

# Brain Cancer Optimal Care Pathway project

The Southern Melbourne Integrated Cancer Service are supported by the Victorian Government

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# Contents

<b>Contents</b> .....	<b>2</b>
<b>Authorship</b> .....	<b>3</b>
<b>Abbreviations</b> .....	<b>3</b>
<b>Acknowledgements</b> .....	<b>3</b>
<b>Project overview</b> .....	<b>4</b>
Background .....	4
Local Findings .....	5
Policy Context .....	7
Local aims and objectives .....	7
Methods .....	8
<b>Results</b> .....	<b>9</b>
Increase frequency of the Neuro-Oncology/Glioma MDM.....	9
Formalise pathways/procedures for regional health service clinicians to attend the Monash Health Neurosurgery MDM .....	10
Supportive Care screening for brain cancer patients .....	10
Improve communication and formalise referral pathways between metro/regional service .....	11
<b>Conclusion</b> .....	<b>12</b>

# Authorship

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## Abbreviations

Abbreviation	Meaning
CNC	Clinical Nurse Consultant
GRICS	Gippsland Regional Integrated Cancer Service
ICS	Integrated Cancer Service
LRH	Latrobe Regional Hospital
MDM	Multidisciplinary Meeting
MH	Monash Health
NEMICS	North Eastern Melbourne Integrated Cancer Service
NSQHS	National Safety and Quality Health Standards
OCPs	Optimal Care Pathways
RT	Radiotherapy
SMICS	Southern Melbourne Integrated Cancer Service
VICS	Victorian Integrated Cancer Services
VTS	Victorian Tumour Summit

## Acknowledgements

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Louise Saliba, Neuro-Oncology Clinical Nurse Consultant, Monash Health

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Therese Crivelli, Quality, Monash Health

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# Project overview

## Background

In 2019, brain cancer was ranked the 18th most commonly diagnosed cancer and the 11th cancer with the highest mortality rate (AIHW 2019). Despite increases in survival since the introduction of concurrent chemo-radiation for high-grade glioma, brain cancer remains in the category of low survival cancers, with a five-year survival rate of about 25 per cent (AIHW 2017a).

In Victoria, for patients diagnosed in 2013-17, the median age was 62 years and 59% were male.

The online **Brain Cancer Victorian Tumour Summit (VTS)** was held in October 2020. The Brain VTS working group reviewed and prioritised variations making four recommendations for action and associated initiatives:

### **Access to early palliative care planning and utilisation 12 months prior to death**

- a) Identifying brain tumour patients with poor prognosis (6-12 months) during treatment planning and those who relapse.
- b) Scoping outpatient/community palliative care services and increasing awareness of these.

### **There are variations in timeliness to post-surgery radiotherapy across Victoria**

- a) Further explore the evidence related to timeliness of radiotherapy and outcomes.
- b) Identify and address gaps in timely referrals for patients repatriated to regional areas for radiotherapy post-surgery.

### **There is variation in length of stay for surgery and biopsy admission**

- a) Investigate local data to better understand this variation.
- b) Where relevant identify potential causes of length of stay greater than 7 days post-surgery/biopsy.

*A separate report titled 'Victorian Brain Tumour Admissions: Investigating variation in length of stay following surgery and biopsy' was prepared by NEMICS as part of the Tumour Summit held in 2020. Opportunities identified included:*

1. *Increase pre-operative documentation of performance status in line with the recommendations of the Optimal Care Pathway for people with high-grade glioma.*
2. *Consider local investigation of repatriation pathways, to establish the occurrence and effect of regional patients being discharged for continued care at a local health service.*
3. *Consider clinician-led research initiatives to investigate the statistical significance and clinical effect of Health Service Type of post-operative length of stay.*
4. *Consider clinician-led research initiatives to investigate the statistical significance and clinical effect of local variation in patterns of practice at local ICS health services on post-operative length of stay.*

**Consumers identified coordination of care as an area for improvement, especially for patients with a mix of public/private and metro/regional service delivery.**

