

Asymptomatic *Clostridium difficile* colonisation on admission to a hospital: a multi-centre study

Introduction

Patients asymptomatically colonised with *C. difficile* are thought to play a role in the epidemiology of *Clostridium difficile* infections (CDI). Patients with *C. difficile* colonisation (CDC) on admission to a hospital are of specific interest as they can be a potential reservoir for onwards transmission to other patients, or could progress to symptomatic CDI themselves. We studied the prevalence of CDC on admission to 3 hospitals across the Netherlands and compared ribotypes in patients with toxigenic CDC with ribotypes in symptomatic CDI patients.

Methods



Screening for *C. difficile* colonisation on admission:

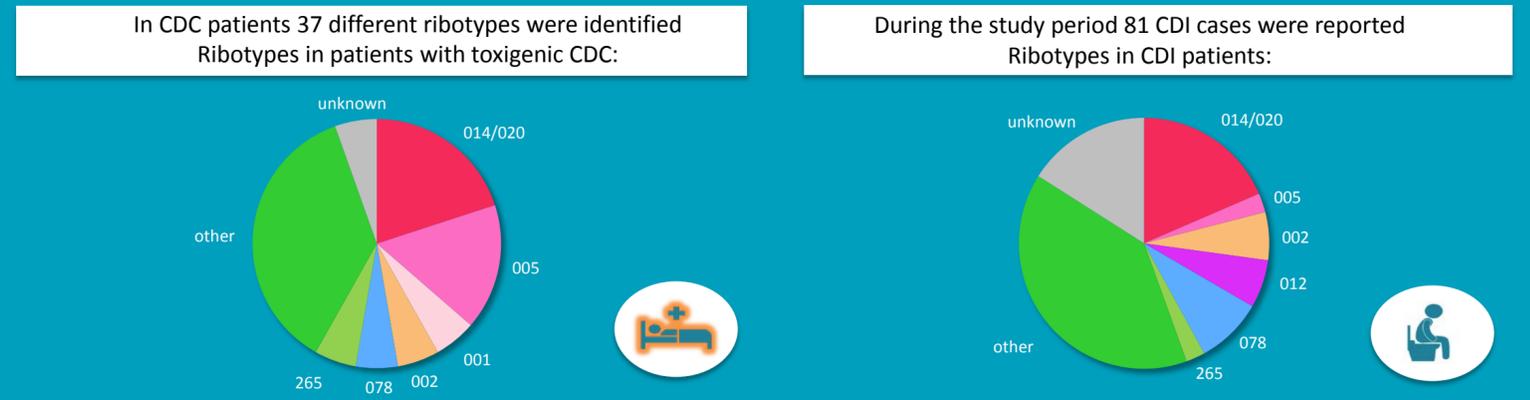
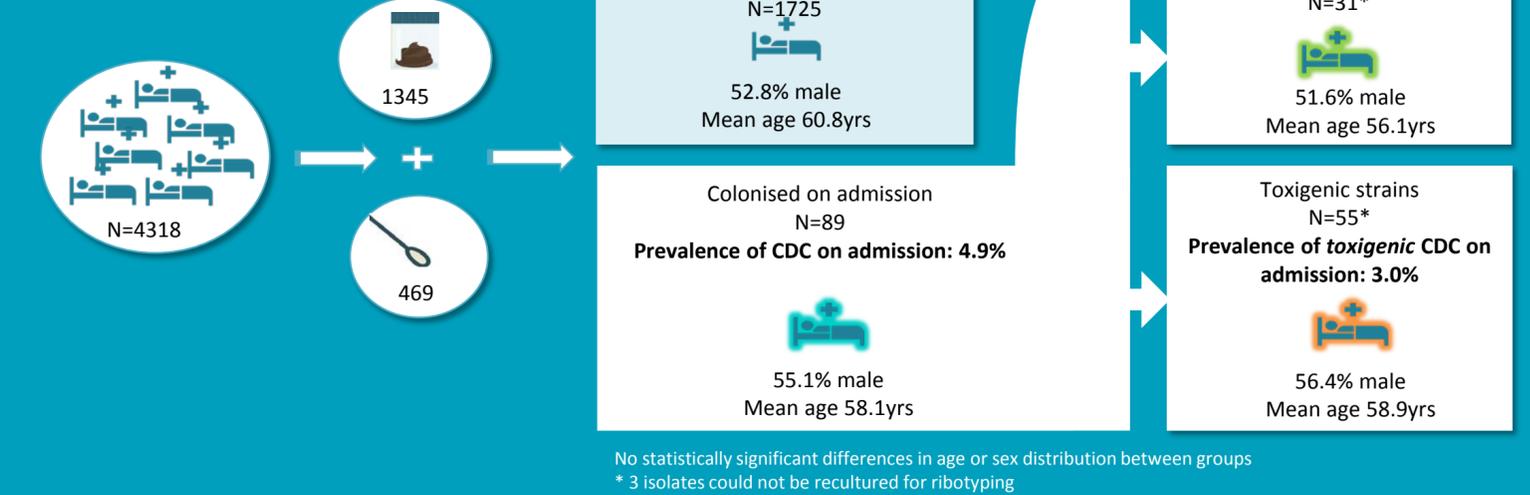
- adult patients admitted to medical or surgical wards
- stool sample or rectal swab within 72hrs of admission
- patients with CDI on admission were excluded

Registration of all CDI cases during admission:

- CDI diagnosed per local testing protocol (NAAT, Toxin A/B EIA or NAAT-Toxin A/B EIA algorithm)
- Stool sample obtained from each CDI patient for ribotyping

Samples from patients on admission		Samples from CDI patients	
	➤ Culture ➤ If positive: ribotyping		➤ CDI diagnosed per local protocol (NAAT only, Tox A/B EIA only or NAAT - Tox A/B EIA algorithm)
	➤ Culture ➤ Enrichment culture ➤ If positive: ribotyping		➤ If CDI was diagnosed: culture ➤ If culture positive: ribotyping

Results



Conclusions

In this multi-centre study, the prevalence rates of CDC and toxigenic CDC on admission to the hospital were 4.9% and 3.0%, respectively. Similar ribotypes were found in CDC and CDI patients.

Acknowledgments

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