



# Pathways following the diagnosis of brain tumour and stroke



## An analysis of outcomes

A Tarik,<sup>1</sup> S Elia,<sup>1</sup> RJ O'Connor<sup>1,2</sup>

1. Department of Rehabilitation Medicine, Airedale General Hospital, West Yorkshire

2. Academic Department of Rehabilitation Medicine, University of Leeds, UK

### Background

There is little information on the pathways for people who present acutely with brain tumours. Often patients describe symptoms or exhibit signs consistent with an acute stroke. Only through careful investigation can the correct diagnosis be identified.

Appropriate treatment for patients can include chemotherapy, surgery or radiotherapy depending on the origin of the tumour. However, for all patients the key to a successful outcome is prompt intervention from a skilled rehabilitation team to alleviate the disabling impact of the neurological impairments.

At Airedale General Hospital, this input is provided by a rehabilitation medicine physician on the stroke unit working in parallel with the acute stroke physicians, ensuring delivery of interventions when most needed.

The aim of this study is to compare outcomes for patients with acute presentation of tumours and stroke to plot the outcomes of patients with brain tumours.

### Methods

A retrospective observational study was performed using the clinical database on the stroke unit. Data were collected on patients' demographics, diagnosis and outcomes.

Comparable descriptors for severity of stroke and impact of tumour were not available; we matched patients admitted in the same week for age and sex to control for co-morbidity.

### Results

Over two years, nine patients were diagnosed with intracranial tumours:

- Glioma 6
- Meningioma 2
- Metastasis 1

Five patients presented with hemiplegia, two with seizures, and one each with dysphasia and confusion.

Nine patients with ischaemic stroke were matched to the patients above. Their stroke syndromes were as follows:

- Total anterior circulation 5
- Lacunar 1
- Partial anterior circulation 3

All patients presented with a hemiplegia.

Seven patients with tumours returned home; six with palliative care. Two were discharged to nursing homes with palliative care.

Seven stroke patients returned home. Four patients with tumours died during the follow-up period.

Length of time from discharge to death was 72 (43 – 127) days.

### Discussion

With suitable support, patients who present acutely with brain tumours can have similar discharge outcomes to those with stroke. Patients with tumours had non-significantly shorter LOS, possibly due to a desire to accelerate discharge or due to enhanced support from palliative care.

### Conclusion

Rehabilitation units need to develop strong links with palliative care services to ensure that patients who present with newly diagnosed tumours receive appropriate care and return home supported appropriately.

#### Patient Characteristics

	Tumour	Stroke
Age	73	71
IQR	69-81	65-77
Range	68-92	64-84
Hemiplegia	5	9
Dysphasia	1	4

#### Discharge Data

	Tumour	Stroke
LOS	21	48
IQR	13-41	17-81
Range	2-48	7-112
Home	7	7
Nursing home	2	2
Palliative care	8	0

IQR: interquartile range

LOS: length of stay