



Animal Facility SOP 32.2

Routine Sentinel Procedures in Microisolator Facilities (Animal Surveillance)

Date Adopted	11/4/2020
Date Last Updated	8/30/18
Prepared by	Kelley J. Murphy, Sr Research Associate, Hoffman Lab
Reviewed by	Julie Watson; Terzi 2/11/2020

I. **Purpose:** Instructions for inoculating and maintaining sentinels for sentinel exposure for our animal health surveillance

II. Personnel Responsibilities

Animal Facility Staff are responsible for frequent checks to ensure that procedures are being followed and that sentinels are submitted in a timely manner. Reports any problems or deviations to the Director.

Director, Laboratory Animal Management: Will review all deviations in this process and implement corrective action or SOP revision accordingly.

III. Materials and Information Required:

- Clean cages
- Indelible marker or pen
- New disposable spoon
- Sentinel cage card yellow with white sticker)
- 2 female 4-6 week old CD-1 sentinel mice or CD rats from vendor per sentinel cage
- Chlorine dioxide (or equivalent) disinfectant

Procedure:

Prior to the start of cage inoculation ensure that all needed supplies are available.

1. At the start of each rack change, empty the contents of the hood and disinfect all surfaces to include the walls top and flat surfaces.
 - a. Use a spray bottle or saturated cloth with a high level disinfectant.
 - b. Make sure the surfaces are damp when you have completed the disinfectant procedure.
2. When placing the appropriate equipment in the hood, spray it with a high level of disinfectant before setting it on the hood surface. (Do not put unneeded items in the hood.)

3. Place an empty, autoclaved sentinel cage on the opposite side of your dominant hand. The sentinel cage should start with no more than ¼ inch of autoclaved bedding for rats and no bedding for mice cages. Excess bedding should be dumped in the first dirty cage to be changed.
4. Do not place anything in a position that will block the airflow of the grates.
5. Remove the top of the new sentinel cage and place the cage lid with the inside up just to the side of the cage.
6. Place another clean cage in the hood as described above.
7. Place the cage with animals inside the hood.
8. Make sure that you spray everything under the hood with the disinfectant as it is being placed in the hood.
9. Open both cages placing the lids with the inside up.
10. Spray gloved hands until both are saturated. Transfer animals into their new autoclaved cage (to move mice, use forceps to gently grasp the skin behind the neck, or use your hand to grab the base of the tail; for rats, grab by the base of the tail).
11. Secure the wire bar lid, and place a new autoclaved water bottle onto it.
12. Replace the top and transfer cage card/cage card holder on the new animal-filled cage, and place it on the rack.
13. Take a representative sample of the dirty cage by collecting a heaping spoonful of feces and dirty bedding from the cage with the disposable spoon and place it into the sentinel cage.
14. Place the spoon on the top of the sentinel cage. Close the top of the dirty cage and place it on the dirty transport carts.
15. Repeat this with every cage on the rack.
16. Transfer/add the sentinel mice or rats to the new sentinel cage as described above.
 - a. Place 2 female 4-6 week old CD-1 mice or CD rats per cage.
 - b. Place sentinel cages on the bottom right hand corner of the appropriate rack.
17. Complete the sentinel cage card. (This card should be yellow with a white sticker).
 - a. The following information should be placed on the front side of the sentinel cage card.
 - Facility room and rack number.
 - PI name(s) that are on rack
 - Date that the sentinel was placed on the rack.
 - Date of the first exposure to soiled bedding.
18. Samples from sentinels in each room are submitted for testing quarterly. The Animal Facility Coordinator assigns the sentinel submission and ordering

schedule at the beginning of each year and sends out monthly reminders by email.

Things to remember:

19. Assign one sentinel cage per single-sided rack unless otherwise instructed.
20. Use yellow sentinel cards with white dot marked with an 's'.
21. The Animal Facility Manager will contact investigators and the on-call veterinarian in advance to coordinate sentinel submission.
 - a. On the scheduled date, collect samples prior to 9:00 A.M.
 - b. If a scheduled rack sentinel is not submitted, document explanation on the sentinel schedule form that was sent to the investigator.
 - c. Sentinels are replaced every 6 months. The Animal Facility Coordinator will order new sentinels through the Biology Department and place new sentinels as scheduled.
 - d. Contact the on-call veterinarian (Dr. Terzi) for all sentinel questions.

Special Instructions:

- Each side of a double rack is considered to be a different rack.
- Use a new spoon for each rack or sentinel cage. Some racks may have multiple sentinel cages if there are special group designations.
- Sentinels should never be moved to a different rack after exposure, unless all cages on that rack are being transferred to a new rack.

I acknowledge that I have read and understand the Morgan State University Standard Operating Procedure "Routine Sentinel Procedures in Micro-isolator Facilities" and I will follow this procedure. I agree to bring any deviations in this procedure to the attention of the Director of Lab Animal Management.

Name (Print)

Date

Signature