

University of Notre Dame
Institutional Animal Care and Use Committee
Standard Operating Procedure for Husbandry and Housing of
Rodents Infected with Antibiotic Resistant Strains of Bacteria

Background

The housing and husbandry concerns for rodents with antibiotic resistant bacterial strains include the prevention of the spread of the bacteria to other animals or personnel, minimizing the possibility of aerosolization of urine and respiratory secretions, and monitoring of illness in the infected animals. Antibiotic resistant strains of bacteria are regulated by the IBC and must have an approved IBC protocol prior to use in the animal facility.

Housing

1. Animals will be housed in accordance with Animal Biosafety Level 2 recommendations.
2. Caging will consist of a disposable cage unit (cage/ filter bonnet/ feeder/ water bottle).
3. Rodents will be housed in disposable caging to allow sterilization and disposal of the cage and bedding with minimal exposure to cage washing personnel.
4. Appropriate signage will be posted on the room door and laminar hood indicating pathogen and PPE requirements.

Husbandry

1. Husbandry personnel will wear personal protective equipment that includes a particulate mask, disposable gown, bouffant cap, and exam gloves.
2. Cages will be opened in the laminar flow hood. No cages will be opened outside a hood.
3. Soiled cages will not have the bedding dumped or removed. Instead the cage will be placed in an autoclave bag for sterilization following completion of cage changing.
4. Water bottles will be autoclaved with the cage.
5. Biohazard bags containing contaminated caging will be labeled with the pathogen and taped closed.
6. All dead animals will be placed in a biohazard bag and autoclaved prior to disposal.

Monitoring

1. Many studies will have death as the end point requiring frequent observations and monitoring. Animals will be monitored every 6 hours after inoculation with the antibiotic resistant bacteria.
2. All observations will be recorded on the observation sheet located in the animal room.
3. Any animals that become moribund and do not respond to stimuli will be euthanized by the investigator.

University of Notre Dame
Institutional Animal Care and Use Committee
Guidelines for Inoculation of Antibiotic Resistant Bacterial Strains

Purpose

The purpose of these guidelines is to prevent the exposure of personnel to antibiotic resistant bacterial strains and minimize the risks associated with the use of these bacterial strains.

Preparation and Transport

1. All inoculums will be prepared by the persons maintaining the cultures.
2. All inoculums will be clearly labeled designating the infectious agent.
4. Transportation across campus will be in accordance with recommendations by the Department of Risk Management and Safety. All transport containers will be marked with the appropriate biohazard signage.
5. Freimann Life Science Center must be notified of and confirm the date and time the inoculums are to be delivered to the animal facility.
6. Inoculums must be delivered to a specific person. They cannot be dropped off at the reception desk.

Personal Protective Equipment

1. Personnel handling syringes must do so only under a laminar flow hood.
2. Personnel must wear the following PPE: double gloves, disposable gown, bouffant cap and particulate filter mask.
3. A recapping device must be used.
4. Syringes and needles are discarded in a designated sharps container stored in the hood. Needles are not removed from the syringe.

Animal Handling

1. All inoculations are performed in the hood.
2. Animals will be transferred to a disposable cage under the hood after inoculation.
3. The filter bonnet will be secured before the cage is removed from the hood.
4. Any restraint devices utilized during animal procedures will be soaked in a chlorine dioxide solution before routine disinfection procedures are initiated.

Clean-up

1. The hood will be wiped down with a chlorine dioxide solution followed by 70% ethanol.
2. The hood will be sterilized using the UV light for a minimum exposure of one hour.
3. All gloves, gowns and masks will be doffed so that the outer surfaces are not exposed and they will be disposed of in the biohazard trash. The biohazard trash is autoclaved before disposal.
4. This sharps container will be labeled and closed after each use. When it is full or the study has ended, the sharps container will be bagged in an autoclave bag and autoclaved prior to pick-up by the Department of Risk Management and Safety.