Policies and Procedures

SECTION: Research and Compliance/ARF/ IACUC

CHAPTER: Miscellaneous Experimental Animal Use Policies

POLICY: Animal Medical Records

Purpose

The purpose of this policy is to describe the procedures for keeping and maintaining animal medical records. This procedure is approved by the Creighton University Institutional Animal Care and Use Committee (IACUC). All investigators will follow this policy unless scientific justification is provided and approved by the IACUC.

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1. Introduction

Maintenance of good medical records is an essential component to the provision of adequate veterinary care. Medical records document information associated with management of clinical disease, research intervention, diagnostic and therapeutic procedures performed, and preventative 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, the basic care and the 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 research study.
- Provides a tool to the institution in preparing the annual report to the USDA and in preparation for AAALAC accreditation site visits.
- It is a regulatory requirement.
2. **Responsibility**
   a. Clinical health records are the responsibility of the **Principal Investigator** to maintain, but this is a shared responsibility with animal care and veterinary staff.
   b. Records should be readily available to investigators, veterinary staff, and animal care staff.

3. **Components of an Animal Medical Record**
   a. The Clinical health record typically contains the following types of information:
      - Identification of the Principal Investigator and IACUC protocol number(s)
      - Identification of the animal(s) or group(s)
      - Clinical information such as results of physical examination, the behavior of the animal, and notations regarding observed abnormalities, illnesses, and/or injuries
      - Immunizations and other prophylactic treatments and procedures as appropriate for the species
      - Documentation of diagnostic tests and interpretation
      - Reference to the research intervention, where appropriate
      - Treatment prescribed and provided, the clinical response, and follow up
      - Surgery, anesthesia, analgesia and peri/post-operative care
      - Control of pain and distress
      - Documentation of euthanasia or other disposition
      - Documentation of necropsy findings, if indicated
   b. 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.
   c. 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.
   d. A copy of the medical record, or a pertinent summary of that animal's medical history, should follow the animal upon reassignment.
4. **Types of Animal Medical Records**
   a. **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 preventative 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 (FORMS MED1 & MED2).
   
   b. **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).
   
   c. **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 (FORM VET1), Operative Report (FORM VET2), Anesthesia Recovery (FORM VET3) and/or Post Operative Evaluation/Treatment (FORMS VET4a and VET4b)

5. **Guidelines for Maintaining Animal Medical Records**
   a. Maintain individual records for all large animal species (non-rodent mammals) i.e. dogs, cats, rabbits, and livestock.
   
   b. 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.
   
   c. 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.
d. Medical records follow the “SOAP” format, with each entry following the letter S, O, A, P utilizing the Progress Notes (FORM MED2). Include a history upon initial presentation, what has happened in the time preceding the onset of the particular problem in question (e.g., animal 4 days post-op abdominal surgery).

**S = Subjective:** Subjective evaluation
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?

**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 as 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 contains the conclusions reached or the diagnosis. May include a problem list, differential diagnosis, diagnoses. Clinical diagnosis may be multiple, tentative or final, including “rule outs”.

P = Plan: Plan for how to progress with diagnosis and care
What will be done about the case; this may be treatment, observation and re-
evaluation times, additional diagnostic tests, euthanasia, consultation with PI 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 (for example blood drawn for
  CBC). This will help assure 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.

6. **Common Acronyms/Abbreviations**
It may be helpful to utilize the following acronyms/abbreviations when making
notations to the animal medical record. This list is a guideline and is not
mandatory or intended to be all inclusive. The use of acronyms or abbreviations,
other than those listed below must be defined.
a. **Subjective Acronyms**
   BAR: Bright, Alert & Responsive
   WNL: Within Normal Limits
b. **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 & Intact
c. **Assessment Acronyms**

VSS  Vital Signs Stable

d. **Plan: Treatment Acronyms/Abbreviations**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C/T</td>
<td>Clean &amp; Treat (applicable to wound care)</td>
</tr>
<tr>
<td>Rx</td>
<td>administer</td>
</tr>
<tr>
<td>PO</td>
<td>per os, orally</td>
</tr>
<tr>
<td>IV</td>
<td>Intravenous</td>
</tr>
<tr>
<td>IM</td>
<td>intramuscular</td>
</tr>
<tr>
<td>SC/SQ</td>
<td>Subcutaneous</td>
</tr>
<tr>
<td>ID</td>
<td>Intradermal</td>
</tr>
<tr>
<td>Sid</td>
<td>once a day</td>
</tr>
<tr>
<td>Bid</td>
<td>twice a day</td>
</tr>
<tr>
<td>Tid</td>
<td>three times a day</td>
</tr>
<tr>
<td>qXh</td>
<td>administer every X hours</td>
</tr>
<tr>
<td>1x/wk</td>
<td>once a week</td>
</tr>
<tr>
<td>2x/wk</td>
<td>twice a week</td>
</tr>
<tr>
<td>3x/wk</td>
<td>three times a week</td>
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e. **Miscellaneous Acronyms/Abbreviations**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ad. lib</td>
<td>freely as wanted</td>
</tr>
<tr>
<td>tab.</td>
<td>tablet</td>
</tr>
<tr>
<td>cap.</td>
<td>capsule</td>
</tr>
<tr>
<td>inj.</td>
<td>injection</td>
</tr>
<tr>
<td>prn</td>
<td>according to circumstances (as needed)</td>
</tr>
<tr>
<td>mcg</td>
<td>microgram</td>
</tr>
</tbody>
</table>

f. **Conversion Factors**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Equivalent</th>
</tr>
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<tbody>
<tr>
<td>1 ml</td>
<td>1cc</td>
</tr>
<tr>
<td>1 lb</td>
<td>45 kg = 450 g</td>
</tr>
<tr>
<td>2.2 lb</td>
<td>1 kg = 1000 g</td>
</tr>
<tr>
<td>1 liter (L)</td>
<td>1000 ml</td>
</tr>
<tr>
<td>1 teaspoon</td>
<td>5 ml</td>
</tr>
<tr>
<td>1 tablespoon</td>
<td>15 ml</td>
</tr>
<tr>
<td>1% solution</td>
<td>10 mg/ml</td>
</tr>
</tbody>
</table>
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 head.

7. Animal Medical Record Forms
   - Form MED1 Summary
   - Form MED2 Progress Notes
   - Form VET1 Anesthesia Record
   - Form VET2 Operative Report
   - Form VET3 Anesthesia Recovery
   - Form VET4a Post-Operative Evaluation/Treatment (days 1-5)
   - Form VET4b Post-Operative Evaluation/Treatment (days 1-5)
   - Rodent Post-Procedure Monitoring Veterinary Alert Card