

AbstractID: 13381 Title: Development of a handbook of radiation doses in organs of patients undergoing x-ray computed tomography (CT)

The CT handbook will be a volume in a series (<http://www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/MedicalImaging/MedicalX-Rays/ucm117898.htm>) promoting public health and radiation safety through publicly accessible dose information that could be used by medical staff to communicate risk and optimize protocols reducing dose. Major tasks include: 1) identifying and parameterizing the most common CT exams and their associated clinical protocols; 2) calculating organ doses derived from Monte Carlo simulations in computational, anthropomorphic reference phantoms representing pediatric as well as adult patients; and 3) generalizing the scope of applicability via mathematical approaches yielding normalized reference doses that are independent of scanner model.