

**RCR Abstract Final – Dorothy Yang, Jonathan Adlam, Hannah Laidley, Meghavi Mashar, Christina Ye**

**Background to Audit:**

Melanoma is one of the most common causes of brain metastases (BMs). WBRT is the most widely used modality to treat BMs at our local centre, although it is unclear if patients gain significant improvement in quantity or quality of life. An analysis of early mortality and overall survival (OS) following WBRT for metastatic melanoma may help determine whether it is being used appropriately. Analysis of the 30-day and 90-day mortality after radiotherapy is recommended by the Cancer Reform Strategy.

**Standards, indicators and targets**

Survival outcome was benchmarked against the expected value according to the melanoma disease specific Graded Prognostic Assessment Score (ds-GPA) as published by Sperduto et al. (IJROBP 2010)

**Methodology.**

We examined case notes of all patients with metastatic melanoma who received WBRT at Ipswich Hospital between Jan 2011-Dec 2016. Retrospective data was collected from electronic patient records. The 30-day and 90-day mortality were calculated, and OS was estimated using the Kaplan-Meier method.

**Results of 1st Audit Round**

23 patients with a mean age of 65 years were audited. 30-day mortality was 9%, 90-day mortality was 43%. The median survival for the whole cohort was 14 weeks, significantly less than the 6.74 months suggested by Spuderto et al. Further analysis of subgroups on the basis of their ds-GPA score was not possible because performance status (PS) was inadequately documented; only 52% having a documented score. Of those with a documented PS, 50% had a Karnofsky Performance Score of <70, and 21% had a KPS of >90. Earlier death was noted in those with more than one brain metastasis: a single brain metastasis was associated with a mean survival of 62 weeks, 2-3 brain metastases with 14 weeks, and 4 brain metastases with 10 weeks.

**1st Action Plan**

Improve documentation of performance status in a systematic and reproducible manner, to facilitate calculation of Graded Prognostic Assessment, and allow targeting of more aggressive management of intracranial metastases in patients with fewer BMs and better PS, as they may derive greater benefit from alternative managements such as SRS or neuro-surgery.