based on and address the requirements identified in the following documents:

- Health and Social Care Act 2008: Code of Practice on the prevention and control of infections and related guidance.(December 2010)
- Health and Social Care Act 2008: Code of Practice for health and adult social care on the prevention and control of infections and related guidance.(December 2009)
- Health Technical Memorandum 01-05: Decontamination in primary care dental practices. (November 2009)
- The Health and Social Care Act 2008: Code of Practice for the Prevention and Control of Health Care Associated Infections and related guidance (January 2009)
- The Health Act 2006 : Code of Practice for the Prevention and Control of Health Care Associated Infections (October 2006)
- Essential Steps to safe, clean care (June 2006) revised July 2007
- Revised Guidance on Contracting for Cleaning (December 2004)
- A Matrons Charter: An Action Plan for Cleaner Hospitals (October 2004)
- Winning Ways Report from the Chief Medical Officer (December 2003)
- Getting Ahead of The Curve Chief Medical Officer's Report (2002)

NHS Hull CCG ensures it works within the framework of the Health and Social Care Act 2008 Code of Practice for health and adult social care on the prevention and control of infections and related guidance (Dec 2010).

3.0 Responsibilities

The Director lead for the Period 1st April 2012 – 31st March 2013 was Sarah Smyth, Director of Quality and Clinical Governance - Executive Nurse.

Infection Prevention and Control support was provided by the Infection Prevention and Control Team from City Health Care Partnership CIC (CHCP) via a service level agreement.

4.1 Quality and Performance Committee

The Committee is responsible for monitoring all quality and infection control. The committee will receive regular infection control updates and an annual report.

4.2 Hull and East Riding Infection Control Committee

The Hull and East Riding Infection Control Committee (H&ERICC) is a patch wide infection control group consisting of the Infection Control leads from all partnership organisations and chaired by the Director and Consultant in Communicable Disease Control for the North Yorkshire and Humber Health Protection Unit. Its aim is to monitor and advise on infection Control issues across the Hull and East Riding area. The committee helps to support joint working across health providers and has developed a patch wide infection control strategy which focuses on the reduction of Health Care Acquired Infections.

5.0 Alert Organisms

5.1 MRSA Bacteraemia

For the period April 2012 to March 2013 the Infection Prevention and Control Team (IPCT) investigated 2 MRSA bacteraemia Root Cause Analysis (RCA) which were reported as pre 48 hour infections on the MESS data collection system. The IPCT were assisted in the investigations by Independent practitioners commissioned by NHS Hull, Staff from CHCP, care home staff who were involved in the care of the patient and Hull and East Yorkshire Hospitals.

In both cases the probable Root Cause was wound related:

- in case one a chronic diabetic foot ulcer in conjunction with continuous open wounds and poor healing due to co- morbidities
- in case two through surgical intervention. The infected hip joint was infected which occurred within the 30 day surgical site surveillance timeframe

Areas of good practice were identified in both cases the Wound Management Protocol was followed by Primary Care Practitioners. A regular review of the wounds were undertaken and documented in the patient records. In one case repeated advice from

both secondary and primary care health professionals had been given with regard to the patient's diabetes control.

Action plans were put in place for both cases and the actions have now been completed. A recurring theme was identified which was the adherence to the Secondary care MRSA screening policy was not consistent. Where the policy was followed the results were not checked in one case. In the other case there is no documented evidence that the positive MRSA result was communicated to the community nurses. This is being addressed by the acute trust.

The decision made by the review groups was that both cases were unavoidable.

From April 2013 a zero tolerance approach to MRSA Bacteraemia commenced. The CCG will be responsible for leading the Post Infection Review (PIR), when an MRSA Bacteraemia has been identified, it is the responsibility of the organisation from which the sample originated to ensure that the full mandatory data set is recorded on the new data collection system. In the case of a GP, the CCG is the responsible organisation and will involve any other provider organisation as necessary. To ensure that the new processes introduced as part of the zero tolerance programme is embedded across the CCG area an MRSA Bacteraemia action plan has been developed (Appendix1).

