Management of Cx Spine Pathologies

Patient Presents to PT/FCP with suspected MSK Neck pain

NO → **RED FLAGS** → **OTHER CONSIDERATIONS**

YES →

Non-Specific/Mechanical Neck Pain (Includes Spondylosis)

Presentation

- Gradual or sudden onset
- +/- diffuse shoulder girdle/scapulae pain
- +/- headaches
- Positional asymmetry
- AROM often asymmetrical
- No dermatome or myotome loss
- Pain referral is non-dermatomal
- Likely intervertebral joint tenderness
- +/- muscular hypertonia

Prognosis:

- Majority will settle within 8 weeks
- 50% may continue to have symptoms for >1 year
- If persistent pain > 12 weeks, consider referral to pain management services

Management:

- Reassurance
- Advice and Education
- Encourage return to normal, unrestricted activity
- Discourage collar use
- Consider oral analgesia
- Physiotherapeutic interventions can include stretches, strengthening, ROM and manual therapy

Cx Radicular (Nerve Root) pain +/- Radiculopathy

Presentation

- Gradual or sudden onset
- Neck pain with:
  - Uni/bilateral shoulder/arm pain typically single dermatome and unilateral
- Potential postural asymmetry/adaptive scoliosis
- AROM likely asymmetrical
- Radiating pain to the limb during AROM exam
- Neurological signs:
  - Myotome changes
  - Dermatome disturbance
  - DTR changes (expected hyporeflexia in lower motor neuron dysfunction)

Prognosis:

- Most people with cervical radiculopathy will improve regardless of the treatment.
- ~88% of people improve within 4 weeks with non-operative management

Management:

If cervical radiculopathy present and there are no objective neurological signs, treat conservatively for minimum of 6 weeks:

- Provide reassurance and information — long-term prognosis of people with radiculopathy is good and most cases improve without surgery.
- Safety net patient for Cervical Myelopathy symptoms
- Encourage return to normal, unrestricted activity
- Discourage collar use
- Physiotherapeutic interventions might include strengthening, stretching exercises and manual therapy.
- Offer follow-up review. Repeat examination can help to identify deteriorating neurology, which may signify advancing nerve root compression, which may trigger further referral
- Offer oral analgesics (for example, ibuprofen, paracetamol, or codeine)
- Consider offering amitriptyline, duloxetine, pregabalin, or gabapentin - Neuropathic Pain Relief

Whiplash Associated Disorder (WAD)

Presentation

- Neck pain, Stiffness +/- headache
- Reduced Cx AROM
- Spasmodic Myalgia
- +/- Upper limb pain/paraesthesia
- May experience: Fatigue, dysphagia, dizziness or nausea
- May experience tinnitus/mild hearing loss
- May experience memory loss/brain fog
- May present with associated TMJ pain
- Consider psychosocial influences
  - Night terrors
  - Flashbacks
  - Driving anxiety
  - Impact on social situation
- Consider Sensorimotor dysfunction

Prognosis:

- Recovery from whiplash-associated disorder usually occurs within the first 2 to 3 months
- 50% of people should recover by 12 weeks
- Complete resolution will occur in at least 40% of people.
- Approximately 50% of people fully recover within 6 months, however, up to 50% of people may continue to experience symptoms at 1 year post-injury.

Management:

- Provide reassurance that recovery from whiplash-associated disorder usually occurs within the first 2 to 3 months
- Encourage early return to usual non-provocative, pre-accident activities and early mobilization - Restricting activity may delay recovery.
- Consider oral analgesics — the choice depends on the severity of pain, personal preferences, tolerability, and risk of adverse effects. Ineffective medications for WAD include Anti-seizure medications Antidepressants and Muscle relaxants.
- Physiotherapeutic interventions might include strengthening, stretching exercises and manual therapy
- Consider psychology referral for those:
  - Considered to have a poor expectation of recovery or a high expectation of ongoing disability
  - With symptoms of acute stress disorders, symptoms of PTSD (lasting at least 4 weeks), depression, kinesiophobia, frsutraction about pain, passive coping

Consider using the Impact of Events Scale for diagnostic/referral aid.

Acute Torticollis

Presentation

- Sudden onset
- No Trauma Hx
- Unilateral neck/shoulder pain
- Diffuse muscle spasm and tenderness
- Abnormal Cx spine AROM
- Asymmetry of the head on neck/neck on thorax
- Recurrence common

Prognosis:

- Most cases of acute neck pain resolve within 2 months.
- However, half of people continue to experience low-grade symptoms or recurrences for more than a year.
- Acute torticollis is usually expected to ease within 48 hours and resolve within 7-10 days.

