

**Guideline for the Management of Patients with a Brain Tumour who Require
Emergency Surgery**

Date Approved by Network Governance	October 2012
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Date for Review	October 2015
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1. Scope of the guideline

This guideline has been produced to support the management of patients who require emergency surgery for a brain tumour. This includes:

- new patients
- patients known to have cancer and currently outpatients
- post-operative inpatients

2. Guideline background

2.1 All surgery is performed at one of the three Neurosurgical centres serving the agreed populations.

These are:

- University Hospital of North Staffordshire (UHNS),
- University Hospitals Birmingham (UHB)
- University Hospitals Coventry and Warwick (UHCW).

2.2 This guideline links to peer review measure 11-1C-110K

Guideline statements

3. All patients

Decisions made under this guideline should be discussed at the next MDT meeting.

4. New referrals

4.1 All patients presenting with signs and symptoms consistent with a brain tumour should be commenced on *dexamethasone 4mg daily*. If their condition remains poor or deteriorates an increase in dose to *8mg daily* and giving mannitol should be considered.

4.2 Patients referred when a non neuro-oncology consultant neurosurgeon is on call should be transferred to one of the neuro-oncology consultants the next working day.

4.3 If a neuro-oncology consultant neurosurgeon considers that a patient's condition is too urgent to delay until after the next MDT meeting, they should be discussed with at least one other neuro oncology neurosurgeon before proceeding with surgery.

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4.4 Patients with a poor Glasgow Coma Scale (**GCS**)

4.4.1 Poor GCS due to hydrocephalus:

- i. If there is no sign of infection or haemorrhage, and a permanent CSF diversion is likely, the patient should be offered Ventriculoperitoneal (VP) shunt insertion.
- ii. Other patients should be offered ventricular drain insertion.

4.4.2 Poor GCS due to tumour mass and / or a haemorrhage:

Patients should be discussed with one of the neuro-oncology consultants if available. Options for the management of the patients include:

- limited tumour excision
- Decompressive craniectomy palliative care

5. Previous patients, out of hospital

5.1 If a patient deteriorates during radiotherapy or chemotherapy, they should be referred to the oncologists in the first instance; who should then discuss the patient with the neuro-oncology neurosurgeon at the earliest opportunity. Management options include:

5.1.1 for **hydrocephalus**: a VP shunt insertion is the preferred treatment

5.1.2 for **infection**: admission for removal of bone flap urgently

5.1.3 for **tumour recurrence**: commence on high dose steroids and refer to the relevant consultant the next working day. These patients should be referred to the neuro-oncology MDT regarding further treatment

5.1.4 for **haemorrhage into recurrent tumour**: These patients should be discussed with their previous consultant as to whether active or palliative care would be most appropriate.

6. Current In-patients

6.1 Post-operative haemorrhage

6.1.1 Extradural haematomas, subdural haematomas and tumour bed haematomas should be evacuated

6.1.2 Haemorrhage following a biopsy: the patient should be discussed with their consultant. A biopsy only suggests that the tumour is inoperable and palliative care might be most appropriate

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6.2 Hydrocephalus

A ventricular drain should be inserted.

6.2 Brain swelling

- a. Give a dexamethasone bolus and/or mannitol
- b. If the patient fails to respond:
 - For post-operative patients following total or subtotal excision for meningioma or glioma the bone flap should be removed.
 - If a limited tumour removal has been performed, the case should be discussed with the patient's consultant regarding active (bone flap removal, further tumour excision) or palliative care.

6.3 Infection

- a. The infected bone flap should be removed urgently.
- b. For patients with meningitis plus hydrocephalus a ventricular drain should be inserted for intrathecal medication.

7. Staging

- 7.1 Cancer Registries have been set a national target to record an overall TNM stage for 70% of all invasive cancers (excluding non melanoma skin cancer) by December 2012.

This 'registry' stage is produced using data supplied from the trusts in the form of MDT data, imaging data and pathological data. In the mandated Cancer Registration Dataset the three staging components (clinical [pre-treatment], pathological and integrated TNM stage) are present, as they are in the Cancer Outcomes and Services Dataset that becomes mandatory in January 2013.

7.2 All Trusts

- a. The Trust should send electronic extracts from their histopathology system regularly to the WMCIU
- b. The Trust should send imaging extracts for cancer patients electronically to the WMCIU regularly, unless they have established remote access for the WMCIU to their radiology information system

- 7.3 For cancers diagnosed clinically or those that have not had surgery clinical TNM stage should be recorded on the MDT database

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- 7.4 For those with invasive cancer who have had surgery MDTs should record the full cancer registry dataset onto their MDT database at the time of discussion at the MDT meeting and send extracts to the WMCIU on a regular basis

8. Performance status

All patients should have their performance status recorded onto the MDT database at the MDT. This should be done using the WHO classification which will ensure it is in line with the cancer outcomes and services dataset guidance

9 Patient information and counselling

- 9.1 All patients, and with their consent, their partners will be given access to appropriate written information during their investigation and treatment, and on diagnosis will be given the opportunity to discuss their management with a clinical nurse specialist who is a member of the relevant MDT. The patient should have a method of access to the Brain/CNS team at all times.
- 9.2 Access to psychological support should be available if required. All patients should undergo an holistic needs assessment and onward referral as required.

10. Palliative care

Palliative care services will be made available to all patients as deemed appropriate by the MDT.

11. Clinical Trials

- 11.1 Wherever possible, patients who are eligible should be offered the opportunity to participate in National Institute for Health Research portfolio clinical trials and other well designed studies.
- 11.2 Where a study is only open at one Trust in the Network, patients should be referred for trial entry. A list of studies available at each Trust is available from the local cancer research network office
- 11.3 Patients who have been recruited into a clinical trial will be followed up as defined in the protocol.

Monitoring of the guideline

Adherence to the Network guidelines may from time to time be formally monitored.

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