

AbstractID: 13204 Title: The Threac 25 Incidents and Present Day Problems with Computer Controlled Linacs

Recent publicity has brought the issues of linac safety and QA to the fore. Yet over the years there have been numerous reports, both official and unofficial, of accidents and overdoses involving the improper diagnostic and therapeutic application of ionizing radiation. A series of accidents involving the AECL Therac 25 in the 1980s caused three fatalities and other serious injuries. It was not until the fifth incident that the cause was determined and proper notice given to users. A first-hand account of the two incidents in Tyler, TX looks at the barriers that prevented the discovery of and the solution to fatal software flaws. It has been twenty-four years since Malfunction 54 and there are still software flaws and machine errors that plague our field. A review of these accidents reveals the same barriers still in place hindering timely solutions that would prevent injury to those in our care. A mandatory reporting mechanism must be established that supersedes these barriers so that we may assure a safe environment for our patients.