



<b>Department:</b>	Rehabilitation Centre		
<b>Document:</b>	Multidisciplinary Policy and Procedure		
<b>Title:</b>	Physiotherapy Protocol for Stroke		
<b>Applies To:</b>	All Physiotherapist, Physicians and Nurses		
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## 1. PURPOSE:

- 1.1 Provide intensive, individualized rehabilitation.
- 1.2 Maximize each person's functional abilities and level of independence.
- 1.3 Provide extensive training and education for the person and their family.
- 1.4 Rebuild the person's quality of life.
- 1.5 Organize activities that facilitate a smooth transition back to their home, community, school and/or work.

## 2. DEFINITIONS:

- 2.1 Stroke occurs when part of the brain loses its blood supply and stops working. This causes the part of the body that the injured brain controls to stop working. Also called a cerebrovascular accident, CVA, or "brain attack."
- 2.2 There are two major categories of brain damage in stroke patients
  - 2.2.1 Ischemia, which is a lack of blood flow depriving brain tissue of needed fuel and oxygen
  - 2.2.2 Haemorrhage, which is the release of blood into the brain and into extravascular spaces within the cranium.

## 3. POLICY:

- 3.1 Patient should have a referral form from Neurologist or Rehab doctors.
- 3.2 Patient will be evaluated and assessed by the Physiotherapist.
- 3.3 Appointment will be given depending on the availability of the therapist schedule and severity of the case.
- 3.4 The patient's condition is re-evaluated after one month of treatment or after any change her condition if she needs a consultation from a rehabilitation doctor or discharging the patient.
- 3.5 The patient is given home exercises after the first treatment session.

## 4. PROCEDURE:

- 4.1 The patient initially has referral form from Neurologist or Rehab doctors whom should provide the patient with complete referral form.
- 4.2 The doctor will determine the goals of treatment after the initial evaluation
- 4.3 In the first visit,
  - 4.3.1 Physiotherapist must take medical history for patient
  - 4.3.2 Physiotherapist Discuss the patient's symptoms in detail with the patient's family.
  - 4.3.3 Detecting risk factors associated with the condition
  - 4.3.4 General assessment for patient movement
- 4.4 There are some red flags that a physiotherapist should take note of:
  - 4.4.1 Sudden onset of weakness or numbness on one side of the body.
  - 4.4.2 Sudden difficulty seeing in one or both eyes.
  - 4.4.3 Sudden speech difficulty or confusion.

- 4.4.4 Sudden onset of dizziness, trouble walking or loss of balance.
- 4.4.5 Sudden, severe headache with no known cause.
- 4.5 Management:
  - 4.5.1 Plan of treating Acute stage:
    - 4.5.1.1 The highest priorities during this early phase are to prevent a recurrent stroke and complications, ensure proper management of general health functions, mobilize the patient, encourage resumption of self-care activities, and provide emotional support to the patient and family
    - 4.5.1.2 Positioning: Therapeutic positioning aims to reduce skin damage, limb swelling, shoulder pain or subluxation, and discomfort, and maximise function and maintain soft tissue length.
    - 4.5.1.3 Range of motion exercises (ROM): passive, active assisted and active ROM exercises
  - 4.5.2 Plan of treating in sub-Acute stage:
    - 4.5.2.1 Treatment of improvement of somatosensory function of the paretic extremities
    - 4.5.2.2 Improving motor control (Neurofacilitatory Techniques: Bobath, Brunnstrom, Rood, Proprioceptive neuromuscular facilitation (PNF).
    - 4.5.2.3 Learning theory approach: (Conductive education, Motor relearning theory)
    - 4.5.2.4 Functional electrical stimulation (FES)
    - 4.5.2.5 Biofeedback
    - 4.5.2.6 Balance retraining
    - 4.5.2.7 Functional Mobility Training
    - 4.5.2.8 Gait re-education
- 4.6 Frequency and duration of treatment:
  - 4.6.1 Frequency of visits will depend on severity of the case (1-3 times / week).
  - 4.6.2 Timing will depend on the availability of the physiotherapist & patient condition.
- 4.7 The therapist must explain to the patient the condition, home instructions, and exercises
- 4.8 Discharge Planning:
  - 4.8.1 Any patient after 1month of treatment is re-evaluated by the therapist to see if the planned goal has been reached or not.
  - 4.8.2 If the patient exceeds 1 month of treatment or more without any noticeable improvement, a consultation is requested from the rehabilitation doctor or to take an opinion based on the rehabilitation program. Either the patient is discharged to complete the treatment at home or he is transferred to a higher rehabilitation centre for intensive treatment.
  - 4.8.3 If the patient's condition improves during the 1month treatment period, during which the treatment method is changed according to the patient's need and the treatment period is extended according to the vision of the therapist and upon achieving the desired goal, the patient is discharged.
  - 4.8.4 Any patient who reaches the treatment goals set by the therapist is re-evaluated and discharged.
  - 4.8.5 Patients who were recently discharged from rehabilitation after one month of treatment and became the utmost goal of treatment is to maintenance only will not be accepted in the Rehabilitation Department.

## 5. MATERIALS AND EQUIPMENT:

- 5.1 Hot Moist Pack (HMP) Hydro-collator unit.
- 5.2 Transcutaneous electrical nerve stimulation (TENS)
- 5.3 Electric muscle stimulator (EMS)
- 5.4 Ergometer.
- 5.5 Vestibular Ball.
- 5.6 Treadmill.

## 6. RESPONSIBILITIES:

- 6.1 Physician: Assess, diagnose and prescribe medicine.
- 6.2 Physiotherapist: Initial assessment, evaluates and fills out the General Evaluation Form and documents data in the Referral Form.
- 6.3 Nurse: Triage, and if the patient is more than 12, she should help male physiotherapist to do physiotherapy.

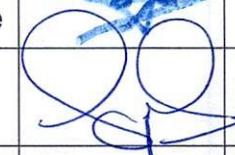
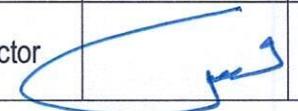
## 7. APPENDICES:

- 7.1 Referral form. . (Electronic)
- 7.2 Assessment forms. . (Electronic)
- 7.3 Follow up notes. . (Electronic)
- 7.4 Discharge form. . (Electronic)
- 7.5 Education form. . (Electronic)

## 8. REFERENCES:

- 8.1 Physiotherapy Department Protocols in MCH- Al-Jouf.
- 8.2 Rehabilitation centre in king Khaled Hospital- Hafer-Albatin

## 9. APPROVALS:

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