Patient Experience with SGRT

Tattoo-Free Treatments, Increased Efficiency
& Improved Workflows with Surface Guided Radiation Therapy

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Goal: Positive Patient Outcomes

Patient Satisfaction & Quality of Life

Studies in oncology have found a positive correlation between patient satisfaction and health-related quality of life

Alaloul et al., 2019

- Increased physical & social well-being
- Greater treatment adherence
- Higher probability of completing treatment
- Increased follow-up attendance
- Improved health-related quality of life

Patient-centered care approaches have been shown to improve clinical outcomes in chronic diseases like cancer. When patients feel heard and engaged, they report symptoms earlier, clinicians intervene sooner, and outcomes improve.

Ziegler et al., 2024

What Does AlignRT Offer?

Faster & Accurate Treatment

Streamlined clinical operations with real-time surface tracking

Tattoo-Free Treatment

Eliminates permanent skin marks; sub-millimetric accuracy via 3D surface imaging

Increased Patient Satisfaction

Positive patient experience linked to better clinical outcomes

All points are interconnected — each advantage of AlignRT drives patient satisfaction

Streamlining Care & Patient Satisfaction

Fast & Accurate Treatment

Conservation of daily life; integrate cancer care into routine

Tattoo-Free Experience

Balance, consistency, security, confidence, peace of mind

Increased Satisfaction

Positive experience drives positive clinical outcomes

Patient satisfaction is not just a metric — it drives clinical outcomes

- Influences volume growth and program reputation
- Satisfaction scores linked to quality reports and reimbursement programs
- Patients rely on recommendations and experience when choosing treatment centers

Mohanty et al., 2015 · Texas Oncology: Cancer care close to home

AlignRT Benefit?

Physicians

Faster image evaluation
Streamlined clinic schedules
More time for patient consults

Therapists

Quicker imaging & treatment
Punctual treatment schedules
Reduced stress & burnout

Department

Manageable schedules for all staff
Increased patient volume capacity
Improved work-life balance

Patients

Shorter time on treatment table
Increased confidence in care
Positive physician interactions

Breast Cancer Impact: Clinical Perspective

Volume Challenges

- Increased breast treatment volumes in radiation oncology departments
- Compromised time on clinic/treatment machines
- Impact on clinic and treatment schedules
- Impact on accuracy of daily treatment

Our Center Volume

10
patients treated per day

50
patients treated per year

25–35%
of all radiation treatments

Why SGRT? The Breast Cancer Landscape

30%

of all new cancers in women

ACS, 2026

1 in 8

women will develop breast cancer

NBCF, 2026

5–7%

of breast cancers in women under 40

NBCF, 2026

50%

of cases will receive radiation

RT Answers, 2026

27K

US cases in women younger than 45

CDC, 2025

Rising breast cancer volumes demand faster, more efficient radiation workflows

Breast Cancer Impact: Patient Perspective

60–70%

of patients experience mild–moderate depression or anxiety symptoms

30–60%

of patients reduce work hours or stop working during treatment

Psychosocial

Trauma, stress, body image concerns; distress persists after treatment

Financial

Depression, reduced income, lower treatment adherence

Routine

Sense of control and normalcy; critical for emotional well-being

Work-Life Balance

Improves return-to-work rates, quality of life, and financial outcomes

Kumar et al., 2023 · Bradley et al., 2007 · Montazeri, 2008 · Ginter et al., 2020

Continue to Work Initiative

Financial pressure is one of the biggest reasons patients struggle to stay on treatment.

PROTECTED LEAVE & INCOME SUPPORT

Key support programs

- **Family & Medical Leave Act (FMLA)**
  Job-protected unpaid leave for qualifying medical events
- **Short- and long-term disability insurance**
  Income replacement during extended treatment periods
- **Paid sick leave programs**
  Employer-sponsored wage replacement during recovery

WITHOUT INCOME PROTECTION

Patients are more likely to:

01 **Work through severe symptoms**
Pushing through pain and side effects without rest

02 **Miss treatments**
Skipping or delaying critical appointments

03 **Experience worse outcomes**
Higher risk of complications and reduced recovery

Source: U.S. Department of Labor; National Cancer Institute

Core Goals

“Working with Cancer” sign the pledge agree to:

