

# AHL LabNote Number 34

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## Field and clinic postmortems I: Simplified protocol and image list

Joseph DeLay DVM, DVSc, Diplomate ACVP

Digital images captured during postmortem (PM) examinations provide a permanent record of lesions. PM images provide valuable supplemental information for pathologists evaluating tissue samples submitted to a diagnostic laboratory for histologic examination. Images may be emailed to AHL pathologists at [ahllpath@uoguelph.ca](mailto:ahllpath@uoguelph.ca)

The image list below provides both a step-wise guide to the PM procedure and a suggested set of images that are applicable to *all species* of companion and food-producing animals. Similar to having a routine protocol for physical examination in a live patient, establishing and following a standard routine for PM procedures is important. This allows the practitioner to spend more time identifying and interpreting lesions, rather than concentrating on the logistics of the exam.

### **Remove ear tag or create ID label, and include with all photos.**

Image 1. **External views:** full body, head, thorax / abdomen, perineum

-for unexpected deaths, take image *in situ*, in location and position where body was discovered.

-include views that depict body condition, hydration (eyes), evidence of predation or trauma, etc.

### **Open abdominal and thoracic cavities.**

Image 2. Opened **thorax** (with organs *in situ*)

Image 3. **Heart** *in situ*, with pericardial sac opened (check for fluid, exudate, etc.).

### **Remove pluck.**

Image 4. Pluck, with focus on **lungs** (dorsoventral view, with right and left lung visible).

Image 5. Cross-section of right and left lung.

Image 6. Cross-section of heart through both **ventricles**.

Image 7. **Larynx** (including thyroid glands) and **trachea**: opened and mucosal surface exposed.

Image 8. Opened **abdomen** (with organs *in situ*)

### **In ruminants, remove omentum. In all species, fan out intestines and locate cecum and ileum.**

Image 9. Opened abdomen with intestines fanned out.

Image 10. Open **cecum, ileum, and jejunum** to expose mucosal surface.

Image 11. Open **colon** to expose mucosal surface.

Image 12. Open **duodenum** to expose mucosal surface.

Image 13. **Liver** – capsular surface. For ruminants, include opened caudal vena cava.

Image 14. Liver – cross section.

Image 15. **Abomasum / stomach** – serosal surface.

Image 16. Abomasum / stomach – mucosal surface.

Image 17. Ruminants: **rumen** – serosal surface.

Image 18. Ruminants: rumen – mucosal surface and content.

Image 19. Solid organs:

-**kidneys**: sagittal sections, with cut surfaces exposed.

-**spleen**: cross section.

-**adrenal glands**

### **Unexpected death / neurologic cases: Remove brain. Also remove spinal cord, based on clinical signs.**

Image 20. **Brain.**

### **References and additional reading**

1. Janzen ED. Field Postmortems. Presentation to the Ann Mtg Ont Assoc Bovine Practitioners. Guelph, ON. Nov 20, 2014.

2. Griffin D. Field necropsy of cattle and diagnostic sample submission. Vet Clin North Am Food Anim Pract 2012;28:391-405.