Traditional and Complementary Medicine **Practice** Guidelines for T&CM Unit: **Chiropractic**

First Edition May 2012





TRADITIONAL &
COMPLEMENTARY
MEDICINE DIVISION
MINISTRY OF HEALTH
MALAYSIA



CHIROPRACTIC

Traditional and Complementary

Medicine Practice Guideline for T&CM Units





Traditional And Complementary Medicine Division

First edition 2012

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1. INTRODUCTION

In Malaysia, chiropractic is one of the forms of Manipulative Medicine, classified under Complementary Medicine, as defined by the Ministry of Health. It is an approach to human health through the basic premise that the abnormalities and misalignments of the spine can and do distort and interrupt the normal function of the nervous system and may create serious negative health consequences.

Chiropractic as a form of health care originated in the United States of America (USA) in 1895, with the first chiropractic school established in 1897, Palmer School of Chiropractic. Since then, it has continued to be one of the most prominent chiropractic colleges in the USA. Chiropractic has been growing and receiving continuous recognition and support, which has led to the growing demand for chiropractic care throughout the world.

As a profession, the primary belief is in natural and conservative methods of health care. Chiropractors believe in the human body's ability to heal itself without the use of surgery or medication. They pay careful attention to the biomechanic, structure and function of the spine, its effects on the musculoskeletal and neurological societies, and the role played by the proper function of these systems in the preservation and estoration of health. A chiropractor is one who is involved in the treatment and prevention of piscase, as well as the promotion of public health, and a wellness approach to patient healthcare.

The practice of chiropractic requires skilled practitioners. In some countries, e.g. USA, Canada and some European countries, chilogractic has been legally recognized and formal university degrees have been established these countries, the profession is regulated and the prescribed educational qualifications are calculated tory to the respective accrediting agencies. Even thus, the regulations for this practice and practice and profession is regulated and the prescribed educational qualifications are calculated and profession is regulated and the prescribed educational qualifications are calculated and profession is regulated and the prescribed educational qualifications are calculated and profession is regulated and the prescribed educational qualifications are calculated and profession is regulated and the prescribed educational qualifications are calculated and profession is regulated and the prescribed educational qualifications are calculated and profession is regulated and the prescribed educational qualifications are calculated and profession is regulated and the prescribed educational qualifications are calculated and profession is regulated and the prescribed education in the prescribed education is professionally and profession in the prescribed education in the prescribed education in the prescribed education is professionally and profession in the prescribed education in the prescribed education

However, many countries have not yet established chiropractic education or laws to regulate the practice of chiropractic, including Malaysia. Malaysia relies heavily on the various accrediting agencies as reference to ensure that those practicing in Malaysia are satisfactorily qualified to practice. The reversement of this guideline attempts to address this issue to ensure that practicing chiropractors at the Traditional and Complementary Medicine (T&CM) Units in Malaysian hospitals are skilled and fulfils the minimum requirements to practice, and that they will wisely prescribe the therapy after careful assessment of the risks and benefits of the treatment.

Anon (2011) History of Chiropractic Care [Online]. US: American Chiropractic Association. Retrieved from: http://www.acatoday.org/level3 css.cfm?T1ID=13&T2ID=61&T3ID=149 [Accessed 7 February 2011].

2. OBJECTIVES

The main objective of this guideline is to promote rational and safe practice of chiropractic as an adjunct treatment or as a temporary measure for pain disorders. It also aims to protect the public and patients, through these secondary objectives:

- To serve as a standard reference for chiropractors practicing in Malaysian hospitals, especially at the Traditional and Complementary Medicine (T&CM) Units;
- To serve as a reference for national authorities in monitoring the practice of chiropractic in Malaysia (at the T&CM Units).

3. **DEFINITIONS**

- 3.1 Chiropractic is a health profession concerned with the diagnosis, treatment and prevention of mechanical disorders of the musculoskeletal system and the effects of these disorders on the function of the nervous system and general health. There can amphasis on manual treatments including spinal manipulation or adjustment and other joint and soft tissue manipulation.
- 3.2 The word 'chiropractic' is derived from the greak words:
 - cheira hand; and
 - practos done
 - chiropractic done by hand

Chiropractic focuses on the pole a integral to maintaining health through maintenance of optimal neurophysic values. It is most often used to treat musculoskeletal conditions.

4. TREATMENT CRITERIA

These criteria are closed and decided by the editorial members, which comprises officers from Taglit (na) and complementary Medicine Division (T&CMD), Ministry of Health Malaysia, and Chiropractors, in view of the fact that chiropractic services are to be introduced at the Tradhonal and Complementary Medicine (T&CM) Units at Integrated Hospitals. To facilitate the implementation of the services, only certain patients with specific conditions will be treated at these Units, by referral from the respective physicians, until further review of the services.

4.1 Patient Selection

4.1.1 Age limit

For the time being, only adult patients ages of 18 years and above, will be accepted for chiropractic treatment at the T&CM unit. This age limit will be revised from time to time, or when the need arises.

4.1.2. General condition of the patient

Patients referred for chiropractic intervention;

- a. Should be stable clinically
- b. Not bedridden
- c. Not acutely psychotic, suicidal, delirious, manic, or has dementia
- d. Should be able to understand and follow instructions clearly
- e. Should not be intellectually challenged

4.2 Indications

For the time being as an introduction of chiropractic services, the focus will be in patients suffering from acute or chronic pain disorders. These indications shall be existed in the future once the services have been well established in the Integrated Hospitals

