Specialist Clinic Referral Guidelines
NEUROSURGERY

If there is a concern about the delay of the appointment, or any deterioration in the patient's condition, please send an updated referral with additional information.

If the patient's care needs have become urgent, please call the unit registrar on call on 9076 2000.

To refer your patient to Specialist Outpatient neurosurgery clinics

Please send your referral to Alfred Specialist Clinics via **ConsultMed eReferral**. To log in or create a free Consultmed account click here.

Alfred Health's preference is for all referrers to utilise eReferral; however, referrals can be sent via fax to (03) 9076 6938, or email to op.referrals@alfred.org.au whilst we transition our services to this secure platform.

Where appropriate and available, the referral may be directed to an alternative specialist clinic or service.

Please note a referral may be declined if it does not contain essential information required for triage, if the condition is not appropriate for referral to a public hospital, or is a condition not routinely seen at Alfred Health.

The clinical information provided in the referral will determine the triage category. The triage category will affect the timeframe in which the patient is offered an appointment. Waiting times to scheduled appointments vary across clinics and are impacted by factors including clinic demand, capacity and staffing. You can view waiting times to scheduled appointments for urgent and routine referrals here.

Fast Access Re-Entry (FARE) Pathway

The Neurosurgery clinic is piloting a Fast Access Re-Entry (FARE) Pathway. The FARE Pathway is for patients who have recently been discharged from the Neurosurgery clinic and require further specialist treatment or follow up for the same presenting problem. Please indicate your patient has been previously discharged from this clinic by indicating the FARE option on the eReferral form.

The following conditions are not routinely seen in the Neurosurgery clinic at Alfred Health:

- Patients who are being treated for the same condition at another Victorian public hospital
- Children under 18 years of age, unless previously treated at Alfred Health
- Patients experiencing degenerative spine pain only, and no presence of limb pain or neurological deficit unless significant instability on imaging i.e. severe malalignment or dynamic instability [movement on flexion/extension imaging] that potentially carries a risk of spinal cord or cauda equina compression)
- Patients with degenerative spine conditions where appropriate conservative strategies have not been optimised (in the absence of motor deficits)
- Patients with scoliosis (refer to Orthopaedics)
- Patients not wanting to consider surgery

Notification will be sent when the referral is received. The referral may be declined if it does not contain essential information required for triage, if the condition is not appropriate for referral to a public hospital, or is a condition not routinely seen at Alfred Health.

Referral to Victorian public hospitals is not appropriate for

- Low back pain that is not progressive
- Low back pain where at least three months of treatment that has included physical therapy, medications (analgesia or corticosteroid injections) and psychological treatment (where required) has not been trialled
- Referrals based on incidental findings found on imaging without clinical significance.
- Diagnosis of carpal tunnel or other nerve compression syndromes unconfirmed by nerve conduction study where at least three months of medical management (that is at least two of hand therapy, orthotics/splinting, ergonomic modifications, local steroid injection or oral steroids, alone or in combination), has not been trialled.

Please include in the referral:

Demographic details: • Date of birth • Patient's contact details including mobile phone number • Referring GP details • If an interpreter is required • Medicare number	**Clinical information:** • Reason for referral • Duration of symptoms • Findings on neurological examination • Relevant pathology and imaging reports • Past medical history • Current medications • **Please note:** for all spine referrals, the Spine Assessment form must be included to facilitate appropriate triage.

Please provide MRI results where appropriate to expedite patient management.

Medicare rebates now apply for MRIs requested by a GP for patients over 16 years of age for:

- MRI cervical spine for radiculopathy or trauma;
- MRI head for unexplained seizure(s) or chronic headaches with suspected intracranial pathology.

Where unable to obtain an MRI, CT imaging must be included

Most imaging from external providers is now accessible digitally; please include the name and location of the radiology provider. If this is not the case please ensure your patient brings their films or CDs to their appointment.

Please note: The times to assessment may vary depending on size and staffing of the hospital department.

If there is a concern about the delay of the appointment, any deterioration in the patient's condition, or if an urgent specialist opinion is required, please contact the Neurosurgery Registrar on call on 9076 2000.

