

APPENDIX A

VCD FOR HOME REHABILITATION

(ATTACHED WITH THE THESIS)

Development audiovisual materials in video CD of home rehabilitation programs for ischemic stroke patients was implemented through five major steps:

1. Researcher review and produce audiovisual materials in video CD
2. Expert review and comment on audiovisual materials in video CD
3. Testing of the audiovisual materials in video CD with stroke patients and stroke patients have given the comment about audiovisual materials in video CD
4. Pilot study
5. Revise audiovisual materials in video CD

The research is intended to require documentation for audiovisual materials in video CD to following:

1. Based on principles of medical knowledge and exercise physiology
2. Thai language
3. Easy to understanding
4. Illustrations are clear and not confused
5. Easier to communicate between physical therapist and patients.
6. Individual program
7. The content should cover the patient's symptoms.

The content of audiovisual materials in video CD based on principles of exercise physiology and motor learning. It was developed by experts, stroke patients, physical therapists, occupational therapists, and speech therapists. It consisted of 4 video CD of rehabilitation procedures.

1. Upper extremities exercise (Passive and assisted exercise)

- 1) Shoulder joint: flexion
- 2) Shoulder joint: extension
- 3) Shoulder joint: extension in shoulder abduction 90 degree
- 4) Shoulder joint: external rotation
- 5) Shoulder joint: internal rotation
- 6) Shoulder joint: abduction
- 7) Shoulder joint: adduction
- 8) Shoulder joint: horizontal adduction
- 9) Elbow joint: flexion
- 10) Elbow joint: extension
- 11) Elbow joint: pronation
- 12) Elbow joint: supination
- 13) Wrist joint: extension in pronation
- 14) Wrist joint: extension in supination
- 15) Wrist joint: deviation
- 16) Wrist joint: rotation
- 17) Metacarpophalangeal joint: extension
- 18) Interphalangeal joint: extension
- 19) Interphalangeal joint: flexion
- 20) Interphalangeal joint: rotation
- 21) Fingers: abduction
- 22) Fingers: adduction
- 23) Thumb movements

2. Lower extremities exercise (Passive and assisted exercise)

- 1) Hip joint: flexion with knee flexion
- 2) Hip joint: extension

- 3) Hip joint: abduction
- 4) Hip joint: adduction
- 5) Hip joint: external rotation
- 6) Hip joint: internal rotation
- 7) Ankle joint: dorsiflexion
- 8) Ankle joint: plantarflexion
- 9) Metatarsophalangeal joint and interphalangeal joint: flexion
- 10) Metatarsophalangeal joint and interphalangeal joint : extension
- 11) Metatarsophalangeal joint and interphalangeal joint : rotation
- 12) Toes: abduction
- 13) Toes: adduction

3. Upper and lower extremities exercise (Active and resisted exercise)

- 1) Shoulder joint: flexion
- 2) Reaching
- 3) Upper body: rotation
- 4) Bridging on both legs
- 5) Bridging on one leg
- 6) Weight bearing on hand in sitting position

4. Activity daily living

- 1) Supine lying
- 2) Side lying on affected side
- 3) Side lying on unaffected side
- 4) Transfer: move to the side
- 5) Transfer: move up and down
- 6) Supine lying to side lying (unaffected side)
- 7) Balance: side lying
- 8) Balance: sitting
- 9) Progression: sitting balance
- 10) Balance in wheelchair: move to the front
- 11) Balance in wheelchair: touch the floor

