# Treatment of the older patient with Glioblastoma

**Descriptor:**

Audit of demographics, treatment and survival for the older population presenting with a diagnosis of Glioblastoma.

**Background:**

Gliobastoma is the most common primary brain tumour. It has a particularly poor prognosis in older patients.1Radical intent treatments are based on trials performed in a younger population2and there is a lack of consensus on the "standard" treatment for older patients. When treating older patients it is critical to balance treatment toxicity with the patient's quality of life, especially given the short median life expectancy. To achieve this patients should have a comprehensive assessment prior to treatment with consideration given to co-morbidities, medications and social support. It is also useful to know the MGMT status of the patient's tumour to tailor treatment3,4,5 and this should be carried out if there are resources to do so locally. It is necessary to audit local outcomes to ensure similarity to the national data1.

## The Cycle

**The standard:**

Assessment of performance status (PS) using either ECOG6 or Karnofsky7 at clinic review. Use of a more comprehensive assessment tool is encouraged8.

Attainment of a histological diagnosis should approximate the national average.

MGMT status should be assessed in each case when local resources allow.

Nationally reported survival data.

**Target:**

100% of patients should have performance status assessed.

59% of patients nationally have a histological diagnosis made.

100% of patients should have MGMT assessment on their tumour sample.

Information on co-morbidities, medication use, social support and any neurological deficit should be recorded in 100% of patients being considered for active treatment.

Median survival of 3.4 months, as reported in national data.

## Assess local practice

**Indicators:**

Performance status measured (and which tool used).

Recording of histological diagnosis.

Site of tumour.

Was MGMT measured on the tumour sample if there was a histological diagnosis?

Have co-morbidities, medications, social support and any neurological deficit been documented if the patient is being considered for active treatment?

Overall survival time for each patient (diagnosis to death).

**Data items to be collected:**

DOB and Date of diagnosis

Oncology appointment: (Y/N)

Gender: M/F

Performance status:      ECOG/Karnofsky/Not recorded

Cognitive screening test: Y/N   Type    Score

Co-morbidities:     Recorded/Not recorded

Medications: Recorded/Not recorded  Steroids Y/N/NR

Social support: Y/N/NR

Neurolgical deficit: Y/N Type    Seizures Y/N/NR

Site of tumour:  Cerebral hemispheres   Multifocal    Other

Surgery: Y N Extent

Pathology: Y N

MGMT status: Methylated   Unmethylated  NR

Chemotherapy: Y N Type

Radiotherapy: Y N Dose

Date of death:  Date           or N/A

**Suggested number:**

30 patients aged 70 and over and then review practice with an aim for improvement of any deficient areas of assessment or treatment of this group of patients.

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

**Performance Status Assessment:**

Introduce an assessment proforma to be used in the oncology clinic which is for patients aged 70 and over.

**Histological diagnosis:**

Review MDT discussions with regards to biopsy. Review PS of patients and site of those tumours that were not biopsied.

Is MGMT testing available at the local centre? If so, is there a pathway for this to be done routinely on all GBM tumour samples. If not, can testing be introduced?

**Additional assessment (co-morbidities, medications, social support):**

Introduce an assessment proforma which is specifcally for patients aged 70 and over. Consider joint neurosurgical/neuro-oncology assessment prior to any intervention to maximise decisions based on QoL. Is there access to an electronic prescribing record for these patients? Ask the patient to bring a list of medications to clinic.

**Overall survival:**

Consider additional data collection for the next audit cycle looking specificaly at appropriateness of treatment given alongside PS of patient (e.g. treatment toxicity).

Are there novel therapies that can be explored?

**Resources:**

1. Brodbelt A, Greenberg D, Winters T, Williams M, Vernon S, Collins VP. Glioblastoma in England: 2007-2011. Eur J Cancer. 2015; 51(4):533-542.

2. Stupp R, Mason WP, van den Bent MJ et al. Radiotherapy plus concomitant and adjuvant temozolomdie for glioblastoma. New England Journal of Medicine. 2005; 352 (10): 987-996.

3. Wick W, Platten M, Meisner C, et al. Temozolomide chemotherapy alone versus radiotherapy alone for malignant astrocytoma in the elderly: the NOA-01 randomised, phase 3 trial. Lancet Oncology. 2012; 13(7):707-715.

4. Malmstrom A, Gronberg BH, Marosi C, et al. Temozolomide versus standard 6-week radiotherapy versus hypofractionated radiotherapy in patients older than 60 years with glioblastoma: the Nordic randomised, phase 3 trial. Lancet Oncology. 2012; 13(9):916-926.

5. Perry JR, Laperriere N, O'Callaghan CJ, Brandes AA et al. Short-course Radiation plus Temozolamide in elderly patients with Glioblastoma. New England Journal of Medicine. 2017; 376:1027-1037.

6. Oken M, Creech R, Tormey D, et al. Toxicity and response criteria of the Eastern Cooperative Oncology Group. Am J Clin Oncol. 1982;5:649-655.

7. Karnofsky D, Burchenal J, The clinical evaluation of chemotherapeutic agents in cancer. In: MacLeod C, ed. Evaluation of Chemotherapeutic Agents. New York, NY: Columbia University Press; 1949:191–205.

8. Weitzner MA, Meyers CA, Gelke CK et al. The functional assessment of cancer therapy (FACT) scale: development of a brain subscale and revalidation of the general version (FACT-G) in patients with primary brain tumors. Cancer75(5), 1151–1161 (1995).

**Published Date:**

Thursday 5 September 2019

**Last Reviewed:**

Thursday 2 May 2024