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Clinical Practice Guidelines for Physiotherapy Management of Patients with Whiplash Associated Disorders (WAD): *Summary Version for Quick Reference

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* Adaptation of Master's of Health Administration degree project *Clinical Practice Guidelines for the Physiotherapy Treatment of Patients with Whiplash Associated Disorders* by Therese Leigh, BSc (PT)

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Note to Readers:

To get a quick understanding of these Guidelines, we suggest you start with the guideline highlights on Page 6 (Highlights of Evidence-Based Practice Approach to WAD) that summarizes the recommendations.

Physiotherapists using these guidelines should understand:

- a) the natural course of whiplash;
- b) the available scientific evidence;
- c) the possible influence of prognostic factors
- d) some principles of behavioural therapy to guide patient education and therapeutic exercise for those whose psychosocial issues are a potential obstacle to unimpeded recovery from whiplash.

Guidelines Task Force Members

1.0 Executive Summary

1.1 Purpose of Guidelines:

These clinical practice guidelines (The Guidelines) for the physiotherapy management of cervical whiplash associated disorders (WAD) were formulated to assist Canadian physiotherapists in making informed diagnostic and treatment decisions. The Guidelines outline an evidence-based assessment and treatment process and assume early intervention to achieve optimal outcomes with acute clients. The goals of The Guidelines are:

- to improve quality of care;
- to increase uniformity of care;
- to improve communication with physicians, insurers and patients.

1.2 Background:

PABC's Best Practices Task Force developed The Guidelines because Canadian WAD guidelines did not exist, even though physiotherapy is the predominant rehabilitation service for WAD patients. BC's reported injury rate, 60% of all MVAs, is almost double the worldwide rate of 35%. Consequently, BC physiotherapists treat a large number of WAD patients.

This Summary version of The Guidelines was adapted from the academic paper *Clinical Practice Guidelines for the Physiotherapy Treatment of Patients with Whiplash Associated Disorders* (Therese Leigh's Masters Project, June 2004). In order to gain a greater understanding of the topic, we recommend you read the original academic document at www.bcphysio.org for the details of the science informing the guidelines, and refer to the major systematic reviews listed in the References section, particularly Verhagen (2004), Gross (2004) and the Dutch clinical practice guideline (Sholten-Peeters, 2002). The Monograph of the Quebec Task Force on Whiplash Associated Disorders provides good background information.

The major systematic reviews and Dutch clinical practice guideline supported the task forces' primary recommendations of early intervention and activation as well as education, manual therapy and therapeutic exercise. While similar to the recommendations of the Dutch guideline, the major differences in our recommendations are the inclusion of WAD grade III, and manual therapy.

1.3 Intended Use:

The Guidelines provide evidence-based recommendations to be followed in most cases of WAD grades I to III (cervical injuries). They are not meant to be applied rigidly and do not supersede clinical judgement. Physiotherapists may choose to deviate from The Guidelines in specific cases where they are inapplicable or ineffective. Optimal outcomes will be achieved when combining early intervention with best practices and using The Guidelines as a framework.

IMPORTANT – THESE GUIDELINES ARE FOR ACUTE WAD as there is a paucity of quality clinical research in the area of chronic WAD.

2.0 Definitions:

1. Whiplash Associated Disorder (WAD)

“Whiplash is an acceleration-deceleration mechanism of energy transfer to the neck. It may result from rear end or side impact motor vehicle collisions, but can also occur during diving or other mishaps. The impact may result in bony or soft tissue injuries (whiplash injury), which in turn may lead to a variety of clinical manifestations called WAD.” (Spitzer et al 1995). While many clients suffer other concurrent injuries, the Quebec Task Force referenced WAD injuries as occurring to the neck and above.

2. WAD Classification:

Grades of severity 0-IV proposed by the Quebec Task Force on Whiplash-Associated Disorders (Spitzer et al 1995). These guidelines have recommendations for levels I to III, with level IV mentioned briefly.

Table 1. Clinical Classification of Whiplash Associated Disorders	
Grade	Clinical Presentation
0	No complaint about the neck No physical sign(s)
I	Neck complaint of stiffness, pain, or tenderness only. No physical sign(s)
II	Neck complaint AND Musculoskeletal sign(s) (may include decreased range of motion , point tenderness)
III	Neck complaint AND Neurological sign(s) (including decreased or absent deep tendon reflexes, weakness ,sensory deficits)
IV	Neck complaint AND Fracture or dislocation
Symptoms and disorders that can manifest in all grades include, but are not limited to, deafness, dizziness, tinnitus, headache, memory loss, dysphagia, and temporomandibular joint pain.	

