

**Radiation Oncology  
Community Hospitals  
Indianapolis**

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**To:** CHS Nuclear Medicine, CHS Surgery, CHI RSO, Rad. Onc. Physics/Dosimetry/files

**Subject:** change of procedure for seed implants.

The following procedure change may be considered fallout from the CHS I-125 seed implant on 8/29/2001. The final seed count was one short of the manufacturer-stated number of seeds (106/107). Search for this seed came up negative in the CHS surgery department, CHS nuclear medicine department, and in a post implant film of the patient. The vendor has stated that they had no inventory problems.

**Procedure Change:** count seeds in shipping vial to verify order quantity

To facilitate this, a vacuum tweezers with modified tip is being provided. Ten I-125 or Pd-103 will fit above the black (blue, red) line on the tip. This is periodically checked by actually counting the number of seeds between the lines. Little and very infrequent adjustments can be made by sliding the small inner tube in or out. Using the vacuum device, 120 seeds can be counted in five minutes or less. Seed counting has been standard operating procedure at CHE since the latter part of 1998 with only two orders to date incorrectly filled.

To minimize exposure, this can be done behind the L-block; seeds must be dry:

1. Dump vial's contents into some small and shallow container.
2. Place open and empty vial back in open pig.
3. Suck 10 seeds into tip, record count, dump tip's contents back into vial.
4. Repeat #3 till all seeds have been counted. You may wish to hold some seeds back for assay<sup>1</sup> at this time.

<sup>1</sup> Current recommendations call for assay of 10% of the order's quantity (10 out of 100 seeds).

**Procedure Change:** sterilization of seeds will be performed by radiation oncology staff

While there is absolutely no indication that any individual did something wrong or carelessly, in conversation with the RSO it has been decided to tighten procedures by limiting the number of staff handling seeds. A physicist or dosimetrist will retrieve the seeds from nuclear medicine, load and unload the autoclave, and transport the seeds to the needle loading area (usually the cysto. prep. room). The area where the sterilization pig is filled, the autoclave, and the needle loading area will be surveyed with an appropriate instrument. The needle loading area has been routinely surveyed all along. Basically, what is being implemented at CHS reflects the procedures in use for years at CHE. The one difference being that radiation oncology at CHE performs the initial seed count and assay rather than nuclear medicine.

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