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# **AlignRT® SGRT – ADAPTIVE MOTION MANAGEMENT**

## **Clinical Value in Prostate/Pelvic Radiation Therapy and ALL body sites**

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# Dr. Guy Jones, MD

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### Proud Member of LUGPA



Operates a **high-volume radiation therapy center** treating **60+ patients/day** on a **Varian TrueBeam**.

- **70% of treatments are prostate cases.**
- Patient Block Times 10 minutes per with AlignRT SGRT enhancing set up & treatment times.

Previously practiced in Washington, where **Vision RT SGRT** was standard and allowed treatment of Trigeminal Neuralgia (90Gy x 1).

AlignRT now deployed across 7 Centers with various technologies :

- **Elekta, Clinac IX, Halcyon, Ethos, and TrueBeam vaults.**



## AlignRT KEY FEATURES

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# Tattoo-less & Marker-less Radiation Therapy

### Definition

- **Tattoo-less and marker-less radiation therapy** refers to patient setup and monitoring without the use of permanent skin tattoos or temporary skin marks.

### Clinical Evidence & Benefits

#### Improved Accuracy

- **Qubala et al. (2023)**: SGRT reduced translational shifts by **0.5 mm (pelvis)** and **1.9 mm (limb)** compared to skin marks. Rotational accuracy also improved significantly (e.g., **pitch p = 0.002**).
- SGRT uses a **3D region of interest (ROI)** for alignment, offering superior reproducibility over 3-point tattoo-based setups.

#### Faster Setup & Reduced Imaging

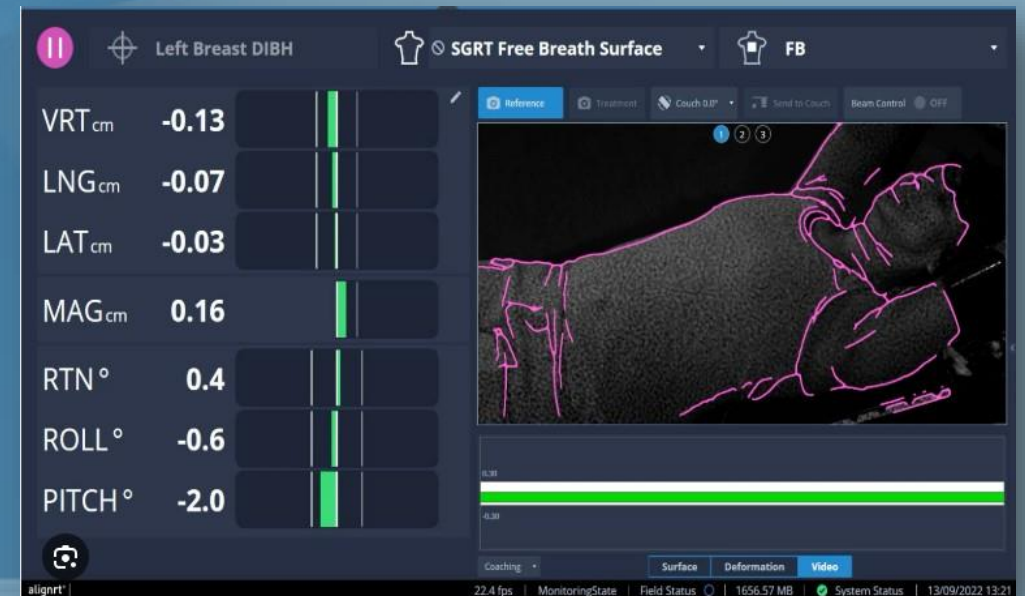
- **18% reduction in setup time** for pelvic patients.
- **87.5% of patients** experienced faster image matching.
- **Reimaging frequency dropped from 7% to 2%** with SGRT ( $p = 0.042$ ), reducing imaging dose and improving workflow efficiency.

# AlignRT KEY FEATURES

## Postural Video™: Enhanced Setup Efficiency

### Clinical Impact

- **Oliver et al. (2024):** Postural Video™ reduced setup time by **28.8%**, saved **60 seconds per patient**, and reduced repeat imaging by **63%**.
- Provides **augmented reality-based full-body alignment**, improving initial setup accuracy and reducing therapist variability.