4.2.1 Low back pain^{2,3,4,5,6,7,8,9}

- a. Acute symptoms present for 4 weeks duration
- b. Subacute symptoms present for 4 weeks to less tran 3 months duration
- c. Chronic symptoms present for more than 3 months duration
- d. Secondary to mechanical causes such as prolapsed intervertebral disc, sports injury, degenerative describes etc.
- Maruti Ram Gudavalli, Jerrilyn A. Cambron, Maron McGregor, James Jedlicka, Michael Keenum, Alexander J. Ghanayem and Avinash G. Patwardhan (2001). A sudomised clinical trial and subgroup analysis to compare flexion-distraction with active exercise for chronic few basis pain.', European Spine Journal, Vol. 15, No. 7, pp. 1070-1082.
- Jerrilyn A. Cambron, M. Ram Guder in Sonald Hedekermarion Mcgregor, James Jedlicka, Michael Keenum, Alexander J. Ghanayem, Avinash G. Farraction and Sylvia E. Furner (2006) 'One-Year Follow-Up of a Randomized Clinical Trial Comparing Flexion Description with an Exercise Program for Chronic Low-Back Pain', *The Journal of Alternative Complementary Medicina* Vol. 2, No. 7, pp. 659-668.
- 4 A. Keller, J. Hayden Commander and M. van Tulder (2007) 'Effect sizes of non-surgical treatments of non-specific low-back pain ' marge an Nine Journal, Vol. 16, No. 11, pp. 1776-1788.
- Adam Wilkes The Adam Gregory, David Byfield And Peter W. McCarthy (2008) 'A Comparison Between Chiropractic Management and Pan Glinic Management for Chronic Low-Back Pain in a National Health Service Outpatient Clinic', The Journal of Alernative and Complementary Medicine, Vol. 14, No. 5, pp. 465-473.
- 6 Elic L. Hurditz, Hal Morgenstern, Philip Harber, Gerald F. Kominski, Thomas R. Belin (2002) 'A Randomized Trial of Medical are With and Without Physical Therapy and Chiropractic Care With and Without Physical Modalities for Patients With Low Back Pain: 6-Month Follow-Up Outcomes From the UCLA Low Back Pain Study', Spine, Vol. 27, No. 20, pp. 2193-2204.
- 7 Roger Chou and Laurie Hoyt Huffman (2007) 'Nonpharmacologic Therapies for Acute and Chronic Low Back Pain: A Review of the Evidence for an American Pain Society/American College of Physicians Clinical Practice Guideline', *Annals of Internal Medicine*, Vol. 147, No. 7, pp. 492-504.
- 8 Gary A. Globe, Craig E. Morris, Wayne M. Whalen, Ronald J. Farabaugh and Cheryl Hawk (2008) 'Chiropractic Management Of Low Back Disorders: Report From A Consensus Process', *Journal of Manipulative and Physiological Therapeutics*, Vol. 31, No. 9, pp. 651-658.
- 9 Roger Chou, Amir Qaseem, Vincenza Snow, Donald Casey, Thomas Cross Jr., Paul Shekelle and Douglas K. Owens (2007) 'Diagnosis and Treatment for Low Back Pain: A Joint Clinical Practice Guideline from the American College of Physicians and the American Pain Society', Annal of Internal Medicine, Vol. 147, No. 7, pp. 478-491.

4.2.2. Neck pain^{10,11,12,13}

- a. Chronic mechanical neck pain
- b. Not due to whiplash¹⁴

4.2.3. Sprains and strains

4.3. Contraindications 15,16

With thorough assessment, multiple caution-indicating risk factors presenting in a patient may indicate modification of or a contraindication to the desired treatment modality. Thus, the decision to administer treatment or not should be made after careful considerations of risk factor(s) present.

4.3.1. Absolute contraindications to spinal manipulative theres

- a. Anomalies such as dens hypoplasia, unstable os odontium, etc
- b. Acute fracture in the areas involved or in areas that could be adversely affected by chiropractic care
- c. Spinal cord tumour
- d. Acute infections such as osteomyelitis, reptic discitis, and tuberculosis of the spine
- e. Meningeal tumour
- f. Haematomas, whether spins ford or intracanalicular
- g Malignancy of the spring
- h. Frank disc herniation with a companying signs of progressive neurological deficit
- i Basilar inversion the upper cervical spine
- j. Arnold-Chiari malformation of the upper cervical spine

Eric L. Hurwitz, Hal Morgensch, Phys Harber, Gerald F. Kominski, Fei Yu and Alan H. Adams (2002) 'A Randomized Trial of Chiropractic Maniphatics and Mobilization for Patients With Neck Pain: Clinical Outcomes From the UCLA Neck-Pain Study', American Jurnal of Public Health, Vol. 92, No. 10, pp. 1634-1641.

¹¹ H. Vernon, B. K. Humphreys (2007) 'Manual Therapy for Neck Pain: an Overview of Randomized clinical Trials and Systematic Reviews, Kuri pa Medicophysica, Vol. 43, No. 1, pp. 91-118.

¹² Sidney M. Ru (instead, Charles E. Pfeifle, and Maurits W. van Tulder (200) 'The Benefits Outweigh The Risks For Patients Undergoing Chiropractic Care For Neck Pain: A Prospective, Millicenter, Cohort Study', *Journal of Manipulative and Physiological Therapeutics*, Vol. 30, No. 6, pp. 408-41.

¹³ JA Cleland, MJD Childs, JM Elliott, DS Teyhen, MRS Wainner, JM Whitman, BJ Sopky, JJ Godges, TW Flynn. (2008). Neck Pain: Clinical Practice Guidelines Linked to the International Classification of Functioning, Disability, and Health From the Orthopaedic Section of the American Physical Therapy Association. *Journal of Orthopaedic & Sports Physical Therapy*. Vol.38, No. 9.

¹⁴ Anderson-Peacock E, Blouin JS, Brayans R, Danis N, Furlan A, Marcoux H, Potter B, Ruegg R, Stein JG, White E (2005) 'Chiropractic clinical practice guideline: evidence-based treatment of adult neck pain not due to whiplash', *Journal of Canadian Chiropractic Association*, Vol. 3, No. 49, pp. 158-209.

¹⁵ WHO (2005) Guidelines on basic training and safety in chiropractic. Geneva: World Health Organisation.

