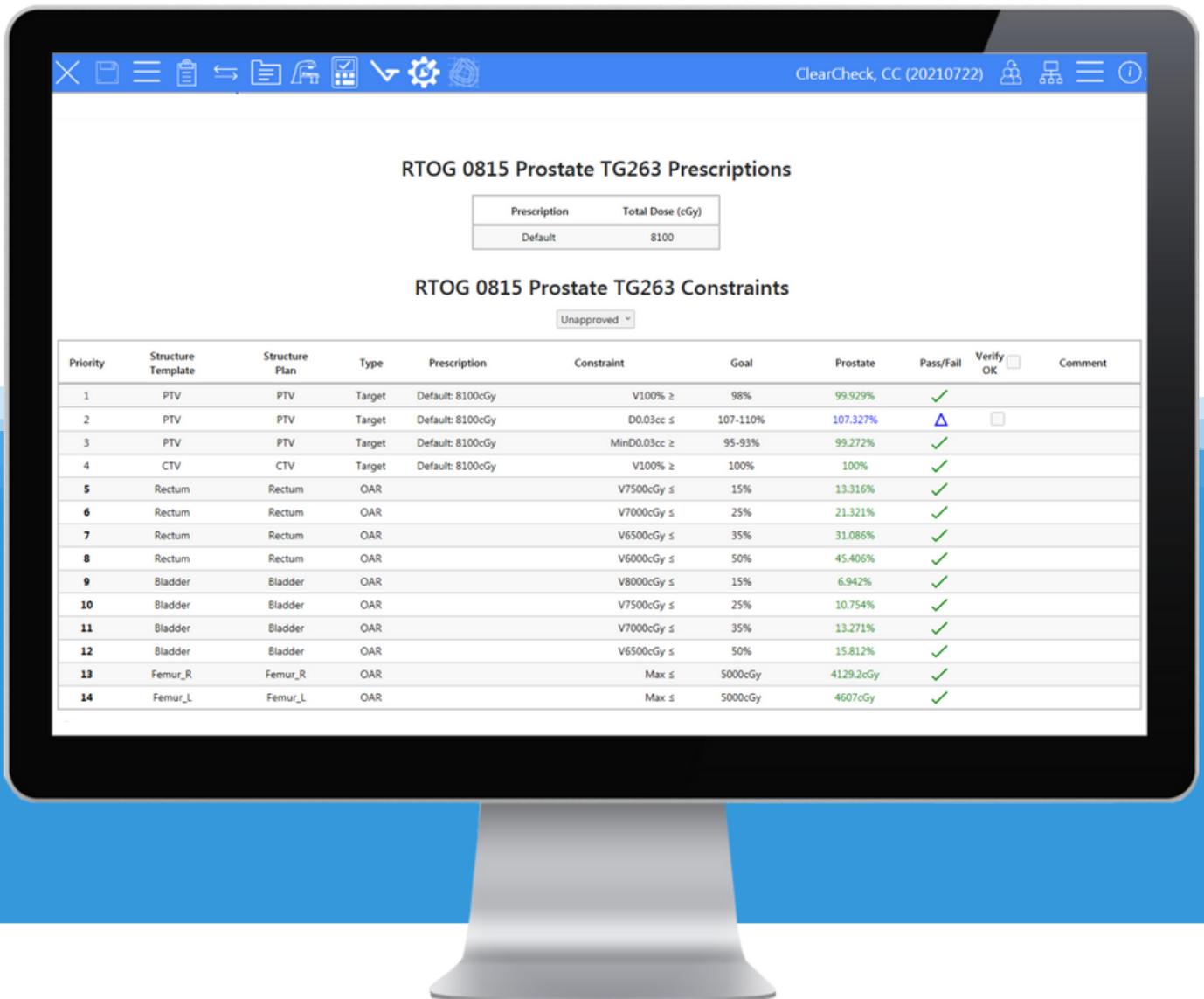


# ✓ ClearCheck

ONE-CLICK PLAN EVALUATION SOFTWARE



Intelligent Automation in Cancer Care

**RAD** formation

# One-click plan evaluation. Seamlessly integrated.

ClearCheck<sup>®</sup> is an automated one-click plan evaluation software that provides in-depth plan checks, quick plan comparisons, and instant documentation. ClearCheck integrates with the Eclipse<sup>™</sup> treatment planning system to simplify plan evaluation and reporting.

