

# Case study

**Gender:** Female

**Age:** 56 years

**Diagnosis:** left cerebral vascular accident (CVA)

## **Brief description of the diagnosis:**

Stroke is the death of brain cells due to the lack of oxygen It can either present as hemorrhagic or ischemic in nature.

## **Risk factors of CVA include:**

- Hypertension and hypercholesterolemia
- It may lead to neurological, psychological, speech and musculoskeletal complications.

## **The symptoms the patient has:**

- Right hemiplegia
- Right sided neglect
- Speech difficulties

## **Occupational therapy process:**

- **Interviewing the patient:**

### **1. Past:**

#### **Medical History:**

- Hypertension
- Hypercholesterolemia

#### **Roles and Occupations:**

- Independent in self-care
- ‘Stay at home’ mother
- Took charge of matters at home such as:
  - Cleaning
  - Shopping
  - Gardening

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- Laundry
- Enjoys cooking for family

## 2. **Present**

### Medical History:

- Stroke

### Roles and Occupations:

- Needs assistance in most self-care tasks
- Loss of previous role and not engaging in occupations meaningful to her

## 3. **Future**

- The patient felt afraid and pointless to talk about the future, worrying that she may have another stroke if she engaged in activity.

## 4. **Occupational performance challenges:**

- Right hemiplegia with increased spasticity in right arm and leg, causing difficulty in:
  - Sitting
  - Coordination of movement
  - Tasks that require her hands due to being right handed
  - Unable to feel sensations on right hand
- Feels she cannot remember things as easily and may not know the time and place she is at
- Right sided neglect with visual agnosia, resulting in difficulty :
  - washing right side
  - awareness of people approaching from affected side
  - interacting with others
- Expressive dysphagia hinders communication with others.
- Feeling low mostly
  - Feels useless
  - Embarrassed that people are taking care of her
- Fatigues easily

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## 5. Concerns

- Family unable to function as she is unable to manage the household
- A burden to family, especially her husband who needs to manage the household together with the pressure at work now that she is in hospital
- Children's studies and social life may be affected as they may be concerned about Meera and visiting her in hospital may affect their daily life

## 6. Environment:

### Physical:

- room in the upper storey
- Bathroom, toilet and bedroom on the upper storey
- Kitchen, combined living and dining room on ground floor

### Social:

- Family is most vital source of support for her

## 2. Assessment and problem identifying:

Assessment	Results
Assessment of Motor and Process Skills (AMPS)	Less than 1 for both motor (Moderate increase in physical effort) and process (Moderate inefficiency and disorganization) skills.
Loewenstein Occupational Therapy Cognitive Assessment (LOTCA)	She was able to sequence tasks but was unable to complete tasks involving her right field of vision. She needed prompts to complete orientation tasks. Activities involving memory were also a challenge for her.
Rivermead Motor Assessment (RMA)	She was not independent in transfers and mobility, she required assistance of one for transfers and used a wheelchair for mobility. She also had minimum trunk and leg control at her affected side and require assistance for movement. However, she is able to hold objects using her affected arm but cannot reach for an object far away due to scapular instability.

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## **For these assessments, three problems faced the patient:**

1. Loss of independence in self-care affected her the most: It was found that challenges in motor, cognition and perception affected her performance in self-care
2. Problems with visual perception, specifically right side neglect and agnosia which influence on self-care.
3. Motor challenges, specifically right side weakness and spasticity were addressed as it was one of the major challenges faced during self-care.

## **3. Treatment plan:**

### **Client Aims:**

- She wants to be more engaged in her personal care.

### **Therapist Aims:**

- To increase her engagement in her self-care tasks.
- To manage her right sided neglect and agnosia.
- To manage her weakness and spasticity in her right arm, leg and trunk.

### **Objectives:**

1. She will be able to take charge of her own shower and dressing every morning for an hour, with assistance of one, within 4 weeks.
2. She will be able to independently identify items required on her right field of vision for washing and dressing every morning within 4 weeks.
3. She will be able to go from lying to sitting, and pivot transfer from bed to wheelchair as well as from wheelchair to shower chair, every morning with assistance of one within 4 weeks.

