

RADIATION THERAPY ONCOLOGY GROUP

**RTOG 0915
(NCCT5 .9927)**

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A Randomized Phase II Study Comparing 2 Stereotactic Body Radiation Therapy (SBRT) Schedules for

RTOG Institution #
RTOG 0915
Case #

ELIGIBILITY CHECKLIST (8/19/10)

_____Y) 1. Does the patient have a histologically confirmed (by biopsy or cytologically) diagnosis of non-
nccrSCLC)

_____Y) 2. Is the patient's primary
 Squamous cell carcinoma;
 Adenocarcinoma;
 Large cell carcinoma;
 Large cell neuroendocrine;
 Non-I

_____Y) 3. Is the patient AJCC stage T1, N0, M0, or T2 (≤ 5 cm) based upon the minimum diagnostic

_____Y) 4. Was a history/physical examination including weight and assessment of Zubrod performance (ex(forma) 5.6(n)-0.4(

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ELIGIBILITY CHECKLIST (8/19/10)
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_____ (N) 15. Is there direct evidence after appropriate staging studies of regional or distant metastases or synchronous primary malignancy or prior malignancy in the past 2 years (except for invasive malignancy that has been treated definitively and

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Case #

ELIGIBILITY CHECKLIST (3/4/10)
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1.0 INTRODUCTION

1.1 Lung Cancer and the Medically Inoperable Patient

Lung Cancer is the most frequent cause of cancer death in the United States. Cancer statistics for 2008 estimated 215,020 new cases and 161,840 deaths due to lung cancer, making it the leading cause of cancer mortality in both men and women (Jemal 2008). Eighty percent of lung cancers are non-small cell (NSCLC) in histology. Approximately 15-20% of NSCLC patients present with early localized disease (Jemal 2008).

selection. This survey noted that the majority (52%) of practitioners were employing a 48 Gy/4fx schedule, This schedule appears to fit with anecd

Additional benefits from a prospective clinical trial will include correlating clinical outcomes against standardized and uniform delivery of SBRT. It should be noted that the SBRT

2.2.5 Association between biomarkers and primary tumor control and/or grade 2 or higher radiation pneumonitis.

specific to this SBRT protocol. Each institution must submit the completed Facility

- b. 4D CT-simulation: An internal target volume (ITV) around the GTV, accounting for tumor motion may be defined from the 4D CT dataset. The PTV will include the ITV plus an additional 0.5 cm margin uniformly applied to the ITV.

These margins will be used at all institutions, even if a particular

Arm 1: One Fraction (34 Gy)

Serial Tissue	Volume	Volume Max (Gy)	Max Point Dose (Gy)	Endpoint (Grade 3)
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6.7.2 Treatment Delivery Compliance

Setup films will be compared to digitally reconstructed radiographs from the same beam's eye view. Deviations of less than 0.5 cm in the transverse plane and 1.0 cm in the craniocaudal plane will be considered compliant. Deviations from 0.5-1.0 cm in the transverse plane and 1.0-

greater than those listed as minor will be considered as Deviations Unacceptable.

6.8 R.T. Quality Assurance Reviews

Treatment planning images and dosimetry planning information in accepted format will be submitted to the Image-Guided Therapy Center (ITC), Washington University, St. Louis, MO, for QA purposes in all cases. See Section 12.1 for data submission.

The Principal Investigator, Dr. Videtic and his Co-Investigators, Drs. Singh and Chang, will perform an RT Quality Assurance Remote Review after complete data for the first 20 cases enrolled have been received at ITC. Drs. Videtic, Singh, and Chang will perform the next review after complete data for the next 20 cases have been received. The final cases will be reviewed rget accrual or as soon as complete data for all cases enrolled have been received at ITC, whichever occurs first.

conveys that the patient is able to perform the PFT test to a result

Adverse Event Reporting Requirements. January 2005;
<http://ctep.cancer.gov/reporting/adeers.html>

Definition of an SAE: Any adverse experience occurring during any part of protocol treatment

Any event that meets the above outlined criteria for an SAE but is assessed by the AdEERS System as “expedited reporting NOT required” must still be reported for safety reasons. Sites must bypass the “NOT Required” assessment and complete and submit the report. The AdEERS System allows submission of all reports regardless of the results of the assessment.

