

Figure S1 CITK software workflow. CITK, cone-beam computed tomography imaging toolkit.

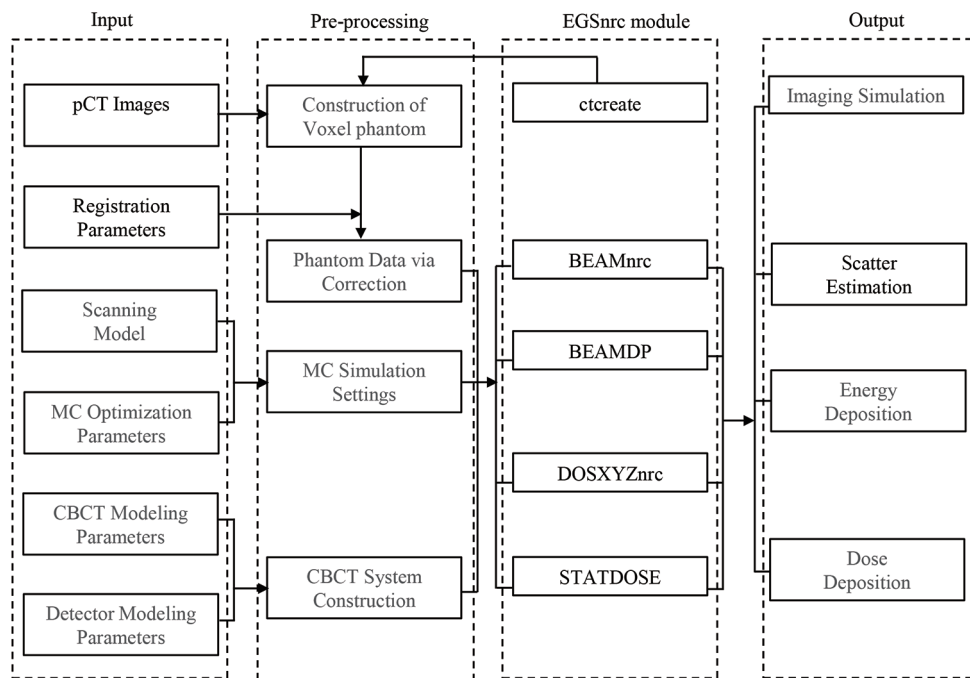
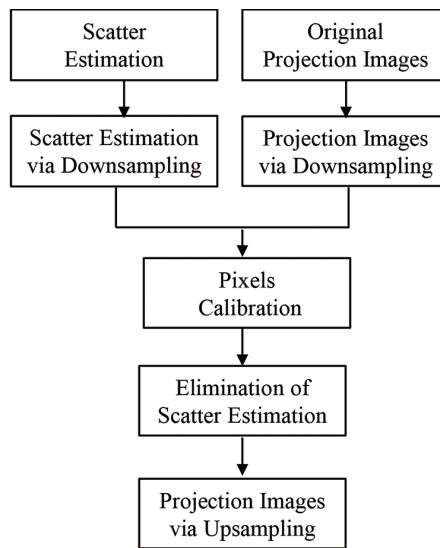
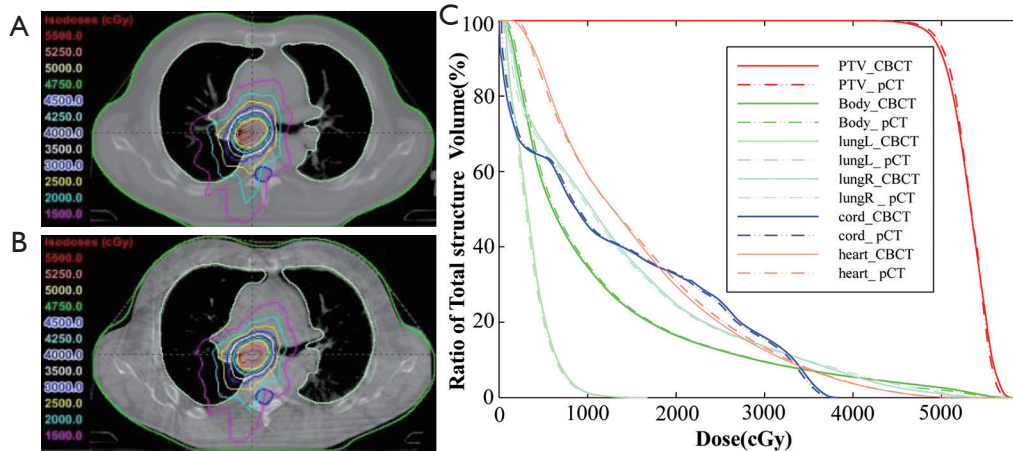