### **Approaches used:**

- **The restorative and adaptive approach** was used to guide the intervention. Restorative approach is grounded upon neuroplasticity where relearning takes place when new neural connections form in the brain during constant exposure to various stimulus. By practising various movements of her affected side during self-care, she should have a reduction in her impairments.
- **The compensatory approach** is where tasks are modified to be easier for the clients to achieve. Even though this approach has been criticized for hindering motor recovery in people with stroke, it is still appropriate for her.

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## 4. Intervention:

### 1. Dressing showering and transfer plan:

Transfer	<p>Bed Mobility:</p> <ul style="list-style-type: none"> <li>• She is able to roll to her right side independently.</li> <li>• She requires assistance from lying to sitting.</li> </ul> <p>Bed to wheelchair:</p> <ul style="list-style-type: none"> <li>• Require assistance of one for pivot transfer</li> </ul> <p>Standing:</p> <ul style="list-style-type: none"> <li>• Require assistance of one and grab rail in the bathroom</li> </ul> <p>Wheelchair to shower chair:</p> <ul style="list-style-type: none"> <li>• Require assistance of one for pivot transfer</li> <li>• Allow her to navigate to bathroom</li> </ul>
washing	<p>Notes:</p> <ul style="list-style-type: none"> <li>• Require the use of a shower chair in the shower</li> <li>• Allow her to initiate and sequence task independently</li> <li>• Only give her assistance when she asks for it</li> <li>• Place items necessary for shower on her right side</li> <li>• If she seems to be searching for something, prompt her to look for it by turning her head</li> <li>• Encourage use of right hand to wash herself</li> <li>• She may require assistance to release her grip on objects</li> <li>• Provide assistance if she feel fatigue</li> </ul> <p>Upper body:</p> <ul style="list-style-type: none"> <li>• She is able to wash her right side independently</li> <li>• She requires assistance to wash above her elbows on her left side</li> </ul>

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	<ul style="list-style-type: none"> <li>• Assistance may be needed to wash hair and back thoroughly</li> </ul> <p>Lower Body:</p> <ul style="list-style-type: none"> <li>• She should be able to wash her genitals and front upper thighs independently</li> <li>• Assist her in standing with the grab rail with one person supporting at all times</li> <li>• Another person will assist Meera in cleaning her bottom and her rear upper thigh</li> <li>• Encourage Meera to wash her lower thighs but prevent her from falling from the shower chair</li> <li>• Assist in cleaning the rest of the lower thighs</li> </ul>
Dressing	<p>Upper Body:</p> <ul style="list-style-type: none"> <li>• Encourage her to put on the bra independently using the one arm method.</li> <li>• Allow her to use the one hand method to wear her t-shirt.</li> <li>• Prompt her by reminding her of the steps if she is struggling</li> </ul> <p>Lower Body:</p> <ul style="list-style-type: none"> <li>• She requires assistance to put on her trousers while assisted in standing.</li> </ul>

## 2. Risk Management Plan

- She might be fatigued and may not be able to do some of the tasks required. The staff in charge will assist when required and allow her to rest when needed.
- Due to the intimate nature of a wash and dress, she might feel embarrassed and down during the process. In order to preserve her dignity, sensitive areas would be covered whenever necessary and observation would be subtle.
- Environmental hazards would be checked before commencing any transfers or wash and dress in order to prevent falls.

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## **5. Outcome measures:**

- AMPS was conducted again, using the task of showering and dressing and she scored higher in these tasks but still required some assistance in achieving them.
- She improved on the LOTCA tasks which involved visual scanning, little to no improvement was seen on the orientation and memory tasks
- The RMA was conducted again and she improved in the trunk, leg and upper limb function but there were still signs of weakness and instability involved.

- ## **6. Future plans:**
- Further interventions would include management of cognitive function such as memory and orientation through cooking. Including her in a social group such as breakfast club in the ward would be beneficial to her as well.

**Reference:** <https://nursinganswers.net/case-studies/integrated-occupational-therapy-practice-8838.php>