¹⁶ Gary A. Globe, Craig E. Morris, Wayne M. Whalen, Ronald J. Farabaugh and Cheryl Hawk (2008) 'Chiropractic Management of Low Back Disorders; Report from a Consensus Process', *Journal of Manipulative and Psychological Therapeutics*, Vol. 31, No. 9, pp. 651-658.

- k. Dislocation of the vertebra
- I. Aggressive types of benign tumours, such as an aneurismal bone cyst, giant cell tumour, osteoblastoma or osteoid osteoma
- m. Internal fixation/stabilization devices no osseous manipulation may be performed, although soft tissue manipulation can be safely used. It is absolutely contraindicated in the spinal region in which the pathology, abnormality or device is located, or the immediate vicinity.
- n. Neoplastic disease of muscle or other soft tissue
- o. Positive Kernig's or Lhermitte's signs
- p. Congenital, generalized hypermobility
- q. Signs or patterns of instability
- r. Syringomyelia
- s. Hydrocephalus of unknown aetiology
- t. Diastematomyelia
- u. Cauda equina syndrome
- v. Unstable abdominal aortic aneurysm

4.3.2. Contraindications to joint manipulation by category of disorder are as outlined in Table 1. Table 1: Contraindications to joint manipulation by category of disorder.

Category	Absorte contraindications at the anatomical life or area of pathology	Relative-to-absolute contraindications	Relative contraindications
Articular derangements	Rheumatof arthritis Seronegatic of particular control gamentous Demineralization of gamentous laxity with accompanied by bluxation or dislocation Fractures, dislocation of light half fractures with signs of light help in the particular control instability Atlantoaxial instability Atlantoaxial instability		 Spondylolitis and spondylolisthesis with progressive slippage Articular hypermobility with uncertain joint stability Postsurgical joints or segments with no evidence of instability
Bone-weakening and destructive disorders	 Active juvenile avascular necessity Malignancies Osteomyelitis Septic arthritis Osteogenesis imperfecta 		 Osteoporosis Severe or painful disc pathology such as discitis or disc herniations
Circulatory and haematological disorders		Circular manages of vertebrokes and manages and particular syndrome, including patients with previous history of sycke Aneurysm evolving a major blood vessel.	 Blood dyscrasias (e.g. thrombocytopaenia, haemophilia or any bleeding tendencies) Anticoagulant therapy (e.g. warfarin therapy)
Neurological disorders	Signs and symptoms of; • Acute myelopathy • Intracranial hypertension • Meningitis • Acute cauda equina syndrome		A
Psychological factors			The represent relative contraindications to continued or persistent treatment, and may be referral; Mingering Nyp condriasis Those with dependent personalities

Adapted from: WHO Guidelines on basic training and safety in chiropractic. Geneva, 2005.

4.4. Precautions

Practicing chiropractors should practice caution when treating certain group of patients, such as those with these conditions;

- 4.4.1. Neurologic symptoms
- 4.4.2. Recent infection or surgery
- 4.4.3. Polyarthralgia
- 4.4.4. Any conditions listed as a relative contraindication in Table 1

4.5 Adverse Events^{3,17,18,19,20,21,22,23,24,25}

Chiropractic intervention is regarded as a relatively safe and effective procedure. However, complications may and can arise. Listed below are adverse event, that can arise from chiropractic intervention;

4.5.1. Serious adverse events

- a. Cervical region
 - · Vertebrobasilar accidents
 - Horner's syndrome
 - Diaphragmatic paralysis
 - Myelopathy
 - Cervical disc lesions
 - Pathological fraction
- b. Thoracic region
 - Rib fracture and costochondral separation
- c. Lumbar Reg

17 Edzard Ernst (2007) 'Adverse Mects (2007) al manipulation: a systematic review.', Journal of the Royal Society of Medicine, Vol. 100, No. 1, pp. 336-338

18 HW Thiel, JE Bolton, School Ty, JC Portlock (2007) 'Safety of Chiropractic Manipulation of the Cervical Spine: A Prospective National Transport of No. 21, pp. 2375-2378.

WL Chen, CH Chart L W. CH Lee (2006) 'Vertebral artery dissection and cerebellar infarction following chiropractic manipulation', Energylecty dedicine Journal, Vol. 23, No. 1, p. n.k. Online: Available from: www. Emjonline.com/cgi/content/full/23 11 Cccessed 5 May 2011).

20 R. J. Nadge L. J. Levner, T. Ahmed, G. Moonis, J. Chalela, K. Slawek and S. Imbesi (2003) 'Simultaneous bilateral internal caregid and vertebral artery dissection following chiropractic manipulation: case report and review of the literature. *Neuroradiology*, Vol. 45, No. 5, pp. 311-314.

- E Ernst (2010) 'Deaths after chiropractic: a review of published cases', *International Journal of Clinical Practice*, Vol. 64, No. 10, pp. 1162-1165.
- 22 Sunita Vohra, Bradley C. Johnston, Kristie Cramer and Kim Humphreys (2007) 'Adverse Events Associated With Pediatric Spinal Manipulation: A Systematic Review', *Paediatrics*, Vol. 119, No. 1, pp. 275-283.
- 23 Deanna M. Rothwell, Susan J. Bondy, J. Ivan Williams and Marie-Germaine Bousser (2001) 'Chiropractic Manipulation and Stroke: A Population-Based Case-Control Study ', Stroke, Vol. 32, No. 1, pp. 1054-1060.
- 24 J. David Cassidy, Eleanor Boyle, Pierre Co^te´, Yaohua He, Sheilah Hogg-Johnson, Frank L. Silver and Susan J. Bondy (2008) 'Risk of Vertebrobasilar Stroke and Chiropractic Care Results of a Population-Based Case-Control and Case-Crossover Study', European Spine Journal, Vol. 17, No. 1, pp. 176-183.
- 25 Eric L. Hurwitz, Hal Morgenstern, Maria Vassilaki, and Lu-May Chiang (2005) 'Frequency and Clinical Predictors of Adverse Reactions to Chiropractic Care in the UCLA Neck Pain Study', Spine, Vol. 30, No. 13, pp. 1477-1484.

