

# Laboratory Test Directory



State of Alaska  
Department of Health and Social Services  
Division of Public Health  
Section of Laboratories  
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# Laboratory Contacts

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**Emergency Calls After Hours  
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Business Hours:  
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**Emergency Calls After Hours  
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## [Alaska State Public Health Laboratory Website](#)

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# Table of Contents

<a href="#">Submitter Criteria</a>	6
<a href="#">Specimen Collection Kits</a>	7
<a href="#">Request Forms and Specimen Labeling</a>	8
<a href="#">Laboratory Request Forms:</a>	9
<a href="#">Reports and Results</a>	10
<a href="#">Acetone</a>	11
<a href="#">Acid Fast Stain for <i>Isospora</i>, <i>Cyclospora</i>, and <i>Cryptosporidium</i> Oocysts</a>	11
<a href="#">Adenovirus</a>	12
<a href="#">Aerobic Bacterial Culture ID</a>	12
<a href="#">Aeromonas</a>	13
<a href="#">Anaerobic Bacterial Culture ID</a>	13
<a href="#">Bacillus anthracis</a>	14
<a href="#">Blood Parasites</a>	15
<a href="#">Botulinum Neurotoxin, <i>Clostridium botulinum</i></a>	16
<a href="#">Brucella spp.</a>	17
<a href="#">Burkholderia mallei, Burkholderia pseudomallei</a>	18
<a href="#">Campylobacter</a>	19
<a href="#">Carboxyhemoglobin</a>	19
<a href="#">Chemical Terrorism Event</a>	20
<a href="#">Chlamydia &amp; Gonorrhea (NAAT)</a>	21
<a href="#">Coxiella burnetii</a>	22
<a href="#">Cyanide</a>	22
<a href="#">Diphtheria Culture</a>	23
<a href="#">Ebola Virus</a>	24
<a href="#">Ectoparasites</a>	24
<a href="#">Enteric Stool Culture</a>	25
<a href="#">Escherichia coli O157</a>	26
<a href="#">Ethanol</a>	27
<a href="#">Ethylene Glycol</a>	27
<a href="#">Fluorescent Treponemal Antibody (FTA-ABS)</a>	27
<a href="#">Francisella tularensis</a>	28
<a href="#">Giardia/Cryptosporidium by DFA</a>	28
<a href="#">Haemophilus influenzae Culture/Serotyping</a>	29
<a href="#">Hepatitis A Antibody</a>	29
<a href="#">Hepatitis B Antibody</a>	30
<a href="#">Hepatitis C Antibody</a>	31
<a href="#">Hepatitis C Genotyping</a>	32
<a href="#">Herpes Simplex Virus (HSV)</a>	33
<a href="#">HIV: Human Immunodeficiency Virus</a>	34
<a href="#">Human Metapneumovirus (hMPV)</a>	35
<a href="#">Influenza Virus</a>	35
<a href="#">Isopropanol</a>	36
<a href="#">Lead (Blood)</a>	36
<a href="#">Mercury in Hair</a>	37
<a href="#">Metals</a>	37
<a href="#">Methanol</a>	38

<a href="#">Mumps Virus</a>	<a href="#">38</a>
<a href="#">Mycobacterium Culture (TB)</a>	<a href="#">39</a>
<a href="#">Neisseria gonorrhoeae Culture</a>	<a href="#">40</a>
<a href="#">Neisseria meningitidis Culture/Serotyping</a>	<a href="#">40</a>
<a href="#">Norovirus</a>	<a href="#">41</a>
<a href="#">Orthopox Viruses</a>	<a href="#">41</a>
<a href="#">Ova &amp; Parasite Exam</a>	<a href="#">42</a>
<a href="#">Parainfluenza Virus</a>	<a href="#">42</a>
<a href="#">Pertussis PCR</a>	<a href="#">43</a>
<a href="#">Pulsed-Field Gel Electrophoresis (PFGE)</a>	<a href="#">43</a>
<a href="#">Pinworm Exam</a>	<a href="#">44</a>
<a href="#">Plesiomonas shigelloides</a>	<a href="#">44</a>
<a href="#">Rabies</a>	<a href="#">45</a>
<a href="#">Reference Bacterial Culture</a>	<a href="#">45</a>
<a href="#">Respiratory Viral Panel (RVP)</a>	<a href="#">46</a>
<a href="#">Rhinovirus</a>	<a href="#">47</a>
<a href="#">Ricin</a>	<a href="#">47</a>
<a href="#">Ricinine</a>	<a href="#">48</a>
<a href="#">Respiratory Syncytial Virus (RSV)</a>	<a href="#">48</a>
<a href="#">RPR (Rapid Plasma Reagin)</a>	<a href="#">48</a>
<a href="#">Rubella</a>	<a href="#">49</a>
<a href="#">Rubeola (Measles)</a>	<a href="#">50</a>
<a href="#">Salmonella Serotyping</a>	<a href="#">51</a>
<a href="#">Shiga-toxin testing (STEC)</a>	<a href="#">51</a>
<a href="#">Shigella Serotyping</a>	<a href="#">52</a>
<a href="#">Strep Screen (Group A)</a>	<a href="#">52</a>
<a href="#">Streptococcus Isolates</a>	<a href="#">53</a>
<a href="#">Syphilis Screen – Rapid Plasma Reagin (RPR)</a>	<a href="#">53</a>
<a href="#">Toxic Alcohols &amp; Glycols</a>	<a href="#">54</a>
<a href="#">Trichomonas (NAAT)</a>	<a href="#">55</a>
<a href="#">Varicella Zoster</a>	<a href="#">56</a>
<a href="#">Vibrio species</a>	<a href="#">57</a>
<a href="#">Yersinia enterocolitica</a>	<a href="#">58</a>
<a href="#">Yersinia pestis</a>	<a href="#">59</a>
<a href="#">Botulism Detailed Collection Instructions</a>	<a href="#">60</a>
<a href="#">Chlamydia &amp; Gonorrhea Pharyngeal Swab Collection Instructions</a>	<a href="#">61</a>
<a href="#">Chlamydia &amp; Gonorrhea Rectal Swab Collection Instructions</a>	<a href="#">62</a>
<a href="#">Chlamydia &amp; Gonorrhea Vaginal Swab Collection Instructions (for patients)</a>	<a href="#">63</a>
<a href="#">Interpretation of Hepatitis Results</a>	<a href="#">65</a>
<a href="#">Interpretation of Hepatitis C Results</a>	<a href="#">66</a>
<a href="#">Herpes Type 1 and Type 2 IgG Antibody</a>	<a href="#">67</a>
<a href="#">Human Immunodeficiency Virus (HIV)</a>	<a href="#">68</a>
<a href="#">Norovirus Detailed Collection Instructions</a>	<a href="#">69</a>
<a href="#">Pertussis PCR: Detailed Collection Instructions</a>	<a href="#">70</a>
<a href="#">Rabies Specimen Submission Instructions</a>	<a href="#">71</a>
<a href="#">Stool Culture and Parasitology Detailed Collection Instructions</a>	<a href="#">73</a>
<a href="#">Tuberculosis/Mycobacterium Detailed Collection Instructions</a>	<a href="#">74</a>
<a href="#">Instructions for Collecting Sputum Samples</a>	<a href="#">75</a>

[MTB PCR Testing Information Sheet](#) ..... [76](#)  
[Viral Respiratory PCR: Detailed Collection Instructions for Nasopharyngeal Swabs](#) [78](#)

# Submitter Criteria

## Clinical:

- All health care providers licensed or certified by the State of Alaska.
- Laboratories seeking reference or confirmatory testing.

## Environmental:

- Animals suspected of rabies may be submitted by health officers, public health nurses, veterinarians, physicians, law enforcement and pet owners with prior approval from Section of Epidemiology 907-269-8000 during business hours or 1-800-478-0084 during non-business hours.
- Bioterrorism or Chemical Terrorism specimens may be submitted by law enforcement, health care providers and diagnostic laboratories upon consultation with Section of Epidemiology.
- Biomonitoring specimens may be submitted with approval from the Section of Epidemiology 907-269-8000 during business hours or 800-478-0084 during non-business hours.

# Specimen Collection Kits

The State of Alaska Public Health Laboratories provides specimen collection kits free of charge to all Alaska Health Care Providers.

**Please monitor expiration dates carefully. Samples collected in expired transport media or expired blood collection devices are unsatisfactory and will not be tested.**

[Supply Request Form](#)

APTIMA® CT/GC Collection Kits	Urine Transport Unisex Swab Transport (Endocervical, Urethral, Eye, Rectal, Oropharyngeal) Vaginal Transport
ETM	Enteric Transport Medium (Stool Cultures)
Ova and Parasite Kit (O&P)	10% Neutral Formalin and PVA Fixative Set
Cary Blair Swabs	Used for transport of isolated enteric pathogens
TB Sputum Cones	50 mL cones with sodium carbonate preservative
Norovirus	Request from Section of Epidemiology: 1-907-269-8000 during business hours OR 1-800-478-0084 during non-business hours
Diphtheria	Culture Swab EZ
Pinworm	Pinworm Paddle
UTM Kit (PCR)	UTM Kit = Universal Transport Media (UTM) specific for viruses with collection swabs: Swabs are made of synthetic, plastic materials only. Metal, wood, calcium alginate or cotton material will NOT be accepted.

\*\* Please note – the Alaska State Public Health Laboratories do NOT supply **blood collection tubes** or **Biohazard Bags**.\*\*

# Request Forms and Specimen Labeling

- A properly completed **request form** must accompany each diagnostic specimen. The following fields are highlighted on the Lab Request and are required.
  - Patient's first and last name &/OR other identifier. (example: chart #, medical records #, prison ID)
  - Date of birth
  - Gender
  - Specimen source
  - Date of specimen collection (time if applicable)
  - Provider name & mailing address
  - Test(s) requested
  - Patient Status (Fairbanks requisitions only):  
In or Out-patient, Long term care, Pregnant
- Identifiers on the specimen itself should match the Lab Request **exactly**. At a minimum, the specimen should be labeled with:
  - The patient's full first and last name OR a unique identifier
  - The patient's date of birth (DOB) OR Other Identifying Number
- Specimens must be collected and shipped properly. Please refer to specific collection and shipping instructions for testing.
- To request additional testing on a specimen held by the laboratories, please fax or mail a new request form requesting the additional testing. Testing cannot be performed until the request for additional testing is received.
- Specimens that have leaked in transit will be rejected as unsatisfactory at time of receipt.
- **Unlabeled specimens are UNSATISFACTORY and will not be processed.**

# Laboratory Request Forms:

[Alaska State Public Health Laboratory - Anchorage](#)

(<http://www.dhss.alaska.gov/dph/Labs/Documents/publications/AncSupplyReq.pdf>)

[Alaska State Virology Laboratory - Fairbanks](#)

(<http://www.dhss.alaska.gov/dph/Labs/Documents/publications/FbxSupplyReq.pdf>)

[Alaska State Virology Laboratory - Rabies](#)

(<http://www.dhss.alaska.gov/dph/Labs/Pages/publications/default.aspx>)

# Specimen Shipping

For current shipping regulations and instructions, please refer to IATA, DOT, US Postal Service, and American Society of Microbiology (ASM).

<http://www.iata.org/index.htm>

[US DOT - Transporting Infectious Substances Safely  
\(https://hazmatonline.phmsa.dot.gov/services/publication\\_documents/Transporting%20Infectious%20Substances%20Safely.pdf\)](https://hazmatonline.phmsa.dot.gov/services/publication_documents/Transporting%20Infectious%20Substances%20Safely.pdf)

<http://www.usps.com/>

[ASM Sentinel Laboratory Guidelines for Packaging & Shipping  
\(http://www.asm.org/index.php/guidelines/sentinel-guidelines\)](http://www.asm.org/index.php/guidelines/sentinel-guidelines)

Specimens must be shipped according to current federal, state and local laws. Upon request, Alaska State Laboratories provides ambient temperature shipping boxes that meet current shipping regulations.

## [Supply Request Form](http://www.dhss.alaska.gov/dph/Labs/Documents/publications/LabSupplyRequest.pdf)

[\(http://www.dhss.alaska.gov/dph/Labs/Documents/publications/LabSupplyRequest.pdf\)](http://www.dhss.alaska.gov/dph/Labs/Documents/publications/LabSupplyRequest.pdf)

Unless otherwise authorized, the State of Alaska does not provide postage or funds to ship samples for testing to the laboratories.

# Reports and Results

- Preliminary and final reports will be mailed to submitters as testing is completed.
- Submitters will be notified of significant or positive results by phone or fax (if requested).
- Section of Epidemiology is notified of results reportable to the Alaska Division of Public Health, but it is also the responsibility of the Health Care Provider and/or the referral laboratory to report accordingly.

[Infectious Disease Pathogens Reportable by Laboratories  
\(http://www.dhss.alaska.gov/dph/Epi/Documents/pubs/conditions/ConditionsReportablePg09.pdf\)](http://www.dhss.alaska.gov/dph/Epi/Documents/pubs/conditions/ConditionsReportablePg09.pdf)

<b>Test</b>	<b>Acetone</b>
	See <a href="#">Toxic Alcohols and Glycols</a>

<b>Test</b>	<b>Acid Fast Stain for <i>Isospora</i>, <i>Cyclospora</i>, and <i>Cryptosporidium</i> Oocysts</b>	
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage	
<b>Disease(s)</b>	Isosporosis, Cyclosporiasis, Cryptosporidiosis	
<b>Organism(s)</b>	<i>Isospora belli</i> , <i>Cyclospora cayetanensis</i> , <i>Cryptosporidium parvum</i>	
<b>Test Method</b>	Acid-fast stain	
<b>Specimen</b>	Stool	
<b>Collection Container</b>	O & P Collection Kit	
<b>Storage/Transport</b>	Ambient temperature.	
<b>Results</b>	<i>Isospora belli</i>	Observed/Not Observed
	<i>Cyclospora cayetanensis</i>	Observed/Not Observed
	<i>Cryptosporidium parvum</i>	Observed/Not Observed
<b>Turnaround Time</b>	3-5 days	

Test	Adenovirus
<b>Testing Lab</b>	Alaska State Virology Laboratory - Fairbanks
<b>Disease(s)</b>	Respiratory: Common cold, croup, bronchitis, pneumonia,
<b>Virus(s)</b>	Adenovirus (many groups and subtypes)
<b>Test Method</b>	Respiratory Specimens: PCR-See <a href="#">Respiratory Viral Panel (RVP)</a>
<b>Specimen</b>	Respiratory: Nasopharyngeal Swab (NP) <u>recommended</u> for RVP
<b>Collection</b>	<ul style="list-style-type: none"> <li>•Swabs (<i>use synthetic material swabs only – cotton or calcium-alginate tips and wooden or metal shafts are <u>not</u> acceptable</i>): Place swab(s) in UTM.</li> <li>•Respiratory “wash”: Transfer up to 3 ml to UTM.</li> </ul>
<b>Storage/ Transport</b>	Store refrigerated Ship with cool packs
<b>Results</b>	RVP: Positive or Target Not Detected
<b>Turnaround Time</b>	RVP: 1–3 days after receipt in Lab

Test	Aerobic Bacterial Culture ID
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Sepsis, infection
<b>Organism(s)</b>	Aerobic bacteria
<b>Test Method</b>	Culture and identification
<b>Availability</b>	Referrals only, no routine cultures.
<b>Specimen</b>	Blood, CSF, Tissue, Wounds
<b>Storage/ Transport</b>	Ambient temperature Package and label as Biological Specimens, Category B.
<b>Results</b>	Organism identified (genus and species)
<b>Turnaround Time</b>	2-5 days

<b>Test</b>	<i>Aeromonas</i>	
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage	
<b>Disease(s)</b>	Bacterial gastroenteritis	
<b>Organism(s)</b>	<i>Aeromonas</i> species	
<b>Test Method</b>	Culture	
<b>Specimen</b>	Stool in Enteric Transport Media (ETM)	
<b>Special Conditions</b>	Specimen should not be contaminated with water, urine, barium, antibiotics or mineral oil.	
<b>Specimen Collection</b>	<ol style="list-style-type: none"> <li>1. Collect stool in clean dry container or on plastic wrap stretched across toilet.</li> <li>2. <b>Sample must be placed into ETM within one hour of sample collection.</b></li> <li>3. Carefully open ETM, use scoop mounted in lid to place approximately a walnut size amount of stool in to transport. Add enough stool to fill exactly to <b>red fill line</b>. Do not overfill.</li> </ol>	
<b>Storage/Transport</b>	Ambient temperature	
<b>Results</b>	<i>Aeromonas</i> species	Isolated/Not Isolated
<b>Turnaround Time</b>	2-7 days	