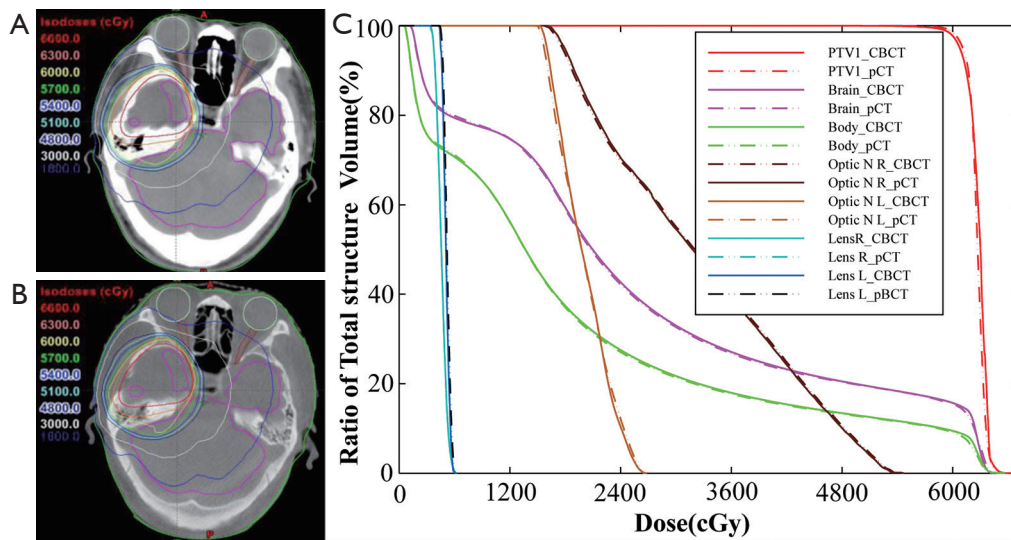
Figure S2 MC simulation flowchart. pCT, planning computed tomography; MC, Monte Carlo; CBCT, cone-beam computed tomography.



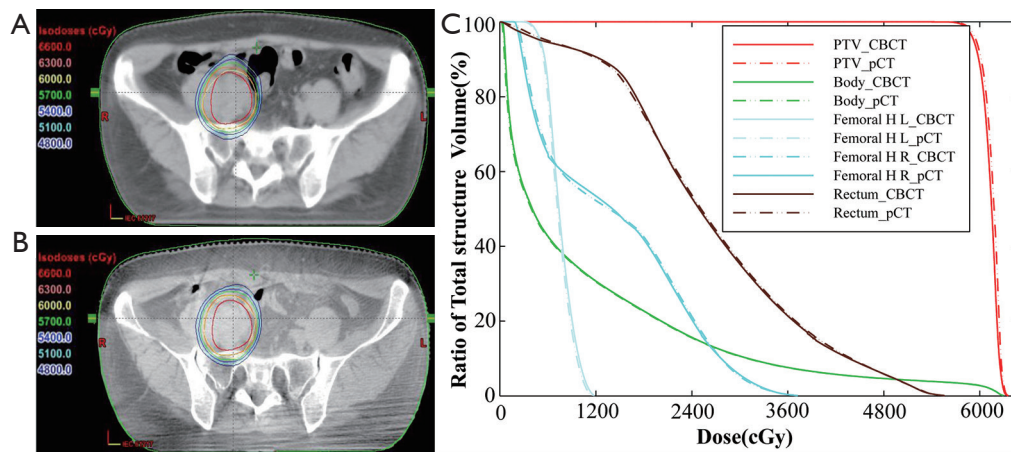
**Figure S3** Flowchart of scattering correction in this study.



**Figure S4** Dose calculation results of two images in real chest cases. (A) Result of the pCT image; (B) result of the CBCT image; (C) DVHs of the two image dose calculation results. PTV denotes the planned target area. Body denotes the body surface contour. LungL denotes the left lung. LungR denotes the right lung. Cord denotes the spinal cord. Heart denotes the heart. pCT, planning computed tomography; CBCT, cone-beam computed tomography; DVHs, dose-volume histogram; PTV, planning target volume.



**Figure S5** Dose calculation results of two images in head cases. (A) Result of the pCT image; (B) result of the CBCT image; (C) DVHs of the two image dose calculation results. DVHs, dose-volume histogram; pCT, planning computed tomography.



**Figure S6** Dose calculation results of two images in Pelv cases. (A) Result of the pCT image; (B) result of the CBCT image; (C) DVHs of the two image dose calculation results. Pelv, pelvic; pCT, planning computed tomography; CBCT, cone-beam computed tomography; DVHs, dose-volume histogram.