5.2 Clostridium difficile

During 2011-12 there was a marked increase in the episodes of Clostridium *difficile* infection within the Hull population. The NHS Hull trajectory for 2011-12 was 67 episodes and this trajectory was exceeded by 46 episodes. The trajectory for 2012-13 was 67 episodes this trajectory was exceeded by 6 episodes. Though the trajectory was exceeded there was a marked reduction in number of episodes from the previous year (Fig 1).

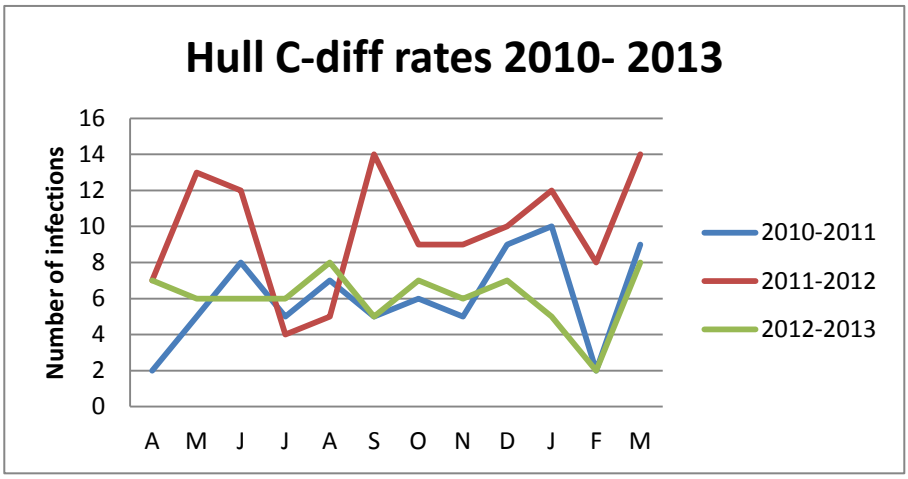


Fig 1

The charts below show the year on year split between those Clostridium d*ifficile* episodes attributed to primary and secondary care (Figs 2&3)