<b>Test</b>	<b>Anaerobic Bacterial Culture ID</b>	
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage	
<b>Disease (s)</b>	Sepsis, infection	
<b>Organism(s)</b>	Anaerobic bacteria	
<b>Test Method</b>	Culture and identification	
<b>Availability</b>	Referrals only, no routine cultures. No post-mortem samples.	
<b>Special Conditions</b>	Sample must be kept in anaerobic conditions during transport.	
<b>Specimen</b>	Blood, Tissue, Wounds	
<b>Storage/Transport</b>	Store and transport at ambient temperature, under anaerobic conditions. Specimens must be received within 24 hours of collection. Package and label as Biological Substance, Category B.	
<b>Results</b>	Organism identified (genus and species)	
<b>Turnaround Time</b>	3-5 days	

<b>Test</b>	<i>Bacillus anthracis</i>	
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage	
<b>Disease(s)</b>	Anthrax infection forms: Cutaneous, gastrointestinal, or inhalation. Malignant pustule, malignant edema, Wool-Sorter disease.	
<b>Organism</b>	<i>Bacillus anthracis</i>	
<b>Availability</b>	All clients upon consultation with Section of Epidemiology 907-269-8000 during business hours or 1-800-478-0084 during non-business hours.  Contact the ASPHL prior to submitting samples 907-334-2100.	
<b>Specimen</b>	Bacterial isolate, cutaneous lesion, stool, rectal swab, blood cultures, whole blood, sputum, CSF, tissue, nasal swab (for intentional release exposures), environmental samples	
<b>Specimen Collection</b>	Refer to <a href="http://www.asm.org/index.php/guidelines/sentinel-guidelines">ASM Sentinel Level Clinical Microbiology Guidelines (http://www.asm.org/index.php/guidelines/sentinel-guidelines)</a> . Contact the ASPHL with questions.	
<b>Storage/Transport</b>	Store refrigerated. Ship with cool packs. Ambient temperature shipping is acceptable. Package and label as Biological Substance, Category B, ship as quickly as possible.	
<b>Results</b>	Presumptive	<i>B. anthracis</i> detected/not detected
	Confirmatory	<i>B. anthracis</i> detected/not detected
<b>Turnaround Time</b>	2-5 days	

Test	<h1>Blood Parasites</h1>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Malaria, Babesiosis, Trypanosomiasis
<b>Organism(s)</b>	<i>Plasmodium falciparum</i> , <i>P. malariae</i> , <i>P. ovale</i> , <i>P. vivax</i> , <i>Babesia species</i> , and <i>Trypanosoma species</i>
<b>Test Method</b>	Microscopic examination
<b>Specimen</b>	EDTA blood sample and peripheral blood smears (both thick and thin)
<b>Collection</b>	EDTA blood tube and peripheral blood smears (thick and thin)
<b>Specimen Collection</b>	Refer to CDC DPDx Website: <a href="http://www.dpd.cdc.gov/dpdx/HTML/DiagnosticProcedures.htm">http://www.dpd.cdc.gov/dpdx/HTML/DiagnosticProcedures.htm</a>
<b>Special Conditions</b>	Specimens should be collected before treatment is initiated. Multiple specimens may be necessary at 8 to 12 hour intervals over 2 to 3 days.  Include travel history if applicable.  CDC Malaria Case Surveillance Report Form: <a href="http://www.cdc.gov/malaria/report.html">http://www.cdc.gov/malaria/report.html</a>
<b>Storage/Transport</b>	Store refrigerated. Ship ambient temperature. Do not freeze. Samples >7 days old will not be tested.
<b>Results</b>	No Blood Parasites observed <i>Plasmodium falciparum</i> <i>Plasmodium malariae</i> <i>Plasmodium ovale</i> <i>Plasmodium vivax</i> <i>Babesia species</i> <i>Trypanosoma species</i>
<b>Turnaround Time</b>	1-2 days

<b>Test</b>	<b>Botulinum Neurotoxin, <i>Clostridium botulinum</i></b>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Botulism, Foodborne, wound, intestinal, or infant botulism
<b>Organism(s) or Agent(s)</b>	Botulinum neurotoxin producing species of <i>Clostridium</i> OR Botulinum neurotoxin
<b>Test Method</b>	Culture and/or toxin assays
<b>Availability</b>	All clients upon consultation with Section of Epidemiology 907-269-8000 during business hours or 1-800-478-0084 during non-business hours.  Contact the ASPHL prior to submitting samples 907-334-2100.
<b>Specimen</b>	Stool, enema fluid, gastric aspirate, pre-antitoxin serum, food, and environmental samples.  <a href="#">Click here for Botulism Detailed Collection Instructions</a>
<b>Specimen Collection</b>	Refer to <a href="http://www.asm.org/index.php/guidelines/sentinel-guidelines">ASM Sentinel Level Clinical Microbiology Guidelines (http://www.asm.org/index.php/guidelines/sentinel-guidelines)</a> . Contact the ASPHL with questions.
<b>Storage/Transport</b>	Store refrigerated. Ship with cool packs. Package and label as Biological Substance, Category B, ship as quickly as possible.
<b>Results</b>	Toxin Assays Botulinum neurotoxin detected (type specified) No toxin detected  Culture <i>Clostridium botulinum</i> isolated (toxin produced typed ) <i>Clostridium botulinum</i> not isolated No growth
<b>Turnaround Time</b>	Toxin 14 days Culture 7-30 days

<b>Test</b>	<i>Brucella spp.</i>	
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage	
<b>Disease(s)</b>	Brucellosis, Undulant fever, Malta fever	
<b>Organism(s)</b>	<i>Brucella spp.</i>	
<b>Availability</b>	All clients upon consultation with Section of Epidemiology 907-269-8000 during business hours or 1-800-478-0084 during non-business hours.  Contact the ASPHL prior to submitting samples 907-334-2100.	
<b>Specimen</b>	Organism isolate, blood, serum, spleen, liver, abscess, environmental samples, food	
<b>Specimen Collection</b>	Refer to <a href="http://www.asm.org/index.php/guidelines/sentinel-guidelines">ASM Sentinel Level Clinical Microbiology Guidelines (http://www.asm.org/index.php/guidelines/sentinel-guidelines)</a> . Contact the ASPHL with questions.	
<b>Storage/Transport</b>	Store refrigerated. Ship with cool packs. Ambient temperature shipping is acceptable. Package and label as Biological Substance, Category B, ship as quickly as possible.	
<b>Results</b>	Presumptive <i>Brucella spp.</i> Confirmed <i>Brucella spp.</i> <i>Brucella</i> serum antibody	Detected/Not Detected Detected/Not Detected Titer specified
<b>Turnaround Time</b>	7-21 days	

<b>Test</b>	<i>Burkholderia mallei, Burkholderia pseudomallei</i>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Glanders, Melioidosis
<b>Organism(s)</b>	<i>Burkholderia mallei</i> or <i>Burkholderia pseudomallei</i>
<b>Availability</b>	All clients upon consultation with Section of Epidemiology 907-269-8000 during business hours or 1-800-478-0084 during non-business hours.  Contact the ASPHL prior to submitting samples 907-334-2100.
<b>Specimen</b>	Organism isolate, blood, serum, urine, abscesses, tissue aspirates, body fluids (throat, nasal, skin or sputum for intentional release exposures)
<b>Specimen Collection</b>	Refer to <a href="http://www.asm.org/index.php/guidelines/sentinel-guidelines">ASM Sentinel Level Clinical Microbiology Guidelines (http://www.asm.org/index.php/guidelines/sentinel-guidelines)</a> . Contact the ASPHL with questions.
<b>Storage/Transport</b>	Store refrigerated. Ship with cool packs. Ambient temperature shipping is acceptable. Package and label as Biological Substance, Category B, ship as quickly as possible.
<b>Results</b>	Presumptive <i>B. mallei</i> Detected/Not Detected Confirmatory <i>pseudomallei</i> Detected/Not Detected
<b>Turnaround Time</b>	3-7 days

<b>Test</b>	<b><i>Campylobacter</i></b>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Campylobacteriosis
<b>Organism(s)</b>	<i>Campylobacter jejuni</i> , <i>Campylobacter coli</i> , <i>Campylobacter</i> species
<b>Test Method</b>	Culture and identification
<b>Specimen</b>	Pure culture isolates (Cary Blair Transport Swabs) Stool in ETM (see <a href="#">Enteric Stool Culture</a> )
<b>Storage/ Transport</b>	Ship stool at ambient temperature, isolates should shipped on cold packs Package and label as Biological Substance, Category B
<b>Results</b>	<i>Campylobacter jejuni</i> <i>Campylobacter coli</i> <i>Campylobacter</i> species; sent to CDC for confirmation No <i>Campylobacter</i> isolated
<b>Turnaround Time</b>	2-5 days
<b>Notes</b>	Laboratories should send all suspected and/or confirmed isolates to ASPHL for confirmation and epidemiological studies.

<b>Test</b>	<b>Carboxyhemoglobin</b>
	See <a href="#">Toxic Alcohols and Glycols</a>

Test	<h1>Chemical Terrorism Event</h1>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Agent</b>	<b>Unknown</b> toxic chemical exposure(s)
<b>Test Method</b>	Rapid Toxic Screen (performed by the Centers for Disease Control and Prevention in Atlanta, GA)
<b>Availability</b>	<p>Clients with suspected exposure to an <b>unknown</b> toxic chemical(s), as determined and prioritized by Epidemiology and law enforcement</p> <p>Contact the ASPHL prior to submitting specimens 907-334-2100.</p>
<b>Specimen</b>	Urine and whole blood
<b>Specimen Collection</b>	<p>Complete instructions are available: <a href="http://www.bt.cdc.gov/labissues/pdf/Flowchart_CT_Event_Specimen_collection_modified_May2012.pdf">CDC Specimen Collection for Chemical Event Response</a> (<a href="http://www.bt.cdc.gov/labissues/pdf/Flowchart_CT_Event_Specimen_collection_modified_May2012.pdf">http://www.bt.cdc.gov/labissues/pdf/Flowchart_CT_Event_Specimen_collection_modified_May2012.pdf</a>)</p> <p><b>Urine:</b> at least 25 mL in a screw-capped plastic container with a plastic lid; freeze immediately.</p> <p><b>Whole blood:</b> Use <b>three</b> 5 or 7 mL purple-top (EDTA) tubes, <u>and</u> <b>One</b> 3, 5 or 7 mL plasma tube (EITHER gray-top [glycolytic inhibitor, potassium oxalate] OR green-top [sodium heparin]).</p>
<b>Storage/Transport</b>	<p>Refrigerate blood samples. Freeze urine samples.</p> <p>Sample flow may vary according to the specific circumstances of an event, but generally specimens will be delivered to the Alaska State Public Health Laboratory – Anchorage for processing. Specimens from the first 40 victims will be shipped immediately to the Centers for Disease Control and Prevention in Atlanta, Georgia for the Rapid Toxic Screen. Samples from additional victims will be analyzed when the results of the screen are complete.</p> <p>Contact the ASPHL for complete shipping instructions. Also please refer to guidance provided at the CDC website (link above).</p> <p>Package and label as Biological Substance, Category B. Ship urine (frozen on dry ice) and blood samples (refrigerated with cold packs) in separate coolers.</p>
<b>Results</b>	<p>Samples are screened for the presence of over 150 toxic chemicals. Detected chemicals are identified and quantified.</p> <p>Federal and state experts will assist with the interpretation of results.</p>
<b>Turnaround Time</b>	<p>Partial results will be communicated as tests are performed sequentially at CDC, beginning approximately 36 hours after specimen receipt at the Alaska Public Health Laboratory. Full Rapid Toxic Screen results for the first 40 victims will be available approximately 4 days after specimen receipt at the Alaska Public Health Laboratory.</p>

<b>Test</b>	<b>Chlamydia &amp; Gonorrhea (NAAT)</b>	
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage	
<b>Disease(s)</b>	Chlamydia, Gonorrhea, STD	
<b>Organism(s)</b>	<i>Chlamydia trachomatis</i> (CT), <i>Neisseria gonorrhoeae</i> (GC)	
<b>Test Method</b>	Nucleic Acid Amplification (NAAT). Target Mediated Amplification (TMA) for the detection of ribosomal RNA (rRNA) from <i>Chlamydia trachomatis</i> and/or <i>Neisseria gonorrhoeae</i> .	
<b>Availability</b>	Please contact the ASPHL (907-334-2100) to set up an account for testing.	
<b>Specimen</b>	Urine Vaginal Endocervical	Urethral (male only) Rectal Oropharyngeal Conjunctival on prior approval
<b>Specimen Collection</b>	<p>Gen-Probe APTIMA Combo2 Transport Tubes: Urine Collection Kit (yellow kit):</p> <ul style="list-style-type: none"> <li>• First catch urine must be added to transport within 24 hours of collection.</li> </ul> <p>Vaginal Swab Collection Kit (orange kit):</p> <ul style="list-style-type: none"> <li>• Follow instruction provided in kit</li> </ul> <p>Unisex Swab Collection Kit (white kit):</p> <ul style="list-style-type: none"> <li>• Used for Endocervical, Urethral, Rectal and Oropharyngeal</li> <li>• Add swabs to transport immediately.</li> <li>• Do not submit white shafted cleaning swabs for testing.</li> </ul> <p><a href="#">Click here for Oropharyngeal Collection Instructions</a> <a href="#">Click here for Rectal Collection Instructions</a></p>	
<b>Special Conditions</b>	<b>Not a test of cure.</b> Tests that are performed less than 4-6 weeks after completion of therapy might be falsely positive due to the presence of nonviable organisms.	
<b>Storage/Transport</b>	Ambient temperature Urine specimens must be tested within 30 days of collection, swab specimens within 60 days.	
<b>Results</b>	<i>Chlamydia trachomatis</i> <i>Neisseria gonorrhoeae</i>	Positive/Negative Positive/Negative
<b>Turnaround Time</b>	1-2 days	

<b>Test</b>	<b><i>Coxiella burnetii</i></b>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Q-Fever
<b>Organism(s)</b>	<i>Coxiella burnetii</i>
<b>Availability</b>	All clients upon consultation with Section of Epidemiology 907-269-8000 during business hours or 1-800-478-0084 during non-business hours.  Contact the ASPHL prior to submitting samples 907-334-2100.
<b>Specimen</b>	EDTA whole blood for PCR collected 1-7 days from onset of symptoms and prior to antibiotics. Serum for IFA (acute 1-7 days and convalescent 21-35 days from onset) Refer to <a href="http://www.asm.org/index.php/guidelines/sentinel-guidelines">ASM Sentinel Level Clinical Microbiology Guidelines (http://www.asm.org/index.php/guidelines/sentinel-guidelines)</a> .
<b>Storage/ Transport</b>	Store refrigerated. Ship with cool packs. Ambient temperature shipping is acceptable. Package and label as Biological Substance, Category B, ship as quickly as possible.
<b>Results</b>	Presumptive <i>C. burnetii</i> detected/ not detected Confirmatory (Serum only) <i>C. burnetii</i> detected/ not detected
<b>Turnaround Time</b>	2 days for PCR 2-3 weeks for IFA Referral Testing

<b>Test</b>	<b>Cyanide</b>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Toxic Effect</b>	Inhibition of oxygen use by cells
<b>Test Method</b>	Gas Chromatography with Mass Selective Detection
<b>Availability</b>	Test not performed routinely and only with prior approval. Contact the ASPHL. Phone business hours 907-334-2100; after hours on-call pager 1-800-224-7063.
<b>Specimen</b>	Collect whole blood in one 3, 5 or 7 mL EDTA (purple-top) tube.
<b>Storage/ Transport</b>	Store refrigerated. Ship with cool packs.
<b>Results</b>	Quantitative cyanide concentration
<b>Turnaround Time</b>	4 hours from time of receipt

Test	<h1>Diphtheria Culture</h1>	
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage	
<b>Disease(s)</b>	Diphtheria	
<b>Organism(s)</b>	<i>Corynebacterium diphtheriae</i>	
<b>Test Method</b>	Culture and identification	
<b>Specimen</b>	Obtain material from the inflamed areas in the nasopharynx. If the membranes are present and can be removed, swab from beneath the membrane.	
<b>Collection Container</b>	Culture Swab EZ	
<b>Special Conditions</b>	Ship as soon as possible.	
<b>Storage/ Transport</b>	Ship at ambient temperature. Package and label as Biological Substance, Category B.	
<b>Results</b>	<i>Corynebacterium diphtheriae</i>	Isolated/Not Isolated
<b>Turnaround Time</b>	3 days	

Test	Ebola Virus
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Ebola Virus Disease
<b>Organism(s)</b>	Ebola Virus
<b>Specimen</b>	Minimum of two tubes whole blood (4 mL draw required per tube)
<b>Availability</b>	All clients upon consultation with Section of Epidemiology 907-269-8000 during business hours or 1-800-478-0084 during non-business hours.  Contact ASPHL prior to submitting samples 907-334-2100.
<b>Collection Container</b>	EDTA or sodium polyanethol sulfonate (SPS) preservative in plastic tubes
<b>Storage/Transport</b>	2-8°C ship on wet ice or cold packs Package and label as Biological Substance, Category B, ship as quickly as possible.
<b>Results</b>	Presumptive Ebola RNA detected Presumptive Ebola RNA not detected
<b>Turnaround Time</b>	1 day for presumptive testing result. Confirmatory testing will be performed at the CDC. If patient is tested less than 3 days after the onset of fever, retesting at 72 hours post-onset may be required.

