PIONEER - Improving the palliative patient journey in radiation oncology

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Background

• Palliative intent RT aimed at providing symptomatic relief and improving quality of life for patients\(^{(1-6)}\)

• Standard care pathway:

  - Referral to Radiation Oncology → Consult → CT Simulation → Treatment Planning → Treatment Delivery

• Multiple hospital visits and added wait times \(^{(1-3,5,6)}\)
Aim

• The aim of this study was to investigate the feasibility of removing the conventional departmental simulation CT from the planning process.

Diagnostic CT vs. Simulation CT
Methods

• Two stage process:

Stage 1: \( n=117 \)
Assess diagnostic CTs
– Patient position
– Treatment areas
– Accuracy of dose calculations
– Inclusion criterion
Methods

Stage 2: (n=10)

• Aim to improve image fusion by simulating in diagnostic CT position
• Diagnostic planning
  – Diagnostic position replication
  – Dose comparisons
  – Treatment delivery with IGRT
Results

• Suitable sites:
  – Abdomen
  – Chest
  – Lumbar spine
  – Thoracic spine
  – Pelvis
  – Sacrum

• 10 patients simulated and treated in diagnostic position
• Bony pelvic lesions easiest to set-up and deliver with IGRT
Implications & Future Directions

- Clinically acceptable plans can be produced using diagnostic CT
- Potential to improve patient journey
- Plan can be available at initial RO consult
- Timing studies
References


