GIG CYMRU NHS WALES | Bwrdd Iechyd Prifysgol Betsi Cadwaladr University Health Board

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Mr Darren Millar AM
Chair
Public Accounts Committee

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Dear Mr Millar

Further to the evidence session on Tuesday, 8 July 2014 which my colleagues and I attended, I write to furnish you with the additional information that we agreed to provide.

We agreed to provide data for the total number of patient safety incidents reported. In 2012/13 there were 15617 incidents and in 2013/14 there were 17709.

We discussed the support that had been offered by the Welsh Government Delivery Unit and agreed that we would notify you of the areas where they have been working in the Health Board. During 2013/14 the Delivery Unit undertook work in the following clinical areas:

- Elective Care and Referral to Treatment Times
- Unscheduled Care
- Stroke Services
- Adult Mental Health Services

In addition to the clinical areas above, we also received assistance in reviewing our processes for undertaking Serious Incident Reviews and Learning Lessons.

Towards the end of the session we discussed the delegated limits for severance packages for staff and the value above which these matters were referred to the Welsh Government. Geoff Lang quoted a figure of £100,000, but undertook to confirm this after the meeting. This has now been done and the correct figure is, in fact, £50,000.

Whilst writing, I would wish to take the opportunity to draw to your attention, and that of the Committee, to an update regarding infection control, which I feel sure would be of interest and form useful evidence. You will recall that Professor Duerden undertook his initial review last year and set out a number of recommendations for improvement. The Board resolved to invite Professor Duerden to undertake a follow up assessment to assess progress made, and this work has now been completed. Professor Duerden gave a verbal

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report to the Board in June, and has now provided his written report which was considered by the Board at its public meeting on 29th July. I enclose a copy of that report for your consideration as part of the evidence provided to the Committee.

I trust that the information provided is clear, but should you require any further clarification, please do not hesitate to contact me.

Yours sincerely

Dr Peter Higson
Chairman

Enc

Revisiting the Review of Governance Arrangements, Structures and Systems for the Prevention and Control of Healthcare Associated Infections in the Betsi Cadwaladr University Health Board – May/June 2014

Report by Professor Brian I. Duerden CBE, BSc, MD, FRCPath, FRCPE
Emeritus Professor of Medical Microbiology, Cardiff University

Background

The review of governance arrangements, structures and systems for the prevention and control of healthcare associated infections was commissioned by the Betsi Cadwaladr University Health Board (BCUHB) following an outbreak of *Clostridium difficile* infection (CDI) at one of its main hospitals, Ysbyty Glan Clwyd (YGC), in January – May 2013. My review was conducted during June – July 2013, the written report was submitted in August 2013 and I presented the finding for discussion at the BCUHB Board Meeting in September 2013. I continued to have regular contact with the Director of Nursing and the newly appointed Assistant Director of Nursing for Infection Prevention and Control to discuss progress with the Infection Prevention and Control (IP&C) programme and consider the Action Plan, Infection Control Doctor arrangementsand the numbers and rates of key infections over subsequent months.

In April 2014, I was asked to review the current IP&C arrangements and to assess progress with the IP&C programme in terms of the recommendations in my 2013 report. I was provided with detailed documentation showing what had been done since summer 2013 and I then re-visited BCUHB to interview staff at the three main hospitals and see the facilities relating to IP&C on May 29th& 30th. I returned to BCUHB on June 3rd to present my findings in an oral report to the Board. This written report presents my findings, comments and recommendations as given in my oral report to the Board.

General comments

There has been significant progress in the organisation and governance of IP&C at BCUHB since my 2013 report and there is a very different attitude and responsiveness amongst all the staff members (nursing, medical, facilities and estates, management) I met. I am very pleased to express my thanks to all the staff I met; they were, without exception, courteous, friendly and enthusiastic and I had a very enjoyable 2-day visit. This was very different from last year. Then, staff were not hostile (because they wanted matters to improve) but were

dispirited, "down" and worried about what was happening in relation to healthcare associated infections (HCAI); they complained about the organisation of IP&C, or its lack of leadership and organisation, and were only keen to tell me what was wrong. Now, I was met with enthusiasm and a very positive attitude; they wanted to tell me how much things were getting better.

However, this is not to say that all is in place and that the job is done. There is still a great deal to do. Changes in management, organisation and practice have been put in place and the numbers of cases of HCAI – specifically MRSA bacteraemias and CDI numbers and rates – but these are still too high when compared with elsewhere in Wales and comparators in England. The reduction in numbers needed to reach the Welsh Government targets is still a very significant challenge. Nevertheless, this should not be taken as a negative commentary; experience of implementing IP&C programmes elsewhere indicates that there is an inevitable lag between putting systems and practices in place and numbers coming down – it takes time for practice to become embedded and for this to be reflected in consistently lower numbers of cases.

This report of my re-visit follows the template of my original 2013 report with some additional areas covered that were not part of my remit then.

Terms of Reference

The terms of reference for this review are:

To re-visit IP&C arrangements and practice in BCUHB and assess whether the recommendations of my 2013 report are being implemented appropriately;

To assess the impact of changes implemented in BCUHB on numbers and rates of HCAI, especially MRSA bacteraemias and CDI.

Review process

1. I had been in regular contact with the Director of Nursing and Midwifery (Angela Hopkins) and the Assistant Director of Nursing for IP&C (Tracey Cooper) throughout the intervening period. I had seen the development of the Action Plan for IP&C and confirmed that it addressed the recommendations in my report, and had telephone discussion with them about this and related staffing matters. I had reviewed documents at their request, specifically in relation to revised governance arrangements and the management of the IP&C service.

2. In April and May 2014, I was provided with a considerable volume of documentation in preparation for my visit. These comprised policy documents, Board and Board committee reports and minutes, management arrangements, job descriptions and the minutes of committees and groups that are now responsible for implementing IP&C policy throughout BCUHB.

3. A 2-day visit to Ysbyty Gwynedd (Bangor), Ysbyty Glan Clwyd (Rhyl) and YsbytyMaelor (Wrexham)on May29th&30th to meet senior managers, Board members

and interview key clinical staff face to face or by video or teleconference and to visit wards at each site to see the facilities and meet ward staff.

4. Attendance at the BCUHB Board meeting on June 3rd to make an oral presentation of my findings.

5. Preparation of thiswritten report.

Infection Prevention and Control management and operational arrangements since summer 2013

The governance and operational management arrangements for IP&C have been revised significantly to address the issues highlighted in my 2013 report and are now consistent with the recommendations in that report and in the outbreak report from Public Health Wales. The challenge now is to make them work operationally and, through them, drive the reductions in HCAI required.

