

**Abstract Number: 994**

Control Number: 2009-AB-1503-IDSA  
Session Type: Poster Session  
Session Number: 105  
Session Title: Community-acquired Bacterial Infections including STDs and mycobacteria  
Location: Poster Hall A  
Session Time: Saturday, October 31, 2009, 12:30 pm - 2:00 pm

**Publishing Title: Clinical Features and Molecular Characterization of Community-Acquired *Clostridium difficile* Infections.**

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**Abstract Body: Background:**

Antibiotic use, severe underlying illness and exposure to *C. difficile* spores are risk factors for *C. difficile* infection (CDI) in hospitalized patients. Recently, CDI has been described in outpatients with no known risk factors. FoodNet performed surveillance for CDI in Monroe County, NY, to compare the relative burden of community acquired (CA) and healthcare acquired (HA) CDI and compare the potential risk factors and strains responsible for CA disease.

**Methods:**

All cases with a positive *C. difficile* toxin assays from two microbiology Labs, during March to August 2008, were reviewed. Presumptive CA cases were defined as patients with positive assays and no overnight stay in either a hospital or a long term care facility (LTC) in the prior 12 weeks. All other cases were defined as HA. CA status was confirmed by phone interview. Toxin positive stool specimens were cultured from all the CA and a sample of HA cases. *C. difficile* isolates were characterized by pulsed-field gel electrophoresis, toxinotyping, and PCR for binary toxin (CDT) and deletions of *tcdC*.

**Results:**

Of 366 *C. difficile* toxin positive cases identified, 83 (24%) were presumptive CA, 42 (11%) were confirmed CA by patient interview. Compared to HA patients, CA patients were younger (median age 53 vs 73 yrs ( $p < 0.001$ )). Fourteen percent of CA-CDI patients were hospitalized; no complications or death were reported. Seventy four percent reported recent (within 12 weeks) antibiotic use, with penicillin the most common antibiotic reported. Twenty two percent had used PPI or H2 blockers within 12 weeks of illness. One hundred and nineteen *C. difficile* isolates were available for testing of which 28% were from CA cases. The primary PFGE strain type in both CA and HCA cases was NAP1 (21% CA, 33% HCA). Half the isolates were the wildtype toxinotype 0 and half were toxinotype variants with toxinotype III as the primary type.

**Conclusion:**

CA CDI is an emerging disease affecting younger patients sometimes without antibiotic intake. The strains causing disease are similar to strains seen in healthcare facilities. The source of *C. difficile* exposure remains unclear and requires further investigation

**Author Disclosure Block:** G. Dumyati, None..G. E. Hannett, None..A. D. Thompson, None..C. Long, None..V. Stevens, None.