Recent Advances in Imaging for Treatment Verification

SAMS session
AAPM 2019 Annual Meeting

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Comparing Treatment Verification Imaging Modalities

John H Lewis
Progress update for Varian at AAPM 2019
7/14/2019

Disclosures

Lewis: research grants from Varian Medical Systems inc.
Treatment verification imaging modalities

- 2D x-ray imaging
- In-room CT
- MVCT
- Ultrasound
- CBCT
- MRI
- Surface imaging

What modality should you use/buy?

- Selection of an appropriate treatment verification imaging modality depends on numerous factors.
  - Anatomical site
  - Treatment goals
  - Patient characteristics
  - Resource availability

  - All presentations available in AAPM's virtual library

Learning objectives

1) Provide an up-to-date summary of recent advancements in the use of MRI, CBCT, and surface imaging for treatment verification.

2) Describe the advantages and limitations of each imaging modality in the context of their clinical use for different anatomical sites.

3) Summarize major areas of development in treatment verification imaging for each modality.
Speakers

Laura Cervillo
Memorial Sloan Kettering
Surface imaging

Jing Wang
UT Southwestern
CBCT

Olga Green
Wash U
MRI

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