

COMPUTED TOMOGRAPHY

The presentation will focus on computed tomography (CT) and new applications of the modality coming to the forefront in recent years. The objective is to accomplish a few specific goals. First, an update will be provided on activities pertaining to computed tomography fluoroscopy (CTF). The impact and ramification of CT for “real time” imaging was discussed at the September 1999 TERPPSC meeting. Some short and long term action items were described at the time of the presentation. We want to review the status of these actions including any possible standards setting activities. Second, we want to make the committee aware that the last standards setting activity with respect to CT equipment was in the early 1980s. This fact, obviously, has some import on relevance when compared to current equipment. Since the 1980s, there have been many advances in CT equipment including spiral CT, CTF and multi-slice spiral CT. These advances provide the potential for whole new generation of applications with significant benefit to the patient population. For example, multi-slice CT systems provide the potential for whole body imaging in short periods of time (50 sec). The volume of tissue imaged and the short amount of time provide a real benefit for trauma triage situations. Third, on the risk side is the fact that CT is one of the main contributors to population exposure of any x-ray imaging modality. We want to review some of the risk aspects particularly given the anticipated increase in the use of the modality because of advances in the equipment. An example of a new application was provided in an article from the "The Wall Street Journal" Interactive Edition titled: "Using the CAT Scan As a Checkup Device." The article pointed out that private individuals are paying out of pocket for a whole-body CT scan as a screening tool. Although it is clear that equipment performance standards aren't necessarily the answer or the only answer, the advances in this equipment raise many interesting questions with respect to radiation protection and safety.