

SPEAKER: In the group of what we call MAC, there's actually 12 different species that exist. And this is changing all the time. So taxonomy changes because we either find new organisms that are phylogenetically related or we have better tools to discriminate between them. And if you go back to the 2007 ATS-IDSA guidelines, they do not recommend that you speciate within MAC to know what you're treating, which specific species are you treating.

And I commented on that earlier that they're all effectively treated the same. But I'll offer an argument on why that information would be helpful in managing a patient. So we've had patients, for example, that come to us and have Mycobacterium avium-related lung disease, and they start on treatment, and they culture convert. And then three or four months into feeling better, their radiograph looking better, all of a sudden, they have another positive culture again.

But in fact, the second occasion now is related to Mycobacterium chimaera. And that allows us to just hold the course and not worry too much about them actually failing therapy. Wait for the next month, and maybe they'll have negative cultures again. But these patients, you have to understand, are vulnerable for a reason. They have underlying bronchiectasis. So the likelihood that they're going to get reexposed and potentially have a positive sputum related to something else is quite high. We've seen the rates of reinfection and-- or recurrence, I should say, anywhere in 25% to 50% of patients after they've completed a successful course of therapy.

But the important part about that group of patients that have recurrence is the vast majority is actually related to reinfection and not relapse of their old infection. And currently, what's available to you if using a lab that discriminates amongst these different species is exactly that information, is knowing at the time of a second infection, is it really the same infection or not? So you can use that species information to help understand that.