# Early Mortality Following Radiotherapy: Meeting Standards and Improving Patient Selection

**Descriptor:**

Early mortality after radiotherapy is within 30 days of palliative radiotherapy and 90 days of radical radiotherapy.

**Background:**

The Cancer Reform Strategy aims to improve early mortality rates following radiotherapy. A decision to treat with palliative radiotherapy needs to carefully balance the potential for symptom relief with the burden of treatment. The dose and fractionation schedules chosen are paramount.

## The Cycle

**The standard:**

There are no nationally defined standards for early mortality after radiotherapy. Our standard is published data from other centres.

- 13% 30 day mortality after palliative radiotherapy [1]

- 2.3-2.4% 90 day mortality after radical radiotherapy [2]

RCR guidance recommends that patients with poor prognosis should receive 8Gy/1# for both the palliation of pain from bone metastases and in the treatment of spinal cord compression. [3]

**Target:**

Early mortality rates should be comparable with those of other centres with an effort to strive for a continued improvement. All appropriate patients [poor prognosis, bone metastases] should be assessed for suitability for single fractionation schedules.

## Assess local practice

**Indicators:**

The rate and timing of mortality post radiotherapy needs to be measured. Details of fractionation schedules and an assessment of prognosis, through a consideration of performance status/clinical judgement need to be collected.

**Data items to be collected:**

• Patients treated with radiotherapy – with differentiation noted between palliative and radical intent

• Dose and fractionation schedule of treatment including date of commencement

• Site of radiotherapy

• Patient characteristics including tumour type, performance status/prognosis

• Date of death where applicable

**Suggested number:**

All patients treated with radiotherapy within a 3 month period. This should equate to ≥500 patients.

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

• Peer review of all cases of early mortality

• Review of fractionation schedules for all palliative bone radiotherapy

• Incorporate performance status/prognostic indicators as a mandatory field on radiotherapy prescriptions

• Introduce proformas to document symptomatic benefit

**References:**

1. Routine Clinical Data Predict Survival after Palliative Radiotherapy: An Opportunity to Improve End of Life Care . Clinical Oncology 25 (2013) 668-673 M. Williams et al
2. An audit of 30 and 90 day mortality after 482 courses of external beam radiotherapy in unselected patients. RCR Audit library 2013. GEC Osborne et al
3. Royal College of Radiologists: Radiotherapy Dose Fractionation. June 2006

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