Test	Ectoparasites
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Ectoparasites, arthropods, lice, crabs, mites, bedbugs
<b>Organism(s)</b>	<i>Cimex lectularius</i> , <i>Pediculus capitis</i> , <i>Pediculus humanus</i> , <i>Phthirus pubis</i> , <i>Pulex irritans</i>
<b>Test Method</b>	Morphological identification
<b>Specimen</b>	Suspect arthropod
<b>Specimen Collection</b>	Comb for nits, or use forceps to pluck hair; place into clean, dry tube with secure lid.
<b>Storage/Transport</b>	Ambient temperature
<b>Results</b>	No Ectoparasites observed <i>Cimex lectularius</i> (bed bug) <i>Pediculus capitis</i> (head louse) <i>Pediculus humanus</i> (body louse) <i>Phthirus pubis</i> (crab louse) <i>Pulex irritans</i> (human flea)
<b>Turnaround Time</b>	1 day

<b>Test</b>	<h1>Enteric Stool Culture</h1>	
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage	
<b>Disease(s)</b>	Salmonellosis, Shigellosis, Campylobacteriosis, Cholera, Foodborne illness, Food poisoning, enteric bacterial infection, Hemolytic Uremic Syndrome (HUS), bloody stool	
<b>Organism(s)</b>	<i>Salmonella</i> , <i>Shigella</i> , <i>Campylobacter</i> , <i>Escherichia coli</i> O157:H7 NOTE: Additional testing for <i>Yersinia enterocolitica</i> , <i>Vibrio</i> species, <i>Aeromonas</i> species and <i>Plesiomonas</i> species are performed only upon request.	
<b>Test Method</b>	Culture and Identification NOTE: Shiga-toxin testing by EIA for Enterohemorrhagic <i>E. coli</i> is performed on all stool cultures.	
<b>Specimen</b>	Stool in Enteric Transport Media (ETM)	
<b>Special Conditions</b>	<ul style="list-style-type: none"> <li>Multiple samples must be collected 24-48 hours apart.</li> <li>Specimen should not be contaminated with water, urine, barium, antibiotics or mineral oil.</li> <li>Consult laboratory if <i>Staphylococcus aureus</i> or <i>Bacillus cereus</i> are suspected.</li> </ul>	
<b>Specimen Collection</b>	<ol style="list-style-type: none"> <li>Collect stool in clean dry container or on plastic wrap stretched across toilet.</li> <li><b>Sample must be placed into ETM within one hour of sample collection.</b></li> <li>Carefully open ETM, use scoop mounted in lid to place approximately a walnut size amount of stool in to transport. Add enough stool to fill exactly to <b>red fill line</b>. Do not overfill. <a href="#">Click here for detailed collection instructions.</a></li> </ol>	
<b>Storage/Transport</b>	Ambient temperature. Samples must be tested within 10 days of collection.	
<b>Results</b>	<i>Salmonella</i> species <i>Shigella</i> species <i>Campylobacter</i> species <i>Escherichia coli</i> O157 Usual gram negative flora If <i>Salmonella</i> or <i>Shigella</i> are isolated, serotyping will be performed Example: <i>Shigella sonnei</i> , Serogroup D  If additional organisms are requested: <i>Vibrio</i> species <i>Yersinia enterocolitica</i> <i>Aeromonas</i> species <i>Plesiomonas shigelloides</i>	Isolated/Not Isolated Isolated/Not Isolated Isolated/Not Isolated Isolated/Not Isolated Present/No Growth       Isolated/Not Isolated Isolated/Not Isolated Isolated/Not Isolated Isolated/Not Isolated
<b>Turnaround Time</b>	2-5 days	

<b>Test</b>	<b><i>Escherichia coli</i> O157</b>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Hemolytic Uremic Syndrome (HUS), bloody stool
<b>Organism(s)</b>	<i>Escherichia coli</i> O157:H7, <i>Escherichia coli</i> O157:NM
<b>Test Method</b>	Culture/Serotyping
<b>Specimen</b>	Pure culture isolates of suspected <i>E. coli</i> O157 Stool in ETM (see <a href="#">Enteric Stool Culture</a> )
<b>Storage/ Transport</b>	Ambient temperature Package and label as Biological Substance, Category B.
<b>Results</b>	<i>Escherichia coli</i> O157:H7 <i>Escherichia coli</i> O157:NM No <i>Escherichia coli</i> isolated
<b>Turnaround Time</b>	2-5 days
<b>Notes</b>	Laboratories should send all suspected and/or confirmed isolates to ASPHL for confirmation and epidemiological studies.

<b>Test</b>	<b>Ethanol</b>
	See <a href="#">Toxic Alcohols and Glycols</a>

<b>Test</b>	<b>Ethylene Glycol</b>
	See <a href="#">Toxic Alcohols and Glycols</a>

<b>Test</b>	<b>Fluorescent Treponemal Antibody (FTA-ABS)</b>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Syphilis
<b>Organism(s)</b>	<i>Treponema pallidum</i>
<b>Test Method</b>	Indirect Fluorescent Antibody Confirmatory Test – FTA-ABS
<b>Specimen Collection</b>	Serum Plasma and hemolyzed blood are NOT acceptable
<b>Storage/Transport</b>	Store refrigerated for up to 7 days, freeze sample if testing will be delayed. Ship ambient temperature.
<b>Results</b>	FTA-ABS <span style="float: right;">Reactive/Nonreactive</span>
<b>Turnaround Time</b>	1-5 days, testing routinely performed on Wednesday. Previously positive patients are not retested.

<b>Test</b>	<b><i>Francisella tularensis</i></b>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Tularemia, Rabbit fever, Deer-fly fever,
<b>Organism(s)</b>	<i>Francisella tularensis</i>
<b>Availability</b>	All clients upon consultation with Section of Epidemiology 907-269-8000 during business hours or 1-800-478-0084 during non-business hours.  Contact the ASPHL prior to submitting samples 907-334-2100.
<b>Specimen</b>	Organism isolate, blood cultures, biopsy tissue, ulcer or lesion scraping or aspirate, lesion swab, sputum, bronchial/tracheal wash, serum for serological diagnosis, environmental samples
<b>Specimen Collection</b>	Refer to <a href="http://www.asm.org/index.php/guidelines/sentinel-guidelines">ASM Sentinel Level Clinical Microbiology Guidelines (http://www.asm.org/index.php/guidelines/sentinel-guidelines)</a> . Contact the ASPHL 907-334-2100.
<b>Storage/Transport</b>	Store refrigerated. Ship with cool packs. Ambient temperature shipping is acceptable. Package and label as Biological Substance, Category B, ship as quickly as possible.
<b>Results</b>	Presumptive <i>F. tularensis</i> detected/not detected Confirmatory <i>F. tularensis</i> detected/not detected <i>Francisella tularensis</i> antibody (titer specified)
<b>Turnaround Time</b>	2-7 days

<b>Test</b>	<b><i>Giardia/Cryptosporidium</i> by DFA</b>	
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage	
<b>Disease(s)</b>	Giardiasis, Cryptosporidiosis	
<b>Organism(s)</b>	<i>Giardia lamblia</i> , <i>Cryptosporidium parvum</i>	
<b>Test Method</b>	Direct Fluorescent Antibody (DFA) stain	
<b>Specimen</b>	Stool in 10% Formalin and PVA Fixative (O&P Collection Kit) See <a href="#">Ova &amp; Parasite Exam</a>	
<b>Storage/Transport</b>	Ambient temperature	
<b>Results</b>	<i>Giardia lamblia</i> <i>Cryptosporidium parvum</i>	Positive/Negative Positive/Negative
<b>Turnaround Time</b>	5 days	

Test	<b><i>Haemophilus influenzae</i></b> <b>Culture/Serotyping</b>	
Testing Lab	Alaska State Public Health Laboratory - Anchorage	
Disease(s)	Bacterial Meningitis, Pneumonia, Otitis Media	
Organism(s)	<i>Haemophilus influenzae</i>	
Test Method	Culture, Identification, and Serotyping	
Specimen	Pure isolate on chocolate agar slant	
Storage/ Transport	Ship ambient temperature. Do not freeze.	
Results	<i>Haemophilus influenzae</i> Serotyping Group Typing for uncommon serotypes referred to CDC.	Isolated/Not Isolated a, b or f
Turnaround Time	1-3 days	
Notes	Laboratories should send all suspected and/or confirmed isolates to ASPHL for confirmation and epidemiological studies. Samples from sterile sites (e.g. blood, CSF) can be sent directly to CDC Arctic Investigations (AIP) for PCR testing, contact information: 907-729-3200. Samples are shared between the two labs.	

Test	<b>Hepatitis A Antibody</b>	
Testing Lab	Alaska State Virology Laboratory - Fairbanks	
Disease(s)	Viral Hepatitis *Hepatitis A IgM Antibody indicated in symptomatic cases	
Organism(s)	Hepatitis A Virus (formerly known as Infectious Hepatitis)	
Specimen	<ul style="list-style-type: none"> <li>• <b>Preferred</b> - centrifuged serum in SST (serum separator tube without additives-tiger/marble top or yellow top); <b>1 mL minimum</b></li> <li>• <b>Also accepted</b> - Centrifuged and <i>separated</i> EDTA plasma; <b>1 mL minimum</b></li> </ul>	
Test Method	EIA Serology	
Storage/ Transport	Store refrigerated or frozen; <b>indicate date shipped, and date frozen (if applicable) on requisition</b> Ship on frozen packs ( <b>preferred</b> ), or cold packs <i>Ambient temperature shipping is not recommended per reagent manufacturer guidelines</i>	
Results	Hepatitis A Total Antibody Reactive/Borderline Hepatitis A IgM Antibody Reactive/Borderline <a href="#">Interpretation of Results</a>	Reactive/Non-  Reactive/Non-
Turnaround Time	3-10 days	

<b>Test</b>	<h1>Hepatitis B Antibody</h1>	
<b>Testing Lab</b>	Alaska State Virology Laboratory - Fairbanks	
<b>Disease(s)</b>	Viral Hepatitis	
<b>Organism(s)</b>	Hepatitis B Virus (formerly known as Serum Hepatitis)	
<b>Specimen</b>	<ul style="list-style-type: none"> <li>• <b>Preferred</b> - centrifuged serum in SST (serum separator tube without additives-tiger/marble top or yellow top); <b>2 mL minimum</b></li> <li>• <b>Also accepted</b> - Centrifuged and <i>separated</i> EDTA plasma; <b>2 mL minimum</b></li> </ul>	
<b>Test Method</b>	EIA Serology	
<b>Storage/ Transport</b>	Store refrigerated or frozen; <b>indicate date shipped, and date frozen (if applicable) on requisition</b> Ship on frozen packs ( <b>preferred</b> ), or cold packs <i>Ambient temperature shipping is not recommended per reagent manufacturer guidelines</i>	
<b>Results</b>	Hepatitis B Virus Core Total Antibody Reactive/Borderline Hepatitis B Virus Core IgM Antibody Reactive/Borderline Hepatitis B Virus Surface Antibody Reactive/Borderline Hepatitis B Virus Surface Antigen Reactive/Borderline <a href="#">Interpretation of Results</a>	Reactive/Non- Reactive/Non- Reactive/Non- Reactive/Non-
<b>Turnaround Time</b>	3-10 days	

Test	<h1>Hepatitis C Antibody</h1>
<b>Testing Lab</b>	Alaska State Virology Laboratory - Fairbanks
<b>Test Method</b>	Enzyme Immunoassay (EIA) Serology
<b>Disease(s)</b>	Acute or chronic contagious liver disease
<b>Specimen</b>	<ul style="list-style-type: none"> <li>• <b>Preferred</b> - centrifuged serum in SST (serum separator tube without additives-tiger/marble top or yellow top); <b>2 mL minimum</b></li> <li>• <b>Also accepted</b> - Centrifuged and <i>separated</i> EDTA plasma; <b>2 mL minimum</b></li> <li>• <b>Note:</b> Collection of a separate tube for HCV testing is recommended</li> </ul>
<b>Storage/Transport</b>	Store refrigerated or frozen; <b>indicate date shipped, and date frozen (if applicable) on requisition</b> Ship on frozen packs (preferred), or cold packs <i>Ambient temperature shipping is not recommended per reagent manufacturer's guidelines.</i>
<b>Results</b>	<p><b>Non-Reactive:</b> No antibody to HCV detected  <b>Reactive:</b> Antibody to HCV detected. (Reflexes to HCV Genotype testing)</p> <p><a href="#">See Interpretation of Results</a></p>
<b>Turnaround Time</b>	3-10 days after receipt at ASVL

Test	<h1>Hepatitis C Genotyping</h1>	
<b>Testing Lab</b>	Alaska State Virology Laboratory - Fairbanks	
<b>Test Method</b>	Polymerase Chain Reaction (PCR)	
<b>Disease(s)</b>	Acute or chronic contagious liver disease	
<b>Specimen</b>	<ul style="list-style-type: none"> <li>• <b>Preferred</b> - centrifuged serum in SST (serum separator tube without additives-tiger/marble top or yellow top); <b>2 mL minimum</b></li> <li>• <b>Also accepted</b> - Centrifuged and <i>separated</i> EDTA plasma; <b>2 mL minimum</b></li> <li>• <b>Note:</b> Collection of a separate tube for HCV testing is recommended</li> </ul>	
<b>Viral Targets</b>	Type 1, Subtype 1a Type 1, Subtype 1b Type 2, Subtype 2a/c Type 2, Subtype 2b	Type 3 Type 4 Type 5 Type 6
<b>Storage/Transport</b>	Store refrigerated or frozen; <b>indicate date shipped, and date frozen (if applicable) on requisition</b> Ship on frozen packs (preferred), or cold packs <i>Due to the instability of RNA in clinical specimens, it is critical that the specimen is chilled as soon as possible after collection and centrifugation.</i>	
<b>Results</b>	<a href="#">See Interpretation of Results</a>	
<b>Turnaround Time</b>	7-21 days after receipt at ASVL	

<b>Test</b>	<b>Herpes Simplex Virus (HSV)</b>
<b>Testing Lab</b>	Alaska State Virology Laboratory - Fairbanks
<b>Disease(s)</b>	Herpes, Human Herpes virus 1 and 2
<b>Organism(s)</b>	Herpes Simplex Virus Type 1, Herpes Simplex Virus Type 2
<b>Test Method</b>	EIA Serology – Typing by strain specific IgG
<b>Specimen</b>	<b>Serology:</b> Serum
<b>Collection</b>	<b>Serology:</b> Centrifuged serum in SST (serum separator tube without additives – tiger/marble top, or yellow top); <b>1 mL minimum</b>
<b>Storage/Transport</b>	Store serum refrigerated or frozen, and ship on frozen packs (preferred) or cold packs; <b>indicate date shipped, and date frozen (if applicable) on requisition.</b> <i>Ambient temperature shipping is not recommended per reagent manufacturer guidelines.</i>
<b>Results</b>	Serology: HSV Type 1 /2 Antibody      Reactive/Non-reactive/Equivocal <a href="#">Interpretation of Results</a>
<b>Turnaround Time</b>	1-2 weeks for serology

