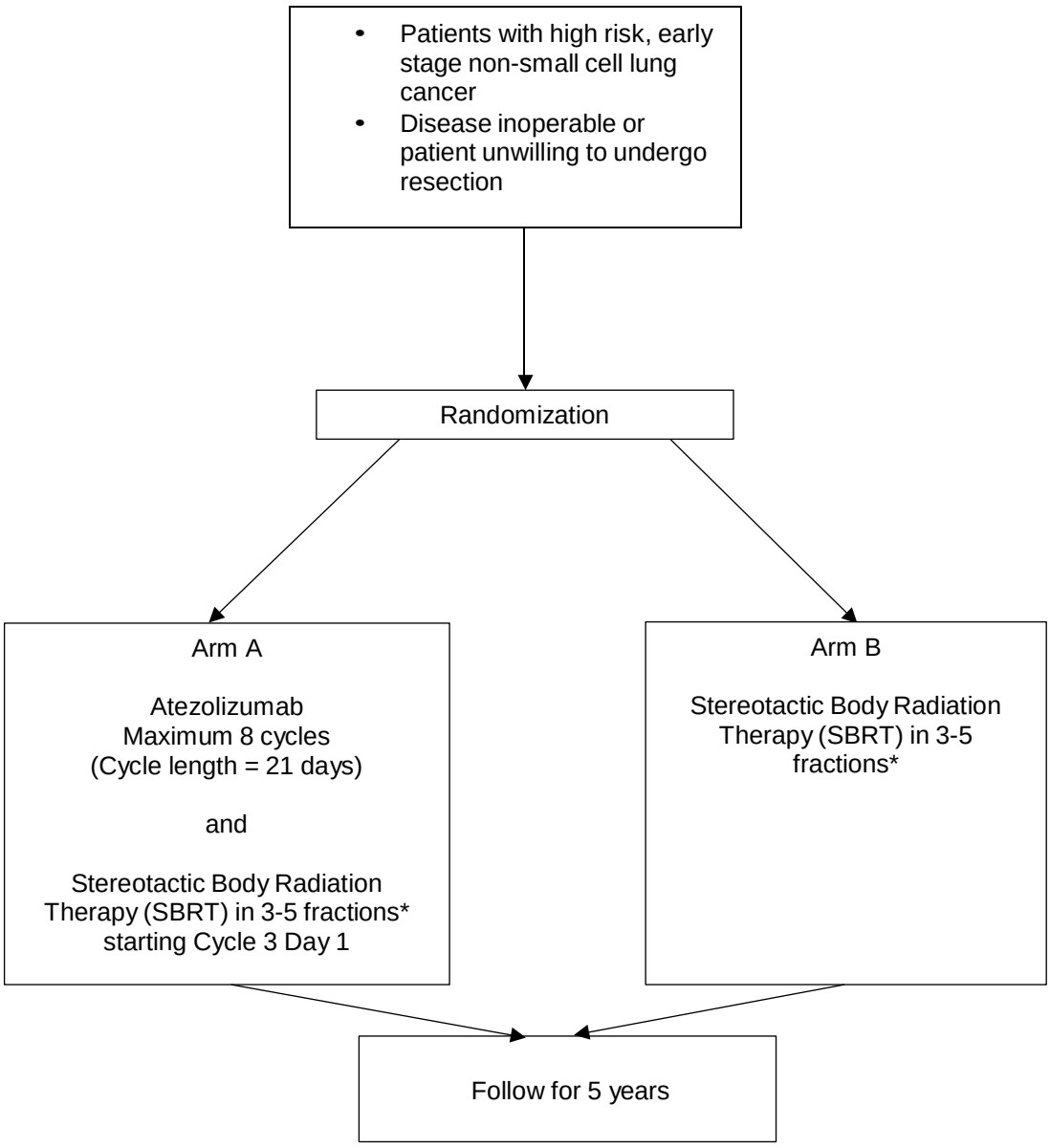
**SCHEMA**




* See Section 7.4 for details

## 5.0 ELIGIBILITY CRITERIA

Each of the criteria in the following section must be met in order for a patient to be considered eligible for registration in OPEN. Section 5 may be printed and used by the site, but is not to be uploaded in RAVE (unless specially stated).For each criterion requiring test results and dates, please record this information on the Onstudy Form and submit via Medidata Rave® (see Section 14.0). Any potential eligibility issues should be addressed to the SWOG SDMC in Seattle at 206/652-2267 or lungquestion@crab.org prior to registration. **NCI policy does not allow for waiver of any eligibility criterion (http://ctep.cancer.gov/protocolDevelopment/policies_deviations.htm).**

In calculating days of tests and measurements, the day a test or measurement is done is considered Day 0. Therefore, if a test is done on a Monday, the Monday 4 weeks later would be considered Day 28. **If Day 14, 28, 42, or 90 falls on a weekend or holiday, the limit may be extended to the next working day.**

### 5.1 Disease Related Criteria

a. Patient must have histologically or cytologically proven Stage I-IIA or limited T3N0M0 non-small cell lung cancer (NSCLC) as defined in Section 4.0, without radiographic evidence of nodal or distant involvement (N0M0). Patient may have T3 disease with the exclusion of multifocal tumors and pericardial involvement.

b. Disease must have one or more of the following high-risk features:
- Tumor diameter ≥ 2 cm as assessed by diagnostic CT
- Tumor SUV max ≥ 6.2 as assessed by FDG PET/CT
- Moderately differentiated, poorly differentiated, or undifferentiated histology

c. Patient must have undergone diagnostic chest CT with contrast (unless medically contraindicated) within 42 days prior to randomization. PET-CT may be used if the CT portion is of identical diagnostic quality to a stand-alone CT. All disease must be assessed within 42 days prior to randomization.

