World Academy of Science, Engineering and Technology
International Journal of Biomedical and Biological Engineering
Vol:9, No:02, 2015

CT Doses Pre and Post SAFIRE: Sinogram Affirmed Iterative Reconstruction

Authors : N. Noroozian, M. Halim, B. Holloway

Abstract : Computed Tomography (CT) has become the largest source of radiation exposure in modern countries however, recent technological advances have created new methods to reduce dose without negatively affecting image quality. SAFIRE has emerged as a new software package which utilizes full raw data projections for iterative reconstruction, thereby allowing for lower CT dose to be used. this audit was performed to compare CT doses in certain examinations before and after the introduction of SAFIRE at our Radiology department which showed CT doses were significantly lower using SAFIRE compared with pre-SAFIRE software at SAFIRE 3 setting for the following studies:CSKUH Unenhanced brain scans (-20.9%), CABPEC Abdomen and pelvis with contrast (-21.5%), CCHAPC Chest with contrast (-24.4%), CCHAPC Abdomen and pelvis with contrast (-16.1%), CCHAPC Total chest, abdomen and pelvis (-18.7%).

Keywords : dose reduction, iterative reconstruction, low dose CT techniques, SAFIRE
Conference Title : ICR 2015 : International Conference on Radiology
Conference Location : London, United Kingdom
Conference Dates : February 16-17, 2015