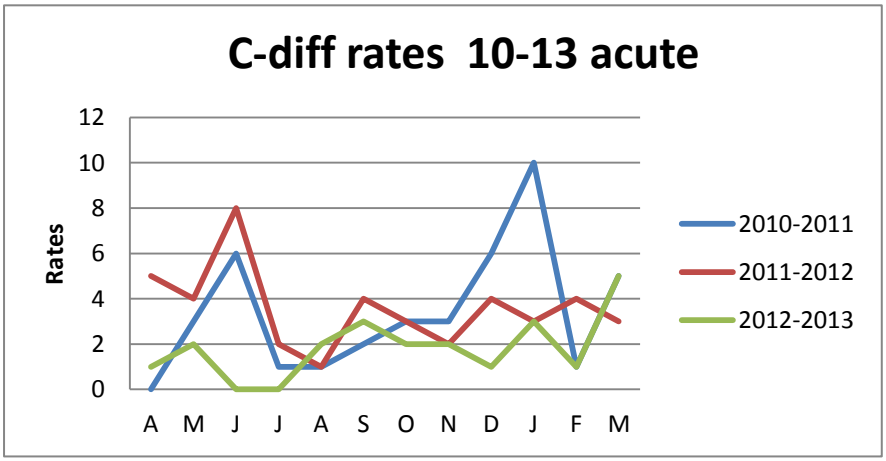


Fig 2

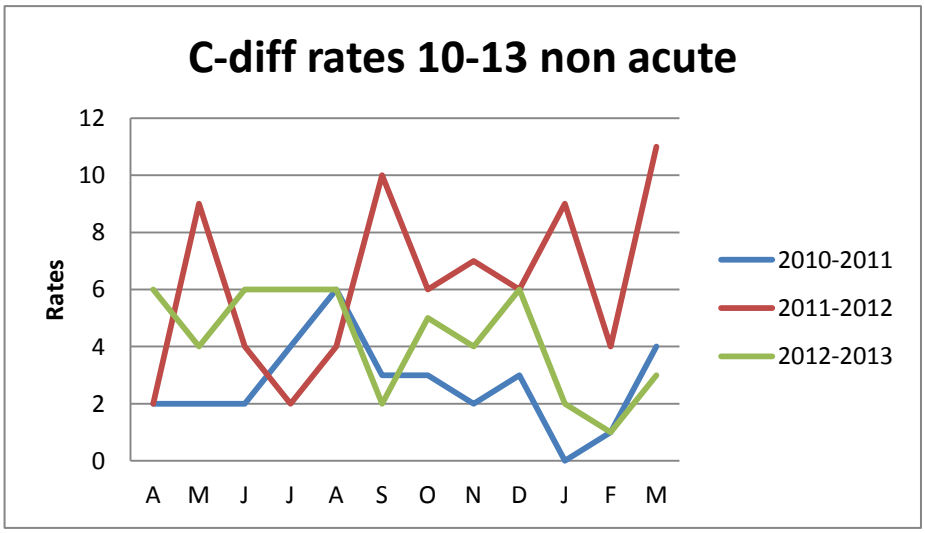


Fig 3

The work commenced in September 2011 included the establishment of the Hull and East Riding Clostridium d*ifficile* review group led by NHS Hull in conjunction with the educational events across the city have contributed to the reduction in the number of episodes.

In January 2013 a review of the number of patients having relapses was undertaken this review showed that in the first six months of the data collection four patients accounted for ten episodes, however in the last six months four patients have accounted for eight episodes. Prior to April 2012 three patients accounted for eleven episodes. The number of relapses per patient has decreased over the last year with patients on average having one relapse. This gives an overall reoccurrence rate of 29.9% from September 2011 to January 2013.

NHS Hull CCG has a Clostridium d*ifficile* action plan in place which has assigned leads and timescales (appendix2). To consolidate the current work and actions undertaken to reduce the incidence of Clostridium d*ifficile* NHS Hull CCG is currently undertaking a programme of consultations to develop a Clostridium d*ifficile* patient card. This card would be issued to all patients who are both Glutamate Dehydrogenenase (GDH)

Polymerase Chain Reaction (PCR) positive and GDH toxin positive. The aim of the card is to inform the patient about their condition and alert practitioners to the patient's condition to enable them to consider prescribing options when considering antibiotics. The introduction of the card will also include extended surveillance which will provide additional data to inform future policy/strategy development.

6.0 Training & Education

On 28th June and 28th November 2012 Protected Time for Learning event (PTL) took place for General Practices within the Hull boundary a total of 45 practitioners attended the event covering 21 GP practices. The focus of the event was affective methods of prevention, management and control of Clostridium *difficile* across the health community. The format of the event was interactive case studies discussing both treatment and testing. The event was supported by Dr Debbie Wearmouth Consultant Microbiologist Hull and East Yorkshire Hospitals, Gemma McNally Senior Pharmacist Medicine Management Team NHS Hull, Natasha Suffill Interim Senior Pharmacist North Yorkshire and Humber Commissioning Support Unit (CSU) and the IPCT. The events evaluated extremely well (see Appendix 3&4) and it is intended to run a further two events in the coming year with the aim of increasing knowledge and awareness on the treatment and management of patients with Clostridium *difficile.*

7.0 Panton Valentine Leukocidin (PVL)

Between the 1st April 2012 and 31st March 2013 the Infection Prevention & Control team investigated 20 primary cases of *Staphylococcus aureus* Panton Valentine Leukocidin (PVL). Fifteen of the cases were meticillin resistant *Staphylococcus aureus* (MRSA), and five meticillin sensitive *Staphylococcus aureus* (MSSA). Of the 20 primary cases investigated, 22 contacts were screened in line with Health Protection Agency guidelines. Five primary cases and their extended families have been referred to an Infectious Disease Consultant due to persistent positive screens and episodes of skin eruptions which are commonly associated with PVL infection. In addition family contacts for some primary cases were given decolonisation treatment without screening in line with the national guidance on treatment of PVL. These figures only indicated the primary screen and do not reflect the volume of follow up screens and episodes of decolonisation treatments each case received. The team have continued to work closely with GP practices to provide advice and support in relation to PVL cases including the co-ordination of treatment. In some cases this has entailed co-ordinating treatment across several households at one time involving multiple GP practices.