d. Patient must have undergone FDG PET/CT of chest within 90 days prior to randomization.

e. Patient must not have evidence of hilar or mediastinal nodal involvement. Any patient with radiographically suspicious hilar or mediastinal nodes (including features such as non-calcified nodes with a short axis diameter > 1 cm, abnormal morphology, and/or elevated FDG avidity) must undergo cytologic sampling of suspicious nodes to rule out involvement prior to randomization. Mediastinal nodal sampling for other patients is optional.

f. Patient must have undergone history and physical examination within 28 days prior to randomization.

g. Patient must be medically or surgically inoperable as documented by a board certified thoracic surgeon or multi-disciplinary tumor board consensus OR patient's unwillingness to undergo surgical resection must be clearly documented.

5.2 Prior/Concurrent Therapy Criteria

a. Patient must not have received any prior treatment for NSCLC.

b. Patient must not have undergone prior radiation to overlapping regions of the chest (such that protocol lung constraints cannot be met with a cumulative plan).

c. Patient must not have received treatment with systemic immunostimulatory or immunosuppressive agents, including corticosteroids, within 14 days prior to randomization.

5.3 Clinical/Laboratory Criteria

a. Patient must be ≥ 18 years old.

b. Patient must have Zubrod Performance Status of 0-2 (see Section 10.3).

c. Patient must have adequate liver function defined as aspartate aminotransferase (AST) and alanine aminotransferase (ALT) ≤ 3 x IULN within 28 days prior to randomization.

d. Patient must have adequate renal function defined as calculated creatinine clearance ≥ 30 mL/min using the following formula. The serum creatinine value used in the calculation must have been collected within 28 days prior to randomization.

$$\text{Calculated Creatinine Clearance} = \frac{(140 - \text{age}) \times (\text{weight in kg})\ \dagger}{72 \times \text{serum creatinine}\ *}$$

Multiply this number by 0.85 if the patient is a female.

