





Protocol for management of patients with intracranial indications for stereotactic radiosurgery v1

West Midlands Cancer Alliance

Coversheet for Cancer Alliance Expert Advisory Group Agreed Documentation

This sheet is to accompany all documentation agreed by the West Midlands Cancer Alliance Expert Advisory Groups. This will assist the Clinical Network to endorse the documentation and request implementation.

EAG name	Brain and Central Nervous System	
Document Title	Protocol for management of patients with intracranial indication for stereotactic radiosurgery	
Published date	April 2018	
Document Purpose	This guidance has been produced to support the management and follow-up of adult patients with intracranial indications that may be considered for stereotactic radiosurgery (SRS).	
Authors		
Review Date (must be within three years)	April 2021	
Approval Signatures:	EAG Chair  Date: 20 April 2018	Network Clinical Director  Date: 20 April 2018

**PROTOCOL FOR MANAGEMENT OF PATIENTS WITH
INTRACRANIAL INDICATIONS FOR STEREOTACTIC
RADIOSURGERY (SRS)**

Date Approved	April 2018
Date for Review	April 2021

DOCUMENT HISTORY

Version	Date	Summary
1	April 2018	Reviewed by Cancer Alliance Expert Advisory Group

SCOPE OF THE GUIDELINE

This guidance has been produced to support the management and follow-up of adult patients with intracranial indications that may be considered for stereotactic radiosurgery (SRS).

2. BACKGROUND

- 2.1 The regional SRS centre is able to accept neuro-oncology, skull base and pituitary referrals accepted (Tier 1/ 2). This includes vestibular schwannomas, meningiomas, pituitary adenomas, cerebral metastases and paragangliomas amongst the commissioned indications
- 2.2 Vascular/Functional and Paediatric indications need to be referred to Tier 3 / 4 Centres (Sheffield and Leeds respectively).

3. GUIDELINES FOR PATIENTS WITH CEREBRAL METASTASES

- 3.1 Unless contraindicated, all patients should be investigated with MR scanning.
- 3.2 Patients should be discussed in the local site specific MDT and have the support of primary site local MDT for aggressive management of brain disease. If this is the case then refer to local neuroscience / skull base MDM
- 3.3 If the local neuroscience / skull base MDM feels appropriate then patient should be referred to the supra-regional SRS MDM
- 3.3 Rapid referral and management required for this group. The aim is to treat patients within 2 weeks of clinical review and three weeks of local neuroscience MDT discussion.
- 3.4 Patient selection criteria:
 - 3.4.1 KPS \geq 70
 - 3.4.2 Absent / controlled / controllable primary disease
 - 3.4.3 Pressure symptoms which would be best relieved by surgery are excluded.
 - 3.4.4 Total volume \leq 20cc. [Usually diameter $<$ 3cm]
 - 3.4.5 Estimated minimum prognosis $>$ 6months

3.5 Patients should be followed-up with MR scans at 6 weeks and then 3 monthly post treatment

4. GUIDELINES FOR PATIENTS WITH VESTIBULAR SCHWANNOMAS

4.1 Unless contraindicated, all patients should be investigated with MR scanning.

4.2 Patients should be discussed in the local neuroscience / skull base MDM

4.3 If the local neuroscience / skull base MDM feels appropriate then patient should be referred to the supra-regional SRS MDM : Referral via skull base surgical team / Birmingham Skull Base MDT preferred

4.4 Patient selection criteria:

4.4.1 <3cm in extrameatal diameter AND no clinical signs of brainstem compression.

4.4.2 Volume < 5cc

4.4.3 Growth on sequential MRI scans (defined as 2mm) OR consider at presentation if extrameatal

4.4.4 Diameter = 2-3cm due further growth possibly rendering SRS difficult

4.4.5 Following microsurgery consider SRS/T if residuum >2cm or progression in size of 2mm

4.4.6 Progression following microsurgery (unless 2cm residual)

4.5 Contraindications

Absolute:

4.5.1 >3.5cm diameter (extracanicular measurements)

4.5.2 Symptoms/signs of brainstem compression

Relative:

4.5.3 Cystic Tumours

4.5.4 NF2 patients (Management according to NF2 National MDTs)

4.5.5 High risk of hydrocephalus

4.5 Patients should be followed-up with MR scans yearly post treatment for five years

5 GUIDELINES FOR PATIENTS WITH MENINGIOMAS

5.1 Unless contraindicated, all patients should be investigated with MR scanning.

5.2 Patients should be discussed in the local neuroscience / skull base MDM

5.3 If the local neuroscience / skull base MDM feels appropriate then patient should be referred to the UHB neurosciences MDT / SRS MDT

5.4 Patient selection criteria:

5.4.1 Recurrent or residual tumours post-surgery unless further complete resection possible

5.4.2 Primary treatment for inoperable tumours lacking pathological confirmation if progression at a rate consistent with benign meningioma.

5.5 Contraindications to SRS/T

5.5.1 Symptomatic compression of brain stem or optic pathways (consider surgical decompression and /or fractionated treatment)

5.5.2 Symptomatic oedema / mass effect (consider surgery)

5.5.3 Rapidly growing tumours lacking pathological verification or uncertainty in diagnosis

5.5.4 Longstanding disease without evidence of growth (>5years)

5.6 Patients should be followed-up with MR scans yearly post treatment for five years

6 GUIDELINES FOR PATIENTS WITH PITUITARY ADENOMAS

6.1 Unless contraindicated, all patients should be investigated with MR scanning.

6.2 Patients should be discussed in the local neuroscience / skull base MDM

6.3 If the local neuroscience / skull base MDM feels appropriate then patient should be referred to the UHB pituitary service / Pituitary MDT.