- An Assistant Director of Nursing for IP&C (Tracey Cooper) was appointed in October 2013 to lead the programme and take operational responsibility for the IP&C service across BCUHB. She is a very experienced practitioner in IP&C and has taken on this responsibility with enthusiasm and effectively. She reports directly to the Director of Nursing and Midwifery who has also taken a direct personal responsibility for ensuring that IP&C has the priority needed. It is clear that their partnership works effectively.
- An IP&C Strategic Group has been established with a broad membership of senior clinical staff representing the CPGs and site IP&C teams and responsible for policy and overall assurance. It reports to the Quality Assurance Executive – putting IP&C at the heart of the management executive.
- The Quality Assurance Executive reports to the Board's Quality and Safety Committee which gives detailed scrutiny of IP&C matters on behalf of the Board and provides an assurance route that is distinct from the operational management of the IP&C service.
- Each of the three main hospital sites now has an active IP&C committee comprising the local IP&C team, senior medical and nursing clinicians, estates and facilities representation and the local management triumvirate. It is notable and reassuring that the reporting input to these local committees is already coming from the CPG representation and not being wholly dependent on the input from the IP&C teams.
- An Executive Group for IP&C has been established but its remit and terms of reference have not yet been fully confirmed. This will be the operational management group for IP&C through which the IP&C service will be delivered. The membership will be the DN and the ADN IP&C and key team members. However, it is not yet fully operational and it is important that this Group has its ToR agreed and is activated quickly to maintain and promote the impetus needed for implementing the IP&C programme.

Infection Control Doctors (ICDs)

One of the concerns highlighted in my 2013 report was the failure to agree on ICD organisation and leadership and this remains an issue. As indicated in that report, an

additional post was required to provide the essential medical leadership of a Lead ICD for BCUHB. It was reassuring and indicative of the Board's will to make progress that a Lead Consultant ICD post was created, funded and advertised. Unfortunately, there was no suitable applicant for this necessary post. As before, none of the existing consultants felt able to take on this role, for understandable reasons that it would have left serious gaps in their existing functions. I am relieved to be told that an interim arrangement has been made to provide additional Consultant input for 3 "sessions"/PAs per week. The individual recruited, Dr David Jenkins, based in Leicester, is an excellent recruit; he is a very experienced Medical Microbiologist and ICD who has been successful in leading aneffective IP&C implementation in Leicester where CDI numbers had been unacceptably high.He will have strategic and policy responsibilities for the BCUHB IP&C programme which has remained a worrying gap. My only concern is that I believed last year that this needed to be at least a 50% appointment and it will now be only 30%; this will be much better than the current 0% and I support the arrangement under the circumstances, but it may be difficult to provide all the input that would be the ideal from this post.

For the future, I believe that substantive appointment should be made to the Lead ICD role when a suitable candidate can be identified.

Management, accountability and assurance

The combined and confused lines of management accountability and Board assurance as were originally set up have been addressed in the committee and management group structures to clarify the distinction between line management and accountability on the one hand and Board assurance on the other. Theextended line of personal accountability above the most senior IP&C professional before reaching the Chief Executive and Board identified in 2013 has been addressed by the appointment of the Assistant Director of Nursing for Infection prevention and Control.

The Board's Quality and Safety Committee gets its assurance from the Quality Assurance Executive, which clarifies the distinction between operational responsibility and Board assurance. It also receives regular detailed reports from the Director of Nursing and Midwifery and the Assistant Director of Nursing for IP&C. I am satisfied from attending the Board and from the Board and Quality and Safety Committee reports that I have seen that the Board members are receiving the information they need to be assured of the operational functions of the IP&C service and to exercise their oversight responsibilities.

The creation of the IP&C Strategic Group responsible for policy and overall strategy places IP&C at a suitably central position in the clinical management structure. However, the final element that needs to be in place to make it work is the IP&C Executive Group comprising the DN, ADN for IP&C and the key team members. The gap in ICD input to the Strategic and the Executive Groups is an essential element that will be filled by the appointment of Dr Jenkins.

Local committees

The standing down of the local IP&C committees in the 3 sites after the merger into BCUHB left a serious gap in the management of IP&C services. This had just been addressed at the time of my 2013 review by the reinstatement of the three local IP&C committees. These have now been running for a year and, from my discussions this time, have made a significantly beneficial impact on the way in which IP&C is managed across BCUHB.

Membership of the local committees comprises the local Infection Control Teams (ICNs and local ICD), CPG representation, estates and facilities managers and the site management triumvirate. This is enabling local issues to be addressed where they are happening and by the people directly concerned. It is now a notable and welcome feature that the CPG representatives have to lead the reporting on infection cases, rates, outbreaks and RCAs in their clinical areas. The ICT members provide expert support an analysis but are not now expected to lead the reporting and discussion on all the areas themselves.

Clinical management in BCUHB

The principle behind the management of clinical services across BCUHB is clinical leadership through CPGs, each of which had a Chief of Staff (in essence a speciality "medical director"). The CPGs are responsible for the delivery of the clinical services in their specialties across the whole of BCUHB. This initially left a gap in the clinical management and co-ordination at local level which was addressed by the appointment of an Associate Medical Director and Assistant Director of Nursing for each Hospital, and, in April 2013, by the appointment of a Senior Site Manager to complete the triumvirate in each hospital.

The CPGs have responsibility for IP&C in their clinical areas and it has been agreed that each should have a lead clinician for IP&C from amongst the core senior management team of the CPG. The CPGs now recognise and accept their responsibilities but implementation of the practical aspects of the CPG IP&C leadership plans has been patchy and there is uncertainty and a lack of clarity about the role and requirements of the CPG IP&C leads. From discussions during my visits, there is a need for a job description for the CPG IP&C lead role that sets out what is expected of them in terms of ensuring that the CPGs fulfil their IP&C responsibilities.

Surveillance of key HCAI

The national priorities are determined by the Welsh Government; these include MRSA and MSSA bacteraemia, *C. difficile* infection and surgical site infections (orthopaedic and Caesarian section). The national programme requires Health Boards to report their numbers of cases of these HCAI though a system run by Public Health Wales. The Welsh Government has now set challenging targets for the reduction of MRSA bloodstream infections and CDI for all Health Boards in Wales. The reductions expected of BCUHB will require rigorous attention to the implementation of all elements of the Action Plan and a commitment to "zero tolerance" amongst all staff. This does not mean that there will be no infections (which is biologically implausible) but that there must be zero tolerance of failure to adopt and implement best IP&C practice throughout BCUHB.

