

Phantom FDA




Summary

As part of a more general effort to probe the interrelated factors impacting the accuracy and precision of lung nodule size estimation, we have been conducting phantom CT studies with an anthropomorphic thoracic phantom containing a vasculature insert on which synthetic nodules were inserted or attached.

The utilization of synthetic nodules with known truth regarding size and location allows for bias and variance analysis, enabled by the acquisition of repeat CT scans. Using a factorial approach to probe imaging parameters (acquisition and reconstruction) and nodule characteristics (size, density, shape, location), ten repeat scans have been collected for each protocol and nodule layout. The resulting database of CT scans is incrementally becoming available to the public via *The Cancer Imaging Archive* (TCIA) to facilitate the assessment of lung nodule size estimation methodologies and the development of image analysis software among other possible applications.

Data Access

Click the **Download** button to save a ".tcia" manifest file to your computer, which you must open with the [NBIA Data Retriever](#). Click the **Search** button to open our Data Portal, where you can browse the data collection and/or download a subset of its contents.

Data Type	Download all or Query/Filter
Images (DICOM, 728.5GB)	 
DICOM Metadata Digest (CSV)	

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