Restoring Abilities After a Stroke

Achieving Best Life Experience

ABLE

Care Planning Guide

Sunnybrook
VETERANS CENTRE
when it matters MOST

Restoring Abilities After a Stroke: Achieving Best Life Experience (ABLE) Care Planning Guide

Veterans Centre

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Acknowledgments

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GREETINGS FROM THE VETERANS CENTRE'S DIRECTORS

We are very pleased to launch this exciting series of Achieving Best Life Experience (ABLE) Care Planning Guides to assist our interprofessional staff, our Veteran residents and their families in working together for the best possible quality of life for our residents.

While traditional care focuses on achieving the best clinical outcomes using accepted scientific evidence and traditional practice methods, our ABLE philosophy focuses on planning care with the resident and family to achieve what the resident considers to be his or her best life experience in the Veterans Centre. This involves integrating scientific evidence, the resident's current abilities and potential for improvement and the resident's desired life experience. This collaborative care planning welcomes and promotes creativity through understanding and sharing of perspectives and ideas.

The ABLE Care Planning Guides are intended for use beyond Sunnybrook's Veterans Centre. It is our hope that our ABLE guides will provide interprofessional staff working in complex continuing care facilities and nursing homes with an easily accessible resource to use with residents and families in planning and delivering care that is focused on what is important to each resident. We wish you a successful implementation!

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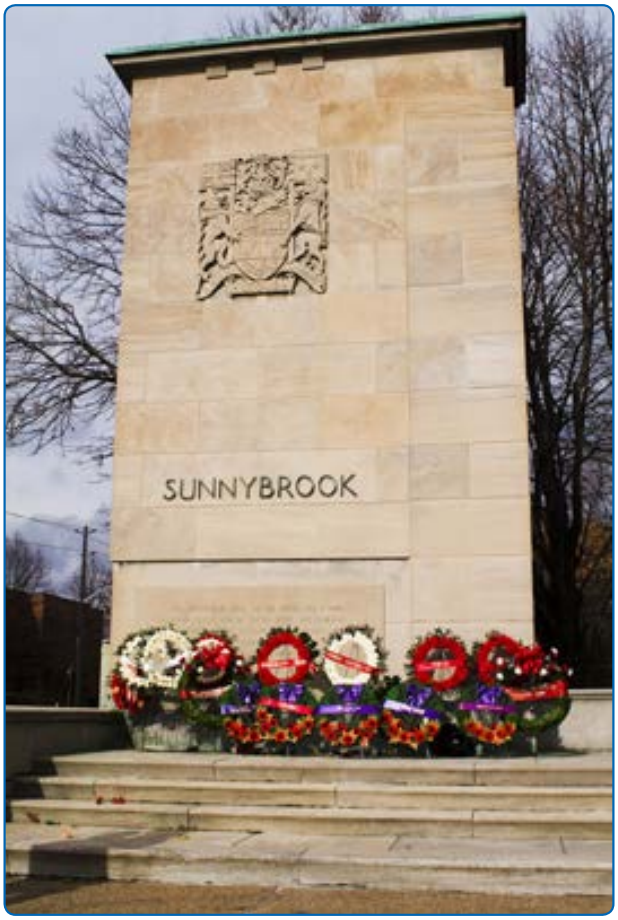
INTRODUCTION

At the Veterans Centre at Sunnybrook Health Sciences Centre, our goal is to help each Veteran live according to his or her preferences and to enjoy the best life experience possible. While traditional best practice and clinical guidelines focus on best clinical outcomes, in long term care (LTC) our focus is on quality of life and helping residents perform his or her desired activities. We encourage inter-professional collaboration and teamwork focused on the resident's goals.



Stroke is one of the most common causes of acquired disability in the aged population and can be an overwhelming, life-altering event. Approximately 20 per cent of residents in LTC have a primary diagnosis of stroke. Many of these residents have not had the opportunity to improve and restore function. The goal of this guide is to help staff make a difference in the lives of these residents by working with them to restore the abilities that will allow them to achieve their desired life experiences.

Traditional stroke rehabilitation involves evidence-based assessment and treatment by a variety of health care providers focused on achieving the highest possible independent physical and psychological functioning. A significant number of long term care residents are not eligible for stroke rehabilitation programs due to frailty, the severity of their deficits, and/or other physical and cognitive limitations. However, many can benefit from the approach outlined in this guide, even years after a stroke.

This guide outlines a restorative care approach which respects each resident's individuality, and encourages listening to the resident's desired outcomes, attends to the resident's physical comfort and provides emotional support. Each resident has his or her own unique values, preferences and needs. Care should be consistent with the resident's needs and how the resident prefers to be assisted.

Written to help staff from any discipline find information quickly and easily, this guide is a resource to help caregivers assist residents achieve their best possible quality of life and life experience.

ABLE CARE GOAL-SETTING FRAMEWORK

ASSESS RESIDENT'S ABILITIES & NEEDS

- Assess verbal & nonverbal communication skills
- Assess cognition
- Assess physical abilities (motor, sensory, pain, cormorbid health conditions)
- Assess psychological, emotional & spiritual needs

IDENTIFY POTENTIAL FOR IMPROVED FUNCTION & QOL*

- Identify current abilities & potential for improved/ enhanced abilities
- Assess potential for participation in meaningful leisure activities
- Identify limitations to function

LISTEN TO THE VOICE OF THE RESIDENT

- Share assessments with resident /family
  - Abilities
  - Potentials
- What would be the ideal life experience for this resident in the Veterans Centre?

ESTABLISH LIFE EXPERIENCE GOALS

- Establish realistic goals to achieve desired life experience
- How can we help to enable the resident to achieve goals?

CREATE & IMPLEMENT STRATEGIES TO ACHIEVE GOALS

- What is preventing the resident from achieving these goals?
- Identify interprofessional strategies to facilitate achieving life experience goals
- Communicate & implement strategies

MONITOR OUTCOMES

- Observe response to interventions
- Modify interventios based on response
- Periodic review of abilities and goals

*QOL = Quality of Life

COMPONENT 1

ASSESS AND DOCUMENT ABILITIES

A stroke can affect a resident's function in many ways. The brain controls all of our physical and mental functioning as well as our emotions and social abilities. How a stroke impacts a resident depends on the part of the brain affected by the stroke as well as the resident's previous level of functioning, physical and mental health, personality, environment and coping strategies. (See Appendix 1) Appropriate interventions through a restorative care approach[1] can lead to significant improvements in recovery and functioning even years after a stroke.

Describe Resident's Current Function

The first step is to understand a resident's current limitations to physical, psychological and cognitive functioning. Accurate recognition of functional impairments can allow for individualized restorative interventions which help reduce permanent deficits and improve a resident's quality of life.

STEP 1: Describe General Appearance

Observe and document:

- Level of alertness
- Signs of discomfort or pain
- Ability to speak
- Ability to comprehend or understand
- Paralysis or paresis on one side
- Apathy or low motivation
- Frustration and/or irritability
- Specific verbal, non-verbal and/or physical behaviours. *(Refer to ABLE Care Planning Guide: Responding to Behaviours Due to Dementia.)*
- Fluctuations in function or behaviours
- Possible barriers to functioning – communication, mobility, cognition

STEP 2: Describe Ability to Communicate

Difficulties with communication may arise from a stroke affecting many different parts of the brain. In general, though, residents who have had a stroke on the left side of the brain tend to have significant difficulties with communication. To plan appropriate interventions to improve communication, start by to observing and documenting the resident's current communication skills.

When documenting communication, only use the term "non-communicative" when the resident has ***no*** ability to communicate, either verbally or non-verbally. Do not use nondescriptive or judgmental terms, such as "speaks funny," "speaks nonsense" or "incomprehensible." Also, avoid labeling; for example, "demented."

Components of Communication Assessment

Awareness of ability to communicate	• Perceives communication difficulties? • Frustrated by communication difficulties?
Ability to understand (comprehend)	• Ability to respond reliably to simple yes/no questions (eg: name, season, location) • Ability to follow simple one-step commands, multi-step commands • Ability to understand conversational speech • Ability to understand more complex material (humor, information not related to the immediate environment)
Ability to express	• Does spontaneous speech consist of full sentences, or single words? • Is spoken message on-topic? • Does spoken message contain non-existent or incorrect words? • Ability to name objects, people • Ability to repeat single words, sentences
Quality of speech	• Ability to produce voice • Strength or volume of voice • Quality of voice (hoarse, breathy, nasal, strained) • Clarity of speech (clear, or slurred) • Rate and rhythm of speech (fast and rushed, slow and laborious)
Written language skills	• Ability to write their name, letters, numbers, single words, sentences, and paragraphs • Ability to read single words, sentences, or paragraphs
Non-verbal language skills	• Level of engagement in the conversation: do they maintain eye contact, take appropriate turns when speaking • Responds to, or use facial expression to communicate? • Responds to, or use gestures to communicate

STEP 3: Describe Motor Abilities

The ability to move after a stroke is affected by the resident's pre-stroke level of functioning, the type and extent of the stroke as well as the degree of restorative care provided after the stroke. Assessing the resident's degree of limb and trunk mobility and functional mobility provides the basics for understanding limitations to enhanced function.

