Outbreak of Burkholderia cepacia complex bacteremia in a chemotherapy day care unit due to intrinsic contamination of an antiemetic drug.

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Abstract

BACKGROUND: In the end of 2009, a large number of patients with cancer undergoing chemotherapy at the day care unit of a private hospital in Mumbai, India developed Burkholderia cepacia complex (BCC) blood stream infection (BSI).

OBJECTIVE: The objectives were to identify the source of the outbreak and terminate the outbreak as rapidly as possible.

MATERIALS AND METHODS: All infection control protocols and processes were reviewed. Intensive training was started for all nursing staff involved in patient care. Cultures were sent from the environment (surfaces, water, air), intravenous fluids, disinfectants and antiseptics and opened/unopened medication.

RESULTS: A total of 13 patients with cancer with tunneled catheters were affected with BCC BSI. The isolates were of similar antimicrobial sensitivity. No significant breach of infection control protocols could be identified. Cultures from the prepared intravenous medication bags grew BCC. Subsequently, culture from unused vials of the antiemetic granisetron grew BCC, whereas those from the unopened IV fluid bag and chemotherapy medication were negative. On review, it was discovered that the outbreak started when a new brand of granisetron was introduced. The result was communicated to the manufacturer and the brand was withdrawn. There were no further cases.

CONCLUSIONS: This outbreak was thus linked to intrinsic contamination of medication vials. We acknowledge a delay in identifying the source as we were concentrating more on human errors in medication preparation and less on intrinsic contamination. We recommend that in an event of an outbreak, unopened vials be cultured at the outset.

PMID: 25560013 DOI: 10.4103/0255-0857.148405

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