# Safety and survival of high dose palliative radiotherapy for locally advanced lung cancer

**Descriptor:**

An audit to assess the use of the 36Gy 12 fraction regime, specifically the toxicity associated with the treatment and the overall survival for the cohort of patients.

**Background:**

For patients who have non-metastatic disease that is too extensive for radical conformal 3D radiotherapy, we offer high dose palliation with 36Gy in 12 fractions. This is based on the 39Gy in 13 fraction arm of a randomised controlled trial which produced a modest survival benefit compared to 17Gy in 2 fractions, but was associated with 2/264 (0.76%) incidence of radiation myelopathy. We adopted the 36Gy regime to stay within spinal cord tolerance.

## The Cycle

**The standard:**

The 39Gy 13 fraction arm of the original 1996 MRC trial on which the 36Gy regime is based [1].

**Target:**

1. Treatment related toxicity is comparable to the 39Gy regime

2. No cases of myelopathy as the 36Gy regime has been chosen to specifically to stay within spinal cord tolerance

3. Calculate survival for this cohort to see if:

   a) It is comparable to the higher 39Gy regime and

   b) To act as a baseline before switching to IMRT, which may allow radical dosing for this cohort

## Assess local practice

**Indicators:**

A specific cohort of NSCLCa patients who were treated with 36Gy in 12 fractions.

**Data items to be collected:**

• Age

• Gender

• Treatment dates

• Performance status

• Toxicity assessments for dysphagia, haemoptysis including dates

• Indicators of myelopathy

• Dates of progression

• Date of death

**Suggested number:**

60-70 for statistical power.

**Suggestions for change if target not met:**

Toxicity and survival were comparable so no changes to practice are recommended.

**Resources:**

• Clinical audit lead

• Consultant oncologist

• Statistician

• Clerical support for case notes retrieval

• Radiographer support for planning system interrogation mins per case note set

**References:**

1. Randomised Trial of palliative Two-Fraction radiotherapy versus more intensive 13-fraction radiotherapy for patients with inoperable non-small cell lung cancer and good performance status. Bolger, J.J et al. Clinical Oncology (1996); 8: 167-175

**Editor's comments:**

A useful audit to ensure local practice of high dose palliation is worthwhile. Time consuming for case note review, especially if documentation is not robust.

**Submitted by:**

Sean M. O'Cathail

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