

## Discussion Brief: Transporting Suspected and Confirmed MDR-TB Patients and Sputum Samples

Written by Julia Fischer-Mackey; Reviewed by Sophie G. Beauvais and Edward Nardell, M.D.

*In areas where drug sensitivity testing (DST) and capacity for treating drug resistant tuberculosis is limited, patients suspected of having MDR-TB may need to be transported from their community to a regional or national facility for diagnosis or treatment. Likewise, sputum samples requiring culture or DST may need to be taken to a distant lab. This discussion covers the precautions that should be taken to prevent TB infection of people involved in transporting patients, and to maintain the integrity of the sputum sample during transportation.*

### **Key Points**

When transporting suspected or confirmed MDR-TB patients, the following precautions should be taken:

- Potentially infectious patients should not be transported in the same car or van with other patients who may be highly vulnerable to TB infection (such as HIV-positive or others with compromised immune systems), or if they have TB, to re-infection.
- The vehicle windows should be open as much as weather permits, as dilution is the main defense against transmission.
- The driver should wear a [properly fitted respirator](#) (not a surgical mask) to prevent inhalation of infectious droplet nuclei suspended in the air, and when possible, use vehicles that have separate driver and patient compartments.
- Potentially infectious patients should wear a surgical mask (not a respirator) to reduce the generation of infectious aerosol. Tissues used by the patient for sputum should be properly disposed of in a sealed bag.
- Notify the receiving facility as soon as possible before arrival that a patient of potential concern is being transported to the facility, and indicate the precautions that are required.

In a well-established MDR-TB treatment program, patients will not continue to require long transport to treatment centers but will be treated in their own community. Starting a 19-24 month treatment regimen for MDR-TB far away from home presents logistical and economic hardships on patients which are likely to compromise the rates of completion.

When transporting sputum specimens, the following preparations should be made:

- Specimens labeled with permanent marker should be in tightly sealed plastic sputum cups and further contained by individually sealed plastic bags to prevent spillage or cross-contamination.
- Specimens should be cushioned from bouncing around in a vehicle on bad roads, and protected from extreme heat or sunlight that could kill off viable mycobacteria.
- In warm climates they should be packed in icepacks in an insulated container, and they must not be allowed to become wet and contaminated with melted ice or condensation, which could also soak off labels.

### **Key References**

- World Health Organization. [Policy on TB Infection Control in Health-Care Facilities, Congregate Settings and Households](#), 2009. Accessed June 28, 2010.
- World Health Organization. Stop TB Partnership. [Tuberculosis and Air Travel: Guidelines for prevention and control](#), third edition. 2008. Accessed June 28, 2010.
- World Health Organization. [Infection prevention and control of epidemic- and pandemic-prone acute respiratory diseases in health care](#), IV.2.3, IV.2.6. Published 2007. Accessed June 28, 2010.
- Centers for Disease Control and Prevention (CDC). [Biosafety in Microbiological and Biomedical Laboratories](#). 2007. Accessed 2009.
- World Health Organization. [Guidance on Regulations for the Transport of Infectious Substances 2009-2010](#). 2009. Accessed June 28, 2010.

### **Enrich the GHDonline Knowledge Base: Please consider replying to this discussion with the following information**

- Lab safety guidelines regarding the transportation of sputum specimens
- Strategies or training materials related to patient transport or sputum specimen transport

### **Recommendations:**

You may also be interested in the following discussions and resources in GHDonline communities:

- [New WHO TB IC Policy on TB Infection Control in Health-Care Facilities, Congregate Settings and Households](#)
- [Transportation Issues for Community Health Workers](#)