3. **Delayed or Prolonged Recovery:** not progressing at typical rate as others with similar injuries. For example a Grade I WAD patient that still has complaints of pain after treatment for 6 weeks.

4. **Chronic whiplash:** symptoms or signs related to the trauma and persisting for more than six months. Chronic whiplash is not covered within the scope of these Guidelines.

5. **Physiotherapy** also known as **physical therapy** means the assessment and treatment of the human body by physical or mechanical means, by manipulation, massage, exercise, the application of bandages, hydrotherapy, acupuncture, medical electricity and education for the therapeutic purpose of maintaining or restoring function that has been impaired by injury or disease.
6. **Manual therapy** means the skillful and trained use of the physical therapists' hands to manipulate, mobilize, resist and/or move the human body to reduce pain, restore function, and promote healing.
7. **Therapeutic exercise**: the evidence-based use of exercise (range of motion, assisted, active assisted, active, resisted) to promote healing and recovery from injury and or disease. Therapeutic exercises are applied specifically for the pathology present with knowledge of tissue healing and normal function.
8. **Therapeutic modalities**: refers to the evidence based use of cold, heat, light, ultrasound, acupuncture and/or electricity to reduce pain, promote healing and restore physiological function of tissues.
9. **Discharge**: dismissal or release of a patient from the care of the treating physiotherapist when the patient has reached a reasonable resolution of signs and symptoms, or has reached a plateau.

3.0 Highlights of Evidence-Based Clinical Practice Guidelines for Physiotherapy Management of Clients with Whiplash Associated Disorders

1. **Early intervention is critical** (Grade A Evidence, see Appendix 1), and for optimal outcomes to occur treatment should begin within four days;
2. **History taking** must be systematic and well-documented (p. 8-9);
3. **Physical examination** should include the following: general observation, examination of active and passive movements, stability testing, muscle function, neurological tests and palpation, and should be well documented (p. 9-10);
4. **Outcome measures** are recommended as part of the assessment process with patients with WAD as well as communication regarding progress (p.10-11);
5. **The clinical diagnosis** includes classification of the patient using the Quebec Task Force classification for WAD (Grades I to III), and is based on the physiotherapist's subjective and objective examinations (p .4, 11,13). Grade IV WAD must be confirmed by radiology;
6. **The treatment and discharge plan** will be determined, documented and communicated to the client and other relevant parties (p.11-12);
7. **Education, therapeutic exercise and manual therapy are recommended** to achieve pain management, timely return to normal daily activities, and the prevention of chronicity. (Grade A Evidence, Appendix 1, p. 18) Therapeutic modalities may be used as one element of a multi-faceted treatment plan. (p.5,7) For exceptions to the guidelines and risk factors for chronicity see pages 12 & 14;
8. **Client progress will be assessed** informally on an ongoing basis and formally at regular intervals, such as monthly. The client's progress and updated treatment plan will be communicated to the physician, client, insurance adjuster and other relevant parties (Appendices 2-4)
9. **The goals and emphasis of treatment will progress** with stages of healing as a framework. (p.7)

Note: *Chronic whiplash injuries* may be treated with education, manual therapy, and therapeutic exercise using behavioural principles. Chronic WAD patients may require a multi-disciplinary approach (p4, 14). The Guidelines are for acute WAD; they do not include chronic WAD.

4.0 The Therapeutic Process: Recommendations for Treatment Goals and Interventions in Five Phases

(Adapted from Scholten– Peeters guideline, 2002)

The time frame of the Quebec Task Force, other literature, and group consensus provide a guide for the clinical management of whiplash combined with the classification of normal or delayed (prolonged) recovery.

