

## Key Points

- samples from euthanized animals showing signs of disease
- animal not treated with antibiotics
- sample from multiple animals when possible
- send organs intact when possible
- well packaged samples with ice packs and rapid transport to lab



Obtain samples from untreated and euthanized animals showing signs of disease. Sampling from multiple animals, perhaps on more than one occasion is particularly important if an autogenous biologic is being considered to ensure that all of the causative pathogen serotypes are identified.

### Isolating the “Suicides” (*H. parasuis*, *S. suis* & *A. suis*) and App

- For these organisms we have had very good luck with lung and heart tissue. Sending the lungs and heart intact (& even lung/heart combination no separation of the organs needed, leaving the pericardial sac in place) is helpful as it minimizes the invasion of contaminating organisms into the tissue.
- Spleen and liver tissue may also generate good results. Again send the whole organ or a large piece when possible.
- Joint and brain/spinal swabs can be valuable samples for *S. suis* and *H. parasuis* (note we do not accept brain tissue).

### Swine Influenza

- Swine influenza can be isolated from fresh lung tissue, trachea and nasal swabs in viral transport media. Virus isolation, subtyping and viral sequencing may be useful in the development of an autogenous vaccine.

### Scours

- When *E. coli* is suspected as the causative agent, we suggest rectal swabs in carrier media from untreated, scouring animals.
- If *Salmonella* is a likely agent, please note on the submission form that you would like the samples screened for *Salmonella* since an enrichment procedure increases chances of isolating this organism. However, even when *Salmonella* isolation is not specifically requested, we will investigate any suspicious colonies seen on the primary isolation plates.
- If clinical symptoms suggest *Clostridium perfringens* or *C. difficile*, gut sections may be submitted. Again, please note on the submission form that you would like the samples screened for *Clostridium* as well as *E. coli* and we will culture the samples anaerobically as well as aerobically. Specify *C. difficile* if suspected as this organism requires special enrichment to isolate.

### Shipping

We suggest double bagging all tissue samples in sealed plastic bags and sending them by overnight courier on ice packs in a rigid box – not a courier bag since these get squashed in shipment and tend to leak. Each tissue sample should be individually bagged to avoid cross-contamination. The tissues may be sent freshly sampled or frozen. During hot weather, freezing the tissue solid and then packing on ice packs may be the best solution. Rectal swabs should also be sent by overnight courier, inclusion of an ice pack helps to preserve the sample. Swabs should always be sent promptly after sampling, not frozen. Unfortunately, we must reject tissue samples which come in leaking packages or which have been in transit for greater than 2 days since these conditions rarely generate acceptable diagnostic results.