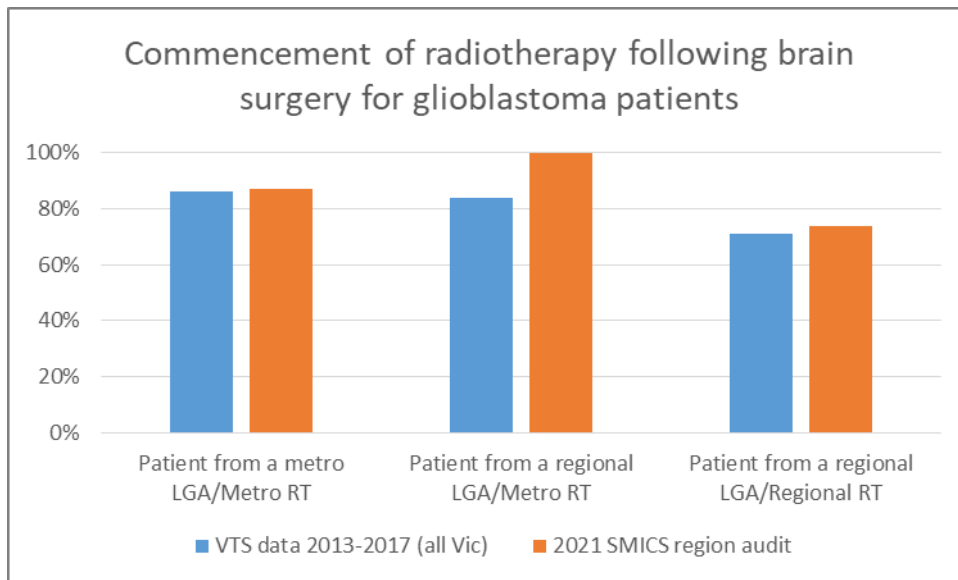
- a) Increase participation of regional referrers in MDM discussion of patients repatriated for post-surgery treatment and care
- b) Improve communication and formalise referral pathways between metro/regional services

## Local Findings

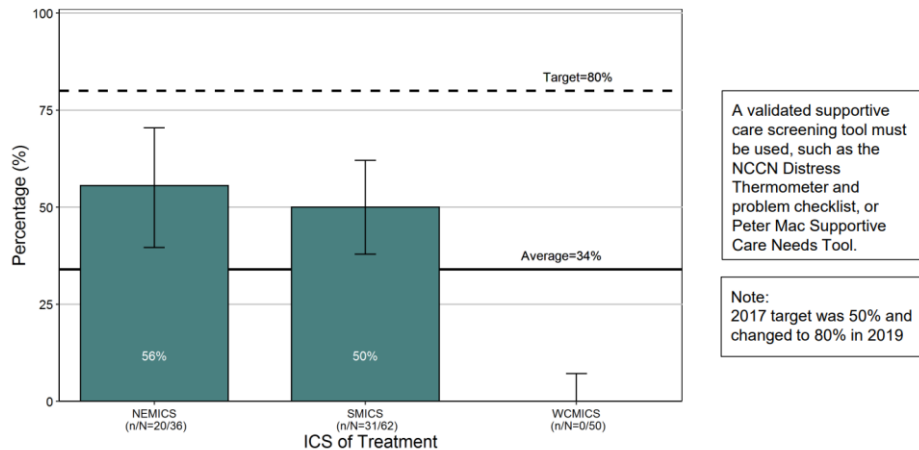
Based on the summit recommendations, SMICS completed auditing at its three campuses for timeliness of commencement of radiotherapy following brain surgery for glioblastoma patients and found that:

- 87% of metro patients referred for RT at a metro facility receive treatment within 6 weeks
- 100% of regional patients referred for RT at a metro facility receive treatment within 6 weeks
- 74% of regional patients referred for RT at a regional facility receive treatment within 6 weeks.

*These findings are in alignment with the Optimal Care Pathway recommended timeframes for people with high-grade glioma.*



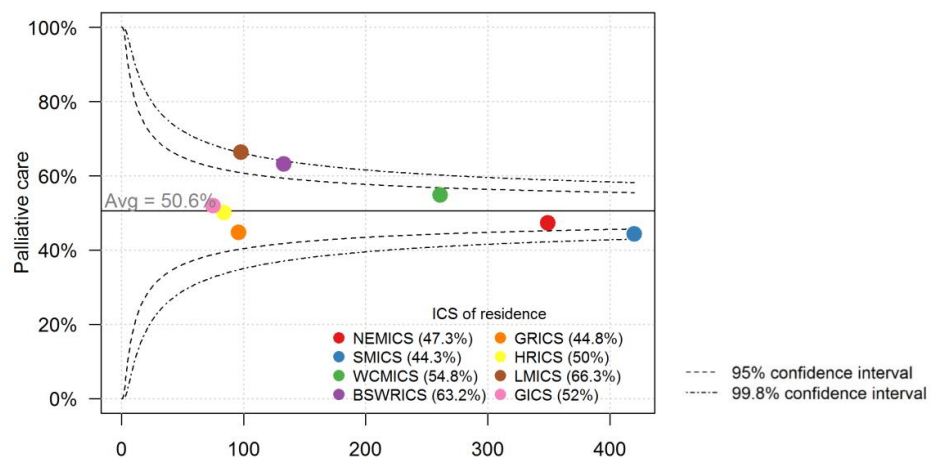
## Documented evidence of supportive care screening using a validated tool (2017) (N = 148)



