

### COMPOUNDING I-131 SOLUTION

UPDATED: SEPTEMBER 2007

---

1. No compounding or ordering of a therapy dose should be done before a completed Radionuclide Therapy Form is received from a physician and verification is complete by another physician or nuclear pharmacist.
2. If a dose is required during off-hours and radiopharmacy staff is unavailable, unit dose capsules may be ordered from Cardinal Health at 270-2670. A patient name and indication are needed to order the dose.
3. To begin compounding, determine which lot of I-131 to use for compounding.
4. Turn on air monitoring pump.
  - a. This is located on the inside right side of the I-131 hood. The button is under the plastic lid on the top.
  - b. Record activity in the I-131 vial being manipulated, as well as the length of time that the air pump is activated, on the clipboard hanging above the sink.
5. Draw dose from I-131 bulk vial as calculated by pharmacy computer system.
6. Verify activity and place I-131 solution in glass vacuum tube (remove top of vacuum tube prior to adding the solution).
7. Add sterile water to make a final volume around ½ of the vacuum tube
8. Under *Custom Preparations* in the Nuc Med Manager, create a solution (431), and press <f6> to add the desired lot of I-131. Enter the exact activity as the final activity of the solution product, not what was prescribed.
9. Under *Patient Studies* in the Nuc Med Manager, enter the patient information as written on the directive. This information requires a second verification, as outlined on the written directive sheet.
10. Verify the final assay of the solution, as outlined on the written directive.
11. Dispense and place dose on the pick-up counter.
12. Monitor the area and protective equipment for contamination. Dispose of contaminated equipment and syringes into a **SEALABLE** plastic bag, seal and dispose in the long half-life decay bin. Very hot items that lead to excessive exposure in the waste bin, or clothing, may be bagged, labeled, and placed in the decay safe.
13. Turn off the air pump, note time the air pump was activated on the clipboard located above the sink
14. Bioassays must be performed weekly for all pharmacy personnel. Bioassays must be performed by administering clinicians (solution) *only* when the amount administered exceeds 30 mCi or if contamination is found at the dispensing area.

---

Reviewed By: S. Perlman, D. Fuerbringer, S. Knishka

---

SCOTT B. PERLMAN, MD, MS  
Chief, Nuclear Medicine

---

DEREK FUERBRINGER, CNMT  
Manager, Nuclear Medicine

---

SCOTT KNISHKA, RPh, BCNP  
Nuclear Pharmacist