Describe abilities

Limb Mobility:	
	• Is the resident able to lift his or her affected limb up against gravity? Describe effort required: minimal, moderate or maximal. • Describe the degree of limb movement with and without assistance: passive and active range of motion, full range or partial range for all the affected joints. • Is there any pain with movement of the limbs, especially the shoulder?
Functional Mobility:	
Ability to Roll:	• Is the resident able to roll from side to side independently? Describe assistance: use of bed rail; one person assistance (minimal or moderate) or two person assistance. • Is cueing needed for the affected limb?
Ability to sit up at the edge of the bed:	• Is the resident able to get him/herself up to sit at the edge of the bed? • Describe assistance needed cueing: minimal, moderate, maximal. • Does he or she need to use a transfer pole or bed rail to move? • Can he or she sit at the edge of the bed unsupported? With assistance? • Does he or she lean to one side? • How long can they sit at the edge of the bed?
Ability to sit in a manual wheelchair:	• Can the resident sit comfortably in a manual wheelchair? • Does he or she lean to one side or lean/fall forward? • How long can he/she sit up in a wheelchair? • Is support needed on the stroke limb when seated? • Can the resident shift his/her weight or reposition him/herself independently in the wheelchair? • Is the resident able to move independently in the wheelchair? • Is the resident able to use a power wheelchair safely?

Describe abilities

Ability to stand up:	• Describe assistance needed: minimal, moderate, maximal. • Need for gait aid to stand. • Describe his/her posture: are the resident's shoulders, hips and feet aligned and parallel? Are they able to weight bear well on both legs? • Can he/she stand unsupported? Describe the assistance needed for the resident to remain standing (minimal/moderate/maximal)? • Is a walker/pole needed for resident to stay standing? • How long can he/she stand for?
Ability to walk:	• Can the resident weight bear well on the stroke leg or does that knee buckle? • Can the resident take a normal step? • How far can he/she walk? • How much assistance is needed when walking: Supervision, Minimal, Moderate or Maximum? • Does the resident need a gait aid when walking? i.e. walker (with wheels), rollator?
Ability to Transfer:	• Is the resident able to follow directions safely for a safe transfer? • Does the resident have good trunk control when sitting? • Does the resident have good strength for weight bearing when standing? • Is a transfer device needed i.e. transfer pole/walker?
Limitations to Mobility:	• What is the resident's energy level? Appears fatigued? Are they too drowsy? Falling asleep easily? • Are there environmental obstacles to movement? • Cognition: is resident able to follow directions for safe mobility? Does the resident make impulsive movements? • Strength: does resident have enough strength for safe mobility? • Is there evidence of pain with movement: grimacing, groaning, holding a specific body area, limping, etc? • Are aids/devices needed for safe transfers i.e. transfer pole, sliding board, bed rails? • Are aids/devices needed for mobility: walker, wheelchair, cane?

STEP 4: Describe Perception of His or Her Environment

Understanding the perceptual challenges a resident is experiencing will enable you to identify strategies to overcome these challenges and help the resident achieve his or her goals. Perception encompasses how one processes and interprets information from one's surroundings. In addition to referring to the ability to see, hear, feel and taste, perception includes an awareness of time, an awareness of the location of objects in relation to each other (spatial relations), an awareness of his or her body position in space (proprioception), and the ability to recognize familiar people, places and objects.

After a stroke, a person's ability to feel, sense temperature and be aware of his or her body position can decrease or be absent. Following a stroke on the right side of the brain, an individual may experience neglect of his or her affected side. This individual can then unknowingly injure him or herself on the affected side. To identify neglect, you may find it useful to use the mnemonic "tune-in."

A Mnemonic to Identify Neglect

T	**T**urning the head and/or eyes to one side and not spontaneously looking the other way
U	**U**naware of where an arm and/or leg is in relation to the rest of the body
N	**N**eglecting one side of the body, as if it doesn't exist
E	**E**vidence of repeated trauma to the affected limb, but individual is unaware of these injuries
I	**I**gnoring food on one side of the plate
N	**N**ot able to distinguish temperature (hot/cold) on the affected side

STEP 5: Describe Mood and Behaviours

When a person has a stroke, the health care team initially focuses on the physical effects of the stroke. However, the individual may also experience fear, anger, sadness, anxiety, frustration and a sense of grief over his or her physical and mental losses. All of these emotions result in behaviour changes. Understanding some of the contributing factors to these behaviour changes will help you plan appropriate care strategies.

The time following a stroke can be an emotional rollercoaster, with the individual experiencing a wide range of feelings – from loss and despair, to hope, anger and resigned acceptance. In addition, a stroke can affect an individual's ability to control his or her emotions, resulting in emotional lability or marked fluctuations in emotions.

Residents who have suffered a stroke are at high risk for depression, which may present as cognitive decline. On admission, the clinical team should assess the resident's prior history of depression and previous risk factors for depression. In addition, the team should assess for depression every three months. Treating this mood disorder with medication may not only relieve the depression, it may also improve mental functioning.

Describe Mood and Behaviours

Moods That May Indicate Depression:	• Apathetic or uninterested • Withdrawn • Sad • Tearful • Anxious
Emotions That May Indicate Depression:	• Hopeless • Helpless • Sad • Irritable • Fearful • Angry • Suicidal thoughts
Behaviours That May Indicate Depression:	• Withdrawn • Emotional reactions that are inappropriate for the situation • A raised voice • Verbal outbursts to staff, family members and/or visitors • Physically aggressive towards staff, family members and/or visitors

STEP 6: Describe Cognitive Function

The prevalence of cognitive loss in residents who have had a stroke is affected by many factors, including the resident's personality and behaviour patterns prior to the stroke, the degree of actual and self-perceived loss resulting from the stroke, the amount of social support, and the severity and location of the stroke. If the stroke involved parts of the brain responsible for memory, learning and awareness, the residents may lose his or her ability to remember, comprehend meaning, learn new tasks, make plans and/or engage in complex mental activities.

Determining Cognitive Losses

Orientation:	• Does the resident know where he or she is? • Does the resident know what season it is? • Does the resident know what year, month and day it is?
Attention:	• Does the resident have a reduced ability to attend to an activity (shortened attention span)?
Memory:	• Does the resident remember what he or she had for his or her last meal or snack? • Can the resident tell you what activities he or she did today?
Comprehension:	• Can the resident follow simple instructions? • Can the resident engage in a conversation? • Can the resident understand written information, as in signs, pamphlets? • Can the resident understand the humour in a joke?
Recognition:	• Does the resident recognize you? • Does the resident recognize his or her surroundings?

Further cognition assessment can include the Mini-Mental State Examination (MMSE)[2] or the Montreal Cognitive Assessment (MoCA).[3]

COMPONENT 2

IDENTIFY POTENTIAL FOR IMPROVED FUNCTION

After assessing the resident's level of functioning, identify the resident's potential for improving his or her functioning and quality of life. This can be accomplished through careful observation and ongoing communication with the resident during day-to-day activities. Look for opportunities to fulfil unmet needs, enhance function and develop potential care goals.

Setting Potential Care Goals

A resident may have already achieved his or her maximum potential in some or all of the following areas of function. If this is the case, the goal is to maintain current functioning.

Potential for Improved Function	Identify Opportunities for Improvement	Potential Care Goals
Communicating	• Appears frustrated in expressing self	• Enhance expressive communication
	• Has difficulty finding words	• Enhance non-verbal communication to express self
	• Has difficulty understanding others • Has difficulty understanding humour and sarcasm	• Enhance comprehension
	• Has difficulty producing a voice • Imprecise, unclear speech	• Enhance clarity of speech and/or voice
	• Consider input from caregiver(s) regarding communication habits and/or strategies	

Potential for Improved Function	Identify Opportunities for Improvement	Potential Care Goals
Remembering, making decisions and following instructions	• Requires frequent reminders • Needs information to be repeated • Frequently asks questions about where he or she is	• Enhance ability to understand the information the resident desires through cueing and other reminders
	• Appears frustrated following task instructions	• Reduce frustration and/or anxiety related to poor memory
	• Has difficulty solving day-to-day problems	• Enhance ability to use simple strategies to solve day-to-day problems
	• Has difficulty attending to a task – poor attention, concentration, impulsive	• Improve ability to attend to a task
	• Has difficulty with planning and/or sequencing activities for a particular function	• Enhance ability to perform desired activities by helping with planning and/or sequencing
Moving safely and performing desired tasks	• Able to partially perform an activity	• Increase participation in activities • Enhance satisfaction with task performance
	• Becomes frustrated trying to do an activity	• Reduce frustration
	• Weakness limits performance of an activity	• Increase strength for activity tolerance
	• Impaired fine motor control	• Improve fine motor control
	• Has difficulty with mobility/transfers	• Enhance mobility using equipment, if needed • Enhance ability to move safely
	• Decreased ability to judge a situation and recognize the actions that are required	• Enhance judgement
	• Has difficulty with balance and/or posture	

