

IHE-RO

Plug and Play Radiation Oncology

What is IHE-RO?

IHE (Integrating the Healthcare Enterprise)

is an international collaborative effort that aims to improve compatibility across all segments of healthcare technologies. The ultimate goal is to improve patient care and reduce medical errors by improving interoperability and eliminating incompatibilities.

IHE-RO is the radiation oncology domain of IHE.

ASTRO formed a multi-society, multi-national, multi-specialty IHE-RO task force to address issues of interoperability and information sharing between various radiation oncology tools that impact the quality of care in radiation oncology.



IHE-RO INITIATIVE LIST OF PARTICIPANTS

SOCIETIES

Advanced Technology Consortium
American Association of Physicists in
Medicine
American College of Radiology
American Society for Radiation Oncology
Association of Radiation Oncologists of India
Canadian Association of Radiation
Oncologists
Chinese Society of Radiation Oncologists
Egyptian Cancer Society – Radiation
Oncology
European Society for Therapeutic Radiology
and Oncology
Healthcare Information and Management
Systems Society
International Atomic Energy Agency
Japanese Society of Therapeutic Radiation
Oncology
National Cancer Institute
National Electrical Manufacturers
Association
Radiological Society of North America
Spanish Medical Physics Society

VENDORS

BrainLAB
Elekta
GE Healthcare
Nucletron
Philips
TomoTherapy
Siemens
Sun Nuclear
Varian
MIMVista

How Does **IHE-RO** Benefit the Medical Community?

The IHE-RO task force consists of a planning committee and a technical committee.

A. The planning committee consists of physicists, physicians and vendor representatives. It identifies interoperability problems that stand in the way of clinical care and develops examples of real-life clinical scenarios that address those interoperability issues (use cases).

B. The technical committee consists of physicists and vendor representatives. It studies the use cases submitted by the planning committee to determine the technical requirements and the feasibility of finding solutions to these problems. The technical committee then creates a document describing the technical aspects of the use case or "Integration Profiles". Examples are normal treatment planning, multimodality registration for radiation oncology and radiation therapy treatment workflow.

C. Vendors then implement these profiles and test their systems with software tools.

TESTING INTEGRATION PROFILES AT CONNECTATHON

IHE-RO holds an annual face-to-face testing session called a connectathon that is attended by vendors and IHE-RO committee members to test the compatibility of the various systems using the pre-determined profiles. Successful completion of the testing requires the vendor's system to receive information from at least three other vendors who support the previous step in the information flow, and to transmit information to three vendors whose applications represent the next step.

IHE-RO PUBLIC DEMONSTRATION

Vendors who pass the connectathon for one or more of the profiles are eligible to participate in the IHE-RO public demonstration that occurs in the Exhibit Hall during the ASTRO Annual Meeting. At the ASTRO Annual Meeting, vendors demonstrate to the public how their products are able to seamlessly work with products from other companies.

BENEFITS TO THE MEDICAL COMMUNITY

Vendors can document the "integration profiles" supported by their products. The tested "integration profiles" can be used in requests for proposals when physicians and institutions look to buy new software and equipment. This simplifies the buying process and leads to a smoother integration of the new equipment with the existing ones in the department.



CONTACT INFORMATION

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