<b>Test</b>	<b>HIV: Human Immunodeficiency Virus</b>						
<b>Testing Lab</b>	Alaska State Virology Laboratory - Fairbanks						
<b>Disease(s)</b>	HIV, AIDS (Acquired Immunodeficiency Syndrome)						
<b>Organism(s)</b>	Human Immunodeficiency Virus						
<b>Test Method</b>	<p>Screening: 4<sup>th</sup> Gen EIA (Detects: p24 Antigen, HIV 1&amp;2 Antibody)</p> <p>*Confirmation: Multispot HIV 1,2 Differentiation Assay; run only if the 4<sup>th</sup> Gen EIA is reactive.</p> <p><u>Please Note:</u> *Multispot specimens that produce inconclusive, or HIV-2 positive results will be referred to a CDC reference lab for further testing.</p>						
<b>Specimen</b>	<ul style="list-style-type: none"> <li>• <b>Preferred</b> - centrifuged serum in SST (serum separator tube without additives-tiger/marble top or yellow top); <b>2 mL minimum</b></li> <li>• <b>Also accepted</b> - Centrifuged and <i>separated</i> EDTA plasma; <b>2 mL minimum</b></li> </ul>						
<b>Storage / Transport</b>	<p>Store refrigerated or frozen; <b>indicate date shipped and date frozen (if applicable) on requisition</b></p> <p>Ship on frozen packs (preferred), or cold packs</p> <p><b>Specimen must be received at ASVL within 7 days of collection if stored and shipped at 2-8 C. If a delay in shipping is anticipated, it is strongly recommended that separated serum or plasma, or centrifuged SST vacutainers be frozen at -20 C or lower prior to shipping (see note below).</b></p> <p><u>Please Note:</u> ASVL has evaluated the manufacturer's specimen 7 day maximum storage recommendation and has determined that specimens can be safely tested up to 14 days post collection if they are properly stored and transported. <b>However</b>, regulations require that a qualifier be added to results associated with HIV specimens received at ASVL between 8 &amp; 14 days post collection. The required qualifier is as follows: <i>"This specimen was received after the manufacturer's maximum 7 day storage recommendation. Testing was performed; however, these results should be interpreted carefully with respect to clinical presentation and exposure risk. If current HIV infection or a potential recent exposure to HIV is suspected, please submit a new specimen in accordance with the defined submission guidelines."</i></p>						
<b>Results</b>	<p><b>Screen Results</b></p> <table border="0"> <tr> <td>HIV Ag/Ab Combo</td> <td>Reactive/Non-reactive</td> </tr> </table> <p><b>*Confirmatory Results</b></p> <table border="0"> <tr> <td>HIV-1 Antibody</td> <td>Reactive/Non-reactive</td> </tr> <tr> <td>HIV-2 Antibody</td> <td>Reactive/Non-reactive</td> </tr> </table> <p><a href="#">Interpretation of Results</a></p>	HIV Ag/Ab Combo	Reactive/Non-reactive	HIV-1 Antibody	Reactive/Non-reactive	HIV-2 Antibody	Reactive/Non-reactive
HIV Ag/Ab Combo	Reactive/Non-reactive						
HIV-1 Antibody	Reactive/Non-reactive						
HIV-2 Antibody	Reactive/Non-reactive						
<b>Turnaround Time</b>	<p>Screening and confirmation: 1-7 days</p> <p>Reference lab testing (if needed): 1-2 weeks</p>						

Test	<b>Human Metapneumovirus (hMPV)</b>
	See <a href="#">Respiratory Virus Panel (RVP)</a>

Test	<b>Influenza Virus</b>									
Testing Lab	Alaska State Virology Laboratory – Fairbanks									
Diseases	Influenza A, Influenza B  <b>Note:</b> Testing for Novel strains of Influenza (Flu A/H5N1, Flu A/H7N9 etc.) must be approved by the Section of Epidemiology. <b>Business Hours:</b> 907-269-8000; <b>After Hours:</b> 1-800-478-0084									
Test Method	PCR									
Specimen	<b>Preferred specimen: Nasopharyngeal (NP)</b> <b>Acceptable specimens:</b> <table border="0"> <tr> <td>Nasopharyngeal Swab(NP)</td> <td>Tracheal Aspirate (TA)</td> <td>Dual (NP/TS )</td> </tr> <tr> <td>Nasal Swab (NS)</td> <td>Nasal Aspirate (NA)</td> <td>Nasal Wash (NW)</td> </tr> <tr> <td>Bronchoalveolar Lavage (BL)</td> <td>Lung Tissue (LT)</td> <td>Bronchial Wash (BW)</td> </tr> </table> <i>**Swabs: use synthetic material swabs only – cotton or calcium-alginate tips and wooden or metal shafts are <u>not</u> acceptable</i>	Nasopharyngeal Swab(NP)	Tracheal Aspirate (TA)	Dual (NP/TS )	Nasal Swab (NS)	Nasal Aspirate (NA)	Nasal Wash (NW)	Bronchoalveolar Lavage (BL)	Lung Tissue (LT)	Bronchial Wash (BW)
Nasopharyngeal Swab(NP)	Tracheal Aspirate (TA)	Dual (NP/TS )								
Nasal Swab (NS)	Nasal Aspirate (NA)	Nasal Wash (NW)								
Bronchoalveolar Lavage (BL)	Lung Tissue (LT)	Bronchial Wash (BW)								
Collection	<b>Collection materials are available upon request; instructions below:</b> <ul style="list-style-type: none"> <li>Swab: place swab into UTM and break swab <b>below</b> lid line</li> <li>Wash or lavage: aseptically transfer no more than 3 ml to UTM</li> <li>Lung tissue: transfer a pea sized piece (about 1 gram) into UTM</li> <li>Be sure the cap is twisted down completely.</li> <li>Place UTM inside the biohazard bag; put Lab Request in outer pocket</li> </ul> <a href="#">Click here for detailed collection instructions.</a>									
Storage Transport	<ul style="list-style-type: none"> <li>Store the specimens in your refrigerator until ready to ship</li> <li>Pack samples on cool packs to preserve viral integrity</li> <li>Ship as a Biological Substance Category B UN3373</li> <li>If you are in an outlying area: <ul style="list-style-type: none"> <li>✓ Use the pre-addressed <b>Priority</b> Mail Labels provided</li> <li>✓ Mail Monday or Tuesday to avoid weekends at the Post Office</li> </ul> </li> </ul>									
Result (for each viral target)	<b>Not Detected:</b> Viral nucleic acid was not detected. <b>Positive:</b> Viral nucleic acid was detected.									
Turnaround Time (TAT)	1-3 days after receipt at ASVL									

<b>Test</b>	<b>Isopropanol</b>
	See <a href="#">Toxic Alcohols and Glycols</a>

<b>Test</b>	<b>Lead (Blood)</b>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Test Method</b>	Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)
<b>Availability</b>	All clients upon consultation with Section of Epidemiology 907-269-8000.  Contact the ASPHL prior to submitting samples 907-334-2100.
<b>Specimen</b>	Whole blood
<b>Specimen Collection</b>	Use one 5 or 7 mL non-SST K <sub>2</sub> -EDTA, Royal Blue or Tan top tube. A 5 or 7 mL lavender-top (EDTA) tube is also acceptable.
<b>Storage/Transport</b>	Store refrigerated. Ship with cool packs or ambient.
<b>Results</b>	A quantitative concentration will be reported.
<b>Turnaround Time</b>	1-2 days

Test	Mercury in Hair
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Test Method</b>	Direct mercury analyzer
<b>Availability</b>	All clients as requested through Section of Epidemiology
<b>Specimen</b>	Hair
<b>Specimen Collection</b>	Sample collection kits are available from Section of Epidemiology 907-269-8000 during business hours or 1-800-478-0084 during non-business hours. Complete instructions and illustrations are available at <a href="http://www.epi.hss.state.ak.us/eh/hot0602/hairinfopacket.pdf">http://www.epi.hss.state.ak.us/eh/hot0602/hairinfopacket.pdf</a>
<b>Storage/Transport</b>	Place the labeled zip-lock bag in a standard envelope and mail to the ASPHL, to the attention of the Chemistry section.  The sample is not a considered a biological substance and is not subject to dangerous goods shipping regulations.
<b>Results</b>	Quantitative mercury concentration
<b>Turnaround Time</b>	1 week

Test	Metals
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Agents</b>	Inorganic chemical elements in urine: Beryllium, Cobalt, Molybdenum, Cadmium, Antimony, Cesium, Barium, Tungsten, Platinum, Thallium, Lead, Uranium, Arsenic, Selenium
<b>Test Method</b>	Inorganic elements by Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)
<b>Availability</b>	Consult with the Section of Epidemiology 907-269-8000 during business hours or 1-800-478-0084 during non-business hours  Contact the ASPHL prior to submitting samples 907-334-2100.
<b>Specimen</b>	Urine
<b>Specimen Collection</b>	2-10 mL urine in a screw-capped plastic container & lid. Please <u>also</u> submit an empty, labeled specimen container from the same lot to test for background contamination.
<b>Storage/Transport</b>	Refrigerate and store at 4°C or below for Anchorage area delivery. Outside of Anchorage area, freeze prior to shipment and ship with cold packs or dry ice to minimize spillage. Package and label as Biological Substance, Category B.
<b>Results</b>	A quantitative concentration will be reported for each detected element.
<b>Turnaround Time</b>	1–2 days

Test	<h1>Methanol</h1>
	See <a href="#">Toxic Alcohols and Glycols</a>

Test	<h1>Mumps Virus</h1>
Testing Lab	Alaska State Virology Laboratory - Fairbanks
Disease(s)	Mumps, Orchitis
Organism(s)	Mumps Virus
Test Method	<p><b>Serology</b> (Mumps IgG Antibody)</p> <ol style="list-style-type: none"> <li>1. This test is used to determine immune status.</li> <li>2. The test is performed at ASVL by EIA.</li> </ol> <p><b>PCR</b> (Mumps Virus Nucleic Acid)</p> <ol style="list-style-type: none"> <li>1. This test is used to determine active infection.</li> <li>2. Testing will be performed at a CDC contract lab.</li> </ol>
Specimen	<p><b>Serology</b></p> <ul style="list-style-type: none"> <li>• Centrifuged serum in SST (serum separator tubes – tiger top, marble top or yellow top without additives) ; 1 ml minimum</li> </ul> <p><b>PCR</b></p> <ol style="list-style-type: none"> <li>1. Buccal swab in Universal Transport Media (UTM).</li> <li>2. Throat swab in UTM.</li> </ol> <p><i>(Swabs: use synthetic material swabs only – cotton or calcium-alginate tips and wooden or metal shafts are <u>not</u> acceptable)</i></p>
Storage/ Transport	<p><b>Serology</b></p> <ul style="list-style-type: none"> <li>• Store refrigerated or frozen; indicate date frozen (if applicable) on requisition</li> <li>• Ship on frozen packs (preferred) or cold packs</li> <li>• <i>Ambient temperature shipping is not recommended per reagent manufacturer guidelines</i></li> </ul> <p><b>PCR</b></p> <ol style="list-style-type: none"> <li>1. Ship inoculated UTM to ASVL on cool packs (4°C).</li> <li>2. ASVL will overnight the sample to the CDC Contract Lab.</li> </ol>
Results	<p><b>Serology</b></p> <ol style="list-style-type: none"> <li>1. <i>Negative</i>: No significant level of detectable antibody. Presumed to be susceptible to primary infection.</li> <li>2. <i>Equivocal</i>: A borderline result. Result falls w/in <math>\pm 10\%</math> of the positive threshold. Resubmission may be indicated.</li> <li>3. <i>Positive</i>: Immunity by vaccination or infection.</li> </ol> <p><b>PCR</b></p> <ol style="list-style-type: none"> <li>1. Not Detected <ul style="list-style-type: none"> <li>• Mumps Virus nucleic acid was not detected.</li> </ul> </li> <li>2. Detected <ul style="list-style-type: none"> <li>• Mumps Virus nucleic acid was detected.</li> </ul> </li> </ol>
Turnaround Time	<p><b>Serology</b>: 7-10 days</p> <p><b>PCR</b>: 2 days from date of receipt at CDC Contract Lab.</p>

<b>Test</b>	<h1 style="text-align: center;">Mycobacterium Culture (TB)</h1>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Tuberculosis, TB, Consumption
<b>Organism(s)</b>	<i>Mycobacterium tuberculosis</i> complex and other <i>Mycobacterium</i> species. For example: <i>M. avium-intracellulare</i> complex, <i>M. fortuitum</i> , <i>M. goodnae</i> , etc.
<b>Test Method</b>	Acid fast bacilli (AFB) smear, liquid (MGIT) and solid (7H11) culture, DNA probe confirmation, HPLC identification and drug susceptibility (TB only), TB PCR (NAAT). See <a href="#">TB PCR Testing Information Sheet</a> for instructions on requesting testing.
<b>Specimen</b>	Sputum, bronchial wash, urine, stool, CSF, gastric lavage, blood, bone, bone marrow, tissue, body fluids and exudates.
<b>Specimen Collection</b>	<b>Sputum:</b> 5-10 mL in sterile 50 mL conical tube with 50 mg of <u>sodium carbonate preservative</u> . Collect first morning specimens on three consecutive days. <b>Bronchial wash:</b> ≥ 5 mL in sterile container <b>Body fluids:</b> ≥ 10-15 mL in sterile 50 mL conical tube. <b>Tissue:</b> In sterile container, add sterile saline to cover. <a href="#">Click here for Sputum collection instructions</a> <a href="#">Click here for Tuberculosis/Mycobacterium culture detailed collection instructions</a>
<b>Storage/Transport</b>	Store refrigerated. Ship with cool packs. Ambient temperature shipping is acceptable. <b>Specimens must be received in Alaska State Public Health Laboratory – Anchorage within 10 days of collection.</b>
<b>Results</b>	<b>AFB Smear Result</b> AFB Smears not performed on blood, bone marrow, CSF, stool, or urine <ul style="list-style-type: none"> <li>• No AFB observed</li> <li>• 1+, 2+, 3+, or 4+ AFB observed</li> </ul> <b>TB PCR Results</b> <a href="#">See TB PCR Testing Information Sheet</a> <b>TB Culture Result</b> <ul style="list-style-type: none"> <li>• No <i>Mycobacterium</i> species, including <i>M. tuberculosis</i>, isolated.</li> <li>• <i>Mycobacterium tuberculosis</i> complex by DNA probe</li> <li>• <i>Mycobacterium avium/intracellulare</i> complex by DNA probe</li> <li>• Other <i>Mycobacterium</i> identified by HPLC</li> </ul> <b>Susceptibilities</b> Performed on <i>M. tuberculosis</i> complex only. First line drugs: Streptomycin, Isoniazid, Rifampin, Ethambutol, PZA Susceptible/Resistant
<b>Turnaround Time</b>	<b>AFB smear</b> – 1 day <b>Preliminary results</b> – 3 weeks <b>Negative Culture</b> – 6 weeks (minimum) <b>Positive Culture</b> – As detected and confirmed <b>Susceptibilities</b> – 1-3 weeks from identification

<b>Test</b>	<b><i>Neisseria gonorrhoeae</i> Culture</b>	
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage	
<b>Disease(s)</b>	Gonorrhea, clap, GC	
<b>Organism(s)</b>	<i>Neisseria gonorrhoeae</i>	
<b>Test Method</b>	Culture, DNA Confirmation, Beta-lactamase susceptibility	
<b>Specimen</b>	Throat or rectal swab	
<b>Specimen Collection</b>	Specimens or isolates may be submitted on chocolate slants. Specimens may also be collected using the InTray System or similar. Follow manufacturer instructions for incubation prior to sending.	
<b>Storage/Transport</b>	Ambient temperature	
<b>Results</b>	<i>Neisseria gonorrhoeae</i>	Isolated/Not Isolated
<b>Turnaround Time</b>	1-3 days	

<b>Test</b>	<b><i>Neisseria meningitidis</i> Culture/Serotyping</b>	
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage	
<b>Disease(s)</b>	Meningitis	
<b>Organism(s)</b>	<i>Neisseria meningitidis</i>	
<b>Test Method</b>	Culture/Serotyping	
<b>Specimen</b>	Isolated organism	
<b>Storage/Transport</b>	Ambient temperature	
<b>Results</b>	<i>Neisseria meningitidis</i> Serotyping Group Typing for uncommon serotypes referred to CDC.	Isolated/Not Isolated A, B, C, Y, NON-TYPING
<b>Turnaround Time</b>	2-4 days	
<b>Notes</b>	Laboratories should send all suspected and/or confirmed isolates to ASPHL for confirmation and epidemiological studies. Samples from sterile sites (e.g. blood, CSF) can be sent directly to CDC Arctic Investigations for PCR testing, contact information: 907-729-3200. Samples are shared between the two labs.	



