

COMPARATIVE MEDICINE
LABORATORY ANIMAL FACILITIES

STANDARD OPERATING PROCEDURES
for
CISPLATIN/CARBOPLATIN INJECTIONS AND HUSBANDRY OF INJECTED
ANIMALS

1. Purpose;

This procedure outlines the occupational health and safety guidelines that should be followed when working with cisplatin or carboplatin in the animal facility. Cisplatin is a carcinogen (a chemical that can cause cancer) and a possible teratogen (a chemical that can induce birth defects). The carcinogenic and teratogenic potential of carboplatin has not been evaluated, but it should be assumed that carboplatin may act as a carcinogen and/or teratogen. Cisplatin and carboplatin are used to induce hearing loss in laboratory animals. Contact with skin and eyes should be avoided. Inhalation of the powdered form of the drug must be avoided. Ingestion of the drug should be avoided. Cisplatin and carboplatin are excreted for a short period of time in the urine and feces of animals that have been injected with it, so precautions must be taken during the 24 hours after a cisplatin or carboplatin injection, when handling urine, feces, or bedding from injected animals.

2. Scope:

This SOP applies to all Principal Investigator staff and LAF personnel working with these chemicals in animal rooms or performing animal husbandry on animals injected with this chemical.

3. Procedure:

- a. Personnel must enroll in the occupational health medical program at UB and attend cisplatin/carboplatin safety training.
- b. Cisplatin or carboplatin should not be handled by persons who are pregnant or may be pregnant.
- c. Injection of animals with cisplatin or carboplatin:
 - i. Reconstitution and handling of cisplatin or carboplatin must be done in a chemical fume hood. Nitrile gloves must be worn when mixing or handling cisplatin or carboplatin. Animal injections do not need to be performed in a fume hood or biological safety cabinet.
 - ii. If an accidental needle stick or self-inoculation occurs while handling cisplatin or carboplatin, standard operating procedures for needle punctures, as outlined in SOP 3.F.1, should be followed.

- iii. In the event of a spill, the spilled cisplatin or carboplatin should be cleaned up with a paper towel and the paper towel should be placed in a plastic bag and disposed of as chemical waste.
 - iv. The person performing the cisplatin or carboplatin injections will place a chemical hazard tag on the animal's cage and complete an "Ototoxic Drug Use" form (see attached) and turn it in to the Veterinary Technician's office located in room 204 BEB after the injection is done.
- d. Husbandry and veterinary monitoring of animals injected with cisplatin or carboplatin:
- i. Animals injected with cisplatin or carboplatin will be housed in conventional animal rooms in open wire-top cages or microisolator cages.
 - ii. All injected animals will be identified with a chemical hazard tag and appropriate signage will be placed on the animal room door (see attached). Any animal with a chemical hazard tag on its cage must be handled with nitrile gloves.
 - iii. The veterinary technicians will monitor all animals injected with cisplatin or carboplatin for 2 days. Cisplatin and carboplatin can cause renal failure in laboratory animals, so animals should be monitored for signs of dehydration, lethargy, and inappetence.
 - iv. The veterinary technicians will remove the chemical hazard tags 24 hours after the last carboplatin or cisplatin injection is given.
 - v. Disposal of bedding can be done in the standard manner after the chemical hazard tags have been removed. No special precautions need to be taken.