8.0 Infection Control Advice and Support

The Infection Prevention and Control Team continued to provide advice and support to all staff groups. The team advised and gave information for a total of 32 requests for general advice and 65 requests for specific infection control related advice, requests that required further investigation and follow up. The team works closely with other infection control professionals across the local health economy to ensure advice given is agreed best practice.

9.0 Infection Control Audit

9.1 GP Audits

April 2012 to March 2013 saw the second year of a three year rolling programme of Infection Control audits within General Practices across the City of Hull. However, from April 2012, audits were undertaken using a new tool, the ICAT audit tool is a new updated tool which reflects latest legislation and best practice. The audit tool has streamlined the process of report producing, and allows for real-time reporting.

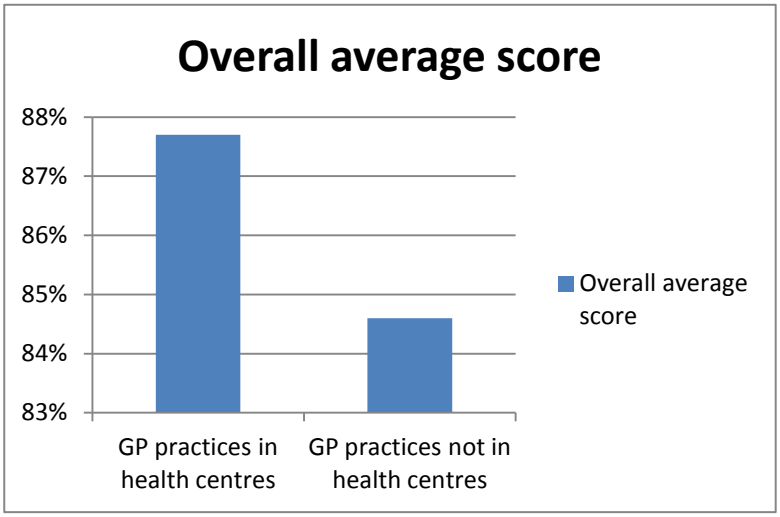
The Infection Control Assessment Tool (ICAT) audit tool assesses ten different elements with a strong focus on the governance and documentary evidence. As with the previously used Infection Control Nurses Association (ICNA) tool, the compliance level for each of the standards is based on the score achieved. The compliance levels are:

Minimal compliance 75% or less
Partial compliance 76-84%
Compliant 85% +

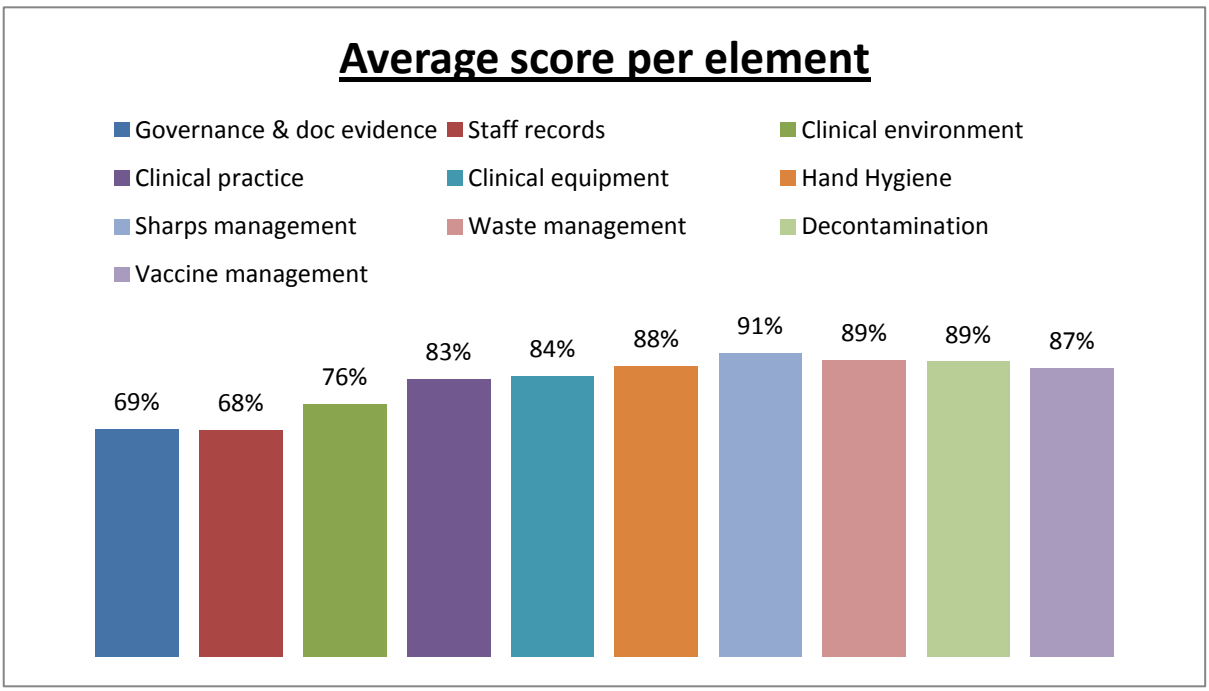
As part of the rolling three year programme, GP practices receive a face to face audit once during the three year period, with the remaining practices requested to undertake a self audit using the ICNA audit tool.

