Quick reference guide
for the management of
acute whiplash
associated disorders
Quick reference guide for the management of acute whiplash associated disorders, 2015.

This quick reference guide is a companion document to the Guidelines for the management of acute whiplash-associated disorders for health professionals, third edition 2014.


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ABOUT THIS GUIDE

This is a quick reference guide that summarises the recommendations of the Guidelines for the management of acute whiplash-associated disorder for health professionals 2014, published by the Motor Accidents Authority of NSW.

The Guidelines translate the current evidence base into clinical practice recommendations for the best possible management of adults with whiplash in the first 12 weeks after a motor vehicle crash. The term whiplash is used in this document, referring to a whiplash injury or whiplash-associated disorder (WAD).

WHO SHOULD READ THIS GUIDE?

Healthcare professionals and the insurance industry should read the Guidelines. People with an acute whiplash injury may also find the information useful.

WHO DEVELOPED THE GUIDELINES?

The Guidelines were developed by the Motor Accidents Authority of NSW. It is the third edition.

The Motor Accidents Authority of NSW worked with a group of healthcare professionals, industry representatives and technical experts, who reviewed the evidence and drafted the recommendations.

WHERE CAN I GET MORE INFORMATION ABOUT THE GUIDELINES?

You can download a copy of the Guidelines and the technical report at maa.nsw.gov.au. There is also a fact sheet for people with whiplash and videos demonstrating the exercises for whiplash recovery. The key messages of the Guidelines have been made into a PowerPoint presentation (with notes for presenters) also available for download on the website. Other tools will be developed to support the implementation of these clinical practice Guidelines and these will be published on our website when available.

TRAFFIC LIGHTS AND RECOMMENDATIONS

Traffic lights have been used to easily identify treatments that are recommended based on the strength of the clinical evidence and the consensus of clinical experts.

More information on the level of evidence is available in the Guidelines and technical report.

<table>
<thead>
<tr>
<th>Traffic Light</th>
<th>Recommendation</th>
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<tbody>
<tr>
<td>NOT RECOMMENDED</td>
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<tr>
<td>USE WITH CAUTION – AND MONITOR CLOSELY</td>
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<tr>
<td>RECOMMENDED</td>
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WHAT TO DO IN THE FIRST 12 WEEKS AFTER INJURY

Follow these four actions to provide the best possible management of adults with whiplash.

1. DO AN EXAMINATION (PAGE 5)
   - Take a patient history.
   - Conduct a physical examination.
   - Decide if an x-ray is needed using the C-Spine Rule.
   - Classify the grade of whiplash to indicate the severity of injury (WAD Grades I-IV).

2. IDENTIFY PEOPLE AT RISK OF POOR RECOVERY (PAGE 6)
   - Assess pain using the Visual Analogue Scale (VAS).
   - Assess disability using the Neck Disability Index (NDI).
   - Assess expectations of recovery by asking “Do you think you are going to get better soon?”
   - Assess psychological status using the Impact of Event Scale (IES).

3. PROVIDE TREATMENT (PAGE 7-8)
   Encourage the patient to:
   - stay active and keep doing their usual activities
   - do their neck exercises
   - talk to their GP if they need help managing pain.
   Provide other physical treatments where indicated and closely monitor their progress.

4. REVIEW AND TAKE RECOMMENDED ACTION (PAGE 9)
   Review and monitor the patient’s progress at:
   - seven days
   - three weeks
   - six weeks
   - 12 weeks.
   Take action based on the indicators of recovery or poor recovery.
1. DO AN EXAMINATION
Conduct an examination to make a diagnosis and to direct treatment.

**RECOMMENDED**

Take a patient history including:
- circumstances of injury (for Canadian C-Spine Rule)
- presentation of symptoms
- prior history of neck problems.

Do a physical examination:
- observe the patient’s head position/posture
- palpate for tender points
- assess neck range of motion (ROM)
- conduct neurological testing
- assess any other injuries
- assess general health, including psychological state.

Use the Canadian C-Spine Rule to determine if an X-ray is required for diagnosis of fracture or dislocation.

**NOT RECOMMENDED**

MRI, CT, EEG, EMG, or specialised peripheral neurological test for WAD I and WAD II.

X-ray or CT except to diagnose fracture or dislocation.
This is to avoid unnecessary exposure to X-rays.

Classify the grade of whiplash to indicate the severity of injury. Use the QTF classification below.