# Justifying Medical Necessity for SGRT (Active Motion Management)

- SGRT used for **intrafraction motion management**, not just setup
  - Clear distinction from IGRT
- **Particularly relevant for:**
  - Prostate (organ motion, rectal/bladder variability)
  - Pelvic nodes
  - Abdominal targets
  - SBRT sites (SGRT is not paid for in this scenario, but clinically very important)
- **Skin = surrogate for internal anatomy**
  - Supported when correlated with CBCT/initial alignment
  - Used for *continuous monitoring* between imaging events
- SGRT is not just positioning - it is continuous intrafraction monitoring used to ensure treatment accuracy and reduce geographic miss

77412 Complex
Radiation treatment delivery; Level 3, multiple isocenters with photon therapy (for example, 2D, 3D, or IMRT) OR a single isocenter photon therapy (eg, 3D or IMRT) with active motion management, OR total skin electrons, OR mixed electron/photon field(s), including imaging guidance, when performed
Free-standing: \$391.46 Hospitals: \$564.51

# SGRT is Medically Necessary for Prostate/Pelvic Radiation Therapy Due To:

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- **Sub-millimeter accuracy**

*(Rudat et al., 2023)* – Reduced systematic errors by **1.6x**, enabling tighter margins and improved dose conformity.

- **Reduced setup errors and reimaging**

*(Qubala et al., 2023)* – Translational errors reduced by **0.5 mm (pelvis)**; reimaging frequency dropped from **7% to 2%**.

- **Real-time motion tracking without immobilization**

*(Liu et al., 2024)* – Continuous monitoring during beam-on ensures precise delivery.

- **Faster setup with Postural Video™**

*(Oliver et al., 2024)* – Setup time reduced by **28.8%**, repeat imaging decreased by **63%**.

- **Tattoo-less & Marker-less Workflow**

*(Vision RT Clinical Data)* – Eliminates tattoos, improves patient comfort, and reduces variability.

# Billing and Documentation

- **2026 FINAL RULE**, the use of SGRT will typically qualify for **highly complex billing (77412)** when properly documented- due to its **ACTIVE MOTION MANAGEMENT**
- Key to reimbursement:
  - **Clear documentation** of SGRT use.
  - **Justification of medical necessity** using peer-reviewed evidence.

**The Next Wave in SGRT - OIS Reports**      A simple solution for SGRT admin:  
Billing, Audit, Data Management

AUTO  
alignrt® DICOM → OIS / ARIA  
TIMELINE  
OIS Reports™ Module

Features

- Automated inclusion of AlignRT Screenshot / Reports in OIS
- No manual input
- Compatible with Aria® and MOSAIQ®



# What I Document:

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- **Physician Documentation:**
  - “SGRT utilized for continuous intrafraction motion monitoring”
  - “Surface tracking used as a surrogate for internal target position following CBCT alignment”
  - “Beam held automatically when motion exceeded tolerance”
  - “Required to maintain treatment accuracy and reduce dose to OARs”
  - “Allows reduction of PTV margin”
- **Daily Treatment Documentation (Therapist/ARIA):**
  - SGRT active during beam-on
  - Thresholds defined (e.g., 5mm / 5°)
  - Beam-hold events recorded
  - Duration of monitoring
  - Confirmation of compliance

## Common Billing Pitfalls:

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- Using SGRT for setup only → **not billable at Level 3**
- No documentation of beam-on monitoring
- No defined tolerances
- No physician statement of necessity
- No ARIA record of usage

# Aria Integration:

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- SGRT events logged directly into ARIA
- Beam-on monitoring documented
- Beam-hold events recorded
- Time stamps + tolerance thresholds
- Permanent record for compliance/audit



# Workflow + Resource Utilization

- Considerations:
  - Additional therapist attention
  - System QA and calibration
  - Increased setup complexity
  - Monitoring during entire treatment
  - Integration with ARIA documentation
- Punchline
  - The addition of SGRT has reduced treatment times across our centers

# Conclusion

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- **AlignRT is: ACTIVE MOTION MANAGEMENT** which is a **clinically validated, widely adopted, and medically necessary** technology.
- Supports **precision, safety, and efficiency** in prostate/pelvic treatments and all other body sites.
- With over 300 studies and growing adoption, SGRT is now a **standard of care** across radiation oncology.
- Time Savings, Supply Savings, Staff Savings, More Patient Treatments