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Meningiomas

Skull base tumours

Pituitary tumours

Immediately contact the Neurosurgery registrar on 9076 2000 to arrange an urgent assessment for:

- **Symptoms and signs of raised intracranial pressure**
- **Severe and increasing headache**
- **Deteriorating neurological function i.e. increasing headache and/or nausea, vomiting, decrease in conscious level, seizure, development of focal neurological signs**
- **Seizures**
- **Suspected glucocorticoid deficiency**

Information to be included in the referral

Information that **must** be provided in the referral:

In addition to the essential demographic details and clinical information, and findings on neurological examination:

- CT or MRI
- Hormone levels including Prolactin if suspected pituitary tumour
- Family history

Provide if available:

- MRI if available (otherwise performed at the Alfred) **Please note:** Medicare provides a rebate for MRI head for unexplained seizures or chronic headaches with suspected intracranial pathology in patients over 16 years of age when requested by a General Practitioner

  The Alfred Radiology request form

Additional comments:

Where appropriate and available, the referral may be directed to an alternative specialist clinic or service.

Brain tumour clinic is held weekly on Monday pm.

The Alfred has a team approach to the management of CNS cancer which includes access to:

- Neuro-oncology
- Neurology
- Neuro-psychology
- Epilepsy clinic
- Radiotherapy (William Buckland Radiotherapy Centre)
- Pain management service
- Neuro-rehabilitation (Caulfield General Medical Centre)
- Palliative care service

If prolactinoma is confirmed (i.e. Prolactin level >2000iU) refer to Endocrine Unit.

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Vascular disorders

Aneurysms

Arteriovenous malformations (AVMs)

Dural Arteriovenous fistula (DAVF)

Other miscellaneous vascular conditions

Immediately contact the Neurosurgery registrar on 9076 2000 to arrange an urgent assessment for:

- **Symptoms and signs of raised intracranial pressure**
- **Severe and increasing headache**
- **Deteriorating neurological function i.e. increasing headache and/or nausea, vomiting, decrease in conscious level, seizure, development of focal neurological signs**
- **Seizures**
- **Clinical suspicion of subarachnoid haemorrhage or intracerebral haemorrhage**

Information to be included in the referral

Information that **must** be provided:

In addition to the essential demographic details and clinical information, and findings on neurological examination:

- Neuroimaging: CT scan or MRI scan or angiogram

Provide if available:

- MRI if available (otherwise performed at The Alfred) **Please note:** Medicare provides a rebate for MRI head for unexplained seizures or chronic headaches with suspected intracranial pathology in patients over 16 years of age when requested by a General Practitioner.

  The Alfred Radiology request form

Additional comments:

Where appropriate and available, the referral may be directed to an alternative specialist clinic or service.

The Alfred has facilities for coiling and embolization, stereotactic radio-surgery, neurosurgery, and a Stroke Service.

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Trigeminal Neuralgia and other Cranial Nerve Abnormalities

Immediately contact the Neurosurgery registrar on 9076 2000 to arrange an urgent assessment for:

- **Trigeminal neuralgia and other cranial nerve abnormalities**
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Information to be included in the referral

Information that **must** be provided in the referral:

In addition to the essential demographic details and clinical information, and findings on neurological examination:

- Provide details of severity of pain and other symptoms to assist in triage of appointment
- CT or MRI scan

Provide if available:

- MRI if available (otherwise performed at the Alfred) **Please note:** Medicare provides a rebate for MRI head for unexplained seizures or chronic headaches with suspected intracranial pathology in patients over 16 years of age when requested by a General Practitioner.

  The Alfred Radiology request form

Additional comments:

Where appropriate and available, the referral may be directed to an alternative specialist clinic or service.

