

An Outbreak Investigation of Burkholderia Cepacia Bacteremia within Critical Care Unit.

AUTHOR

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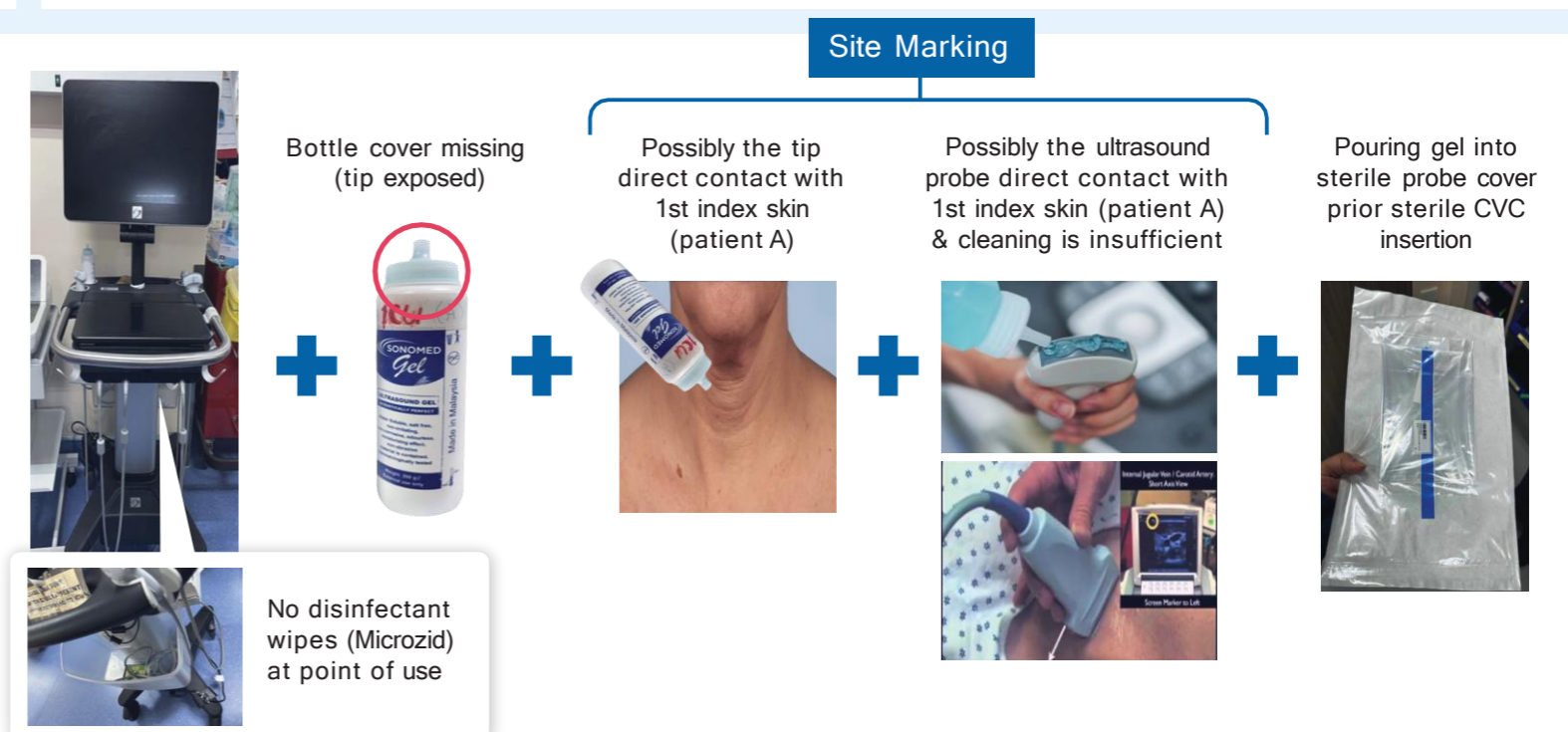
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INTRODUCTION

Burkholderia Cepacia or B. Cepacia is a ubiquitous organism with a high virulence potential, found most commonly in moist environments. Hospital outbreaks have been reported from diverse sources such as contaminated disinfectant solutions, multidose antibiotic vials, ultrasound gels and etc. In this article, we will be sharing our experience in investigating and managing an outbreak of B. Cepacia sepsis in the critical care unit at Pantai Hospital Kuala Lumpur.

METHODOLOGY

The outbreak investigation was started in February 2024 after detection of B. Cepacia in 2 different patients. Further case mapping identified 7 patients isolated with same organism. After performed a field investigation, it was suspected that the source of the infection is to be from the ultrasound gel used to do skin marking on patients prior to insertion of CVL line. The gel was immediately change to a new bottle and thorough cleaning of the ultrasound machine together with the probes were immediately done. Retraining on hand hygiene, cleaning and disinfection procedures was provided.



RESULTS

Started in February 2024 surveillance samples were taken from the ultrasound gel used by the critical care unit were positive. Total of 7 subsequent sampling from ultrasound gel with the same batch number within the hospital were taken including the unopen gel from the main store and swab samples taken from the ultrasound probes were all negatives.



DISCUSSION

In our study, the index case has been admitted with community acquired B. Cepacia infection. The rest of the cases might have been exposed to this organism due to inadequate skin disinfection prior to CVL insertion and practicing of topping up the ultrasound gel from 5L bottle to 250ml bottle without proper cleaning of the bottle. Hence, change from practicing of topping up method to a single use gel bottle were implemented.



CONCLUSION

Timely reporting and implementation of redesigned infection control measures based on risk, rate, trend data and information played a significant role in curtailing this outbreak.