Diagnostic Testing for Septic Arthritis and Specimen Submission to CDC – Outbreak Associated with Injection of Potentially Contaminated Steroid Products

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The pathogens involved in this cluster of infections are still under investigation. Thorough and rapid diagnostic evaluation to identify pathogens causing infections in individual patients who received intra-articular injections of potentially contaminated steroid products from the New England Compounding Center is essential and may have implications for the nature and duration of antimicrobial therapy.

Algorithm for Diagnostic Evaluation

The following algorithm has been developed to help guide clinicians in their diagnostic evaluation.

**These instructions are meant to supplement routine laboratory and microbiologic tests deemed necessary by the clinical team and should not replace existing diagnostic protocol.**

- Perform arthrocentesis (or arthroscopy, in consultation with an orthopedic surgeon) to obtain synovial fluid for analysis. Synovial fluid should be sent for fungal culture, in addition to cell count and differential, routine Gram stain, bacterial cultures, and examination for crystals.
- Send remaining synovial fluid to CDC for PCR (ideally $\geq 1$ mL).
- If initial presentation or diagnostic testing suggests severe infection, consider arthroscopy, in consultation with an orthopedic surgeon, to obtain synovial fluid and tissue and to perform lavage and/or debridement.
  - Send synovial fluid and tissue specimens for microbiologic testing as described above. In addition, send tissue specimen for histopathology, including silver staining, to look for fungi.
  - Send remaining synovial fluid and tissue specimens to CDC for further testing. If fresh tissue can be saved, please freeze at $-70^\circ$C. Contact your state public health laboratory for specimen collection and processing.
- Radiographic imaging studies, such as MRI, may be considered to evaluate for osteomyelitis. If osteomyelitis is suspected, arthroscopic biopsy and debridement in consultation with an orthopedic surgeon is recommended. Tissue specimen should undergo testing and submission to CDC as described above.

**Specimen shipping information:** Please contact your state health department and state public health laboratory to coordinate shipment of specimens to CDC for further testing.