An essential element for effective IP&C is to have a surveillance system that operates from ward/unit to CPG to senior management (Director of Nursing as accountable executive, Medical Director and Chief Executive) and Board, and then on to national surveillance. The effectiveness of the surveillance reporting system in BCUHB has been much improved since 2013 so that each level receives information about its cases, numbers and rates and has a forum in which they have to be considered and acted upon.

Surveillance of HCAI in BCUHB

Surveillance in BCHU operates at four levels of escalation as recommended in my 2013 report:

- Each ward/unit has a regular report showing its numbers and rates of the key HCAIs. These are discussed and any actions required are identified at ward/unit meetings alongside audit data on hand hygiene, environmental cleanliness, IV line care and antimicrobial stewardship. On my visits to wards, I was pleased to see visual information displayed for staff and patients/relatives on the performance of that ward.
- Each CPG has the same information brought together for each of the specialties and, discussion of these figures and any necessary actions is a standing agenda items at CPG board meetings as shown by CPG reports and minutes. The ADN IP&Chas established close links with most CPG management teams to support their activities and provide expert advice and input but cannot necessarily attend CPG Board meetings. The failure to have a lead ICD in post until now has left a gap still in links to CPG medical staff. This will be addressed by the appointment of Dr Jenkins although his limited time availability may mean that the ICD support for CPGs may need particular attention. As noted above, the role of the CPG IP&C lead needs clarification and support.
- At BCUHB level, an operational (management-led) IP&C committee – the IP&C Executive Group – has been agreed but is not yet fully functional. This Group fulfils the recommendation in my 2013 report for operational IP&C management and, together with the IP&C Strategic Group, which is now established and functioning, will receive the surveillance data and the audit returns for the whole BCUHB organisation and assess the need for any actions, either immediate or strategic.
- The IP&C data for the whole of BCUHB is now reported directly to the Board as a standing report to each meeting. The Quality and Safety Committee is responsible for detailed review of the reports and the Vice Chair of the Board has taken specific responsibility for Board leadership on IP&C.

The system now in place in BCUHB is much better than previously and should function even better with the commissioning of the ICNet system. This has been purchased and needs to be put into place as soon as is reasonably appropriate (consistent with proper testing and training of staff in its use). This system will improve the collation and analysis of the HCAI data and the audit data, provide reports at all the levels needed through customizing the required reporting levels, and will also provide data and analytical tools for access by staff at all levels, ie, ward or GPC staff will be able to access, interrogate and assess their own data giving more flexibility and local ownership. It will reduce demands on the IP&C teams for routine analysis because this will be done automatically within the system.

ICN establishment

The reduction in ICN numbers and the resulting pressures on the service were highlighted as a major deficiency in my 2013 report. The lack of IP&C leadership at senior nursing management level was also a serious gap in the BCUHB structure.

The lack of senior leadership was addressed promptly by the Director of Nursing and Midwifery who made the recruitment of an experienced IP&C practitioner as Assistant DN for IP&C a top priority. Tracey Cooper was recruited on temporary part-time basis initially and her full-time appointment commenced in October 2013. This crucial appointment provided

the necessary impetus and leadership to the programme of work that needed to be put into place.

It has taken longer, unfortunately, to address the issues of staffing structures and numbers within the IP&C Teams and this has become a rate-limiting factor in moving the programme forward. Structures have been agreed to provide consistency of numbers, seniority and roles across the three sites. I have had the opportunity to see the development of these structures and discuss them with the DN and ADN IP&C during the year and I am satisfied that they represent an appropriate approach. They emphasise the leadership, advisory and educational roles of the ICT. This structure and the numbers within it have been approved by BCUHB but have not yet been implemented. Not only is this important for future progress, but it also means that the local ICTs remain unreasonably stretched. I was concerned that for very understandable reasons, the only members of the YGC ICT on duty for the week when I visited were one Grade 6 ICN and a Grade 5 secondee, supported at senior level by cover from a senior ICN based at YG, who is himself temporarily seconded from Public Health Wales to fill a gap there. I recommend that the recruitment to bring the ICTs up to agreed strength should be a priority for the Board.

Antimicrobial stewardship

I made some very critical comments about the failure to implement good antimicrobial stewardship practice across BCUHB in my 2013 report. I am very pleased to find that on this re-visit, there has been significant progress with improving antibiotic prescribing in some parts of BCUH the organization.

A BCUHB-wide prescribing policy for antibiotics has been agreed and implemented and audit data indicate that the majority of prescribing in the hospitals follows this policy in terms of selection of agent. However, it is notable that some choices differ between the different sites within BCUHB. This appears to be the result of differences of opinion between Consultant Microbiologists, and other Consultant staff, at the different sites but it means that there is a lack of consistency across the Board's area of responsibilitywhich is disconcerting for junior medical staff and may lead to errors. The appointment of the lead ICD may help to resolve this issue and should be addressed. The other area of antibiotic prescribing policy implementation is in Primary Care. There have been wide variations in prescribing practice with some high outliers. It is welcome to see that some of this has started to be addressed in the West part of the BCUHB area but it will require more support and educational input across the whole of the Board's Primary Care area.

Antimicrobial stewardship has had a major impetus from the Chief Pharmacist (Berwyn Owen). He has taken on the lead Board-wide role of an Antimicrobial Pharmacist very effectively. Although antimicrobials are not a specialist area of expertise within pharmacy for him, he is providing leadership and appropriate links into the CPGs and senior management. He has 3 good, experienced and qualified antimicrobial pharmacists in the 3 sites to provide the special expertise and the system is clearly working well. I would not wish my recommendation in my 2013 report that there should be a BCUHB-wide lead antimicrobial pharmacist to be interpreted as being inconsistent with what has been put in place.

I was critical in 2013 about the lack of audits of antimicrobial prescribing. I am pleased to find now that audits are being done on a regular basis by the clinical staff, including junior

medical staff. This provides ownership of the prescribing responsibility with those who do much of the prescribing. It has now been agreed that these audit data will feed into the Ward Metrics of overall quality of clinical care and performance. This will ensure that the audits are done and reported because it will be obvious if the data are not reported into the Metrics and remedial action will be initiated. The audit data is still patchy in completion across BCUHB and the data that are available show that there are still improvements to be made in the recording of key data: the percentage compliance with documented review dates, stop dates, IV to oral switch and reasons for the prescription is still patchy and too low overall. This approach to improved emphasis of the importance of audit of antimicrobial prescribing also needs to be applied in Primary Care to support good practice there.

