

AbstractID: 8681 Title: Measurement of Radiation, Scatter and CTDI<sub>w</sub> from the Toshiba 320-slice CT Scanner with and without Shielding

Scattered radiation has the potential to deliver high radiation doses to operators located within the scanning room during computed tomographic (CT) guided procedures. Measurements were made to determine the scatter radiation exposure from a 320-slice Toshiba CT scanner. Additionally, the scatter radiation was measured after applying a lead-free shielding drape adjacent to the scanning areas to determine the effects on scatter radiation. The ACR CTDI head and body phantoms were used to measure the CTDI<sub>w</sub> for the adult head, the adult abdominal, and the pediatric abdominal protocols. Measurements indicate that, when similar scan protocols are used, a reduction of exposure is observed when using the 320-slice scanner. Furthermore, scatter radiation is significantly reduced by using the lead-free shielding drape.

Keywords: CT, scatter, shielding, phantom