Phase	Description	Treatment Goals	Treatment Intervention
Phase One	Less than 4 days. Acute Inflammatory Response Phase: Early fibroblastic activity.	Protect from further injury.	Education including postures to reduce stress on healing tissues
		Reduce pain.	Pain modulation with appropriate modalities. Icing protocols.
		Increase mobility	Early guided movement and mobilization
		Prevent chronicity	Education and information on whiplash
Phase Two	4 days to three weeks. Subacute Early Remodelling Phase: Late fibroblastic activity.	Increase strength, mobility and function	Education on return to activity. Graded activation to facilitate return in a protected manner. Early rehabilitation exercise. Home activity programs.
		Reduce pain	Modalities use: Pain modulation to allow for active involvement by patient. Muscle re-education Promotion of tissue remodelling.
		Return to Normal activities ASAP	Education: Workplace ergonomics Resumption of activities Exercise induced discomfort Benefits of exercise and pacing Prevention of a prolonged recovery. Positive effects of movement on healing and remodelling.
Phase Three	3 to 6 weeks. Tissue Remodelling Phase	Education on coping strategies.	Posture Ergonomics Appropriate exercise and activities.
		Encourage return to normal social activities.	Education and coaching.
		Continue to increase function	Manual treatment for increased mobility, function, pain modulation, and muscle re-education Therapeutic exercise. Education. Modalities for biofeedback, pain modulation in combination with active program and participation only.
	If at risk for delayed recovery	Improve coping strategies	Education re use of ice / heat Home exercises including Stretching and Relaxation
		Increase function	Education Exercise based on behavioural principles. Training of functional movement patterns.
		Facilitate health care team to address barriers to recovery as indicated	Communication with patient, physician and insurer re: delayed recovery issues
Phase Four	6 weeks to 12 weeks. Intermediate tissue remodelling.	Increase function, promote full return to activities.	Continued education and guidance re increasing activities and participation. Independent exercise program.
		If at risk for delayed recovery	Address behavioural issues.
		Increase function.	Education, training of activities and exercise therapy.
Phase Five	Greater than 12 weeks. Continued tissue remodelling	Follow Phase Four Goals for those patients that exhibit symptoms greater than 12 weeks. A multi-disciplinary approach may be required.	

5.0 Physiotherapy assessment and treatment planning for WAD Grades I to III

5.1. History and Subjective Evaluation

To gather information about a client with WAD a systematic history is taken concerning the following: **impairments** such as pain level, concentration, mobility of the neck, dizziness, vomiting or tinnitus; **functional or activity limitations** such as difficulty sitting, driving or reaching and **participation restrictions** such as decreased level of sport involvement, decreased work or interference with social roles. During this stage the physiotherapist may be alerted to certain prognostic factors such as intolerable pain, pain all over, excessive emergency admittance or passive coping strategies that may indicate the patient is at risk for a prolonged or delayed recovery. (see page 12)

The following information should be included:

Demographic Information	<ul style="list-style-type: none">• Date of Birth, claim #, source of referral, address, language (if other than English and communication assistance is required), other communication barriers
Injury / Onset of Symptoms	<ul style="list-style-type: none">• Date, mechanism and nature of the injury• Loss of consciousness• Initial signs and symptoms (what, when, where)
Current Complaints	<ul style="list-style-type: none">• Current signs and symptoms and the rate of progression• Nature and pattern of current pain complaints – i.e. location, radiation, frequency, duration, intensity as measured by Visual Analog Scale, NPRS or P4• Associated features e.g. headaches, disturbed vision, hearing, tinnitus, vertigo, other types of dizziness• Association of head pain with position of the head, coughing• Presence of radicular pain• a.m., p.m. pattern• Aggravating, relieving factors
Relevant Medical Information	<ul style="list-style-type: none">• Any medical care or diagnostic tests provided• Rehabilitation treatment provided and the results achieved• Any medications taken and their effect• Past medical history and relevant co-existing conditions
Activities of Daily Living	<ul style="list-style-type: none">• Homemaking and ADL demands affected by injury• Sports, recreational activities affected by injury

Vocational Information

- Occupation, vocational status and job demands affected by injury
- Description, perception of job demands, characteristics of work environment
- Expectations regarding return to work or function

Current Life Situation

- Marital Status, dependants
- Lifestyle strategies (i.e. smoking, exercise, drug or alcohol use)
- Coping strategies, support system
- Perception of disability and potential for recovery

5.2. Physical Examination

There is limited literature on the validity of diagnostic tests used for whiplash. There is Grade B evidence to support limited range of motion as a diagnostic test; otherwise the tests are Grade C or D⁴. It is important that the physiotherapist is aware of prognostic factors associated with delayed recovery and of behavioural signs that may have therapeutic consequences. See page 12. In consensus, it was decided that the physical examination should include the following⁵:

Observation:

- Quality of movements
- Posture (cervical list -Grade C evidence, Kendall classification, including severity regarding anterior or posterior head tilt, forward head, position of scapulae, thoracic kyphosis, lumbar lordosis)
- Overt pain behaviour such as verbal exclamations, grimacing or rubbing (Grade C evidence)
- Scars, bruising, swelling (measure), atrophy (measure)
- Structural alignment

Range of Motion:

- Active movements of the upper quadrant and other areas relevant to the client's symptoms. The therapist will evaluate range of motion (Grade B evidence), quality of movement and provocation of symptoms such as dizziness or radicular pain. (Grade D evidence)
- Passive Mobility (measure range with objective tool such as tape measure, goniometer, inclinometer, etc.)
- End feels – i.e. normal (capsular, bony, soft-tissue approximation, muscular) versus abnormal (spasm, boggy, springy, empty)
- Joint Play Movement Tests (accessory mobility, pain, crepitus)

⁴ See Appendix 1 for Grades of evidence

⁵ The order of examination and contents may vary depending on the clinical presentation of the client.

Neuromuscular Testing (C1-S2):
<ul style="list-style-type: none"> • Key Myotome Testing: • Dermatome Testing for: light touch, deep pressure, pain, hot/cold • Deep Tendon Reflex testing • Neuromeningeal mobility (Slump Test, ,Upper Limb Neurodynamic Tests) <p>If neural pain is present, quadrant tests or neurological tests such as upper limb tension tests and slump test should be performed with caution.</p>
Palpation:
<ul style="list-style-type: none"> • skin, soft tissue, bony structures. Note tenderness, swelling, temperature changes, spasm, enlargements, moisture, etc.
Other Pain Provocation:
<ul style="list-style-type: none"> • Resisted isometric tests for musculotendinous pathology • Compression, traction in flexion, extension and neutral
Stability
<ul style="list-style-type: none"> • Including craniovertebral laxity testing
Muscular Function:
<ul style="list-style-type: none"> • Strength • Recruitment • Length
Special Testing:
<ul style="list-style-type: none"> • Vertebral artery test (not advisable in first 6 weeks) • Arterial patency tests (axillary, brachial, radial, ulnar) • CNS function e.g. coordination tests such as dysmetria, dysdiadochokinesia, Concussion Test, reflexes such as Babinski, Oppenheim's, clonus

5.3 Use of Outcome Measures

Reliable and valid measurement tools that reflect the same determinants of recovery as the treatment goals, e.g. outcome measures such as the Neck Disability Index for function VAS for pain should be chosen. Coping strategies and attitudes to the injury can be assessed in a variety of ways including use of outcome measures. A concise list of the outcome measures can be found in the CL20 implementation package, as well as on the PABC Members Only website, www.bcphysio.org.

There are other outcome measures that are effective. CPA has published two volumes of Physical Rehabilitation Outcome Measures from which 6 were chosen for the CL20 project. The Guidelines Task Force recommends the use of at least two of the following, as they are methodologically sound and are appropriate to WAD patients.

Recommended Outcome Measures for Treatment of WAD Patients

Pain	
<ul style="list-style-type: none">• VAS, P4, Numeric Pain Rating Scale (NRPS)	
Non-regional Functional Outcome measures (self report)	
<ul style="list-style-type: none">• Health Status Disability• Patient Specific Functional Scale (PSFS)	
Cervical	
<ul style="list-style-type: none">• Neck Disability Index⁶	
Other Regional Functional Outcome Measures (self-report)	
Lumbar spine	Roland Morris Questionnaire Oswestry Disability Questionnaire
Shoulder/Arm/cervical	Upper Extremity Functional Index Disabilities of the Arm, Shoulder and Hand (DASH)
Hip/Leg/pelvis	Lower Extremity Functional Index (LEFS)

5.4 Analysis of Findings

The information from the subjective history and objective examination allows the physiotherapist to make a diagnosis. The patient should be classified using the Quebec Task Force classification for WAD (see page 4). The physiotherapist then decides whether there is an indication for treatment and decides on a treatment plan.

If WAD III or severe WAD II is diagnosed and radiological tests have not been done, the physiotherapist should request x-rays through the family physician. Treatment may proceed with caution. If there is any suspicion of WAD IV the physiotherapist must take immediate action (i.e. refer the patient to emergency for x-ray or call the family physician and explain the situation). Physiotherapy treatment is not indicated for acute WAD IV (fracture). (Evidence level A)

5.5 Treatment Plan

The primary goals of physiotherapy treatment are an early return to normal daily activities and the prevention of chronicity. Therefore, active interventions, education and manual therapy are recommended (Grade A evidence). Note that there is a difference between patients with normal recovery and those with

⁶ Some may find that other self reports for neck complaints are preferable to the NDI because they are similar and easy to use. However, the NDI has more established validity in the literature.

delayed recovery. In whiplash patients with normal recovery, goals are set at the level of activity and/or related impairments in function (e.g. lifting and strength).