Test	Ova & Parasite Exam
Testing Lab	Alaska State Public Health Laboratory - Anchorage
Disease(s)	Giardiasis (beaver fever), Amebiasis, Intestinal Parasites  Rare/unusual parasites (Trichinosis, Leishmaniasis) are referred to a reference laboratory; please contact ASPHL or Epidemiology for more information.
Organism(s)	<i>Giardia lamblia</i> , <i>Entamoeba histolytica</i> , <i>Ascaris</i> spp., protozoans, worms, tapeworms, and flukes * <i>Trichinella</i> spp., <i>Leishmania</i> spp. by referral.*
Test Method	Formalin ethyl-acetate concentration wet mount and Zinc-PVA Trichrome Stain
Special Conditions	<ul style="list-style-type: none"> <li>Multiple samples must be collected 24-48 hours apart.</li> <li>Specimen should not be contaminated with water, urine, barium, antibiotics or mineral oil.</li> <li>Contrast media interferes with testing, delay collection until one week after procedure</li> </ul>
Specimen Collection	<p><b>Stool:</b> Collect stool in clean, dry container. Add stool (walnut size formed stool or ≈5 mL of liquid) to <b>10% Formalin</b> vial (yellow top) <u>and Zn PVA</u> vial (blue top) preservative <b>to red fill line only</b>. <u>Do not overfill</u>.</p> <p><b>Worms:</b> Place worm in 10% Formalin (yellow top) vial or leak-proof container with normal saline to cover.</p> <p>Please provide travel history if known.</p>
Storage/Transport	Ambient temperature
Results	No parasites observed Parasite observed and identified (genus and species) Example: <i>Giardia lamblia</i> cysts
Turnaround Time	3-5 working days from date of receipt in laboratory

Test	Parainfluenza Virus
	See <a href="#">Respiratory Virus Panel (RVP)</a>



Test	<b>Pinworm Exam</b>	
Testing Lab	Alaska State Public Health Laboratory - Anchorage	
Disease(s)	Pinworm	
Organism(s)	<i>Enterobius vermicularis</i>	
Test Method	Microscopic Examination	
Specimen Collection	Using pinworm paddle with adhesive side outward, press paddle firmly several times against the right and left perianal folds. Return paddle to transport vial, secure cap and label.	
Storage/Transport	Ambient temperature	
Results	Pinworm ( <i>Enter. vermicularis</i> )	Observed/Not Observed
Turnaround Time	1-2 days	

Test	<b><i>Plesiomonas shigelloides</i></b>	
Testing Lab	Alaska State Public Health Laboratory - Anchorage	
Disease(s)	Bacterial gastroenteritis	
Organism(s)	<i>Plesiomonas shigelloides</i>	
Test Method	Culture	
Specimen	Stool in ETM (see <a href="#">Enteric Stool Culture</a> )	
Special Conditions	Specimen should not be contaminated with water, urine, barium, antibiotics or mineral oil.	
Specimen Collection	<ol style="list-style-type: none"> <li>1. Collect stool in clean dry container or on plastic wrap stretched across toilet.</li> <li>2. <b>Sample must be placed into ETM within one hour of sample collection.</b></li> <li>3. Carefully open ETM, use scoop mounted in lid to place approximately a walnut size amount of stool in to transport. Add enough stool to fill exactly to <b>red fill line</b>. Do not overfill.</li> </ol>	
Storage/Transport	Ambient temperature	
Results	<i>Plesiomonas shigelloides</i>	Isolated/Not Isolated
Turnaround Time	2-7 days	

<b>Test</b>	<h1>Rabies</h1>
<b>Testing Lab</b>	Alaska State Virology Laboratory - Fairbanks
<b>Disease(s)</b>	Rabies, Acute Viral Encephalomyelitis
<b>Organism(s)</b>	Rabies Virus
<b>Test Method</b>	Direct Fluorescence Assay (DFA)
<b>Availability</b>	All testing must be approved by the Section of Epidemiology 907-269-8000 during business hours and 1-800-478-0084 during non-business hours. Testing for human rabies is available from CDC with approval from Section of Epidemiology.
<b>Specimen Collection &amp; Shipping</b>	See: <a href="#">Rabies Request Form</a> ( <a href="http://www.dhss.alaska.gov/dph/Labs/Documents/publications/Rabies_Inv_Report.pdf">http://www.dhss.alaska.gov/dph/Labs/Documents/publications/Rabies_Inv_Report.pdf</a> ) See: <a href="#">Rabies Specimen Collection &amp; Shipping Instructions</a> See: <a href="#">Rabies Shipping Label</a> ( <a href="http://www.dhss.alaska.gov/dph/Labs/Documents/publications/Rabies_label.pdf">http://www.dhss.alaska.gov/dph/Labs/Documents/publications/Rabies_label.pdf</a> )
<b>Results</b>	Rabies Virus <span style="float: right;">Positive/Negative</span>
<b>Turnaround Time</b>	1-4 days

<b>Test</b>	<h1>Reference Bacterial Culture</h1>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Test Method</b>	Culture and identification
<b>Special Conditions</b>	If referring potential bioterrorism agent specimen for testing, please contact the Alaska State Public Health Laboratory – Anchorage.
<b>Specimen</b>	Isolated organism
<b>Storage/Transport</b>	Ambient temperature Package and label as Biological Substance, Category B.
<b>Results</b>	Organism identified (genus and species)
<b>Turnaround Time</b>	7-10 days

<b>Test</b>	<h1>Respiratory Viral Panel (RVP)</h1>											
<b>Testing Lab</b>	Alaska State Virology Laboratory - Fairbanks											
<b>Test Method</b>	Multiplex PCR											
<b>Viral Targets</b>	<b>Associated Disease</b>											
1. RSV A (Can be more serious)	Bronchiolitis & Pulmonary Inflammation											
2. RSV B (Often less severe)												
3. Human Metapneumovirus (hMPV)	Lower Respiratory Disease											
4. Rhinovirus (>100 subtypes)	The Common Cold											
5. Adenovirus group B/E (B subtypes: 3, 7, 11, 14, 16, 21, 34, 35, 50, 55) (E subtype: 4)	Severe Respiratory Disease (Adenovirus groups B & E are indistinguishable by this test)											
6. Adenovirus group C (C subtypes 1, 2, 5, 6, 57)	Respiratory Disease (Usually less severe than Adenovirus groups B/E)											
11-14. Parainfluenza types: 1, 2, 3, 4	Upper & Lower Respiratory Disease											
15-19. Human Coronavirus(HCoV) HKU1, 229E, NL63, OC43	Mild – Moderate Respiratory Disease											
<b>Specimen</b>	<p><b>Preferred specimen: Nasopharyngeal (NP)</b></p> <p>Acceptable specimens:</p> <table style="width: 100%; border: none;"> <tr> <td>Nasopharyngeal Swab(NP)</td> <td>Tracheal Aspirate (TA)</td> <td>Dual (NP/TS )</td> </tr> <tr> <td>Nasal Swab (NS)</td> <td>Nasal Aspirate (NA)</td> <td>Nasal Wash (NW)</td> </tr> <tr> <td>Bronchoalveolar Lavage (BL)</td> <td>Lung Tissue (LT)</td> <td>Bronchial Wash (BW)</td> </tr> </table> <p><i>**Swabs: use synthetic material swabs only – cotton or calcium-alginate tips and wooden or metal shafts are <u>not</u> acceptable</i></p>			Nasopharyngeal Swab(NP)	Tracheal Aspirate (TA)	Dual (NP/TS )	Nasal Swab (NS)	Nasal Aspirate (NA)	Nasal Wash (NW)	Bronchoalveolar Lavage (BL)	Lung Tissue (LT)	Bronchial Wash (BW)
Nasopharyngeal Swab(NP)	Tracheal Aspirate (TA)	Dual (NP/TS )										
Nasal Swab (NS)	Nasal Aspirate (NA)	Nasal Wash (NW)										
Bronchoalveolar Lavage (BL)	Lung Tissue (LT)	Bronchial Wash (BW)										
<b>Collection</b>	<p><b>Collection materials are available upon request; instructions below:</b></p> <ul style="list-style-type: none"> <li>• Swab: place swab into UTM and break swab <b>below</b> lid line</li> <li>• Wash or lavage: aseptically transfer no more than 3 ml to UTM</li> <li>• Lung tissue: transfer a pea sized piece (about 1 gram) into UTM</li> <li>• Be sure the cap is twisted down completely.</li> <li>• Place UTM inside the biohazard bag; put Lab Request in outer pocket</li> </ul> <p><a href="#">Click here for detailed collection instructions.</a></p>											
<b>Storage &amp; Transport</b>	<ul style="list-style-type: none"> <li>• Store the specimens in your refrigerator until ready to ship</li> <li>• Pack samples on cool packs to preserve viral integrity</li> <li>• Ship as a Biological Substance Category B UN3373</li> <li>• If you are in an outlying area: <ul style="list-style-type: none"> <li>✓ Use the pre-addressed <b>Priority</b> Mail Labels provided</li> <li>✓ Mail Monday or Tuesday to avoid weekends at the Post Office</li> </ul> </li> </ul>											
<b>Result (for each viral target)</b>	<p><b>Not Detected:</b> Viral nucleic acid was not detected.</p> <p><b>Positive:</b> Viral nucleic acid was detected.</p>											
<b>Turnaround Time (TAT)</b>	1-3 days after receipt at ASVL											

<b>Test</b>	<b>Rhinovirus</b>
	See <a href="#">Respiratory Viral Panel (RVP)</a>

<b>Test</b>	<b>Ricin</b>	
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage	
<b>Disease(s)</b>	Ricin poisoning	
<b>Agent</b>	Toxin from <i>Ricinus communis</i> (castor bean plant)	
<b>Availability</b>	Consult with the Section of Epidemiology 907-269-8000 during business hours or 1-800-478-0084 during non-business hours.  Contact the ASPHL prior to submitting samples 907-334-2100.	
<b>Specimen</b>	Environmental samples	
<b>Storage/ Transport</b>	Store refrigerated. Ship with cool packs. Ambient temperature shipping is acceptable. Package and label as Biological Substance, Category B.	
<b>Results</b>	Ricin Toxin	Not Detected/Detected
	<i>Ricin communis</i> DNA	Not Detected/Detected
<b>Turnaround Time</b>	2-4 days	

<b>Test</b>	<b>Ricinine</b>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Agents</b>	Ricinine marker for ricin toxin
<b>Test Method</b>	Liquid Chromatography/Tandem Mass Spectrometry
<b>Availability</b>	Contact the Alaska State Public Health Laboratory – Anchorage prior to submitting specimens 907-334-2100 during business hours or after hours on-call pager (855)222-0951.
<b>Specimen</b>	Urine
<b>Collection</b>	Submit urine in sterile 50 mL conical tube.
<b>Transport</b>	Store refrigerated. Ship with cool packs.
<b>Results</b>	A quantitative concentration will be reported.

<b>Test</b>	<b>Respiratory Syncytial Virus (RSV)</b>
	See <a href="#">Respiratory Viral Panel (RVP)</a>

<b>Test</b>	<b>RPR (Rapid Plasma Reagin)</b>
	See Syphilis screen

Test	<h1>Rubella</h1>
<b>Testing Lab</b>	Alaska State Virology Laboratory - Fairbanks
<b>Disease(s)</b>	Rubella, German measles, Congenital Rubella Syndrome.
<b>Organism(s)</b>	Rubella Virus
<b>Test Method</b>	<p><b>Serology</b> (Rubella IgG Antibody)</p> <ol style="list-style-type: none"> <li>This test is used to determine immune status.</li> <li>The test is performed at ASVL by EIA.</li> </ol> <p><b>PCR</b> (Rubella Virus Nucleic Acid)</p> <ol style="list-style-type: none"> <li>This test is used to determine active infection.</li> <li>Testing will be performed at a CDC contract lab.</li> </ol>
<b>Specimen</b>	<p><b>Serology</b></p> <ul style="list-style-type: none"> <li>Centrifuged serum in SST (serum separator tubes – tiger top, marble top or yellow top without additives); <b>1 mL minimum</b></li> </ul> <p><b>PCR</b></p> <ol style="list-style-type: none"> <li>Throat Swab (TS)</li> <li>Nasopharyngeal Swab (NP)</li> </ol> <p><i>(Swabs: use synthetic material swabs only – cotton or calcium-alginate tips and wooden or metal shafts are <u>not</u> acceptable)</i></p>
<b>Storage/Transport</b>	<p><b>Serology</b></p> <ul style="list-style-type: none"> <li>Store refrigerated or frozen; indicate date frozen (if applicable) on requisition</li> <li>Ship on frozen packs (preferred) or cold packs</li> <li><i>Ambient temperature shipping is not recommended per reagent manufacturer guidelines</i></li> </ul> <p><b>PCR</b></p> <ol style="list-style-type: none"> <li>Ship inoculated UTM to ASVL on cool packs (4°C).</li> <li>ASVL will overnight the sample to the CDC Contract Lab.</li> </ol>
<b>Results</b>	<p><b>Serology</b></p> <ol style="list-style-type: none"> <li><i>Negative</i>: No significant level of detectable antibody. Presumed to be susceptible to primary infection.</li> <li><i>Equivocal</i>: A borderline result. Result falls w/in <math>\pm 10\%</math> of the positive threshold. Resubmission may be indicated.</li> <li><i>Positive</i>: Indicates immunity by vaccination or infection.</li> </ol> <p><b>PCR</b></p> <ol style="list-style-type: none"> <li>Not Detected <ul style="list-style-type: none"> <li>Rubella Virus nucleic acid was not detected.</li> </ul> </li> <li>Detected <ul style="list-style-type: none"> <li>Rubella Virus nucleic acid was detected.</li> </ul> </li> </ol>
<b>Turnaround Time</b>	<p><b>Serology:</b> 7-10 days</p> <p><b>PCR:</b> 2 days from date of receipt at CDC Contract Lab.</p>

Test	<h1>Rubeola (Measles)</h1>
<b>Testing Lab</b>	Alaska State Virology Laboratory - Fairbanks
<b>Disease(s)</b>	Measles, Rubeola
<b>Organism(s)</b>	Rubeola Virus
<b>Test Method</b>	<p><b>Serology</b> (Rubeola IgG Antibody)</p> <ol style="list-style-type: none"> <li>This test is used to determine immune status.</li> <li>The test is performed at ASVL by EIA.</li> </ol> <p><b>PCR</b> (Rubeola Virus Nucleic Acid)</p> <ol style="list-style-type: none"> <li>This test is used to determine active infection.</li> <li>Testing will be performed at a CDC contract lab.</li> </ol>
<b>Specimen</b>	<p><b>Serology</b></p> <ul style="list-style-type: none"> <li>Centrifuged serum in SST (serum separator tube – tiger top, marble top or yellow top without additives); 1 mL minimum</li> </ul> <p><b>PCR</b></p> <ol style="list-style-type: none"> <li>Nasopharyngeal Swab (NP) - preferred</li> <li>Throat Swab (TS) <i>(Swabs: use synthetic material swabs only – cotton or calcium-alginate tips and wooden or metal shafts are <u>not</u> acceptable)</i></li> <li>Urine: 20-100mL in clean/sterile leak-proof container (not in UTM)</li> </ol>
<b>Storage/Transport</b>	<p><b>Serology</b></p> <ul style="list-style-type: none"> <li>Store refrigerated or frozen; indicate date frozen (if applicable) on requisition</li> <li>Ship on frozen packs (preferred) or cold packs</li> <li><i>Ambient temperature shipping is not recommended per reagent manufacturer guidelines</i></li> </ul> <p><b>PCR</b></p> <ol style="list-style-type: none"> <li>Ship inoculated UTM to ASVL on cool packs (4°C).</li> <li>ASVL will overnight the sample to the CDC Contract Lab.</li> </ol>
<b>Results</b>	<p><b>Serology</b></p> <ol style="list-style-type: none"> <li><i>Negative</i>: No significant level of detectable antibody. Presumed to be susceptible to primary infection.</li> <li><i>Equivocal</i>: A borderline result. Result falls w/in <math>\pm 10\%</math> of the positive threshold. Resubmission may be indicated.</li> <li><i>Positive</i>: Indicates immunity by vaccination or infection.</li> </ol> <p><b>PCR</b></p> <ol style="list-style-type: none"> <li>Not Detected <ul style="list-style-type: none"> <li>Rubeola Virus nucleic acid was not detected.</li> </ul> </li> <li>Detected <ul style="list-style-type: none"> <li>Rubeola Virus nucleic acid was detected.</li> </ul> </li> </ol>
<b>Turnaround Time</b>	<p><b>Serology:</b> 7-10 days</p> <p><b>PCR:</b> 2 days from date of receipt at CDC Contract Lab.</p>

<b>Test</b>	<h2><i>Salmonella</i> Serotyping</h2>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Salmonellosis
<b>Organism(s)</b>	<i>Salmonella</i> species
<b>Test Method</b>	Culture and Serotyping
<b>Specimen</b>	Pure culture isolate Stool in ETM (see <a href="#">Enteric Stool Culture</a> )
<b>Storage/ Transport</b>	Ambient temperature Package and label as Biological Substance, Category B
<b>Results</b>	<i>Salmonella</i> serotype Example: <i>Salmonella</i> sero. Enteritidis
<b>Turnaround Time</b>	2-7 days
<b>Notes</b>	Laboratories should send all suspected and/or confirmed isolates to ASPHL for confirmation and epidemiological studies.

