

Specimen Submission Guidelines

Rickettsial Zoonoses Branch

Reference Diagnostic Laboratory

Collection and Submission of Eschar Swab Specimens

Many rickettsial diseases, such as African tick bite fever and *Rickettsia parkeri* rickettsiosis, are characterized by a necrotic area at the site of an infected tick bite, known as an eschar. Sampling the eschar provides an important method for the detection of spotted fever group rickettsial DNA using polymerase chain reaction (PCR) assays. This procedure is less invasive than skin biopsies; however, it doesn't allow for IHC or cell culture evaluation.

The sample should be obtained before or within 24 hours of initiation of appropriate antibiotic therapy (i.e., doxycycline). **Antibiotic treatment should never be delayed to obtain a biopsy specimen.**

Collection of Eschar Swab

1. Disinfect the area of the eschar and remove disinfectant with sterile gauze soaked in sterile saline.
2. Use sterile tweezers to lift the scab partially or completely. If scab is removed completely, place it in a sterile container and submit with the swab.
3. Sample ulcerated area with a dry sterile cotton swab and collect the contents while rotating the swab and applying steady, gentle pressure.
4. Place swab in a sterile container.
5. Ship specimen(s) to CDC on cold packs by overnight delivery, or freeze at -70°C and ship on dry ice at your convenience.

We recommend the collection of an acute-phase serum at the time of swab collection, and a convalescent-phase serum sample 2-6 weeks later.

See the RZB Specimen Submission Guidelines for details on shipping requirements.

For questions, please call the Rickettsial Zoonoses Branch at (404) 639-1075 or email rzbeidiag@cdc.gov.