### Spotted Fever Group Rickettsiosis Specimen Collection Guidance

**ANTI-BIOTIC THERAPY SHOULD NEVER BE DELAYED IN ORDER TO OBTAIN SPECIMENS**

#### Whole Blood for PCR Testing (*Rickettsia rickettsii, R. prowazekii, other species*)

<table>
<thead>
<tr>
<th>Specimen collection</th>
<th>Forms to be completed</th>
<th>Storing and packaging</th>
<th>Shipping</th>
</tr>
</thead>
</table>
| **Timing:**  
• At ≥ 3 days after symptom onset and before or within 24 hours of initiation of antibiotic therapy  
• In severely ill patients, before or within 24 hours of antibiotics being started  
• Testing most sensitive in 1st week of illness  
| 1. NJDOH Spotted Fever Group Rickettsiosis Investigation Worksheet  
2. NJ DOH Request for Bacterial or Viral Culture or Parasitic Identification (Bact-109 form)  
| • Include the 2 completed forms in the shipping box  
When possible, ship the box overnight to NJ PHEL on the same day specimen is collected with refrigerated & frozen cold packs - refrigerate for 1-2 hours prior to shipping  
If specimen is collected on a Friday or cannot be shipped on the same day, refrigerate at 2-8°C (36-46°F) and ship the box with cold packs OVERNIGHT to PHEL on Monday or on the day after the specimen is collected  
| • Ship as a Category B infectious substance  
• NJ PHEL receives specimens Monday-Friday (8 AM-4:30 PM) excluding holidays.""  
Do not ship on Fridays, unless by special arrangement.  
| **Amount:**  
• Collect 3 ml of WHOLE blood  
• Absolute minimum is 1 ml  
| **Container:**  
• Lavender top (K2 EDTA) tube  
| **Labeling:**  
• Affix a label to the specimen with: patient’s full name, DOB, date/time of specimen collection and type of specimen  
| Collect acute-phase serum for serology testing when whole blood collected. Send to commercial lab. Collect a convalescent serum 2-4 weeks later.  
| **Storing and packaging:**  
| **Shipping:**  
| **FAX BOTH COMPLETED FORMS TO NJDOH Communicable Disease Service at:** 609-826-4874  

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#### Swab of Eschar at Tick Bite Site for *Rickettsia* PCR Testing

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| **Timing:**  
• Before or within 24 hours of initiation of antibiotic therapy  
• Testing is most sensitive during 1st week of acute illness  
| 1. NJDOH Spotted Fever Group Rickettsiosis Investigation Worksheet  
2. NJ DOH Request for Bacterial or Viral Culture or Parasitic Identification (Bact-109 form)  
| • Include the 2 completed forms in the shipping box  
When possible, ship the box overnight to NJ PHEL on the same day specimen is collected with refrigerated & frozen cold packs - refrigerate for 1-2 hours prior to shipping  
If specimen is collected on a Friday or cannot be shipped on the same day, refrigerate at 2-8°C (36-46°F) and ship the box with cold packs OVERNIGHT to PHEL on Monday or on the day after the specimen is collected  
| • Ship as a Category B infectious substance  
• NJ PHEL receives specimens Monday-Friday (8 AM-4:30 PM) excluding holidays.""  
Do not ship on Fridays, unless by special arrangement.  
| **Preparing site:**  
• Disinfect area; remove disinfectant with sterile gauze soaked in sterile saline.  
| **Obtaining the swab specimen:**  
• Sample the ulcerated area with a dry sterile cotton swab. Rotate the swab vigorously on the area, while applying steady gentle pressure  
| **Placing swab into the sterile container:**  
• If necessary, snap the swab stick at least 2 inches above cotton swab to fit in container  
| • Swab should be sent dry; do not immerse swab in saline solution  
| Collect acute-phase serum for serology testing at time of swab collection. Send to commercial lab. Collect a convalescent serum 2-4 weeks later.  
| **Shipping:**  
| **FAX BOTH COMPLETED FORMS TO NJDOH Communicable Disease Service at:** 609-826-4874  

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*NJ Health New Jersey Department of Health*
**Spotted Fever Group Rickettsiosis Specimen Collection Guidance**

**ANTIBIOTIC THERAPY SHOULD NEVER BE DELAYED IN ORDER TO OBTAIN SPECIMENS**

**Punch Biopsies of Rash or Eschar Lesions for Rickettsia Testing**
(by PCR, cell culture isolation, or IHC staining depending on size/state of tissue)

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<tr>
<td><strong>Timing:</strong></td>
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<tr>
<td>• Before or within 24 hours of initiation of antibiotic therapy</td>
<td>1. NJDH Spotted Fever Group Rickettsiosis Investigation Worksheet</td>
<td>• Include the 2 completed forms in the shipping box</td>
<td>• Ship as a Category B infectious substance</td>
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<td><strong>Type of biopsy specimen:</strong></td>
<td>2. NJ DOH Request for Bacterial or Viral Culture or Parasitic Identification (Bact-109 form)</td>
<td>• When possible, ship the box overnight to NJ PHEL on the same day specimen is collected with refrigerated &amp; frozen cold packs - refrigerate for 1-2 hours prior to shipping</td>
<td>• NJ PHEL receives specimens Monday-Friday (8 AM-4:30 PM) excluding holidays. †† Do not ship on Fridays, unless by special arrangement.</td>
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<td>• Skin biopsies should be taken from the site of rash or eschar</td>
<td>FAX BOTH COMPLETED FORMS to NJDOH Communicable Disease Service at: 609-826-4874</td>
<td>• If the specimen is collected on a Friday or cannot be shipped on the same day, refrigerate the specimen at 2-8°C (36-46°F) and ship the box with cold packs OVERNIGHT to PHEL on Monday or on the day after the specimen is collected</td>
<td>• Ship to: NJ Public Health and Environmental Laboratories, Specimen Receiving Unit, 3 Schwarzkopf Drive, Ewing, NJ 08628 ATTN: Dr. Sherman Hom PHONE: 609-530-8385</td>
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<td>• Fresh, non-frozen tissue is preferred</td>
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<td>• Package as a category B infectious substance</td>
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<td><strong>NOTE:</strong> formalin fixation may limit sensitivity of molecular detection</td>
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<td>• Optimal tissue is a punch biopsy of skin &gt; 4 mm that includes the central aspect of the lesion (i.e., macule, petechia or eschar)</td>
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<td><strong>Container</strong></td>
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<td>• Place the specimen on a sterile gauze pad that has been moistened lightly with sterile saline</td>
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<td>• Place in a dry sterile specimen collection cup</td>
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<td>• Do not immerse the tissue in saline</td>
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Collect acute-phase serum for serology testing at time of tissue biopsy. Send to commercial lab. Collect a convalescent serum 2-4 weeks later.

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†NJ PHEL – New Jersey Public Health and Environmental Laboratories

†† State of New Jersey Holidays: [http://www.state.nj.us/nj/about/facts/holidays/](http://www.state.nj.us/nj/about/facts/holidays/)


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New Jersey Department of Health Vectorborne Disease Program
Communicable Disease Service
Phone: 609-826-5964
Fax: 609-826-4874

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