

# METRO NORTH HOSPITAL AND HEALTH SERVICE NEUROLOGY DEPARTMENTS

## Adult Referral Evaluation and Management Guidelines

## TABLE OF CONTENTS

<b>EVALUATION AND MANAGEMENT GUIDELINES</b> .....	<b>2</b>
<b>NEUROLOGY DEPARTMENT HOURS</b> .....	<b>4</b>
<b>IN-SCOPE FOR NEUROLOGY OUTPATIENT SERVICES</b> .....	<b>4</b>
<b>OUT-OF-SCOPE FOR NEUROLOGY OUTPATIENT SERVICES</b> .....	<b>4</b>
<b>EMERGENCY</b> .....	<b>5</b>
<b>METRO NORTH CENTRAL PATIENT INTAKE UNIT (CPI)</b> .....	<b>5</b>
<b>GENERAL REFERRAL INFORMATION</b> .....	<b>6</b>
<b>NEUROLOGY CONDITIONS</b> .....	<b>7</b>
<b>Headache/ Migraine</b> .....	<b>7</b>
<b>Movement Disorders</b> .....	<b>8</b>
<b>Peripheral Neuropathy</b> .....	<b>9</b>
<b>Progressive Loss of Neurological Function</b> .....	<b>10</b>
<b>Seizures/ Epilepsy</b> .....	<b>11</b>
<b>Stroke/ Transient Ischaemic Attack (TIA)</b> .....	<b>12</b>

# EVALUATION AND MANAGEMENT GUIDELINES

**For Emergency Referrals:** Phone on call Neurology Registrar via:

Royal Brisbane & Women's Hospital switch - (07) 3646 8111

The Prince Charles Hospital switch - (07) 3139 4000

Redcliffe Hospital switch – (07) 3883 7777

and send patient to the Department of Emergency Medicine (DEM) at their nearest hospital.

## Category 1

- i. Appointment within thirty (30) days is desirable; AND
- ii. Condition has the potential to require more complex or emergent care if assessment is delayed; AND
- iii. Condition has the potential to have significant impact on quality of life if care is delayed beyond thirty (30) days.

## Category 2

- i. Appointment within ninety (90) days is desirable; AND
- ii. Condition is unlikely to require more complex care if assessment is delayed; AND
- iii. Condition has the potential to have some impact on quality of life if care is delayed beyond ninety (90) days.

## Category 3

- i. Appointment is not required within ninety (90) days; AND
- ii. Condition is unlikely to deteriorate quickly; AND
- iii. Condition is unlikely to require more complex care if assessment is delayed beyond 365 days.

The Neurology Department provides a high standard of complex patient care. Our Outpatient waiting times are available on the <http://www.health.qld.gov.au/hospitalperformance> website.

All urgent cases must be discussed with the on call Neurology Registrar. Contact through RBWH switch (07) 3646 8111, TPCH (07) 3139 4000 or Redcliffe (07) 3883 7777 to obtain appropriate prioritisation and treatment. Urgent cases accepted via phone must be accompanied with a written referral and a copy faxed immediately to the Central Patient Intake Unit: 1300 364 952.

When possible all non-metropolitan patients referred must include travel, accommodation, and escort arrangements. An inpatient bed may not be possible or relevant once the patient has been assessed by the Neurology department.

Referrals containing insufficient information or that are illegible will be returned to the referral centre. This may result in delayed appointment/treatment for your patient.

## NEUROLOGY DEPARTMENT HOURS

### Royal Brisbane and Women's Hospital (RBWH)

Monday – Friday: 7am – 5pm

Level 7, Ned Hanlon Building, RBWH

### The Prince Charles Hospital (TPCH)

Monday – Friday: 8am – 4.30pm

Specialist Clinics, Ground Floor, TPCH

### Redcliffe Hospital

Monday: 8am – 4.30pm / Wednesday: 1pm – 4.30pm

Level 1, Specialist Outpatient Department, Main Building, Redcliffe

## IN-SCOPE FOR NEUROLOGY OUTPATIENT SERVICES

Please note this is not an exhaustive list of all conditions for Neurology outpatient services and does not exclude consideration for referral unless specifically stipulated in the out of scope section.

- Headache/ Migraine
- Movement Disorders
- Peripheral Neuropathy
- Progressive Loss of Neurological Function
- Seizures/ Epilepsy
- Stroke/ Transient Ischaemic Attack (TIA)

## OUT-OF-SCOPE FOR NEUROLOGY OUTPATIENT SERVICES

Not all services are funded in the Queensland public health system. The following are not routinely provided in a public Neurology service.

