

SBRT for Non-Small Cell Lung Cancer

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1. Epidemiology of Lung cancer
 - a. Incidence of lung cancer in the US in men and women
 - b. Risk factors and presentation of lung cancers
2. Evaluation of Lung cancer patients
 - a. Recommend radiologic evaluations
 - b. Staging of Non-small cell lung cancer
3. Lung cancer screening
 - a. Mayo project evaluating CXR
 - b. National Lung Cancer Screening Trial evaluating CT scans
4. Treatment options for early stage lung cancers
 - a. Surgery- lobectomy
 - b. Radiation- Standard fractionation vs. SBRT
5. SBRT definitions and guidelines
 - a. Definitions QA
 - b. Personnel responsibilities
 - c. SBRT planning
 - i. Tumor motion and immobilization
 - ii. Target volumes
6. SBRT dose
 - a. BED formula
 - i. Tumor response with BED $<$ or \geq 100: Japanese multi-institutional study, 2004
 - b. Phase I dose escalation, 2005
7. Local control and Survival with SBRT in inoperable non small cell lung cancers
 - a. Phase I/II 48 Gy in 4 fractions, 2005
 - b. RTOG 0236, 2009
8. Toxicity of SBRT in inoperable non small cell lung cancers
 - a. RTOG 0236, 2007
9. Results in operable non small cell lung cancers
 - a. Phase II, 2010
10. Future Directions