- End stigma and silence around cancer at work
- Encourage open conversations between employees and managers
- Provide job security and flexibility during treatment
- Support return-to-work transitions
- Train leaders to better support employees

Source: Working With Cancer Pledge

Imaging Comparison: Study Design

Compared time needed for imaging on 1st fraction of treatment

Treatment Protocol

- Breast medial & lateral tangents
- 3D conformal plan
- Free-breathing technique
- Civco board, both arms up, head turned

Matched Comparison

Without AlignRT

TXO Sugar Land
TrueBeam
20 patients

With AlignRT

TXO Houston Medical Center
TrueBeam
20 patients

Controlled variables: Same patient setup, treatment machine model, treatment plan, physician

AlignRT Accuracy: The Evidence

Residual Errors After Verification

~0.01–0.09 cm
(≈1 mm) in all directions

>95%
of fractions within 5 mm tolerance

28%
of patients had <3 mm total deviation

Sub-centimeter accuracy comparable to standard setup tolerances

Yamauchi et al., 2025

SGRT vs Tattoo/Laser Alignment

Multi-site study results:

SGRT: 3.6 mm

Tattoos/Lasers: 4.5 mm

AlignRT provides equal or better accuracy than traditional tattoo/laser setup

SGRT-based positioning is non-inferior with setup times 21% faster per fraction

Rudat et al., 2023 · Mueller et al., 2023 · Vision RT data

Tattoo-Free Treatment: How It Works

01

CT Simulation

Temporary marks placed; patient surface captured as reference 3D image

02

Surface Capture

Thousands of surface points create a 3D body map for precise matching

03

Real-Time Tracking

AlignRT cameras continuously track patient surface during treatment

04

Motion Detection

Beam pauses automatically if patient moves beyond threshold

TXO Houston Medical Center — Fully tattoo-free radiation treatment program

Tattoo-Free Advantages: Treatment

Clinical Accuracy

- Accuracy comparable or superior to tattoo alignment for breast
- Uses thousands of surface points for 3D matching vs. 3-point laser alignment
- Detects motion during treatment and pauses beam when needed
- Increases reproducibility, especially for breast treatment
- Eliminates needle-stick risk for patients and staff

Patient Impact

- Eliminates permanent tattoos — removes chronic emotional triggers
- 78% of surveyed women would choose tattoo-free treatment even with additional effort
- Empowerment over diagnosis and treatment decisions
- Eliminates visible reminder of treatment — supports emotional recovery & body image
- Less invasive, less contact, decreased anxiety

Ginter et al., 2020 · Brown et al., 2020 · STAT News/Northwell, 2024

Conclusion: What AlignRT Offers

Faster & More Accurate

Streamlined imaging workflows

Reduced treatment time per fraction

Higher patient throughput capacity

Tattoo-Free Treatment

Eliminates emotional triggers

Sub-mm accuracy via 3D surface

Preferred by 78% of patients

Increased Patient Outcomes

Increased patient satisfaction

Improved treatment adherence

Positive long-term quality of life

Team Benefits

Manageable schedules

Reduced staff stress

Increased clinical confidence

Promotes safety

AlignRT: Transforming breast radiation therapy through precision, efficiency, and patient-centered care

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Supporting Evidence: Published Literature

AAPM TG-302 (Al-Hallaq et al., 2022)	Comprehensive guidelines for SGRT clinical use; endorses surface imaging for positioning, monitoring, and beam gating
Sauer et al., 2023	Markerless SGRT-only workflow: 40% of breast patients safely treated without daily CBCT; significant time & dose savings
Mueller et al., 2023	Tattoo-less setup via AlignRT is non-inferior in accuracy and faster for accelerated partial breast irradiation
Rudat et al., 2023	Multi-site study: SGRT mean 3D setup error 3.6 mm vs 4.5 mm for tattoo/laser — equal or better accuracy
Capaldi et al., 2024	SGRT workflow for bone SBRT: treatment time reduced from 21.6 to 13.4 min; significant reduction in CBCT radiation
Operational Study, 2025	SGRT setup 11s faster for photon; 23s faster for free-breathing; positional accuracy non-inferior; fiscally feasible

300+ peer-reviewed publications support the effectiveness of SGRT with AlignRT

Thank You

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Questions?