- Increase in neurological symptoms that originally resulted from a disc injury
- · Cauda equina syndrome
- Lumbar dics herniation
- Rupture of abdominal aortic aneurysm
- d. Other vascular accidents
 - Arterial dissection
 - Stroke (haemorrhagic or ischemic)
 - · Dissecting aneurysm
 - · Ventricular haemorrhage
 - Sinus tear

4.5.1. Mild, transient adverse events^{26,27}

- a. Local discomfort
- b. Headache
- c. Tiredness
- d. Radiating discomfort
- e. Dizziness
- f. Nausea and vomiting
- g. Increased temperature of the
- h. Indigestion
- i. Pins and needles
- j. Vibrating pain
- k. Dull ache

5. TREATMENT PROCEDURES

5. 1 Standard Operating Procedure

All patients seeking treatment at the T&CM Unit should be referred by the respective attending medical officers, specialists or consultants, whereby, appropriate investigations and a definite diagnosis has been made (Refer Appendix 1 for the work process for chiropractic). The doctor shall provide the following information;

- a. Diagnosis
- b. Comorbid conditions
- c. Laboratory profiles
- d. Radio-imaging films and reports

²⁷ Barrett AJ, Breen AC (2000) 'Adverse effects of spinal manipulation', Journal of the Royal Society of Medicine, Vol. 93, No. 5, pp. 258-259.



²⁶ Clare Stevinson, MSc, Edzard Ernst (2002) 'Risks Associated with Spinal Manipulation', The American Journal of Medicine, Vol. 112, No. 7, pp. 566-571.

- e. Medications
- f. Other relevant information
- **5.1.2** Chiropractors shall attend to the patient at the T&CM Units.
- **5.1.3** A full assessment of the patient's condition shall be made and the appropriate treatment will be prescribed. Findings from the assessment and the treatment administered shall be recorded in the treatment card (Appendix 3).

5.2 Treatment Regime

5.2.1 Low back pain

The frequency and duration of chiropractic care varies between patients depending on many factors (e.g. severity of their condition, respond to care, pror history, comorbidities, aggravation of their condition or re-injury, post posture, anatomical defects, compliance, and patient deconditioning). Accordingly, patients require a tailored chiropractic treatment plan that takes these factors into consideration. It may be necessary for the chiropractor to adjust the frequency and/or duration of care if the patient exhibits a particular fast or slow recovery. Below are the suggested frequency and duration of execution of the chiropractor of the chiropractor of the chiropractor of the patient exhibits a particular fast or slow recovery. Below are the suggested frequency and duration of executions for low back pain;

Table 2: Frequency and duration for initial (trial) curse of chiropractic treatment for low back pain.

Stage of condition	Frequency	Duration (week)	Re-evaluate after (week)
Acute	3 times, weekly	2 – 4	2 – 4
Subacute	3 times, weekly	2 – 4	2 – 4
Chronic	2 – 3 times, weekly	2 – 4	2 – 4
Recurrent/flare-up	-3 tipes seekly	1 – 2	1 – 2

Adapted from: Globe et al. 1808) 'Chiropractic Management of Low Back Disorders; Report from a Consensus Process', Journal of Manipulative and Hyper Consensus Process', Vol. 31, No. 9, pp. 651-658.

Taple 3: We dency and duration for continuing courses of treatments for low back pain.

Stage of condition	Frequency	Duration (week)	Re-evaluate after (week)
Acute	2 - 3 times, weekly	2 – 4	4 – 12
Subacute	2 - 3 times, weekly	2 – 4	4 – 12
Chronic	1 – 3 times, weekly	2 – 4	2 – 12
Recurrent/flare-up	1 – 3 times, weekly	2 – 4	1 – 6

Adapted from: Globe et al (2008) 'Chiropractic Management of Low Back Disorders; Report from a Consensus Process', *Journal of Manipulative and Psychological Therapeutics*, Vol. 31, No. 9, pp. 651-658.

5.2.2 Neck pain, sprains and strains

Below are the suggested frequency of treatment and follow-up for neck pain, sprains and strains. Treatments may be modified to suit the patient based on the severity of their condition, respond to care, prior history, co-morbidities, aggravation of their condition or re-injury, poor posture, anatomical defects, compliance, and patient deconditioning.

 Table 4: Frequency and duration of chiropractic treatments for neck pain, sprains and strains

Initial trial	3 - 5 times, weekly	3 – 4	At treating
Follow-up care	2 - 3 times, weekly	3 – 4	Chiropractor's discretion

5.3 Monitoring and Follow Up

The patient's response to care should be monitored a each follow-up visit and through periodic reassessments. The frequency of reassessment opends on the patient's response. For instance, a patient who is responding a expected could be reassessed less frequent than someone who is responding slowly Re-injury, exacerbation of symptoms, or new symptoms (especially neurologic) that necessitate immediate reassessment. Patients should be provided with adequate information to enable them to make an informed decision about the type, duration and frequency of the care that they will receive.

Table 4: Example of outcome measures during reassessment.

Outcome Measures	Initial/Previous Visit	Current	Difference
Pain on 11-point NRS*/VAS**			
Low-back or peck risal illity index†			
Range of motion (global % of normal)			
Other			

^{*} Numeric Rating Scale, which ranges from 0 (no pain) to 10 (worst possible pain)

^{**} Visual Analogue Scale, which ranges from 0 (no pain) to 10 (worst possible pain)

[†] Oswestry Disability Index for low-back and Neck Disability Index for neck conditions

6. STANDARDS OF PRACTICE

6.1 Practice Facilities

6.1.1. Treatment room

- a. Each practice facility should have a dedicated room for treatment which is equipped with a treatment bed, equipment tray/trolley, and proper waste bins. Segregation of clinical wastes shall be done using the standard waste bag with appropriate colour coding²⁸.
- b. Treatment rooms should be well lighted and ventilated.
- c. There should be a regular cleaning schedule which is diligently adhered to keep the environment clean and safe.
- d. There should be proper management of spillage, soiled to taminated linen, and disposal of sharps and clinical waste.

