

AbstractID: 3969 Title: A comparison of NCRP 147 CT shielding methods

**Purpose:**

The NCRP report 147 describes two methods to calculate the shielding, one using a scattered fraction of the CTDI, and another using the scatter plot supplied by the manufacturer. The two methods are used to calculate shielding for a model CT suite, and the results compared. The calculation complexity and gantry attenuation are major differences.

**Method and Materials:**

The scatter fraction method only requires the CTDI, which is supplied by the manufacturer or available at IMPACTscan. The scatter plot needs to be adjusted to the room scale and overlaid.

**Results:**

The scatter fraction was simple but no consideration for attenuation of the gantry is made. The scatter plot gives the best information for the radiation near the gantry.

**Conclusion:**