

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 phantom enables 3D gel dosimetry measurements for the evaluation of the spatial accuracy in complex treatments. In combination with the Remote 3D Dosimetry service, RTsafe provides multi-level comparison with TPS calculations incorporated in a detailed 3D dosimetry report.

True-to-life human anatomy

Based on an actual patient's CT scan, Prime utilizes bone and soft tissue-equivalent materials providing realistic contrast in MR and CT imaging.

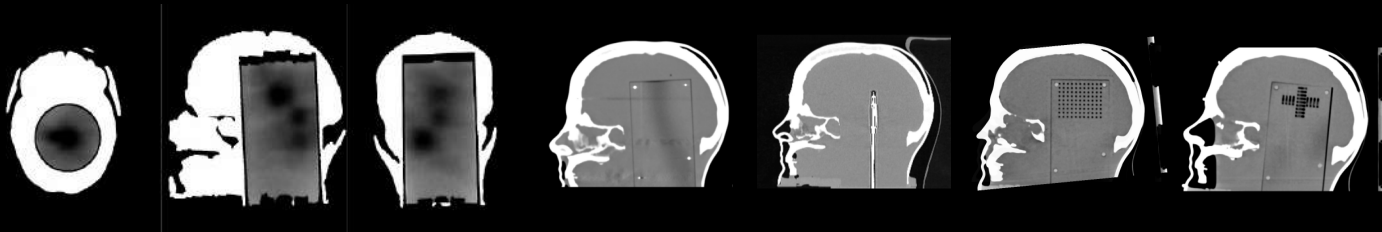
End-to-End QA in stereotactic radiosurgery

All the links of the radiotherapy chain are evaluated in a holistic way by simulating patient's treatment processes from imaging to setup and dose delivery. Comprehensive Point/2D/3D dosimetry and imaging assessment form the ultimate QA solution in SRS.

Prime phantom can be combined with RTsafe's Remote Dosimetry Services.

Prime

Broadening the spectrum of quality assurance



Axial, sagittal & coronal MR images of the phantom incorporating the gel dosimetry insert irradiated in a clinical SRS plan

Sagittal CT image of the phantom incorporating the film dosimetry insert

Sagittal CT image of the phantom incorporating the ion chamber insert

Sagittal CT images of the phantom incorporating the TLD & OSL dosimetry inserts

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 or glass
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/diode/diamond detector Fixed Position dosimetry insert: 120 mm plug of Ø 2 mm (the center of the detector's sensitive volume coincides with the point defined by the external crosshairs of the phantom), material PMMA
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	Ion chamber/diode/diamond detector Variable Position dosimetry insert: plug of Ø 12mm and user-defined depths, material PMMA
1	MRI-related geometric distortions evaluation insert: 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
1	OSL dosimetry cassette** with a 4 mm resolution cross design of 17 pockets for nanoDot™ OSL dosimeters in 2 different orientations; sagittal or coronal: 80 mm x 145 mm (inner dimensions: 70 mm x 145 mm) with 4 acrylic rods (5 mm diameter, 10 mm height) for registration purposes, material Real Water
1	TLD dosimetry cassette with a 5 mm x 5 mm 2D grid resolution of 99 cylindrical holes for TLD micro cubes dosimeters (hole: diameter 1.6 mm, height 1.1 mm) in 2 different orientations; sagittal or coronal: 80 mm x 145 mm (inner dimensions: 70 mm x 145 mm) with 4 acrylic rods (5 mm diameter, 10 mm height) for registration purposes, material Real Water

**: Can be combined with remote point dosimetry service

Axial CT & MR images of the phantom incorporating the MRI-related geometric distortions evaluation insert