Management:

- Consider a referral for physiotherapy treatment.
- Advise:
  - Take analgesics (such as paracetamol or ibuprofen) if required.
  - Apply heat or cold packs to the neck to help reduce pain and spasms.
  - Sleep on a low firm pillow.
  - Consider performing gentle neck flexibility exercises:
- Advise people to return for further assessment if their symptoms do not improve or if they deteriorate.

?recommendation for Neurology review

RED FLAGS

Serious Spinal pathology ~ 0.4%

Signs and symptoms that may indicate a more serious pathology (for example spinal cord compression, spinal fracture or malignancy) and require further investigation include:

Malignancy, infection, or inflammation:

- Fever, night sweats, or unexplained weight loss.
- Excruciating pain, cervical lymphadenopathy, intractable night pain, pain that is increasing, exquisite tenderness over the vertebral body/spinous processes, or generalised neck stiffness. *Note neck stiffness can be associated with Polymyalgia Rheumatica*
- Nausea or vomiting.
- New or severe headache.
- Photophobia or phonophobia.
- Visual loss.
- Skin erythema, wounds, or exudate.

Cervical myelopathy:

- Paresis.
- Sensory changes or loss of sensation.
- Altered muscle tone.
- Clumsy or weak hands.
- Gait disturbance.
- Babinski's sign — up-going plantar reflex, hyper-reflexia, clonus, and spasticity.
- Hoffman's sign.
- Lhermitte's sign — flexion of the neck causes an electric shock-type sensation that radiates down the spine and into the limbs.
- Might present with night time 'jerking legs' - note this can be a non-specific cord lesion sign
- More severe symptoms may include profound weakness of the hands, bowel or bladder dysfunction, and severe gait ataxia. *Rarely there is a loss of proximal muscle strength in the arms or legs.*

Other neurological signs and symptoms:

Altered cognitive state.
Weakness involving more than one myotome or loss of sensation involving more than one dermatome.
Headaches, facial pain, ataxia, or vertigo.
New symptoms before the age of 20 years or after the age of 55 years.

Age related risk factors for patient's < 20 years of age:

- Altered hair distribution
- Birthmarks - *(note: Port-wine Stains have been associated with AV malformations and intra-cranial haematomas*
- Congenital abnormalities
- Infections related to substance misuse

Age related risk factors for patient's > 55 years of age:

- History of Ca
- Vascular disease

- If red flags (suggesting a serious spinal abnormality) are present, refer urgently or arrange an immediate assessment, depending on clinical judgement.
- If the person has severe or progressive motor weakness or severe or progressive sensory loss, seek immediate specialist advice - **ReferaPatient**

OTHER CONSIDERATIONS

- Was this a GP or other referral?
- Consider visceral Referral Pain
- Consider Rheumatological conditions (e.g. Upper Cervical Instability)
- Is there a Chronic/Persistent pain condition?

MSK Cx spine pain suspected post examination?

NO → **RED FLAGS**

YES ↓

Patient Meeting therapy goals/improving within expected timeframes?

No

Initial Considerations:

- Full clinical Re-examination to challenge working/differential diagnoses, including review of RED and YELLOW flags
- Safety net patient for Cervical Myelopathy symptoms
- Review the treatments/self-directed management strategies patient has explored and consider, if appropriate, suitable alternatives.
- Consider Joint review/clinical discussion with senior Physiotherapist/Hybrid clinician for second opinion and more complex presentations.

Onwards Referral Considerations:

- It is expected that **ALL patients** with neck pain +/- radiculopathy will have **completed 6 weeks of conservative management**, before considering onward referral to ANY specialist service.
- Refer to confirm the diagnosis with MRI, and to consider invasive procedures, such as interlaminar cervical epidural injections, transforaminal injections, or spinal surgery.
- Note: Indications for surgery include signs and symptoms of cervical radiculopathy, and cervical radiculopathy with unremitting radicular pain despite 6+ weeks of conservative treatments, symptoms are disabling, or there is progressive motor weakness, and where MRI shows nerve root compression.
- For patients with un-resolving, **non-specific neck pain without Neurological symptoms**, consider referral to the **pain clinic**

Yes

Where patient is meeting their therapy goals, and MSK symptoms are well managed/improving, consider an open review vs discharging patient from the MSK service depending on clinical judgement.

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