SHIC diagnostic fee support in incidents of swine morbidity/mortality events of unknown etiology

There are incidents of high or ongoing morbidity or mortality where an etiology is either not identified or there is a strong suspicion that the identified etiology is not the likely cause of the outbreak. In these cases, additional support for the fees of further diagnostic workup may help to identify newly introduced or emerging swine diseases.

SHIC requirements for paying fees for additional diagnostic testing:

The following are the requirements for SHIC support of diagnostic fees for unresolved incidents of high or ongoing morbidity or mortality. Review of the case by a panel of diagnosticians (SHIC Diagnostician Panel) could be started before a foreign animal disease investigation, if underway, is completed.

- 1. The case involves high or ongoing morbidity or mortality.
- 2. Routine diagnostics matching the clinical presentation have been completed.
 - a. A panel of diagnosticians has reviewed the case
 - i. The panel concurs that the likely differential diagnoses have been addressed.
 - ii. The panel offers help if the diagnostician of the case requests it.
- 3. Results are unsatisfactory due to either the veterinarian's clinical judgment or the lack of an identified etiology.
- 4. The SAHO of the premises' state has been notified of the case and the lack of a satisfactory diagnosis.
 - a. A foreign animal disease investigation has been considered by the SAHO or federal animal health officials and initiated, if appropriate.

Process to implement SHIC support for diagnostic fees in cases of unresolved incidents of high or ongoing morbidity/mortality:

- 1. Contacting SHIC
 - a. Contact with SHIC and the SHIC Diagnostician Panel reviewing the case will be initiated by the VDL diagnostician of the case through submitting a SHIC Diagnostician Form on the www.swinehealth.org web site.
 - b. The diagnostician of the case must be from a recognized public, accredited veterinary diagnostic laboratory.
- 2. The information needed to initiate the request for fees can be provided through the diagnostician without including the submitter's name or other identifiers.
 - a. Unique identifying information will be confidential and will not be used without the permission of the submitter of the case.
 - Geographical identification to the level of the state or region of the country may be communicated without the need for the permission of the submitter of the case.

- Upon receipt of the form, SHIC will contact the diagnostician to confirm the SAHO of the case's state has been informed and a decision on initiating a FAD investigation has been considered.
- 4. The diagnostician is responsible for obtaining and keeping in the case record a completed Submitter Permission Form (available on www.swinehealth.org) for signature assuring the submitter's permission for further testing for the case.
- 5. The SHIC Diagnostician Panel will contact the diagnostician of the case within 48 hours after the submission of the SHIC Diagnostician Form.
 - a. The responsibility for monitoring of the process and continued implementation is with the diagnostician of the case.
 - b. Cases that qualify:
 - i. A "case" is defined as an "unresolved event of high or ongoing morbidity/mortality"
 - c. Defining "routine" testing vs "additional" testing:
 - i. "Routine" will be dependent on the circumstances of the individual case and will be defined by the SHIC Diagnostician Panel
 - 1. Routine testing is testing which is available routinely as listed on "test and fees" websites of the primary diagnostic labs.
 - 2. At the discretion of the SHIC Panel of Diagnosticians, "routine" testing could also include:
 - a. Sending tissues to one other lab for additional testing that isn't available from the primary laboratory of the case.
 - b. Ongoing testing from submission of more or different tissues associated with the case.
 - These additional tissue submissions and university Extension investigations of the case are considered an extension of the routine testing that is required and not a responsibility of SHIC.
 - ii. "Additional" testing is that which includes an additional tier of diagnostic differentials or deeper testing (characterization) of the suspected etiology:
 - The SHIC Diagnostician Panel and the case diagnostician will develop a plan of work for the additional testing with expectations and boundaries.
 - The SHIC Diagnostician Panel and the case diagnostician must agree upon a specific protocol for collecting and handling additional samples for this testing.
 - 3. The SHIC Diagnostician Panel will consider if additional tests will provide a reasonable expectation that results are accurate, interpretable, add to confidence in diagnosis and are germane to understanding of the case.
 - 4. Examples could include deep sequencing, virus or agent isolation/sequencing/characterization, lab animal inoculation needed for quick pathogen amplification or other purposes and others at the discretion of the SHIC Diagnostician Panel.

- Examples of tests not included could be investigating probable illdefined toxins, shotgun testing for agents, animal studies, testing Koch's postulates and others at the discretion of the SHIC Diagnostician Panel.
- 6. The SHIC Diagnostician Panel will provide a written report of their recommendations to the diagnostician of the case and to SHIC.
- 7. When the report with the results of the additional tests comes to the diagnostician of the case, the diagnostician is responsible for providing the report to the submitter of the case or to the submitter's designee.
- 8. The diagnostician of the case is responsible for generating a Final Report to submit to the SHIC Diagnostic Panel and to SHIC
 - a. The diagnostician of the case can preserve confidentiality of unique identifiers if requested by the case submitter.
 - b. Content of the Final Report:
 - i. The name of the diagnostician of the case
 - ii. A geographical description of the site of the case, for example, state or region of the country.
 - iii. Case description and other information included on the form provided to the SHIC Diagnostician Panel
 - iv. Results of the diagnostic investigation
 - v. Acknowledgement of the SAHO of the case's state being aware of the outcome of the testing
 - 1. If the testing finds a reportable disease, the standard notification protocol for the lab is to be followed.
- 9. Upon acceptance of the Final Report SHIC will send the diagnostic fee payment.