



**INFECTION PREVENTION ANNUAL
REPORT
WYE VALLEY NHS TRUST
2014 - 15**

Introduction.

Wye Valley NHS Trust provides both acute and community healthcare services for Herefordshire. Acute services are provided from the Hereford County Hospital Site in Hereford, which has 258 inpatient beds. There are four community hospitals. Ross has two wards and 26 beds, Bromyard has 18 beds, Leominster has 26 beds and Hillside has 22 beds. The Hereford County Hospital site is a Private Finance Initiative (PFI) site and the partners are Mercia Healthcare and Sodexo.

The annual report demonstrates the Trust's compliance with 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, the criteria for which are summarised below

Compliance Criterion 1: Systems to manage and monitor the prevention and control of infection. These systems use risk assessments and consider how susceptible service users are and any risks that their environment and other users may pose to them.

Compliance Criterion 2: Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections.

Compliance Criterion 3: Provide suitable accurate information on infections to service users and their visitors.

Compliance Criterion 4: Provide suitable accurate information on infections to any person concerned with providing further support or nursing/medical care in a timely fashion.

Compliance Criterion 5: Ensure that people who have or develop an infection are identified promptly and receive the appropriate treatment and care to reduce the risk of passing on the infection to other people.

Compliance Criterion 6: Ensure that all staff and those employed to provide care in all settings are fully involved in the process of preventing and controlling infection.

Compliance Criterion 7: Provide secure adequate isolation facilities.

Compliance Criterion 8: Secure adequate laboratory support as appropriate.

Compliance Criterion 9: Have and adhere to policies, designed for the individual's care and provider organisations, that will help to prevent and control infections.

Compliance Criterion 10: Ensure, as far as is reasonably practicable, that care workers are free of and are protected from exposure to infections that can be caught at work and that all staff are suitably educated in the prevention and control of infection associated with the provision of health and social care.

Criterion 1.

Infection Prevention Team.

The Infection Prevention nursing structure consists of 1 WTE Band 8A, 3.4 WTE Band 6's and 0.8 WTE support worker for part of the year.

The Lead Nurse has attended: Legionella training 3/9/14, A health economy approach to detecting, management and prevention of CDI 12//3/15. The Lead Nurse and a Band 6 Infection Prevention Nurse have attended the NHS Leadership Academy Frontline Leadership course which took place over a 3 month period.

The infection prevention team provides a 24 hour service with Consultant Microbiologist cover out of hours. The infection prevention nurses are available five days a week between 8am and 5pm.

Committee Structures and Assurance Processes

Trust Board.

The Direction of Nursing and Quality is also the Director of Infection Prevention and Control and attends board meetings, reporting and giving assurance on infection prevention issues. The infection Prevention Doctor also attends the Board meetings as required.

Quality Committee.

The Quality Committee meets monthly and is attended by the Director of Nursing and Quality. This committee provides board assurance. A quarterly infection prevention report is presented to the Quality committee.

Infection Prevention Committee.

The Infection Prevention Committee meets monthly and is chaired by the Director of Infection Prevention & Control. Also in attendance are the Infection Control Doctor, the Lead Infection Prevention Nurse, Herefordshire CCG Lead for Infection Prevention, Sodexo, Mercia Healthcare, Estates, Service Unit Heads of Nursing, a medical representative, and a patient representative. Infection prevention policies are approved here before being ratified by the policy group. The decontamination, cleanliness and water management committee are sub-committees of the infection prevention committee

Other meetings and committees attended by the Infection Prevention Team are as follows: Estates and Facilities Committee (acute and community); Policy Group; Nursing & Midwifery Committee; Health & Safety Committee (extraordinary meetings regarding sharps safety have also been held in 2014/15); and the countywide Healthcare Associated Infection Forum. A member of the Infection Prevention Team attends any building project meetings.

Healthcare Associated Infection Surveillance

Meticillin Resistant Staphylococcus Aureus (MRSA) Bacteraemias.

Wye Valley NHS Trust continues to have a zero tolerance for MRSA bacteraemias and has not had any MRSA bacteraemias in the last twelve months. As of April 1st 2015, the Trust had been 767 days without an MRSA bacteraemia – the best record in the West Midlands.