6.1.2. Equipments

- a. All equipments should be maintained properly, ensure that it is in top working condition at all times.
- b. There should be a maintenance shedule, which is strictly adhered to, for all equipments used at the chiraptactic transment unit.

6.1.3. Cleanliness and sterility

- a. All practitioners must always maintain good personal hygiene.
- b. All practitioners should wash his/her hands prior to the examination of patients and starting treatment.
- c. The premise and all equipments used should be cleaned regularly and after each treatment session.
- d. Practition are required to take appropriate measures for prevention of
- e. All distruments used should be disinfected and sterilized according to the commended methods of sterilization and disinfection.

6.2 Documentations

General considerations

- a. All information must be recorded in a chronological order and entered as contemporaneously as possible.
- b. Records should not be backdated or altered.
- c. Corrections or additions should be initialled and dated.
- d. Charts or files should be fully documented and contain all relevant, objective information, extraneous information should not be included.

²⁸ DOE (2009) Guidelines on Handling and Management of Clinical Wastes in Malaysia. Malaysia: Department of Environment.

e. Records must be complete to provide the practitioner with information required for subsequent patient care or reporting to outside parties.

6.2.1. Legibility and clarity

- a. All records should be neat, organized and complete to provide adequate information requested by a subsequent healthcare provider, insurance company, and/or attorney. A dated record of what occurred on each visit and any significant changes in the clinical picture or assessment or care plan need to be noted.
- b. All entries should be written in ink.
- c. Entries should not be erased or altered with correction fluid/taberadhesive
- d. If the contents are changed, the practitioner should in the and date such changes in the corresponding margin.
- e. The method in which notes are recorded is a matter of ofference for each practitioner.
- f. All records must be in a language that has been agreed upon, i.e. Malay or English, typewritten or in a legible band writing.
- g. The patient's records are confidential and should be kept properly.

6.3 Ethics and Professionalism

At all times during the provision of teal ment; patients, practitioners should;

- **6.3.1.** Adhere to guideline for ethical conduct²⁹.
- **6.3.2.** Maintains clinical boundaries during the treatment through appropriate draping, chaperones and communication with the patient³⁰.
- **6.3.3.** Demonstrates responsible and caring concern for the patient.
- **6.3.4.** Responds appropriately to the patient's emotional reaction to treatment.
- **6.3.5.** Elicit patient's organized feedback on progress with clinical outcomes and provides the patient with appropriate education on ongoing care.
- **6.3.6.** Maintain in updated documentation on the treatment provided and the patient's
- Main in communication with the referring clinician or other healthcare professional as appropriate.

6.4 Emergency Protocol

6.4.1. Emergency medical services must be contacted immediately in the event of cardiorespiratory collapse.

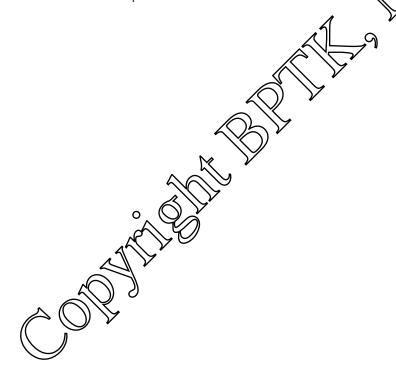
²⁹ Traditional & Complementary Medicine Division, MOH. Code of Ethics and Code of Practice for Traditional and Complementary Medicine Practitioners. Malaysia, 2007.

³⁰ GCC (2010) Code of Practice and Standard of Proficiency. 4th ed.UK: General Chiropractic Council.

- **6.4.2.** Patients should be referred to the nearest available healthcare facility in event of occurrence of complications or adverse events that are serious and/or requiring further medical care, with adequate information or account of events and procedures done.
- **6.4.3.** Appropriate measures should be taken whilst awaiting the arrival of medical help (e.g. provision of basic life support or first aid, or call for help).

7. CONCLUSION

This document is intended to serve as guide and a standard reference for practitioners bracticing. Chiropractic at the T&CM Units. However, the ultimate judgement regarding the appropriateness or suitability of therapy must be made by the practitioner based on the clinical data presented by the patient. We hope that this guideline will be able to assist them to wisely prescribe the therapy after careful assessment of risks and benefits. This guideline is drafted based on current available evidence and will be updated from time to time.



