

JOINT ICTP-IAEA WORKSHOP ON RADIATION PROTECTION IN IMAGE-GUIDED RADIOTHERAPY (IGRT)

Future directions in IGRT and its dose burden

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Key TG116 Recommendations

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Summary

- Justification and optimization of imaging in radiotherapy should be explicitly integrated into clinical practice.
- Establish imaging optimization teams in radiotherapy facilities to review protocols regularly.
- Incorporate imaging dose into DICOM information and consider it in treatment plans.
- Employ or consult with medical physicists specialized in diagnostic imaging for dose audits and quality assurance.
- Develop pediatric-specific imaging protocols where applicable.
- Establish systems for auditing imaging doses, including repeat imaging analysis, and set dose reference levels (DRLs) based on dose surveys.

Personal views

Optimization

- Leverage diagnostic colleagues' experience
- Standardize dose index and DRLs for optimization
- Develop clinic-specific plans to implement optimization

Vendors

- Develop commercial tools for kV imaging dose calculations
- Encourage vendors to integrate imaging dose tracking in R&V systems
- Development of new hardware (Hypersight detector panels)

Future directions in IGRT and its dose burden

Regulators

- Educate regulators on the importance of imaging dose management
- Advocate for harmonized regulations on imaging dose

Training, Education, collaboration

- Collaborate with specialists from diagnostic imaging and other fields

Organize more workshops on imaging dose optimization and management

□ Standardization