

Between Sept. 2002 and Dec. 2004, 829 scanners underwent the ACR CT accreditation process (178 in 2002, 396 in 2003, and 255 in 2004). Volume CTDI values (mean \pm std. deviation) were 66.7 ± 23.5 , 57.8 ± 16.6 , 54.6 ± 13.3 , 58.4 ± 17.7 (head), 17.2 ± 9.7 , 15.9 ± 8.6 , 14.0 ± 7.0 , 15.5 ± 8.4 (pediatric abdomen), and 18.7 ± 8.0 , 19.2 ± 8.6 , 17.0 ± 7.6 , 18.4 ± 8.3 (adult abdomen) for 2002, 2003, 2004, and 2002-2004, respectively. In every case except adult abdomen exams in 2003, both the mean dose and the std. dev. fell for each consecutive year. Similarly, the 75th and 90th %tile values and the percentage of units with doses over the reference levels consistently fell. In 2004, 22.4, 6.9, and 2.8% of sites reported doses above reference levels, compared to 49.0, 15.0, and 4.7% in 2002, for head, pediatric abdomen, and adult abdomen exams, respectively.

In July 2007, the dose reference values for the program will be based on Volume CTDI to take into account the effect of pitch. The new diagnostic reference levels will be 75 mGy (head), 20 mGy (pediatric abdomen) and 25 mGy (adult abdomen). New to the program will be maximum allowable doses. Sites with doses above these values will not be eligible for accreditation. These values will be 80 mGy (head), 25 mGy (pediatric abdomen) and 30 mGy (adult abdomen).

Educational Objectives:

1. Understand the dose data collected by the ACR CT Accreditation Program
2. Be able to describe the data trends observed in the initial three years of the program
3. Learn the new dose reference levels and maximum allowable doses that the program will adopt in July 2007