9.2 GP Face to Face Audits

As part of the three year rolling audit programme, 22 GP practices were audited using the new ICAT tool. Following analysis of the data, those GP practices located within purpose built health centres are noted to have scored better overall than those that were not. Seven of the GP practices were located within purpose built health centres with an overall average compliant score of 87.7%. The remaining 14 practices scored an overall average partial compliant score of 84.6%.



The table below identifies the overall averages per individual elements across the city as a whole.



The lowest scoring area is Staff records at 68% with 16 of the 22 practices audited non-compliant, however it should be noted that this element comprises of just two questions. A negative response in this section will give a low element score but this does not adversely affect the overall audit score due to how the results are calculated. This section relates to staff having received hand hygiene training and infection control training.

Staff records is closely followed by Governance and documentary evidence at 69% with 14 of the 22 practices non-compliant. This is low scoring in some practices mostly due to a lack of current robust policies with a revision date, which reflect those as recommended by the Health and Social Care Act Code of Practice (2010).

The clinical environment saw 13 of the 22 practices non-complaint at 76% overall. With regard to the east and west split of the city, the east had four practices non-compliant in this category and nine in the west, which correlates with the fact that those practices audited in the east of the city are those practices located within purpose built Health Centres. This section addresses whether the clinical environment is appropriately maintained in order to reduce the risk of cross infection. In the instances where the score is reduced overall, this tends to be due to cluttered worktops/surfaces, dusty surfaces and chairs for service areas that are not washable/wipeable.

The section Clinical practice seeks assurance that the risk of cross infection is minimised, addressing the provision of personal protective equipment and processing of specimens. This section scores 83% overall which is marginally partial-compliant. Of the 22 sites audited, 11 were compliant overall. One practice scored 58% and was due to lack of available disposable aprons and facial protection, processing of urine samples and ointments, gels or creams identified that were not single patient use.

All audited practices have been sent an action plan which accompanied the audit report, enabling the practices to address areas of non compliance within audited elements. One practice has had a re-audit taken, with the overall average improving from 67% to 83% as a result of the changes made following the audit. For some GP practices a

further visit will be undertaken to re-audit non compliant elements which have not achieved an overall compliance score of 85%.

