# Audit of mortality rates following radiotherapy

**Descriptor:**

Audit to assess local outcomes in radiotherapy.

**Background:**

The Department of health document “Improving outcomes: a strategy for cancer” has suggested various outcome goals for patients undergoing cancer treatments. Possible indicators include 90-day mortality following completion of radical or adjuvant radiotherapy and 30-day mortality following palliative radiotherapy [1].

## The Cycle

**The standard:**

A large oncology centre reviewed 40,593 courses of radiotherapy delivered between June 2004 and Dec 2010. They reported 90-day mortality of 4.8% for radical and 1.7% for adjuvant patients and a 30-day mortality for palliative patients of 12% [2].

**Target:**

If care is delivered uniformly to the same standard across the UK, then outcomes should be similar within all regional cancer treatment centres. If patient selection and fractionation is appropriate then a high proportion of patients should complete their planned radiotherapy course.

## Assess local practice

**Indicators:**

1. Cumulative mortality rates

2. Percentage of patients completing the planned course of treatment

**Data items to be collected:**

• Demographics – Disease site, clinician

• Radiotherapy – Date of treatment, treatment intent, area treated, planned dose and number of fractions, number of fractions delivered

• Outcomes – Date of death

Split data for analysis into Palliative, Adjuvant and Radical treatment intent

**Suggested number:**

Retrospectively audit all patients treated within a 12 month time period.

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

• Distribute findings at local audit meeting to all Clinicians

• Identify potential reasons for higher than expected mortality rates

• If a high proportion of patients are not completing the planned course of radiotherapy identify whether patient selection or fractionation could be improved

• Collecting data on clinician responsible could help to identify potential educational needs

**Resources:**

• Personnel: Clinical director, audit lead, clinical oncologist

Audit could be split into 2 separate (Palliative and radical/adjuvant) with one or two data collectors for each (This could be therapy radiographers or junior doctors)

• Time: 5 - 10 minutes per patient for data collection (2 hours for collating data and analysis)

**References:**

1. Department of health policy. Improving outcomes: A strategy for cancer. Jan 2011. Available at <http://www.dh.gov.uk/en/publicationsandstatistics/publications/publicationspolicyandguidance/dh_123371>
2. David Seabag-Montefiore et. al. 30 and 90 day mortality after 40,670 courses of external beam radiotherapy in unselected patients. NCRI cancer conference 6-9 Nov 2011. Abstract available at <http://www.ncri.org.uk/ncriconference/2011abstracts/abstracts/a21.html>

**Editor's comments:**

This is a quick retrospective audit suitable for trainees or therapy radiographers. It provides a simple way of monitoring local performance.

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