- Mild or tension headache
- Untreated headache/migraine
- Dementia without prior assessment by physician or geriatrician
- Syncope (consider Cardiology)
- Fibromyalgia/Chronic Fatigue syndrome
- Lyme Disease
- Head Injury (consider Neurosurgery)
- Back and Neck Pain
- Chronic Unexplained Pain/ Pain Syndrome
- Restless Leg Syndrome

## EMERGENCY

If any of the following are present or suspected arrange immediate transfer to the emergency department.

<ul style="list-style-type: none"><li>• Acute stroke/TIA</li><li>• Bilateral limb weakness with or without bladder and/or bowel dysfunction</li><li>• Acute rapidly progressive weakness (Guillain-Barre Syndrome, myelopathy)</li><li>• Acute onset severe:<ul style="list-style-type: none"><li>○ ataxia</li><li>○ vertigo</li><li>○ visual loss</li></ul></li><li>• Status epilepticus/epilepsy with <b>Red flags</b>:<ul style="list-style-type: none"><li>○ first seizure</li><li>○ focal deficit post-ictally</li><li>○ seizure associated with recent trauma</li><li>○ persistent severe headache &gt; 1 hour post-ictally</li><li>○ seizure with fever</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Altered level of consciousness</li><li>• Headache with <b>Red flags</b>:<ul style="list-style-type: none"><li>○ sudden onset/thunderclap headache</li><li>○ severe headache with signs of systemic illness (fever, neck stiffness, vomiting, confusion, drowsiness)</li><li>○ first severe headache age &gt; 50 years</li><li>○ severe headache associated with recent head trauma</li><li>○ recent onset headaches in young obese females</li></ul></li><li>• Delirium/sudden onset confusion with or without fever</li><li>• Acute severe exacerbation of known MS</li></ul>
--	--

## METRO NORTH CENTRAL PATIENT INTAKE (CPI)

<https://www.health.qld.gov.au/metronorth/refer/>

## GENERAL REFERRAL INFORMATION

<p><b>Patient's Demographic Details</b></p> <ul style="list-style-type: none"> <li>• Full name (including aliases)</li> <li>• Date of birth</li> <li>• Residential and postal address</li> <li>• Telephone contact number/s – home, mobile and alternative</li> <li>• Medicare number (where eligible)</li> <li>• Name of the parent or caregiver (if appropriate)</li> <li>• Preferred language and interpreter requirements</li> <li>• Identifies as Aboriginal and/or Torres Strait Islander</li> </ul>	<p><b>Relevant Clinical Information about the Condition</b></p> <ul style="list-style-type: none"> <li>• Presenting symptoms (evolution and duration)</li> <li>• Physical findings</li> <li>• Details of previous treatment (including systemic and topical medications prescribed) including the course and outcome of the treatment</li> <li>• Body mass index (BMI)</li> <li>• Details of any associated medical conditions which may affect the condition or its treatment (e.g. diabetes), noting these must be stable and controlled prior to referral</li> <li>• Current medications and dosages</li> <li>• Drug allergies</li> <li>• Alcohol, tobacco and other drugs use</li> </ul>
<p><b>Referring Practitioner Details</b></p> <ul style="list-style-type: none"> <li>• Full name</li> <li>• Full address</li> <li>• Contact details – telephone, fax, email</li> <li>• Provider number</li> <li>• Date of referral</li> <li>• Signature</li> </ul>	<p><b>Reason for Request</b></p> <ul style="list-style-type: none"> <li>• To establish a diagnosis</li> <li>• For treatment or intervention</li> <li>• For advice and management</li> <li>• For specialist to take over management</li> <li>• Reassurance for GP/second opinion</li> <li>• For a specified test/investigation the GP can't order, or the patient can't afford or access</li> <li>• Reassurance for the patient/family</li> <li>• For other reason (e.g. rapidly accelerating disease progression)</li> <li>• Clinical judgement indicates a referral for specialist review is necessary</li> </ul>
<p><b>Clinical Modifiers</b></p> <ul style="list-style-type: none"> <li>• Impact on employment</li> <li>• Impact on education</li> <li>• Impact on home</li> <li>• Impact on activities of daily living</li> <li>• Impact on ability to care for others</li> <li>• Impact on personal frailty or safety</li> <li>• Identifies as Aboriginal and/or Torres Strait Islander</li> </ul>	<p><b>Other Relevant Information</b></p> <ul style="list-style-type: none"> <li>• Willingness to have surgery (where surgery is a likely intervention)</li> <li>• Choice to be treated as a public or private patient</li> <li>• Compensable status (e.g. DVA, Work Cover, Motor Vehicle Insurance, etc.)</li> </ul>

