

***Clostridium difficile* Infection in Outpatients**

[Announcer] *This program is presented by the Centers for Disease Control and Prevention.*

[Maureen Marshall] Hi, I'm Maureen Marshall, and today I'm talking with Dr. Jon Mark Hirshon, Associate Professor of Emergency Medicine at the University of Maryland School of Medicine. Our conversation is based on his paper about a *Clostridium difficile* infection in outpatients, which appears in CDC's journal, Emerging Infectious Diseases. Welcome, Dr. Hirshon.

[Jon Mark Hirshon] Thank you. I look forward to talking about *Clostridium difficile*.

[Maureen Marshall] Great. Dr. Hirshon, please explain what *Clostridium difficile* is.

[Jon Mark Hirshon] Well, *Clostridium difficile*, or *C. diff*, is a serious cause of infectious diarrhea seen mostly in older people who have recently stayed in a hospital or have been taking antibiotics. The problem with *C. diff* is that, unlike most other causes of diarrhea, it can cause severe infections and potentially be life threatening. Recently, it seems that certain strains of *C. diff* have increased the amount of the illness-causing toxin they produce. Therefore, interest and concern about *C. diff* has been growing.

Now, *C. diff* is considered a serious healthcare-acquired infection. And while *C. diff* is associated with being in the hospital or taking certain antibiotics, there have been increasing reports of *C. diff* being found in otherwise healthy outpatients without any known risk factors for getting the disease. So outpatients are people who are visiting doctors' offices, clinics, or emergency departments and have not been admitted to the hospital.

[Maureen Marshall] Tell us about your study.

[Jon Mark Hirshon] Well, we designed this study to help us understand the causes and possible risk factors of diarrhea in outpatients. So we looked at patients with complaints of diarrhea coming to specific emergency departments and clinics in Baltimore and New Haven. Once patients with diarrhea gave us a stool sample, we did a large number of laboratory tests in their stool looking for different infectious causes of their diarrhea. In the end, among the almost 1100 patients whose stool we tested for *C. diff*, we found 43 with the infection. This number is about what is expected. However, among these 43 patients, 40 of them either had known risk factors for getting *C. diff* or other diarrhea causing organisms in their stool. So, as it turned out, we only found three patients without known risk factors or a co-infection.

[Maureen Marshall] What were the conclusions?

[Jon Mark Hirshon] Briefly, it seems that outpatients with *C. diff* are likely to have either known risk factors for getting the disease or another cause of their diarrhea. This means that the *C. diff* seen in people from the community may actually be related to healthcare exposure or that the patients may have a different virus or bacteria causing their symptoms.

[Maureen Marshall] Dr. Hirshon, what is the public health importance of your findings?

[Jon Mark Hirshon] In a sense, these findings are reassuring, as widespread *C. diff* in the community would be a major public health problem. However, further studies need to be done to confirm these findings.

[Maureen Marshall] Are there things doctors and nurses should be doing to protect their patients from catching *C. diff*?

[Jon Mark Hirshon] Well, as with all health care associated infections, it's important that doctors, nurses, patients, and visitors wash their hands with soap and water. This can greatly reduce all health care-associated infections, including *C. diff*. Additionally, in the hospital, if a patient has *C. diff* infection, the patient should ideally have a single room and visitors may need to wear a gown and gloves. In the office, doctors should be told of recent hospitalizations, if a patient is coming in complaining of severe diarrhea. This can help the doctor in finding the reasons for the diarrhea.

[Maureen Marshall] Is there anything people can do to help protect themselves from *C. diff*?

[Jon Mark Hirshon] Well, again, good hand hygiene - keeping your hands clean - is the best single action people can take to help prevent *C. diff* infection in themselves and in their loved ones.

[Maureen Marshall] Thanks, Dr. Hirshon. I've been talking with Dr. Jon Mark Hirshon about his paper, *Clostridium difficile* Infection in Outpatients, Maryland and Connecticut USA, 2002—2007, which appears in the October 2011 issue of CDC's journal, Emerging Infectious Diseases. You can see the entire article online at www.cdc.gov/eid.

If you'd like to comment on this podcast, send an email to eideditor@cdc.gov. That's e-i-d-editor - one word - at c-d-c-dot-gov. I'm Maureen Marshall, for Emerging Infectious Diseases.

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