Potential for Improved Function	Identify Opportunities for Improvement	Potential Care Goals
Perceiving one's self and surroundings	• Loss of awareness in the affected side (neglect) • Decreased ability to feel part of his or her body • Unaware of his or her limitations • Unable to see part or all of surroundings • Limited ability to hear • Decreased recognition of people, objects and/or the environment • Has difficulty appreciating the location of objects around him or her • Decreased awareness of time	• Enhance recognition of self • Enhance recognition of abilities • Enhance appreciation of surroundings • Optimize ability to hear • Enhance awareness of surroundings • Enhance awareness of time
Feeling content	• Appears withdrawn or socially isolated • Cries or laughs at the wrong time and cannot stop (emotional ability) • Changes in personality • Appears frustrated or anxious • Expresses frustration and/or anxiety during daily care activities • Appears angry • Displays aggressive behaviours (verbal and/or physical) • Lethargic (lack of interest)	• Enhance mood • Enhance social engagement • Increase contentment with daily care activities • Reduce frustration • Decrease anger • Reduce aggressive behaviour • Enhance energy level
Participating in activities he or she enjoys	• Doesn't participate in desired leisure activities • Short attention span • Physical or cognitive limitations to participating in activities	• Enhance participation in the activities the resident enjoys • Enhance ability/strength/endurance required to participate in desired activities.

COMPONENT 3

LISTEN TO THE VOICE OF THE RESIDENT

A basic human need is to communicate our needs, emotions and thoughts. Everything we do involves sending messages to others.

Communication deficits are among the most frightening and frustrating results of a stroke for both the resident and the caregiver. If a stroke damages the language centre in the brain, there will be language difficulties. Some stroke residents are unable to understand or speak at all. Others seem to know what to say, but the words that come out don't make sense. Some can no longer read or write. Many have difficulty pronouncing words.

Speech, however, is only one way to communicate. We also communicate non-verbally through how we stand or move, our facial expressions, as well as the tone of our voice. As we get to know another person, we learn to read each other's facial expressions and body language, and communication becomes easier and more successful.

Every conversation has at least two communication partners. Each partner has the responsibility to speak (to send a message) and listen (to receive and understand the message the other has sent).

Strategies to Help Resident Communicate Successfully

Be aware that in addition to communication changes resulting from a stroke, many residents have decreased hearing and/or vision. You will need to make adjustments to accommodate these challenges.

Create an Optimal Environment:

- Communicate in a quiet place – turn off the TV or radio, limit other distractions.
- Communicate face-to-face and at eye level.
- Ensure adequate lighting.
- Treat the resident with respect.

Enhance Communication:

- Don't rush.
- Speak slowly and clearly, in a natural voice.
- Listen carefully and actively.

Monitor the Effect of Your Communication;

- Watch the resident's facial expressions.
- Be aware of your non-verbal communication – facial expressions, tone of voice.

Communication Do's and Don'ts

Do...	Don't...
✓ Respect the person and his or her message.	× Dismiss the resident's concerns.
✓ Be supportive and offer encouragement.	× Finish the resident's sentences without first asking for his or her permission.
✓ Try to discern what the resident is really trying to say.	× Ignore the emotion behind the message.
✓ Offer positive feedback by telling the resident that he or she is managing well.	× Give false assurances.
✓ Gently offer information and assistance to the resident to enable him or her to become more independent.	× Offer unwanted advice or make assumptions.
✓ Respond to the tone of the message if you are unable to understand the words.	× Be judgmental.

Empathy and respect are essential to listening and understanding. Empathy is being able to put yourself in someone else's shoes and to be compassionate. Empathetic listening is an art that needs to be practised; it will allow you to look beyond the words to discern what the person is really communicating.

One way to show the resident you are actively listening is to match his or her mood or affect. If the resident is happy and cheerful, smile and be pleased for him or her. If the resident is sad or distressed, show concern and have a sympathetic expression on your face.

How the Past Informs the Present

Understanding the resident's past can help you to identify coping strategies and opportunities for improved life experiences.

Inquire About Resident's Past:

- Family history, significant relationships and involvement
- Military service and significant past events
- Occupation
- Hobbies and interests, leisure activities
- Social history – desired engagement with others
- Specific care preferences

} Social history

Inquire About Resident's Current Realities:

- His or her life in the Veterans Centre
- His or her communication, cognitive and physical abilities
- Perception of family members
- Perception of staff
- Perception of the environment
- Desired activities

} Resident's perception

Questions to Guide a Discussion of Desired Life Experience

Establish the resident's desired life experience in the Veterans Centre by asking:

- What is life like for you at the present time?
- Can you tell me about your concerns?
- What is most important to you?
- What information would you like?
- Given your current abilities and what your care team feels you are able to achieve, what activities would you like to be able to do?

Communicating Your Assessment To Others

Share your cognitive, communicative and behavioural assessments with the resident's substitute decision maker (SDM). If the resident is capable, permission is required to share assessment information with the SDM.

Sharing the health care team's assessment of the resident's symptoms validates the team's findings and assists the resident and/or SDM to understand the symptoms and the identified needs. This validation and understanding allows the resident and/or SDM to fully participate in the development of an optimal care plan.

Many family members have a limited understanding of the physical and cognitive effects of a stroke. They may not know how the stroke has affected the resident's behaviour and his or her functional abilities. When sharing information, be sensitive to the fact that in many families, lives are complex. People may be struggling with their own health problems, trying to balance work and family responsibilities, as well as grieving the loss of their loved one's abilities.

Effective communication among team members is essential when caring for a resident who has suffered a stroke. It is important to have ongoing scheduled meetings, including rounds and family conferences, to discuss the resident's progress and develop a team approach to a care plan for treatment. Other ways of ensuring good communication include clear consistent documentation, shift-to-shift reports, and staying up to date with the resident's progress and care plans.

Staff members must respect the other team members' values, opinions and expectations regarding treatment; individuals often have different perceptions of and ideas for treatment approaches.

COMPONENT 4

CARE PLANNING TO ACHIEVE RESIDENT'S DESIRED LIFE EXPERIENCE

Care planning and interventions for a resident who has had a stroke must be individualized. To guide care planning, use a restorative care philosophy together with a goal-setting framework focused on achieving what the resident considers to be his or her desired life experience.

Determining appropriate care strategies requires the inter-professional team to carefully assess the resident's potential for improvement (see Component 2). Rehabilitative care is most commonly associated with individual disciplines (e.g., occupational therapy, physical therapy, speech-language pathology, recreational therapy, neuropsychology), assessing and treating an individual to achieve optimal functioning. The ABLE approach requires team members to work together to assess the resident and recommend a restorative plan that specifically addresses the resident's individual needs to achieve his or her desired life experiences.

Before initiating an intervention strategy, consider that each resident has unique cultural and cognitive perspectives that can affect his or her motivation to participate. Before starting any treatment, speak with the resident and explain what is about to happen. Move slowly and explain gently how the intervention will benefit him or her. Encourage the resident to participate as much as possible on his or her own volition.

Encouraging Communication

After a stroke, some people have specific communication impairments that result from injury to specific areas of the brain. It is important to know the kind and extent of communication problems to develop appropriate strategies. Improving a resident's ability to express and understand will reduce frustration and enhance his or her quality of life.

Communicating with Residents with Aphasia

Goal	Approach
Reduce the person's frustration with communication	• Give the resident your undivided attention • Provide adequate time for the resident to speak and respond to questions • Ensure you have facilitative materials to aid in the interaction (pen and paper, alphabet board, communication board/book, hearing aids) • Confirm that you have understood the resident by summarizing what they have said, and verifying their responses to questions (by asking the same question in a different way) • If the resident appears frustrated and unable to access a specific word, ask them if you can try and supply it • If the actual message is not understood, respond to the emotional content • Reassure the resident that you understand that they know what they want to say, and that it is the language difficulty that is causing problems.
Enhancing the person's understanding	• Ensure a quiet environment • Face the resident when speaking; ensure you have their attention before speaking • Speak slowly and clearly, in your natural voice • Give information in short, simple sentences • Print key words on paper • Use pictures, gestures, or refer to objects in the room, to increase clarity of your message • Refer to clocks and calendars when speaking about date and time • Discuss one topic at a time. Make changes in topic explicit.
Enhancing the person's expression	• Allow time for responses • Ignore grammatical mistakes and articulation errors; the goal is to communicate a message, not perfect speech • If the resident is stuck on a specific word, either ask them if they can provide a different word, provide a description instead, or ask if you can try and supply it • If the resident is not able to verbally express themselves, encourage them to try using gesture, point to an object, draw, write, or use an alphabet or communication board/book

Goal	Approach
Enhancing the person's speech intelligibility	• Encourage the resident to speak slowly and clearly as able • If part of a message is not understood, ask the resident to repeat only the part of the message that was missed • Repeat the message back to the resident to confirm that you have understood

Communicating with Residents with Cognitive Impairment

- Frequently introduce yourself to the resident using your name and role.
- Smile and make eye contact.
- Always remain pleasant and calm.
- Listen carefully.
- Watch the resident's facial expressions and body language to understand what he or she is trying to communicate.
- Check with the resident to ensure you have understood what he or she is trying to communicate.

