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Selecting materials for submission and making the diagnosis

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Diagnostics are at the heart of modern swine production and the efficient use of diagnostic testing is critical in making timely decisions within pig flows. Selection, handling, and transport of specimen are key control points in the outcome of any diagnostic case and may dictate your success in identifying the actual pathogen(s) involved. This presentation focuses on making good selection of specimens, their handling, and appropriate transport.

Factors that influence case diagnostic approach

1) Animal Selection

- Treatment history
- Chronic vs. Acute presentation
- Sampling intensity (2 per 1000 animals)
- Subpopulation focus vs. general population focus (hunting HPS or hunting PRRS)

2) Tissue or Sample Selection

- Comprehensive diagnostic approach (total tissue set)
- Focuses sampling (enteric vs. respiratory vs. systemic)
- Non-tissue sampling (nasal swabs for flu or minimum volume of fecal material needed to consistently hunt down salmonella)

3) Tissue handling/processing

- Quick cooling
- Immediate formalinization (especially for gut tissues which begin to decompose within minutes of blood flow cessation)

4) Lab Selection

- Piece meal submission (a la carte diagnostic testing) - best for focuses sampling
- Total case submission (all you can eat buffet) - best for pigs with multiple disease infection scenario. Total tissue set.

Other items of discussion will be a decision making flow-chart for service people, interpretation of reports and flow schematics for tracking disease prevalence.

