**Clostridium difficile Infection among Health Care Workers Receiving Antibiotic Therapy**

Str—*Clostridium difficile* is the most common cause of health care–associated infectious diarrhea in industrialized countries [1]. Disruption of normal barriers, such as gastric acidity and the indigenous microflora of the colon, facilitates colonization of the intestinal tract by *C. difficile* [2]. Host factors such as age, increased disease severity, and the ability to mount an antibody response to toxin A play an important role in determining whether colonized individuals develop infection [1]. Because the hands and clothing of health care workers frequently become contaminated with *C. difficile*, they may be at risk for occupationally acquired infection if they receive antibiotic therapy that disturbs the colonic microflora [2]. However, symptomatic *C. difficile* infections have rarely been reported among health care workers [3]. We previously reported a patient transporter from the University Hospitals of Cleveland who developed *C. difficile*–associated diarrhea and vancomycin-resistant *Enterococcus* colonization after receiving clindamycin therapy [3]. We report 4 additional cases of *C. difficile* infection among health care workers at 3 health care facilities in Cleveland, Ohio.

Table 1 shows the demographic and clinical characteristics of the 4 health care workers. Three subjects were employees of our institutions, and 1 was referred from a local hospital. All were in good health with the exception of the conditions for which antibiotics were prescribed. Subject 1 received treatment with a proton pump inhibitor in addition to antibiotic therapy. All subjects developed diarrhea during antibiotic treatment or within 2 weeks after completing it. For each case, a stool immunoassay for *C. difficile* toxin had a positive result, and cultures for other bacterial enteric pathogens were negative. Three of the cases occurred within the past 2 years, during a period in which both hospitals were experiencing an increase in *C. difficile* infections among patients.

Our report suggests that *C. difficile* may be an underappreciated occupational risk for health care workers. The cases illustrate that even healthy individuals receiving short courses of relatively narrow-spectrum antibiotics may be at risk for *C. difficile* infection. Many immunocompromised or chronically ill individuals are employed by health care facilities and may be at greater risk. In a survey conducted at the Louis Stokes Cleveland Veterans Affairs Medical Center, Cleveland, Ohio, 45% of health care workers had received antibiotics within the past year (authors’ unpublished data). Carmeli et al. [4] likewise found that 47% of health care workers surveyed had received antibiotic treatment within the past year. We recommend that health care workers be educated about the potential risk of occupationally-acquired *C. difficile* infection associated with antibiotic therapy. Because family members may also be at risk [5], they should also receive education about *C. difficile* infection. Antibiotic therapy should be prescribed for health care workers only when necessary, and careful attention to hand hygiene should be indicated during and after antibiotic therapy.

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**References**


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**Table 1. Demographic and clinical characteristics of 4 health care workers with Clostridium difficile infection.**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>1</th>
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<th>3</th>
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<tr>
<td>Age, years</td>
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<td>25</td>
<td>40</td>
<td>42</td>
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<tr>
<td>Sex</td>
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<td>Female</td>
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<tr>
<td>Occupation</td>
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<td>Medical student</td>
<td>Nurse</td>
<td>X-ray technician</td>
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<tr>
<td>Antibiotic treatment preceding C. difficile infection</td>
<td>Clarithromycin and amoxicillin</td>
<td>Ciprofloxacin</td>
<td>Clarithromycin</td>
<td>Clindamycin</td>
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<tr>
<td>Condition being treated</td>
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<td>Dysuria</td>
<td>Sinusitis</td>
<td>Dental abscess</td>
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<tr>
<td>Treatment duration, days</td>
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<td>3</td>
<td>5</td>
<td>8</td>
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<td>No. of relapses</td>
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<td>2</td>
<td>0</td>
<td>3</td>
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</table>

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