Approaches to communicating with individuals who have cognitive impairment due to stroke are similar to communicating with residents with dementia. *(Refer to Component 3 in Responding to Behaviours Due to Dementia: ABLE Care Planning Guide.)*

Enhancing Movement

Positioning is essential for comfort and to promote optimal functioning. Proper positioning can help a resident function, increase his or her awareness, and reduce complications such as pain, skin breakdown, contractures and respiratory problems.

Positioning the Upper Limbs

Goal	Approach
Reduce discomfort due to a dropped shoulder (reduced muscle tone)	• When the resident is sitting, support the affected arm using a lap tray or arm trough. • When moving the resident, always ensure the arm is supported. • When assisting with walking and transfers, avoid pulling the affected arm. • When lying in bed, place small pillow under the shoulder / arm • May need to consider a sling during tranfers/ambulation
Reduce discomfort due to an elevated shoulder (increased muscle tone)	• Ensure the arm is aligned. • Support the arm: · Use a pillow or folded towel in bed. · Use a lap tray when seated. • Assist with appropriate exercises • Monitor for pain. • When lying in bed, place small pillow under the shoulder/arm.

Goal	Approach
Reduce discomfort and/or limitations due to a weak hand with decreased muscle tone	• When the resident is sitting, support the hand using a lap tray or trough. • To reduce swelling, elevate and support the wrist and hand using a foam wedge or arm support. • Place the affected hand in front of the resident with his or her fingers in an open position. Then, encourage the resident to use his or her other hand to gently open the affected hand and extend the fingers.
Reduce discomfort and/or limitations due to a weak hand with increased muscle tone (spasticity)	• Position the arm slightly forward from the shoulder. • Observe for any signs of pain or swelling. • Elevate the hand on a foam wedge or arm support. Gently open the fingers. • Encourage the resident to use his or her unaffected hand to gently open the hand and fingers on the affected side. • Encourage finger/wrist extension as possible.

Positioning the Lower Limbs

Goal	Approach
Reduce limitations due to a weak leg	• To decrease stiffness and deformity of the foot, encourage the resident to stand, if possible. • When the resident is lying down, elevate his or her feet and/or lower legs. Avoid pillows under the knees if there is increased tone. • Try to keep ankles at 90° - may need braces/positioning devices to prevent plantar flexion contractures (Requires OT/PT consult). • Encourage leg extension
Ensure an appropriate sitting position to reduce discomfort and enhance function	• Ensure that the feet are supported and the ankles are at 90° angles. • Ensure that the hips and knees are at 90° angles. • Be sure the resident sits with his or her hips at the back of the chair. • Ensure that the resident's chair or wheelchair supports proper positioning. • Make certain that the resident is comfortable. • Reposition and assess skin every two hours – look for redness, possible pressure areas. • If resident is sitting on a chair cushion, ensure it is properly inflated.

Promoting a Sense of Surroundings

Goal	Approach
Enhance awareness of time	• Explain when things will happen in relation to known events – e.g., The music will begin after dinner. • Each day, explain the daily schedule and provide reminders. • To limit confusion, keep the schedule consistent. • If the resident appears anxious about being late for or missing an appointment or meeting, be reassuring. • Gently reinforce the passage of real time – e.g., Your daughter left an hour ago. • Use a digital or talking clock.
Enhance awareness of physical environment	• Ensure the environment is safe and free of clutter. • Arrange the environment so there is some stimulation on the side affected by the stroke. • Place objects of interest on the resident's affected side to increase awareness of the space. • To avoid startling the resident, approach from the unaffected side. • Use visual cues to assist the resident – e.g., place a line of red tape at the edge of a table on the affected side. • Encourage the resident to scan the environment. With the **Lighthouse Strategy**[4]**,** you ask the resident to imagine his or her eyes as beams of light sweeping from side to side.
Reduce neglect of affected side of body	• Use the affected arm or leg in daily care, if the resident can tolerate it. • Position the affected arm so the resident can see it. • Gently rub the affected arm to stimulate sensation and awareness. • Encourage the resident to help position the affected arm and/or leg for function and visibility. • Use cues to draw attention to the affected side.

Enhancing Mood and Behaviour

A stroke can decrease a resident's ability to control his or her emotions. It can also change the way the resident behaves and interacts with others.

Approaches to Mood and Behaviour Modifications

Goal	Approach in Responding
Express emotions	• Ask the resident how he or she is feeling. • If the resident loses control of his or her emotions, gently reassure the resident that controlling emotions can be difficult after a stroke. Consider distracting the resident with an activity he or she enjoys.
Enhance social engagement	• Help the resident to engage in his or her favourite activities. • Speak with the resident when in his or her room. • Encourage the resident to attend activities that relate to his or her interests and are within his or her abilities. • Give the resident opportunities to verbalize life experiences and share his or her memories. • Support the resident in contacting and participating in spiritual and/or cultural events.
Maximize function and reduce frustration	• Learn the resident's preferences for daily routines. Follow his or her preferences whenever possible. Explain when routines need to be broken. • Explain what you are planning to do so the resident is prepared. • Help the resident be successful with tasks by alternating between easy and difficult tasks. • Observe for signs of frustration and offer support or assistance. • Give resident adequate rest breaks. • If a situation or activity causes significant frustration and/or anger, offer to help the resident to go to another location. Then, redirect the resident's attention to something he or she enjoys.
Enhance interest in activities	• Make it as easy as possible for the resident to participate in activities. • Reinforce and support any interest the resident shows. • Use praise to encourage the resident. • If the resident is initially unsuccessful at a task or activity, gently encourage him or her to try again. • If the resident declines participating in an activity he or she will likely enjoy, try asking him or her to participate again later.
Enhance judgment	• Avoid situations that require the resident to make decisions beyond his or her capabilities. • Inform the resident of inappropriate or unsafe behaviours in a simple, direct way. • Offer appropriate alternatives. • Avoid criticizing the resident. • Use praise to reinforce appropriate behaviour.

Improving Memory and Cognition

After someone has had a stroke, his or her memory and other aspects of cognitive function may be affected. Over time and with appropriate interventions, a resident can improve some of these skills. Use individualized strategies to reduce frustration and help the resident perform activities of daily living as independently as possible.

Strategies to Improve Memory and Cognition

Goal	Strategies
Improve attention	• Reduce distractions – TV, radio, other conversations. • Give short, simple, step-by-step instructions. • Ensure the resident understands the instructions you have given before you continue. • Face the resident and make eye contact to help the resident focus on what you are saying. • Give the resident enough time to think and respond. • Speak and move slowly so the resident doesn't feel pressured to respond before he or she is able.
Enhance orientation	• Give gentle reminders about time and place – e.g., What a nice spring day! • Post a calendar to help the resident keep track of the month and day. • Use a bulletin board to post personal information and family pictures. • To avoid confusion, try to keep the resident's schedule consistent and limit changes.
Enhance memory	• Encourage memory aids – e.g., calendar, white board, daily planner if the resident is able to read, recorded voice reminder if the resident is unable to read. • Patiently repeat information to help the resident remember it. • Provide simple, clear information that focuses on the information the resident needs. • Store items in the same places. • Ensure drawers and cupboards are clearly labelled with their contents.
Enhance insight	• Gently remind the resident about his or her limitations, as required. • Discuss concerns about the resident's safety with the resident and care team. • Develop strategies to optimize safety and functioning with the care team. • Avoid situations in which the resident needs to make decisions beyond his or her abilities. • If the resident uses a cane or walker, keep it within reach. • Use signs to remind the resident about safety.

Goal	Strategies
Enhance ability to sequence actions to complete a task	• Encourage the resident to slow down and plan his or her actions. • Help the resident think about and plan a task. • Give clear, specific instructions. • Divide a task into small steps to help the resident focus on one step at a time. • Give the resident time to practise the task. • Follow the same sequence each time the task is repeated.
Enhance ability to solve problems	• Encourage the resident to think about different ways to solve a problem. • Listen to the resident's ideas for solving a problem. • Discuss the benefits and risks of possible approaches with the resident.

Encouraging Participation in Activities of Daily Living

After a stroke, a resident may feel previous activities of daily living and/or leisure pursuits are now too difficult. To engage in desired activities, the resident may need attention to the environment and encouragement with appropriate cueing, assistive devices and the proper pacing of activities.

General Guidelines:

- Ensure hearing aids and/or glasses are used appropriately.
- Ensure the resident can hear and/or see you.
- Identify how the resident would like to participate in his or her activities of daily living. Ask about:
  - timing
  - order of care
  - how assistance is best provided.
- Assess and manage pain or discomfort.
- Recognize fatigue and respond with a flexible approach.
- Remain optimistic.
- Expect fluctuations in cognitive and physical abilities from day to day.