These issues are not unique to BCUHB and apply elsewhere in Wales. This may provide the opportunity for an all-Wales approach to improving antimicrobial prescribing. One practical aspect of this may be a review of the all-Wales prescribing charts which do not have a specific area to support best practice in antimicrobial prescribing. While any such review takes time, it may be worth considering an approach taken by ABUHB where a simple sticker has been developed to convert sections of the current chart into areas consistent with what is needed for antimicrobial prescribing. It will be interesting to consider the results of their trial of this approach.

Root Cause Analysis (RCA)

The system for Root Cause Analysis following outbreaks or serious incidents and/or deaths relating to HCAI in BCUHBin 2013 was not consistent with best practice guidance on conducting RCAs and had not produced the required outcome of identifying root causes for the infection occurrences that can be addressed by improvements in clinical practice. The RCA process is now much improved. Staff have received training in RCA and it is now generally consistent with recommended practice. The RCAs following significant infection episodes are led by the CPG/ward staff. The procedure is multi-disciplinary and there is much greater involvement of medical staff, particularly Consultant staff. It is not now initiated and led throughout by the ICT but the ICT provide support, data and specialist input to the RCA. The ICT does monthly collation of lessons learnt from RCAs conducted in the individual sites and across BCUHB as a whole.

In 2013, there was a serious issue of compliance with completion of RCAs in cases where, according to BCUHB policy, they should have been done. I understand that compliance has improved along with the improved process. As the numbers of cases fall with the Board's emphasis on reducing HCAI, the criteria for deciding which cases warrant an RCA will change; Trusts in England with low rates of CDI now have an approach of conducting an RCA on every case, which is not yet feasible with the number of cases in BCUHB but does become appropriate when focusing on the prevention of smaller numbers.

Thus, the process is now much better and systems are in place for the important outcome of RCAs – the recognition of issues that may have led to an infection, particularly common factors that appear in several RCAs, and the implementation of necessary changes in practice that are identified. The new management structure for IP&C should enable this "closing of the loop".

C. difficile typing

Only a limited number of *C. difficile* isolates, mostly from the patients in the outbreak at YGC, had been sent to the reference laboratory for ribotyping in 2013 which made it difficult to gain an overall indication of the impact of different ribotypes on the epidemiology of CDI across BCUHB. This has now been improved and more isolates have been typed. I am pleased to see that a project is planned with support from Public Health Wales to implement whole genome sequencing of isolates from BCUHB in the specialist laboratory at Oxford. The Oxford project is part of a UKCRC Translational Infection Research Initiative which has supported the creation of a research consortium for the application of WGS to the prevention and control of HCAI. I understand that half of the funding for this project has been secured but the remainder is still to be agreed. In the light of the 2013 outbreak and the ongoing numbers of cases, I recommend that this study should be implemented as soon as is reasonably possible.

Facilities and accommodation

One of the important issues identified in my 2013 report was that there was limited single room accommodation in all the BCUHB hospitals, but with particular problems when the outbreak occurred at YGC. As anticipated, the cohort ward at YGC was discontinued when the outbreak had been brought under control.

I was encouraged on this visit by the approach to providing and managing single room accommodation even though the overall provision of single rooms given the overall structure of the three hospitals(pending the ongoing redevelopment of the YGC site) is still restricted. The redevelopment at YGC will see the provision of a much greater number of single rooms for IP&C and other purposes, but completion will take several years.

In terms of the number and availability of single rooms, several have been reclaimed from other uses which has increased the number of single rooms available for isolating patients. There have also been specific developments at YsbytyMaelor which had very restricted isolation facilities. A small but specialist isolation ward has been created with single rooms. Some rooms were already in the structure but trials have been done with temporary "pods" installed in an open area and with the building of simple partition walls to create single spaces. These are interesting and beneficial trials. For both the pods and the partition rooms, there remains the issue of providing handwashing facilities for each pod/room, but this should not be too difficult to overcome. If mains water and drainage cannot be put into these rooms, consideration should be given to installing stand-alone portable wash-hand basins that do not need mains connection. None of these trial rooms has en suite toilet facilities, but although desirable, that is not necessarily an absolute requirement given the clinical status of many of the patients and the availability of good quality commodes that are simple to clean.

As well as the number of rooms, improvements have made in the way the available rooms are used, particularly in the assessment of patents for priority use.Ward staff, ICT and bed managers now work together to ensure best usage of the available single rooms. Furthermore, a scoring system is being developed by the ADN IP&C, ward staff and bed managers to help with this assessment. This should further help the process and is commended.

Cleaning and environmental hygiene

I did not examine the cleaning and environmental hygiene arrangements in my 2013 review as this was not within my overall remit. However, I did look at the arrangements and the general standards this year as part of this re-visit. I was provided with environmental cleanliness audit data, saw the general cleanliness state of several wards at each of the three hospital sites, and met with the estates and facilities managers during my visit to YGC.

Overall, I was impressed by the arrangements in place for managing the cleaning services. There is an enthusiastic team, keen to deliver a good service and working closely with the IP&C team. The fact that the Environmental Cleanliness Committee is chaired by the ADN IP&C gives this area a heightened profile and puts cleaning in the mainstream of patient safety and infection control. There appears to be good support and leadership between the facilities managers and the IP&C Team. Changes have been implemented over the last year to improve the cleaning service and respond to IP&C needs. These include:

