Policy on the Importation and Exportation of Research Animals


Transportation

a) Introduction
For most laboratory species, the most common method of transportation is either by ground transportation over relatively short distances, or by air for longer distances. The objective of any method of transportation is to ensure the safety, security and comfort of the animal, while moving it efficiently to its destination. Adherence to principles of humane transportation and handling during the transport period and on arrival at the institution should help ensure that, when the animal is used in research, teaching or testing, the results are meaningful and scientifically valid.

b) Regulations-Containers and Transportation
The International Air Transport Association (IATA) annually produces the IATA Live Animal Regulations, which includes information concerning the documentation, the containers and other requirements for humane transportation of live animals (IATA, 1992). Legislation in Canada addressing transportation includes the (federal) Health of Animals Act (C-66, June, 1990, rev. March, 1992; 38-39 Elizabeth II, Chapter 21) and Ontario’s Animals for Research Act (Revised Statutes of Ontario, 1980, Chapter 22 as amended by 1989, Chapter 72, s6 and Regulations 16, 17, 18, 19).

c) Transportation Stress
Transportation can result in significant stress for the animals, and have a significant impact on the animals’ welfare. Swallow et al. (2005) provide a list of potential sources of stress for animals being transported. Transportation stressors can be categorized as physical (changes in temperature, humidity, or noise), physiological (poor access to food and water), and psychological (exposure to novel individuals or environments). Specific stressors in animal transportation include inexperienced handlers, the amount of time spent in preparation, in transit, and on arrival at the destination, and the state of the mode of transport, e.g., rough roads, rough rail beds, rough seas and air turbulence. Of importance are the comfort and suitability of the container, sufficient time spent for adaptation to the container prior to transport, and the temperature and ventilation of both the container and the ambient temperature of the environment and the various temperature zones through which the animal may pass. It is essential to make appropriate pre-arrangements concerning the transport of the animal in order to minimize the length of time spent in transit. Where possible, animals should be acclimatized to the containers, the mode of transport, and the food and water that will be provided during transport. The transportation route should be planned from loading to unloading in order to minimize journey time, and any potential delays should be considered. Measures should also be taken to minimize sudden movements, excessive noise and vibration during transport.

Prior to sending the animals, they should be examined and found to be fit for transport. Animals that are sick or injured should not be transported, unless it is determined that: 1) transport will not cause additional welfare problems; 2) the animals are being transported under veterinary supervision for, or following, veterinary treatment; or 3) the animals are being transported for scientific purposes approved by the ACC, and particular attention has been given to any additional care which may be required. However, it should be noted that this does not remove liability under the various animal transportation regulations. If pregnant animals or animals with young are to be transported, they should be given special consideration, appropriate for the species.

Personnel engaged in the transportation of animals, including those employed by the animal facility; require knowledge of the various types of animals being used. They must also be cognizant of the container requirements, and specification requirements for labeling and marking, and for completion of the proper documentation, which includes any licensing requirements, both for export and the country of designation. They should be knowledgeable of shippers’ responsibilities as well as those of the individuals receiving the animals. They should realize the importance of making advance arrangements concerning the shipment and transport of animals. Personnel who are handling animals must be trained appropriately in routine and emergency procedures that are species-specific and specific for the mode of transportation.
transportation. Personnel must also be trained to recognize physiological signs that may indicate a problem in a single animal or in a group of animals.

d) Receiving Animals

The institution receiving the animals should be prepared for accepting the animals by providing proper facilities and appropriate handling by trained, experienced personnel. Institutions should be responsible for ensuring records are kept for all animals received. Animal records should include the source of the animal, date of arrival, condition of animal upon receipt (including any deaths), number upon arrival reconciled with number ordered/expected, and where possible, information on health status. Genetically-engineered animals that are brought into an institution should have accompanying documentation, which includes the genotype, phenotype, information on welfare concerns and health status. When the animal arrives at its destination, the institution must ensure that it is then brought to the institution in a safe and humane manner. Air conditioned vehicles specifically designed for these purposes are essential in order to reduce stressors that may have increased during the transport period.

Acclimatization to the environment and a stabilization of the animal, physiologically and behaviourally, are essential prerequisites before the animal is used. The period for acclimatization of each animal varies, and therefore, knowledge of the species and of the individual animals is essential. The time required for the animals to adapt to the laboratory environment will depend on the species and prior experience (including the degree of handling and the nature of any confinement). The animals should be housed according to the species-specific requirements.

