

PseudoPatient™ Prime

End-to-End quality assurance of challenging SRS applications



Compatible with all immobilization devices
(thermoplastic mask or stereotactic frame)

Broadening the spectrum of quality assurance

Confidence through 3D dosimetry

Prime provides 3D spatial accuracy evaluation and combined with RTsafe's remote 3D gel dosimetry service the end-user receives an in-depth multi-level comparison with TPS calculations, incorporated in a detailed 3D dosimetry report. It accommodates any kind of point, 2D or 3D dosimeters according to the end user's needs while there is no need for recalculation of the plan on the phantom CT image series.

True-to-life human anatomy

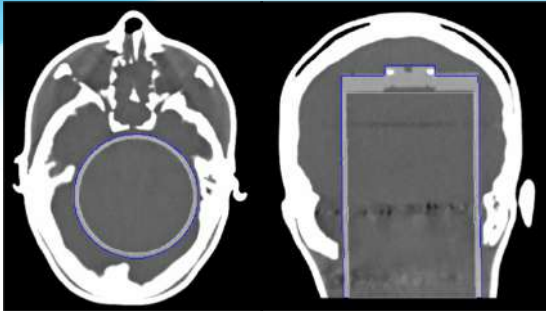
Prime is a 3D printed head phantom based on an actual patient's CT scan. It's made of bone and tissue equivalent materials in terms of radiological properties and physical density. This means that the phantom reacts to radiation in the same way as human tissue does. Additionally, the phantom provides realistic bone and soft tissue contrast in both MR and CT imaging. This unique feature combined with the appropriate CT/MR imaging QA kits enables the MR-related geometric distortions evaluation, as well as the CT-MR co-registration accuracy assessment, using the bone structures as a reference anatomical region.

End-to-End QA in stereotactic radiosurgery

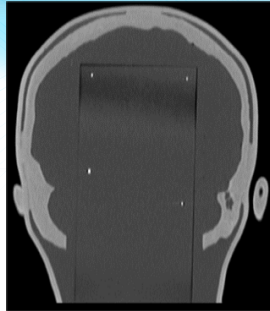
The phantom is set-up and treated just like a real patient. Radiotherapy professionals can test, simulate and verify the entire radiotherapy treatment chain in an authentic environment.

PseudoPatient™ Prime

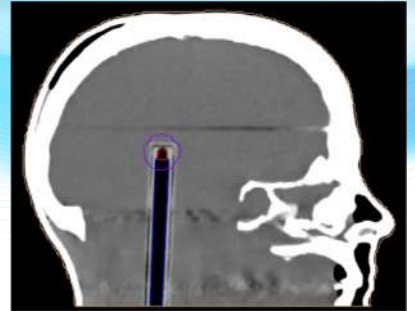
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Axial & coronal CT images of the phantom incorporating the gel dosimetry insert.



Coronal CT image of the phantom incorporating the film dosimetry insert.



Sagittal CT image of the phantom incorporating the ion chamber insert. The sensitive volume of the ion chamber as well as a large PTV around it are delineated.

Specifications

MODEL INCLUDES

QTY	DESCRIPTION
1	Water filling 3D printed Head Phantom
1	3D polymer gel dosimetry insert combined with 3D dosimetry service: Cylinder of 160 mm height and Ø 80 mm (inner dimensions: 140 mm x Ø 74 mm), material PMMA
1	Film dosimetry cassette* with 4 metal pins for registration purposes in 2 different orientations; sagittal or coronal: 80 mm x 145 mm (inner dimensions: 70 mm x 145 mm), material Real Water
1	Ion chamber dosimetry insert: 120 mm plug of Ø 2 mm (the center of the ion chamber sensitive volume coincides with the point defined by the external crosshairs of the phantom), material PMMA
1	The real patient's anonymized CT images including clinical cranial anatomy structures through link to a secured file sharing platform
1	User Manual
1	60-month Warranty

*: Can be combined with remote 2D dosimetry service

OPTIONAL ACCESSORIES

QTY	DESCRIPTION
1	Winston Lutz test insert with central & offset targets: 120 mm plug of Ø 2 mm (Ø 5 mm targets), material PMMA
1	Variable ion chamber position dosimetry inserts: plug of Ø 2 mm and user-defined depths, material PMMA
1	MRI-related geometric distortions evaluation insert / CT-MR co-registration accuracy: Cylinder of 160 mm height and Ø 80 mm (10 mm x 10 mm x 10 mm 3D grid design, 36 in-plane x 13 planes in z-direction control points), material PMMA

Axial CT & MR images of the phantom incorporating the MRI-related geometric distortions evaluation / CT-MR co-registration accuracy insert.