Create an Optimal Environment:

- Ensure an appropriate room temperature and privacy.
- Reduce distractions – noise from TV, radio, room, hallway.
- Minimize barriers to movement.
- Ensure adequate lighting.
- Ensure that appropriate equipment and/or assistive devices are available and within reach.

Reminding Through Cueing

Visual Cueing	Verbal Cueing	Tactile Cueing
• Position the resident's impaired limb within his or her view. • Help the resident turn his or her head to the affected side to see objects. • Move objects to the resident's visual field on the affected side. • Consider moving the bed so the main action of the room is on the resident's affected side.	• Remind the resident of the stroke-affected side of his or her body. • Encourage the resident to touch and view the affected side.	• Touch the affected limb with various textures. • Encourage and help the resident to participate in activities that require the use of both hands. (This is an effective way to develop an awareness of an affected limb.)

Caregiving Strategies:

- Encourage adequate rest periods.
- Provide care when the resident is motivated and agreeable to participating.
- Always monitor for pain and discomfort during care.

- Offer choices about order and pace of care.
- Use visual, verbal and tactile cues.
- Enable the resident to perform activities and/or tasks he or she can perform.
- Ensure clothing design, fit and fasteners are appropriate for the resident.
- Dress the affected side first.
- Undress from the non-affected side first.
- Encourage family members and other visitors to verbally reinforce the resident's efforts to participate in his or her daily care.

Enhancing Dressing and Grooming

What To Use	What To Avoid
✓ A mirror	× Tight-fitting sleeves, armholes, pant legs and waistlines
✓ Clothes that fasten at the front	× Clothes that need to be put on over the head.
✓ Velcro fasteners	× Small buttons, fine zippers and other fasteners that require dexterity
✓ A long-handled shoe horn	

Dining

Create a pleasurable dining experience by paying attention to the resident's abilities and his or her preferences.

- Ensure the level of auditory, social and visual stimulation is appropriate for the resident. To decrease distractions, consider providing one food item at a time.
- Confirm that food choices are consistent with the resident's preferences and recommended diet.
- Ensure the food texture is appropriate for resident's ability to chew and swallow. (A dentist and/or speech-language pathologist can provide this assessment.)
- Consider more frequent smaller meals if the resident appears to become tired before finishing a meal.
- Use assistive feeding devices to allow for independence. Consider:
  - Plates with rims
  - Plate guards
  - Non-slip placemats
  - Modified cups
  - Large handled spoons
  - One-handed rocker knives

Recreation and Leisure Activities

To enhance the resident's participation in leisure activities, discover ways to engage him or her in recreational, and religious or spiritual activities. By participating in social gatherings, exercise and/or music groups, creative arts and pet visits, the resident can enhance his or her quality of life.

Ensure adequate rest prior to the activity. Then, make sure the resident is dressed and positioned appropriately for the activity. Before, during and after the activity, monitor for pain.

Enhancing Participation in Leisure Activities

What to Use	What to Avoid
Games	**Games**
✓ A card holder	× Small cards
✓ Large playing cards	× Games beyond the resident's cognitive skill set
✓ A battery-operated shuffler	
✓ Puzzles with large pieces	
Reading	**Reading**
✓ A book holder	× Books with small print
✓ Books on tape	× Paperback books that are to small to fit into a book holder
✓ Large-print crosswords	× Newspapers
✓ Magazines	
Computer	**Computer**
✓ A large monitor	× Frustration from an inability to use the computer or see the screen
✓ A large font size	
✓ A modified keyboard	
Crafts	**Crafts**
✓ A needle threader	× Activities requiring fine finger movements beyond the resident's abilities
✓ A one-handed embroidery hoop	× Crafts with complex instructions or sequencing
✓ A one-handed knitting and crochet clamp	× Activities requiring a co-ordination of movements beyond the resident's abilities
✓ A C-clamp to stabilize projects	
✓ Enlarged grips for pens, pencils, paintbrushes	

COMPONENT 5

INTERVENTIONS TO REDUCE ADVERSE OUTCOMES

After a stroke, a resident is at risk for a number of health issues. With careful attention and monitoring, you can identify these risks early and plan interventions to prevent a decline in health and function.

Ensuring Adequate Hydration and Nutrition

After a stroke, a resident may not eat and drink enough to maintain his or her hydration and nutritional needs. This can be due to a reduced appetite, difficulty swallowing, a reduced ability to feed him or herself and decreased cognition.

Ways to Enhance Oral Intake:

- Ensure the resident's diet includes his or her preferred foods.
- Offer food and fluids more frequently than the scheduled times.
- Provide rest periods, as needed.
- Set up the resident's meal so he or she can see it and be as independent as possible.
- Offer assistance if a resident is having difficulty self-feeding.

Hydration

Dehydration occurs when a resident's fluid intake is less than the fluid required to meet the body's needs. There may be a sudden decrease in fluid intake or a gradual decline over days to weeks. Careful monitoring of fluid intake can detect insufficient fluid consumption prior to adverse outcomes.

Consider Dehydration if There Is:

- Decreased urinary output
- Dark or strong-smelling urine
- Frequent urinary infections
- Thick saliva
- Constipation
- Dry mouth (causing difficult speaking)
- Dizziness when changing positions
- Increased confusion
- Weight loss
- Decreased skin turgor
- Sunken eyes

For strategies to encourage fluid intake, see Appendix 3.

Nutrition

Malnutrition occurs when a resident's food intake does not meet his or her calorie, protein and other nutrient requirements. To identify a resident at risk of malnutrition, monitor his or her food intake on a daily and weekly basis, and weigh the resident every month (or more frequently, if needed)

Consider Malnutrition if There Is:

- Weight loss
- Fatigue and reduced motivation
- Impaired wound healing
- Skin breakdown
- An increased number of infections

Swallowing

A stroke may cause muscle weakness, paralysis and decreased co-ordination in the mouth and throat. This can lead to slow and/or ineffectual swallowing (dysphagia) and an increased risk of aspiration.

Warning Signs Associated with Dysphagia and Aspiration Risk[5]

General Observations:

- Decreased level of alertness
- New delirium or heavy sedation
- Facial weakness or drooping
- Drooling
- Dysarthria
- Weak or absent voice
- Weak or absent cough
- Unexplained weight loss
- Inability to handle oral secretions
- Medical history of recurrent chest infection/ pneumonia

Changes in approach to food:

- Avoidance of eating
- Spitting food out
- Special preparation of food or avoidance of specific items
- Prolonged meal time, intermittent cessation of intake

Observations or complaints of:

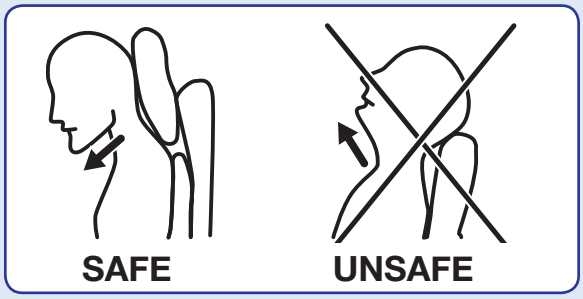
- Excessive, lengthy chewing
- Holding food in the mouth
- Pocketing or pooling of food and drink in the mouth (in the cheek, on the tongue, or on the roof of the mouth)
- Delay or absence of the swallow (elevation of the Adam's apple or thyroid cartilage)
- Multiple swallows used with each sip/bite
- Wet, or hoarse voice
- Shortness of breath
- Coughing
- Frequent throat-clearing
- Regurgitation
- Sensation of obstruction in throat or chest
- Use of compensatory measures (using drinks to "wash down" each bite, excessive head movements while swallowing)

Aspiration refers to the inhalation of food or liquid into the airway. It can cause an airway obstruction (choking), upper respiratory infections or pneumonia. Individuals may cough or silently aspirate their food and/or beverage. If there are concerns about risk for aspiration, consult a physician and/ or speech-language pathologist. To remember ways to promote safe eating and feeding, you may find it useful to use the mnemonic "**pâté**."

P.A.T.E. - Safe Eating and Feeding Guidelines*

Positioning

- Sit upright (90 degree angle if possible).
- Position and maintain the head with the chin tilted slightly down towards their chest. use pillows, blanket rolls, or head rests behind the head (not the neck) to position the head and maintain the chin tilted downward. It is critical to maintain the chin tilt position throughout the meal to prevent foods or fluids from falling into the throat.



- To maintain downward chin positioning and prevent tilting the head back, remember to:
  1. Be at eye level with the person, do not stand over them
  2. Use wide rim cups or “nosey“ cups for drinks
  3. Position the person so that they can see you and the food
- To prevent reflux, avoid lying down for 2 hours after a meal (if the resident is in bed, elevate the head of the bed to 45 degree angle)

Amount

- Encourage 1 (teaspoon - tablespoon) of food or 1 small sip fluid per swallow. Watch the neck for the swallow action before giving more. Postpone feeding if swallow action is not present.
- Give rest breaks when feeding

Textures

- Check that the person is receiving the recommended food texture and fluid texture (see Appendix 3)
- Avoid mixing foods together
- Avoid washing down solids with thin liquids

Enablements

- Check the Care Plan for specific feeding recommendations.
- Ensure that glasses, hearing aids and feeding aids are used if required.
- Check the temperature of the food / fluid before feeding
- Acknowledge the resident’s likes / dislikes / preferences / abilities.

