1. Selecting appropriate patients for SBRT
2. Prescription / SBRT lung Protocols
3. Problems with target identification (use of multi-modality imaging)
4. OAR Tolerances: V20, chest wall, etc
5. Physician thoughts on balancing OAR and Desired Rx

High level thoughts on SBRT

- Convenience Vs Superiority
- Does it work? Heisenberg’s uncertainty principle
How do we evaluate response?

Selecting Appropriate Patients for SBRT

- Peripheral lesions
- Central lesions
- DEATHS FROM IPF
Peripheral or Central

Peripheral lesion

NRG ONCOLOGY
RTOG 0915
(NCCTG N0587)
A RANDOMIZED PHASE II STUDY COMPARING 2 STEREOTACTIC BODY RADIATION THERAPY (SBRT) SCHEDULES FOR MEDICALLY INOPERABLE PATIENTS WITH STAGE I PERIPHERAL NON-SMALL CELL LUNG CANCER
RTOG 0915 Eligibility Criteria

• Histological confirmation (by biopsy or cytology) of non-small cell lung cancer (NSCLC) prior to treatment; the following primary cancer types are eligible: squamous cell carcinoma, adenocarcinoma, large cell carcinoma, large cell neuroendocrine, or non-small cell carcinoma not otherwise specified. Note: although bronchioalveolar cell carcinoma is a subtype of NSCLC, patients with the pure type of this malignancy are excluded from this study because the spread of this cancer between adjacent airways is difficult to target on CT.
• Stage T1, N0, M0 or T2 (≤ 5 cm), N0, M0

RTOG 0813

NRG ONCOLOGY
RTOG 0813
SEAMLESS PHASE III STUDY OF STEREOTACTIC LUNG RADIOTHERAPY (SBRT) FOR EARLY STAGE, CENTRALLY LOCATED, NON-SMALL CELL LUNG CANCER (NSCLC) IN MEDICALLY INOPERABLE PATIENTS
Limited Participation Study: See Section 5.0

RTOG 0813 Eligibility Criteria

• Tumor within or touching the zone of the proximal bronchial tree.
• Tumors that are immediately adjacent to mediastinal or pericardial pleura (PTV touching the pleura).
Prescription / SBRT lung Protocols

**RTOG 0915**

- Arm 1 patients will receive 34 Gy in 1 fraction to the prescription line at the edge of the PTV.
- Arm 2 patients will receive 4 fractions, 12 Gy per fraction, to a total dose of 48 Gy to the prescription line at the edge of the PTV.
- Treatments should be given on 4 consecutive days.
- The time between fractions is at the discretion of the investigator, but a minimum of 18 hours.

**RTOG 0813**

SCHEDULE

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Additional treatment begins at Level 5. Levels 1-4 will be employed if dose-limiting toxicity is seen with the Level 5 (15 Gy per session). See Section 3.3 for pre-authorization requirements. See Section 3.3 for details of radiation therapy planning and delivery.
OAR Tolerances: V20, chest wall, etc
Physician thoughts on balancing OAR and Desired Rx

Simultaneous Integrated Protection
Crane MSKCC
Problems with target identification
Polling Questions

Text `aapm2016` to 22333

OR
Step 1: Download Poll Everywhere from your App Store

Then Open App

Step 2: Select “I’m Participating”

Step 3: “Join a presentation”

Username: aapm2016
If Apps aren’t available to you…

Use a Web Browser

https://www.pollev.com/aapm2016