Algorithm for the Management of Non-Small Cell Lung Cancer - Stage I

**Diagnosis & Clinical Staging**
- PET-CT
- Pulmonary function test
- Mediastinal lymph biopsy, via endobronchial ultrasound, mediastinoscopy, or VATS, is indicated for all patients with clinical stage T2Nx or TxN1/2 or greater disease

**Operable**
- Systematic mediastinal lymph node sampling or dissection
- Patient status?
  - Medically fit
    - Lobectomy or Anatomic Pulmonary Resection
      - Sleeve lobectomy (preferred)
      - Pneumonectomy
  - Co-morbid disease, decreased pulmonary function
    - Sublobar Resection
      - Segmentectomy
      - Wedge resection

**Assess for suitability of resection by thoracic surgeon**

**Inoperable/decline surgery**
- **Assess for suitability of SBRT**
  - **SBRT**
    - Indicated for patients with node negative tumours ≤ 5 cm
    - Peripheral tumour dose: 48 Gy/4 fractions
    - Central tumour dose: 60 Gy/10 fractions or less
  - **Radical RT**
    - Indicated for patients who are not candidates for SBRT

**Follow-up & Surveillance**
- Physical exam & chest x-ray or CT scan (see text for timing recommendations)
- Smoking cessation counseling

**Positive margins after surgery?**
- Yes
  - **Assess for suitability of resection**
    - **Suitable**
      - Re-resection
    - **Not suitable**
      - Refer to Radiation Oncologist

**Not suitable**
- Medically fit
- Co-morbid disease, decreased pulmonary function

**Assess for appropriateness of adjuvant chemotherapy for patients with stage IB disease**

**Whenever possible, patients should be considered for eligibility in ongoing clinical trials.**

The recommendations contained in this algorithm and accompanying guideline are a consensus of the Alberta Provincial Thoracic Tumour Team synthesis of currently accepted approaches to management, derived from a review of relevant scientific literature. Clinicians applying these guidelines should, in consultation with the patient, use independent medical judgment in the context of individual clinical circumstances to direct care.