

**Information Notice Number 32
(December 2009)**

For Florida Radiation Machine Registrants

Department of Health, Bureau of Radiation Control

COMPUTED TOMOGRAPHY (CT) OVEREXPOSURES

Recently a facility in California discovered they had delivered 3 to 4 Gy (300 to 400 Rad) to patients while performing perfusion studies for the diagnosis and treatment of strokes. These doses are well beyond the expected maximum of 0.5 Gy and caused prompt health effects for some patients including alopecia and erythema (see <http://www.fda.gov/MedicalDevices/Safety/AlertsandNotices/ucm185898.htm> for more details). Additional high dose events from perfusion studies have since been discovered at other facilities in California and Alabama.

Because of the serious nature of these events and the possibility similar problems could be present at facilities in the State of Florida the bureau strongly recommends all facilities performing CT examinations:

- Review their CT protocols to ensure appropriate techniques have been selected.
- Know the dose indices normally displayed for each protocol and monitor the index both before and after scanning the patient. These indices commonly include CTDI_{vol} (volume computed tomography dose index) or DLP (dose-length product).
- Know which protocols involve scanning the same area multiple times and track accumulated dose.
- Identify if the patient has had prior CT examinations of the same area and consider the possible effects of the additional exposure.
- Ensure their staff clearly understand the difference in magnitude between the SI unit of Gray for absorbed dose (commonly used in dose indices) and the obsolete unit Rad.
- Report all adverse events associated with CTs to MedWatch (use the link above for further information).

These actions are recommendations only and are not required by current state regulations. Additional recommendations from the Conference of Radiation Control Program Directors (CRCPD) may be found at http://www.crcpd.org/Positions_Resolutions/Healing_Arts/HA27.pdf . If you have any questions please contact the office at the number below.

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