

Functional difficulties after stroke

Pan London Study Day
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Objectives...

- Identify common **functional impairments seen in stroke patients**
- Demonstrate how nursing staff can **identify and help manage these on a stroke ward**

Initial symptoms of stroke...

- Sudden weakness or numbness of the face, arm or leg on one side of the body.
- Sudden loss or blurring of vision in one or both eyes.
- Sudden difficulty speaking or understanding spoken language.
- Sudden confusion.
- Sudden or severe headache with no apparent cause.
- Dizziness, unsteadiness or a sudden fall, especially with any of the other signs.

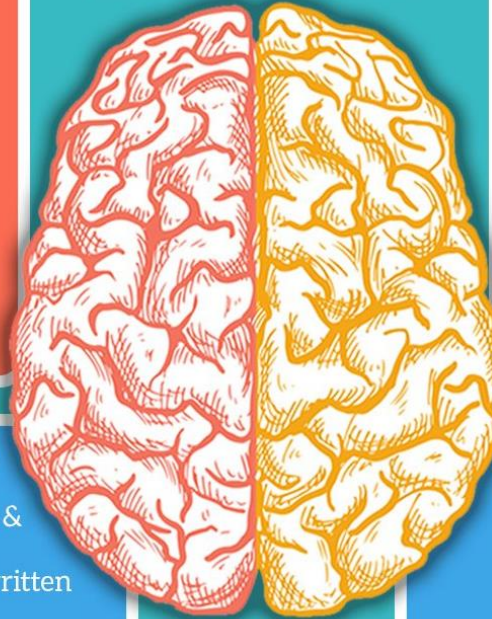
However, there are more specific symptoms that will become apparent to the patient, family, medical and rehabilitation staff over the following weeks, months and years.

(Warlow *et al.*, 2008)

LEFT SIDE

- Speaking
- Reading
- Writing
- Listening
- Grammar
- Number skills
- Computation skills
- Analyzing information
- Reasoning
- Logic
- Sequential thinking
- Time awareness
- Controls right side of body

YOUR BRAIN



RIGHT SIDE

- Organizing information
- Abstract meaning
- Context
- Spatial relationships (like map reading or shape recognition)
- Visual information
- Face recognition
- Intuition
- Emotion
- Imagination
- Detecting motion
- Music & art awareness
- Controls left side of body

Injuries on the left side of the brain can cause:

- Difficulty understanding spoken & written language
- Difficulty expressing spoken & written language
- Changes in speech
- Verbal memory issues
- Impaired logic
- Sequencing difficulties

Injuries on the right side of the brain can cause:

- Impairments in attention
- Left neglect
- Memory issues
- Decreased awareness of deficits
- Loss of "big picture" thinking
- Altered creative or music perception

How Brain Injury Impacts Daily Life

Other influences on patients function...

- Medical stability e.g. infections
- Busy acute ward environment
- Therapy staffing/caseload demands
- Access to facilities
- Patient compliance/agreement to assessment
- Insight into the need for assessment
- Aphasia
- Dysarthria
- Swallowing
- Mood
- Fatigue
- Pain

Occupational dysfunction...

- Occupational performance capacity may become impaired, impacting on their physical, cognitive and psychosocial capacity to adapt to effectively **meet the demands of and engage in their usual occupations**, thus impinging on their occupational identity, health and well-being.

National Clinical Guideline for Stroke: Occupational Therapy concise guide for Stroke 2016.

- **4.1.1.1A** People with stroke should be formally assessed for their safety and independence in all relevant personal activities of daily living by a clinician with the appropriate expertise, and the findings should be recorded using a standardised assessment tool.
- **4.1.1.1B** People with limitations of personal activities of daily living after stroke should be referred to an occupational therapist with experience in neurological disability, be assessed within 72 hours of referral, and be offered treatment for identified problems (e.g. feeding, toileting) by the occupational therapist, who should also involve other members of the specialist multidisciplinary team.

