

Hey! We just landed... ...exposed to tuberculosis!



The **infected international traveler** was detained at **Detroit Metropolitan Airport (DTW)** by US Customs and Border Protection officers from the US Department of Homeland Security and CDC Quarantine Station staff in Detroit (a division of Global Migration and Quarantine). He was placed in isolation at Oakwood Annapolis Hospital (Oakwood) in Westland.

The Disease Control manager from the Wayne County Department of Public Health (WCDPH) was notified the moment the patient was contained. WCDPH immediately served the federal quarantine order to keep the man hospitalized for 72 hours.

Under the Public Health Code Chapter 333.2453 Epidemic; emergency order and procedures; involuntary detention and treatment, Section 2453 (1) if a local health officer (HO) determines that control of an epidemic is necessary to protect the public health, the HO may issue an emergency order to prohibit the gathering of people for any purpose and may establish procedures to be followed by persons, including a local governmental entity, during the epidemic in insure continuation of essential public health services and enforcement of health laws. A local health department or the Department may provide for the involuntary detention and treatment of individuals with hazardous communicable disease in the manner prescribed in certain sections of the Public Health Code.

As such, the MDCH's TB program manager, Oakwood's Medical Director, WCDPH's Health Officer and court counsels, the State of Michigan, and the US Centers for Disease Control collaborated to issue a court order to ensure that the man remained hospitalized at Oakwood until medically certified for discharge.

Oakwood's Medical Director oversaw the patient's inpatient therapy. The WCDPH Directly Observed Therapy (DOT) nurse regularly monitored the medication/treatment regimen to ensure adherence to the correct therapy. (The World Health Organization [WHO] now strongly advocates the use of DOT, to ensure that the patient is seen swallowing their medication by a trained individual.) DOT monitoring also ensures that patients take the prescribed medications for the appropriate periods of time, thus, greatly reducing a drug resistance strain of TB.

The DOT nurse collaborated on a regular basis with the WCDPH's Disease Control manager, program supervisor, and Oakwood's Medical Director. Meetings/communications, on cohort review, occurred frequently between WCDPH's DOT nurse and Disease Control Manager, MDCH, Detroit Quarantine Station staff, Custom Border Protection officers, and Oakwood medical staff.

Upon discharge (after being hospitalized for 7 months and over \$350,000.00 spent) and relocation to a Calhoun County holding/detention facility, an on-site visit was made by the WCDPH DOT nurse to certify that the patient was transferred with correct medication dosage/regimen, which will result in therapy completion.

A month's worth of medication was provided by WCDPH to the patient. Many countless hours were spent by the WCDPH staff and Oakwood, managing the case and taking precautions to ensure this patient's safety and transition into the general population.

**Estimated Medical Care Costs Associated
with Treating Antibiotic Resistant Tuberculosis**

Inpatient Costs (3 day stay):

Hospitalization cost TBD

Discharge Medications (1 month supply):

- | | |
|---|------------|
| 1. Moxifloxacin (Avelox 400mg daily) | \$ 554.05 |
| 2. Linezolid (Zyvox 600mg daily) | \$2,764.00 |
| 3. Cycloserine (Seromycin 250mg x2 daily) | \$1,355.00 |
| 4. PAS (Paser granules 4gm x2 daily) | \$ 229.30 |
| 5. Vit B6 | \$ 7.10 |
| 6. Capreomycin (840 mg daily) | <u>TBD</u> |

*Supplied by Lincare; awaiting COBRA for billing

Monthly total cost: **\$ 4,909.35**

Outpatient Care:

LinCare Visiting Nurses weekly home visits **\$9,200.00**

*Lincare Infusion Company supplies Capreomycin,
IV supplies and PICC line maintenance

*\$4500-4600 biweekly; awaiting COBRA for billing

Medication costs:

- | | |
|---|------------------|
| 1. Moxifloxacin (Avelox 400 mg daily - | \$ 78.95 |
| 2. Linezolid (Zyvox 600mg daily - | \$1,151.75 |
| 3. Cycloserine (Seromycin 250 mg x2 daily - | \$ 219.89 |
| 4. Capreomycin (Supplied by Lincare awaiting COBRA for billing) | |
| 5. PAS (Paser granules 4gm x2 daily - | <u>\$ 200.00</u> |

Monthly total cost: **\$1,650.59**

Grand total of current expenditures (excluding 3 day hospital stay)

Two weeks of visiting nurses outpatient care: \$4,600.00

Discharged medication cost for one month supply: \$4,909.35

Total accrued: **\$9,509.35**

Grand total of anticipated monthly expenditures:

Visiting nurses outpatient care: \$9,200.00

Medication cost (ordering from ICHD supplier Amerisource) \$1,650.59

Lab cost (kidney/liver function) TBD

Total Estimated (monthly) cost: **\$10,850.59**