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### 1. PURPOSE

This policy describes the procedures for keeping and maintaining animal medical records. This procedure is approved by the Creighton University Institutional Animal Care and Use Committee (IACUC).

### 2. INTRODUCTION

Maintenance of good medical records is an essential component of the provision of adequate veterinary care. Medical records document information associated with management of clinical disease, research intervention, diagnostic and therapeutic procedures performed, and preventive medicine procedures. The value of implementing a good documentation system is widespread and is described below:

- Maintains ongoing communication between all personnel involved in managing the research with and basic care and health of research animals.
- Assists the animal care staff in providing appropriate care relevant to the specifics of the research project.
- Supplies investigators with relevant information to which they can refer when interpreting research data.
- Allows an easy method for tracking clinical history and accountability.
- Provides legal documentation of significant events related to a research study.
- Provides a tool to the institution in preparing the annual report to the USDA and in preparation for AAALAC accreditation site visits.
- Meets a regulatory requirement.

### 3. RESPONSIBILITY

- 3.1. Clinical health records are the responsibility of the Principal Investigator to maintain, but this is a shared responsibility with animal care and veterinary staff.
- 3.2. Records should be readily available to investigators, veterinary staff, and animal care staff.
- 3.3. All individuals working with USDA-regulated species must participate in an educational program on the proper completion of animal medical records.

### 4. COMPONENTS OF AN ANIMAL MEDICAL RECORD

- 4.1. The clinical health record typically contains the following types of information:
  - 4.1.1. Identification of the Principal Investigator and IACUC protocol number (s)

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- 4.1.2. Identification of the animal(s) or group(s)
- 4.1.3. Clinical information, such as results of physical examination, the behavior of the animal, and notations regarding observed abnormalities, illnesses, and/or injuries
- 4.1.4. Immunizations and other prophylactic treatments and procedures, as appropriate for the species
- 4.1.5. Documentation of diagnostic tests and interpretation
- 4.1.6. Reference to the research intervention, where appropriate
- 4.1.7. Treatment prescribed and provided, the clinical response, and follow-up
- 4.1.8. Surgery, anesthesia, analgesia and peri/post-operative care
- 4.1.9. Control of pain and distress
- 4.1.10. Documentation of euthanasia or other disposition
- 4.1.11. Documentation of necropsy findings, if indicated
- 4.2. Medical records should be written to define and reflect the current level of understanding of a health problem. The record is refined as additional information is acquired, and communicates the medical logic and case progression.
- 4.3. Notations in the medical record are made by individuals who have administered treatments or made direct observations or evaluations of the animal(s) or their diagnostic results. Individuals typically responsible for making notations in the record include veterinary staff (veterinarians and/or veterinary technicians), animal husbandry staff (animal care staff, managers, supervisors), and research staff (e.g., Principal Investigators, study directors, and/or research technicians). All entries in the record must be dated, indicate the originator of the entry (e.g., initials) and be legible to someone other than the writer.
- 4.4. A copy of the medical record, or a pertinent summary of that animal's medical history, should follow the animal upon reassignment.

### 5. TYPES OF ANIMAL MEDICAL RECORDS

5.1. Individual medical records: Individual medical records are maintained for animals that receive regular individual health evaluations. Medical records maintained on individual animals are used to document routine preventive care (e.g., physical examinations, vaccinations, dental prophylaxis), as well as spontaneous (non-induced) illness or injuries. These records also document peri-surgical and peri-anesthetic interventions and care. These Individual Medical Records may include Animal Medical Record Summary and Animal Medical Record Progress Notes.

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- 5.2. **Group medical records:** Group medical records are appropriate for animals, such as rodents, that are members of a larger cohort. Documentation of peri-surgical and peri-anesthetic care may also be done as a group record (Rodent Post-Procedure Monitoring Veterinary Alert Card).
- 5.3. **Records of sedation or anesthesia and peri-surgical/peri-procedural care for survival and terminal procedures:** Records of sedation and anesthesia (with or without surgery), and peri-surgical/peri-procedural care, document adequate veterinary care and the alleviation of pain and distress during the conduct of these procedures, whether survival or terminal. These animal medical records may include Anesthesia Record, Operative Report, Anesthesia Recovery, and/or Postoperative Evaluation/Treatment.

### 6. GUIDELINES FOR MAINTAINING ANIMAL MEDICAL RECORDS

- 6.1. Maintain individual records for all large animal species (non-rodent mammals) (i.e., dogs, cats, rabbits, and livestock).
- 6.2. Group records may be maintained for rodents. Individual records may be indicated if the research dictates a need. If an extensive procedure is conducted on an individual, use an individual rather than group record.
- 6.3. Place the records in an area that is readily accessible for review by research personnel, veterinary staff, and animal care staff, as well as for appropriate internal (e.g., IACUC) or external (e.g., USDA, AAALAC) oversight uses. A record box is provided in each animal housing area for this purpose.
- 6.4. Medical records follow the "SOAP" format, with each entry following the letter S, O, A, P, utilizing the Progress Notes. Include a history upon initial presentation, what happened in the time preceding the onset of the particular problem in question (e.g., animal four days postop abdominal surgery)

## S = Subjective: Subjective evaluation

This section should provide subjective evaluation of the animal's progress, the present complaint, or observation and any relevant history: why the animal needs to be seen. Observed abnormalities and/or relative severity of conditions, such as decreased appetite or activity; diarrhea or constipation; bleeding; open wounds; coughing, sneezing, nasal or ocular discharge; depth and character of respiration; mental attitude. Is it improving, getting worse, or remaining the same?

