

CWSHIN News #30

CWSHIN serves western swine producers, swine herd practitioners and governments to improve swine health, production, and the economic prosperity of the sector.

Our vision is to have a surveillance system imbedded in an intelligence network that monitors diseases both present and absent.

The surveillance system will be monitoring and assessing trends over time to:

- Detect new emerging swine health issues,
- Detect unusual clinical presentation of known diseases,
- Provide information about endemic diseases, and
- For diseases absent in western Canada (such as Foot and Mouth Disease and African Swine Fever) the objective is to help provide evidence of absence of disease to support trade.

In the intelligence network, we seek to exchange experience and knowledge on disease occurrence, treatment, control, and prevention.

<https://www.cwshin.ca/>

Announcing the CWSHIN Laboratory investigation - Streptococcus

Starting in April 2021 swine practitioners may be contacted and asked to provide information on Streptococcus cases identified by PDS or VDS.

The Laboratory Investigation - Streptococcus

Background

CWSHIN has a new activity “Targeted Emerging Issue Investigation” where we have the opportunity to conduct special projects when health issues have been flagged as new or important to the swine sector. These projects relate directly to the CWSHIN surveillance objectives.

The first laboratory investigation to be launched is on Streptococcus because:

- Streptococci are one of the most frequently identified organisms with about 600 cases per year in 2019 & 2020 – an increase from previous years;
- *Streptococcus suis* has always been a problem therefore the issue is “what can we do to improve control methods;
- *Streptococcus equi subsp. zooepidemicus* (ST194) has been associated with high mortality in a few herds, assembly yards and abattoirs.

Project objectives

The objectives are:

- Type all Streptococci cases to the level of species,
- Sequence and antibiogram for all *Strep suis* and *Strep zoo* cases
- Create a CWSHIN Streptococcus-database

This information will allow us to monitor the current Streptococci circulating in pigs in Western Canada. It will become a source of information for practitioners regarding antibiotic choice (prior to lab results), strain selection for vaccine development (with in silico serotyping), and response to potentially emerging threats.

How will the streptococcus project work?

From samples submitted to PDS or VDS for routine diagnostics the laboratories will select all cases where *Streptococcus suis* or *Streptococcus equi zooepidemicus* are identified.

When a case is selected:

- the submitting practitioner will be contacted and asked to provide further information on the case, herd tombstone and baselines data in a survey, and
- PDS will perform resistance testing and whole genome sequencing.

When 250 cases of *Streptococcus* have been selected, we expect to have about 125 cases of *Streptococcus suis* and the project will cease case selection.

Practice perspective

When a case (of *Streptococcus suis*) is identified you will be asked to answer an online survey about that case. It is expected it will take 45 minutes to 1 hour to complete and you will be compensated at the rate of \$130 per case when the survey is completed.

The routine diagnostic results will flow to you as usual from PDS. The additional testing (whole genome sequencing) will flow to you in batches from the project.

Producer perspective

If your herd has *Streptococcus suis* or *Streptococcus zooepidemicus* identified at one of the laboratories, your practitioner may contact you for some herd tombstone or baseline data; and they will get more detailed information on the type of Streptococcus that caused the problem in your herd. This could be a help in managing the disease.

Data base and confidentiality

The Streptococcus database will be owned by CWSHIN and access will be restricted. It will have no personal identifiers. Herd identification will be anonymous, and location will be as one or two regions per province. Names and contact information will be shared among people working on the project on a need-to-know basis only. For example, we need to be able to contact the submitting veterinarian and to identify the case to them.

Cost and reimbursement

CWSHIN will cover all costs for the additional testing at PDS. Practitioners will be reimbursed for:

- Routine diagnostic testing (culture) of up to 5 samples per selected case
- Time to provide survey data at a rate of \$130 per cases.

For further information

If you have any questions, please contact us:

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