



INDIANA UNIVERSITY

MELVIN AND BREN SIMON
COMPREHENSIVE CANCER CENTER

Title: Oral administration of Test Material including gavage and additives to drinking water or food

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Equipment:

Appropriate sized syringe

Metal or plastic feeding needle (usually 14 to 20 gauge x 1.5 to 3 inches long with a smooth stainless bead or Teflon-coated tip)

Procedure:

1. **Measure the length of the needle to ensure it is appropriate before use by comparing anatomical landmarks on the outside of the body. In a properly restrained rodent, when the hub of the gavage needle is in line with the mouth, the tip of the needle should line up with the stomach. The position of the stomach can be estimated by the level of the last rib or xiphoid process.**
2. **Attach the needle to the syringe and fill the syringe with the correct dose volume.**
3. **Restrain the animal for dosing. Hold the animal vertically or in a manner to minimize interference with respiration.**
4. **Pass the needle to one side of the incisor teeth**
 - a. **If the needle is curved, the convex side should point toward the roof of the animal's mouth**
 - b. **If the needle is straight, press the bead against the upper lip and tilt the head back so that it is in a straight line with rest of the body to ensure safe passage of the needle into the esophagus.**
5. **Push the needle toward the back of the roof of the mouth. When the back of the mouth is felt, continue pushing gently, tilting the tip of the needle slightly forward.**
 - a. **If it is inserted properly, the needle will easily slide into the esophagus (to the hub of the needle).**
 - b. **Do not insert the needle rapidly; remove immediately if any resistance is felt**

- 6. When the tip of the needle is properly positioned, administer the dose. After the entire dose has been administered, remove the needle with a smooth, rapid motion.**
- 7. Observe the animal after dosing for signs of froth, exudates around the nose or continuous sneezing. If any of these occur, the liquid may have been administered into the trachea and the animal may have to be euthanized.**
- 8. If additives are made to the drinking water or food, animals must be monitored to ensure that adequate fluid or food intake occurs.**