



College of Veterinary Medicine Policies and Procedures

Subject: Animal Preparation

Section: Diagnostic Imaging

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ANIMAL PREPARATION

Animals should be properly prepared for all imaging examinations before those examinations are performed in order to avoid delays, inaccurate diagnoses, wasted time, unnecessary radiation exposure, and additional client charges.

1. Animals presented for abdominal radiographs or ultrasound examination should be fasted for 24 hours, and encouraged to defecate prior to examinations. When necessary, a laxative or enema should be given at least 12 hours prior to examination.
2. If an animal is improperly prepared necessitating reexamination, an additional film charge will be assessed.
3. The coats of animals should be clean, dry and free of topical medications. The shoes of horses should be removed and the feet cleaned for examination of the equine third phalanx and navicular bone. Bandages should be removed when possible. These procedures should be performed by the requesting clinician or their assigned students.

Ultrasound – general

1. No clip = no scan. All patients must be clipped appropriately before entering the ultrasound room. The sonographer should be consulted prior to clipping if there is a question about how much fur should be clipped. The sonographer should also be consulted if you are unable to clip the patient. There are exceptions to every rule, and this one is no different. If clipping the patient is not an option, please discuss this with the sonographer.
2. If it is the patient's first visit to radiology, it is required that radiographs be obtained prior to ultrasound. Ultrasound is not a perfect imaging modality. We can miss things. For instance, gas in the gastrointestinal tract may obscure the intestinal disease of that or other abdominal organs. In the instance of ultrasound on the other side of the diaphragm, it is important to get an overview of heart size, chamber enlargement, and whether or not heart failure is present.
 - a. There are exceptions to every rule. For instance, radiographs would be useless in most cases of peritoneal effusion. If an ultrasound is desired on a patient without prior radiographs, the sonographer must be consulted before the request is submitted.
 - b. Recheck ultrasounds usually do not require radiographs. Please check with the radiologist/resident on ultrasound before submitting an ultrasound request.

Ultrasound-guided procedures (FNA, biopsy, cystocentesis, etc.)

1. Before an ultrasound-guided procedure is performed, it is essential that the **clinician** on the case discuss it with the radiologist/radiology resident on ultrasound. We have training in these procedures and would like to help choose the best plan for the patient.
 - a. We have had cases in which students were sent to radiology to tell the doctor on ultrasound to perform procedures which may have been unnecessary or inappropriate for that patient. Because these students were messengers, they were unable to answer our questions and make decisions on the most appropriate way to proceed.
 - b. **Routine thoracocentesis, pericardiocentesis, and cystocentesis should not be performed by radiology without first being attempted by the clinician(s) on the case.** These procedures can be performed by internal medicine and other services without our assistance. In fact, these are important skills for internists to master. If the clinician on the case has attempted any of the above procedures without success, we are happy to help.
 - c. **MUST** obtain PT, PTT, and platelet count before core biopsies are obtained.
2. Sedation
 - a. Sedation is not usually needed for most fine-needle aspirates. The animals usually do well without it.
 - b. If the animal requires sedation, please do not use hydromorphone unless absolutely necessary. The panting associated with its use may compromise the exam and may make the procedure difficult or impossible.
 - c. General anesthesia is preferred for core biopsies so that these patients receive the necessary monitoring during and after the procedure.
 - d. Please consult the sonographer before sedation of patients scheduled for echocardiography.

CT

1. Before a CT study is requested, the clinician on the case must speak to the radiologist/radiology resident prior to performing a CT. We can help decide the best field of view and best test for the patient.
 - a. If we are aware of the exam, we can be present and determine whether or not additional slices or a different plane should be obtained.
 - b. We also must be made aware of the time of the scan. If not, a radiologist may be unavailable to review the images.
2. If possible, please give 2-3 days advanced notice to radiology if a large animal CT is to be performed.
3. If contrast will be used for large animal CT scans, the contrast media must be ordered from the pharmacy in advance as radiology does not stock the large volume of contrast required for these studies.
4. All animals in which contrast is to be given **MUST** have an IV catheter placed **BEFORE** coming to CT.

Fluoroscopy

A radiologist or radiology resident must be consulted upon request of a fluoroscopic study. Some of these studies require preparation of the animal. We may request sedation or we may ask that there be no sedation on board, depending on the type of study to be performed. We would like to discuss the plan for the procedure with the clinician and coordinate the schedule so the clinician on the case is present. A radiologist or radiology house office must be present for fluoroscopy. This is a dynamic

study and is difficult to interpret accurately from saved images. Each radiologist interprets his or her own fluoroscopic studies.

Contrast Studies

A radiologist or radiology resident must be consulted upon request of a contrast study. Some of these are time consuming procedures that may interfere with further diagnostics. Also, most contrast studies require patient preparation. If a procedure is commenced without consultation, there could be inappropriate time and money spent. We are trained to know which procedure is best for certain conditions. We can then discuss patient preparation and coordinate schedules. A radiologist or radiology house officer should be available at the beginning of a study and at the end to determine if further images are needed.

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