† The kilogram weight is the patient weight with an upper limit of 140% of the IBW.
* Actual lab serum creatinine value with a minimum of 0.8 mg/dL.

e. Patient must have ANC, platelets, and hemoglobin measured within 28 days prior to randomization. The purpose of these tests is to collect baseline values to compare with on-treatment values.

f. Patient must have TSH measured within 28 days prior to randomization. The purpose of this test is to collect baseline values to compare with on-treatment values.

g. Patient must not have significant cardiovascular disease (NYHA Class II or greater; see Appendix 18.2).

h. Patient must not have myocardial infarction within 90 days prior to randomization.

i. Patient must not have unstable arrhythmias or unstable angina.

j. Patient must not have known left ventricular ejection fraction <40% within 28 days prior to randomization.

k. Patient must not have had an infection ≥ Grade 3 (CTCAE Version 5.0) within 28 days prior to randomization.

l. Patient must not have an active autoimmune disease that has required systemic treatment in past two years (i.e., with use of disease modifying agents, corticosteroids or immunosuppressive drugs). Replacement therapy (e.g., thyroxine, insulin, or physiologic corticosteroid replacement therapy for adrenal or pituitary insufficiency) is not considered a form of systemic treatment and is allowed.

m. Patient must be tested for hepatitis B within 28 days prior to randomization. Patient must not have active (chronic or acute) hepatitis B virus (HBV) infection. Patients may have past or resolved HBV infection.

Active HBV is defined as having a positive hepatitis B surface antigen (HBsAg) test.

Past or resolved HBV is defined as having a negative HBsAG test and a positive total hepatitis B core antibody (HBcAb) test.

n. Patient must be tested for hepatitis C within 28 days prior to randomization. Patient must not have active hepatitis C virus (HCV) infection.

Active HCV is defined as having a positive HCV antibody test followed by a positive HCV RNA test.

o. Patient must not have known human immunodeficiency virus (HIV) unless he/she is on effective anti-retroviral therapy, has had at least one viral load test within 6 months prior to randomization, and had undetectable viral load at all viral load tests within 6 months prior to randomization.

p. Patient must not have a history of clinically significant interstitial lung disease or evidence of active pneumonitis on the screening chest CT.

q. No other prior malignancy is allowed except for the following: adequately treated basal cell or squamous cell skin cancer, in situ cervical cancer, localized prostate cancer, adequately treated Stage I or II cancer from which the patient is currently in complete remission, or any other cancer from which the patient has been disease free for five years.

r. Patients must not be pregnant due to the potential teratogenic side effects of the protocol treatment. Women of reproductive potential and men must have agreed to use an effective contraception method for the duration of protocol treatment, and for 5 months (150 days) after the last dose of atezolizumab. A woman is considered to be of “reproductive potential” if she has had a menses at any time in the preceding 12 consecutive months. In addition to routine contraceptive methods, "effective contraception" also includes heterosexual celibacy and surgery intended to prevent pregnancy (or with a side-effect of pregnancy prevention) defined as a hysterectomy, bilateral oophorectomy or bilateral tubal ligation. However, if at any point a previously celibate patient chooses to become heterosexually active during the time period for use of contraceptive measures outlined in the protocol, he/she is responsible for beginning contraceptive measures.

Because there is an unknown but potential risk for adverse events in nursing infants secondary to treatment of the mother with atezolizumab, breastfeeding must be discontinued prior to randomization.

5.4 Specimen Submission Criteria

a. Patient must agree to have specimens submitted for translational medicine and banking as outlined in Section 15.2.

5.5 Regulatory Criteria

a. Patients ***must*** be informed of the investigational nature of this study and must sign and give written informed consent in accordance with institutional and federal guidelines.

b. As a part of the OPEN registration process (see Section 13.3 for OPEN access instructions) the treating institution's identity is provided in order to ensure that the current (within 365 days) date of institutional review board approval for this study has been entered in the system.