CRITERIA FOR AdEERS REPORTING REQUIREMENTS FOR ADVERSE EVENTS AND SERIOUS ADVERSE EVENTS THAT OCCUR WITHIN 30 DAYS OF THE DATE OF THE LAST PROTOCOL TREATMENT

3	3	4 & 5	4 & 5
Unexpected	Expected		
With			

Adverse Events (AEs) and Serious Adverse Events (SAEs) that meet the criteria defined above experienced by patients accrued to this protocol must be reported via AdEERS. SAEs must be reported within 24 hours of discovery of the event. Contact the CTEP Help Desk if assistance is required.

10.3.6

Regional Failure
(RF)

13.0 STATISTICAL CONSIDERATIONS

13.1 Primary Endpoint (7/26/10)

The rate of 1-year grade 3 or higher adverse events definitely, probably, or possibly related to treatment for the following adverse events:

- € Grade 3-5 Cardiac Disorders
 - § Pericardial effusion
 - § Pericarditis
 - § Restrictive cardiomyopathy
- € Grade 4-5 Gastrointestinal Disorders
 - § Dysphagia
 - § Esophagitis
 - § Esophageal fistula
 - §

13.4 Sample Sie

13.6.2 Analysis of Secondary Endpoints

Projected Distribution of Gender and Minorities

Gender

REFERENCES

Agresti A. *An Introduction to Categorical Data Analysis*. New York: John Wiley & Sons, Inc., 1996.

Aoki M, Abe Y, Kondo H, et al. Clinical outcome of stereotactic body radiotherapy of 54 Gy in nine fractions

References (Continued)

Le Chevalier T, Arriagada R, Quix E, et al. Radiotherapy alone versus combined chemotherapy and

References (Continued)

Park C, Papiez L, Zhang S, Story M, Timmerman RD. Universal survival curve and

References (Continued)

(b) Timmerman RD, Paulus R, Galvin J, et al. Toxicity Analysis of RTOG 0236 Using Stereotactic Body Radiation Therapy to Treat Medically Inoperable Early Stage Lung Cancer Patients. *Int J Radiat Oncol Biol Phys.* 69 (3 Suppl):S86, 2007.

Timmerman, Robert. Personal Communication. 2009.

Uematsu M, Shioda A, Suda A, et al. Computed tom

APPENDIX I

Informed Consent Template for Cancer Treatment Trials **(English Language)**

RTOG 0915 (9/3/09)
(NCCTG N0927)

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

This is a clinical trial, a type of research study. Your study doctor will explain the clinical trial to you. Clinical trials include only people who choose to take part. Please take your time to make your decision about taking part. You may discuss your decision with your friends and family.

If you are in Group 2 (often called “Arm 2”), you will receive 4 SBRT treatments, 1 each day for 4 consecutive days, for 48 Gy.

B T you begin the study (8/19/10)

At 12 weeks after the SBRT:

- € A physical examination
- € Checking your weight
- € Evaluation of your ability to carry out daily activities
- € Tests of your breathing and lung function
- € A CT scan with contrast
- € Blood tests
- € Evaluatany side eff59.(cttivitieET59880.4611 0 TD5-0.0006 Tc9-0.001from t you)7 s maTey be havc

How long will I be in the study?

What are the costs of taking part in this study?

*You may also call the Operations Office of the NCI Central Institutional Review Board (CIRB) at 888-657-3711 (from the continental US only). [*Only applies to sites using the CIRB.]

Please note: This section of the informed consent form

Risks

The greatest risk to you is the release of information from your health records. We will do our best to make sure that your personal information will be kept private. The chance that this information will be given to someone else is very small.

Making Your Choice

Please read each sentence below and think about your choice

APPENDIX II

STUDY PARAMETER TABLE

APPENDIX IV

Staging System

T

U

The primary tumor (T) is classified according to the following categories:

TX:

Tumor cannot be evaluated or tumor is proven by the presence of cancer cells in the sputum or bronchial washings, but it cannot be seen during imaging or bronchoscopy ("occult" tumor)

T0: No evidence of primary tumor

Tis: Carcinoma in situ

T1: Tumor 3 centimeters (< 3 cm) or less in greatest dimension, surrounded by lung or pleura,

APPENDIX V

BLOOD COLLECTION INSTRUCTIONS

Instructions for use of serum, plasma, or buffy coat collection kit (collected as required by protocol):

This kit includes:

- € Ten (10) 1ml cryovials
- € Biohazard bags
- € Absorbent shipping material
- € Styrofoam container (inner)
- € Cardboard shipping (outer) box
- € Pre-paid shipping label(s)

Serum (if requested):

- € Using four (4) or more 1ml cryovials, label them with the RTOG study and case number, collection date and time, and clearly mark cryovials "serum".

Process:

1. Allow one red

