

USEFULNESS OF THE BRISTOL STOOL CHART SCORING SYSTEM FOR THE LABORATORY PROCESSING OF FAECAL SAMPLES IN SUSPECTED *CLOSTRIDIUM DIFFICILE* CASES

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Introduction

Clostridium difficile infection (CDI) remains a threat to hospitalized patients. Last year, rates of CDI at Buckinghamshire Healthcare NHS Trust (BHT) were higher than Department of Health (DoH) targets. This audit sought to address if over-testing of inappropriate faecal samples in the laboratory may contribute to high rates of CDI at BHT.

Identification of abnormal stool forms using the Bristol Stool Chart (BSC) forms a pivotal component of diagnosis of CDI. The DoH recommends all patients with diarrhoea (defined as BSC types 5-7) not clearly attributable to another cause, should be tested for CDI. Testing at BHT involves two stages; a glutamate dehydrogenase immunoassay (GDH EIA) followed by a toxin EIA.

Methods

It was hypothesised that stool samples processed in the microbiology laboratory at BHT did not always meet DoH criteria for testing for CDI, in particular relating to stool consistency. Accuracy of use of the BSC was assessed: 36 healthcare professionals including clinical microbiologists, biomedical scientists and infection control nurses independently classified 20 stool specimens using the BSC. A range of one stool grade either side of the median was considered acceptable. All specimens were tested for GDH and toxin status.

Results

The range of stool grades exceeded one grade of the median for 30% of specimens. Using the BSC 25% of samples assessed would not have fulfilled the criteria for CDI testing. Of these, 60% were GDH and toxin positive. Limitations of this audit were that individual variability and stool sample integrity over time were not assessed and the small aperture in the specimen container made grading difficult.

Conclusion

The poor correlation between users of the BSC to grade stools in the laboratory setting suggests this method is not reliable to determine which stools are tested for CDI. We therefore recommend that at collection the BSC should be stringently adhered to. In the laboratory, the BSC should not be used to grade samples and

other DoH guidance (i.e ¼ filled and taking the shape of the specimen container) should be the only criteria used for further processing.