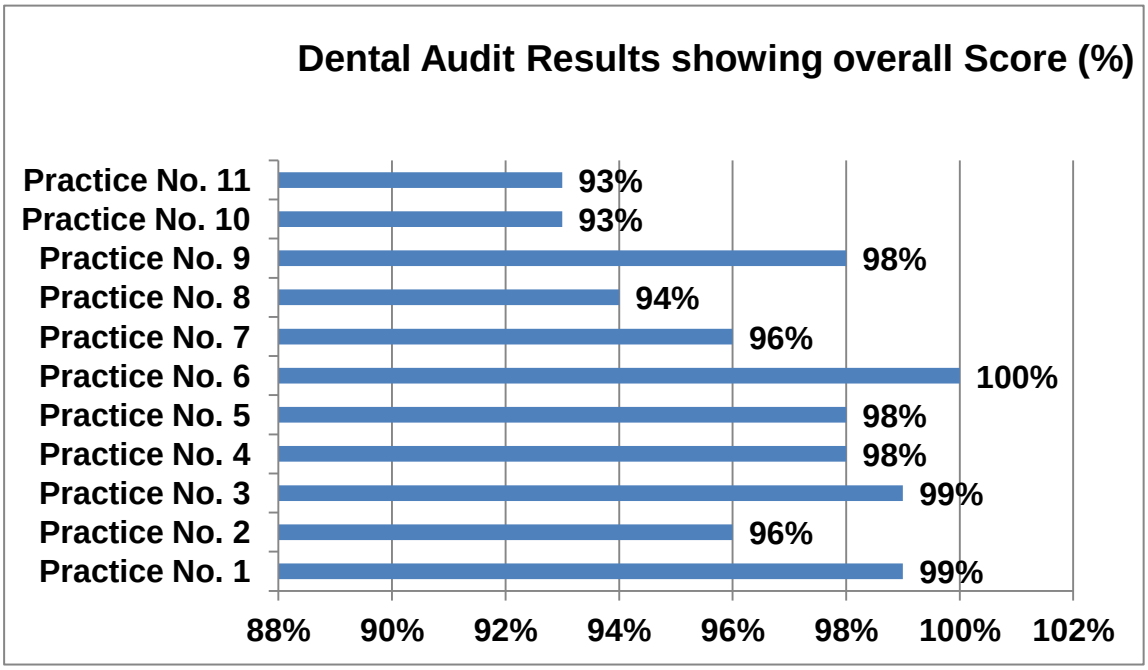
9.3 GP Self Audits

As part of the three year rolling audit programme, 36 GP practices across NHS Hull were required to undertake a self audit using the ICNA audit tool. Of the 36 practices, 35 (97%) completed a self audit. The results were very positive with ten practices (29%) scoring 100% overall, 14 (40%) scoring 99% and the remaining 11 (31%) practices scoring between 94-98%. Although these do appear to be very positive, the reliability of the data must be questioned. This is due to the fact that some staff although following an audit tool, are not as aware of the specific elements associated with reducing the risk of infection in comparison to if the audit was undertaken by a qualified infection control nurse.

Of the 35 self audits undertaken (each with nine elements), only three elements were not compliant across two of the practices. At one practice hand hygiene scored 79% due to hand wash basins not meeting the required standard. At a second practice, the environment and body fluids were both partially compliant at 83%.

9.4 Dental Audits

This year was the first year of the three year rolling programme for undertaking dental audits. Eleven practices were audited utilising the ICAT audit tool which is aligned with HTM 01- 05 Decontamination in Primary Care Dental Practices and infection control related national guidance. All eleven practices scored above 90% overall as shown in the table below.



Although all practices were compliant from an overall perspective six were non compliant on one or more elements of the audit. Three practices were non compliant with the validation and maintenance of their ultrasonic cleaner, this was related to not having a contract for the yearly validation. Two practices were non compliant with

storage and packaging of instruments, this related to inconsistent stock rotation and identification of date sterilised items. One practice scored non compliance as the decontamination of equipment was still taking place within the surgery and though this is still acceptable within the guidance it is not best practice and therefore reflects in the score for this element.

The Infection Prevention and Control Team are continuing to monitor the action plans for all practices to ensure actions are completed and practices are moving towards compliance with all elements. These audits have been well received and seen by the practices as supportive in advising them towards best practice. The Care Quality Commission has reviewed these audits while undertaking their inspections and has challenged practices who have not met the deadline for compliance with the actions.

10.0 Priorities for 2013-2014

The main activities undertaken by the Infection Prevention and Control Team are highlighted within this report.

Key priorities for 2013 -2014 will be to:

- Ensure compliance with the Health & Social Care Act 2010.
- Implementation of the MRSA Bacteraemia and Clostridium difficile Action Plans
- Completion of the three year GP Audit programme.
- Introduction of the Clostridium difficile patient card and it's extended surveillance.
- Continuation of work to reduce HCAI occurrence.

The year ahead will be challenging with the introduction of the zero tolerance programme for MRSA Bacteraemia and the continued emphasis on maintaining and reducing the current Clostridium difficile rates.