- The implementation of disinfection with Actichlor plus (a chlorine releasing agent) as a routine in the general cleaning of the hospital clinical environment. This is appropriate in a situation where numbers of cases of HCAI, and CDI in particular, are still relatively high, which suggests continued environmental contamination with *C difficile* spores. There are concerns about widespread use of chlorine releasing agents because of the exposure of staff to fumes that may be generated and the damage that continuous use can do to the fixtures and fittings and the fabric of the building. I agree with its use under current circumstances but it may be worth considering one of the chlorine dioxide agents as an alternative if use is to be prolonged. These agents have performed well in laboratory tests at HPA (now PHE) Portonand have fewer unwanted effects on people and fittings.
- The introduction of a microfibre cleaning system. This modern cleaning technology has shown good results in many clinical settings over recent years. The contribution to IP&C is partly because microfibre cloths are effective cleaners but also because the system requires rigorous adherence to single use, discard and laundry regeneration of the cloths that leaves less opportunity for inadvertent reuse and cross-contamination between different surfaces and different rooms.
- The introduction of a traffic-light system for determining which standard of cleaning is required after the discharge of a patient depending upon the infection risk from environmental contamination. Both nursing and cleaning staff clearly appreciated the clarity this brought. However, my only adverse comment was that the only examples of the charts on ward walls were in black & white/grey scale because they were photocopied and it lost the visual impact of red/amber/green!
- The rapid response team is available for post-discharge cleaning for most of the time although there may be some out of hours delays. Generally the service was praised.and it reduces the delays in bringing single rooms back into use.
- HPV decontamination of rooms after discharge of patients with infections that cause persisting environmental contamination, eg, CDI, is now available routinely on all three sites. This is a welcome development. However, it is a system that can only be used in areas/rooms that can be properly sealed off from surrounding areas which does not apply to most bays. With this in mind, and for more effective cohort nursing if needed, when wards are being refurbished, consideration could be given to having doors fitted to bays.

- Commode audits show generally good results and compliance with cleaning requirements. I was pleased to see that all the commodes I saw were relatively new and of modern design for reasonable ease of cleaning; they were clean and "taped".
- There is still an issue, as in most hospitals, about the relative roles of nursing and domestic staff in cleaning beds and bedside equipment. There seemed to be some inconsistency between sites.

However, BCUHB does not yet reach the standards required by the National Cleaning Standards and does not perform as well as it should in the Credits4Cleaning surveys and audits. In part, this is due in some areas to the age of the buildings and the historical lack of maintenance of the fabric of floors, walls and fittings. Much of it is a "tired" environment. The state of some of the older wards means that it is difficult to achieve the standards expected, but environmental hygiene must continue to have a high priority as part of the IP&C programme.

Care pathways and Care bundles

One of the criticisms of the PHW outbreak investigation and my report in 2013 was a failure of documented application of the care pathway for CDI. The pathway itself was appropriate and contained all the key elements, but records of its implementation were incomplete, especially in relation to the medical aspects of the pathway. Hence, overall compliance was not good. This has improved significantly since 2013 and there is now evidence of good compliance with the pathway. It still needs some attention to achieve the expected levels but progress is good. There is a tendency (not just or specifically at BCUHB) to regard the formality of care pathways as a check-list approach to medical care, but their purpose and intent is to ensure a consistent, appropriate and high standard of care for patients with particular clinical conditions and this is becoming more generally accepted.

Care bundles appear to have had less emphasis in BCUHB (and in Wales generally) than in some other parts of the UK. In contrast to a care pathway, as for CDI, a care bundle focuses on specific clinical procedures setting out the key elements of the procedure (no more than 5 or 6) that must be performed properly on every occasion. They have been applied in particular to procedures that carry a particular risk of MRSA (or MSSA) bloodstream infection such as the insertion and maintenance of intravascular devices (cannulae and catheters most commonly). The care bundles for IV cannulae and catheters are only now in the process of implementation at BCUHB. Given the continuing rates of MRSA bloodstream infection and the requirements of the Welsh Government target, I recommend that implementation is accelerated. I am surprised at the late adoption - in Wales generally although BCUHB seems to have been rather slow even in a Welsh context- because such bundles (High Impact Interventions) have been promoted and implemented in English NHS Trusts since 2005-6.

C. difficile outbreak at YGC – what went wrong?

Many inter-related issues came together to make a CDI outbreak a significant risk in BCUHB, and in YGC in particular. Most of the issues identified below have been addressed as indicated:

- It occurred on top of an overall incidence of CDI that was higher than in comparable Health Boards, was not reducing (in 2012), but was not recognised as a significant issue within the management of BCUHB and was not brought to the attention of the Board until the outbreak.*The numbers are still high but are coming down; continued emphasis is needed.*
- The population served by BCUHB is a high risk population with a high proportion of elderly residents with multiple co-morbidities – but its age-adjusted population rates of CDI were *and are* still high in comparison with others.
- Antibiotic usage in BCUHB was high and this is a major risk factor for CDI
    - There was slow progress with antimicrobial stewardship and
    - Failure to agree and implement single BCUHB-wide antimicrobial prescribing guidelines, although the three former guidelines were in continued use. *This is being addressed.*
- There was a weak IP&C management structure – *now corrected*
    - and a failure to recognise the risk indicated by the high background rate of CDIfrom the information which was being presented at the Board.
- There was a lack of IP&C leadership
    - especially in the failure to appoint a lead ICD –*now appointed*
    - and depending on an interim lead ICN – *ADN IP&C has been in place since October 2013*
    - and reporting through an Assistant Director of Nursing who did not have a background in IP&C – *the Lead ICN is now an ADN for IP&C.*
- The number of specialist IP&C staff had been reduced, particularly at YGC, resulting in– *a structure has been approved but recruitment needs to be implemented*
    - Inadequate training provided for ward staff
    - Reduced support for ward IP&C activities
    - Reduced input to audit activities on wards
    - Withdrawal of IP&C support for community hospitals and primary care.
- There was a lack of single room isolation facilities and delays in isolating patients with diarrhoea that might be infectious, including potential CDI cases.-*single rooms have been reclaimed, temporary rooms trialled and management of usage improved.*
- There was a failure to respond in a timely manner to concerns about isolation capacity and infection risks raised by the ICT in 2012. – *IP&C is now a high priority for Board and senior management*
- The way in which HCAI matters were reported to the Board from the Improving IP&C sub-committee through the Quality and Safety Committee led to false assurance and complacency.-*systems are now in place and IP&C is a high priority for the Board.*
- IP&C appears to have had a low priority at senior executive level and in the clinical management systemthrough the CPGs. There has been a general finding that:
    - there were not thought to be serious issues with infection rates
    - antimicrobial stewardship and the implementation of prescribing guidelines did not have a high priority

      the CPGs have a greater appreciation of their responsibilities for IP&C
- Local systems for IP&C in the three sites had been disbanded so there was no coordinating system or forum in any of the three main hospitals.– *the three local IP&C Committees have been reinstated and are working well.*

Review of the approach to Death Certification in CDI cases

The problems identified with death certification in patients who have had CDI and in whom it may have contributed to their death are, I understand, being addressed with the Welsh Government and Public Health Wales and were not considered further in this re-visit.