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Preventing Contractures

A contracture is a permanent shortening of a muscle. The result is deformity of a joint with or without pain. It can be caused by increased tone in a muscle after a stroke, improper positioning or decreased movement of a joint. Prevention of contractures is important in maintaining abilities and achieving comfortable and functional positioning. Follow these tips:

- Encourage the resident to actively move his or her muscles and joints through daily routines identified by the inter-professional team.
- Provide activities that encourage the resident to move his or her muscles and joints.
- If the resident has muscle weakness, carry out assisted but gentle range-of-motion exercises during bathing, dressing and/or other daily activities. If the resident resists, ask for an assessment from an occupational or physical therapist.
- Use splints and/or braces to help prevent contractures, if needed. They can ensure optimal positioning during sleep. (refer to OT/PT)
- Support the affected limb(s) when the resident is in bed or a wheelchair. When possible, the resident's arms and legs should be placed in their longest positions.
- Ensure the knees are as straight as possible when in bed.
- Encourage frequent changes of position.

Do's and Don'ts for Preventing Contractures

Do	Don't
• Place small towels, rolls or pillows under the scapula and pelvis. • Try to keep the affected arm/leg straight as extended as possible. • Place small towels or rolls under the pelvis. • Ensure the body is aligned in a neutral position. • Encourage resident to actively move/stretch his/her limbs as often as possible.	• Let the wrist or fingers stay in a flexed position. • Put pillows under the knees. • Let the resident lean or bend to one side when lying in bed. • Allow the resident to lean or bend to one side when sitting.

Recognizing and Responding to Pain

After a stroke, many residents experience pain. Pain can be a direct result of the stroke (e.g., central post-stroke pain) or from a disability resulting from the stroke (e.g., shoulder-hand syndrome). In addition, a resident may have pain or discomfort from other conditions, such as arthritis, previous injuries and/or poor circulation.

The first step in minimizing pain is to recognize that the resident is having pain. Since the resident may not be able to communicate that he or she has pain, be alert for signs of discomfort.

Cues to Consider Pain

Verbal and Oral Cues:	• Words such as “itching,” “burning,” “throbbing” • Moaning or groaning • Crying or sighing • Gasping • Yelling or swearing
Non-Verbal Behaviours:	• Rubbing or massaging a part of the body • Bracing, holding or guarding a part of the body, especially when moving • Shifting or rocking (an inability to sit or be still) • Incontinence due to pain
Facial Expressions:	• Frowning • Grimacing • Wincing • Turning face away • An angry expression • A furrowed brow
Behavioural Changes:	• Increased restlessness • Being quieter than usual • Decreased appetite • Decreased interest in usual activities • Less social interaction

Stroke-Related Pain Syndrome[6-8]

Type of Pain	Cause	Characteristics	Management
1. Central post-stroke pain (<10% of residents)	• Direct result of an injury to the brain and/or spinal cord	• Pain can be constant or intermittent • Pain can be burning, tingling or stabbing • Pain is worse with activity, a light touch, cold temperatures or weather change • No visible sign of injury or tissue damage • Pain often more than expected from touch and/or contact	• Ensure optimal positioning • Minimize touch and/or contact with objects that increase pain • Medications: · Analgesics · Antidepressants · Anticonvulsants • Consider: · Nerve blocks · Local anesthetics
2. Shoulder subluxation	• Stiff, spastic muscles and/or contractures • Overstretched or limp muscles	• Shoulder pain on side affected by stroke	• Carefully support and position the shoulder • Gently move the arm and shoulder, avoiding aggressive range-of-motion movements or exercises • Support the arm and shoulder during activities of daily living • Ensure the arm and shoulder are supported when the resident is walking, standing or sitting • ***Slings, arm boards and lap trays maybe beneficial in some patients howewer need to be monitored to prevent over-correction***
3. Spasticity	• High muscle tone resulting from the stroke shortening muscles around a joint	• Stiff muscles • Reduced joint movements, usually in the shoulder, elbow, wrist and/or hand	• Position properly • Offer gentle range-of-motion exercises. (Consider a physiotherapy consult.) • Avoid forcing the limb to move • Apply custom-made or fit splints as directed by an occupational or physical therapist • Consider anti-spasticity medications and/or a referral to a physiatrist

Type of Pain	Cause	Characteristics	Management
4. Shoulder-Hand Syndrome	• Reflex dystrophy of the upper extremity	• Intense, burning pain • Continuous pain • Increased pain over time • Limited movement of hands and/or fingers • Diffuse tenderness and decreased shoulder movement	• Avoid touch and contact that causes pain • Follow the recommended positioning to protect the affected arm or hand • Physiotherapy • Analgesic medications • Be sympathetic • Consider a ganglion block if the pain persists
5. Adhesive capsulitis	• Tightening of the capsule of the shoulder due to inflammation or a lack of movement	• Stiffness with a decreased range of motion in the shoulder • Pain with range of motion	• Offer gentle mobilization exercises, as directed by a physiotherapist • Position properly • Physiotherapy
6. Bursitis	• Inflammation of the subacromial bursa	• Pain on the outside of shoulder that with movement may travel down the arm	• Physiotherapy • Position properly • Offer gentle range-of-motion exercises • Consider a subacromial steroid injection
7. Brachial plexus fraction neuropathy	• Flaccid arm that has been unsupported • Pulling on resident's arm during transfers • Loss of sensation or neglect can increase the risk of fraction neuropathy	• Continuous pain • Pain often has burning quality • May have reduced movement and/or sensation in the hands and/or fingers • Forearm	• Use proper transfer techniques, as recommended by a physiotherapist • Position properly
8. Trauma due to neglect or decreased sensation	• Inadvertent injury to arm, hand, leg or foot • Failure to appreciate environment because of decreased sensation in the affected side	• Variable, depending on the location and type of injury	• Treat the injury • Educate the resident, family members and staff about protecting the affected limb during activities and/or movement
9. Rotator cuff tendonitis and/or tear	• Inflammation of the rotator cuff tendons of the shoulder due to overuse or injury • Tears can result from movement beyond	• Pain only with certain shoulder movements • Less pain when shoulder moved passively	• Physiotherapy • Range-of-motion exercises • Corticosteroid injections, if appropriate

Promoting Continence

Bladder control

Stroke can affect a person's ability to recognize the need to urinate and respond in a timely manner. It can also affect the intensity and frequency of bladder contractions, and the ability of the urethral sphincter (valve) to contract and relax.

Mechanism Affected by the Stroke	Result	Strategy
Increased bladder contractions[9,10]	• Urge incontinence • Frequency • Urgency • Incontinence • Nocturia	• Schedule voiding with gradually longer intervals between voiding • To decrease urges, use distraction and relaxation strategies[11]
Decreased bladder contractions/coordination with sphincter[10]	• Overflow incontinence • Prolonged bladder emptying and/or failure to empty) • Over-distended bladder • Retention of urine	• Ask the resident to attempt to void twice (double voiding) each time • Recognize decreased output • Consider a post-void bladder scan to identify physiological issues. If > 300mL, immediately notify the physician because catheterization is required
frequent coughing from dysphagia[13]	• Stress incontinence	• Kegel exercises • Consult a physician about whether a pessary would help a female resident
Decreased mobility, cognition and/or coordination[9]	• Functional incontinence – not able to get to the bathroom when the urge to void occurs because of physical and/or cognitive limitations	• Regularly assist with toileting

Bowel Function

Ensuring adequate bowel function is an important aspect of post-stroke care. Constipation is common due to neurological changes that affect bowel motility, the sensory awareness of stool in the rectum, the mobility to respond to the urge to defecate, the ability to communicate the need to defecate and the cognitive function required for self-toileting[14].

Fecal incontinence can develop at any time after a stroke. It can be due to a temporary problem, such as constipation with overflow of liquid stool. Or, it can be due to physical and/or cognitive disabilities that impair self-toileting. A medical assessment may be required to determine the cause of constipation or fecal incontinence.

Managing Constipation

Prevention	Recognition	Management
• Regular toileting • Ensure adequate intake of fluid (at least 1,500 mL/day, unless contraindicated) • Ensure an adequate intake of fibre (more than 30 g/day) • Encourage optimal activity • Offer to and/or assist with regular toileting • Review regular bowel routine with physician	• Decreased frequency of movements (2 or fewer per week if baseline frequency unknown) • Straining to pass stool • Hard stools • Prolonged time to complete a bowel movement • A feeling of incomplete emptying	• Use appropriate laxatives. (Stool softeners are often insufficient to manage constipation.) • Review medications for cause of constipation.