The TG-275 report outlines a number of physics plan and chart review recommendations, dozens of which are automated by ClearCheck, greatly facilitating task group report implementation.

## For clinicians. By clinicians.

Plan evaluation is a complex process, and it's becoming more complex as radiation techniques advance. ClearCheck was developed by treatment planners to automate plan evaluation and increase workflow efficiency while maintaining the highest quality of patient care.

**Save time while evaluating more metrics to level up your plan review.**

Radformation products may not be available in all markets.  
Please check with your Radformation representative for availability.

# ✓ ClearCheck

Get instantaneous plan evaluation results.



Dose Constraint  
Evaluation



Structure, Plan, and  
Collision Checks



BED/EQD2  
Calculations



Deformed Dose  
Analysis\*\*



Chart Rounds  
Module\*



One-Click Reporting



ClearCalc<sup>®</sup> Integration



Direct Print to ARIA<sup>®</sup>

# TG-275. Simplified.

Incident reports from the Radiation Oncology Incident Learning System (RO-ILS) indicate that most events or errors in the treatment process occur during the planning phase. Provide safer, higher quality physics plan review by automating a number of the recommendations provided by TG-275.

## Dose Constraints

Volume constraint

Min volume constraint

Min volume spared

Dose spillage outside structure

Conformity index

Paddick conformity index

Gradient index

gEUD constraint

Min, max, and mean constraint

Hot spot outside structure

Priority	Structure Template	Structure Plan	Type	Prescription	Constraint	Goal	Prostate	Pass/Fail	Verify OK	Comment
1	PTV	PTV	Target	Default: 8100cGy	V100% ≥	98%	98.884%	✓		
2	PTV	PTV	Target	Default: 8100cGy	D0.03cc ≤	105-107%	106.249%	✓	<input checked="" type="checkbox"/>	(Verified by John Doe, MD 7/11/2019 4:54:35 PM)
3	PTV	PTV	Target	Default: 8100cGy	MinD0.03cc ≥	95-93%	97.216%	✓		
4	CTV	GTV	Target	Default: 8100cGy	V100% ≥	100%	100%	✓		
5	Bowel	Bowel	OAR		V4000cGy ≤	30%	0%	✓		
6	Bowel	Bowel	OAR		Max ≤	5000cGy	200.2cGy	✓		
7	Rectum	RECTUM	OAR		V7500cGy ≤	5%	2.894%	✓		
8	Rectum	RECTUM	OAR		V7000cGy ≤	25%	4.346%	✓		
9	Rectum	RECTUM	OAR		V6500cGy ≤	35%	5.937%	✓		
10	Rectum	RECTUM	OAR		V6000cGy ≤	50%	7.811%	✓		
11	Bladder	BLADDER	OAR		V8000cGy ≤	15%	1.98%	✓		
12	Bladder	BLADDER	OAR		V7500cGy ≤	25%	3.566%	✓		
13	Bladder	BLADDER	OAR		V7000cGy ≤	35%	4.836%	✓		
14	Bladder	BLADDER	OAR		V6500cGy ≤	50%	6.145%	✓		
15	Femur_R	FEMUR_RT	OAR		Max ≤	5000cGy	3610.8cGy	✓		

## BED or EQD2 Analysis

- ✓ BED or EQD2 constraints with user-provided  $\alpha/\beta$  ratios on plans & plan sums
- ✓ View BED or EQD2 DVH curves and dose distributions
- ✓ Calculate and analyze BED or EQD2 dose on deformed dose plan sums

# Plan Checks

- Calculation algorithm checks
- Dose grid size checks
- Photon heterogeneity
- CT checks
- Treatment couch checks
- Modulation Complexity Score
- Structure dose & sampling coverage
- Leaf motion calculator (LMC) checks
- Gantry, collimator, & table angle
- Isocenter checks
- Empty coordinates
- Structure HU override
- Bolus linked
- Nomenclature checks
- Custom checklist items
- & more

# Structure Checks

- Stray pixels
- Holes
- Slice gaps
- Laterality
- Contradicting constraints
- Expansions and structure nesting

