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Northern Health and Social Services Trust.

1. On the 7th January 2008 the Northern Health & Social Care Trust (NHSCT) declared an outbreak of Clostridium difficile (C. diff) infection within the Trust. The Trust identified a rise in the number of cases with increased mortality during 2007 and some cases were diagnosed with 027 Ribotype.

2. At this time I was employed as a Band 6 Infection Prevention & Control Sister based in Antrim Area Hospital. Sr Fiona Neely was my Band 7 Infection Prevention & Control Nurse and my senior nurse was Mrs Ann Gardiner. I was also responsible to Dr Kearney, Consultant Microbiologist / Trust Infection Prevention & Control Doctor.

3. My job summary included acting as a nurse specialist advisor in infection control, where I was responsible, along with other members of the local infection control team, for the prevention, surveillance, investigation and control of infection within the NHSCT.

4. My clinical responsibilities included assisting in the identification of sources and trends in infection patterns and ensuring that policies on control of infection were compiled in keeping with UK guidelines, throughout the Trust.

5. I assisted with the analysis and collation of relevant laboratory results i.e. all anti-microbial resistant microorganisms including C.difficile, MRSA, Vancomycin Resistant Enterococcus and other alert organisms such as Pulmonary Tuberculosis, Bacterial Meningitis, etc. I and

my colleagues provided assistance in the investigation of outbreaks of infection with particular reference to their source and mode of spread e.g. Norovirus.

6. Surveillance of antibiotic resistant organisms such as C. diff and MRSA played a major part within my role. I received daily laboratory results on colonised and infected patients from our hospital laboratory. On receipt of these results, I was tasked with filling out a full surveillance form on each patient. This included date of admission, patient's pathway through the hospital, date of sample, date of positive results and whether the patient had been in a high risk area e.g. Intensive care unit, High dependency unit, Private/Trust nursing home, Private/Trust residential home or other hospital or had a hospital admission within the past 28 days.

7. Using epidemiology information, I could determine if a trend was emerging in a particular ward or department. If so, I would liaise with Sr Neely who would in turn speak to the senior nurse who would decide on further action or if an outbreak was emerging. The senior nurse would then discuss these findings with the Infection Control Doctor.

8. During the C. diff outbreak I provided advice in the wards and departments involved to nursing staff, medical staff, ancillary staff i.e. domestic assistants, physiotherapists, occupational therapists. During my working day I was contactable via bleep, mobile phone or the infection control secretary in the laboratory. I also participated in the on-call rota, where I could be contacted for advice from 5.00pm to 8.45am and also on weekends from 8.45am to 8.45pm, and bank holidays. All advice given to staff was based on evidence compiled in the Trust Infection Control Policy Manual, relevant research papers, EPIC 2 which is a set of evidence-based guidelines for preventing Healthcare Associated Infections in NHS hospitals in England, 2007. NICE Guidelines (National Institute for Health and Clinical Excellence).

9. My relationship with staff on the wards and departments in Antrim Area Hospital was amicable. My efforts to visit wards on at least a daily basis was often hindered by other demands e.g. compiling a list of colonised / infected patients from each ward in Antrim Area Hospital to inform Bed Management so they could have some idea as to who could be moved from single rooms to cohort bays or who could come off infection control precautions completely. This issue has since been improved as each ward manager or deputy has been advised to complete an infection control risk assessment for each colonised or infected patient in their ward and to take this to the morning bed management liaison meeting where all colonised or infected patients can be assessed and attempts made to isolate those in the high risk category. I or one of my colleagues were always available to assist in these assessments. I was also available to help source patient's results from microbiology to determine their infectious status so that these patients could be isolated appropriately.

10. During the outbreak I attempted to visit the designated isolation ward A1, on a daily basis to support staff, facilitate education on the five elements of care in the C. difficile care bundle, the clinical progress sheet, single room isolation for active patients and cohorting of recovering or recovered C. difficile patients. At this time, staff in A1 reported to me that morale was low because the ward had been changed from a Stroke Rehabilitation Ward to an isolation ward for C. difficile. The high dependency level and the intervention required by nurses to care for these patients was physically and mentally draining and nurses appeared to be visibly upset on many ward visits. Staff were advised by myself and my colleague to contact Occupational Health on these occasions.

11. The ward manager was tasked to keep a record of numbers of active, recovering and recovered patients on a daily basis and often found this an addition to her workload. The ward manager was willing and receptive to any advice given by me.

Communication of C diff positive cases

12. Laboratory staff reported all new positive C. difficile cases to me or my colleagues. I then either completed a surveillance form, in person on the ward, or by phone with the nurse responsible for that patient's care. I gave advice regarding isolation measures, hand hygiene, cleaning & disinfection of the environment & equipment, information for the patient & relatives and advice to medical staff & other multidisciplinary staff caring for that patient. All new cases of C. difficile were then forwarded to the Senior Infection Prevention & Control Nurse who in turn informed the Medical Director via her secretary. An advice sheet for each case of C. difficile was completed and given to the ward nurse for her reading and action then to be inserted into the patient's notes. A summary of the advice given to the ward was written on the surveillance form which was kept in the infection control nurses office. It was advised that a C.difficile information leaflet be given to any C. difficile positive patient. I would have liaised with my senior nurse on a daily or sometimes twice daily basis, giving a verbal report of all C. difficile positive cases in Antrim Area Hospital.