Preventing Avoidable Cognitive Decline

Residents who have cognitive impairment after a stroke are at risk of a further decline in their ability to think and remember. Follow these strategies to prevent an unnecessary cognitive decline:

- Ensure a regular review of medications as some can impair cognitive functioning.
- Ensure the level of sound and visual stimulation is appropriate for the resident's ability to hear, see, and comprehend his or her environment.
- Provide needed environmental cues and reminders to maximize orientation and function.
- Provide an appropriate level of social interaction, based on the resident's abilities and preferences.
- To promote and maintain independence, balance the assistance you offer with the resident's demonstrated needs. Excess disability can result from performing tasks for a resident who can do them independently or with less assistance.
- Provide simple one-step directions, if necessary.
- If the resident has a sudden onset of confusion, ensure an appropriate medical assessment to determine the underlying cause of the delirium.

Preserving Skin Integrity

Residents who have had a stroke are at an increased risk of skin breakdown. The reduced ability to feel discomfort and pain from pressure and/or a reduced ability to move to relieve pressure can contribute to skin breakdown. Interventions to preserve skin integrity include:

Positioning	• Ensure good posture • Avoid pressure on bony prominences • Reposition regularly to relieve pressure areas • Avoid friction, and shear during repositioning
Moisture	• Minimise incontinence with regular toileting • Use protective barriers • Moisturize dry skin with non-alcohol creams
Nutrition/Hydration	• Ensure adequate nutrition and hydration

Preventing Injuries

Injuries are common after a stroke because of the reduced ability to feel pain or discomfort, muscle weakness, neglect of part of the body and impaired judgment due to cognitive decline.

- When transferring or repositioning in bed, always support the resident's weak arm in an unweighted position.
- Avoid pulling the resident's affected arm or leg during a transfer or when providing care.
- When the resident is sitting, ensure his or her weak arm has appropriate support.
- If a resident's arm appears to be poorly supported when he or she is standing, consider a physical or occupational therapy consult. A sling may be helpful for maintaining appropriate positioning.
- If a resident expresses pain or discomfort with the passive range of motion of a joint or if resistance is encountered, stop the activity.

Preventing Falls

Residents able to move independently after a stroke may be at higher risk for falls and fall- related injuries. Many falls and injuries due to falls can be prevented by recognizing risks for falls and putting strategies in place to reduce these risks. *Refer to the ABLE Care Planning Guide: Maintaining Mobility. (pending)*

Managing Behavioural Symptoms

Behavioural symptoms are often a resident's attempt to communicate unmet physical, social, psychological or medical needs. Identifying a resident's needs and understanding why a behaviour is occurring leads to appropriate management and may prevent the need for medication. *Refer to Responding to Behaviours Due to Dementia: ABLE Care Planning Guide*.

Managing Depression and Social Isolation

Depression affects about a third of people who have had a stroke. Depression reduces energy, interest, motivation and concentration and limits the individual's ability to function and participate in desired activities. Recognize the signs of depression early and offer appropriate treatment.

Symptoms of Depression:

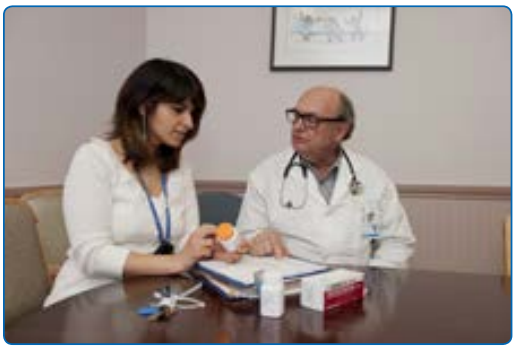
- Reduced or increased sleep
- Decreased interest in usual activities
- Feeling guilty
- Less energy
- Reduced ability to concentrate
- Reduced appetite
- Moving more slowly than usual
- Showing signs of agitation
- Suicidal ideation
  - Passive – not wanting to live anymore
  - Active – wanting to harm self (seek immediate medical attention)

(The Cornell Scale for Depression can be used to screen for depression.[15]

Interventions for Depression and Social Isolation:

- Encourage the resident to express his or her feelings and experiences.
- Ensure frequent contact with staff, volunteers and visitors, if possible.
- Encourage the resident to maintain as much control as possible over his or her environment, activities and social interactions.
- Identify the resident's present and past coping strategies, and then encourage him or her to try them, if they're effective and possible.
- Assist the resident in identifying new coping strategies.
- Assess, monitor, document and report to the physician any risk for self-harm. Include statements, behaviours, observed helplessness, and concerns regarding the resident's judgment and awareness of safety concerns.

Reducing the Risk of Recurrent Stroke



Once a person has a stroke, he or she is at risk of a recurrent stroke. Drug therapies – including anti-platelet, anticoagulants and anti-hypertensive medications – are often prescribed to prevent clotting and treat underlying vascular risk factors. Other agents may be prescribed to treat additional risk factors for stroke, such as high cholesterol, heart disease and diabetes. In addition, exercise, diet and stroke education can lower the risk of and/or prevent a stroke recurrence.

Look for the warning signs for stroke and respond immediately to improve the resident's survival and function[16].

The Five Signs of Stroke[16]

1. **Weakness** – Sudden loss of strength or sudden numbness in the face, arm or leg, even if temporary.
2. **Trouble speaking** – Sudden difficulty speaking or understanding, or sudden confusion, even if temporary.
3. **Vision problems** – Sudden trouble with vision, even if temporary.
4. **Headache** – Sudden severe and unusual headache.
5. **Dizziness** – Sudden loss of balance, especially with any of the above signs.

COMPONENT 6

MONITORING THE RESIDENT'S RESPONSE TO INTERVENTIONS

To ensure the desired life experience can be maintained, the inter-professional team needs to monitor all aspects of a resident's function on an ongoing basis.

Observational Measures to Evaluate Abilities and Function

Ability	Regularly Assess
Communication	• The resident's ability to communicate effectively with staff • The staff's ability to communicate effectively with the resident • The resident's ability to express his or her needs and wishes
Mobility	• The resident's ability to achieve the mobility required for his or her desired life experiences • The resident's access to appropriate assistive technology and appropriate therapy
Activities of Daily Living	• The resident's ability to contribute to his or her basic ADL with minimal frustration • The resident's feelings about whether he or she has been able to achieve desired life experiences
Meals	• The resident's nutrition and hydration to ensure it's adequate • The resident's ability to enjoy meals
Leisure Activities	• The resident's ability to engage in desired leisure activities
Psychosocial/ Spiritual	• The resident's participation in social activities – such as outings, music therapy and lunch groups – as tolerated and if willing • The resident's opinion of whether he or she is receiving adequate emotional and spiritual support

Table 10: Tools for Monitoring Cognitive Abilities and Behaviours

Tool	Purpose of Tool	Frequency of Documentation	Duration	Recommended Use
Canadian Neurological Scale[17]	To assess residents' neurological status	Initial and as appropriate	30 min	• On admission • When a new stroke is suspected and a more detailed assessment is desired
Mini-Mental State Examination (MMSE)[2]	To assess and monitor cognitive function in residents with moderate cognitive loss	When changes in memory and other areas of cognitive function are suspected	10 min	• On admission • When moderate cognitive impairment is suspected
Montreal Cognitive Assessment Battery (MoCA)[3]	To assess and monitor cognitive function in residents with mild cognitive loss	When changes in memory and other areas of cognitive function are suspected	10 to 15 min	• On admission • As necessary for mild cognitive impairment
Resident Behaviour Observation Record	*Refer to Responding to Behaviours Due to Dementia: ABLE Care Planning Guide*			
Behaviour Assessment Form				

**Requires adequate vision and an ability to write to complete this test.*

DEFINITIONS

ADL function:	Tasks that involve basic activities of daily living (ADL), including bathing, dressing, grooming, toileting, transferring, eating, walking.
Affect:	Observable expressions of emotional feeling, tone and mood.
Aphagia (or dysphagia):	Difficulty swallowing.
Aphasia:	A language disorder affecting a person's ability to talk, read, write, understand.
Apraxia:	Inability to plan or execute movements.
Assistive devices:	Specialized equipment that can be used to assist with leisure pursuits, feeding, dressing, grooming, other activities, and mobility.
Ataxia:	Inability to co-ordinate movements.
Cerebral infarction:	An area of necrosis (tissue death) in the brain due to the obstruction of a blood vessel by a thrombus or embolus.
Cortical blindness:	Inability to see due to damage to the occipital lobe in the brain but with no damage to visual structures.
Diplopia:	Double vision.
Dysarthria:	An impairment of the ability to make the sounds of speech clearly because of weakness or lack of co-ordination. Words may be slurred or the voice may be weak.
Dysphagia (or aphagia):	Difficulty swallowing.
Embolus:	A piece of clot originating outside the brain that breaks loose and travels through the arteries to the brain. The clot may plug a small vessel, cutting off the blood supply.
Expressive aphasia:	Loss of the ability to produce language (spoken or written), usually due to a lesion in the left temporal lobe. Ability to understand language is better than production. Most common type of expressive aphasia is Broca's.
Global aphasia:	Severe communication deficit, resulting in an extremely limited ability to speak or comprehend language. May result in being non-verbal and relying only on facial expressions and gestures to communicate.
Hemiparesis:	Weakness / partial muscle loss one side of the body
Hemiplegia:	Complete paralysis of the arm, leg and trunk on one side of the body from damage to the parts of the brain that control muscle movements.
Hemorrhagic stroke:	Occurs when a blood vessel in the brain leaks or ruptures.