## Palliative care prior to death for brain cancer patients (N = 1516)

Includes in-patient, outpatient, and community^ palliative care from 365 days prior until 30 days prior to death.

- Overall, 51% of patients received palliative care within this timeframe.



It is noted that the *Palliative Care and Advance Care Planning: Current Practices in Victorian Cancer Services* project has been undertaken to explore timely presentation to palliative care. The report available on the Victorian Integrated Cancer Services website examines the following:

- Patterns of end-of-life care (N = 10,245) for those who died from cancer in public and private hospitals and outpatient community-based care in Victoria between 1 July 2018 and 30 June 2019.
- A qualitative review of medical records (N = 34) to examine the end-of-life care of patients with cancer who died in hospital.
- Analysis of Advanced Care Planning

A series of recommendations have resulted from this report.

## Policy Context

The Optimal Care Pathways (OCPs) are recognised as an integral component of consistent, quality cancer care in the Victorian Cancer Plan 2020-2024.

OCPs help deliver optimal care at critical points throughout the patient journey. Seven key principles underpin the guidance provided in the pathways: patient-centred care; safe and quality care; multidisciplinary care; supportive care; care coordination; communication; and research and clinical trials. The *Optimal Care Pathway for people with high-grade glioma* was updated in 2020.

The VICS Implementation Plan 2021-22 includes the priority area of supporting the implementation of OCPs. The specific focus area is to address unwarranted variation against the OCP by implementing Victorian Tumour Summit recommendations through state wide and local service improvement activity (5b). The recommendations from the Brain VTS overlap with the priority areas of referral and repatriation pathways (1d) and timeliness and appropriateness of referrals to palliative care (9b).

The recommendations from the Brain Cancer Tumour Summit also align with the following National Safety and Quality Health (NSQHS) standards:

- *Communicating for Safety Standard* - ensure timely, purpose-driven and effective communication and documentation that support continuous, coordinated and safe care for patients.
- *Comprehensive Care Standard* - ensure patients receive comprehensive health care that meets their individual needs, and considers the impact of their health issues on their life and wellbeing.

## Local aims and objectives

- Increase frequency of the Neuro-Oncology/Glioma MDM held at Monash Health from 1 per month to fortnightly.
- Formalise pathways/procedures for regional health service clinicians from Latrobe Regional Hospital (LRH) to attend the Monash Health Neuro-Oncology/Glioma MDM.
- Investigate adapting the current Monash Health, Oncology Supportive Care Screening Tool, to better address the specific needs and concerns of brain cancer patients.

## Methods

Project stages, activities and outputs are outlined in the table below.

Stage	Activities	Outputs
Planning	<ul style="list-style-type: none"> <li>• Conduct baseline audit and cross check with radiation oncology data to establish timeliness and referral patterns</li> <li>• Interviews/meetings with key stakeholders (including GRICS/LRH)</li> <li>• Review current processes</li> <li>• Membership VICS Brain OCP implementation working group</li> </ul>	
Implementation	<ul style="list-style-type: none"> <li>• Mapping services</li> <li>• Development of new processes and tools</li> <li>• Further engagement with stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>• Additional Neurosurgery MDM at MH</li> <li>• Neurosurgery MDM ToR at MH</li> <li>• Strengthened pathway for LRH Medical Oncology involvement in MH MDMs</li> <li>• Revised Monash supportive screening tool to meet the needs of brain patient cohort, presented to Monash Health Supportive Care Committee. The Committee advised to use the MH (MRD31) Oncology Supportive Care Tool and NCCN-FACT FBrSI-24 in combination.</li> </ul>
Monitoring and review	<ul style="list-style-type: none"> <li>• Auditing</li> <li>• Qualitative feedback from clinicians</li> </ul>	
Sustainability	<ul style="list-style-type: none"> <li>• Procedures embedded into practice/manuals/PROMPT</li> </ul>	<ul style="list-style-type: none"> <li>• MDM Terms of Reference</li> <li>• Updated procedures for Neurosurgery Data Manager</li> </ul>



# Results

Further to the recommendations from the Brain Cancer Victorian Tumour Summit, Monash Health Neurosurgery Department identified three key areas of improvement. SMICS has supported Monash Health to investigate and implement these priorities.