Role of Public Health Wales (PHW)

PHW has taken a closer involvement in the issues identified in my 2013 report and works closely with the Health Boards. There appears to be a more proactive approach and PHW provides support and expertise. I did not consider this aspect further in my re-visit because relationships were reported to be good.

Recommendations - 2013

The 2013 review showed that the prevention and control of HCAI required significantly increased attention and priority throughout BCUHB, from individual wards and units through to the Executive Team and the Board itself (ie, from ward to Board and Board to Ward). The profile of IP&C needed to be enhanced across all clinical areas; the Chief Executive has ultimate responsibility for patient safety and senior managers needed to ensure that IP&C is a priority objective throughout the management structure.

This has clearly been addressed

The Board needed to have a reliable system of assurance in relation to the numbers and rates of HCAI in BCUHB and the performance of the IP&C service supported by expert interpretation and advice. *This it now has.*

Board governance

- The Board should receive regular reports on numbers and rates of key HCAI (MRSA, CDI etc) with interpretation of trends and benchmarking against equivalent Boards in Wales and large Trusts in England. *IP&C reports are a standing agenda item and discussed*
- An Independent Member should have specific responsibility for the oversight of IP&C matters.- *the Vice Chair has taken on this responsibility*
- The assurance reporting line through the Board's Quality and Safety Committee should be distinct from the management line of responsibility and accountability for IP&C. The current system in which the Improving Infection Prevention and Control (sub) committee is a sub-committee of the Quality and Safety Committee, which is an assurance committee, is not appropriate. *This has been addressed*
- An appropriate governance system would be for the IP&C service to be managed through a BCUHB IP&C Committee chaired by the accountable executive (the Director of Nursing) [see below] with Board reports made by the Director of Nursing to the Quality and Safety Committee and on to the Board. *This has been put in place but is not yet fully operational*
- The Quality and Safety Committee should be expected to give detailed scrutiny to the information (surveillance, audit, and management data) to inform the Board but the Board itself should be clear about its own responsibilities to review HCAI issues and

should not devolve that responsibility to the Quality and Safety Committee. – *this is now done*

Management

The newly appointed Director of Nursing, as the accountable executive, should take direct personal responsibility for the IP&C service with support from IP&C professionals appointed to lead roles across BCUHB. These key lead professionals with BCUHB with responsibilities should be:- *the DN has taken personal responsibility for IP&C*

- Lead Infection Control Nurse (full-time post) with post-graduate qualifications in IP&C and significant experience of working in the field in a large NHS organisation. This could be an appointment at either Assistant Director of Nursing (IP&C) or Nurse Consultant level; the BCUHB executive team prefer the Assistant Director of Nursing approach and I fully endorse this approach.
    - The Assistant Director of Nursing (IP&C) would be accountable to the Director of Nursing, would provide professional expertise in IP&C and would be responsible for managing the IP&C nursing service.– *the ADN IP&C was appointed in October 2013*
- Lead Infection Control Doctor. This will need an increase in the current Consultant Medical Microbiologist establishment as the post requires at least a 50% wte commitment. For most NHS bodies of equivalent size, this would be essentially a full-time post but with the dispersed nature of the clinical services in BCUHB across the three sites and the need for local ICD input, the role of the Lead ICD may not be full-time and may be linked to other Consultant Medical Microbiologist responsibilities.
    - However, the Lead ICD should not also have the lead ICD responsibilities in one of the sites. – *there have been difficulties in making this appointment but a suitable interim appointment has been made, but only providing 30% wte.*
- Lead Antimicrobial Pharmacist. The importance of antimicrobial stewardship and the need for implementation of BCUHB antimicrobial prescribing policies requires the appointment of a Lead Antimicrobial Pharmacist. As with the Lead ICD, this may not need to be a full-time role and may be linked with other pharmacy duties. This could include antimicrobial pharmacist duties in one of the sites but each site should have a full-time antimicrobial pharmacist who is not distracted by BCUHB-wide duties.
    - Responsibilities of the Lead Antimicrobial Pharmacist would be to coordinate the development, implementation and audit of BCUHB antimicrobial prescribing policies, working with the Consultant Medical Microbiologists and the lead clinicians for antimicrobial prescribing in the CPGs.
      The Chief Pharmacist has taken on this co-ordinating and leadership role very effectively

The Director of Nursing, Assistant Director of Nursing (IPC), Lead ICD and Lead Antimicrobial Pharmacist would form the Operational Team responsible for IP&C in BCUHB.*An Executive Group for IP&C has been formed but needs to be fully operational.*

Infection Prevention and Control Committee

The Operational Team would need to operate through a BCUHB IP&C Committee whose membership should include:

- Nursing and medical representation from the IP&C teams in each site.
- Representation from the CPGs which should be the clinician with lead responsibility for IP&C on the CPG board (a restructuring of the CPGs into a smaller number would make this aspect of the IP&C committee less cumbersome).
- Representatives from Estates and Facilities management.
  A Strategic group and an Executive group for IP&C have been established

Role of Site management and CPGs

The management structure in BCUHB is divided between local (site) responsibilities and overall management of clinical services by the CPGs. This requires clarity in the line of accountability and the responsibilities for IP&C. Both have important roles and responsibilities.

Site management

During the last year, site management has been re-established at the three site hospitals with the appointment of Associate Medical Directors, Assistant Directors of Nursing and, within the last few months, Senior Site Managers. Much of IP&C has its application in the sites where care is provided and, therefore, needs a strong organisation at each site. This has been recognised at BCUHB in recent months with the re-establishment of local IP&C committees by the Acting Director of Nursing. These are key elements in the IP&C service with local responsibilities. At present, they do not have an effective BCUHB-wide structure to support them with a firm commitment to the implementation of policies, procedures and protocols. The recommendation for a BCUHB IP&C Committee (above) will provide an appropriate structure for the local committees to work within.

The constitution of the local IP&C committee should comprise the local ICD and lead ICN, the site management triumvirate, clinical representation and the head of estates and facilities.

The site IP&C committees should be responsible for the operational aspects of the IP&C service in their site. They should determine actions necessary for IP&C, institute and manage measures for the control of outbreaks that may (in fact will) occur. They should also ensure the delivery of the training programmes for all the staff of the site so that all receive appropriate initial training on appointment with updates required at regular intervals. The provision of the training and the maintenance of training records should be a local responsibility although the overall content of the training programmes will have been set by the BCUHB Committee.

