Specimen Collection Guidance for Unexplained Death (UNEX) Investigations
Arizona Department of Health Services

Specimen collection in a UNEX investigation is focused on testing for and identifying infectious diseases that are of public health significance, a new/emerging infection or act of terrorism. The recommended specimen collections are sent to the ASHL (Arizona State Health Laboratory) and the CDC (if necessary) for analysis and may be outside the routine ME (medical examiner) investigation. The local county health department should consult with ADHS regarding suspect etiology, suggested tests, specimens needed, arranging specimen transport to the ASHL and ASHL requisition form completion.
ADHS UNEX team: (602) 364-3676

Public Health Significance: Specimen Collection Guidance
Specimens forwarded to ASL if case presentation indicates an agent of public health significance: infectious disease that can be transmitted person-to-person OR requires an intervention, a new/emerging infection or act of bioterrorism

FOR ALL CASES:
→ Blood for aerobic culture (needs to be in a blood culture bottle)
→ Blood for serum (>20mL), plus 2 red tops & 2 purple tops for refrigerator storage. (pre-mortem – if available)

If suspected involvement of any of the following systems (may involve more than 1):

Central Nervous/Cardiovascular/ Sepsis
→ Nasopharyngeal swab
→ CSF
→ Aspirate/excision from affected lymph node(s)
→ brain swab
If encephalitis presentation:
→ Urine
→ Nasopharyngeal swab
If endocarditis presentation:
→ Heart valve

Respiratory System
→ Nasopharyngeal swab
→ Lung swab OR Lung tissue

Skin/Cutaneous
IF LESION:
→ Skin biopsy
IF RASH:
→ Urine
→ Nasopharyngeal swab

Gastrointestinal System
→ Rectal swab (use viral transport medium and refrigerate)
Suspect botulism/norovirus:
→ Stool
OR
→ Gastric Content

Depending on the case presentation, the UNEX team may request the following items normally collected during the routine ME investigation for further evaluation:

1. Deep organ tissue swabs of affected organs for bacterial culture.
2. Frozen tissue from all affected organs AND brain, heart, lung, liver, spleen, kidney for storage.
3. Paraffin-embedded tissue (hematoxylin & eosin) from all affected organs AND brain, heart, lung, liver, spleen, kidney. 
   (Performed only at the CDC)