<b>Test</b>	<h2>Shiga-toxin testing (STEC)</h2>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Hemolytic Uremic Syndrome (HUS), bloody stool
<b>Organism(s)</b>	Shiga-toxin (I,II) producing <i>Escherichia coli</i> (STEC), <i>E. coli</i> O157, Enterohemorrhagic <i>E. coli</i> (EHEC)
<b>Test Method</b>	EIA (Meridian EHEC)
<b>Specimen</b>	Stool in ETM (see <a href="#">Enteric Stool Culture</a> ) GN Broth (Gram negative/MacConkey's broth)
<b>Storage/ Transport</b>	Ambient temperature
<b>Results</b>	Shigatoxin (I,II) <span style="float: right;">Positive/Negative</span>
<b>Turnaround Time</b>	5 days
<b>Notes</b>	Laboratories should send all suspected and/or confirmed isolates to ASPHL for confirmation and epidemiological studies.  Refer to Epidemiology Bulletin: <a href="http://www.epi.hss.state.ak.us/bulletins/docs/b2009_08.pdf">Characteristics of Shiga-Toxin Producing Escherichia coli (STEC) Isolates – Alaska, June 2007 to December 2008 (http://www.epi.hss.state.ak.us/bulletins/docs/b2009_08.pdf)</a>

<b>Test</b>	<h2>Shigella Serotyping</h2>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Shigellosis
<b>Organism(s)</b>	<i>Shigella dysenteriae</i> , Serogroup A <i>Shigella flexneri</i> , Serogroup B <i>Shigella boydii</i> , Serogroup C <i>Shigella sonnei</i> , Serogroup D
<b>Test Method</b>	Culture and Serotyping
<b>Specimen</b>	Pure culture isolate Stool in ETM (see <a href="#">Enteric Stool Culture</a> )
<b>Storage/ Transport</b>	Ambient temperature Package and label as Biological Substance, Category B* *Exception: Confirmed isolates of <i>Shigella dysenteriae</i> , Serogroup A must be shipped as Biological Substance Category A.
<b>Results</b>	No <i>Shigella</i> species isolated <i>Shigella dysenteriae</i> , Serogroup A <i>Shigella flexneri</i> , Serogroup B <i>Shigella boydii</i> , Serogroup C <i>Shigella sonnei</i> , Serogroup D
<b>Turnaround</b>	2-4 days
<b>Notes</b>	Laboratories should send all suspected and/or confirmed isolates to ASPHL for confirmation and epidemiological studies.

<b>Test</b>	<h2>Strep Screen (Group A)</h2>	
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage	
<b>Disease(s)</b>	Strep Throat, pharyngitis	
<b>Organism(s)</b>	<i>Streptococcus pyogenes</i> (Grp A)	
<b>Test Method</b>	Culture and Serotyping	
<b>Specimen Collection</b>	Throat swab in Amies Transport	
<b>Storage/ Transport</b>	Ambient temperature	
<b>Results</b>	<i>Streptococcus pyogenes</i> (Grp A)	Isolated/Not Isolated
<b>Turnaround Time</b>	2-4 days	

<b>Test</b>	<b>Streptococcus Isolates (Invasive Disease)</b>	
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage	
<b>Disease(s)</b>	Various	
<b>Organism(s)</b>	<i>S. pyogenes</i> , <i>S. agalactiae</i> , <i>S. pneumoniae</i>	
<b>Test Method</b>	Culture/Serotyping	
<b>Specimen</b>	Isolated organism	
<b>Storage/ Transport</b>	Ambient temperature	
<b>Results</b>	<i>S. pyogenes</i> <i>S. agalactiae</i> <i>S. pneumoniae</i> Typing for uncommon serotypes referred to CDC.	Isolated/Not Isolated Isolated/Not Isolated Isolated/Not Isolated
<b>Turnaround Time</b>	2-4 days	
<b>Notes</b>	<p>Laboratories should send all suspected and/or confirmed isolates from sterile sites (e.g. blood, CSF) to ASPHL for confirmation and epidemiological studies.</p> <p>Samples may be sent directly to CDC Arctic Investigations for testing. Contact information: 907-729-3200. Samples are shared between the two labs.</p>	

<b>Test</b>	<b>Syphilis Screen – Rapid Plasma Reagin (RPR)</b>	
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage	
<b>Disease(s)</b>	Syphilis, Neuro-syphilis	
<b>Organism(s)</b>	<i>Treponema pallidum</i>	
<b>Test Method</b>	Charcoal agglutination	
<b>Specimen</b>	Serum 2–5 ml	
<b>Storage/ Transport</b>	<p>Store refrigerated. Freeze sample if delay in testing is anticipated. Ship ambient temperature.</p> <p>FTA confirmatory testing requires samples to be frozen within 7 days of collection, a new sample may be required for reactive samples if storage conditions are not met.</p>	
<b>Results</b>	<p>RPR: Reactive (with Dilutions)/Nonreactive</p> <p>FTA-ABS automatically performed on Reactive RPRs</p>	
<b>Turnaround Time</b>	1-2 days	

Test	<h1>Toxic Alcohols &amp; Glycols</h1>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Compounds (Alternate Names)</b>	acetone, isopropanol (2-propanol, isopropyl alcohol, rubbing alcohol), methanol (methyl alcohol, wood alcohol), ethanol (ethyl alcohol), ethylene glycol (1,2-ethane diol, antifreeze)
<b>Test Method</b>	Gas Chromatography/Mass Spectrometry. This is a two-step panel. Simple alcohols are completed first, followed by a separate glycol analysis. All compounds are tested during initial case evaluation. If follow-up testing is requested, only compounds previously reported positive are tested.
<b>Availability of Testing</b>	Test is performed to support hospital emergency department determinations of Toxic Alcohol/Ethylene Glycol exposure. This test is not for routine evaluation of ethanol or acetone. Testing is available 24/7 by calling the emergency on-call #: 907-222-0951 or 855-222-0951. Follow prompts to be connected to on-call chemistry staff.
<b>Specimen</b>	Whole Blood
<b>Specimen Collection</b>	Preferred Volume: 4 mL Whole Blood. Minimum volume: 2 mL Whole Blood. Preferred Tube: One 4 mL Gray top w/anticoagulant (Potassium Oxalate/Sodium Fluoride or Na <sub>2</sub> EDTA/Sodium Fluoride) Alternate Tube: Lavender (K <sub>2</sub> EDTA) Serum Separator Tubes are not acceptable.
<b>Storage/Transport</b>	Store refrigerated. Anchorage Area (including Mat-Su): Ship at ambient temperature. Outside Anchorage: Ship on cold pack if transport will take longer than 12 hrs. Contact on-call staff with Airbill number and carrier.
<b>Results</b>	A quantitative concentration will be reported. Critical values are provided with report. Results are called in and faxed. The Alaska Poison Control Center is notified of positive results and is able to provide follow-up toxicology assistance.
<b>Turnaround Time</b>	Test panel is complete 2-3 hours from receipt of sample.

<b>Test</b>	<b><i>Trichomonas</i> (NAAT)</b>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Trichomonas, Trichomoniasis
<b>Organism(s)</b>	<i>Trichomonas vaginalis</i> (TV)
<b>Test Method</b>	Nucleic Acid Amplification (NAAT). Target Mediated Amplification (TMA) for the detection of ribosomal RNA (rRNA) from <i>Trichomonas vaginalis</i> .
<b>Availability</b>	<b>For females only</b> Please contact ASPHL at 907-344-2100 to set up an account for testing. There is a \$25 fee per specimen for testing.
<b>Specimen</b>	Urine Vaginal Endocervical
<b>Specimen Collection</b>	Gen-Probe APTIMA Combo2 Transport Tubes: Urine Collection Kit (yellow kit): <ul style="list-style-type: none"> <li>• First catch urine must be added to transport within 24 hours of collection.</li> </ul> Vaginal Swab Collection Kit (orange kit): <ul style="list-style-type: none"> <li>• Follow instruction provided in kit</li> </ul> Unisex Swab Collection Kit (white kit): <ul style="list-style-type: none"> <li>• Used for Endocervical specimens</li> <li>• Add swabs to transport immediately.</li> <li>• Do not submit white shafted cleaning swabs for testing.</li> </ul>
<b>Special Conditions</b>	<b>Not a test of cure.</b> Tests that are performed less than 4-6 weeks after completion of therapy might be falsely positive due to the presence of nonviable organisms.
<b>Storage/Transport</b>	Ambient temperature Urine specimens must be tested within 30 days of collection, swab specimens within 60 days.
<b>Results</b>	<i>Trichomonas vaginalis</i> Positive/Negative
<b>Turnaround Time</b>	7 days

Test	<h1>Varicella Zoster</h1>	
<b>Testing Lab</b>	Alaska State Virology Laboratory - Fairbanks	
<b>Disease(s)</b>	Chickenpox, Herpes Zoster, Varicella, Shingles	
<b>Organism(s)</b>	Varicella-Zoster Virus (VZV)	
<b>Test Method</b>	<p><b>Serology</b> (VZV IgG Antibody)</p> <ol style="list-style-type: none"> <li>1. This test is used to determine immune status.</li> <li>2. The test is performed at ASVL by EIA.</li> </ol> <p><b>PCR</b> (VZV Nucleic Acid)</p> <ol style="list-style-type: none"> <li>1. This test is used to determine active infection.</li> <li>2. Testing will be performed at a CDC contract lab.</li> </ol>	
<b>Specimen</b>	<p><b>Serology</b></p> <ul style="list-style-type: none"> <li>• Centrifuged serum in SST (serum separator tubes - tiger top, marble top or yellow top with no additives); 1 mL minimum</li> </ul> <p><b>PCR</b></p> <ol style="list-style-type: none"> <li>1. Scabs and/or</li> <li>2. Vesicular lesion swabs in a dry, sterile container.</li> </ol> <p><b>PLEASE NOTE:</b> <i>Do not place scabs or swabs for VZV into UTM. They should be kept dry, in a clean container. Skin lesion swab should be placed in a separate container from the scab.</i>  <i>(Swabs: use synthetic material swabs only – cotton or calcium-alginate tips and wooden or metal shafts are <u>not</u> acceptable )</i></p>	
<b>Storage/ Transport</b>	<p><b>Serology</b></p> <ul style="list-style-type: none"> <li>• Store refrigerated or frozen; indicate date frozen (if applicable) on requisition</li> <li>• Ship on frozen packs (preferred) or cold packs</li> <li>• <i>Ambient temperature shipping is not recommended per reagent manufacturer guidelines</i></li> </ul> <p><b>PCR</b></p> <ol style="list-style-type: none"> <li>1. Ship specimens to ASVL at ambient temperature.</li> <li>2. ASVL will overnight the sample to the CDC Contract Lab.</li> </ol>	
<b>Results</b>	<p><b>Serology</b></p> <ol style="list-style-type: none"> <li>1. <i>Negative:</i> No significant level of detectable antibody. Presumed to be susceptible to primary infection.</li> <li>2. <i>Equivocal:</i> A borderline result. Result falls w/in <math>\pm 10\%</math> of the positive threshold. Resubmission may be indicated.</li> <li>3. <i>Positive:</i> Indicates immunity by vaccination or infection.</li> </ol> <p><b>PCR</b></p> <ol style="list-style-type: none"> <li>1. Not Detected <ul style="list-style-type: none"> <li>• VZV nucleic acid was not detected.</li> </ul> </li> <li>2. Detected <ul style="list-style-type: none"> <li>• VZV nucleic acid was detected.</li> </ul> </li> </ol>	
<b>Turnaround Time</b>	<p><b>Serology:</b> 7-10 days</p> <p><b>PCR:</b> 2 days from date of receipt at CDC Contract Lab.</p>	

<b>Test</b>	<b><i>Vibrio</i> species</b>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Rice water diarrhea, gastroenteritis
<b>Organism(s)</b>	<i>Vibrio cholerae</i> , <i>V. parahemolyticus</i> , <i>V. fluvialis</i> , <i>V. furnissii</i> , <i>V. mimicus</i> , <i>V. hollisae</i>
<b>Test Method</b>	Culture and Serotyping
<b>Specimen</b>	Stool in ETM (see <a href="#">Enteric Stool Culture</a> )
<b>Special Conditions</b>	Specimen should not be contaminated with water, urine, barium, antibiotics or mineral oil.
<b>Specimen Collection</b>	<ol style="list-style-type: none"> <li>1. Collect stool in clean dry container or on plastic wrap stretched across toilet.</li> <li>2. <b>Sample must be placed into ETM within one hour of sample collection.</b></li> <li>3. Carefully open ETM, use scoop mounted in lid to place approximately a walnut size amount of stool in to transport. Add enough stool to fill exactly to <b>red fill line</b>. Do not overfill.</li> </ol>
<b>Storage/Transport</b>	Ambient temperature Package and label as Biological Substance, Category B
<b>Results</b>	Not isolated <i>Vibrio</i> species: <i>Vibrio cholerae</i> , <i>V. parahemolyticus</i> , <i>V. fluvialis</i> , <i>V. furnissii</i> , <i>V. mimicus</i> , <i>V. hollisae</i>
<b>Turnaround Time</b>	2-7 days
<b>Notes</b>	Laboratories should send all suspected and/or confirmed isolates to ASPHL for confirmation and epidemiological studies.



<b>Test</b>	<i>Yersinia pestis</i>
<b>Testing Lab</b>	Alaska State Public Health Laboratory - Anchorage
<b>Disease(s)</b>	Plague; disease forms: Bubonic, pneumonic, or septicemic.
<b>Organism(s)</b>	<i>Yersinia pestis</i>
<b>Availability</b>	Consultation with the Section of Epidemiology 907-269-8000 during business hours or 1-800-478-0084 after hours.  Contact the ASPHL prior to submitting samples 907-334-2100.
<b>Specimen</b>	Organism isolate, bronchial wash, tracheal aspirate, sputum, nasopharyngeal swab, lymph node aspirate, serum, lesion exudates, tissue smears, blood, environmental samples
<b>Specimen Collection</b>	Refer to <a href="http://www.asm.org/index.php/guidelines/sentinel-guidelines">ASM Sentinel Level Clinical Microbiology Guidelines (http://www.asm.org/index.php/guidelines/sentinel-guidelines)</a> . Contact the ASPHL with questions: 334-2100
<b>Storage/Transport</b>	Store refrigerated. Ship with cool packs. Ambient temperature shipping is acceptable. Package and label as Biological Substance, Category B, ship as quickly as possible.
<b>Results</b>	Presumptive/ Confirmatory <i>Y. pestis</i> detected/ not detected
<b>Turnaround Time</b>	3-5 days

# Botulism Detailed Collection Instructions

Botulism testing at ASPHL is for confirmation of the presence of botulinum neurotoxin or toxin-producing Clostridia. If botulism is suspected, contact the Section of Epidemiology (907-269-8000) immediately for consultation on patient treatment.

Botulinum neurotoxin is detected in the laboratory in clinical specimens or suspect food samples. Specimens from patients treated with the heptavalent botulinum antitoxin (HBAT) will be tested.

## **Specimens for Botulism testing include;**

### **Pre-antitoxin serum 10 mL Minimum**

It is critical that 20 mL of blood be drawn prior to the administration of HBAT. The time the HBAT is given is required on the Anchorage Lab Request form. Be certain the actual time of blood draw appears on the tubes and Anchorage Lab Request form.