# Treat Prep Checks

- Portal dosimetry results
- Plan scheduling
- Tolerance table assigned
- QA course complete
- Plan and fields configured for treatment

Structure Template	Structure Plan	Stray Pixels Volume Under 0.5 cc	Holes In Structure Volume Over 0.1 cc	Slice Gaps	High Resolution	Laterality	Contradicting Constraints	3D View	Pass/Fail	Verify OK	Comment
PTV	PTV	✓	✓	✓				3D	✓	<input type="checkbox"/>	
CTV	CTV	✓	✓	✓				3D	✓	<input type="checkbox"/>	
Bowel	Bowel	✓	✓	✓				3D	✓	<input type="checkbox"/>	
Rectum	RECTUM	✓	✓	✓				3D	✓	<input type="checkbox"/>	
Bladder	BLADDER	0.11cc @ Z=24.6cm	✓	Z=23.3cm, Z=24.4cm				3D	✗	<input type="checkbox"/>	
Femur_R	FEMUR_RT	✓	✓	✓				3D	✓	<input type="checkbox"/>	
Femur_L	FEMUR_LT	✓	✓	✓				3D	✓	<input type="checkbox"/>	
Bolus Thickness: No bolus found <input type="text" value="0"/>											

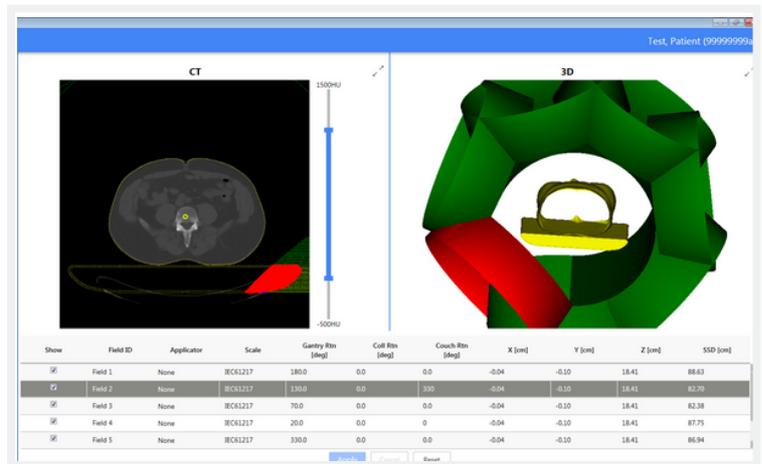
Expanded Structure Template	Expanded Structure Plan	Source Structure Template	Source Structure Plan	Ant	Post	Right	Left	Sup	Inf	Max/Min	3D View	Pass/Fail	Verify OK	Comment
PTV	PTV	CTV	CTV	0.5 ± 0.05cm 0.47cm Std Dev: 0.05cm	0.5 ± 0.05cm 0.48cm Std Dev: 0.06cm	0.5 ± 0.05cm 0.49cm Std Dev: 0.04cm	0.5 ± 0.05cm 0.50cm Std Dev: 0.04cm	0.5 ± 0.05cm 0.44cm Std Dev: 0.05cm	0.5 ± 0.05cm 0.48cm Std Dev: 0.08cm	0.61cm/0.25cm	3D	✗	<input type="checkbox"/>	

Plan Check	Expected	Prostate	Pass/Fail	Verify OK	Comment
Photon Dose Calculation Algorithm	AAA_15151	AAA_15151	✓	<input type="checkbox"/>	
Photon Volume Dose Grid Size (cm)	0.25	0.25	✓	<input type="checkbox"/>	
Photon Heterogeneity	ON	ON	✓	<input type="checkbox"/>	
CT Slice Thickness (cm)	0.25	0.5	✗	<input type="checkbox"/>	
Maximum Number of CT Slices in 3D Image	≤ 250	52	✓	<input type="checkbox"/>	
DVH Structure Dose Coverage (%)	≥ 100%	SKIN: 98.2%	✗	<input type="checkbox"/>	
DVH Structure Sample Coverage (%)	≥ 100%	≥ 100%	✓	<input type="checkbox"/>	
Minimum Field Size of X or Y Jaw (cm)	All Fields ≥ 3	All Fields ≥ 3	✓	<input type="checkbox"/>	
Position of X or Y Jaw (cm)	All Fields Jaw Positions Rounded to Nearest 0.1	All Fields Jaw Rounded to Nearest 0.1	✓	<input type="checkbox"/>	

# Collision Checks

Predict collisions with customizable linac gantry head, electron cones, and SRS cones. Detect and avoid collisions with the OBI, external body contours, support structures, and specified CT HU values. Automatically include collision check results in the final plan report.

