

**INTEGRATING THE HEALTHCARE ENTERPRISE – RADIATION ONCOLOGY (IHE-RO)  
CLINICAL IMPACT STATEMENT**

**SimRO**

|                                 |                                       |                                     |  |
|---------------------------------|---------------------------------------|-------------------------------------|--|
| <b>Date Created:</b>            | August 7 <sup>th</sup> 2017           | <b>Last Revised:</b>                |  |
| <b>Profile Completion Date:</b> |                                       | <b>Profile Implementation Date:</b> |  |
| <b>Author(s):</b>               | Scott W. Hadley, Marianne E. Plunkett |                                     |  |

**Description:**

This profile would determine an implementation for an imaging device, software system and movable laser system to communicate and point to a planned isocenter determined at the time of simulation for radiotherapy. This would facilitate choosing and marking an isocenter location on a patient during the simulation phase.

**Rationale for Profile Creation:**

Imaging system and movable laser pointing system need to be in tight communication to accurately point to the planned isocenter on the patient so that it can be marked before the patient moves from the table. This requires communication of DICOM information from the scanner to a simulation software system where the isocenter is chosen. Once chosen the simulation software needs to export information to the moveable laser system to move the laser to point to the isocenter location in the room for marking the patient.

**Clinical Impact:**

For new installations the set up, testing and using these systems can be confusing and difficult. A standard approach would allow for simple setup and consistent communication of isocenter location. A failure in any part of the system could lead to incorrect marking of the isocenter and treatment error for the patient.