

STORAGE CONDITIONS AND PRECAUTIONS OF RADIOACTIVE PHARMACEUTICALS

Precautions for handling of radioactive pharmaceuticals:

The following guidelines provide information on the safe handling of radioactive substances. They are based on the relevant legislation and on the Code of Practice for Handling Radioactive Substances.

- The radioactive substances used should comply with the following characteristics:
 1. Radio toxicity must be as low as possible.
 2. Short-living isotopes are preferred to long-living ones
 3. The amounts used must be kept to a minimum.
- Never work alone in a radioactive lab, especially not outside normal working hours. Always make sure to have someone nearby in case of emergency.
- Take all precautions to prevent radioactive contamination:
 1. Always separate radioactive activities from non-radioactive activities.
 2. As far as possible, limit the area where radioactive substances are used and mark the area, e.g. by using containers with absorbent paper.
 3. Apply a radiation symbol to any containers and items that have come into contact with radioactive substances.
 4. Never bring documents such as notes into the radioactive zone.
- When handling radioactive materials, always wear the appropriate protective clothing:
 1. Wear a lab coat. If there is a risk of serious contamination, wear disposable clothing. Store your lab coat away from your regular clothes.
 2. Always wear gloves when handling radioactive substances. Regularly check the radiation level of these gloves.
 3. Never touch anything with potentially contaminated gloves; use paper tissues instead.
 4. Wear shoe covers in rooms where the floor may be contaminated.
 5. Keep personal items such as handbags, etc., outside the lab.
- Use appropriate radiation shields. Return the stock solution to storage immediately after removing the amount needed.
- To avoid internal contamination, strict hygiene is essential when handling radioactive materials

1. Eating, smoking, drinking, and applying cosmetics are prohibited in radioactive labs.
 2. Never pipette by mouth. Use pipetting devices instead.
 3. Wash your hands thoroughly when you leave the lab.
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- Regularly check the radiation level of your working area and all objects used, or at least at the end of each working day. Replace contaminated absorption paper. Decontaminate contaminated objects.
 - Dispose of all radioactive waste in the appropriate containers. Limit the amount of waste to a bare minimum. Separate short-living and long-living radioactive waste.

Storage of Radioactive Substances:

- Radiopharmaceuticals should be kept in well-closed containers and stored in an area assigned for the purpose. The storage conditions should be such that the maximum radiation dose rate to which persons may be exposed is reduced to an acceptable level.
- Care should be taken to comply with national regulations for protection against ionizing radiation.
- Radiopharmaceutical preparations that are intended for parenteral use should be kept in a glass vial, ampoule or syringe that is sufficiently transparent to permit the visual inspection of the contents. Glass containers may darken under the effect of radiation.