There is far more literature to guide the treatment of acute whiplash injuries than chronic. The Guidelines are meant to be used for the treatment of acute WAD injuries. There is little methodologically strong evidence but best evidence indicates that clients with chronic whiplash injuries should be treated with advice, education, and exercise therapy using behavioural principles.

In patients with delayed recovery, the main goals may be to influence factors that are responsible for poor progress including improving coping strategies. It should be recognized that some of these factors lay outside the physiotherapist's expertise and may need to be addressed by other health professionals (e.g. psychologist).

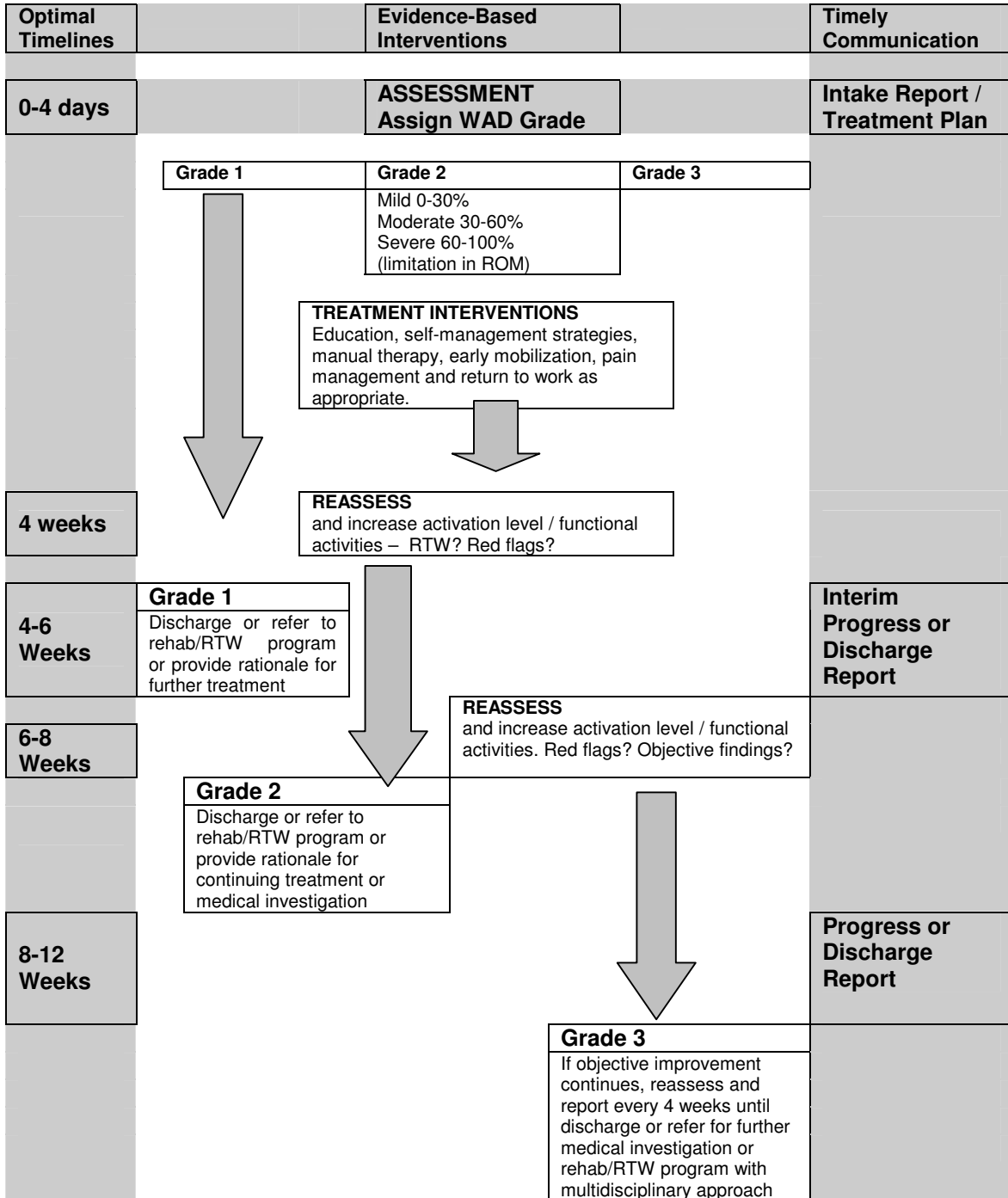
Evidence in the literature has indicated that there are certain risk factors for chronicity that may influence best practice treatment timelines. For the purposes of this model we are calling these risk factors "red flags".⁷ The presence of some of these factors may indicate the need for additional behavioural or medical intervention and should be discussed with the adjuster and physician.

