

4 ENTERIC DISEASES

a Clostridium difficile cases at a hospital in the Eastern Cape Province

Clostridium difficile is a Gram-positive, anaerobic, spore-forming bacillus which is a leading cause of nosocomial-associated gastrointestinal illness. On 28 August 2016, a TB hospital in the Eastern Cape Province notified the district's Outbreak Response Team of a cluster of eight cases of diarrhoea due to *C. difficile*. The presumptive index case (EM001, Figure 4) had presented to the hospital on 22 July 2016 for management of tuberculosis. The patient subsequently developed diarrhoea, and by 24 August 2016, seven patients were symptomatic. Stool specimens were sent to a NHLS laboratory for microscopy, culture and sensitivity testing and yielded no pathogen. It was later decided to test for *C. difficile* by PCR and the diagnosis was confirmed. Figure 4 demonstrates the time between admission of patients (EM001-EM008) and the onset of symptoms. These data, and the location of patients in adjacent wards suggest that the organism was transmitted within the healthcare facility, most likely through breaches in adherence to infection control.

The facility responded by cohorting patients with diarrhoea in isolation areas until they became asymptomatic. Routine disinfection of the environment and contact infection control measures

were strengthened. Awareness was raised regarding basic hand hygiene and disinfection practices. Antibiotic usage in patients was reviewed. Patients were made aware of the need for infection control and handwashing. Nurses were requested to report and monitor loose stools, observed during nappy changes.

The NICD Provincial Epidemiologist, Outbreak Response Unit and a Field Epidemiology Training Programme resident supported the hospital team through provision of information, guidelines on responding to clusters of cases of *C. difficile* cases, training and report writing. This investigation also emphasized the importance of continued diarrhoeal surveillance by the district office surveillance unit.

Source: Field Epidemiology Training Programme, Provincial Epidemiologist, Eastern Cape Province, Outbreak Response Unit, NICD-NHLS; Nelson Mandela Metro Bay Department of Health; Eastern Cape Provincial Department of Health; (outbreak@nicd.ac.za)

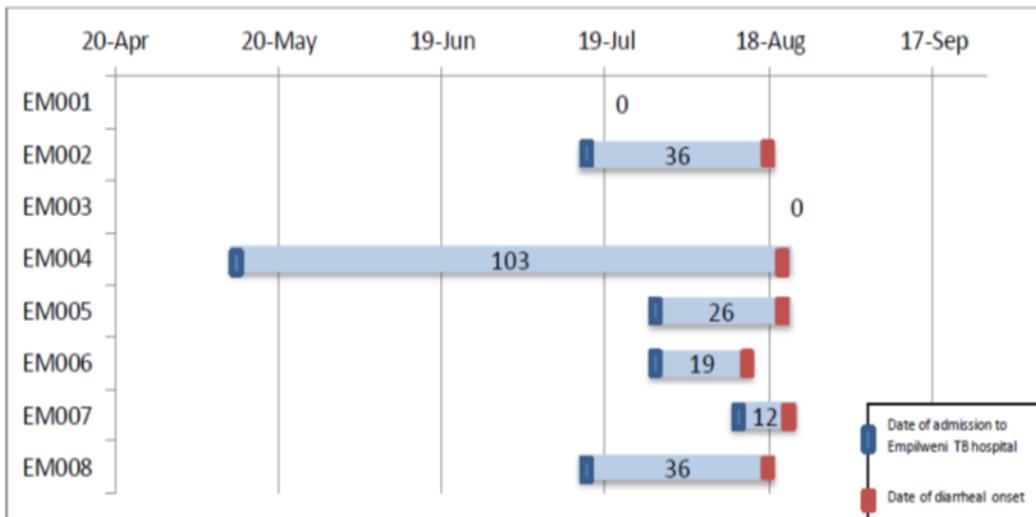


Figure 4. Gantt chart showing the time between hospital admission of the 8 patients (EM001-EM008) and first onset of diarrhoea (at a TB Hospital in NMBM, 2016)