

CT SIMULATOR BB QA

Policy:

To provide guidelines to ensure that all operating parameters of the simulator are within specifications. A quality assurance check shall be performed on the simulator weekly and monthly.

Procedure:

1. Weekly BB QA -
 - a. Place the vertical phantom on the table sideways. Place Lasers below BB.
 - b. click patient entry
 - c. type in date for patient ID and Test as patient name
 - d. click on protocol select
 - e. choose the QA phantom and choose weekly BB test and then planning
 - f. Click on confirms and then confirm again
 - g. Click advance to scan. (this will give you your pilot) With the left mouse button click and grab the green asterisk and drag it superior to the BB. With the left mouse grab the line and drag it inferior to the BB.
 - h. Click on scanning/recon
 - i. Click on advance to scan.
 - j. Click on start scan (this will scan the BB)
 - k. When complete, transfer scan to Pinnacle by clicking on study Dicom.
 - l. Select destination Pinn1 and study, then send.
 - m. Go to Pinnacle work station and select add under patient select.
 - n. Enter test as patient, and import images.
 - o. Under images for test box, click Add.
 - p. Under import image data, select Dicom 3 File and then read patient/exam directory.
 - q. Under image for import list, scroll until you locate test, select the import data with patient demographics info icon and then select import.
 - r. Select OK at warning message.
 - s. Select clip negative values then save and exit.
 - t. Under image select box, select dismiss.
 - u. Under plans, select add. Name your plan test and select ACQSim.
 - v. At top of screen, select view and select the 1st icon. At side tools select zoom and magnify the image. Scroll through until you locate the BB.

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- w. At top of screen select contours. Under Regions of interest select Add ROI and name it BB and click enter.
 - x. Choose one of the three contouring tools and contour at least three images containing the BB.
 - y. At top of screen select localize icon. Under laser placement select set inside ROI.
 - z. Select use relative coordinates. Go down to mark patient and enter your initials. Go to bottom of screen and click on absolute localization.
 - aa. Enter the absolute localization coordinates into your laser and couch position and check to ensure they align with the vertical phantom.
2. Monthly BB QA
- a. Place laser QA device on the table and line the device up with the external lasers. Once lined up move the device into the scanner the distance of the CT offset (500). Be sure that the 2 BB's are further in the gantry than the center BB
 - b. Click patient entry and then new
 - c. Fill in patient ID as date and patient name as monthly BB QA
 - d. Select protocol selection
 - e. Choose monthly BB QA
 - f. Click select and then planning
 - g. Click confirm and the plan/edit
 - h. Click on scanning/recon
 - i. Click on advance to scan and then start scan
 - j. Click on measure and then report cursor
 - k. Click on posterior to the BB and make sure the X, Y reads 0 , 0
 - l. Click on advance to scan and start scan
 - m. Click on report cursor
 - n. Click on the Right BB and the X, Y should read -50, 0
 - o. Click on the Left BB and the X, Y should read 50, 0
 - p. There is a 2 MM accuracy rate
 - q. Record on QA sheet

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