MRSA Colonisation/Infection

MRSA cases identified more than two days after admission during the period 2014-15 were the same as the previous year at 17. These are investigated by the infection prevention team, and if they appear to be related, the area is placed on an extended review period which involves audit of practice by the ward staff and the Infection Prevention Team.

Meticillin Sensitive Staphylococcus Aureus (MSSA) Bacteraemias.

There is no externally set target for MSSA bacteraemias but the Trust reports isolates on the national healthcare associated infection data capture system. These are investigated internally. There have been five MSSA bacteraemias identified from samples taken two days after admission and only one of those was healthcare related, the patient had a pressure ulcer. There were also 5 cases of MSSA bacteraemia in 2013/14.

Clostridium difficile Infection (CDI)

Wye Valley Trust was given an externally set limit of 12 cases of CDI this year. The reportable cases of CDI are those that have been identified from samples taken two or more days after admission, and are positive by two tests. All cases of CDI are investigated by the Infection Prevention Team. Post infection reviews of all cases were undertaken. The post infection review team includes the nurse in charge on the relative ward, the consultant in charge of the case and the infection prevention team. The outcome of the post infection review is shared with the lead infection prevention nurse from Herefordshire CCG and a decision is made as to whether or not there were lapses in care which contributed to the development of CDI in the patient. More than 12 cases with lapses in care would result in a financial penalty for the Trust.

This year, 18 CDI cases were identified. Four had lapses in care identified which could have contributed to the CDI. The lapses in care were attributed to antibiotic prescribing not being in line with the guidelines and, in 1 case, to transmission on a ward. Any learning identified is discussed at the Infection Prevention Committee and within the Service Units. The figure of 18 cases is comparable to the 17 cases identified in 2013/14.

E. coli bacteraemias

This year there were 18 E. coli bacteraemias identified from samples obtained 24 or more hours after admission. Each case is assessed and investigated. Most of the cases were associated with the underlying disease for which the patient had been admitted and were not due to lapses in care. The infection prevention team are developing a care pathway for urinary catheter care.

Number	Cause
7	Abdominal source
4	Catheter associated urinary tract infection
3	Hospital acquired pneumonia
1	Post delivery
3	Urinary tract infection

There were 13 cases of healthcare associated E. coli bacteraemias in 2013/14. There has been a national increase in E. coli bacteraemias, the cause of which is uncertain but which is being investigated.

Blood culture contaminants.

Any contaminated blood culture specimens are traced back to the person who obtained the sample and the procedure is discussed with them. This process is undertaken by the Infection Prevention team and reported on the monthly KPI reports presented at the Infection Prevention Committee.

Mandatory Surgical site infection surveillance.

Wye Valley Trust submits regular information on hip and knee replacement surgery to the Surgical Site Infection Surveillance Service. The data gathered is managed by the service unit, supported by the infection prevention team.

Type of surgery	April-June 2014	July-September 2014	October-December 2014
Knee replacement	0%	2%	0%
National rate	1.7%	1.7%	1.7%
Hip replacement	1.7%	0%	0%
National rate	1.2%	1.2%	1.2%

There have been slight elevations than the national average for knees in one quarter, and hips in a different quarter. These are discussed with the relevant surgical teams by the Infection Control Doctor.

Audit Programme

A programme of audit is undertaken to ensure that key policies and practices are being upheld and implemented required by the Health and Social Care Act 2008. The audit used is adapted from the Infection Prevention Society quality improvement tools which are utilised nationally. The annual

infection prevention audit programme has not been completed this year due to maternity leave, sickness absence and staff changes. 79% of audits were completed. 21% (16 out of 71) audits remain outstanding and these will be prioritised for the commencement of the 2015-16 audit programme. The actions for these audits are added to the service unit quality improvement plans. The Infection Prevention Committee is presented with a quarterly update on audits completed.

Other audits carried out by the infection prevention team are:

- Commode cleanliness.
- Observation and practice audits.
- Quarterly peripheral cannula audits.
- Quarterly indwelling urinary catheter audits.