The site IP&C committees are now fully operational. However, the full provision of training programmes for staff, particularly training on individual wards, depends upon the IP&C Teams being brought up to full strength as planned and approved but not yet implemented.

CPG responsibilities

IP&C is also an important responsibility within the CPGs that are the management lines for the clinical services (for example; cancer, women's, children's, medicine). Each CPG should appoint amongst the lead clinicians on its board, one who takes lead responsibility for IP&C. The CPG should have IP&C issues, ie, numbers and rates of key infections in their clinical areas, audits of policy implementation, antimicrobial stewardship and all aspect of antimicrobial prescribing and IP&C training of its staff, as standing items on their agendas.

The CPGs are responsible for the implementation of BCUHB policies, procedures and protocols for IP&C and antimicrobial stewardship and for ensuring that their staff do what is expected of them and for having an audit system in place to show that implementation and compliance are effective.

The Lead ICD and Assistant Director of Nursing should liaise directly with the CPG IP&C leads and should attend CPG board meetings regularly for the IP&C agenda items to help maintain consistency of delivery across the clinical services provided by the CPGs.

The responsibilities for IP&C are now recognised by CPGs and they are taking appropriate lead roles for reporting in the site IP&C Committees. IP&C Leads are being identified in the CPGs but they need greater clarity in relation to their roles and responsibilities, including a basic job description for the role. Good relationships between the ADN IP&C have been established and similar links will need to be in place for the new Lead ICD so that they can support the CPGs.

Staffing and function of local ICTs

Each local ICT in the sites will led by an ICD and lead ICN, with sufficient ICNs to deliver the required service. The precise numbers of ICNs required for each site is beyond the scope of this review but it is clear that the reduction in numbers of ICNs at YGC was linked to a reduction in IP&C services to below what is described here as necessary. The ICT provides the expertise and knowledge of IPC, surveillance etc.- *the structure and staffing for the local IP&C Teams has been approved; appointments now need to be made to bring them up to full complement.*

- Link nurses. Some parts of BCUHB have had a link nurse system in which a nurse in each ward team has designated IP&C responsibilities and provides a direct link with the ICT. The link nurses need protected, dedicated time to undertake these duties. YGC used to have such a system but it is reported that it was abandoned because the ICT did not feel able to provide the necessary support and due to a lack of clinical engagement and representation. This should be re-examined to decide whether link nurses should be re-instated or whether the responsibilities should be placed directly on the ward sisters and matrons.– *there is not yet a clear consensus on whether or not the Link Nurse network should be re-instated. Although there is no question that wards/units need to be linked into the IP&C Team to fulfil their own IP&C responsibilities and this can be the role of a Link Nurse system, it was put to me by some matrons and ward sisters that their own enhanced role in IP&C meant that they had taken on the roles that might previously have been those of a Link Nurse. This needs to be a matter for local decision to get the best implementation of "everyone's responsibility" for IP&C.*

The functions of the local ICT should comprise:

- Outbreak investigation and management.
- Ensuring that the surveillance system links the laboratory data and clinical information and that all cases of infection are properly recorded and reported into the local surveillance system that feeds into the BCUHB surveillance and the reporting mechanism to PHW.

- Advising ward staff on the investigation and management of patients with infection and those who may have been exposed to infection.
- Supporting the implementation of IP&C policies and procedures, care bundles etc.
- Supporting the ward IP&C audit programme and collating the results for the site.
- Making a major contribution to the IP&C training programmes for clinical and non-clinical staff.

  The local IP&C Committees are now established to provide an operational structure for the ICTs to fulfil these responsibilities.However, as the ICTs are not yet up to strength, they are not yet able to fulfil all of these functions as effectively as they should.

Ward responsibilities

Each ward should receive, each month, its own figures for key HCAI numbers with historical data over previous months for comparison These are often provided in the form of Statistical Process Control (SPC) Charts which provide a clear visual representation of the ward's progress. These should be reviewed by the ward multidisciplinary clinical teams under the guidance of the ward sister or matron, with input from the ICT as needed, at a monthly ward or unit meeting. The ward audit data should be reviewed alongside the infection data. This should form the basis of monitoring and sustaining the actions necessary to reduce the risk of infection.

The ward staff have clearly recognised and taken up their responsibilities for IP&C. The RCAs are led by the ward/CPG staff. They receive their HCAI data and with the implementation of ICNet, they will have greater opportunity to interrogate the data and do the analyses that they require at whatever level they wish.

Antimicrobial stewardship

It was clear from reports and staff interviews in 2013 that there had been slow and inconsistent development and implementation of antimicrobial prescribing policies in BCUHB.

I recommended that BCUHB should quickly complete and promulgate the Board-wide policy for antimicrobial prescribing with two main components:

1. Selection of antimicrobial agents for specific clinical situations.
2. Appropriate prescribing principles including
    - Recording the reason for prescribing
    - Indicating an early review date (first consultant ward round and not more than 48 hours after admission)
    - Review of IV antibiotics after 48 hours with a view to switching to oral administration
    - Setting a stop date at 5 or 7 days with a positive medical decision being made for continuation beyond the stop date.

The lead antimicrobial pharmacist should work with the consultant Medical Microbiologists and representative clinicians from the CPGs to complete the policy as a matter of urgency.

CPG responsibility

The CPGs are responsible for the implementation of the policies by their medical staff and the main responsibility is with the consultant medical staff to ensure their teams implement them.

Audit

An audit programme based on the antimicrobial prescribing policy should be applied across all clinical specialties. The audits should be co-ordinated by the antimicrobial pharmacists supported by the consultant Medical Microbiologists who lead on antimicrobial treatment in the sites, but the responsibility for doing the audits should be with the clinical teams. It is particularly useful for junior medical staff to undertake the audits of antimicrobial prescribing because they are the ones who are doing the initial prescribing.

Appraisal

Implementation of antimicrobial stewardship and prescribing policies should be part of the annual appraisal of all medical staff, both junior staff and, in particular, consultants who have the overall responsibility for the treatment of their patients.

Most of this has now been set in motion. The antimicrobial prescribing policy has been adopted (although there is still some geographic inconsistency in what it requires). The antimicrobial pharmacist service is working well, coordinated by the Chief Pharmacist. Audits are being done and the results are now required to be entered in the Ward Metrics system. Compliance with the elements of antimicrobial stewardship still needs to be improved but the audit programme should help promote this. There is a need to extend the antimicrobial stewardship programme into Primary Care.

