

SunCHECK™ Patient Specifications



General Specifications (applies to all unless noted)

Browser support	Google Chrome (recommended), IE 11
Meets Reimbursement/Reporting Requirements	Yes
Supported Treatment Modalities	3D CRT, IMRT, VMAT, SRS and SBRT

Plan Quality Checks - PlanCHECK™

Treatment Planning Systems Supported	Eclipse™ via Scripting, others via DICOM
Physics Checks	Yes, 50+ rules-based checks Includes: Treatment and non-treatment beam verifications, isocenter, geometry, couch angle, collision checks, image and contour data validation, treatment laterality checks
Dosimetric Checks	Yes, 25+ structure-based checks Includes: Dose/volume metrics with user-definable constraints, Plan Quality Metric score, margin/expansion checks, plan comparisons

Secondary Calculations - DoseCHECK™

Supported Systems	<ul style="list-style-type: none">• Elekta and Varian Linacs, including Halcyon™ System• Accuray TomoTherapy Hi-Art® and H-Series™ Systems• Varian and Elekta HDR Brachytherapy Systems
Dose Calculation Algorithms	<ul style="list-style-type: none">• Conventional Linacs: Collapsed Cone Convolution Superposition• TomoTherapy Systems: Monte Carlo• HDR Brachytherapy: TG-43 compliant algorithm
Available Analysis & Pass/Fail Criteria	<ul style="list-style-type: none">• Photon: Composite & Beam Point doses, MUs*, 3D Dosimetric Analysis• Electron: Beam Point doses• HDR: Composite Point doses, Source Information, 3D Dosimetric Analysis

Pre-Treatment QA - PerFRACTION™

Data Sources	EPID and/or Log Files (dependent on Linac and imaging type used in delivery), and/or ArcCHECK array
Available Analysis & Pass/Fail Criteria	<ul style="list-style-type: none">• Composite and Beam Point Doses, 2D Relative Dose Analysis, 3D Dosimetric Analysis• 2D Absolute Dose Analysis (Absolute Dose Option**)

In-Vivo Monitoring - PerFRACTION™

Dose Calculation Image Set	Planning CT, Cone Beam CT (CBCT Recalculation Option**)
Available Analysis & Pass/Fail Criteria	<ul style="list-style-type: none">• Composite and Beam Point Doses, 2D Relative Dose Analysis, 3D Dosimetric Analysis• 2D Absolute Dose Analysis (Transit Dosimetry Option**)

*Varian and Elekta Linac Plans only, not applicable for TomoTherapy **PerFRACTION Dosimetry Package

SunCHECK™ Machine

Specifications



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Meets Reimbursement/Reporting Requirements Yes

Daily, Monthly, Annual QA - SNC Routine™

Protocol support

- TG-142 (all 127 tests in tables 1-6)
- TG-51
- DIN
- Daily QA Support: TG-66, TG-148, TG-135 and 10CFR 35
- Custom templates available

Direct Device Connection Daily QA™3, IC PROFILER™ and Quad Wedges (Optional)

Imaging, VMAT, MLC QA - SNC Machine™

Imaging Test Support

- Image Quality: CBCT, kV, MV
- MLC
- VMAT

MLC/ Mechanical

- MLC: Picket Fence, Positioning, Leaf Speed, Hancock
- Winston Lutz: Radiation & Machine Isocenter, Hancock
- Starshot: Gantry, Couch, Collimator
- Light/Radiation Field Congruence

VMAT

- Dose Rate vs. Gantry Speed
- Leaf Speed
- Arc Point Dose
- DMLC Point Dose

Phantom Compatibility

Sun Nuclear MV-QA, kV-QA, FS-QA, WL-QA, CT ACR 464 Phantom

Standard Imaging PIPSPRO Phantoms

Phantom Laboratory CatPhan 503, 504, 600, 604

Leeds TOR 18FG

Varian Las Vegas Phantom

PTW EPID QC Phantom