

SGRT is a technique that uses real-time 3D imaging of the surface of a patient's body to guide radiation therapy. It scans the patient's body using light and provides accurate information about their position and movement during the treatment. This technique has gained attention because it can deliver radiation more precisely to the target area while minimizing damage to healthy tissue. It offers advantages such as real-time information about the patient's entire body surface, continuous monitoring of positioning, and standardized workflow, which leads to reduced treatment time. It can be used alongside other imaging techniques and improves the accuracy, safety, and effectiveness of radiotherapy.

SGRT is as accurate or even better than traditional methods for positioning patients, depending on the body part being treated. It has a wide field of view, allowing for better correction of patient position and improved treatment posture. It is also faster than laser or x-ray-based methods for patient positioning, by reducing fraction time.

However, there are limitations to SGRT. The system requires clear visibility of the patient's skin surface and should not be obstructed by equipment or material in the treatment room. It may also not always provide enough information about the internal anatomy to precisely locate the target, so other imaging systems are still needed. SGRT is best used as a complement to these systems.

Personally, I would recommend using SGRT because it provides imaging without exposing the patient to additional radiation, offers real-time feedback, and has high-resolution 3D images. It can be integrated with other radiation therapy techniques to ensure patient comfort and safety. However, it's important to consider that SGRT systems can be expensive to acquire and maintain, while MR-linac systems offer similar advantages without relying on continuous visibility of the patient's surface but at a much higher cost.

In the future, SGRT could be used alongside new radiation techniques to further enhance patient safety and comfort.