5.5.1 Red Flags

- Loss of consciousness
- Multiple areas of injury (>2)
- Neurological involvement
- Pre-existing or comorbid condition
- Prior injury to the same area
- Significant structural damage
- High medication intake
- High initial pain/disability level (strongest association with prolonged recovery)
- Repeated visits to emergency
- Treatment initiated beyond 6 weeks
- Psychological, neuropsychological, psychosocial issues (modest association with prolonged recovery)
 - believes hurt equals harm
 - fears/avoids activity
 - low mood/social withdrawal
 - prefers passive treatments
- Poor coping strategies (e.g. passive versus active)
- Home or work environment concerns

⁷ The influence is variable. For example, physical factors such as severely limited range of motion of the neck, psychological issues and neuropsychological issues demonstrate modest association with poor or delayed recovery. There is conflicting evidence on whether gender, age, litigation or economic status influence recovery. More research needs to be done regarding which factors contribute the most to chronic whiplash and how to address them.

5.5.2 Assessment and Reporting for Patients with WAD I to III



5.5.3 Exceptions to The Guidelines

The Guidelines are designed for assessment and treatment of soft tissue injuries of the neck. Therapists will use their clinical judgement to determine the appropriate assessment and management strategies for other areas of the body and the following conditions that fall outside the intended scope of the guidelines.

- **Injuries resulting in significant structural damage**
 - Fractures, especially with delayed bone union
 - Joint damage
 - Intra-articular fractures (ORIF/OREF)
 - Complex Joint Dislocation (shoulder, patella)
 - Traumatic Onset Adhesive Capsulitis
 - Articular Derangement (meniscal tear or loose body)
 - Capsulo-ligamentous injury (ACL, MCL tear)
 - Surgical Joint Reconstruction (acromioplasty, THA, TKA)
 - Musculotendinous injury managed surgically
- **Individuals with Neurological Disorders**
 - Central Nervous System
 - Mild/Moderate Brain Injury with Physical or Cognitive Dysfunction
 - Spinal Cord Injury
 - Acute Spinal Traumatic Injury with upper motor neuron lesion signs
 - Peripheral Nervous System
 - Plexus Traction/Compression Injury confirmed by Electrophysiological testing
 - Cauda Equina injury
- **Pre-existing or co-morbid conditions that compromise functional recovery**
 - Congenital and acquired anomalies (e.g. spondylolisthesis, spinal stenosis)
 - Systemic medical conditions including arthritic conditions (e.g. RA, Lupus, significant OA)
 - Metabolic disorders (e.g. diabetes, thyroid deficiency)
 - Neurological Conditions (e.g. MS, CP)
 - Vascular compromise (heart or peripheral vascular disease)
- **Individuals with documented Medical Complications:**
 - DVT, Sepsis, Hemarthrosis

6.0 Conclusion

Review of best evidence supports the following with respect to physiotherapy management of clients with whiplash associated disorders:

- Early intervention
- Comprehensive physical assessment and timely communication of analysis, goals and treatment /discharge plan
- Comprehensive physiotherapy treatment including education, manual therapy and therapeutic exercise.

7.0 Research Methodology

These clinical practice guidelines for physiotherapy management of patients with cervical whiplash associated disorders Grades I to III were developed to assist Canadian physiotherapists in the diagnosis and treatment of whiplash patients. It is a well-researched methodologically sound reference tool. For more development information refer to the academic paper “Clinical Practice Guidelines for the Physiotherapy Treatment of Patients with Whiplash Associated Disorders” (Leigh, 2004) which is posted on the PABC website.

The grading system for evidence is detailed in Appendix 1, with A being the highest level of evidence (systematic reviews using randomized controlled trials), and D being consensus based decisions supported by clinical experience.