6.4 Patient selection criteria:

6.4.1 Symptomatic, or progressing NFA, not suitable for surgical resection.

6.4.2 Recurrent NFA that have undergone maximal safe surgical resection and further resection is not likely to be beneficial (e.g extension into cavernous sinus)

6.4.3 Residual NFA following maximal surgical resection where concerns exist for early progression (discuss at pituitary MDT)

6.4.4 Functional tumours fulfilling the above criteria or where hypersecretion is not adequately controlled with surgical resection and/or medical therapy.

6.4.5 < 4 cm³ and radiologically defined target

6.4.6 Typically >3mm separation of tumour from optic pathways (ability to meet dose constraints)

6.5 Patients should be followed-up with MR scans yearly post treatment for five years

7 GUIDELINES FOR PATIENTS WITH PARANGLIOMAS

6.1 Unless contraindicated, all patients should be investigated with MR scanning.

6.2 Patients should be discussed in the local neuroscience / skull base MDM

7.3 If the local neuroscience / skull base MDM feels appropriate then patient should be referred to the UHB Skull Base MDT

7.4 Patient selection criteria:

7.4.1 Progression (imaging or clinical) or recurrence following surgery
AND unsuitable for complete surgical removal

7.4.2 < 20cc and tumour(s) clearly demarcated on imaging (no CTV used)

7.5 Contraindications to SRS/T

7.5.1 Suitable for complete surgical resection with acceptable risks

7.5.2 Unclear diagnosis

7.5.3 Rapidly progressive symptoms or mass effect requiring surgical intervention

7.5.4 Functional tumours

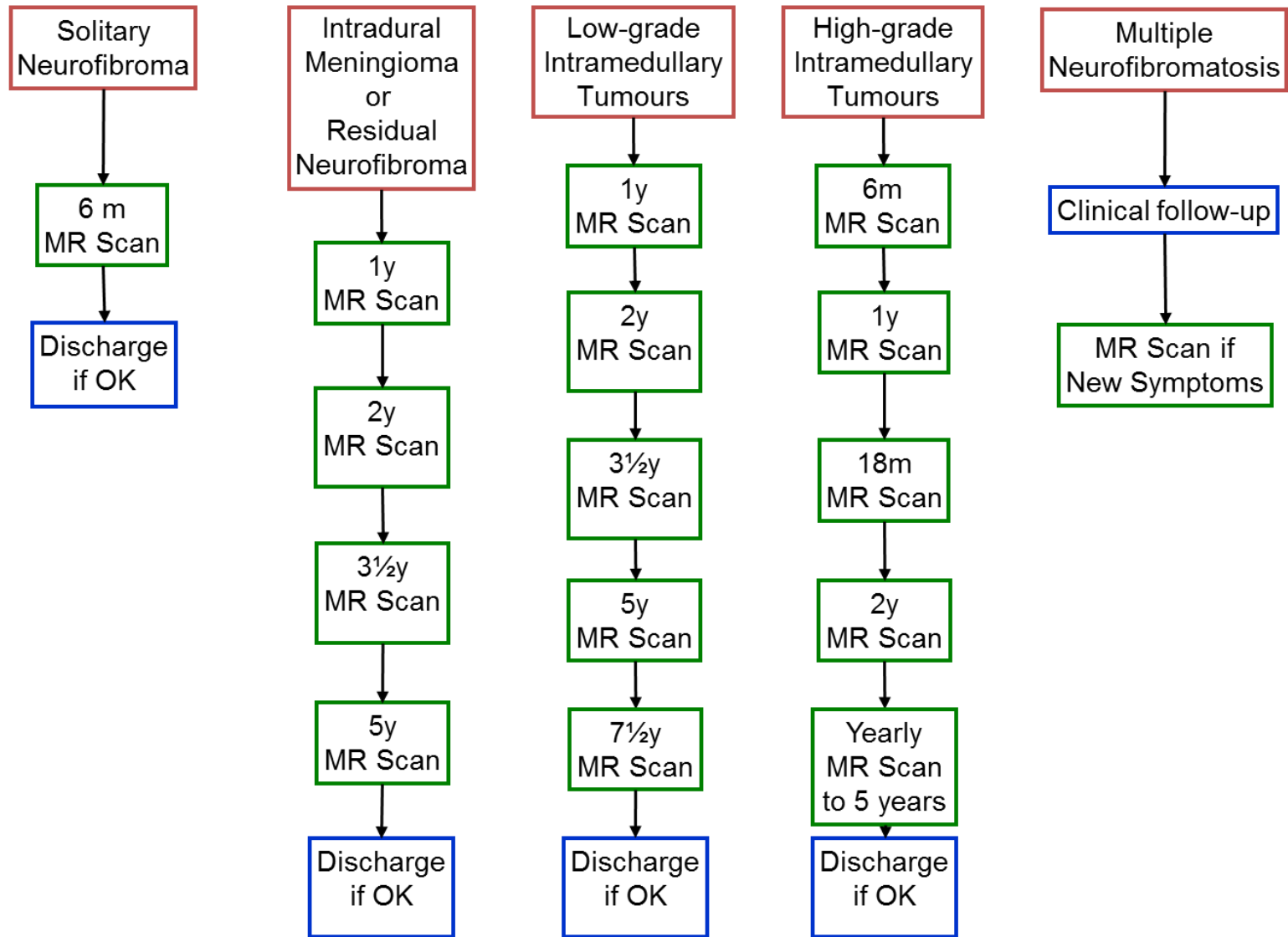
7.6 Patients should be followed-up with MR scans yearly post treatment for five years

Please email referrals to:

neuromdt@uhb.nhs.uk

or

cyberknife.uhb@nhs.net



4. FLOWCHARTS