Ward based audits carried out by ward staff:

- Monthly infection prevention assurance tool.
- Monthly hand hygiene.
- Monthly commode and toileting aid audits.

Saving Lives Audits.

Saving lives audits are undertaken by each clinical area and the results are displayed on their clinical dashboard. This gives assurance that safe clean care is being delivered. As extra assurance, peer review of Saving Lives has been introduced.

Root Cause Analysis

Root cause analysis is undertaken for all CDI deaths whether on part one or part two of the death certificate. Between July 2014 and March 2015 there were four cases where CDI was noted as a contributory cause of death but not the primary cause.

Root cause analysis is also undertaken when wards close due to confirmed or suspected Norovirus.

Trust Development Authority Visits.

On the 8th October 2014 the Lead Infection Prevention Nurse for the Trust Development Authority visited the County Hospital site and Leominster Community Hospital. A number of recommendations were made and all of them were acted upon. There was a return visit to The County Hospital on the 20th January 2015 where assurance was given through the improvements made.

Peer Review with Gloucestershire Hospitals NHS Foundation Trust.

The Team had been approached to undertake a peer review of the Infection Prevention service with the Gloucestershire Hospitals NHS Foundation Trust. The team from Gloucester visited the County

Hospital on the 12th January 2015, and Wye Valley team visited Gloucester on the 26th January 2015. There was good feedback and constructive suggestions on both sides, and both teams found the experience informative and valuable.

Criterion 2.

Credits for Cleaning

In April, cleanliness in clinical areas was assessed using an in-house audit system. In November 2014 an electronic system was implemented throughout the Trust called Credits for Cleaning. This enables environment and cleanliness to be monitored; the results are displayed on the infection prevention dashboard, reviewed by the estates monitoring team and at the cleanliness committee. The cleanliness monitoring that Sodexo undertakes is reported through the estates monitoring department.

Patient Led Assessments of the Care Environment (PLACE)

The table below demonstrates the compliance with the PLACE visits undertaken in May 2014. Only the elements relating to cleanliness and the environment are displayed. Each facility compiled a comprehensive action plan to rectify issues identified from the visits.

Site Name	Site Type	Cleanliness	Condition Appearance and Maintenance
LEOMINSTER COMMUNITY HOSPITAL	Community	96.60%	90.00%
BROMYARD COMMUNITY HOSPITAL	Acute/Specialist	90.19%	88.89%
ROSS COMMUNITY HOSPITAL	Acute/Specialist	92.63%	88.61%
HILLSIDE CENTRE FOR INTERMEDIATE CARE	Community	95.22%	91.56%
COUNTY HOSPITAL	Acute/Specialist	95.17%	91.08%
	National Average	97.25%	91.97%
	WVT Overall Score	95.29%	91.30%
	Placed	50 out of 71	27 out of 71
	upper interquartile	99.70%	96.90%
	lower interquartile	96.80%	88.70%
	highest	100%	100%

	lowest	34.60%	48.40%
Better than average			
Total Average (within 2%)			
Below average			

Decontamination.

Wye Valley NHS Trust has a decontamination committee that is attended by all service provision partners as well as the Infection Prevention Team. The chair of this group has changed from the Infection Control Doctor to the Elective Care Business Manager for theatres, the Decontamination Lead for the Trust. This committee reports to the Infection Prevention Committee. Re-usable surgical instruments are processed by the on-site Sodexo Sterile Services Department.

Endoscopy

The Hereford County Hospital endoscopy unit is still awaiting the work to create a pass-through to the decontamination room from the treatment area. The unit was audited for JAG accreditation and they await the report. There are plans to replace the automated endoscope reprocessor at Ross Community Hospital.

Criterion 3.

Patient leaflets.

The Infection Prevention Team has reviewed all of their patient information leaflets this year. These are available in hard copy or through the Trust intranet site.

Communications team.

The Infection Prevention Team has a close working relationship with the Communications Team. They attend incident and outbreak meetings ensuring that appropriate messages are delivered both to Trust staff and to the public. Wider dissemination of current issues is achieved by global emails and Trust Talk – the weekly newsletter. Higher profile issues are included in the Team Brief which is a monthly newsletter from the Chief Executive.