### QUEBEC TASK FORCE CLASSIFICATION OF GRADES OF WAD

<table>
<thead>
<tr>
<th>GRADE</th>
<th>CLASSIFICATION</th>
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| 0     | No complaint about the neck  
       | No physical sign(s)         |
| I     | Complaint of neck pain, stiffness or tenderness only  
       | No physical sign(s)         |
| II    | Neck complaint AND musculoskeletal sign(s)  
       | Musculoskeletal signs include decreased range of movement and point tenderness |
| III   | Neck complaint AND neurological sign(s)  
       | Neurological signs include decreased or absent tendon reflexes, weakness and sensory deficits |
| IV    | Neck complaint AND fracture or dislocation    |
2. IDENTIFY PEOPLE AT RISK OF POOR RECOVERY

Outcome measures are the best way to identify people at risk of poor recovery.

**RECOMMENDED**

At the initial assessment and all review assessments:
- assess disability using the Neck Disability Index (NDI). People with an NDI greater than 15/50 are at risk of poor recovery.
- assess pain intensity using the Visual Analogue Scale (VAS). People with a VAS greater than 5/10 are at risk of poor recovery.

At the initial assessment:
- assess expectations of recovery. “Do you think you are going to get better soon?” People with poor expectations of recovery are at risk of poor recovery.

In summary, if these factors are present, the person is at risk of poor recovery:
- high disability (NDI score)
- high pain (VAS score)
- poor expectations of recovery.

At three to six weeks:
- screen for posttraumatic stress symptoms using the Impact of Event Scale (IES).

People with an IES of greater than 25 (moderate levels of symptoms) should be referred to a psychologist with experience in the management of posttraumatic stress symptoms.

These factors can also predict poor recovery:
- decreased initial cervical ROM
- initial cold hyperalgesia.

**NOT RECOMMENDED**

Do not provide complex assessments, physical therapy referral or referral to a clinician with expertise in the management of whiplash to people at low risk of poor recovery:
- low disability (less than 15/50 for NDI)
- low pain (less than 5/10 for VAS)
- good expectations of recovery.

**How to assess expectations of recovery?**

Ask ‘Do you think you are going to get better soon?’

Examples of positive responses:
- ‘I think I will get better soon.’
- ‘I feel like I am making progress.’

Examples of negative responses:
- ‘I don’t feel like I am making any progress.’
- ‘I had a friend who had whiplash and it took them a long time to get better. I think that may be the same for me too.’

**FACTORS THAT DO NOT PREDICT POOR RECOVERY**

The following factors do not predict risk of poor recovery:
- age, gender, marital status and education
- seat belt use, awareness of impending collision, position in vehicle and speed of collision
- pre-collision pain or general physical health status
- high healthcare utilisation for treatment of whiplash.
3. PROVIDE TREATMENT
These treatments are recommended for the best possible management of adults with whiplash.

RECOMMENDED TREATMENT

ADVICE TO REMAIN ACTIVE
Provide advice to continue usual activities as this will optimise recovery.
Provide advice that restricting or not doing usual activities because of the injury may cause delays in recovery.
Discuss daily activities and provide examples on how to modify, plan and simplify activities to reduce strain on the neck and to keep active.
Refer to the whiplash fact sheet for examples of how to stay active.

REASSURANCE
Acknowledge that the person is injured and has symptoms. Advise that:
• symptoms are a normal reaction to being injured
• maintaining a normal life is important in the recovery process
• it is important to focus on improvements in function.
Encourage the injured person to take an active role in their recovery.
As recovery progresses encourage self management and independence.

NECK EXERCISES
Provide advice that neck exercises are effective in managing whiplash.
Recommend neck exercises such as range of motion, low load isometric, postural endurance and strengthening exercises.

FIRST-LINE PAIN RELIEF
Doctors should discuss strategies and medications for pain relief with the injured person.
Provide advice that regular paracetamol is the first option.
Non-Steroidal Anti-inflammatory Drugs (NSAIDs) may be used if regular paracetamol is ineffective.
Oral opioids, preferably short-acting agents at regular intervals, may be necessary to relieve severe pain. Any ongoing need for these drugs requires regular reassessment.
Evidence for the following treatments is limited:

- Manual therapy
- Thoracic manipulation
- Acupuncture
- Trigger point needles
- Kinesio taping.

These physical treatments may be used in conjunction with the recommended treatments (p.7) provided they are monitored closely and only continued if there is evidence of benefit (at least 10 per cent improvement on VAS and NDI at each review).

