**BACKGROUND**

- *Clostridioides difficile* infection (CDI) continues to be a problem worldwide, causing substantial morbidity and mortality. Currently, one of the top five threats in antimicrobial resistance in the United States listed by the Centers for Disease Control (CDC).

- The emergence of fluoroquinolone-resistant *C. difficile* isolates, associated with epidemics of complicated CDI cases, has recently increased rapidly. The current study aimed to understand the epidemiology of *C. difficile* in the US.

- We have previously reported on the clinical resistance of *C. difficile* susceptibility to a panel of agents from 2011-2016.

**MATERIALS**

- A convenience sample of all *C. difficile* isolates from patients diagnosed with *C. difficile* infection were collected from six medical centers, including 2020-2021 isolates. All isolates were biovar 2.

- Throat swabs taken from stool samples were treated with alcohol and then cultured. stool samples were collected in stool collection cellu•sac (Biomerieux, Inc) and transported to the laboratory for further processing.

- Susceptibility testing of all isolates was performed using the broth microdilution method according to CLSI guidelines.

- The CLSI or EUCAST, as applicable, epidemiologic cut-off value was applied, in the absence of a clinical breakpoint.

- For tigecycline the breakpoint for resistance recommended for anaerobes by the FDA was used. Resistance was based on the clinical breakpoints or based on the epidemiological cut-off value in the absence of a clinical breakpoint recommended by CLSI or EUCAST, as applicable.

- Resistance to tigecycline was based on the manufacturer's proposed breakpoint(s).

**RESULTS**

- *Rifaximin* RFX 4 - 0.004 NA1 NA1
- *Rifampin* RIF 4 - 0.004 NA1 >0.0042
- *Clindamycin* CLI 32 - 0.5
- *Metronidazole* MTZ 16 - 0.06

**CONCLUSIONS**

- *Rifaximin* showed excellent activity against contemporary *C. difficile* isolates collected in the US in 2020-2021 with a MIC<sub>90</sub> of 0.004 µg/ml.

- *Rifaximin* retained activity against *C. difficile* isolates which were resistant to other antibiotics.

- There has been a change in ribotype distribution compared to 2010 accompanied by a reduction in *C. difficile* resistance to quinolones, and macrolides.

**REFERENCES**


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