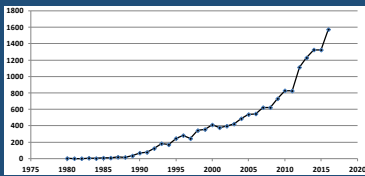


High Dose, Small Field Radiation Therapy: Lessons from the HyTEC Project and the ICRU 91 Report

J. Seuntjens, G. Ding, L. Marks, L. Ma, S. Benedict
(E. Yorke moderator)

SBRT/SABR Abstracts in Pub Med vs Year through 2016

SBRT=Stereotactic Body Radiation Therapy= SABR=Stereotactic Ablative Body Radiation Therapy



Safe and effective treatment; small-to-medium tumors; few fractions; high dose/fraction

- Improved understanding of small-field dosimetry
- Improved pre-treatment and intra-fraction image guidance
- Evolving clinical understanding of tumor and normal tissue response for SBRT regimens

Building on Past Efforts

- Physics basics
 - Report of AAPM TG 106 (accelerator commissioning including small field dosimetry)
 - Report of AAPM TG 179 (CT-based IGRT)
- Overview of SBRT and related QA
 - Report of AAPM TG 101
- Small field dosimetry
 - IPeM (Institute of Physics and Engineering in Medicine) Report 103
 - Das et al: Med Phys 35 206-215
- Outcomes analysis based on peer-reviewed publications
 - Emami et al: IJROBP 21 109-122, 1991 (Normal tissues; 2D and early 3DCRT)
 - Quantec reviews: IJROBP 76 Supplement, 2010 (Normal tissues; 3D and early SBRT)

Two simultaneous but separate approaches



- ~ 60 members; Physicists, MDs, Modeling experts
- Anatomical site papers and 'Virtual' papers
- Multilayer AAPM review, publication in Red Journal
- Currently 4 anatomical site papers in press
- Hope to move the rest through quickly

TH AB-207.0 - High Dose, Small Field Radiation Therapy: Lessons From the Hytec Project and the ICRU 91 Report
 J.Seurings*, G.Ding*, L.Marks*, L.Marks*, S.Benedict*, E.York*

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|------------------------|--|
| 7:30 AM TH AB-207.1 | Small Field Dosimetry J.Seurings* |
| 7:50 AM TH AB-207.2 | IGRT for SBRT G.Ding* |
| 8:10 AM TH AB-207.3 | General Goals and Problems for the Hytec Project L.Marks* |
| 8:30 AM TH AB-207.4 | Spinal Cord NTCP L.Marks* |
| 8:50 AM TH AB-207.5 | Paraspinal TCP S.Benedict* |
| 9:10 AM TH AB-207.6 | QQA E.York* |