### **Stool 10 g Minimum**

Please collect stool as soon as possible. Package without transport media. Ten grams is about the size of a walnut.

### **Gastric Contents 20 mL Minimum**

Please collect gastric contents in sterile leak-proof container.

### **Food 10 mL oil or 10 g of solid material Minimum**

Leave food in original containers if possible. Package in sterile leak-proof containers.

All samples must be:

Clearly labeled

Placed in a leak-proof container

Sealed with parafilm (please use duct tape for sealing oil samples)

Placed in a sealable plastic bag with absorbent material

Placed in second sealable plastic bag with completed Anchorage Lab Request form

Package as Biological Substance Category B specimen according to all current shipping regulations

Ship independently of other specimens for testing

## **Send Botulism samples to:**

### **SPECIAL PATHOGENS**

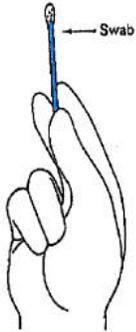
**Alaska State Public Health Laboratory**

**5455 Dr. Martin Luther King Jr. Ave.**

**Anchorage, AK 99507**

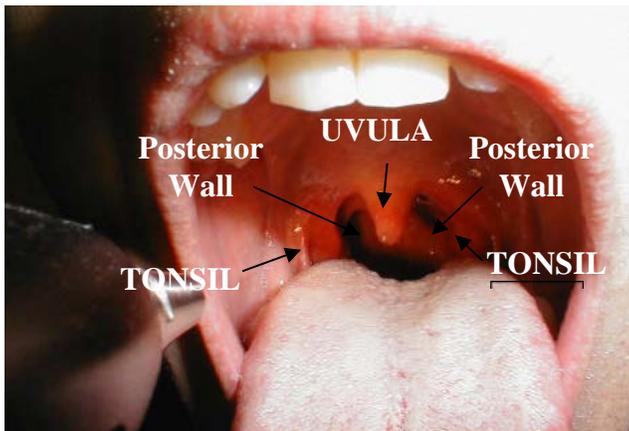
**Call ASPHL at 907-334-2100 before shipping**

# Chlamydia & Gonorrhea Pharyngeal Swab Collection Instructions



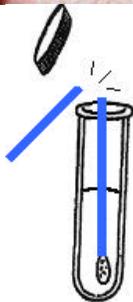
## **STEP 1**

Open UNISEX kit (white) and remove tube and package with green writing. Remove the swab with the **BLUE** shaft. **USE BLUE SHAFT SWAB ONLY.**



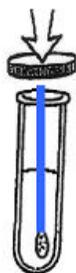
## **STEP 2**

Instruct patient to open mouth widely. Be sure to make good contact with 5 key areas of the throat.



## **STEP 3**

Remove cap from test tube. Place swab in test tube. Do not puncture the foil cap. Break swab shaft at the score mark.



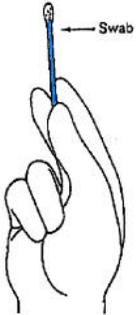
## **STEP 4**

Put the cap back tightly on test tube to prevent any leaking. Try not to splash the liquid out of the tube

## **STEP 5**

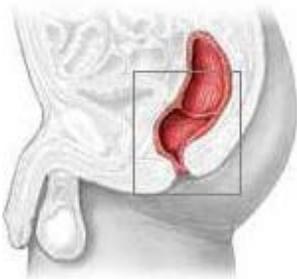
Discard wrapper and unused tube. Label tube with patient's name and specimen source.

# Chlamydia & Gonorrhea Rectal Swab Collection Instructions



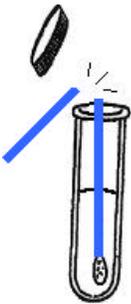
## **STEP 1**

Open UNISEX kit (white) and remove tube and package with green writing. Remove the swab with the **BLUE** shaft. **USE BLUE SHAFT SWAB ONLY.**



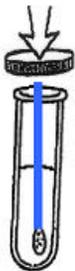
## **STEP 2**

Insert swab 1 inch into the anus and turn for 5-10 seconds. If needed, before inserting swab, wet swab with water or saline solution.



## **STEP 3**

Remove cap from test tube. Place swab in test tube. Do not puncture the foil cap. Break swab shaft at the score mark.



## **STEP 4**

Put the cap back tightly on test tube to prevent any leaking. Try not to splash the liquid out of the tube

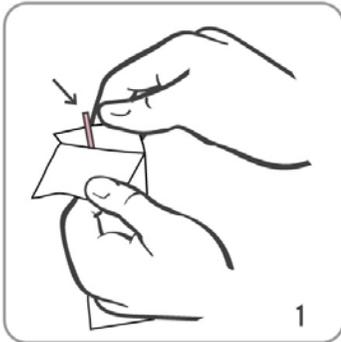
## **STEP 5**

Discard wrapper and unused tube. Label tube with patient's name and specimen source.

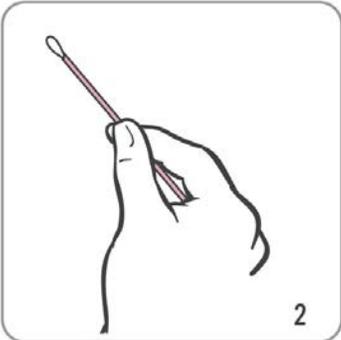
# Chlamydia & Gonorrhea Vaginal Swab Collection Instructions (for patients)

*Note: If you have any questions about this procedure, please ask your care-provider.*

1. Wash your hands before starting.
2. Read these instructions carefully.
3. Open the kit package (orange) and set the tube in the cup or rack provided before beginning.
4. It is very important that the fluid in the tube does not spill. If it does spill, please ask for a new tube.



**1**  
Partially peel open and remove the swab.



**2**  
Hold the swab as shown, placing your thumb and forefinger in the middle of the swab shaft.



**3**  
Carefully insert the swab into your vagina about 2 inches inside the opening of the vagina and gently rotate the swab for 10 to 30 seconds. Make sure the swab touches the walls of the vagina so that moisture is absorbed by the swab.



**4**

Withdraw the swab without touching the skin.  
Unscrew the cap from the tube.  
Do not spill the contents of the tube.  
Do not touch the soft tip.



**5**

Immediately place the swab into the transport tube so that the tip of the swab is visible below the tube label.



**6**

Carefully break the swab shaft at the score line against the side of the tube.



**7**

Discard the top portion of the swab.



**8**

Tightly screw the cap onto the tube. Return the tube as instructed by your care-provider.

# Interpretation of Hepatitis Results

## Serological Pattern of Reactivity

NOTE: A **BORDERLINE** result on any assay indicates marginal detection. This specimen falls within  $\pm$  10% of the positive threshold. A follow-up specimen may be resubmitted in 2-3 weeks.

### HEPATITIS A

HAV Total Ab	HAV IgM	Interpretation
Non-reactive		No immunity
Reactive	Non-Reactive	Immunity via HAV exposure or immunization
Reactive	Reactive	Acute HAV infection or recent immunization

### HEPATITIS B

HBcAb	HBsAb	HBsAg	HBcIgM	Interpretation
Non-Reactive				No prior HBV infection
Non-Reactive	Non-Reactive			No immunity
Non-Reactive	Reactive			Immune via vaccination; Titer >10mIU/mL
Reactive	Reactive	Non-Reactive		Immune via prior resolved infection
Reactive	Non-Reactive	Non-Reactive		Convalescent window, or loss of HBsAb from resolved infection, or possible low grade chronic* infection
Non-Reactive	Non-Reactive	Reactive		Early infection
Reactive	Non-Reactive	Reactive	Reactive	Acute HBV infection
Reactive	Non-Reactive	Reactive	Non-Reactive	Chronic* HBV infection
Reactive	Reactive	Reactive	React/Non-React	Resolving Infection

\*HBV infection is considered to be chronic when HBsAg remains Reactive for 6(six) months **or longer**.

# Interpretation of Hepatitis C Results

HCV Antibody Result	Interpretation
Non-reactive	HCV infection not indicated. If recent infection is suspected, retest in 6-7 weeks
Reactive	HCV Infection Indicated, reflexes to HCV Genotype test

HCV Genotype Result		Interpretation
HCV RNA, Qualitative	HCV Genotype	
Detected	Type 1, Subtype 1a	Valid Genotype Result
	Type 1, Subtype 1b	
	Type 2, Subtype 2a/c	
	Type 2, Subtype 2b	
	Type 3	
	Type 4	
	Type 5	
	Type 6	
	<i>Any one or combination of types may be obtained</i>	
Detected	Not Detected	HCV RNA, is detected, but a genotype cannot be determined due to low virus titers (<1000 IU/mL).
Detected	Unable to Genotype	Unable to determine HCV Genotype. Possible causes include, but are not limited to: Specimen contamination or degradation; poor recovery or amplification of extracted specimen; transient low viremia of HCV infection; a novel or partial genotype/subtype pattern is detected. <b><i>A new specimen is recommended.</i></b>
Not Detected	Not Detected	HCV RNA, could not be detected due to absence of RNA, or low virus titers (<100 IU/mL).

HCV Genotyping has been performed using the GenMark eSensor HCVg Direct Test Assay. This test has not been cleared or approved by the FDA. The performance characteristics for detecting mixed infections have not been established by the manufacturer. This assay, however, has been validated by the Alaska State Virology Laboratory using good laboratory practices, and detection of multiple targets was demonstrated.

# Herpes Type 1 and Type 2 IgG Antibody

## Supplemental Information

HSV-1 Result	HSV-2 Result	Interpretation
Non-reactive	Non-reactive	No IgG antibodies to HSV were detected
Reactive	Non-reactive	Presumptive for IgG antibodies to HSV-1
Non-reactive	Reactive	Presumptive for IgG antibodies to HSV-2
Reactive	Reactive	Presumptive for IgG antibodies to HSV-1 and HSV-2
Equivocal	Non-reactive	Borderline result (falls within $\pm$ 10% of positive threshold). A follow-up specimen may be resubmitted in 4-12 weeks
Equivocal	Equivocal	
Non-reactive	Equivocal	

### **Result Notes:**

1. This test is indicated for sexually active adults or expectant mothers to aid in the presumptive diagnosis of HSV infection.
2. Performance of this EIA assay has not been established for use in pediatric populations, for neonatal screening, or for testing immunocompromised patients.
3. This test is not intended to replace viral isolation and should not be used as the sole basis for diagnosing infection. Reactive results are presumptive, and should be confirmed by another method.
4. This test does not indicate the site of infection. A single reactive result only indicates previous exposure, may not be used to determine active infection or disease stage, and does not imply immunity.
5. Non-reactive results do not rule out HSV infection. The time required to seroconvert following primary infection varies with the individual. Non-reactive results in suspected early herpes simplex disease should be repeated in 4-12 weeks, or tested by another method.
6. Equivocal results should be repeated in 4-12 weeks or tested by another method.
7. Since maternal antibody is passively transferred from the mother to the fetus before birth, reactive results in newborns must be interpreted cautiously. A definitive diagnosis requires viral isolation.

# Human Immunodeficiency Virus (HIV)

## Supplemental Information

All reactive HIV results will be reported to State of Alaska Section of Epidemiology. HIV/STD Program staff provide consultation to, and follow up with, clinical service providers on diagnosis and treatment for patients. Please contact Epidemiology at 907-269-8000.

4 <sup>th</sup> Gen HIV Combo EIA Screening	Confirmatory Multispot Differentiation		PCR Reference Testing	Interpretation
Non-Reactive				HIV-1 antigen; HIV-1 antibodies (Groups M and O), and HIV-2 antibodies not detected.
Reactive	Reactive	Non-reactive		Antibodies to HIV-1 detected.
Reactive	Non-reactive	Reactive	Detected/Not detected	Antibodies to HIV-2 detected. Results confirmed by reference laboratory.
Reactive	Reactive	Reactive	Detected/Not detected	Unable to differentiate. Results confirmed by reference laboratory.
Reactive	Non-reactive	Non-reactive	Detected/Not detected	Unable to differentiate. Results confirmed by reference laboratory.

- A non-reactive result does not preclude the possibility of exposure to, or infection with HIV-1 and/or HIV-2.
- Non-reactive results can occur if the quantity of marker present in the specimen is too low for the detection limits of the assay, or if the marker which is detected is not present during the stage of disease in which a specimen is collected.

4th Gen HIV Combo EIA has not been established for individuals younger than 2 years of age.

v013015

# Norovirus Detailed Collection Instructions

Norovirus outbreak testing should be pre-approved by the Section of Epidemiology. Please call the Section of Epidemiology at 907-269-8000 during business hours or 1-800-478-0084 after business hours.

## **Collection of Specimens**

1. Section of Epidemiology will determine the number of specimens that need to be collected (usually 4-6).
2. Raw, loose, stool and vomitus are appropriate specimens to collect.
3. Collect at least 5 mL, preferably 10-50 mL of specimen.
4. Collect specimen in a clean, leak-proof container. Supplies can be obtained from Epidemiology, the Alaska State Virology Laboratory – Fairbanks or Anchorage State Public Health Laboratory.
5. Collection should begin as soon as symptoms appear, ideally within 48-72 hours of onset.
6. **DO NOT** submit samples in universal transport media (UTM).

## **Storage and Transport**

1. Store specimens at 4°C.
2. Complete all information on the norovirus request slip. Paperwork may be obtained from Section of Epidemiology, Alaska State Virology Laboratory – Fairbanks or Anchorage.
3. Specimen containers should be individually sealed and bagged with the appropriate amount of absorbent material. (Roughly two paper towels per 50 ml.)
4. Paperwork should be separated from the specimen.
5. Specimens should be packaged and labeled as Biological Substance, Category B, and shipped in an insulated, waterproof shipping container with cool packs.
6. Arrange with Section of Epidemiology for transportation to:

### **Alaska State Virology Laboratory - Fairbanks**

931 Sheenjek Drive  
Or P.O. Box 60230 if sending by mail service  
Fairbanks, AK 99706-0230  
(907) 371-1000

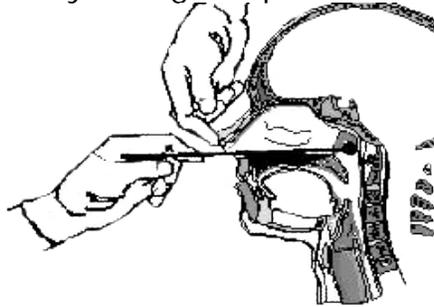
Note: Food, water or environmental samples are not tested. Please refer any further questions to the Alaska State Virology Laboratory – Fairbanks at 907-371-1000.

# Pertussis PCR: Detailed Collection Instructions

**Supplies Needed:** Dacron/Polyester Nasopharyngeal Swab  
(Fisher # 14-906-23, 22-209-50, 23-600-952, 23-600-955 or VWR # 95041-316)  
NO cotton or calcium alginate swabs will be accepted.  
Anchorage Lab Request Form

## Collection Instructions:

1. The nasopharyngeal (NP) swab used for collecting this sample type has a fine wire or plastic shaft.
2. One NP swab is collected for PCR as described below.
3. Remove mucus from the patient's nose.
4. Estimate the distance to the nasopharynx. *Prior to insertion of the swab, measure the distance from the corner of the nose to the front of the ear and insert the shaft ONLY half this length.*
5. Carefully open package containing the NP swab and remove swab for sample collection.
6. Immobilize the patient's head. Have the patient sit with head against a wall as there is a tendency to pull away during this procedure.



7. Gently insert the swab along the medial part of the septum, along the base of the nose, until it reaches the posterior nares. Gently rotating the swab may be helpful in insertion. If resistance is encountered, try the other nostril, as the patient may have a deviated septum.
8. Leave swab in place in nasopharynx for 10 seconds or gently rotate 3 times to acquire columnar epithelial cells and remove swab.
9. Place the NP swab back into tube or paper sleeve.
10. Seal paper sleeve with tape to allow external decontamination without compromise of specimen.
11. Clearly label the paper sleeve or tube containing the swab with patient's name and collection date.
12. Complete the Anchorage Lab Request Form.

## Transport:

1. Place NP swab in the ziploc portion of a specimen transport bag and seal. Place the completed Anchorage Lab Request form in outside pouch.
2. Package as a Biological Substance Category B specimen according to all current shipping regulations and send to the State Public Health Laboratory-Anchorage as soon as possible. If possible, hold NP swab at 4°C until transport. Ship at ambient temperature.