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Hydrocephalus and other miscellaneous conditions

Immediately contact the Neurosurgery registrar on 9076 2000 to arrange an urgent assessment for:

- **Acute, symptomatic hydrocephalus**
- **Obstructed Ventriculo-peritoneal shunt**

Information to be included in the referral

Information that **must** be provided in the referral:

In addition to the essential demographic details and clinical information, and findings on neurological examination:

- Brain CT or MRI scan

Provide if available:

- MRI if available (otherwise performed at the Alfred) **Please note:** Medicare provides a rebate for MRI head for unexplained seizures or chronic headaches with suspected intracranial pathology in patients over 16 years of age when requested by a General Practitioner.

  The Alfred Radiology request form

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Neck Pain Secondary to Malignant Disease
Neck Pain Secondary to Infection

Immediately contact the Neurosurgery registrar on 9076 2000 to arrange an urgent assessment for:

- **Neck pain secondary to malignant disease**
- **Neck pain secondary to infection**

Information to be included in the referral

In addition to the essential demographic details and clinical information, and findings on neurological examination:

Investigations (only if indicated):

- Plain x-ray and CT
  The Alfred Radiology request form
- FBC/CRP & ESR
- Consider calcium and phosphate, protein
- Electrophoresis, immunoglobulins, PSA
- Rheumatoid serology in specific cases

Additional comments:

Where appropriate and available, the referral may be directed to an alternative specialist clinic or service.

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Cervical Myelopathy (neck pain associated with neurological deficit)

Immediately contact the Neurosurgery registrar on 9076 2000 to arrange an urgent assessment for:

- **Neck pain associated with acute neurological deficit**
- **Cervical myelopathy with acute weakness or urinary retention**

Patients with mechanical neck pain with no referred arm pain or neurological deficit and unremarkable imaging are not routinely seen.

Information to be included in the referral

Please include the essential demographic details and clinical information and the completed Spine Assessment with the referral.

Routine history and neurological examination noting the key points:

- Presence and duration of neurological symptoms and signs including evidence of lower limb spasticity
- Work status
- Weight loss, appetite loss and lethargy
- Fever and sweats
- Treatment to date
- Previous malignant disease
- General medical condition

Investigations (only if indicated):

- Plain x-ray, CT & MRI **Please note:** Medicare provides a rebate for MRI cervical spine for cervical radiculopathy or trauma in patients over 16 years of age when requested by a General Practitioner.
  The Alfred Radiology request form
- FBC/CRP & ESR
- Consider calcium and phosphate, protein
- Electrophoresis, immunoglobulins, PSA
- Rheumatoid serology in specific cases

Additional comments:

Where appropriate and available, the referral may be directed to an alternative specialist clinic or service.

Please note patients some lower acuity patients with neck pain and neurological deficit may be seen in the New Spine Clinic. This clinic is staffed by Advanced Practice Physiotherapists and is co-located within the neurosurgery clinic, and provides assessment and management advice for people with degenerative spine conditions.

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Brachialgia (radiculopathy or upper arm pain radiating from the neck)

Direct to an Emergency Department for:

- **Clinical signs of spinal nerve root or spinal cord compression associated with rapidly progressive neurological signs or symptoms**
- **Recent neck trauma or fracture associated with neurological deficits.**
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Patients with mechanical neck pain with no referred arm pain or neurological deficit and unremarkable imaging are not routinely seen.

Information to be included in the referral

Please include the essential demographic details and clinical information and the completed Spine Assessment with the referral.

- Presence and duration of neurological symptoms and signs including evidence of lower limb spasticity
- Work status
- Weight loss, appetite loss and lethargy
- Fever and sweats
- Treatment to date
- Previous malignant disease
- General medical condition

Investigations (only if indicated):

- Plain x-ray & CT

  The Alfred Radiology request form
- FBC/CRP & ESR
- Consider calcium and phosphate, protein
- Electrophoresis, immunoglobulins, PSA
- Rheumatoid serology in specific cases

Additional comments:

Where appropriate and available, the referral may be directed to an alternative specialist clinic or service. Please note patients will be seen in the New Spine Clinic. This clinic is staffed by Advanced Practice Physiotherapists and is co-located within the neurosurgery clinic, and provides assessment and management advice for people with degenerative spine conditions.

