Detection of toxigenic Clostridium difficile in powdered infant and follow-up formulae in Egypt

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Abstract:

Aim: To examine powdered infant formula (PIF) and follow-up formula (FUF) for the presence of toxigenic Clostridium difficile. Materials and Methods: A total of 100 random samples of PIF and FUF, 50 samples each, from various pharmacies and supermarkets located in Assiut city were collected during 2008-2010. Results: Our results show that 16 out of 100 (16%) examined samples of PIF and FUF were contaminated with C. difficile; 4 (8%) and 12 (24%) of the examined PIF and FUF samples tested positive for C. difficile, respectively. Only two (16.67%) isolates of C. difficile from the examined FUF were toxigenic, while the isolates from the PIF samples were not toxigenic. Conclusions: The presence of C. difficile in PIF and FUF samples suggests that there is a high potential for the transmission of C. difficile through these products. Thus, proper preparation and handling of these products is required to reduce the risk of the illnesses arising due to C. difficile.

Keywords:

Clostridium difficile, follow-up formula, latex agglutination, powdered infant formula, toxigenic

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