

**JULIE PHILLEY, MD:** A clinician should suspect resistant MAC lung disease when patients have not been on adequate therapy. Some studies have shown actually that macro line monotherapy can promote resistance. It has also been noted that macrolide plus quinolones, as dual therapy, can promote resistance.

So these are the types of patients that come in on azithromycin and moxifloxacin, for example. That type of therapy without other drugs to prevent resistance can predispose patients to become resistant. When I see a patient that has continued positive cultures for MAC, despite being on guideline based therapy, I always check the culture to make sure that it still susceptible to the macrolide and to amikacin.

I also do that at the outset, when they've been on drugs that have not been adequate companion drugs. So if someone has not been able to tolerate ethambutol and has been on azithromycin rifampin, or if someone has been on azithromycin by itself, certainly I check it when people are having cavitary disease that don't respond to treatment.