# NEUROLOGY CONDITIONS

## Headache/ Migraine

### Minimum Referral Criteria

#### Category 1

(appointment within 30 days is desirable)

- New onset headache with concerning clinical signs e.g. increasing intracranial pressure; papilloedema, blurred vision
- Abnormal neurological exam with concerning features on neuroimaging

#### Category 2

(appointment within 90 days is desirable)

- Severe frequent headaches and trial of at least 3 migraine preventers without improvement and/or absent from work or study for more than 4 days per month

#### Category 3

(appointment within 365 days is desirable)

- Chronic/complicated headache/migraine unresponsive to medical management

### Essential referral information (Referral may be rejected without this)

- General referral information
- ELFT FBC ESR CRP results
- ESR CRP for patient > 50 years or if giant cell arteritis or vasculitis suspected
- List all treatments trialled (at least three)

### Additional referral information (Useful for processing the referral)

- Neuroimaging results (MRI preferable)

### Other useful information for referring practitioners (Not an exhaustive list)

#### Medical management

- Manage migraine – acute pain treatment, dietary advice, hormone management and or preventive medications trial for at least 2-3 months
- Tension/cervicogenic headaches – simple analgesia, massage, physiotherapy review
- Consider ELFT FBC ESR CRP in patients at risk for a systemic cause for headaches
- Consider neuroimaging to exclude intracranial pathology

# Movement Disorders

## Minimum Referral Criteria

### Category 1

(appointment within 30 days is desirable)

- Severe motor or non-motor complications of Parkinson Disease leading to substantial disability
- Severe non-Parkinson Disease movement disorder (e.g. new chorea), not explained by pre-existing conditions

### Category 2

(appointment within 90 days is desirable)

- Parkinson Disease
- Known or suspected:
  - Tics and Tourette Syndrome
  - Cerebellar related ataxia
  - Dystonia
  - Myoclonus
  - Huntington's disease
  - Tardive dyskinesia

### Category 3

(appointment within 365 days is desirable)

- Non-progressive movement disorder i.e. essential tremor

## Essential referral information (Referral may be rejected without this)

- General referral information
- ELFT FBC
- TSH results for tremors

## Additional referral information (Useful for processing the referral)

- Detailed history of abnormal movements
- Accurate neurological exam results
- Any investigations done to exclude alternative diagnoses e.g. nerve conduction study, EEG, CT Brain and MRI Brain

## Other useful information for referring practitioners (Not an exhaustive list)

Consider the following:

- Movement disorders are predominantly a clinical diagnosis therefore a detailed history of the abnormal movements and an accurate neurological examination are vital
- CT/MRI head
- Chronic disease management plan to access allied health
- Allied health (physiotherapy, occupational therapy, speech therapy) management
  - to assess functional capacity if disability increasing
  - speech pathology for assessment of swallowing or communication difficulties
  - occupational therapist and physiotherapist for patients with mobility/ADL changes



# Peripheral Neuropathy

## Minimum Referral Criteria

<b>Category 1</b> (appointment within 30 days is desirable)	<ul style="list-style-type: none"><li>• Rapidly progressive peripheral neuropathy, leading to weakness or disbalance</li><li>• Severe focal neuropathies or plexopathies of unclear cause</li></ul>
<b>Category 2</b> (appointment within 90 days is desirable)	<ul style="list-style-type: none"><li>• No category 2 criteria</li></ul>
<b>Category 3</b> (appointment within 365 days is desirable)	<ul style="list-style-type: none"><li>• Suspected or diagnosed peripheral neuropathy without severe complications</li><li>• Mild to moderate neuropathy likely due to known and treated underlying cause (e.g. diabetic neuropathy)</li></ul>

## Essential referral information (Referral may be rejected without this)

- General referral information
- ELFT FBC fasting BSL ESR CRP TFT B12 folate results
- ANA/anti-dsDNA results
- Serum Protein Electrophoresis (SPEP) results
- Thiamine results
- Syphilis, Hep B, Hep C, HIV results