REFERENCES

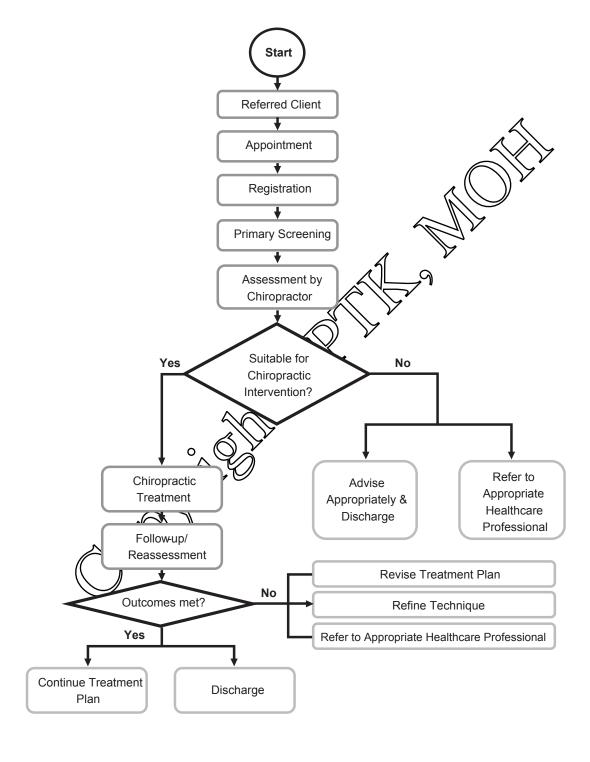
- Anon (2011) History of Chiropractic Care [Online]. US: American Chiropractic Association. Retrieved from: http://www.acatoday.org/level3 css.cfm?T1ID=13&T2ID=61&T3ID=149 [Accessed 7 February 2011].
- 2. Maruti Ram Gudavalli, Jerrilyn A. Cambron, Marion McGregor, James Jedlicka, Michael Keenum, Alexander J. Ghanayem and Avinash G. Patwardhan (2006) 'A randomised clinical trial and subgroup analysis to compare flexion-distraction with active exercise for chronic low back pain.', *European Spine Journal*, Vol. 15, No. 7, pp. 1070-1082.
- 3. Jerrilyn A. Cambron, M. Ram Gudavalli, Donald Hedekermarion Mcgregor, James Jedlicka Michael Keenum, Alexander J. Ghanayem, Avinash G. Patwardhan, and Sylvia E. Furner (2006) 'One-Year Follow-Up of a Randomized Clinical Trial Comparing Flexion Distraction with an Exercise Program for Chronic Low-Back Pain', *The Journal of Alternative Complementary Medicine* Vol. 2, Ny. 7, pp. 659-668.
- A. Keller, J. Hayden, C. Bombardier and M. van Tulder (2007) 'Effect sizes of nine surgical treatments of non-specific low-back pain', European Spine Journal, Vol. 16, No. 11 20 17 16-1788.
- 5. Adam Wilkey, Michael Gregory, David Byfield and Peter W. McCarthy (2008) A Comparison Between Chiropractic Management and Pain Clinic Management for Chronic Low-Pack Pain in a National Health Service Outpatient Clinic', *The Journal of Alternative and Complementary Medicine*, Vol. 14, No. 5, pp. 465-473.
- 6. Eric L. Hurwitz, Hal Morgenstern, Philip Harber, Gerald F. Kontriski, Thomas R. Belin (2002) 'A Randomized Trial of Medical Care With and Without Physical Modalities for Patients With Low Back Pain: 6-Month Follow-Up Outcomes From the UCLA Low Back Pain Study', Spine, 127, No. 20, pp. 2193-2204.
- 7. Roger Chou and Laurie Hoyt Huffman (2007) Women armacologic Therapies for Acute and Chronic Low Back Pain: A Review of the Evidence for American Pain Society/American College of Physicians Clinical Practice Guideline, Abrals of Internal Medicine, Vol. 147, No. 7, pp. 492-504.
- Gary A. Globe, Craig E. Morris, Wavre M. Whalen, Ronald J. Farabaugh and Cheryl Hawk (2008)
 'Chiropractic Management Of Low Back Disorders: Report From A Consensus Process', Journal of Manipulative and Physiological Transputics, Vol. 31, No. 9, pp. 651-658.
- 9. Roger Chou, Amir Qaseerr Vince Za Snow, Donald Casey, Thomas Cross Jr., Paul Shekelle and Douglas K. Owens (2007) Diagnosis and Treatment for Low Back Pain: A Joint Clinical Practice Guideline from the American College of Physicians and the American Pain Society', Annal of Internal Medicine, Vol. 147 (No.7, p). 478-491.
- 10. Eric L. Hurwitz Han Megenstern, Philip Harber, Gerald F. Kominski, Fei Yu and Alan H. Adams (2002) 'A Randomized Trail of Chiropractic Manipulation and Mobilization for Patients With Neck Pain: Clinical Outcomes From the UCLA Neck-Pain Study', *American Journal of Public Health*, Vol. 92, No. 10, pp. 1634 1641.
- 11. H. Vernon, B. K. Humphreys (2007) 'Manual Therapy for Neck Pain: an Overview of Randomized clinical Trials and Systematic Reviews', *Europa Medicophysica*, Vol. 43, No. 1, pp. 91-118.
- 12. Sidney M. Rubinstein, Charlotte Leboeuf-Yde, Dirk L. Knol, Tammy E. de Koekkoek, Charles E. Pfeifle, and Maurits W. van Tulder (2007) 'The Benefits Outweigh The Risks For Patients Undergoing Chiropractic Care For Neck Pain: A Prospective, Multicenter, Cohort Study', *Journal of Manipulative and Physiological Therapeutics*, Vol. 30, No. 6, pp. 408-418.
- 13. JA Cleland, MJD Childs, JM Elliott, DS Teyhen, MRS Wainner, JM Whitman, BJ Sopky, JJ Godges, TW Flynn. (2008). Neck Pain: Clinical Practice Guidelines Linked to the International Classification of