Quarantine areas should be subject to extra vigilance in monitoring the animals and in maintaining good records, in order to detect and respond to any health problems in quarantined animals. Duration of quarantine should be appropriate to ensure that the health of the animals under quarantine and that of the conspecifics already resident at the research facility is assured. The purpose of quarantine after receipt of animals is to isolate the animals from the main populations in the facility, in order to permit careful observation and health screening until the newly arrived animals are deemed to be healthy and free from communicable disease when these animals can be integrated into the colony or placed on experiment. Minimum quarantine times should be established in consultation with the veterinarian, based on the anticipated time frame for expression of the pathogens of concern. New stock animals should undergo routine health screening if they are to be mixed with existing stocks. Quarantine areas should be managed according to rigorous infectious agent control practices, and personnel should be sufficiently trained in these practices.

The Queen's University Animal Care Committee along with Animal Care Services has developed the following policy:

Receiving Animal Orders at Queen’s University, Animal Care Services

- Animal Care Services (ACS) requires immediate notification of a researcher’s intent to receive animals from a commercial/non-commercial source. The reasons are as follows:
  - to determine the health status of room where the animals are currently housed;
  - to ensure that Queen’s University has adequate housing, either dirty quarantine or clean quarantine
  - (please note some undesirable pathogens will be refused);
  - to arrange appropriate transportation;
  - for time lines and tracking of shipment (4 weeks notice once serology has been received).

- If the animals received are intended for an acute experiment or pilot project, these animals may be accommodated in the quarantine room for short term study. Prior approval for this is required by the University Veterinarian/Director, Animal Care Services.

- All orders (either from commercial or non-commercial suppliers) must be accompanied by a historical serology report of at least 9-12 months (3 consecutive serology reports) which clearly indicates the room location where the animals are currently housed. In the event that serology is not complete, or indicates that the animals are not pathogen free, the animals will be received into dirty quarantine and must be rederived via the rederivation process.
protocol. If complete serology indicates a clean bill of health, the animals may be received into clean quarantine, for a specific period while Queen’s University completes full serological testing, the cost of which will be born by the Principal Investigator.

- To complete inter-institutional orders, ACS must be forwarded a completed Inter Institutional Animal Transfer (IAT), providing all contact information from the receiving/shipping institutions and clearly stating who will pay the cost of shipping. Typically, the recipient pays the cost of the shipment.

- Once a shipment has been scheduled, the shipping institution must provide all documentation (as listed) to ACS.
  - Airway Bill
  - Bill of Lading and Commercial Invoice
  - Inter Institutional Animal Transfer (IAT)
  - Health Certificate
  - Recent Serology and Parasitology Reports
  - Material Transfer Agreement

- All animals to be imported must be named on an approved animal use protocol (AUP). Should the researcher wish to obtain a species or strain not listed on their protocol, an amendment must be submitted to the UACC for approval. Rodents received from non-commercial sources to establish breeding colonies must be rederived via the rederivation protocol, the cost of which will be born by the Principal Investigator.

- Animals ordered by Investigators without following these procedures, and which therefore arrive at Animal Care Services (ACS) without notice, may be euthanized upon arrival and the UACC will be notified of this incident.

**Shipping Animal Orders from Queen’s University**

All animals shipped from Queen’s University, will comply with CCAC guidelines and IATA Regulations. That is, appropriate documentation including full serology and parasitology reports must be provided, the recipient institution must agree, in writing, that they will accept the shipment; appropriate and well labeled shipping containers must be used; and shipping environments that are acceptable to the species (including ventilation, temperature and housing density) must be provided. Undue stress should be kept to a minimum whenever possible and safety of both personnel and the animals must always be a priority.

**Guidelines for Vehicle Transportation**

- Vehicles should have adequate heating/cooling to maintain general animal comfort – special precautions or postponement for longer trips should be considered for temperatures below 7°C or higher than 29°C for most animals.
- Protection from direct sun is required.
- Animals must not be left unattended in vehicle for any length of time during transport.
- Animals must not be placed in the vehicle’s trunk.
- Public transport (ex. bus, taxi, etc.) is **NOT** an acceptable means to move research animals.
- Transport containers should be fastened down.
- All animals must be labeled with Queen’s University (Animal Care Services) including the full address and contact information.
References:

- UK Laboratory Animal Science Association Guidance on the transport of laboratory animals (Swallow et al., 2005).
- Swallow et al. (2005)
- ILAR (2006)