- The clinical practice guidelines were developed according to international methods for physiotherapy guidelines issued by the Canadian Physiotherapy Association and the Scottish Intercollegiate Guideline Network (SIGN).
- The author undertook a rigorous computer aided search of Medline, CINAHL, Cochrane Database of Systematic Reviews, Embase, and the Canadian Physiotherapy Association database to review literature from 2001 to June 2004. A Dutch clinical practice guideline for patients with WAD (Scholten-Peeters 2002) provided a literature review for the years prior to 2001 and a template for these guidelines.
- The Best Practices Task Force, consisting of the CEO of the Physiotherapy Association of British Columbia and eight physiotherapists, including the author, used a consensus-based decision-making model to determine recommendations where scientific evidence was scant.
- The original document was reviewed by a group of multi-disciplinary health professionals as well as 10 other physiotherapists. Their comments were used to further edit the document.

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⁹ See original academic paper for full reference list, PABC website, www.bcphysio.org

Appendix 1
Literature Review Grading Scale, Sackett et al.

Table 2: Levels of Evidence and Grades of Recommendations		
Grades of Recommendation	Level of Evidence	Basis of Evidence
A	I++	Evidence obtained from a systematic review of
A	I+	Random Control Trials (RCT's).
B	II++	Evidence obtained from at least one RCT.
		Evidence obtained from at least one well-designed controlled study without randomization.
B	II+	Evidence obtained from at least one well designed quasi-experimental study.
C	III++	Evidence obtained from well designed non –
	III+	experimental descriptive studies, such as
	III-	comparative studies, correlation studies and case studies.
D	IV	Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities.

clinic letterhead

Dear Dr. ,

We are treating your patient _____ who has had a motor vehicle accident. In order to identify the most effective treatment options for those suffering from whiplash associated disorders (WAD), the Physiotherapy Association of British Columbia's Best Practices Task Force examined the most current research and surveyed experienced physiotherapists. This evidence-based research led to the creation of Physiotherapy Guidelines for the management of whiplash associated injuries.

The most recent research reveals that early intervention with the treatment of manual therapy; education and therapeutic exercise are the keys to optimal recovery for whiplash-associated disorder. Physiotherapists use their expert assessment skills and understanding of pathology to prescribe the most appropriate care according to the grade of WAD, the stage of healing and quality clinical research. A typical treatment plan for Grade 2 WAD is outlined below:

Phase One –Goal: Early activation phase and Pain Management (typically days 1-4 post injury)

- a comprehensive physical examination will be conducted and assessment findings will be compiled into a report for your review
- techniques to reduce pain will be given to the client with safe and appropriate exercises to encourage early movement and begin the process of optimal recovery
- therapeutic modalities will be utilized as necessary to manage pain and facilitate the recovery of movement

Phase Two/Three – Goal: Recovery of Movement / Function (typically 4 days to 6 weeks)

- progressive activation exercises will be prescribed and education regarding the importance of early activation and return to normal activities will be communicated
- graded manual therapy techniques will be utilized to recover mobility

Phase Four/Five – Goal: Recovery of Function (6 weeks onwards)

- exercises will be progressed to facilitate the return to pre-injury activities
- education regarding self-management strategies will be emphasized to encourage patient independence in their recovery process
- manual therapy techniques will be utilized to attain optimal recovery of function and tissue remodelling
- clients presenting with signs of prolonged recovery will be treated with education, exercise and interventions based on behavioural principles

For a comprehensive version of these evidence-based guidelines please see the PABC website at www.bcp physiotherapy.org. We look forward to working with you and your patients to provide optimal care and recovery for whiplash associated disorders.

On the reverse side of this letter are the summary findings of PABC's Clinical Practice Guidelines for Whiplash Associated Disorders.

Sincerely,

Physiotherapist Name, Credentials
Clinic Name

Physician letter page 2

Summary of PABC'S Clinical Practice Guidelines for Physiotherapy Treatment of Patients with Whiplash Associated Disorders