13. I also liaised with Bed Management on a daily basis advising on the number of single room isolation and cohort isolation facilities being utilised. Other alert microorganisms such as MRSA, VRE, ESBL, diarrhoeal infections, etc also required surveillance and risk assessment at that time. The Infection Control Policy Manual was held in each ward and

department in hard copy format for easy access to C. difficile management, prevention of transmission and control of infected patients. However, due to ward staffs busy workload staff advised me that they did not always have time to look up the manual and they then needed to contact me directly for advice and guidance. This increased my workload during this time and was recognised as a problem but since the introduction of the Infection Risk Assessment Tool the numbers of out of hours calls has decreased significantly.

14. The Department of Health Saving Lives tools (including care bundle No 7 – The management of C. difficile) was launched in June 2005 and all staff in Antrim Area Hospital had been made aware of this document by the Infection Prevention and Control specialist nurse for Saving Lives. This document was in all wards and departments and it was advised, by me and my colleagues, that staff should use this to reduce the risk of C. difficile (High Impact Intervention No 7 care bundle).

This care bundle re-iterated what was advised in the Infection Prevention and Control Policy Manual i.e. transmission based precautions including single room or cohort isolation for all positive C. difficile patients. Correct hand hygiene (implementing the Clean Your Hands Campaign advice), environmental decontamination, use of personal protective clothing and the prudent prescribing of antibiotics.

15. In Mrs Neely's absence, I had been tasked to attend some of the C. difficile site meetings in Antrim Area Hospital which occurred weekly. Issues such as the number of new cases and whether they were deemed hospital or community acquired infections, deep cleaning of wards and departments, dress code adherence, patient transfers, linen supplies, hand hygiene policy, protective clothing, support services i.e., number of domestics available were discussed.

These meetings gave the Infection Prevention & Control Nurse the forum to discuss infection control issues with Lead staff within the hospital and to decide on actions needed to resolve issues. On 6th February 2008 I and a colleague attending the operational meeting, voiced our concerns that there was a poor attendance at that meeting by other lead colleagues. Our concerns were minuted and it was also minuted that low attendance was a reflection on the low key attitude to C. difficile issues. It was acknowledged that C. difficile cases had been contained but that complacency amongst staff could easily result in an escalation of cases. I had not been advised at that time why other managers could not attend this meeting.

Support

16. During the outbreak, I assumed that Dr Kearney was our line manager but it was following an outbreak meeting that my Band 7 colleague was told that we should report to the Laboratory manager and not Dr Kearney. This led to some concerns within the team regarding reporting arrangements.

17. During the outbreak, all members of the infection control team, including myself, felt stressed as Bed Managers and ward staff would on occasion ask me to ring the wards and find single rooms for them. Since then arrangements for ward staff and bed management who require infection control advice out of hours has been made and this has significantly reduced on call pressures.

18. Infection control training on C. difficile management and management of other alert organisms was given during mandatory training sessions and advice was also given to staff on the wards during my clinical ward visits.

Staff on the wards gave C.diff information leaflets to the patient and nurses and were advised to read over the information with the patient and relatives to ensure their understanding.

19. A major part of my role included quality assurance audits in wards and departments and reporting findings to the ward manager, lead nurse and my senior nurse. At that time, I did not have feedback as to any actions taken to resolve issues from these audits, so I felt that the loop was not being closed, but, since the outbreak, a quality assurance timeframe for issues to be actioned has been given to wards and departments and the Infection Prevention and Control Team are now involved in this and in the facilitation and support of staff in reaching resolutions to issues from the audits.

Appointment of the Taskforce.

20. When the Department of Health Project Team was introduced during the outbreak, four senior nurses from the NHSCT were appointed as a taskforce to advise and prepare an action plan to contain the outbreak.

These senior nurses did not have specialist infection control experience, however, in my experience these colleagues took my infection control advice and could action this advice much quicker because they had support from senior management.

21. Audits of all wards and departments were carried out by me, or my colleagues, along with a member of the Taskforce using an audit tool devised by the Department of Health Project Team. The Department of Health, Infection Control Nurses Association's audit tool used by my team in comparison put greater emphasis on isolation, clinical practices including peripheral line management, urinary catheter management, care of indwelling devices, hand hygiene, personal protective equipment and cleanliness of the environment and patient equipment. Whereas, in my opinion, the project team's audit tool put more emphasis on patient / public assurance that the wards were clean and that hand hygiene was being adhered to.

Infection Prevention and Control Team Support.

Throughout the outbreak and following it I felt supported by my senior colleagues and by the consultant microbiologist. Ward teams including doctors, nurses, domestic assistants etc., were also willing and co-operative with myself. I continue to work closely with my colleagues in the wards and departments I have been allocated to.

I continue to chat to patients and their relatives also and recently members of the public and patients have highly commended staff in Antrim Area Hospital for promoting and providing them with a clean, safe environment in which they and their families are being cared for. All teams of healthcare colleagues and myself have learned many valuable lessons from this outbreak and we look forward to continuing to protect our patients from healthcare associated infection in the future.



May Cairns, Infection Prevention and Control Nurse.

6th May 2010.