

Cancers can potentially metastasise to the brain and form a secondary tumour. Cancers that commonly spread to the brain include lung cancer, breast cancer, renal cell cancer, lymphoma and melanoma¹.

Signs and symptoms associated with brain metastases include:

 **Headache:** is the most common symptom, often described as a tension headache which is worse in the early morning and improves during the day.

 **Nausea and vomiting**

 **Seizures:** more common with multiple brain metastasis

 **Speech difficulties**

 **Motor and sensory deficits**

 **Unsteady gait**

 **Cognitive decline**

 **Personality changes**

 **Decreased or loss of consciousness:** often due to intracranial haemorrhage.



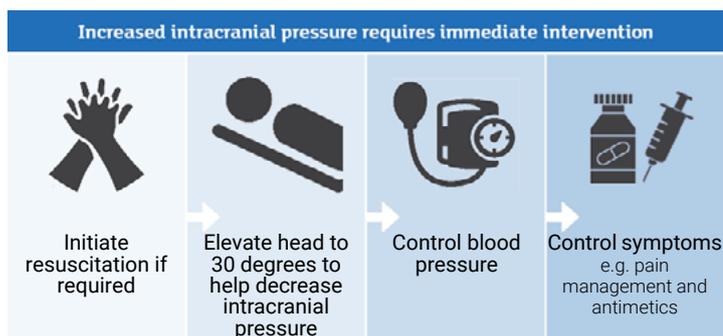
Assessment and initial management

Patients with systemic compromise require urgent assessment and close monitoring.

Arrange urgent medical review:

- Perform a complete A-G assessment
- Perform a focussed neurological assessment e.g. Glasgow coma scale (GCS)
- Assess and monitor vital signs
- Take a thorough clinical history
 - Assess history of malignancy
 - Record previous and current treatment
 - Assess the severity, duration and speed of onset of symptoms

Immediate nursing interventions



Investigations and diagnosis

CT Non-contrast computed tomography brain scan be used to detect an intracranial haemorrhage and may detect large dominant lesions.

MRI Magnetic resonance imaging with contrast is the most sensitive imaging modality for brain metastase.

EEG Electroencephalograms are not usually needed for patients with diagnosed brain metastases who have had a clinically obvious seizure.

Treatment and management

The treatment and ongoing management of a patient with brain metastases is considered on an individual basis and requires a coordinated multidisciplinary approach that may include but not limited to the following:

- Treating haematologist/oncologist
- Neurosurgeon
- Radiation oncologist
- Interventional radiologist
- Palliative care team
- Nurse specialist
- Allied health

Definitive treatment for brain metastases

Malignancy characteristics, including prognosis are important considerations when determining treatment approach. Treatment approaches include surgery, radiation therapy and/or systemic therapy.

Management of the complications of brain metastases

- **Increased intracranial pressure**
 - Recommended in symptomatic patients.
- **Seizures**
 - The use of prophylactic antiepileptic drugs is not recommended. However, in patients with a history of seizure or following neurosurgery, the use of antiepileptic drugs may be used.
- **Treatment of haemorrhage**
 - analgesics
 - anti-emetics
 - steroids
 - anticonvulsant therapy
 - correction of coagulopathy
 - neurosurgical intervention
 - referral to appropriate medical team for ongoing management