1. **Early intervention** is essential;
2. **History taking** should be systematic and well-documented;
3. **Physical examination** should include the following: general observation, examination of active and passive movements (including mobility), stability testing, muscle function, neurological tests and palpation, and should be well documented;
4. **Outcome measures** should be used as part of the assessment process with patients with WAD, as well as communication regarding progress;
5. **Physiotherapy diagnosis** includes classification of the patient using the Quebec Task Force classification for WAD (Grades I to III), and is based on the information obtained from the subjective and objective examinations. Grade IV WAD must be confirmed by radiology;
6. **Treatment and discharge plan** will be determined, documented and communicated to the client and other relevant parties;
7. **Education, therapeutic exercise and manual therapy** are recommended to achieve pain management, timely return to normal daily activities, and the prevention of chronicity. Therapeutic modalities may be used as one element of a multi-faceted treatment plan;
8. **Patient progress** will be assessed informally on an ongoing basis and formally at regular intervals, e.g. monthly. The patient's progress and updated treatment plan will be communicated to the client, physician, insurance adjuster and other relevant parties;
9. **The goals and emphasis of treatment** will progress with stages of healing as a framework.

It should be noted that patients benefit from referral to physiotherapy at any time after injury, and optimal outcomes occur when treatment begins within four days of the injury.

clinic letterhead

To Our Valued Patients,

We understand you have had a motor vehicle accident. Your physiotherapist will help you make a smooth, timely and safe transition to your pre-injury activities and promote recovery from your injuries. Your active participation in the recovery process is critical to success!

Research shows that exercise is important for recovery from your injury. Here is what you can do:

1. Manage your pain

- Learn about the nature of your injury from your physiotherapist;
- Use the techniques taught by your physiotherapist to manage and reduce your pain;
- Increase your level of physical activity to promote the release of endorphins (natural painkillers that provide a similar effect to medication).

2. Recover your movement

- Gradually increase your level of activity; exercise prevents joint and muscle stiffness and weakness;
- Learn and perform the specific exercises taught to you by your physiotherapist to help promote recovery;
- Be aware that even if you have pain, it is generally helpful to keep exercising.

3. Return to pre-injury activity

- Resume work, household activities, and recreation.

Physiotherapists use their hands-on skills, their knowledge of the structure and function of the body, the effects of illness and injury, and their expertise in therapeutic exercise to help your healing. Physiotherapists may provide advice related to body mechanics, posture and workplace ergonomics, as well as assistive equipment, to enhance recovery. Your Physiotherapist is happy to answer any questions about your injury or your healing process.

Sincerely,

Physiotherapist's Name
Physiotherapist
Clinic Name

Note: The Physiotherapy Association of British Columbia (PABC) has developed guidelines for the management of Whiplash Associated Disorders (WAD). In order to identify the most effective, evidence-based options for treating those suffering from WAD, PABC's Best Practices Task Force examined current research and surveyed experienced physiotherapists in the development of the guidelines. For the complete clinical practice guidelines, see www.bcphysio.org.

clinic letterhead

PHYSIOTHERAPY TREATMENT REPORT FORM

Patient Name:		Date of Birth:	
Claim Number:		Claims Rep:	
Date of Injury:		Physician:	
Occupation:		Vocational Status:	
Referring Diagnosis:			

ASSESS DATE:	RE-ASSESS DATE:
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SUBJECTIVE REPORT (relevant history and reported symptoms)	
AT ASSESSMENT	AT RE-ASSESSMENT

OUTCOME MEASURES (2 measures recommended)			
AT ASSESSMENT		AT RE-ASSESSMENT	
Type of Measure	Score	Type of Measure	Score
Comments:		Comments:	

OBJECTIVE CLINICAL FINDINGS (Observation, Range of Motion, Muscle Function, Palpation, Joint Mobility, Neurological Scan, Special Tests)	
AT ASSESSMENT	AT RE-ASSESSMENT

ASSESS DATE:	1 of 2 pages

FUNCTIONAL ABILITY (Work and / or Home Activities)	
AT ASSESSMENT	AT RE-ASSESSMENT

FACTORS INFLUENCING RECOVERY (i.e. other medical issues, complicating factors)	
AT ASSESSMENT	AT RE-ASSESSMENT

TREATMENT PLAN AND RECOMMENDATIONS (Specific Treatment Plan and Timeline)	
AT ASSESSMENT	AT RE-ASSESSMENT

Physiotherapist:		Physiotherapist:	
MSP Billing #		MSP Billing #	
Clinic Name Address		Clinic Name Address	
Date:		Date:	
Copy to:		Copy to:	

2 of 2 pages

This Report Form was developed to reflect Best Practices in treating WAD. *IT IS NOT REQUIRED TO BE SUBMITTED TO THE INSURER* at this time. Following successfully implementation of The Guidelines, we will pursue the merits of implementing this Report Form with the insurer.