

JON S. So today, I want to talk about C. Diff infection, which is a very hot topic across the nation and across the world.

ABRAMSON: And let me get to the first slide. So it used to be said that the only real risk factor was antimicrobial agents. And then some people who had received antimicrobial agents might get C. diff. It's much, much broader than that now, including people who have no known risk factors getting C. diff. And the severity of the C. diff has clearly increased over time.

So the risk factors, you can see up there. And as I said, you don't have to have a risk factor to start thinking about C. diff. But what has drastically changed is the statement from the American Academy of Pediatrics in 2013 that basically makes a bunch of really good points.

So number one, the testing. And the testing for it is done looking for the C. diff toxin. Only should be performed in children with diarrhea who meet the clinical and age related. And we're going to spend a little bit of time talking about that listed in the following recommendations.

Infants less than 12 months of age have a high rate of asymptomatic carriage of it. And they really should not be tested unless they have underlined GI, severe GI pathology. And even there you have to be very cautious.

We recently had a child sent over who was treated at an outside hospital for a prolonged period of time because it was a three-month-old who got diagnosed and somebody did a C. diff test, was diagnosed with C. diff was treated, and actually what that child had was a susception. So you have to be very, very, very careful when you're thinking about doing that test.

Various studies have been done, and the range of normal children less than a year of age who carry C. diff and produce the toxin is somewhere near 30%. So very high.

In testing in those 2 to 3 years of age is a more difficult question because what happens is an infant produces a toxin, but the receptors in the GI tract are not yet developed enough that the toxin attaches and they actually develop disease do it. In the second and third year, the colonization rate goes down some, but those receptors are now developing and you really can have disease, but you have to be cautious about the diagnosis.

And the only way you know for sure you have it is if somebody does a sigmoidoscope and looks and sees pseudomembranes. So sometimes that's not a bad idea to do.

Next. Next is me. So a positive test after the third year of life indicates probable clostridium difficile infection. And risk factors increasing the probability of CDI include the things we talked about. The endoscopy or histologic test results positive for pseudomembranous colitis is the only thing that definitively makes the diagnosis.

And the test of cure is not recommended. So in testing for recurrence than four weeks after initial testing is only useful when the results of repeat testing are negative. And discontinuation of antimicrobial agents is the first step in treating any CDI and may suffice in most instances.

So sometimes you just try if you can withdraw the antibiotic and see if the diarrhea goes away. Sometimes you can't withdraw the antibiotic. And then you definitely have to treat. And sometimes withdrawing the antibiotic itself doesn't do it.

So when antimicrobial treatment is indicated for moderate disease, and moderate disease-- sorry. For moderate disease, Flagyl is the initial treatment of choice. If it's moderate to severe disease-- and these are defined in various papers different ways-- but if you consider the disease to be moderate or severe then you go to oral vancomycin. You have to be careful when you're using oral vancomycin because if you buy it in a lot of pharmacies it's very expensive.

In our place they actually make it up in the pharmacy. And so it becomes very cheap. They take IV vanc and they make it up in the pharmacy. So you have to be careful in that.

And the use of gloves-- and this is important-- in symptomatic patients washing their hands with soap and water, not the alcohol. That doesn't kill this organism or the spores. And the environmental decontamination using chlorine products are key control measures. Contact isolation can be removed when the diarrhea stops.

And the only thing that's really absolutely new and something I never thought. And when I first heard about it, I thought it was witchcraft. But there are actually really fairly good control studies. There are patients, especially the elderly, but there are even children-- we've done this, I think, 3 or 4 times for children who fail Flagyl, fail oral vanc, and they're not getting better, and this is called fecal transplantation.

And they actually take, usually from a relative, stool and do some magic to it. And then they actually implant that stool into the child. And you can see how effective that is by the percentage of cured.

And the people getting the vanc, this is not their first time they're getting the vanc in this slide. So it actually is a very useful thing to do. It's not FDA approved and it's really something you probably want to send down to a medical center who's done it before because it's not something you're going to be able to do in most hospitals.

So I'm going to turn it over to Larry to give his presentation.