Criterion 4.

Notification of infections in a timely fashion is facilitated by laboratory reports directly to the Infection Prevention Team from the laboratory staff. These are also available electronically via the APEX laboratory system. The ward area is then either telephoned or visited by the Infection Prevention Nurse to ensure that the correct information is available for treatment and care of that patient. The team also has access to *ICNet*, which is an electronic surveillance system. If patients have been identified as having CDI or MRSA and they have been discharged, a letter is sent to the GP.

Criterion 5.

The Infection Prevention Nurses advise the clinical site team and ward staff regarding isolation and treatment of specific infections. The patient information system (PAS) has a flag on it so that patients with a history of alert organisms such as MRSA or CDI can be brought to the attention of nursing and medical staff.

Outbreak and incident management

The Infection Prevention Team is involved in outbreak management of diarrhoea and vomiting as well as other increased incidences of infection.

Ward Closures Due to Confirmed or Suspected Norovirus

Ward	Date of closure	Duration	Number of patients affected	Number of staff affected	Bed days lost	Organism identified
Bromyard	11/10/14	7 days	7	0	10	Uncontrolled diarrhoea
Bromyard	28/12/14	8 days	13	10	18	Norovirus
Lugg	04/01/15	8 days	19	7	21	Norovirus
Arrow*	10/02/15	11 days	94*	32*		Norovirus
Lugg*	11/02/15	2 days				Norovirus
Ross Community Hospital*	11/02/15	10 days				Norovirus
Redbrook*	14/2/15	4 days				Norovirus
Bromyard*	23/2/15	6 days				Norovirus
Frome	06/03/15	9 days	25	5	13	Norovirus
Lugg	09/03/15	4 days	7	0	7	Norovirus
Redbrook	16/3/15	8 days	17	0	27	Norovirus & <i>Clostridium difficile</i>

*Wards were reconfigured during this outbreak period so numbers of staff and patients have been collated.

Water contamination

Water incident meetings were held this year due to Legionella species being identified at Ross Community Hospital and Hereford County Hospital, and Pseudomonas at the County Hospital during routine water testing. Remedial actions were taken to ensure the situation was managed appropriately

and the CCG, Trust Development Authority and Public Health England were kept informed. There was no transmission of either of these organisms to patients.

MRSA screening

The Trust continues to screen all emergency and elective admissions for MRSA. Acute MRSA screening compliance is 98% and for community compliance is 99%.

Criterion 6.

Each member of Wye Valley NHS Trust staff has their responsibility towards infection prevention within their job description. All clinical staff are required to attend induction training before they work clinically and an annual refresher training session. This process is to be monitored via the electronic service record and will be key to pay progression.

Criterion 7.

All wards have side rooms available to them. The infection prevention team monitor the usage of side rooms for patients with known or suspected infections and this data is shared with the site management team. Not all of the side rooms have ensuite facilities.

Criterion 8.

There is a fully accredited microbiology department on the Hereford county hospital site.

Criterion 9.

Antimicrobial Stewardship (Antibiotic pharmacist)

This year has seen the publication of the adult antibiotic guidelines on the Microguide APP, increasing access and availability of the guidelines especially for locum medical staff.

The guidelines continue to be updated and reviewed regularly with significant updates to respiratory and urinary guidelines over the last 12 months, and are developing in tandem with the work on the care bundles.

Intravenous Outpatient Antibiotic Therapy (IVOPAT) is now established and coordinated through the Virtual Ward Team, supported by a weekly Multi-Disciplinary Team of consultant microbiologist, Virtual Ward Matron and Antibiotic Pharmacist

Quantitative and qualitative data continues to be used to monitor and audit antimicrobial prescribing. Overall trends and performance are in line with previous years (antibiotic stewardship audits give an overall figure of 66-75%).

We have been able to utilise the DEFINE data base to obtain comparative antibiotic data, which will enable us to further monitor trends in usage. Using regional comparators WVT use of co-amoxiclav is good, but our use of quinolones is high. In the last year we have seen increases in the use of piperacillin tazobactam (following changes in guidelines) and carbapenems, (supporting IVOPAT) .

