FAST FACTS

S1914 - A RANDOMIZED PHASE III TRIAL OF INDUCTION/CONSOLIDATION ATEZOLIZUMAB (NSC #783608) + SBRT VERSUS SBRT ALONE IN HIGH RISK, EARLY STAGE NSCLC

ELIGIBILITY CRITERIA

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 pericardial involvement. Patients with multifocal tumors with no more than two lesions confirmed or suspected to be synchronous early stage NSCLCs are eligible provided at least one lesion is histologically or cytologically proven to be NSCLC and meets one or more high-risk features defined in Section 5.1.b.
   b. Disease must have one or more of the following high-risk features:
      • Tumor diameter ≥ 2 cm (inclusive of any non-solid, ground glass component) 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 or without contrast (IV contrast preferred) within 42 days prior to randomization. PET-CT may be used if the CT portion is of comparable 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. For cases in which the treating physician/multidisciplinary opinion is used to define nodes as “non-suspicious” (such as long-standing, stable enlarged nodes from other medical causes), the rationale must be clearly documented within the medical record.
   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.
2. Prior/Concurrent Therapy Criteria
   a. Patient must not have received any prior treatment for the current NSCLC diagnosis.
   b. Patient must not have undergone prior radiation to overlapping regions of the chest that, in the opinion of the treatment physician, will interfere with protocol treatment.
   c. Patient must not have received treatment with systemic immunostimulatory or immunosuppressive agents, including corticosteroids, within 14 days prior to randomization.

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.

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

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

NOTE: Assessment of LVEF by echocardiogram or MUGA is not an eligibility requirement, but if a standard of care echocardiogram or MUGA was clinically indicated, the LVEF must not be <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. Patients with evidence of chronic hepatitis B virus (HBV) infection must have undetectable HBV viral load on suppressive therapy within 28 days prior to randomization.
n. Patients with a history of hepatitis C virus (HCV) infection must have been treated and cured. Patients with HCV infection who are currently on treatment must have undetectable HCV viral load within 28 days prior to randomization.
o. Patient must have pulmonary function testing documented within 90 days prior to randomization.
p. Patients with known human immunodeficiency virus (HIV) infection must have anti-retroviral therapy, and have an undetectable viral load at their most recent viral load test within 6 months prior to randomization.
q. Patient must not have a history of clinically significant interstitial lung disease or evidence of active pneumonitis on the screening chest CT.
r. Patients must not have a prior or concurrent malignancy whose natural history or treatment has the potential (in the opinion of the treating physician) to interfere with the safety or efficacy assessment of the investigational regimen.
s. 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.
t. Patients of reproductive potential must have a negative serum pregnancy test within 14 days prior to randomization.
u. Patients must not have known active tuberculosis.

v. Patients must not have received a live, attenuated vaccine within 28 days prior to randomization (for examples, see Section 18.7)

NOTE: All COVID-19 vaccines that have received FDA approval or FDA emergency use authorization are acceptable.

w. Patients must not have a known history of allergic reactions attributed to compounds of similar chemical or biologic composition to atezolizumab.

x. Patients must not have a known history of severe allergic, anaphylactic, or other hypersensitivity reactions to chimeric antibodies, fusion proteins, or Chinese hamster ovary cell products or to any component of the atezolizumab formulation.
SCHEMA

- Patients with high risk, early stage non-small cell lung cancer
- Disease inoperable or patient unwilling to undergo resection

Randomization

Arm A
Atezolizumab
Maximum 8 cycles
(Cycle length = 21 days)
and
Stereotactic Body Radiation Therapy (SBRT) in 3-8 fractions*
starting Cycle 3 Day 1

Arm B
Stereotactic Body Radiation Therapy (SBRT) in 3-8 fractions*

Follow for 5 years

* See Section 7.4 for details