- Functioning, Disability, and Health From the Orthopaedic Section of the American Physical Therapy Association. *Journal of Orthopaedic & Sports Physical Therapy*. Vol.38, No. 9.
- 14. Anderson-Peacock E, Blouin JS, Brayans R, Danis N, Furlan A, Marcoux H, Potter B, Ruegg R, Stein JG, White E (2005) 'Chiropractic clinical practice guideline: evidence-based treatment of adult neck pain not due to whiplash', *Journal of Canadian Chiropractic Association*, Vol. 3, No. 49, pp. 158-209.
- 15. WHO (2005) *WHO Guidelines on basic training and safety in chiropractic.* Geneva: World Health Organisation.
- 16. Gary A. Globe, Craig E. Morris, Wayne M. Whalen, Ronald J. Farabaugh and Cheryl Hawk (2008) 'Chiropractic Management of Low Back Disorders; Report from a Consencus Process', *Journal of Manipulative and Psychological Therapeutics*, Vol. 31, No. 9, pp. 651-658.
- 17. Edzard Ernst (2007) 'Adverse effects of spinal manipulation: a systematic review' Journal of the Royal Society of Medicine, Vol. 100, No. 1, pp. 330-338.
- 18. HW Thiel, JE Bolton, S Docherty, JC Portlock (2007) 'Safety of Chiropractic Manipulation of the Cervical Spine: A Prospective National Survey', *Spine*, Vol. 32, No. 21, pp. 2275-2378.)
- 19. WL Chen, CH Chern, YL Wu, CH Lee (2006) 'Vertebral artery dissection and cerebellar infarction following chiropractic manipulation', *Emergency Medicine Journal* vol. 1, p. n.k. Online: Available from: www. Emjonline.com/cgi/content/full/23/1/e1 (Accessed 5 May 2011).
- 20. R.N.Nadgir, L.A.Loevner, T.Ahmed, G.Moonis, J.Chalela, K.Slavek and S.Inhoesi (2003) 'Simultaneous bilateral internal carotid and vertebral artery dissection following chiropractic manipulation: case report and review of the literature', *Neuroradiology*, Vo. 43, 10-5, pp. 311-314.
- 21. E Ernst (2010) 'Deaths after chiropractic: a review of published asses', *International Journal of Clinical Practice*, Vol. 64, No. 10, pp. 1162-1165.
- 22. Sunita Vohra, Bradley C. Johnston, Kristie Gamel and Kim Humphreys (2007) 'Adverse Events Associated With Pediatric Spinal Manipulation: A Systematic Review', *Paediatrics*, Vol. 119, No. 1, pp. 275-283.
- 23. Deanna M. Rothwell, Susan J. Bondy, J. Williams and Marie-Germaine Bousser (2001) 'Chiropractic Manipulation and Stroke A Population-Based Case-Control Study', *Stroke*, Vol. 32, No. 1, pp. 1054-1060.
- 24. J. David Cassidy, Eleanor Boyle Riene Co^{*}te^{*}, Yaohua He, Sheilah Hogg-Johnson, Frank L. Silver and Susan J. Bondy (2008) 'Risk of Verter robasilar Stroke and Chiropractic Care Results of a Population-Based Case-Control and Case-Crussover Study', European Spine Journal, Vol. 17, No. 1, pp. 176-183.
- 25. Eric L. Hurwitz, Hal McGenstern, Maria Vassilaki, and Lu-May Chiang (2005) 'Frequency and Clinical Predictors of Adverse leactions to Chiropractic Care in the UCLA Neck Pain Study', *Spine*, Vol. 30, No. 13, pp. 147(-1484.)
- 26. Clare Stevipson, Wec, Edzard Ernst (2002) 'Risks Associated with Spinal Manipulation', *The American Journal of Medicine*, Vol. 112, No. 7, pp. 566-571.
- 27. Barrett AJ, Breen AC (2000) 'Adverse effects of spinal manipulation', *Journal of the Royal Society of Medicine* Vol. 93, No. 5, pp. 258-259.
- 28. DOE (2009) *Guidelines on Handling and Management of Clinical Wastes in Malaysia*. Malaysia: Department of Environment.
- 29. Traditional & Complementary Medicine Division (2007). Code of Ethics and Code of Practice for Traditional and Complementary Medicine Practitioners. Malaysia: Ministry of Health.
- 30. GCC (2010) Code of Practice and Standard of Proficiency. 4th ed.UK: General Chiropractic Council.
- 31. National Institute for Health and Clinical Excellence (2009) *NICE Clinical Guideline: Low back pain, early management of persistent non-specific low back pain.* London: National Institute for Health and Clinical Excellence.

Appendices

Documents to be utilised at the T&CM Units

Appendix 1: Overview of the Work Process for Chiropractors.



Appendix 2: Screening Form

KEMENTERIAN KESIHATAN MALAYSIA UNIT PERUBATAN TRADISIONAL DAN KOMPLEMENTARI HOSPITAL

BORANG SARINGAN

(SCREENING FORM) Nama No. K/Pengenalan Tarikh lahir: Alamat Tarikh: Masa: Diagnosa Pesakit (Patient's Diagnosis): Aduan Pesakit (Chief Complaints): Sejarah Perubatan yang lalu (Past medical history): Sejarah pembedahan yang lalu (Past surgical Darah tinggi (hypertension) nstory): Kencing manis (diabetes mellitus) Penyakit jantung (ischaemic heart disease) Sawan (epilepsy) Lelah (asthma) Barah (cancer) Lain-lain: Sejarah Pengambilan Ubat-ubatan (Medication Keputusan Ujian jika ada (investic History): if available): Alahan (Allergy)

Appendix 3: Consent Form

CONSENT FORM FOR CHIROPRACTIC TREATMENT

Please read the following information carefully. If there are any questions, do not hesitate to ask your attending practitioner. * Chiropractors are required to explain the following to the clients:

