

OCTOBER 29, 2019



## Montana Laboratory Sentinel

Updates from the MT Laboratory Services Bureau, 800-821-7284, [www.lab.hhs.mt.gov](http://www.lab.hhs.mt.gov)

### Mycobacteriology Update

#### \*New Susceptibility Testing Available\*

Tuberculosis is not commonly found in Montana, with only a few cases of **Mycobacterium tuberculosis** isolated per year. On the other hand, **Mycobacterium avium complex** (MAC) is commonly isolated and can cause respiratory infections or disseminated infection in people with compromised immune systems, as well as lymphadenitis in young children who have normal immune systems. MAC is a nontubercular mycobacterium (NTM), which includes *M. avium* and *M. intracellulare*, and MTPHL can now distinguish these 2 types of MAC by MALD-TOF analysis.

Recently there have been an increasing number of MAC patients identified as having **macrolide** and **aminoglycoside** resistance. This resistance may unknowingly develop during the life of a patient when they are prescribed various antimicrobials, such as an **azithromycin** Z-Pak (macrolide) for bronchitis or persistent respiratory symptoms; and/or **gentamicin**, **tobramycin**, **amikacin**, or **neomycin** (aminoglycosides) for an infection. Because MAC patients are usually treated with a combination of at least 3 antibiotics, including a macrolide, such as **azithromycin** or **clarithromycin**, it is important to know if the patient has developed resistance prior to treatment.

National Jewish (our reference lab for NTMs), has updated recommendations for drug susceptibility testing due to this resistance. In addition to the 10-drug susceptibility testing currently being performed, line probe assay techniques are available to identify antimicrobial resistance markers for macrolide [*erm*(41) and *rrl*] and aminoglycoside (*rrs*) antimicrobials. According to a

## **Mycobacteriology Update, cont.**

specialist at National Jewish, all MAC positive patients (new or recurring) with clinical manifestations, should be tested for macrolide and aminoglycoside resistance.

We are trying to get the word out to physicians about this increasing resistance and the availability of additional testing and may be providing personal calls to see if there is interest.

If a physician does request this additional testing, please ask for a **10-drug susceptibility, plus the line probe assay for macrolide and aminoglycoside resistance**. For more information, please call the Montana Public Health Laboratory at 800-821-7284.

Additional links:

<https://www.nationaljewish.org/print-templates/print-adx-test-controller?printpath=127319>  
[https://journal.chestnet.org/article/S0012-3692\(16\)48696-4/fulltext](https://journal.chestnet.org/article/S0012-3692(16)48696-4/fulltext)

## **Patient Manifests and Sample Transport!!**

Thank you to everyone who has been submitting manifests with their patients specimens since we have started this program. We are still not receiving these from everyone and are asking that you please take a moment to print a manifest from your laboratory information system or use the manifest we provided so we can ensure we have received all specimens sent on a given day. Labels included in the biohazard bag are not considered manifests since we still do not know how many samples we should have received. Please list newborn screening samples on a separate manifest since they are processed separately.

Also, please ensure caps are properly secured to their specimen tubes. We have received a few leaking containers, and sometimes we are unable to perform testing as a result.

Thank you for helping us to serve you better, and please contact us with any questions or concerns.