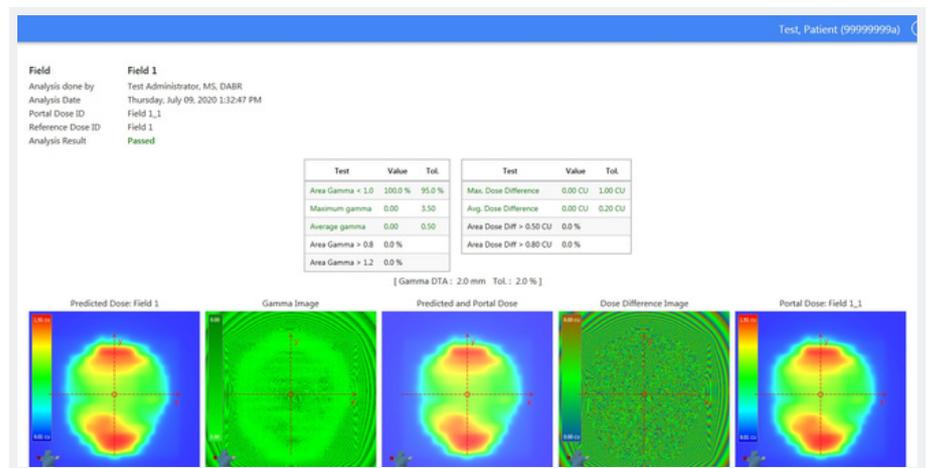


# One-Click Plan Documentation

In one simple click, print plan or plan sum documentation. Quickly generate documentation to support IMRT planning charges and comply with the ACR-ASTRO Practice Parameter for IMRT. Automatically print the final PDF plan to ARIA documents, even for sites with multiple ARIA databases.

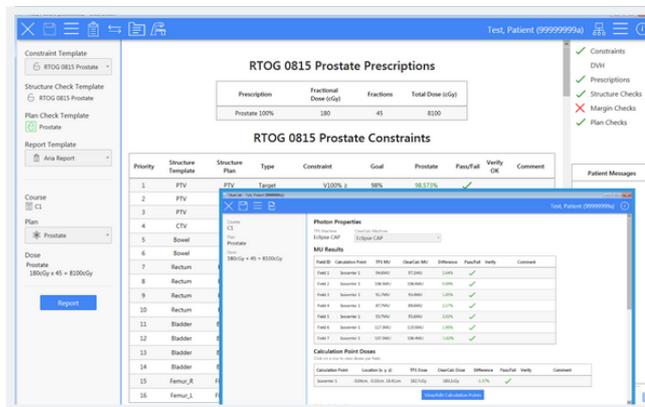
# Portal Dosimetry Integration

With easy access from the menu bar, view Eclipse Portal Dosimetry verification plan analysis results within ClearCheck and send results directly to the ClearCheck report for quick and easy documentation.