There is evidence that these treatments are not effective:

- Reduction of usual activities for more than four days
- Immobilisation collars
- Pharmacology – anti-convulsants and anti-depressants
- Muscle relaxants
- Botulinum toxin type A
- Intra-articular and intrathecal steroid injections
- Pulsed Electromagnetic Treatment (PEMT).

These treatments should not be used.

The following interventions may be applied for short periods, and in conjunction with other evidence based treatments provided there is continuing measurable improvement (at least 10 per cent improvement on VAS and NDI at each review).

- Traction
- Pilates
- Feldenkrais
- Alexander technique
- Massage
- Homeopathy
- Cervical pillows
- Magnetic necklaces
- Spray and stretch
- Heat
- Ice
- Transcutaneous Electrical Nerve Stimulation (TENS)
- Electrical stimulation
- Ultrasound
- Laser
- Shortwave diathermy.
4. REVIEW AND TAKE RECOMMENDED ACTION

These outcome measures help to monitor progress and identify people at risk of poor recovery. Remember – this is only a guide and there will always be individual differences.

This chart provides a summary of how to review patient progress, and what action to take based on the indicators of recovery or poor recovery during the first 12 weeks.

Use these assessments as part of the treatment program to monitor progress. If your initial assessment is more than seven days post-injury, use these intervals as a guide.

**INICIAL ASSESSMENT**

Do these assessments:
- VAS
- NDI
- Expectations of recovery.

**INDICATES RECOVERY**
- NDI less than 15/50.
- VAS less than 5/10.
- Good expectation of recovery.

**RECOMMENDED ACTION**
- Provide recommended treatments.

**INDICATES RISK OF POOR RECOVERY**
- NDI greater than 15/50.
- VAS greater than 5/10.
- Poor expectation of recovery.

**RECOMMENDED ACTION**
- Refer for physical therapy.
- Consider further psychological assessment.

**7 DAYS POST INJURY**

Do these assessments:
- VAS
- NDI.

**INDICATES RECOVERY**
- Improvement of 10% on NDI and VAS.

**RECOMMENDED ACTION**
- Continue recommended treatments.

**INDICATES RISK OF POOR RECOVERY**
- VAS and NDI scores are high or unchanged.

**RECOMMENDED ACTION**
- Review treatment types and intensity and consider other recommended treatments.

Chart continues on the next page
4. REVIEW AND TAKE RECOMMENDED ACTION

**3 WEEKS POST INJURY**

Do these assessments:
- VAS
- NDI

Where the patient has unchanged VAS and NDI, do this assessment:
- IES - screen for posttraumatic stress.

**INDICATES RECOVERY**
- Improvement of 10% on NDI and VAS.

**RECOMMENDED ACTION**
- Continue recommended treatments.

**INDICATES RISK OF POOR RECOVERY**
- VAS and NDI scores are high or unchanged.
- IES higher than 25.

**RECOMMENDED ACTION**
- Conduct a more comprehensive physical and psychological examination.
- Consider referral to a clinician with expertise in whiplash management.
- Refer to psychologist for:
  - adjustment difficulties
  - management of pain, and/or
  - posttraumatic stress management.

**6 WEEKS POST INJURY**

Do these assessments:
- VAS
- NDI

Where the patient has unchanged VAS and NDI, do this assessment:
- IES - screen for posttraumatic stress.

**INDICATES RECOVERY**
- Improvement of 10% on NDI and VAS.

**RECOMMENDED ACTION**
- Gradually withdraw treatment.

**INDICATES RISK OF POOR RECOVERY**
- VAS and NDI scores are high or unchanged.
- IES higher than 25.

**RECOMMENDED ACTION**
- Consider referral to a clinician with expertise in whiplash management.
- Refer to psychologist for:
  - adjustment difficulties
  - management of pain, and/or
  - posttraumatic stress management.

**12 WEEKS POST INJURY**

Do these assessments:
- VAS
- NDI
- IES.

**INDICATES RECOVERY**
- Improvement of 10% on NDI and VAS.

**RECOMMENDED ACTION**
- Gradually withdraw treatment and focus on interventions which require active participation and independence.

**INDICATES RISK OF POOR RECOVERY**
- VAS and NDI scores are high or unchanged.
- IES higher than 25.

**RECOMMENDED ACTION**
- Follow recommendation from specialist.
- Refer for coordinated multidisciplinary care.
- Follow the NHMRC chronic whiplash pathway.
A range of resources are available to help GPs and health professionals apply the Guidelines for adults with a whiplash injury.

Download the whiplash Guidelines and supporting resources at maa.nsw.gov.au/whiplash-guidelines