Management

- Activity modification
- Analgesics
- NSAIDs
- Consider physiotherapy
- Education
- Maybe trial of soft collar if severe spasm

Refer if symptoms and signs persist despite adequate management >6/52

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Sciatica (radiculopathy or leg pain radiating from the back)

Direct to an Emergency Department for:

- **Clinical signs of spinal nerve root or spinal cord compression associated with rapidly progressive neurological signs or symptoms or suspected cauda equina syndrome**
- **Recent spinal trauma or fracture associated with neurological deficits.**

Patients with no referred lower limb pain or neurological deficit and unremarkable imaging are not routinely seen in the Neurosurgery Clinic, unless significant instability on imaging i.e. severe malalignment or dynamic instability [movement on flexion/extension imaging] that potentially carries a risk of spinal cord or cauda equina compression.)

Information to be included in the referral

Please include the essential demographic details and clinical information and the completed Spine Assessment with the referral.

Additional comments

Please note, some lower acuity patients may be seen in the New Spine Clinic. This clinic is staffed by Advanced Practice Physiotherapists and is co-located within the neurosurgery clinic, and provides assessment and management advice for people with degenerative spine conditions.

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Progressive lower back pain

Department of Health Statewide Referral Criteria apply for this condition.

Management guidelines can be found here: Quick guide for general practitioners: Low Back Pain Clinical Care Standard 2022 (safetyandquality.gov.au)

Patients with no referred lower limb pain or neurological deficit and unremarkable imaging are not routinely seen in the Neurosurgery Clinic, unless significant instability on imaging i.e. severe malalignment or dynamic instability [movement on flexion/extension imaging] that potentially carries a risk of spinal cord or cauda equina compression.)

The Alfred Neurosurgery Department does not include a Chronic Pain service, and as such patients with mechanical lower back pain not requiring surgery should be referred to a more appropriate service, such as Rheumatology or a local physiotherapist.

Please include the essential demographic details and clinical information and the completed Spine Assessment with the referral.

Where appropriate and available, the referral may be directed to an alternative specialist clinic or service. Please note some lower acuity patients may be seen in the New Spine Clinic. This clinic is staffed by Advanced Practice Physiotherapists and is co-located within the neurosurgery clinic, and provides assessment and management advice for people with degenerative spine conditions.

Direct to an Emergency Department for:

- **Clinical signs of spinal nerve root or spinal cord compression associated with rapidly progressive neurological signs or symptoms or suspected cauda equina syndrome**
- **Present or suspected ruptured abdominal aortic aneurysm**
- **Suspected spinal infection**
- **Recent spinal trauma or fracture associated with neurological deficits.**

Immediately contact the neurosurgery registrar to arrange an urgent neurosurgery assessment for:

- **New diagnosis of spinal tumour with neurological deficits.**

Criteria for referral to public hospital service

- Severe or progressive low back pain with either:
    - persistent or increasing radicular symptoms despite at least three months of treatment that has included physical therapy, medications (analgesia or corticosteroid injections) and psychological treatment (where required)
    - progressive neurological deficit(s) for example, lower limb weakness such as foot drop, abnormal lower limb tone
    - worsening neurogenic claudication (reduced walking distance or time)
    - signs of serious pathology.

Information to be included in the referral
Information that **must** be provided

- Reason for referral and expectation, or outcome, anticipated by the patient, or their carer, and the referring clinician from the referral to the health service
- Pain history: onset, location, nature of pain and duration
- If referral relates to injury, detail date, mechanism and severity
- How symptoms are impacting on daily activities including impact on work, study, school or carer role and level of sleep disturbance
- Comprehensive past medical history including any history of:
    - previous malignancy
    - known abdominal aortic aneurysm
    - injectable drug use
    - previous long-standing steroid use
    - recent serious illness
    - recent significant infection
    - recent significant trauma
- Details of previous medical and non-medical management including the course of treatments and outcome of treatments
- If progressive neurological deficit, detail duration of neurological signs and symptoms, include affected side

If neurogenic claudication, radicular symptoms (sciatica) or suspected serious pathology, MRI scans or CT imaging (including date and details of the diagnostic imaging practice

Provide if available:

- Details of any previous spinal surgery, including when and where procedures were performed
- Statement about the patient's interest in having surgical treatment if that is a possible intervention
- Any recent relevant imaging or investigation results
- Full blood examination
- Inflammatory marker results (erythrocyte sedimentation rate (ESR) or C-reactive protein (CRP))
- Liver function tests
- Glomerular filtration rate (GRF).

