

Pertussis Testing at the Washington State Public Health Laboratories (WAPHL) May 18, 2012

The Washington State Public Health Laboratories (WAPHL) can perform pertussis PCR testing and culture for diagnostic purposes. **Healthcare providers must receive approval from their [local health jurisdiction](#) prior to submitting specimens to WAPHL.**

After approval from the local health jurisdiction, WAPHL will perform pertussis PCR testing and culture on specimens from the following patients with suspected pertussis:

1. Healthcare workers.
2. Persons who may have exposed high-risk persons, including infants <1 year old, pregnant women or others who may expose infants or pregnant women (e.g., a new mother who was coughing at the time of delivery, the ill person works in the infant room in a daycare, or the ill person teaches prenatal classes to expectant couples)
3. Infants <1 year old and pregnant women without healthcare insurance.
4. Patients suspected to be part of an outbreak (per local health jurisdiction discretion).

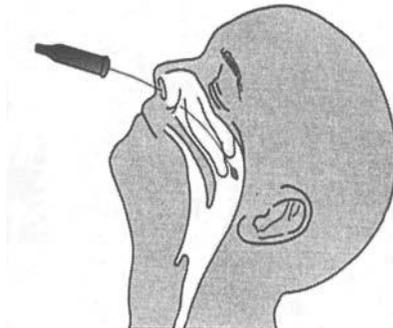
When no other testing options are available, WAPHL will perform pertussis culture on specimens from any patient with suspected pertussis after approval from the local health jurisdiction.

Specimen collection and shipping procedures

1. If needed, request a *Bordetella pertussis* Collection Kit from WAPHL by calling 206-418-5579. The kit includes appropriate forms, two Dacron® polyester swabs, charcoal media (for pertussis culture), a sterile transport tube (for pertussis PCR), shipping materials and detailed instructions regarding collection and shipping of specimens.
2. Collect posterior nasopharyngeal specimens as soon as possible after symptoms develop using appropriate infection control procedures. Ideally, specimens should be collected within three weeks of onset and before antibiotics are started.

Note: Throat specimens, nares swabs, and sputum samples are unacceptable specimens and will not be processed.

3. Use a Dacron® or rayon swab on a flexible wire shaft to collect a nasopharyngeal specimen. Do not use wooden shafted swabs or Calcium alginate swabs (contraindicated for PCR testing). Healthcare providers will need to collect two swab specimens if both culture and PCR are requested. Collecting two swabs at the same time from a single nostril is acceptable.
 - a. Bend wire(s) so that it mimics the curve of the nasal airway.
 - b. Gently pass swab(s) through the nostril to the posterior nasopharynx. **DO NOT** force the swab(s). A slight resistance will be felt when the posterior nasopharynx is reached.
 - c. Rotate the swab(s) and ideally leave in place for 10 seconds or until the patient coughs.



4. Aseptically streak one nasopharyngeal swab onto the charcoal transport media for culture. Leave the swab on top of the media. Do not stab the swab into the charcoal slant. Cut the top of the wire with scissors so the cap of the media tub can be screwed on. Bending the wire into the tube can introduce contamination (skin flora) into the media. If indicated, place another swab into a sterile screw top transport tube for PCR. If able to collect only one swab, use the charcoal transport media and submit a specimen for culture only. Swabs for PCR will not be accepted without a swab for culture.
5. Label the tubes with the client's name and a second identifier. Acceptable identifiers are name, date of birth, medical record number, and social security number.
6. Complete all sections of the Public Health Laboratories' Nose and Throat form (<http://www.doh.wa.gov/EHSPHL/PHL/Forms/Microbiology.pdf>) and include with the specimen.
7. Make sure the name and second identifier on the vial match the name and date on the specimen submission form. Specimens without two matching identifiers on the form and tube will be rejected.
8. Ship specimens at ambient temperature so they reach WAPHL within 24 hours of collection. Since January 1, 2007 the required shipping label is "Biological Substance, Category B, UN 3373". The WAPHL is open to receive pertussis specimens Monday through Friday 8 am–5 pm and Saturday 10am-12pm. Specimens should be shipped to:

Washington State Public Health Laboratories
1610 NE 150th Street
Shoreline, WA 98155

Questions?

Please contact the Special Pathogens Unit of the Communicable Disease Microbiology Laboratory at PHL (general: 206-418-5400, direct 206-418-5452) for handling and transport issues not specifically addressed in these guidelines.

Additional resources

Best Practices for Health Care Professionals on the use of Polymerase Chain Reaction (PCR) for Diagnosing Pertussis

<http://www.cdc.gov/pertussis/clinical/diagnostic-testing/diagnosis-pcr-bestpractices.html>

Pertussis Specimen Collection (includes a video demonstrating proper techniques for collecting and transporting nasopharyngeal specimens for pertussis testing)

<http://www.cdc.gov/pertussis/clinical/diagnostic-testing/specimen-collection.html>