**Note:** Testing is not recommended for patients treated with antibiotics  $\geq$  5 days as false negative results may occur.

# Rabies Specimen Submission Instructions

1. Contact the Section of Epidemiology for authorization before you send a specimen to ASVL for testing.
  - Work hours: 907-269-8000
  - After hours: 800-478-0084
2. Specimens can be submitted by health care providers, veterinarians, environmental health officers, wildlife agents, law officers or other individuals designated by the Section of Epidemiology.
3. Call ASVL before you ship an authorized specimen; tell us how you shipped it and when to expect it.
  - Work hours: 907-371-1000
  - After hours emergency contact: 855-371-1001 option #6

## Conditions of Shipment

4. No living animal will be accepted for rabies testing at ASVL.
5. Small animals; whole carcasses should be submitted: (Example: cats, ferrets, mink, voles, hares and bats)
6. Large animals; only the intact head of a large animal will be accepted. (Example: dogs, wolves, bears)
  - Do not send a whole body
  - Do not attempt to remove the brain

## Prepare and Pack the Specimen

7. Wear appropriate personal protective equipment (PPE) when processing the specimen.
  - If you have any questions about how to safely handle the specimen, consult the Section of Epidemiology.
8. You must surgically separate the head from the body of larger animals at the upper neck.
9. Put the specimen in 2 heavy, waterproof bags.
10. Tie each bag separately to prevent leakage.
11. Appropriately dispose of your contaminated gloves:
  - Preferred – remove your gloves and place them in the 2<sup>nd</sup> plastic bag before you tie it up.
  - Alternative – incinerate them.
12. Wash your hands thoroughly with soap and water.
13. Put the bagged specimen in a leak-proof container and place refrigerant packs around the specimen.
14. Complete the Rabies Investigation Request, place it in a plastic bag and put it in the leak-proof container.
15. Close the container and seal it securely with fibrous packing tape.
16. Specimens should be kept cold (35-45°F = 2-8°C) prior to and during shipment.
  - Ship specimens with cold packs; DO NOT use ice; it will melt during transit and make an unsafe mess.
  - Frozen specimens are acceptable; freezing will not affect the rabies assay although testing may be delayed until the specimen has thawed.
17. The carcass of a potentially infectious animal should be incinerated.
  - ASVL will incinerate the remains of all pets tested for rabies; bodies will not be returned to the owner.

## Label the Container

18. All rabies specimen containers must bear the following label:

<p style="text-align: center;"><b><i>URGENT EXPEDITE</i></b></p> <p style="text-align: center;"><b>BIOLOGICAL SUBSTANCE CATEGORY B: UN 3373</b></p> <p style="text-align: center;">Packaged in compliance with IATA packing (Instruction 650) This Package Contains an Animal Head <b>Keep Refrigerated</b></p> <p style="text-align: center;">Call the Alaska State Virology Laboratory Business Hours: 907-371-1000; After Hours: 855-371-1001 option #6</p>
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You can download this label from the ASPHL website at:

[http://www.dhss.alaska.gov/dph/Labs/Documents/publications/Rabies\\_label.pdf](http://www.dhss.alaska.gov/dph/Labs/Documents/publications/Rabies_label.pdf)

## Decide how you will ship the specimen and address it accordingly

19. We prefer you ship by Goldstreak, or other Air Special Package Service using the address below. ASVL will pick the specimen up at the designated airline location.

<p style="text-align: center;"><b>Alaska State Virology Laboratory</b> 931 Sheenjek Dr. UAF Campus, Fairbanks, AK 99775</p> <p style="text-align: center;">Business Hours: 907-371-1000; After Hours: 855-371-1001 option #6</p>
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20. If you must ship via US Mail, please use Priority or Express Mail and the address below.

<p style="text-align: center;"><b>Alaska State Virology Laboratory</b> P.O. Box 60230 Fairbanks, AK 99706-0230</p> <p style="text-align: center;">Business Hours: 907-371-1000; After Hours: 855-371-1001 option #6</p>
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## Notes:

- Shipments must be **PREPAID** unless prior arrangements have been made with the Section of Epidemiology.
- ASVL will call results to the submitter and the Section of Epidemiology on all **POSITIVE** animal heads and on **ALL HUMAN EXPOSURE** cases within 24-48 hours of specimen receipt.
- A copy of the results will be mailed to the submitter as soon as possible.

**As usual, please feel free to contact ASVL if you have any questions about testing.**

# Stool Culture and Parasitology Detailed Collection Instructions

**Please read all directions first and follow them carefully.**

You have been asked to collect a stool sample for laboratory analysis. The collection set may contain 1 to 4 vials. One of the vials may be empty (contains no liquid).

**1. You will need:**

- Gloves
- A clean, dry container (like a margarine tub) or plastic wrap to stretch across the toilet to collect the stool.
- Transport container(s): Your provider will give you the appropriate containers.
  - Red Top Vial: for Bacteria like *Salmonella* or *Escherichia coli*
  - Yellow and blue Top Vials: for Parasites like *Giardia*
  - Leak Proof container: for Viruses like Norovirus
- Pen or marker to label the transport containers

**2. Please wash your hands before collecting the stool sample.**

- Do not pass the specimen into the toilet.
- Do not pass the specimen directly into the collection vial.
- Do not urinate on the specimen or into the collection vial.
- Do not allow any water to mix with the specimen.

**3. Put on gloves. Stool can contain material that spreads infection.**

**4. Pass stool into a dry container.** Or stretch plastic wrap loosely across the toilet bowl, between the seat and the base to catch the stool.

- Either solid or liquid stool can be collected.
- Samples from babies and young children may be collected from diapers lined with plastic wrap (if the stool is not contaminated with urine).

**5. Carefully open each vial.**

- If the stool is liquid, carefully pour to the fill line indicated on the container.
- If the stool is solid, use the paddle on the container cap to scoop a walnut size amount into the vial.
- If one vial contains no liquid, fill to at least 1/3 of the container.
- Do not overfill the vials!!

**6. Screw the cap tightly** onto the transport container it came from. Shake the sample until the samples are well-mixed with the liquid in the vial.

**7. Remove your gloves and wash your hands.**

**8. Label all of the containers** with the patient's first and last name, date of birth, and the collection date.

**9. Return the transport containers** as directed. Make certain that all the vials are tightly capped to avoid leaks.

# Tuberculosis/*Mycobacterium* Detailed Collection Instructions

- Seal all specimens with Parafilm® (or similar) and store refrigerated. Ship on cool packs.
- Ship samples as Biological substances, Category B as soon as possible.
- Specimens must be received in our laboratory within 10 days of collection.
- DO NOT use waxed containers or urine cups.
- Swabs are NOT recommended for the isolation of Mycobacteria.

## **Sputum:**

Collect early morning specimens from a deep productive cough on three consecutive days, before the patient eats, drinks or takes medication. Use separate collection tube each day.

Have patient rinse their mouth with water prior to collection. Collect **5-10 mL** sputum in sterile 50 ml screw capped tubes containing sodium carbonate preservative. Specimens must be at least 2 mL in volume.

## **Blood:**

10 mL of blood collected in SPS (yellow top) Isolator microbial tube.

## **Bone Marrow:**

10 mL of blood collected in SPS (yellow top) Isolator microbial tube, or Sterile container with sterile saline if isolator tubes are not available.

## **Bronchoalveolar lavage or Bronchial washing:**

At least 5 mL in sterile container. Avoid contaminating bronchoscope with tap water.

## **Bronchial Brush/Brushing:**

Sterile container with sterile saline.

## **Body Fluids (Pleural, peritoneal, synovial, pericardial, etc.):**

Submit at least 10-15 mLs in sterile 50 mL conical tubes.

Add sterile anticoagulant (SPS or heparin) to body fluids if necessary. Do not use preservatives.

## **CSF:**

Submit at least 2 mL in sterile container.

## **Gastric Lavage/Aspirate:**

Collect 5-10 mL of gastric washing in sterile 50 mL conical tube.

Adjust pH to neutral with 100 mg of sodium carbonate immediately following collection and note on requisition form.

## **Stool:**

Submit samples in sterile 50 mL conical tubes.

## **Tissue, aspirate, bone, lymph nodes, biopsy, abscess contents:**

Submit samples in sterile 50 mL conical tubes.

Add sterile saline to cover specimen.

## **Urine:**

Collect first morning, clean catch, mid-stream urine specimens on three consecutive days.

Submit 40-50 ml of urine in a sterile 50 mL sterile crew capped conical tube.

# Instructions for Collecting Sputum Samples

## Why is a Sputum Test Necessary?

- Your doctor needs you to collect a sputum sample to test for tuberculosis (TB) in your lungs. Checking your sputum is the best way to find out if you have TB disease or to see if your treatment is working.
- To collect an acceptable sample you need to cough up sputum from deep inside of your lungs as soon as you wake up in the morning. The lab needs at least 5 mL of sputum.

## How to Collect a Sputum Sample

1. The TB sputum tube must not be opened until you are ready to use it. DO NOT REMOVE preservative (white powder) from the tube.
2. As soon as you wake up in the morning, before you eat or drink, rinse your mouth with WATER.
3. Take a very deep breath and hold air for 5 seconds. Slowly breathe out. Take another deep breath and cough hard until some sputum comes up into your mouth.
4. Spit the sputum into the TB tube.
5. Keep collecting until the sputum reaches the 5 mL line on the TB tube.
6. Screw the orange cap on the tube tightly so it doesn't leak.
7. Wash and dry the outside of the TB tube.
8. Write your NAME, DOB, and the DATE/TIME you collected the sputum on the tube and lab form.
9. Put the tube into the bag provided.
10. Deliver sample(s) to your doctor's office or mail to the laboratory AS SOON AS POSSIBLE. (*Samples must be received at the Anchorage laboratory for testing within 10 days of collection.*)
11. If you need to collect three TB samples, collect them in the morning on three different days. Do not collect more than one per day.

**Alaska State Public Health Laboratory:** 5455 Dr. Martin Luther King Jr. Ave, Anchorage, AK 99507 Phone: (907) 334-2100 Fax: (907) 334-2161

**Alaska Tuberculosis Control Program:** For more information about TB call Epidemiology at (907) 269-8000 or visit their website at: <http://www.dhss.alaska.gov/dph/Epi/id/Pages/tb.aspx>

# MTB PCR Testing Information Sheet

The State of Alaska Public Health Laboratory (ASPHL) developed and characterized a nucleic acid amplification test (NAAT) by real-time polymerase chain reaction (PCR) for use on respiratory specimens for the diagnosis of tuberculosis (TB). This assay has not received clearance by the Food and Drug Administration. The Center for Disease Control and Prevention recommends NAAT be performed on one AFB smear positive respiratory specimen from each patient with signs and symptoms of pulmonary TB for whom a diagnosis of TB is being considered but has not been established, and the test result would alter case management or TB control activities.<sup>1</sup>

The ASPHL will perform NAAT on **initial smear-positive respiratory specimens** if the provider authorizes testing **and** the patient meets the criteria. ASPHL will contact the provider and fax authorization form. Test authorization forms must be completed prior to testing. Additionally, ASPHL will perform MTB PCR testing on **smear-negative specimens** from suspect TB cases on pre-approval from the Alaska Tuberculosis Control Program and provider request.

The cost for testing is \$153 and fees for service will be billed to the facility requesting the specimen.

## Patient Criteria

- Patient must be reported to the Alaska Tuberculosis Control Program as a suspect TB case (907-269-8000)
- Patient must have signs and symptoms of pulmonary TB
- Patient must not have been diagnosed with TB or a Nontuberculous mycobacterial infection or received treatment within the last 12 months

## PCR Testing Algorithm and Result Interpretation

Smear Result	MTB PCR Result	Interpretation
<b>Smear Positive for AFB</b>	<i>Mycobacterium tuberculosis</i> complex DNA detected	This patient is presumed to have Tuberculosis, pending culture results.
	No <i>Mycobacterium tuberculosis</i> complex DNA detected	Use clinical judgment to determine whether to begin therapy while awaiting culture results. A patient is presumed to have an infection with Nontuberculous mycobacteria, pending culture results.
<b>Smear Negative for AFB</b>	<i>Mycobacterium tuberculosis</i> complex DNA detected	Use clinical judgment to determine whether to begin therapy while awaiting culture results. This patient is presumed to have Tuberculosis, pending culture results.
	No <i>Mycobacterium tuberculosis</i> complex DNA detected	Use clinical judgment to determine whether to begin therapy while awaiting results of culture and other diagnostic tests. Currently available PCR tests are not sufficient to exclude the diagnosis of Tuberculosis.
	Unsatisfactory	Insufficient cells collected for valid PCR test result.

<sup>1</sup> CDC. Updated guidelines for the use of nucleic acid amplification tests in the diagnosis of tuberculosis. MMWR 2009; 58:7-10.

*Mycobacterium tuberculosis* complex PCR and culture testing must be correlated with patient history to confirm as a case of *Mycobacterium tuberculosis* complex infection. The IS6110 PCR detects the presence of a specific DNA sequence present in *Mycobacterium tuberculosis* Complex (MTC), which includes *M. tuberculosis*, *M. africanum*, *M. bovis*, *M.bovis BCG*, *M. cannetti*, *M. caprae*, *M. microti*, and *M. pinnipedii*. Results from the IS6110 PCR test are not intended to be used as the sole means for clinical diagnosis or patient management decisions.

### **Collection/Submission of Specimens**

Refer to the Laboratory Test Directory for collection and shipping instructions.

<http://www.dhss.alaska.gov/dph/Labs/Documents/LaboratoryTests.pdf>

### **Contact information**

#### **Alaska Tuberculosis Control Program**

**1-907-269-8000 during work hours**  
**1-800-478-0084 after hours**

#### **Rapid Telephonic Reporting**

**Statewide 1-800-478-1800**  
**Anchorage 1-907-561-4234**  
**Fax 1-907-561-4239**

#### **Alaska State Public Health Laboratory**

**1-907-334-2100 Main Line**  
**1-907-334-2139 TB Dept.**  
**Fax 1-907-334-2161**

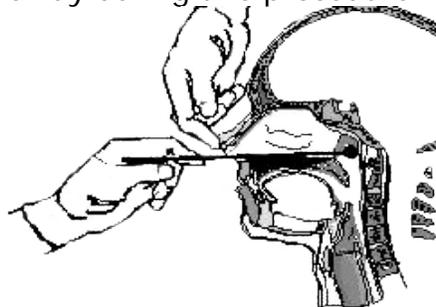
# Viral Respiratory PCR: Detailed Collection Instructions for Nasopharyngeal Swabs

**Supplies Needed:** UTM Kit = Universal Transport Media (UTM) with collection swab:  
*Swabs are made of synthetic or plastic materials only. Metal, wood, calcium alginate or cotton material will NOT be accepted.*  
Fairbanks Lab Request Form

## Collection Instructions:

**Please Note:** *The following instructions are for nasopharyngeal collection only. While nasopharyngeal swabs are preferred, other specimen types are acceptable. Please see the Respiratory Viral Panel test section in this directory for further information.*

1. One NP swab is collected for PCR as described below.
2. Remove mucus from the patient's nose.
3. Estimate the distance to the nasopharynx. *Measure the distance from the corner of the nose to the front of the ear and insert the shaft ONLY half this length.*
4. Carefully open package containing the NP swab and remove swab for specimen collection.
5. Immobilize the patient's head. Have the patient sit with head against a wall as there is a tendency to pull away during this procedure.



6. Gently insert the swab along the medial part of the septum, along the base of the nose, until it reaches the posterior nares. Gently rotating the swab may be helpful in insertion. If resistance is encountered, try the other nostril, as the patient may have a deviated septum.
7. Withdraw the swab from the collection site and place it into the UTM. Carefully break the swab shaft at one of the scored lines so it fits into the UTM tube, and the cap can be securely fastened.
8. Clearly label the UTM containing the swab with patient's name (or alternate unique identifier), date of birth and collection date. **Two patient identifiers are required for specimen acceptance at ASVL.**
9. Complete the Fairbanks Lab Request Form.
10. Immediately transport specimen to the laboratory. If transport is delayed, place specimen on ice or refrigerate.

## Transport:

1. Place the collected specimen in the Ziploc portion of a specimen transport bag and seal. Place the completed Fairbanks Lab Request form in outside pouch. Package as a Biological Substance Category B specimen according to all current shipping regulations, and send to the State Public Health Laboratory-Fairbanks as soon as possible. It is preferable to hold UTM specimen at 4°C until transport. Transport specimen on cold packs.