AdaptCHECK™

Fast Patient-Specific QA for Adaptive Radiotherapy



AdaptCHECK™ represents an advancement in independent plan verification designed for adaptive radiotherapy treatments with Accela* and Ethos (Varian Medical Systems Inc. – a Siemens Healthineers company). Integrated into the SunCHECK® Platform, AdaptCHECK provides fast, highly-accurate secondary dose verification for daily treatment plans using daily anatomical data to support informed clinical decision-making in time-critical adaptive workflows.

Seamless Integration

Operating within the SunCHECK Patient workflow, AdaptCHECK reduces manual steps and streamlines QA review in a single connected environment.

- DICOM data transfers automatically from the treatment delivery system to SunCHECK.
- Results are displayed within patient dashboards and consolidated into a single timeline for the reference treatment plan.
- QA results are sent to the ARIA® Oncology Information System (OIS) to support documentation and record tracking.

Fast Verification for Adaptive Workflows

AdaptCHECK independent QA review meets the pace of adaptive radiotherapy workflows:

- Typical calculation times of 90 seconds or less for simultaneous evaluation of adapted and scheduled plans (based on testing for a 9-field IMRT plan)
- Supports timely QA review to help maintain treatment schedules
- Ensures the current adapted plan calculation is completed and available for review prior to delivery

**510(k) pending. Not available for sale in any market and no guarantee of commercialization or feature availability. Accela, Ethos, and ARIA are products of Varian Medical Systems, Inc., a Siemens Healthineers Company.*

Adaptive QA Capabilities

Using high-accuracy secondary dose calculations, AdaptCHECK delivers comprehensive QA capabilities for adaptive treatments.

- Independent secondary dose verification of adapted plans can be calculated on daily CBCT-based synthetic CT, or Hypersight™ CBCT images, to accurately reflect current patient anatomy.
- QA results can be generated for both adapted and scheduled plan datasets.
- Plan-of-the-day dose calculations support real-time treatment decision-making.
- Results and metrics are presented in a clear, centralized view within SunCHECK.
- Automated controls pause in-process calculations when newer adapted plans are received during a treatment session, preventing unnecessary processing and helping avoid calculation bottlenecks.

High-Performance System Architecture

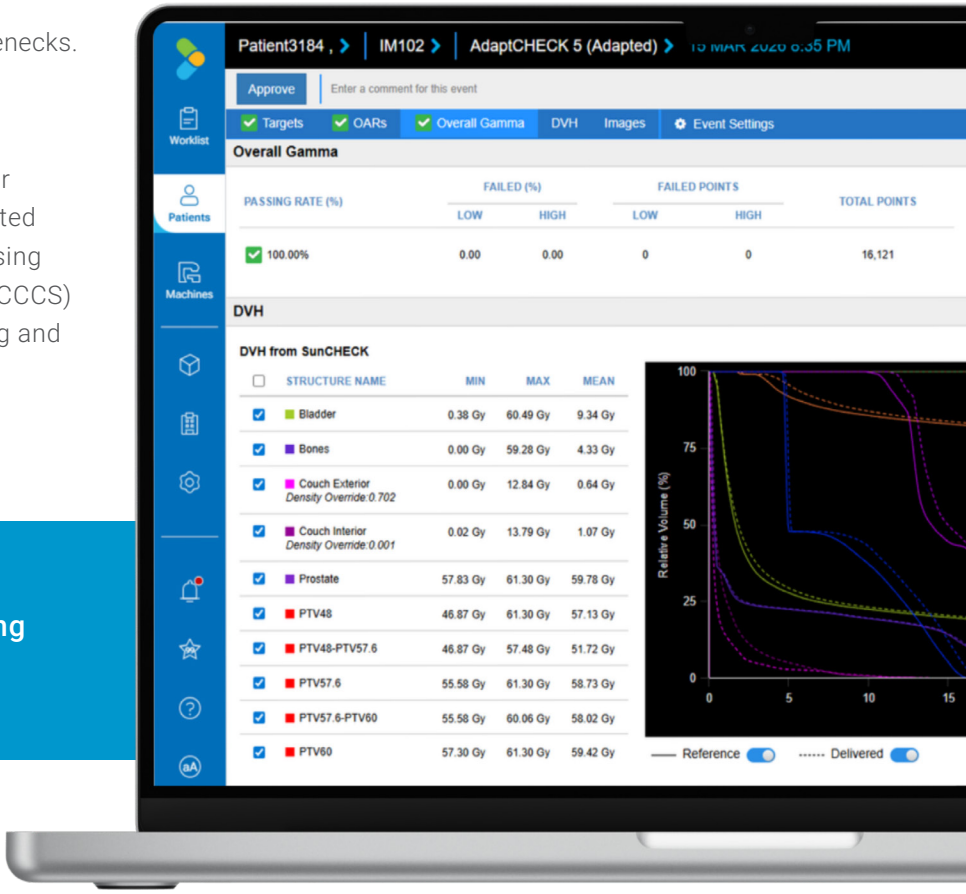
AdaptCHECK operates within a SunCHECK server architecture optimized for adaptive QA. A dedicated GPU-enabled job server manages calculations using the Collapsed Cone Convolution/Superposition (CCCS) dose calculation algorithm, with required imaging and treatment data retrieved automatically.

When adaptive workflows move fast, independent QA must keep up—supporting confident treatment decisions without slowing patient throughput

Technical Specifications

The AdaptCHECK Job/App Server Minimum Specifications are as follows:

Two (2) 10-Core Intel Xeon 2.2 GHz or equivalent
128 GB RAM
200 GB storage
Two (2) NVIDIA Datacenter GPUs (see GPU Additional Details for more information)
Minimum 1600-watt power supply
Supported operating systems: • Microsoft Windows Server 2019 x64 • Microsoft Windows Server 2022 (Recommended)
Network: 1.0 Gbps network



SUN NUCLEAR
A MIRION MEDICAL COMPANY

sunnuclear.com

©2026 Mirion Technologies, Inc. or its affiliates. All rights reserved. Sun Nuclear, the Sun Nuclear logo, and other trade names of Sun Nuclear products listed herein are registered trademarks or trademarks of Mirion Technologies, Inc. or its affiliates in the United States and other countries. Third party trademarks mentioned are the property of their respective owners. All data used is best available at time of publication. Data is subject to change without notice.