

Are indeed meats sold in Portugal without *Clostridium difficile*?



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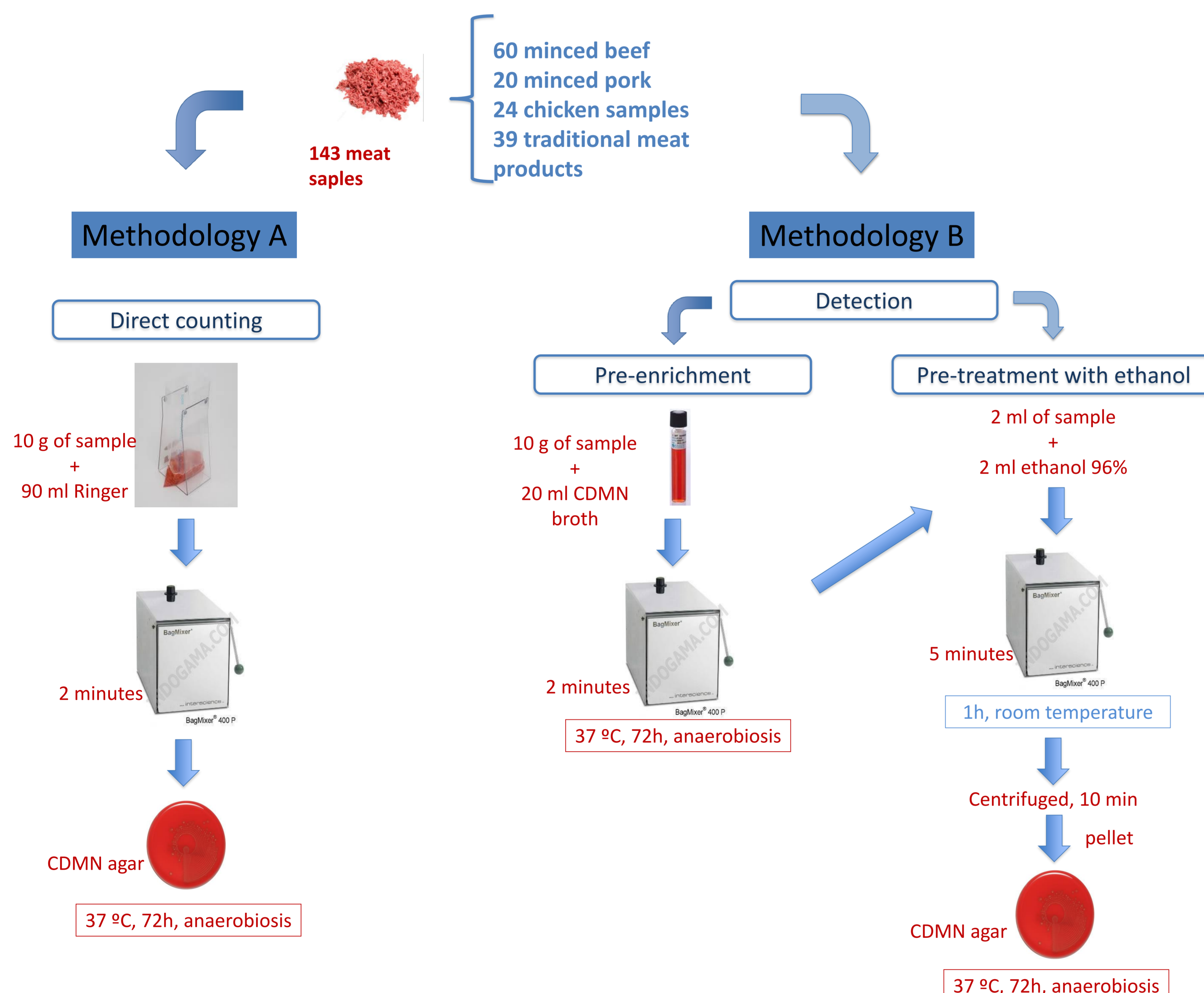
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Introduction

Clostridium difficile is a Gram-positive bacilli, spore-forming and anaerobic, found both in the environment and intestinal tracts of animals and humans. The incidence and severity of diarrhea associated with *C. difficile* have been increasing exponentially (Rupnik et al., 2009).

C. difficile infections (CDI), which were believed to be almost exclusively nosocomial and occurring mainly in immunocompromised and elderly patients, are now becoming increasingly common among low-risk individuals (Kelly et al., 2008). In 2014, an outbreak with the hypervirulent ribotype 027 strain was reported in Portugal for the first time (Oleastro et al., 2014). Among others, this ribotype have been largely isolated from animals and food. Given the bacteria spores nature and their presence in the intestinal tract of animals, it would be expected to found *C. difficile* in several foods.

Methodology



Objective

This study aimed to detect and quantify *C. difficile* from different meats sold in traditional commerce and supermarkets in Porto and Lisbon (Portugal).

Results & Conclusions

No *C. difficile* was found in any of the 143 samples analyzed.

These results should not be ignored, since it is not possible to be sure if the meats analyzed, in fact, did not have *C. difficile* or if the methods used were not sensitive enough to detect its presence. In the absence of standardized methodologies, further studies using other detection/ quantification methods of *C. difficile* should be performed not only on meats, but also on other types of foods, including ready-to-eat foods. Despite no confirmed cases of foodborne diseases caused by *C. difficile*, the increased CDI incidence suggest that contaminated foods could/may be contributing to community- and hospital-associated CDIs.

References

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