- 12) Balance in wheelchair: move to the side
- 13) Balance in wheelchair: upper body rotation to the right
- 14) Balance in wheelchair: upper body rotation to the left
- 15) Balance: standing
- 16) What is wheelchair?
- 17) Footplate of wheelchair
- 18) Wheelchair armrest
- 19) How to put the foot in affected side on the footplate?
- 20) How to use wheelchair?: move forward
- 21) How to use wheelchair?: move backward
- 22) Side lying to sitting
- 23) Sitting to side lying
- 24) Transfer from wheelchair to bed
- 25) Transfer from bed to wheelchair
- 26) Sitting to standing: in wheelchair
- 27) Standing to sitting: in wheelchair
- 28) Transfer from wheelchair to car
- 29) Transfer from car to the wheelchair
- 30) Transfer from wheelchair to chair
- 31) Transfer from chair to the wheelchair
- 32) Transfer from wheelchair to flush toilet
- 33) Transfer from flush toilet to the wheelchair
- 34) Stairs: Step-up
- 35) Stairs: Step-down
- 36) Putting on the shirt
- 37) Taking off the shirt
- 38) Putting on the pants in standing position
- 39) Putting on the pants in supine lying position
- 40) Taking off the pants in standing position
- 41) Taking off the pants in supine lying position
- 42) Putting on the socks
- 43) Taking off the socks

- 44) Putting on the shoes
- 45) Taking off the shoes
- 46) Putting on the brassiere
- 47) Taking off the brassiere
- 48) How to use the cane?
- 49) Stairs: Step-up by cane
- 50) Stairs: Step-down by cane
- 51) Walking

The references were followed:

1. Pajaree K Cerebral Vascular Disease Rehabilitation. Bangkok: Technology – Medicine, Siriraj Hospital. Mahidol University; 2004.
2. Deagsuwan P. Stroke silent assassin aware remote threat of Cerebral Vascular Disease: Kai Moh Magazine; 2005.
3. Archanupap S. Stroke: Moh Chao Ban Magazine; 2004.
4. Srisuk S, Heangkeaw W, Wongsirinawarat M. Physical therapy in stroke patients. Movement Science and Physical Therapy, Faculty of Applied Mahidol University V J Printing Limited, 2004.
5. Bobath B. Adult hemiplegia: Evaluation and treatment, 3 rd edition. London, William Heinemann Medical Book. 1990.
6. Kisner C, Colby LA. Therapeutic exercise: Foundations and techniques, 3 rd edition. Philadelphia, FA Davis. 1996.
7. M. Pollack PD. Rehabilitation of patient after stroke. MJA 2002; 177 (8) :452-456.
8. Roth EJ, Harvey RL. Rehabilitation of stroke syndrome. In Bradom RL. Physical medicine and rehabilitation. Philadelphia, WB Saunders. 1996.
9. Ryerson SD. Hemiplegia. In Umphred DA. Neurological rehabilitation, 4 th edition. Missouri, Mosy. 2001; 7.

This study developed instrument (audiovisual materials in video CD) of home rehabilitation programs for ischemic stroke patients. The sample of pilot study was 10 stroke patients, 5 male and 5 women. There were 5 (50%) patients with right hemisphere stroke. The mean (SD) age was 65 (7) years and 27.6 (1.4) m²/kg were BMI.

The duration and type of therapy were recorded in a protocol by the therapist. Each home program lasted approximately 1 hour. Patients or caregivers were asked to keep diaries between therapy sessions on time and type of training. Caregivers were instructed how to assist the patient in the way that allowed the patient to use his or her functional skills as much as possible.

The intervention was a home-based individual's exercise program provided by a physical therapist once a month for 3 months. The physical therapist evaluated a range of functions related to indoor and outdoor mobility and some basic activities of daily living before providing home rehabilitation program for the stroke patients. Individual counseling, which focused on education, applying information learned in practical situations, and solving problems occurring at home, was offered to the caregiver if needed.

Table 4 Time Frame

Timing Activities	July 2006 – June 2007					
	Jul Aug 2006	Sep Oct 2006	Nov Dec 2006	Jan Feb 2007	Mar Apr 2007	May Jun 2007
1.Researcher review and produce audiovisual materials in video CD	/					
2.Expert review and comment on audiovisual materials in video CD		/				
3.Testing of the audiovisual materials in video CD with stroke patients and stroke patients have given the comment about audiovisual materials in video CD			/			
4.Pilot study				/	/	
5.Revise audiovisual materials in video CD						/