Clinical Pathway: Pneumonic Tularemia

Patient presents with acute onset of pneumonia (fever, dyspnea, cough, chest pain)

**Low risk for tularemia:**
- Patient has risk factors for pneumonia
- Sputum Gram stain suggests other etiology
- Clinical or epidemiologic features suggest other cause

- Consider ID consult
- Evaluate as appropriate (eg, sputum culture, blood culture, other tests for specific organisms)

Institute appropriate antimicrobial therapy for community-acquired pneumonia

**High risk for tularemia:**
- Rapid progression to severe, life-threatening pneumonia in relatively high proportion of cases
- Characteristic CXR findings: peribronchial infiltrates leading to bronchopneumonia in 1 or more lobes; hilar adenopathy and pleural effusions relatively common; nodular parenchymal pattern may be seen
- Sputum Gram stain generally not helpful, since organisms are difficult to visualize
- Concomitant presentation of cases with other clinical manifestations of tularemia (ie, ocular, oropharyngeal, ulceroglandular, glandular, or typhoidal tularemia)
- Less severe respiratory illnesses than those expected to be caused by anthrax or plague (anthrax cases would likely have characteristic mediastinal widening on CXR or chest CT; plague cases would likely have higher rates of hemoptysis and rapid progression to shock)

**Note:** Sudden appearance of multiple patients with acute onset of characteristic illness suggests common source exposure such as would be seen with a bioterrorist attack.

- Alert IC
- Immediate ID consult
- Notify laboratory that tularemia is suspected

Obtain the following clinical specimens:
- Sputum for Gram stain, culture, DFA testing through the LRN
- Blood for culture, serologic testing
- Aspirate of pleural fluid (if present) for staining, culture, DFA testing
- Biopsy specimen, scraping, swab, or aspirate of cutaneous ulcer (if present) for staining, culture, DFA testing

Alert local or state health department if tularemia is highly suspected (particularly if multiple patients present with a compatible illness, suggesting aerosol release) or if tularemia is confirmed

Treat appropriately to cover *F. tularensis* infection (see page 2)

Follow public health recommendations for postexposure prophylaxis of potentially exposed persons, if indicated (see page 3)

**Other diagnosis confirmed**

- ID consult
- Alert IC
- Notify laboratory that tularemia is suspected

**Tularemia still not excluded**

- ID consult
- Alert IC
- Notify laboratory that tularemia is suspected

**Abbreviations**

- CT, computed tomography
- CXR, chest x-ray
- DFA, direct fluorescent antibody
- ID, infectious disease
- IC, infection control
- LRN, laboratory response network

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