Additional comments

The Summary and referral information lists the information that should be included in a referral request.

There are other statewide referral criteria that could also be considered for Inflammatory arthritis, Ankylosing spondylitis (inflammatory back pain), Persistent or chronic secondary musculoskeletal pain and the Health Independence Program chronic pain service.

Where the referral relates to worsening neurogenic claudication referral to a health service that offers neurosurgery or spinal surgery services should be considered.

After an initial specialist assessment, patients may be transferred to another health service to receive ongoing care or treatment.

MRI scans or CT imaging are not required in the absence of serious pathology and x-rays are not required unless a vertebral fracture is suspected. Where appropriate and available the referral may be directed to an alternative specialist clinic or service.

Referral to a public hospital is not appropriate for

- Low back pain that is not progressive
- Low back pain where at least three months of treatment that has included physical therapy, medications (analgesia or corticosteroid injections) and psychological treatment (where required) has not been trialled
- Referrals based on incidental findings found on imaging without clinical significance.

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Carpal tunnel and other nerve compression syndromes

Department of Health Statewide Referral Criteria apply for this condition.

Direct to an emergency department for:

- **Acute development of peripheral nerve compression symptoms following trauma**

Criteria for referral to public hospital service

- Neurogenic injury confirmed by nerve conduction study with either:
  - severe disabling symptoms with weakness and wasting
  - rapid progression
  - unresponsive to at least three months of medical management (that is at least two of hand therapy, orthotics/splinting, ergonomic modifications, local steroid injection, oral steroids, alone or in combination)
- Recurrence of neurogenic injury after surgical decompression.

Information to be included in the referral

Information that **must** be provided:

- Reason for referral and expectation or outcome, anticipated by the patient, or their carer, and the referring clinician from referral to the health service
- Recent nerve conduction study report
- Description of onset, nature, progression, recurrence and duration of symptoms
- How symptoms are impacting on daily activities including impact on work, study or carer role
- Details of previous medical and non-medical management including the course of treatments and outcome of treatments
- If referral relates to recurrence after surgical decompression, details of previous surgery including when and where procedure(s) were performed
- Statement about the patient's interest in having surgical treatment if that is a possible intervention.

Provide if available:

- Details of any previous related surgery
- If the person identifies as an Aboriginal and/or Torres Strait Islander
- If the person is part of a vulnerable population.

Additional comments

The Summary and referral information lists the information that should be included in a referral request.

As the finding of a nerve conduction study is needed for referral, people experiencing barriers to accessing a nerve conduction study may need to be referred to a public health service for this imaging service.

Patients presenting with mild carpal tunnel syndrome should be offered conservative management, which may include hand therapy, orthotics/splinting, ergonomic modifications, local steroid injection or oral steroids. Combined therapies may be more beneficial than therapies in isolation of one another.

Where appropriate and available the referral may be directed to an alternative specialist clinic or service.

- Vulnerable populations include:
    - people from culturally and linguistically diverse backgrounds
    - older Australians
    - carers of people with chronic conditions
    - people experiencing socio-economic disadvantage
    - people living in remote, or rural and regional locations
    - people with a disability
    - people with mental illness
    - people who are, or have been, incarcerated.

Vulnerable patient groups also include terminally ill patients, patients with experiences of family violence, in out-of-home care, foster care and those in state care.

Referral to a public hospital is not appropriate for

- Diagnosis unconfirmed by nerve conduction study
- Where at least three months of medical management (that is at least two of hand therapy, orthotics/splinting, ergonomic modifications, local steroid injection or oral steroids, alone or in combination), has not been trialled.

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Occipital Neuralgia

Refer to the Neurology unit

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