

## Andrew Speaker's TB is Multi-Drug-Resistant, Not Extensively Drug-Resistant

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### *Speaker's TB is Multi-Drug-Resistant, Not Extensively Drug-Resistant*

Laboratory tests conducted at National Jewish Medical and Research Center indicate that patient Andrew Speaker's tuberculosis is susceptible to some of the medications previously thought ineffective against his disease. He is now considered to have multi-drug-resistant tuberculosis, *not* extensively drug-resistant disease. As a result, doctors have altered Mr. Speaker's antibiotic regimen and have put on hold a decision about lung surgery.

"These new test results are good news for Mr. Speaker. His prognosis has improved," said Charles Daley, MD, Head of the Infectious Disease Division at National Jewish. "Because of his newly determined drug susceptibility, we now have more effective medications available to fight his disease and may be able to treat him successfully without surgery."

The National Jewish mycobacteriology laboratory conducted extensive drug-susceptibility tests on tuberculosis organisms taken from Mr. Speaker on three different occasions; April 25 in Atlanta, May 27 in New York, and June 1 in Denver.

All three isolates indicated definite resistance to three first-line drugs for tuberculosis: isoniazid, rifampin and pyrazinamide. All the isolates, however, were *susceptible* to all the fluoroquinolone drugs (ofloxacin, levofloxacin, moxifloxacin and ciprofloxacin), and the injectable drugs (amikacin, kanamycin, and capreomycin). Results on all three isolates were consistent for both testing methods used.

Previous test results from the U.S. Centers for Disease Control and Prevention had indicated that Mr. Speaker's tuberculosis was resistant to the fluoroquinolones and to the injectable drug kanamycin, and was therefore classified as extensively drug resistant. The new results indicate his tuberculosis is, instead, multi-drug-resistant.

The mycobacteriology laboratory at National Jewish has been a world leader for 25 years in the development and validation of innovative methods to determine drug-resistance of tuberculosis and other mycobacterial organisms. It routinely verifies drug resistance by a quantitative test (MIC determination) in addition to the conventional qualitative test (by agar proportion method). Because of its long experience and expertise, numerous other laboratories send isolates to National Jewish for verification of their drug-resistance results.

Based on the recent findings, National Jewish physicians have begun using some of the fluoroquinolones and injectable drugs to treat Mr. Speaker's tuberculosis. In general, these drugs are more effective and have fewer side effects than some of the medications doctors were using before they learned these were viable options.

The availability of these additional medications means that Mr. Speaker may be cured without having to undergo surgery. Doctors have put a decision about surgery on hold for now and will not make a determination until they have a chance to see how the new antibiotic regimen is working and whether or not the drugs are being tolerated, which could take several weeks.

**National Jewish Health** is the leading respiratory hospital in the nation. Founded 122 years ago as a nonprofit hospital, National Jewish Health today is the only facility in the world dedicated exclusively to groundbreaking medical research and treatment of patients with respiratory, cardiac, immune and related disorders. Patients and families come to National Jewish Health from around the world to receive cutting-edge, comprehensive, coordinated care. To learn more, visit the

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## Media Contacts

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