## Additional referral information (Useful for processing the referral)

- Nerve conduction study

## Other useful information for referring practitioners (Not an exhaustive list)

- Consider nerve conduction study (NCS)
  - Only refer for NCS for carpal tunnel syndrome and ulnar neuropathies having failed 6 months of maximal medical management
- If painful neuropathy consider pain relief e.g. amitriptyline or pregabalin
- Optimise management of:
  - diabetes
  - thyroid disease
  - excessive alcohol intake
- Consider allied health management

# Progressive Loss of Neurological Function

## Minimum Referral Criteria

### Category 1

(appointment within 30 days is desirable)

- Rapidly progressive neurological or visual field deficit including weakness, ataxia or cranial nerve deficits (e.g. MS, MND, myasthenia gravis, myositis)

### Category 2

(appointment within 90 days is desirable)

- Progressive neurological or visual field deficit including weakness, ataxia or cranial nerve deficits (e.g. MS, MND, myasthenia gravis, myositis)

### Category 3

(appointment within 365 days is desirable)

- Known or suspected slowly progressive or untreatable neurodegenerative illness

## Essential referral information (Referral may be rejected without this)

- General referral information

## Additional referral information (Useful for processing the referral)

- ELFT FBC results
- Nerve conduction studies
- MRI brain and spinal cord results

## Other useful information for referring practitioners (Not an exhaustive list)

Consider the following:

- ELFT FBC
- Nerve conduction studies for suspected MND
- MRI Brain for suspected MS
- Allied health (physiotherapy, occupational therapy, speech therapy) management
  - to assess functional capacity if disability increasing
  - speech pathology for assessment of swallowing and/or communication difficulties
  - occupational therapist and physiotherapist for patients with mobility/ADL changes
- Chronic disease management plan to access allied health
- Hydrotherapy if mobility compromised

# Seizures/ Epilepsy

## Minimum Referral Criteria

### Category 1

(appointment within 30 days is desirable)

- New diagnosis of epilepsy (confirmed or highly likely)
- First epileptic seizure (as convulsive syncope is a common mimic, may be seen by general medicine prior to neurology, depending on local pathways)
- Frequent seizure activity without current anticonvulsants use
- Pregnancy in a patient with known epilepsy

### Category 2

(appointment within 90 days is desirable)

- Poorly controlled epilepsy (e.g. increased frequency of seizures, change in seizure activity) in patient with good adherence to medical treatment. (This may be categorised as Cat 1 depending on severity.)

### Category 3

(appointment within 365 days is desirable)

- Chronic epilepsy without concerning features
- Epilepsy advice and management plan including driving recommendations and decreasing anti-epileptic medication

## Essential referral information (Referral may be rejected without this)

- General referral information
- ELFT FBC results
- Anti-epileptic drug level results (if relevant)

## Additional referral information (Useful for processing the referral)

- EEG results
- Neuroimaging results

## Other useful information for referring practitioners (Not an exhaustive list)

- Ensure compliance, consider drug levels
- Optimise current drug therapy/consider increasing dose if already on medication
- Exclude drug interactions e.g. concurrent cytochrome inducers, binding agents
- Reconsider diagnosis if no response to medication
- Treat any inter-current infections and co-morbidities
- Address any lifestyle issues e.g. adequate sleep, stress, alcohol, recreational drugs
- Neuroimaging to rule out space occupying lesion or intracranial pathology
- EEG

## Stroke/ Transient Ischaemic Attack (TIA)

### Minimum Referral Criteria

#### Category 1

(appointment within 30 days is desirable)

- Refer directly to emergency if clinically indicated
  - patient with acute neurological symptoms of a stroke; multiple/crescendo TIA
- Stroke/TIA known or suspected with last change in symptoms less than 2 weeks prior to referral

#### Category 2

(appointment within 90 days is desirable)

- Stroke/TIA known or suspected with last change in symptoms more than 2 weeks prior to referral

#### Category 3

(appointment within 365 days is desirable)

- Chronic ischaemic lesion identified on imaging not previously addressed

### Essential referral information (Referral may be rejected without this)

- General referral information
- ELFT FBC fasting lipid and glucose results
- Neuroimaging results

### Additional referral information (Useful for processing the referral)

- ABCD2 stroke risk score
- ECG results
- Doppler ultrasound carotid vessels
- Echocardiogram, if indicated e.g. arrhythmia, cardiac murmurs, heart failure
- Holter monitor results

### Other useful information for referring practitioners (Not an exhaustive list)

- Antiplatelet and statin therapy
- Risk factor assessment/modification (hypertension diabetes, smoking)

Consider the following:

- Anticoagulation therapy if appropriate
- Referral to speech pathology if swallowing or communication deficits evident