tipped swab (Fisher Scientific) premoistened in Dey-Engley neutralizer (Becton Dickinson). The swabs were vortexed for 45 seconds in 200 μL of Dey-Engley neutralizer, plated onto prereduced *C. difficile* Brucella agar (CDBA), and cultured as previously described.[7] For the fresh Clorox premoistened germicidal wipes only, an additional experiment was performed in which the inoculated site was wiped for 10 seconds and then sequentially imprinted onto 5 prereduced CDBA plates containing Dey-Engley neutralizer. All experiments were performed in triplicate.

Figure 1 provides an illustration of the findings. Use of fresh Clorox premoistened germicidal wipes with 5 minutes of contact time consistently reduced *C. difficile* spores to undetectable levels at the inoculum site, with no transfer of spores to clean sites. In contrast, large numbers of spores were transferred to all four sequential clean sites by wipes moistened with the quaternary ammonium product or water (mean number of spores recovered from the fourth transfer site, 3 and 2.1 $\log_{10}$ CFUs, respectively). The used Clorox wipes transferred spores to all 4 sequential sites but in much lower quantities (mean, 0.4 $\log_{10}$ CFUs recovered from the fourth transfer site). Finally, fresh Clorox premoistened germicidal wipes transferred large quantities of spores (CFU too numerous to count) to 5 successive CDBA plates containing Dey-Engley neutralizer (i.e., minimal contact time with hypochlorite allowed because of rapid exposure to neutralizer).

In summary, our results demonstrate efficient transfer of *C. difficile* spores from contaminated to clean surfaces by nonsporicidal wipes, as has previously been reported by Siani et al.[6] Moreover, our findings illustrate the potential for transfer of spores by hypochlorite wipes that are used inappropriately. In our facility, observations of housekeepers demonstrated that many workers changed hypochlorite wipes infrequently while others used paper towels to dry surfaces shortly after application of hypochlorite. As illustrated here, such practices can result in insufficient wet contact time for killing of spores. Our findings demonstrate the need to provide clear instructions to housekeepers on how wipes should be used and provide support for the recommendation that sporicidal disinfectants are preferred for surfaces in CDI rooms when feasible.[3,4] For effective disinfection of *C. difficile*, a sporicidal product plus correct practices are essential.

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Clostridium difficile Infection: It's a Family Affair

To the Editor—Infection control management of *Clostridium difficile* infection (CDI) in healthcare facilities has primarily focused on prevention of patient-to-patient transmission. We report on 6 cases of paired CDI identified over a 5-year period that occurred within the respective families, which highlights the potential for intrafamilial spread of CDI in both community and hospital settings. The original case-pairs were identified through root-cause analysis, which we perform on

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all cases of CDI with onset during hospitalization or within 72 hours after patient discharge. We subsequently undertook a search of all microbiologically confirmed cases of CDI during the period 2007–2012. Individuals who shared the same surname or same address were identified for additional investigation. All putative case-pairs identified were reviewed to identify potential epidemiological associations; this included ribotyping of available *C. difficile* isolates and, when possible, multiple-locus variable number tandem repeat analysis (MLVA). Six cases of paired CDI were identified.

In pair 1, the index patient, a 74-year-old woman, was admitted for investigation and management of diarrhea. She had had an episode of CDI earlier that year and received a diagnosis of recurrent CDI during this hospitalization. A specimen obtained within 1 day of admission to the hospital was found to be positive for glutamate dehydrogenase (GDH) and *C. difficile* toxin. One week later, the patient's husband (also her main caregiver) developed CDI. The contact patient had multiple comorbidities and his own independent risk factors for CDI. Isolates from both patients were identified as ribotype 027, and they were indistinguishable on MVLA typing.

In pair 2, the index patient, a 76-year-old woman, was admitted to the hospital for investigation of suspected acute colitis after chemotherapy. A stool sample obtained at hospital admission was found to be positive for GDH but negative for *C. difficile* toxin, which suggested *C difficile* colonization rather than CDI. However, because of persistent symptoms, the patient was given metronidazole therapy, to which she responded well. Her husband, a patient with chronic lung disease who required recurrent antibiotic therapy for infective exacerbations in the community, was admitted to the hospital 10 days later with diarrhea. A stool sample obtained the following day was positive for both GDH and *C. difficile* toxin. Both isolates belonged to ribotype 127.

In pair 3, a 39-year-old woman received a diagnosis of CDI in the community after receiving antibiotic therapy for presumed cholecystitis. Her 15-month-old son presented to his primary care physician with diarrhea. At the family's request, a stool sample was tested and was found to be positive for both GDH and *C. difficile* toxin. Ribotyping of the isolates demonstrated that both belonged to ribotype 017.

Review of the paired cases of CDI, taken together with indistinguishable ribotypes and their temporal association, is highly suggestive of an epidemiological link and thus highlights the potential for spread within families. Interestingly, 2 of 3 contact patients had their own independent risk factors for CDI. In addition, the apparent transmission from a GDH-positive but toxin-negative patient to her spouse, who went on to develop active CDI, is also of particular note. Although the clinical significance of isolating *C. difficile* in an infant is not clear, as in the last case-pair, the matching ribotypes suggest a putative link between the 2 cases.

A recent study has suggested that intrafamilial transmission of CDI is infrequent.[1] Our findings corroborate this. We identified 3 case-pairs from a total of 238 confirmed cases of CDI over a 5-year period. However, the database search relied on identification of shared surname and address, and this may have underestimated the frequency of transmission. Nevertheless, we have amended the information on CDI given to patients and their relatives. In particular, we have reinforced the importance of adopting appropriate hand hygiene measures by index case patients and family members (both at home and in the hospital) in an attempt to reduce the risk of intrafamilial spread of CDI.

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East North Central Region Has the Highest Prevalence of Vancomycin-Resistant *Enterococcus faecalis* in the United States

To the Editor—We read the article of Hayakawa et al[1] with great interest. The report describes the growing prevalence of vancomycin-resistant *Enterococcus faecalis* in Michigan, a state that also has the most reports of vancomycin-resistant *Staphylococcus aureus*. Similar findings were reported in the tigecycline evaluation and surveillance trial (TEST).[2] During the 2004–2009 period, 4.6% of 3,753 *E. faecalis* isolates were

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