Poxvirus PCR Testing: Varicella-Zoster (Chickenpox), Variola (Smallpox), & non-smallpox poxvirus

!! If smallpox (Variola virus) is suspected consult the Humboldt County Public Health Laboratory (HCPHL) at (707) 268-2179 to determine the level of risk associated with the patient and the level of precautions to be used in handling clinical specimens!!

ACCEPTABLE SPECIMEN TYPES AND SPECIMEN COLLECTION

- **Testing Rationale:** Collect appropriate specimens to confirm the cause of infection in patients presenting with acute vesicular or pustular rash illness. Testing can be performed by the HCPHL to confirm Varicella (VZV), or non-smallpox poxvirus, and/or to rule out Variola virus infection (smallpox) as the cause of infection. Collect specimen as soon as possible after illness onset.

- **Preferred Specimens:**
  - **Scabs:** If lesions have crusted over, scabs provide an excellent source of viral DNA. Lift scab from skin using the beveled point of a 26-gauge needle. Transfer scab to sterile container. Do not place in viral transport medium (VTM). Transport at ambient temperature.
  - **Dacron or nylon swabs only:** (calcium alginate or cotton swabs are inhibitory to PCR) Unroof a vesicle using a sterile 26-gauge needle. Using a sterile swab, scrub the base of the lesion vigorously enough to ensure that cells from the lesion are collected. Place swab, (breaking off stick if necessary) into a sterile tube or container. Do not place in viral transport media (VTM). Transport specimen at ambient temperature.

- **Acceptable Specimens:**
  - While a dry swab placed into a sterile tube or container is preferred, the HCPHL will accept a specimen collected on a swab placed in viral transport media (VTM) and refrigerated.

TEST ORDER OPTIONS FOR THIS KIT

- Fill out the HCPHL Requisition completely and legibly
- Select Test VZV PCR or indicate on requisition that you are requesting Poxvirus testing.
- Label the specimen with the patient’s full name, date of collection, and specimen source.
- Send copy of insurance card if insurance is to be billed

SPECIMEN STORAGE & TRANSPORT

- Dry scabs and swabs of lesions should be stored at ambient temperature.
- Swabs in viral transport media (VTM) should be refrigerated.
- Clinical specimens should be shipped at ambient temperature in appropriate packaging.

- **All specimens should be transported immediately to the HCPHL and received ≤ 3 days from time of collection.**
- Deliver to: Humboldt County Public Health Laboratory, 529 I St, Eureka, CA 95501

REJECTION CRITERIA

- Incomplete specimen labeling/documentation
- Improperly stored specimens.

Additional Information

- **HCPHL PCR turn-around time:**
  - Same day if received by 10 am otherwise next day service
  - Please contact the lab immediately to arrange for faster testing
- Cost is $90.00 for each PCR test selected
- HCPHL can bill private insurance and Medi-Cal.
- For more collection kits and requisitions please contact HCPHL at (707) 268-2179
- Courier pick-up is provided by HCPHL; for pick-up, call (707) 499-4513

***If Smallpox is suspected, please contact the Public Health Communicable Disease Nurse for consultation and patient management while with patient (707) 268-2182. To reach the Health Officer after hours, Contact Sherriff’s Office Dispatcher at (707) 445-7251 and request to speak to the Health Officer.***