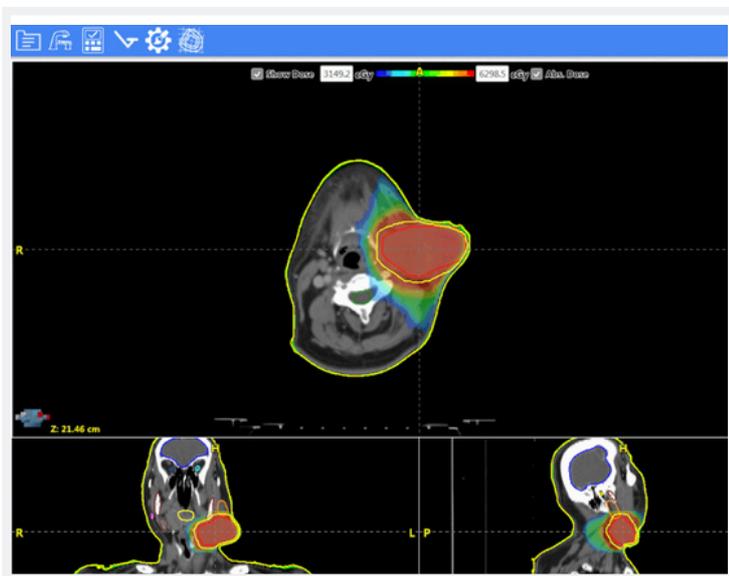
# ClearCalc Integration

Integration with ClearCalc takes treatment plan evaluation and reporting to the next level. The independent calculation software automatically validates plan calculation accuracy from within ClearCheck, delivering reliable results that integrate seamlessly into the final plan report.



# Deformed Dose Analysis

AutoContour users can now perform deformed dose analysis in ClearCheck.



## Create Deformed Dose Plan Sums

- ✓ Use approved registrations from AutoContour

## Analyze Deformed Dose Plan Sums

- ✓ Evaluate all constraint types, including BED and EQD2
- ✓ Compare Deformed Dose Plan Sums against Eclipse plans
- ✓ View DVH and dose distributions

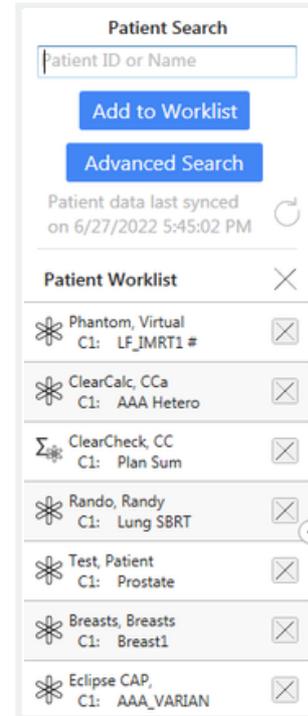
# Chart Rounds Module

Get excited for a new way to complete Chart Rounds. Launch ClearCheck through a standalone ESAPI application and analyze any plan in the Eclipse database, while still maintaining full ClearCheck functionality.

Curate a focused list of patients with ease. Users can create a worklist of patient plans by searching directly with a patient name/ID or by using the Advanced Search options tied to ARIA to filter on appointments, tasks, plan information, and more.

*Advanced Search requires ARIA and AURA Reporting.*

The patient information section displays pertinent information needed for weekly Chart Rounds review.



Sex	Male	Course ID	Plan ID	Plan Approval Status	Dose Per Fraction (cGy)	Fractions Delivered	Dose Delivered (cGy)	First Treatment Date	Last Treatment Date
Age	62	C1	Primary	TreatmentApproved	200	2 / 30	400 / 6000	6/28/2022 4:15:56 PM	6/29/2022 12:33:09 PM
Birth Date	6/26/1960	C1	Boost	PlanningApproved	200	0 / 30	0 / 6000		
Hospital	Radformation	Demo	HN_Original	TreatmentApproved	200	1 / 15	200 / 3000	6/30/2022 4:19:05 PM	6/30/2022 4:19:05 PM
Oncologist	John Doe, MD	Demo	HN_Adapt	PlanningApproved	200	0 / 15	0 / 3000		
Diagnoses	Malignant neoplasm of prostate								

This module allows users to quickly update the patient's Chart Rounds status to *Structure Reviewed*, *Plan Reviewed*, or *Change Requested*. Additionally, it's able to record the attendees and generate the necessary reports.

# Automate plan evaluation and reporting, and increase efficiency in your workflow.

- ✓ Accelerate workflows with Eclipse integrated plan, dose constraint, structure, and BED/EQD2 analysis
- ✓ Easily add results from ClearCalc, Portal Dosimetry, and Collision Checks to the comprehensive plan reports
- ✓ Simplify documentation with direct report PDF printing to ARIA Documents workspace
- ✓ Complete Chart Rounds review with the pertinent patient information from the standalone ESAPI application\*
- ✓ Analyze deformed dose plan sums by evaluating constraints, DVH, and dose distributions\*\*

\*Advanced Search Requires ARIA and AURA reporting

\*\*Requires AutoContour

ClearCheck streamlines treatment planning evaluation  
while ensuring the highest safety and quality standards  
of patient care.