Arizona Department of Health Services

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CDC RECOMMENDATIONS FOR BRUCELLA LABORATORY EXPOSURES

Recommendations for safe laboratory practices for *Brucella* spp.

- When brucellosis is suspected, clinicians should note "suspect or rule out brucellosis" on the laboratory submission.
- Review laboratory containment methods and microbiological procedures to ensure compliance with recommendations in the Biosafety in Microbiological and Biomedical Laboratories (BMBL), 5th edition.
- Use primary barriers: use safety centrifuge cups, personal protective equipment, and class II or higher Biological Safety Cabinets (BSCs) for procedures with a high likelihood of producing droplet splashes or aerosols.
- Use secondary barriers: restrict access to the laboratory when work is being performed and maintain the integrity of the laboratory's air handling system by keeping external doors and windows closed.
- Perform all procedures on unidentified isolates carefully to minimize the creation of splashes or aerosols.
- Prohibit sniffing of opened culture plates to assist in the identification of isolates. Manipulate isolates of small gram-negative or gram-variable rods within a BSC.

Recommendations for surveillance and post-exposure prophylaxis for laboratory exposure to *Brucella* isolates

1. Determine number of workers exposed to *Brucella* isolates and **classify exposures** into high- and low-risk
2. Recommend **PEP** for workers with high-risk exposures to *Brucella*:
    - **doxycycline** 100mg twice daily and **rifampin** 600mg once daily for 3 weeks
    - trimethoprim-sulfamethoxazole should be considered for those patients with contraindications to doxycycline
    - pregnant workers with high-risk exposures should consider PEP in consultation with their obstetricians
3. Discuss PEP with workers with only low-risk exposures to *Brucella*
4. Obtain **baseline serum samples** from all workers as soon as possible after a potential *Brucella* exposure is recognized. If available, obtain pre-exposure stored specimens.
5. Arrange for sequential serologic testing on all workers exposed to *Brucella* (e.g. **2, 4, 6, and 24 weeks** post exposure) using agglutination test at state public health laboratory or CDC.
6. Arrange for regular (e.g. weekly) **active surveillance** for development of febrile illness or other signs and symptoms of brucellosis among all workers exposed to *Brucella* isolates for 6 months following last exposure.

CDC Brucellosis website: http://www.cdc.gov/nczved/divisions/dfbmd/diseases/brucellosis/

MMWR: Laboratory-Acquired Brucellosis --- Indiana and Minnesota, 2006. MMWR 2008; 57(02):39-42.

CDC Recommendations: http://www.cdc.gov/nczved/divisions/dfbmd/diseases/brucellosis/recommendations.html