Guidelines for Veterinary Practitioners and Shelter Veterinarians Collecting Samples for virulent Newcastle Disease (vND)

Veterinarians need to practice strict biosecurity between avian patients to assure that there is no opportunity for disease transmission between patients.

Healthy bird sampling is not recommended. Please evaluate risk and contact the sick bird hotline to coordinate shipment of your samples. Please call the sick bird hotline when submitting samples or carcasses of sick birds: 866-922-2473

Swab samples are the preferred method for diagnosing vND. Please do not collect blood samples. When submitting a carcass that is suspicious for vND, it will be swabbed and the carcass will be destroyed. If vND is negative, a second bird, if available, may be submitted for necropsy. If necropsies are requested by the vND incident, carcasses must be sent to the San Bernardino CAHFS laboratory.

All swabs for vND must be mailed to UC Davis laboratory. Please DO NOT SEND any samples to the San Bernardino, Tulare, or Turlock CAHFS laboratories.

Items needed for sampling:

- Clean clothing or coveralls that can be washed and disinfected after each sample collection. If using disposable products, place in trash bag, disinfect outside of bag and dispose of appropriately
- Disposable gloves
- Goggles, or other eye protection
- Disinfectant. Remove organic waste first, then disinfect according to manufacturer directions.
  - Lysol*
  - Virkon* (prepared as directed per manufacturer directions)
  - Bleach 5.25-6% concentration diluted with water (i.e. 1 part bleach to 9 parts water)
  - Hand sanitizer- use before and after handling each bird; have available at entrances of avian isolation areas of both pet birds and poultry locations, if applicable. Use when entering room, before applying gloves, and when doffing PPE.
- Foot baths, designated boots that are easily cleaned after each use, or disposable shoe covers must be used in isolation areas, if applicable.
  - Dry foot bath option: Bleach powder called Traffic C.O.P made by PSP LLC*. Remove organic matter daily and fully change every two weeks according to manufacturer directions.
  - Wet foot bath option: Virkon; solution of bleach water (see above under Disinfectants). Fully change solution daily to every two days.

Sample collection:

- There can only be 5 swab samples collected into one media tube.
  - Different species must be collected in different tubes.
  - Different samples (oropharyngeal vs cloacal) must be collected in different tubes, unless otherwise specified (pigeons and doves, see below).
- Collect oropharyngeal swabs for every poultry species except domestic waterfowl.
- Collect cloacal swabs only from domestic waterfowl species (ducks, geese, swan, etc).
- For backyard doves and pigeons: Oropharyngeal and cloacal swabs from individual pigeons can be pooled. Collect oropharyngeal samples before cloacal samples.

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• **Oropharyngeal swabs:**
  o Open the beak to expose the oropharyngeal cavity.
  o Swab the back of the throat, inside the choanal slit, move swab around 4 to 5 times to collect as much mucus as possible.
  o Do **not** insert swab too deeply.

• **Cloacal swabs:**
  o Lift the tail to visualize the vent.
  o Carefully insert the swab into the vent. Do **not** insert swab too deeply. Rotate swab about 4 to 5 times.
  o After swabbing, stir the swab vigorously in the tube for 5 seconds.
  o Bring swab to the top of the tube and roll all the contents of the swab out against the inside of the tube.
  o **Do not leave swabs inside the tube.**
  o **Use only** 5 swabs per tube.
  o Tightly close the tubes and ensure that they are free of any organic material.

**Labels and Laboratory Submission Form:**
- Label tubes clearly with a waterproof marker
- Make sure the species and owner name closely match on the tubes and the laboratory submission form
- Enter the additional data for that tube on the form.
  - The premises owner and animal owner (if different)
  - The phone number and physical address of owner,
  - The total number of birds in the flock,
  - Complete the brief clinical history and if birds are showing any clinical signs of disease
  - Make sure to fill the form in its entirety

**Mail Lab Samples:**
- Keep media tubes cool after samples are collected. The tubes can be refrigerated if not be mailed immediately. **Do not freeze.**
- Place the tubes into a quart-size Ziploc bag and seal. Spray with disinfectant on the outside of the bag.
- Place the disinfected bag of tubes inside a gallon size Ziploc bag and the submission form in a separate Ziploc bag.
- Place the disinfected bag of tubes with an ice pack and the bag with the submission form into the shipping box provided
- Ship swab samples to the UC Davis laboratory using the provided Fed Ex First overnight shipping label. Please send all samples only to UC Davis laboratory.

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