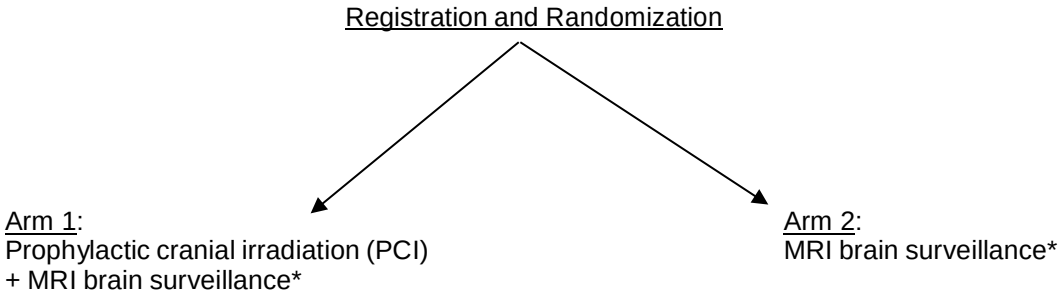
SCHEMA



* MRI brain surveillance schedule: within 14 days before or after Days 90, 180, 270, and 360, then within 28 days before or after Days 540 and 720, and as needed for symptoms

4.0 STAGING CRITERIA

Limited-stage (LS) SCLC: Stage I-III (T any, N any, M0) that can be safely treated with definitive radiation doses. Excludes T3-4 due to multiple lung nodules that are too extensive or have tumor/nodal volume that is too large to be encompassed in a tolerable radiation plan.

Extensive-stage (ES) SCLC: Stage IV (T any, N any, M 1a/b/c), or T3-4 due to multiple lung nodules that are too extensive or have tumor/nodal volume that is too large to be encompassed in a tolerable radiation plan.

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. 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 Statistics and Data Management Center 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 28 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 a histologically confirmed diagnosis of small-cell lung cancer (SCLC).

b. Patient must have an MRI of the brain performed within 28 days prior to registration documenting no evidence of brain metastases or leptomeningeal disease. Patient also must not have a history of brain metastases or leptomeningeal disease.

5.2 Prior/Concurrent Therapy Criteria

a. Immunotherapy concurrent with and/or adjuvant to first-line therapy is allowed at the discretion of the treating physician. Patients with LS-SCLC must have completed platinum-based chemotherapy and either definitive thoracic radiotherapy (including SBRT for early-stage T1-2 N0 M0 disease who do not undergo surgery) or definitive surgical resection; thoracic radiation in addition to definitive surgical resection is allowed at the discretion of the treating physician, but is not required. Patients with ES-SCLC must have completed platinum-based chemotherapy either with or without thoracic radiotherapy at the discretion of the treating physician.

b. All adverse events from prior treatment must have resolved to ≤ Grade 2 (CTCAE Version 5.0) prior to randomization.

c. Patient must have had a response to first-line therapy and no evidence of progression in opinion of the treating investigator. Systemic imaging (CT or PET/CT including the chest and abdomen) must be performed within 28 days prior to randomization.

d. No more than 8 weeks may have elapsed between Day 1 of the last cycle of chemotherapy and randomization.

e. Patient must not have received prior radiotherapy to the brain or whole brain radiotherapy. Patients who have undergone prior stereotactic radiosurgery for benign tumors or conditions (e.g., acoustic neuroma, grade I meningioma, trigeminal neuralgia) may be considered on a case-by-case basis. Please contact Dr. Chad Rusthoven at chad.rusthoven@ucdenver.edu for inquiries.

5.3 Clinical/Laboratory Criteria

a. Patient must be ≥ 18 years of age.

b. Patient must have Zubrod Performance Status of 0-2 (see Section 10.9).

c. Patient must not have a contraindication to MR imaging, such as implanted metal devices or foreign bodies.

d. Patient must not have a contraindication to gadolinium contrast administration during MR imaging, such as allergy or insufficient renal function

e. Patient must not have other metastatic malignancies requiring current active treatment.

f. Patient must not have any severe active comorbidities, defined as follows:
- Unstable angina and/or congestive heart failure requiring hospitalization within 6 months prior to randomization
- Transmural myocardial infarction within 6 months prior to randomization
- Acute bacterial or fungal infection requiring intravenous antibiotics at the time of randomization
- Chronic obstructive pulmonary disease exacerbation or other acute respiratory illness precluding study therapy at the time of randomization
- Severe hepatic disease defined as a diagnosis of Child-Pugh class B or C hepatic disease
- HIV positive with CD4 count < 200 cells/microliter. Note that patients who are HIV positive are eligible, provided they are under treatment with highly active antiretroviral therapy (HAART) and have a CD4 count ≥ 200 cells/microliter within 16 weeks prior to randomization. Note also that HIV testing is not required for eligibility for this protocol.

g. Patient must not be pregnant because of fetal risks from radiation exposure. Men must have agreed to use an effective contraceptive method during PCI and for six months after completing PCI. Women of reproductive potential must have agreed to use an effective contraceptive method during PCI. A woman is considered to be of "reproductive potential" if she has had 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.

5.4 Additional Criteria

a. Patients who speak and understand English or French must agree to participate in cognitive function testing.

b. Patient must be offered the opportunity to have specimens submitted for banking (see Section 15.2).