

IFOMPT – International Federation of Orthopaedic Manipulative Physical Therapists

International Framework for Examination of the Cervical Region for potential of Cervical Arterial Dysfunction prior to Orthopaedic Manual Therapy Intervention (2012)

Introduction - IFOMPT

International Federation of Orthopaedic Manipulative Physical Therapists (IFOMPT) represents groups of manipulative physical therapists from around the world who have completed stringent post-registration/post-graduation specialisation programs in the field of neuro-musculo-skeletal disorders. It sets educational and clinical standards in physical therapy and actively encourages improved patient management by its 'Standards' documents. IFOMPT endorses evidence-based practice.

Introduction – Framework for examination of the cervical region

IFOMPT have produced a consensus document detailing a clinical reasoning framework for best practice: International Framework for Examination of the Cervical Region for potential of Cervical Arterial Dysfunction prior to Orthopaedic Manual Therapy Intervention (2012)

It is designed to provide guidance for assessment of the cervical spine for potential cervical artery dysfunction (CAD) prior to performing manipulative techniques as part of a treatment approach.

Differentiation of symptoms through patient questioning and physical examination

IFOMPT begin by explaining that events and presentation of CAD are rare, however, thorough examination and case history taking to identify the presence of risk factors will indicate to clinicians where the use of manipulative therapy in the management of patients may need to be reconsidered.

The framework document focuses on the differentiation of symptoms from a CAD cause and a musculoskeletal cause, offering information relating to risk-factors, clinical presentations and physical examination to help assist clinicians in this process whilst also highlighting its limitations. A key point is that differentiation is not possible through physical examination alone, and single physical tests cannot be relied upon in isolation. Appropriate tests which have been planned and ordered appropriately must be combined with relevant questioning of the patient with critical consideration of the quality and completeness of the information acquired. Practitioners must accept that clinical decisions are made in the absence of certainty; decisions about the most appropriate care must be based on a risk-benefit analysis of the intended aim(s) of treatment.

Risk factors

Cervical arterial dysfunction

The following risk factors are associated with an increased risk of either internal carotid or vertebrobasilar arterial pathology and should be thoroughly assessed during the patient history (Arnold and Bousser, 2005; Kerry et al, 2008):

- Past history of trauma to cervical spine / cervical vessels
- History of migraine-type headache
- Hypertension
- Hypercholesterolemia / hyperlipidemia
- Cardiac disease, vascular disease, previous cerebrovascular accident or transient ischaemic attack
- Diabetes mellitus
- Blood clotting disorders / alterations in blood properties (e.g. hyperhomocysteinemia)
- Anticoagulant therapy
- Long-term use of steroids
- History of smoking
- Recent infection
- Immediately post partum
- Trivial head or neck trauma (Haneline and Lewkovich, 2005; Thomas et al, 2011)
- Absence of a plausible mechanical explanation for the patient's symptoms.

Upper cervical instability

The following risk factors are associated with the potential for bony or ligamentous compromise of the upper cervical spine (Cook et al 2005):

- History of trauma (e.g. whiplash, rugby neck injury)
- Throat infection
- Congenital collagenous compromise (e.g. syndromes: Down's, Ehlers-Danlos, Grisel, Morquio)
- Inflammatory arthritides (e.g. rheumatoid arthritis, ankylosing spondylitis)
- Recent neck/head/dental surgery.

	Internal carotid artery disease	Vertebrobasilar artery disease	Upper cervical instability
Early presentation	Mid-upper cervical pain, pain around ear and jaw (carotidynia), head pain (fronto-temporo-parietal); Ptosis; Lower cranial nerve dysfunction (VIII-XII); Acute onset of pain described as "unlike any other".	Mid-upper cervical pain; occipital headache; Acute onset of pain described as "unlike any other".	Neck and head pain; Feeling of instability; Cervical muscle hyperactivity; Constant support needed for head; Worsening symptoms.
Late presentation	Transient retinal dysfunction (scintillating scotoma, amaurosis fugax); Transient ischaemic attack; Cerebrovascular accident.	Hindbrain transient ischaemic attack (dizziness, diplopia, dysarthria, dysphagia, drop attacks, nausea, nystagmus, facial numbness, ataxia, vomiting, hoarseness, loss of short term memory, vagueness, hypotonia/limb	Bilateral foot and hand dysthaesia; Feeling of lump in throat; Metallic taste in mouth (VII); Arm and leg weakness; Lack of coordination bilaterally.

		weakness [arm or leg], anhidrosis [lack of facial sweating], hearing disturbances, malaise, perioral dysthaesia, photophobia, papillary changes, clumsiness and agitation); Cranial nerve dysfunction; Hindbrain stroke (e.g. Wallenberg's syndrome, locked-in syndrome).	
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Pages 18 – 21 of the document provide information regarding physical examination.

Patient-centred clinical reasoning and consent

Also key to the IFOMPT framework is patient-centred clinical reasoning and consent. Decisions about appropriate care should be made in conjunction with discussion with the patient. A helpful flowchart of clinical reasoning is provided on pages 4 and 23 of the document.

Patient choice is central to all stages of care, therefore expressed informed consent is required prior to treatment; in order for this to be obtained and valid the patient must be given information regarding risks and benefits relating specifically to the proposed treatment, and alternative treatment options available. Patient consent is paramount throughout treatment and should be continuously monitored; consent can take various forms which are explained in the framework.

Minimising risk and managing responses to treatment

In addition to information and guidance relating to patient-centred clinical reasoning and care, the IFOMPT framework outlines a number of ways in which practitioners can minimise risk and manage patient responses to treatment. Practitioners are urged to monitor adverse effects continuously throughout and after treatment, being able to manage emergency adverse situations should they arise. Patients should be re-assessed post-treatment and be provided with information on how to maintain the positive effects of their treatment and how to recognise and respond to common treatment reactions, or any adverse events if they occur.

The full framework is available at:

<http://www.ifompt.com/site/ifompt/files/pdf/Standards%20Committee/Standards%20Committee%20Documents//IFOMPT%20Examination%20cervical%20spine%20doc%20September%202012%20definitive.pdf>