

ANIMAL SURGERY TECHNOLOGIST

NATURE OF WORK

This is responsible technical work in the coordination of the activities of the Animal Surgical Research Lab including the care of animals used in surgical experimentation for research and teaching purposes.

An employee of this class coordinates the day to day activities of the prep and operating rooms including responsibility for scheduling surgeries; ordering required supplies and materials as per the research protocol; setting up surgery equipment and instrumentation. Work involves performing pre and post operative care and assisting during the surgery of the animals used in surgical research and teaching. Work is performed independently within established protocol methods and procedures by the supervisor. Work is reviewed through observation of results and discussion.

ILLUSTRATIVE EXAMPLES OF WORK

Coordinates the daily operations of the Animal Surgical Research Lab including orthopaedic, cardiovascular and gynaecological surgeries; ensures that animal care standards, including those established by the Canadian Council on Animal Care, are maintained; schedules and confirms time in the animal surgery operating rooms; and resolves scheduling conflicts.

Reviews the protocol determined by the researcher; discusses the surgery with the researcher or faculty member included in the proposed and approved protocol, the type and quantity of materials required, and the animal's condition.

Weighs the animal, restrains larger animals as required; determines, calculates and prepares the required pre-anaesthetic and anaesthetic, administers pre-anaesthetic and anaesthetic via injection or inhalation to various animal species used in research and/or teaching such as the miniature Yucatan pigs, rats, gerbils, mice, rabbits, woodchucks, chicken and frogs.

Prepares the animals for surgery including endotracheal intubation and preparing the surgical field for clipping fur, cleaning and disinfecting, and draping the surgical site.

Monitors and maintains records during the surgery on the animal's vital signs including recording the heart rate, blood pressure, anaesthetic level, oxygen and nitrous levels, temperature, tidal volume and respiratory rate; assists with the surgery, as required; and responds in emergency situations, following established procedures and through consultation with the researcher.

Cares for the animal after the surgery, as required; monitors the incision area, temperature, urinary output, bowel movements, eating habits, etc.; administers antibiotics via

inter-muscular injection or orally; takes blood samples for analysis in the on site lab; reports any problems to the researcher; and removes sutures.

Disposes of the animal after non-recovery surgery, disinfects and sterilizes the operating room, equipment and the tools; forwards used surgery clothing for cleaning.

Prepares the budget for the surgical laboratory for review by the Chair of Surgery, in the Faculty of Medicine, including supplies and medications required; oversees expenditures and approves account expenditures.

Orders drugs and lab supplies; receives, labels and stocks drugs; assigns a number on drugs for inventory tracking; and orders any capital equipment, once the purchase is approved.

Studies literature and participates in educational endeavours to keep abreast of the latest surgery techniques.

Sets up teaching labs and assists the faculty member in the delivery to students.

Performs other related work as required.

REQUIREMENTS OF WORK

Thorough experience in a veterinary or medical laboratory; graduation from high school supplemented by completion of an approved laboratory technology program qualifying for registration; or any equivalent combination of experience and training which provides the following knowledge, abilities and skills:

Thorough knowledge of the principles, methods, materials and techniques of animal surgery procedures.

Considerable knowledge of the hazards and safety precautions involved in the work.

Considerable knowledge of the physiology and physical characteristics of animals.

Knowledge of the literature and of current developments in the field of animal surgery technology.

Knowledge of record keeping principles, methods and procedures.

Ability to perform assigned tasks according to prescribed protocols and to make accurate determination of proper procedures.

Ability to establish and maintain effective working relationships with faculty, staff, and students.

Skill in the use of surgery equipment and in the monitoring of various vital signs during surgery.

Skill in handling and caring for a variety of laboratory animals.

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