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Some of those hot spots that have been identified as having a greater incidence of NTM include states in which there are greater areas of water-- Hawaii being one, even here in South Carolina being another. But there are states that would be surprising, in terms of having hot spots such as in Arizona and in Wisconsin. But it had more to do with the water content contained in the air. And so there is still work being done trying to define what exactly promotes the growth of these organisms that could potentially put patients at risk.

Perhaps a more interesting question are, why, if there is an increase of the organism in an environment, do some people acquire the disease and others do not. And so I've talked a little bit about that some of those underlying lung conditions like cystic fibrosis, or bronchiectasis, or even COPD, as having a higher risk of developing the infection. But there are other issues that we're still trying to grasp, in terms of local host defenses, and the one common theme that we see is that those patients who have impaired mucociliary clearance, for whatever reason, might be at greater risk for developing infection.

Now although, I've talked about there being a rising prevalence of infection in these patients, I think we're still not there in terms of identifying all the patients who truly have infection. And I say this because, if you look at the patients average time of symptoms before a diagnosis is made, it is oftentimes in the many, many months, and sometimes years. So patients referred to our center, because of pulmonary disease, oftentimes have had cough going on for a couple of years before a diagnosis of NTM lung disease was either made or suspected.

Some of that is because these patients didn't seek out help. But in many cases, these patients will be managed as if they have bronchitis or asthma, and not in venturing into the potential for a chronic infectious lung disease. Not suggesting that all patients who present with cough need a high resolution CT scan, but perhaps those patients who have persistent symptoms, despite best steps at initial diagnosis and treatment, warrant imaging to see if there is evidence of the condition.