Functional tasks...

- Washing
- Dressing
- Brushing teeth/combing hair
- Making a hot drink
- Preparing a meal
- Going to buy a newspaper
- Going for a coffee
- Shopping
- Seating
- Work related tasks
- Housework
- Walking the dog
- Laundry
- Listening to music
- Using a computer/tablet
- Planning a trip/holiday
- Using a diary
- Baking a cake
- Daily routine
- Childcare/care of a relative
- Catching public transport
- Cycling
- Leisure tasks e.g. swimming/running
- Hobbies
- Going to work/travel in rush hour

OT role...



The role of the occupational therapist is to enable patients to regain competence, reengage in occupations and redevelop a positive occupational identity

(Duncan, 2006; Townsend and Polatajko, 2007).

Why is assessing function important?

- Poorer rehab outcomes
- Reduce patient reliance on external support
- Increased length of stay
- Poorer physical functioning at discharge (RCP 2012)

Functional assessment...

- Functional assessments, for example, washing and dressing assessments, kitchen assessments or any other functional tasks are a key tool for screening and assessing patients.
- They provide valuable information on a patient's residual skills, their impairments, as well as their task performance.

Why do we assess function?

- Screening tool to identify impairments, skills, performance impairments.
- To provide an opportunity to assess the combination of all the performance components within a task.
- To provide vital information on how the patient's impairments impact on their functional ability.

Functional screening

The following questions should be considered from a
cognitive/perceptual perspective:

- How did the patient approach the task?
- Did the patient appear familiar with the task?
- Did the patient use any environmental cues?
- Was the patient able to problem solve the novel aspects, for example, the weakness in their limbs or the differences in environment?
- How did the patient initiate the task?
- Consider the patient's attention, their focus on the task, their planning and organisation, completion of the task.
- Consider the patient's search strategy and ability to recognise environmental cues.

The following questions should be considered from a
physical/sensory perspective:

- Was the task effortful?
- Did the patient maintain good sitting or standing balance?
- What was the patient's level of endurance?
- Was the patient able to position their body appropriately for the task?
- Did the patient perform tasks bilaterally?

Functional assessments/observations...

- Isolate relevant features of a task
- Breakdown a task into steps
- Perform actions & behave in such a way to compete a task in the correct sequence
- Modify responses as appropriate

Ward based function...

- Video – tea trolley

Kitchen ax

- Video – therapy kitchen

Grading the task...

Graded kitchen task

- A patient with poor sitting balance could initially be set up at table top level to carry out a task.
- As the patient improves the challenge can increase, a perching stool could be used and standing can be incorporated; the patient can be encouraged to reach for items in high and low cupboards. The therapist can facilitate or prompt the affected arm and leg as appropriate.
- For mobile patients walking should be assisted as necessary and tasks should involve moving around the kitchen, transporting items between surfaces.





Grading the task...



Graded dressing task

- The ultimate goal for dressing would be for the patient to be as independent as possible in the most normal environment, for example, sitting on the bed or standing in the bedroom or bathroom.
- Adaptations such as elastic shoe laces or Velcro shoes/trainers are often useful, or teaching the patient a one-handed method of tying shoe lace is feasible; again these adaptations should not deter patients from using any return of hand function within their activities of daily living.
- Clothing styles may change initially in the early stages of learning a dressing technique, the patient may wear more leisure wear which is easy to slip on until they become proficient in dressing techniques or their motor/cognitive problems improve, allowing the individual to dress in their desired style of clothing. Any change of clothing style must be carefully discussed with the patient in order to maintain the individual's autonomy and self-image.



Prompts in therapy...



Picture cues to aid task completion

Prompts in therapy...