## Increase frequency of the Neuro-Oncology/Glioma MDM

Previously, there were two multidisciplinary meetings (MDMs) held monthly at Monash Health. The Neuro-Oncology or Glioma MDM on Week 2 (Thursday) of the month and the Benign /Metastatic MDM on Week 4 (Thursday) of the month.

This in effect meant that a specialised meeting for glioma patients occurred only monthly, and this created the possibility for the delay in treatment. There was a real possibility that some glioma patients would not get discussed at MDM as they would miss the timeframe.

Best practice as outlined by the Victorian Cancer Multidisciplinary Team Meeting Quality Framework (2018) is defined as meetings that occur at least fortnightly (Quality standard 2.4). Benchmarking against other Melbourne metropolitan hospitals showed that neurosurgery/neuro-oncology MDMs were held weekly.

The chairs of the MDM (Associate Professors Leon Lai and Andrew Danks) consulted with all relevant parties and received approval from MDM team members (December 2021) to increase the frequency of meetings by combining the two streams into a regular fortnightly meeting, effectively structured as part A and part B. Stakeholders include MH Pathology, Radiology, Neurosurgery, Neuro-Oncology, Radiotherapists from Alfred and Latrobe Regional Hospital (LRH).

An application was submitted to the Monash Health MDM Working Group to combine the two MDMs to meet fortnightly. This included the development of a MDM Terms of Reference. This was approved on the 8<sup>th</sup> March 2022. Fortnightly MDMs began in May 2022.

### **Quantitative feedback:**

- An audit was conducted of patients presented at MDM, comparing the days from when pathology was received confirming diagnosis, to when they were discussed at MDM.
- Since moving to fortnightly MDMs in 2022, it was found that 82% of brain tumour patients are discussed in a multidisciplinary meeting within two weeks of diagnosis (median days 8), compared to 54% in 2021 (median days 14).
- This compares favourably with the optimal timeframes from the Glioma Optimal Care Pathway, that *all newly diagnosed patients should be discussed in a multidisciplinary meeting within 2 weeks of diagnosis.*

### **Qualitative feedback:**

- Workload has not increased for the MDM coordinator/ and the preparation is shorter
- Approx. 7 high grade patients are now discussed per meeting, the rest are benign cases (13)
- The meeting is now capturing high grade patients more quickly, more frequently and they usually are discharged with a treatment plan

- Molecular pathology still takes time. The team has set up a system that pathology will get back to MDM Coordinator when results should be due, so that patients can be booked into next MDM.
- The team has set up a High Acuity Clinic for Neurosurgery patients (not just Glioma). This has been running for 6 months. Daily, 3-4 patients are seen by the registrar. Patients can be booked from MDM. Mostly pathology results/ discussion with patients.
- To improve efficiency of adult neuro-oncology MDT meetings, the MDM Chair has also instigated a patient presentation protocol for the MDM, including how glioblastoma patients will be discussed. The MDM Terms of Reference has also been updated to reflect this protocol.

## **Formalise pathways/procedures for regional health service clinicians to attend the Monash Health Neurosurgery MDM**

The chair of the Neurosurgery MDM recognised the importance of Gippsland medical oncologists attending the MDM when regional patients were being discussed. A system had already been put in place for LRH radiation oncologist.

SMICS worked in partnership with Gippsland ICS (GRICS) to have representation by Medical Oncologists from Gippsland to attend the Monash Health Neuro-Oncology MDM.

A LRH radiation oncologist and medical oncologists are included in the MDM Terms of Reference as core members of the MDM. LRH oncologists have been referring patients for discussion to MDM.

## **Supportive Care screening for brain cancer patients**

SMICS in consultation with the Monash Health neuro-oncology team, including the Clinical Nurse Consultant (CNC), investigated adapting the current MH Oncology Supportive Care Screening Tool, to better address the specific needs and concerns of brain cancer patients.

