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

**Initial Evaluation and Work-Up**
- CT chest/upper abdomen/bone scan or PET
- CT head

**Advanced Disease (Stage IV) or Stage IIIb Non-Resectable**
- Solitary metastasis
- Good PS

Assess for suitability of surgical resection

**Squamous Cell Carcinoma**

**Tumour Histology Testing**

- Adenocarcinoma, Large Cell Carcinoma, or NOS

**Upfront EGFR and ALK Testing**

- EGFR-positive
- EGFR/ALK-negative
- ALK-positive

**Performance Status?**

- Poor PS (3,4)
- Good PS (0,1,2)

**Chemotherapy not recommended; provide best supportive care**

- Platinum-based doublet (4-6 cycles) OR single-agent vinorelbine, gemcitabine, docetaxel, paclitaxel

**Disease Progression**

- Docetaxel OR Erlotinib

**Stable Disease?**

- Yes
- No

**Maintenance therapy with pemetrexed**

**Disease Progression**

- Platinum-based doublet (4-6 cycles) OR single-agent vinorelbine, gemcitabine, docetaxel, paclitaxel, pemetrexed

**Disease Progression**

- Maintenance therapy with pemetrexed

- Crizotinib For patients with ECOG performance status ≤ 2

**Palliative treatments can be administered at any time for symptom control**

**Consider clinical trials where appropriate**

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.