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## **O** = **Objective:** Objective evaluation

This section should provide summaries of the objective (measurable) clinical parameters, often the result of a physical examination, such as body temperature, heart rate, and respiratory rate (TPR); lesion size; as well as laboratory data, radiography, etc. The SO portions may be combined because the line between subjective and objective information can sometimes be blurry. If applicable, attach clinical pathology sheets to the medical records; summarize only abnormal laboratory results in this section.

## A = Assessment: Assessment of the current state of the animal

This may be the most important part of the record and should consist of an analysis of the subjective and objective data at this point in time, and contain the conclusions reached or the diagnosis. This section may include a problem list, differential diagnosis, and/or diagnoses. Clinical diagnosis may be multiple, tentative, or final, including "rule outs."

# **P = Plan:** Plan for how to progress with diagnosis and care This section should address what will be done about the case; this may be treatment, observation and reevaluation times, additional diagnostic tests, euthanasia, consultation with Principal Investigator, etc.

- The diagnostic and/or therapeutic plan should be devised based on the subjective and objective observations and your assessment of those observations. Indicate here further diagnostic tests to run, medical treatments to initiate with specific drug name, dosages, schedule and duration of treatment, special husbandry conditions, etc.
- When ordering treatment, specify drug, drug strength and form, if applicable, and dose (quantity) of medication. The dose generally should be expressed as total amount per treatment. Specify route of administration (e.g., PO, topically, IV, IM, SQ) and frequency of administration (e.g., 2x/wk, BID, SID). Specify the duration of treatment to be administered.
- Draw a box next to each item on your plan. When this portion of the plan is completed, the box will then be checked off (e.g., blood drawn for CBC). This will help ensure that nothing is overlooked.
- The Plan section should also be used to indicate plans for communicating with the appropriate designated protocol personnel and to document what interactions have occurred.

### 7. COMMON ACRONYMS/ABBREVIATIONS

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It may be helpful to use the following acronyms/abbreviations when making notations on the animal medical record. This list is a guideline and is not mandatory or intended to be all-inclusive. Any acronyms or abbreviations used in the record, other than those listed below, must be defined.

## 7.1. Subjective Acronyms

• BAR: Bright, alert, and responsive

• WNL: Within normal limits

## 7.2. Objective Acronyms

- TPR Temperature, pulse, and respiration
  - T: Temperature of the animal (usually rectal)
  - P: Pulse rate, expressed in beats/minute
  - R: Respiratory rate, expressed in breaths/minute
- CDI Suture line clean, dry, and intact

## 7.3. Assessment Acronyms

• VSS Vital signs stable

## 7.4. Plan: Treatment Acronyms/Abbreviations

- C/T Clean and treat (applicable to wound care)
- Rx Administer
- PO Per os, orally
- IV Intravenous
- IM Intramuscular
- SC/SQ Subcutaneous
- ID Intradermal
- Sid Once a day
- Bid Twice a day
- Tid Three times a day
- qXh Administer every X hours
- 1x/wk Once a week
- 2x/wk Twice a week
- 3x/wk Three times a week

## 7.5. Miscellaneous Acronyms/Abbreviations

- ad lib Freely as wanted
- tab. Tablet
- cap. Capsule

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• inj. Injection

• prn According to circumstances (as needed)

• mcg Microgram

### **7.6.** Conversion Factors

• 1 ml = 1 cc

• 1 lb = 45 kg = 450 g

• 2.2 lb = 1 kg = 1000 g

• 1 liter (L) = 1000 ml

• 1 teaspoon = 5 ml

• 1 tablespoon = 15 ml

• 1% solution = 10 mg/ml

### 7.7. **Definitions**

- **Midline:** also called median plane, a vertical plane that divides a bilaterally symmetrical animal into right and left halves
- **Medial:** situated toward the midline of the body or the central part of an organ or tissue
- **Distal:** away from the center; away from the point of attachment; toward the far end of something; farthest from the point of origin
- **Proximal:** nearer to the point of reference or to the center of the body
- **Dorsal:** pertaining to or situated on the back of the body
- **Ventral:** pertaining to, toward, or situated in, on, or near the abdomen
- Caudal: pertaining to, situated in, or extending toward the lower part (hind end) of the body
- Cranial: pertaining to, situated in, or extending toward the head

## 8. ANIMAL MEDICAL RECORD FORMS

- Summary
- Progress Notes
- Anesthesia Record
- Operative Report
- Anesthesia Recovery
- Postoperative Evaluation/Treatment (days 1-5)
- Postoperative Evaluation/Treatment (days 1-5)
- Rodent Post-Procedure Monitoring Veterinary Alert Card