	What is chiropractic? It is one of the forms of Manipulative Medicine, classified under Complementary Medicine. It is an approach to human health through the basic premise that the abnormalities and misalignments of the spine can and do distort and interrupt the normal function of the nervous system and may create serious negative health consequences. Is it safe? Chiropractic intervention is regarded as a relatively safe and effective procedure.	II. Mild, transient adverse events a. Local discomfort b. Headache c. Tiredness d. Radiating discomfort e. Dizziness f. Nausea and vomiting g. Increased temperature of h. Indigestion i. Pins and needles j. Vibrating pain k. Dull ache		>
	Does it have any adverse effects? However, complications may and can arise. Listed below are adverse events that can arise from chiropractic intervention; I. Serious Adverse Events a. Vascular accidents	What should I inform my therapitreatment? You should let your therapist know if you any medical conditions such as listed be Please tock (√) the relevant by	ı are suff elow:	
l	Stroke (haemorrhagic or ischemic)Dissecting aneurysm	Conditions	Yes	No
l	Intracranial haemorrhage	Preynancy		
l	b. Horner's syndrome	Cardiovascular disorders		
l	c. Diaphragmatic paralysis d. Myelopathy	Painful joint conditions		
l	e. Vertebral disc lesions	Steoporosis		
f. Pathological fractures		Neurological symptoms		
l	g. Rib fracture and costochondral sectoration h. Increase in neurological symptotics	Recent infections or surgery	_	
l	i. Cauda equina syndrome	Psychiatric conditions HIV/AIDS		
l	j. Rupture of abdominal aoric anelpysin	Bleeding/blood disorders	_	
l		Skin conditions, including site affected	_	
l		Okin conditions, including site affected		
	I understand that Law assumy questions pertaining to the withdraw my consell to stop the treatment at any time through been explained to me, and I understand the explanation given in the law agree for the treatment to be carried out on more than the proof of the confidential and will not be disclosed to the confidential and will not be disclo	e treatment before signing this form. I could, if to out the procedure. The procedure, its risks and ren. I agree that the above information providene. I also understand that a record of the treatment.	nd benefi ed is true ment give	ts has e. n shall
	PATIENT/LEGAL GUARDIAN	WITNESS		
	Signature:	Signature:		
	Full Name:	Witness:		
	Identity Card Number:	Identity Card Number:		
	PRACTITIONER Full Name: Signa	ature:	Date :	

Appendix 4: Chiropractic Clerking Form

	L & COMPLEMENTARY MEDICINE UNIT			
				HOSPITAL
PATIENT INFORMATION				
	TATIENT			// >>
Name:		I/C No:		Registration No.
Address:		Age:	<u> </u>	Gender:
		Tel. No:		Race:
Postcode: State:	:	1	(A)	
Referring Physician/Unit:			7	
	L SIGNS			
Weight (kg):	Blood pressure	(mmHg):	Temper	rature (°C):
Height (cm):			Pulse ra	ate (per minute):
	HIS	TORY	·	
Chief complaint:		Past surgical	history:	
Past medical history:		Treatment his	story:	
		Allergy:		

PATIENT ASSESSMENT					
Physical examination:					
Pain score: 0					
Suitable for Chiropractic Not suitable for Chiropractic					
TREATMENT PLAN					
Treatment regime:					
Practitioner's name:					
Signature: Date:					

Appendix 5: List A: Contraindications to chiropractic treatment

List A

Contraindications to chiropractic treatment

I. Absolute contraindications to spinal manipulative therapy a. Anomalies such as dens hypoplasia, unstable os odontium, etc b. Acute fracture c. Spinal cord tumour d. Acute infections such as osteomyelitis, septic discitis, and tuberculos of e. Meningeal tumour f. Haematomas, whether spinal cord or intracanalicular g. Malignancy of the spine h. Frank disc herniation with accompanying signs of progressive neurological deficit i. Basilar invagination of the upper cervical spine j. Arnold-Chiari malformation of the upper cervica pri k. Dislocation of the vertebra I. Aggressive types of benign tumours, sugar as an aneurismal bone cyst, giant cell tumour, osteoblastoma or osteoid oste m. Internal fixation/stabilization device n. Neoplastic disease of muscle or other o. Positive Kernig's or Lhermitte's signs p. Congenital, generalized hyper q. Signs or patterns of inst r. Syringomyelia s. Hydrocephalus of etiology t. Diastematomyell u. Cauda equina dominal aortic aneurysm v. Unstable

Appendix 5: List A: Contraindications to chiropractic treatment (continue).

Category	Absolute contraindications at the anatomical site or area of pathology	Relative-to-absolute contraindications	Relative contraindications
Articular derangements	Rheumatoid arthritis Seronegative spondyloarthropies Demineralization or ligamentous laxity with anatomical subluxation or dislocation Fractures, dislocations and healed fractures with signs of ligamentous rupture or instability Atlantoaxial instability		Spondylolitis and spondylolisthesis with progressive slippage Articular hypermobility with uncertain joint stability Postsurgical joints of segments (with no evidence of instability)
Bone- weakening and destructive disorders	Active juvenile avascular necrosis Malignancies Osteomyelitis Septic arthritis Osteogenesis imperfecta		• Osteoporosis Pevere or painful disc pathology such as discitis or disc herniations
Circulatory and aematological disorders		Ollnical Wanifestation of very ebrobasilar us officiency syndrome, including patients with previous history of stroke • Aneurysm involving a major blood vessel.	Blood dyscrasias (e.g. thrombocytopaenia, haemophilia or any bleeding tendencies) Anticoagulant therapy (e.g. warfarin therapy)
Neurological disorders	Signs and symptoms of Acute myelypady Intractamathypertension Myellinguis Acute cluda equina syntrode		
Psychological factors			These represent relative contraindications to continued or persistent treatment, and may need referral; Malingering Hysteria Hypochondriasis Those with dependent personalities

Appendix 6: Chiropractic Reassessment Form.

TRADITIONAL & COMPLEMENTARY MEDICINE UNIT						
	HOSPITAL					
PATIENT INFORMATION						
Name: Registration No:						
I/C No:	Visit No:		Date:			
Practitioner's Name:						
	1 ST \	VISIT				
Treatment:	Pain Score:		ODI*:			
	NDI†:	.1	ROM‡:	7		
		OUS VISIT	, ,			
Treatment:	Pain Score:		ODI* :			
	NDI: ROM‡:					
		ENT VISIT				
Treatment:	Pain Score:		ODI*:			
			ROM‡:			
		CLUSION	•			
Outcome measures Pr	revious Visit	Current V	isit	Difference		
Pain Score						
ODI						
NDI O						
ROM (\sqrt{tick the appropriate box)}						
Recommendations: (\(\sqrt{tick the approximation of treatment}\)	рргоргіате вох)					
Continue current treatment re	egime					
Referral to other healthcare p						
Others:						
Practitioner's Signature:						

^{*} ODI - Oswestry Disability Index for low-back pain

[†] NDI – Neck Disability Index for neck pain

[‡] ROM – Range of Motion

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