Personal responsibility

The phrase "infection prevention and control is everyone's responsibility" means exactly what it says. All clinical and non-clinical staff have a personal responsibility for their own standards and activities. All staff must be included in policies such as hand hygiene and be part of the audits.

All clinical staff have a wide range of responsibilities. They should attend for training to develop and maintain their skills and competences. The management structure should ensure that that the training is provided and that staff have the time to attend the required training sessions. The attendance of staff at training programmes should be monitored either through the local IP&C committees or the CPGs; either can be effective provided that the training records are monitored and collated at local level and reported to the BCUHB IP&C Committee so that management has oversight and the Board can be assured.

For those clinical staff who are subject to job plans, appraisals and personal performance reviews, IP&C should be an integral part of the appraisal and review. This should include numbers and rates of infection, audit returns for IP&C and, for medical staff in particular, compliance with antimicrobial stewardship policies.

Compliance with IP&C training requirements are now part of medical staff appraisal. On-line training through the Doctors.net scheme is being promoted.There are still gaps in the provision of IP&C training at all three main sites and perhaps particularly in community and

primary care because there are not yet the IP&C staff in place to organise and provide it. eLearning programmes are available, but access to terminals and time availability restricts their practical availability to staff. Some staff have been enabled to do these packages at home,which is good, but that raises the issue of whether training should be expected to be done in staff's own time or whether this time would need to be set against time at work or remunerated separately.I understand that the CPGs that have adopted this approach allow staff to take the time back that they have spent on the training so that it is, effectively, paid time.

Public Health Wales

The role of PHW in relation to actions following their collation and analysis of surveillance data should be reviewed. The Welsh Government, NHS Wales and the Health Boards should consider whether it would be a greater benefit to public health if PHW were required to intervene when the surveillance data indicate that a particular Health Board (or individual hospital) has results outwith the expected parameters. Such an intervention at BCUHB could have alerted the Board at an earlier stage that their figures and rates were higher than peer comparators and that this indicated a need for some more detailed attention to IP&C with the support of PHW expertise.

There appears to be a better and closer working relationship with PHW on the programme to achieve the targeted HCAI reductions in Wales.

Death Certification

There are clear differences in the approach to death certification in patients who have died with or following CDI between West and Central/East sites. The pre-certification involvement of the coroner in the Central/East sites will certainly have the result that CDI is recorded as a contributory cause in fewer deaths than if this was done on the basis of clinical assessment. This is an unusual situation and is not consistent with what happens in the rest of Wales and most of England. This role of the coroner, as well as being unusual, would not be consistent with the new "medical examiner" role that will be introduced shortly.

The expectation of central government officers and agencies for certification of deaths when HCAI (including CDI) is implicated would be that the decision to include the infection on the death certificate is made by the clinician responsible for the patient's care before death, with advice from the ICD/Consultant Medical Microbiologist and, additionally, from the Histopathologist when there has been a post-mortem examination. Deaths in which CDI or other HCAI is implicated in either part of the death certificate are incidents relating to deaths linked to medical practice and should be referred to the coroner who may wish to make further inquiries, but this is not prior to the medical certification of the death.

This anomaly in the Central/East sites should be reviewed as a matter of urgency by the Health Board, Welsh Government, PHW and the coroner's office with a view to implementing a consistent approach to death certification in CDI and other HCAI cases in Wales.

This is being addressed by the Welsh Government and PHW.

Epidemiological investigation of CDI in BCUHB

An investigation of the epidemiology of CDI in all three sites of BCUHB is beyond the scope of this review but should be undertaken to understand the current and recent background pattern of infection and the outcomes. It should cover cases of CDI that occurred over the past 2 years (2011 and 2012) and with methodology similar to that used by the PHW team that investigated the 2013 outbreak at YGC although a detailed case note review may not feasible but the pattern of cases can be established without detailed reading of the notes. BCUHB should seek the help of PHW in conducting this investigation which is needed to show where and in which patient groups the occurrence of CDI is most significant.

Epidemiological investigations are ongoing with PHW.

*C. difficile*ribotyping

The ribotyping of *C. difficile* isolates from cases has not been done routinely at BCUHB. It is not expected that *C. difficile* will be isolated and sent for typing in all cases but it should be done more frequently and specifically in cases that result in major surgery or death and when there may be linkage between cases in time and place may indicate cross-infection. When isolates appear indistinguishable by basic ribotyping, further specific genotyping (eg, whole genome sequencing) methods should be applied.

There is more ribotyping being done to inform the epidemiological investigation and a project has been agreed to secure typing by whole genome sequencing through the Oxford laboratoryalthough final confirmation of funding is awaited.

Root Cause Analysis

The current approach to RCA was inadequate in 2013. The system should be reviewed and the staff who do it should be given further training in RCA methodology. The analysis should focus on outcome, ie, what root causes can be identified and whether these should lead to a change in clinical practice.

The RCAs should be completed in a timely way (eg, by setting a limit of 5 or 7 working days for completion). The result of each RCA should be reported to the local IP&C committee (for any action related to the locality) and to the appropriate CPG board (for any action related to clinical practice). The RCA results and any actions should then be reported to the BCUHB IP&C committee. The IP&C executive team should ensure that the RCAs are being done properly and in a timely manner.

Ideally, an RCA should be done for each case of CDI but this may not be feasible with the current number of cases but this is now being done in several Trusts in England. In the current circumstances, RCA should, as a minimum, be done on all cases of moderate to severe disease, all cases where the patient subsequently dies, and all cases that are probably linked in place and time.

There should be a collation and review of RCA results at (currently) quarterly intervals to identify common or recurrent factors (as in the February 2013 report) and take appropriate actions.

A much improved RCA system has been put in place. Leadership of individual RCAs is now the responsibility of ward/CPG staff on a multi-disciplinary basis and they are expected to lead the reporting to the local IP&C committee. The IP&C Team is to provide specialist advice and input and does a monthly collation of the findings or RCAs at site and BCUHB levels. However, implementation of this changed approach is still patchy and requires significant input from the IP&C Team at times to ensure appropriate engagement of the ward/CPG staff.

This report of my re-visit to review the implementation of the recommendations of my 2013 report on governance and management of IP&C at BCUHB was submitted in draft form to the BCUHB Executive Team on 20 June 2014. Minor corrections of fact were made on the basis of their response and the final report was submitted on 1 July 2014