Key objectives for 2015-16 will be:

- Upload paediatric and prophylaxis guidelines to the APP
- Improve antibiotic stewardship to achieve 90% or over in the monthly audits
- Launch the COMET tool to promote IV to oral step down
- Reduce quinolone use
- Audit the use of piperacillin tazobactam

Policies.

All of the Infection Prevention Policies policies are available on the Trust Intranet. Several have been reviewed and ratified this year as follows:

IC.04 Infection Control Bed Management Policy.

IC.08 MRSA management and prevention including Clinical MRSA screening protocol.

IC.10.10 Management and control of Infection Free Joint Replacement Ward Policy.

IC.11 Control of Clostridium Difficile Associated Diarrhoea.

IC.19 Inoculation/Needlestick Injury Policy.

IC.26 Meningococcal Disease Policy.

IC.27 Outbreak Policy.

IC.30 Respiratory Virus Policy

1C.32 Carbapenemase – producing Enterobacteriaceae Policy.

IC.33 Infection Prevention Surveillance Policy.

IC.34 Policy for the Prevention and Control of Tuberculosis in Herefordshire.

Criterion 10.

All staff must attend Trust induction before commencing work within Wye Valley Trust. Infection Prevention constitutes part of formal teaching on the clinical staff induction and annual refresher sessions. Infection Prevention responsibilities form part of all job descriptions within the Trust. If there are any emerging infection threats, such as Ebola or increased incidents of infection, extra targeted training sessions are undertaken. Infection Prevention training is also delivered to contractors working within the Trust.

Health@Work (Occupational health manager)

The 2014-2015 Flu Campaign was extremely successful with 1920 (62.3%) staff being vaccinated; this is an increase from 1753 (58.3%) in 2013-2014. This year the Health@Work Department looked at innovative ways of delivering the vaccine to staff and the most successful was targeting staff at the hospital entrances on their way to work

All jobs are risk assessed and staff identified as being at risk routinely receive a course of Hepatitis B vaccine at pre-placement and the Hepatitis B 5yr booster recall system works well. Staff are then immune for life. However it is stressed that sharps injuries must still be reported so that a risk assessment can be carried out. If staff do not attend their appointment the onus is put back to the manager.

The MMR catch up continues and staff are vaccinated for MMR at pre-placement, in this financial year 539 doses of MMR vaccine have been issued.

In September 2014 a case of pertussis was identified in a member of staff. An incident team was convened and, as a result, a number of exposed patients and staff received prophylactic antibiotics and vaccine. There were no further cases.

Needlesafe Devices.

The Trust has been using needlesafe devices for the past eight years and is currently reviewing these devices in conjunction with Health@Work, procurement, key clinical staff and the health and safety lead for the Trust. This work will continue into next year 2015-16.

Staff Training.

During 2014/14 the team have continued to deliver infection prevention training on induction and annual refresher sessions for all Wye Valley staff. Instruction has also been provided for contractors and Sodexo. Training data continues to be reviewed by the service unit leads and the Trust Board. Compliance for this year is 80% which is an improvement on last year when compliance was 59%.

The team were heavily involved in compiling and delivering comprehensive training for caring for a suspected Ebola patient. Alongside the education department practical training was delivered and the training was tested in November 2014 when a suspected case was admitted. The team attended a regional table top exercise for the management of an Ebola patient in Worcester.

The team put on an educational study day for the launch of Aseptic Non-touch Technique on 14th November 2014. Some initial baseline audits of current practice have been completed. The lead Infection Prevention Nurse delivered a presentation to the Trust Board on 29th January 2015. The introduction of this system for aseptic technique will continue in this coming year 2015-16.

Conclusion.

The Infection Prevention team at Wye Valley NHS Trust are committed to preventing and reducing harm to patients from avoidable healthcare associated infections. This commitment will be reflected in

the annual work plan for 2015/16. A reduction in CDI cases will continue to be a challenge as will outbreaks of Norovirus. The coming year will be busy with involvement with building projects as there are many planned in the coming year.