- **Steps to remember for washing and dressing**
- Collect orange shower bag from the top of your bedside cupboard with:
 - Wash bag containing; shower gel, wash cloths, toothbrush, toothpaste, hairbrush
 - Clothes bag
- Ask nursing staff to help you pick out underwear, bra, top and trousers
- Ask nursing staff for 2 towels and to help carry the shower bag to bathroom
- Slippers on
- Walk to bathroom
- Ask nursing staff to help::
 - Collect a chair for sitting on and dressing
 - Arrange toothbrush, toothpaste and hairbrush on sink
 - Arrange shower gel and wash cloth in shower area
 - Arrange clothes to be hanging on back of chair
 - Place towels on towel rack
- Undress
- Turn the water on - the top water tap clockwise
- Adjust temperature – bottom tap clockwise
- Pick up wash cloth and squeeze shower gel onto cloth
- Wash
- Turn the water off – the top water tap anticlockwise
- Pick up towel from towel rack and place on seat of dressing chair
- Pick up 2nd towel from towel rack
- Sit on chair
- Use 2nd towel to dry
- Put bra and then top on
- Put underwear then trousers on
- Put slippers/shoes back on
- Walk to sink
- Pick up toothbrush and paste
- Put toothpaste on toothbrush and brush teeth
- Brush hair
- Ask nurses to help you tidy up and carry items back to the bay.
- Place shower bag back on top of cupboard

Written cues to aid
task completion

Equipment...



- The assessment for and provision of equipment to stroke patients is generally viewed as an **adaptive compensatory/functional** method of reducing limitations.
- Some equipment can be used to facilitate normal movement and **increase independence within the hospital setting.**



Challenges with functional ax...

- Context
- Clinical hospital environment
- Busy ward environment
- Fatigue
- Patient not able to transfer skills back into the community setting
- Trying to do things for patient

Hospital or Community...

- *Hospital*

Support can be provided as required in function

Can monitor change and act accordingly

See quicker recovery in the early stage of rehab

Team available to aid 24 hour approach to treatment

- *Community*

Patient is familiar to the setting

Reduces 'white coat syndrome'

More contextual cues for patient

Using patients own items in function

Vocational rehab

Errors seen in function...

- Not able to feed self
- Not getting up in the morning/daily routine
- Using objects incorrectly
- Passive in conversation
- Forgetful
- Jumbled text messages sent
- Weakness limiting task
- Forgetting the day/date
- Forgetting familiar details e.g. home add/relatives names
- Not able to manage medication
- Unable to read/write
- Getting stuck on a stage of a task
- Getting lost on the ward

Bedside suggestions to aid function...

- Upper limb/writing exercises.
- Using weaker arms once assessed by a therapist e.g. with bed positioning/transfers/dressing/feeding self.
- Call bell use - affected side
- Going out of bay to the day room for meals
- Being ready for therapy sessions if session is scheduled.
- Turning pages of a newspaper/magazine.
- Computer/I-pad/phone use
- Playing cards, dominoes, connect 4.
- Get the patient to locate items/put things away
- Using the patients own belongings e.g. wash kit/clothes

Nurses role...

- Assist with intensity and repetition-provide 24 hour approach
- Give feedback to patients.
- Support use of aids-diaries, phone alarms, prompt sheets/exercises.
- Feedback to the ward/team
- Observe
- Prepare patients for home... encourage independence.. challenge.

Summary...

- Stroke is a brain condition with many deficits.
- The affects of stroke can be very disabling for patients
- Vital to assess function and aid recovery of impairments to aid patients completing tasks.
- Nurses have a key role in identifying and helping patients manage these problems.

References...

- Stroke: Practical Management: Third Edition(Warlow *et al.*, 2008)
- National Clinical Guideline for Stroke: Occupational Therapy concise guide for stroke 2016.
- Occupational Therapy and Physical Dysfunction (Duncan, 2006; Townsend and Polatajko, 2007).
- (Royal College of Physicians 2016) National clinical guideline for Stroke.
- Occupational Therapy and Stroke, J Edmans (2011)