### **Process undertaken:**

1. Supportive Care Tool for brain patients drafted
2. Presented to Monash Health Supportive Care Committee 17 May 2022. Seeking support for use of an alternative supportive care screening tool for brain patients at Monash Health
3. Committee feedback obtained with more input required. Reviewed current validated brain tools.
4. An audit of what other Melbourne metropolitan hospitals use to screen brain cancer patients, found that there is no uniform approach in how supportive care patient assessments are delivered to this cohort of patients. Limited use of the NCCN Distress Thermometer.
5. Meeting held with Nutrition Lead to discuss use of current validated malnutrition component of the screening tool. After some exploration of the subject, in particular the nutritional screening of patients, the Dietetics and Nutrition team has decided to learn more about the specific dietetic needs of patients attending the neuro-oncology outpatient clinic. Nutrition Lead has since put forward a grants proposal to SMICS for

a dedicated project looking to provide nutrition intervention to improve quality of life in adults with aggressive brain cancer.

6. After a review, with a focus on the needs of both brain patients, and clinicians it was decided pilot the National Comprehensive Cancer Network/Functional Assessment of Cancer Therapy Brain Cancer Symptom Index - 24 Item Version (NCCN: FACT FBrSI-24 version 2)
7. Collated patient (8) feedback (Aug – Oct 2022) on the NCCN-FACT FBrSI-24.
  - Quick, and easy to complete & follow
  - Short, simple & easy to understand
  - All questions were appropriate/easy to understand
  - Prompt/reminder to patient to address concerns with Dr/Nurse otherwise may forget
  - Rating scale is easy for patients to identify their own symptoms and acts as a prompt, sometimes it is easy to forget/not be able to recall during a consult with a Doctor
  - Statements very relevant to the illness/ allows the nurse to focus on the specific symptoms of brain cancer.
8. Re-tabled tool with Supportive Care Committee (15th Nov 2022).
9. The Committee advised at the supportive care committee meeting that the NCCN-FACT FBrSI-24 tool does not cover the five domains of supportive care. **Advice was to use the MH (MRD31) Oncology Supportive Care Tool and NCCN-FACT FBrSI-24 in combination.**

***Qualitative feedback by CNC on using the tools in combination:***

- Currently completes with newly diagnosed patients
- Still working out how she will offer to patients/ embedding into practice
- Assists in getting to know the patient better
- Opens up discussion about goals
- Psycho-oncology discussion
- **Has been able to suggest a research study based on answers to cognition questions.**

## **Improve communication and formalise referral pathways between metro/regional service**

Regional brain cancer (glioma) patients often undergo their chemotherapy treatment and radiotherapy treatment closer to home at outer metropolitan and regional/rural sites, after initial diagnosis, treatment planning and surgical intervention at a metropolitan health service.

SMICS and GRICS completed auditing as well as extensive interviews with clinicians, Department of Health staff, and My Health Record health service teams. This identified barriers/gaps to referral processes when patients are moved between health services, with a focus on the metropolitan to regional referral pathway.

**Key themes indicated:**

- There is a need to streamline information sharing when patients (across all tumour streams) are referred for medical oncology/ radiation oncology clinical discussion after surgical treatment in both the metropolitan and regional setting
- Many times, the referral information available to the treating clinician is incomplete, this leads to:
  - time wasted by doctors following up results, and MDM recommendations
  - additional appointments as information is not complete and therefore treatment cannot be advised
  - affects stress levels of patients, and clinicians
- Clinicians estimate 40-50% of referral information/packages are incomplete. The referral letter generally should come with the following attachments:
  1. Histopathology
  2. Ancillary histopathology
  3. Scan results
  4. MDM notes
- Effective and appropriate pathways need to be sustainable and linked with digital health capabilities/systems, not person-centred.

A separate project under Focus Area 1d (VICS Implementation plan) has been established between SMICS and GRICS. The pilot project aims to examine at a local level if the quality of patient information stored within the My Health Record can be a conduit to improve information sharing for inter-hospital transfer of patients.

## Conclusion

SMICS has engaged local clinicians and after consultation:

- Assisted the Clinical Team at Monash Health to increase the frequency of the Neuro-Oncology/Glioma MDM held once per month to fortnightly.
- Formalised pathways/procedures for regional health service clinicians from Latrobe Regional Health (LRH) to attend the Monash Health Neuro-Oncology/Glioma MDM.
- Investigated adapting the current Monash Health Oncology Supportive Care Screening Tool, to better address the specific needs and concerns of brain cancer patients.
- Began a separate piece of work to investigate the quality of patient information stored within the My Health Record to improve information sharing for inter-hospital transfer of patients.
- Steps are being undertaken to map allied health referral pathways into the Gippsland catchment.