DEFINITIONS

continued

Ischemic stroke:	Occurs when a blood vessel (artery) supplying blood to the brain becomes blocked by a fatty deposit (plaque), or when blood clots develop within blood vessels in the brain, An embolic stroke (a form of ischemic stroke) occurs when blood clots develop in the heart or other part of the body, and then travel to the brain causing a stroke.
Neglect:	Inability to recognize or attend to the existence of the affected side of the body.
Paralysis:	Loss of voluntary movement as a result of damage to the nervous system.
Paresis:	Partial inability to move a body part or muscle weakness because of a disease of the nervous system.
Perception:	How information is interpreted from the senses – sight, hearing, taste, touch, smell.
Proprioception:	Ability to know the position of the body in space.
Receptive aphasia:	A language disorder in which the individual is able to speak with normal grammar, syntax, rate, intonation and stress, but language content is incorrect. May use the wrong words, insert nonexistent words or randomly string together words. Ability to understand spoken language and written material is also impaired. Most common type of receptive aphasia is Wernicke's.
Stimuli:	An agent or factor that causes an activity or a process to begin, increase or develop.
Stroke:	A sudden injury to the brain due to a blocked blood vessel (as in ischemic stroke) or a bleed into the brain due to a ruptured blood vessel (as in hemorrhagic stroke).
Thrombus:	A blood clot that forms inside an artery in the brain or in the neck arteries, blocking blood flow to the brain.
Tissue plasminogen activator (t-PA):	A clot-busting drug used to reverse the detrimental effects of an ischemic stroke if administered within 4.5 hours of symptom onset.
Transient ischemic attack (TIA):	A small stroke, usually only lasting a few seconds.

APPENDICES

APPENDICES

APPENDIX 1

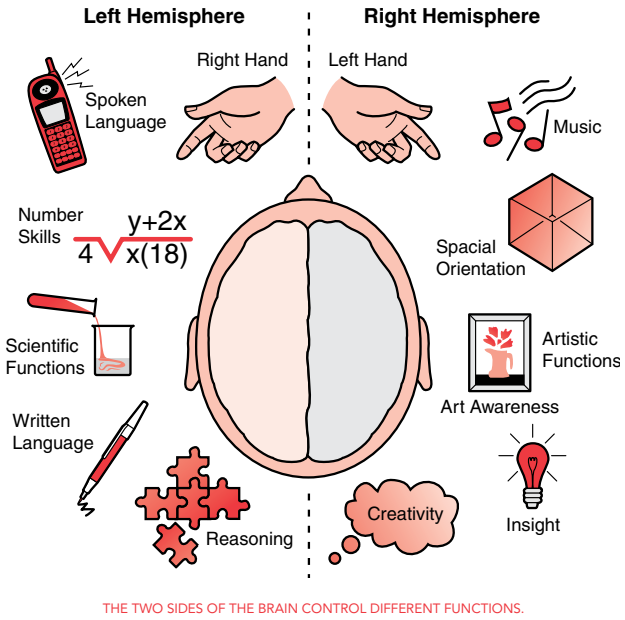
UNDERSTANDING STROKE

How the Location of a Stroke Affects Function

As in real estate, location, location, location is of utmost importance with stroke. The brain "real estate" affected by a stroke determines the individual's functional outcomes. However, a stroke never affects two people in exactly the same way.

The brain is divided into two sides: the left hemisphere and the right hemisphere. Each hemisphere is divided into four regions, or lobes. Each lobe controls different functions. Despite the general division of functions between the sides and lobes, there is variability from person to person. In addition, some functions are controlled by both sides of the brain. See figure 3 to refer to the function controlled by each hemisphere.

Figure 3: Hemispheres and Function



THE TWO SIDES OF THE BRAIN CONTROL DIFFERENT FUNCTIONS.

- Movement and feeling on the right side of the body
- Understanding written and spoken language
- Movement and feeling on the left side of the body
- Perception: being aware of, and making sense of the surrounding environment

Adapted from Tips and Tools for Everyday Living: A Guide for Stroke Caregivers, Heart and Stroke Foundation of Ontario[8].

Functions of the Brain and Their Relation to Stroke

Structure/Circulation	Key Functions	Associated Dysfunction
Frontal Lobe (emotions, motor, cognition, expressive language) ■ Anterior Cerebral Artery (ACA) ■ Middle Cerebral Artery (MCA)	■ Voluntary motor function ■ Memory for habits and motor activities ■ Controls expressive language, articulating speech (Broca's Area) ■ Assigns meaning to words we choose ■ Behavioural spontaneity ■ Controls emotional responses ■ Executive Functions: task initiation, motivation, planning and self-monitoring ■ Concentration/reasoning ■ Judgment/problem solving ■ Bladder control (micturation center)	■ Paralysis/paresis: of the face, arm and leg (MCA) or leg and foot (ACA) ■ Inability to express language (Broca's Aphasia) ■ Emotional lability, mood changes ■ Impulsivity of thought, affect and action ■ Lack of spontaneity in interacting with others ■ Inability to attend to task ■ Inability to plan a sequence of complex tasks, i.e. making cof fee ■ Impaired judgment, problem-solving ■ Change in personality, sexual and social behaviour ■ Incontinence
Parietal Lobe (Sensation and Perception, Integration of Sensory Input) ■ Anterior Cerebral Artery ■ Middle Cerebral Artery ■ Posterior Cerebral Artery	■ Visual attention ■ Touch perception ■ Goal directed voluntary movements ■ Manipulation of objects ■ Integration of different sensory input ■ The ability to sense the position, location, orientation and movement of the body and its parts (Proprioception)	■ Difficulty focusing visual attention or attending to more than one object at a time ■ Loss of sensation ■ Difficulty with hand/eye coordination; distinguishing left and right ■ Inability to perceive objects normally (Agnosia) ■ Neglecting part of the body or space (contralateral neglect/dif ficulties with ADLs) ■ Difficulty reading, writing (Agraphia), drawing, constructing, naming objects, calculating ■ Denial of deficits (Anosagnosia)

Canadian Stroke Network – Heart and Stroke Foundation of Canada (used with permission)

Functions of the Brain and Their Relation to Stroke (Continued)

Structure/Circulation	Key Functions	Associated Dysfunction
Temporal Lobe (Auditory Sensation and Perception, Memory, Language Comprehension, Affect) ■ Middle Cerebral Artery ■ Posterior Cerebral Artery	■ Hearing ability ■ Receptive language (Wernicke's Area) ■ Integration of visual, auditory, somatic information ■ Memory (storage, retrieval of words, experiences) ■ Emotions	■ Impaired auditory sensation and perception ■ Difficulty recognizing faces ■ Difficulty selectively attending to auditory and visual input ■ Disturbed language comprehension, word recognition (Wernicke's Aphasia) ■ Difficulty organizing verbal information ■ Short-term memory loss ■ Disturbance of long-term memory ■ Altered personality, emotional behaviour, sexual behaviour ■ Impulsiveness, aggressiveness, indifference, depression ■ Persistant talking
Occipital Lobe (Vision) ■ Posterior Cerebral Artery ■ Middle Cerebral Artery	■ Vision ■ Spatial organization and interpretation of visual information ■ Visual reflexes	■ Defects in vision: visual field cuts, diplopia. (Hemianopia) ■ Inability to recognize familiar objects, words, colours, or movement of an object (Agnosias) ■ Difficulty with reading and writing
Brainstem (Body Functions and Movements) (Midbrain, Pons, Medulla) ■ Basilar Artery ■ Vertebral Artery ■ Houses Cranial Nerves III-XII	1) Receives information from cranial structures and controls muscles of the head (Cranial Nerves) 2) Contains neural circuits that transmit information from the spinal cord up to brain structures and from brain down to spinal cord 3) Brainstem structures work together to regulate arousal (reticular activating system) 4) Individually they subserve specific sensory and motor functions	**Midbrain (Visual/auditory reflexes)** ■ Unable to move eye up, down or in ■ Inappropriate responses to visual or auditory stimuli **Pons (Blood pressure and respiratory regulation)** ■ Altered respiratory function ■ Impaired chewing and facial sensation ■ Unable to move the eye out ■ Altered taste ■ Abnormal facial expression ■ Problems with equilibrium and hearing **Medulla (Blood pressure and respiratory regulation)** ■ Altered respiratory, cardiac and blood pressure function ■ Altered sensation and limb weakness ■ Difficulty maintaining posture control ■ Swallowing problems ■ Unable to move head and shoulder, tongue ■ Altered salivation
Diencephalon (Thalamus, Hypothalamus) ■ Posterior Cerebral Artery	**Thalamus** ■ Transmits information to cerebral hemispheres for sensation and movement **Hypothalamus** ■ Integrates the function of the autonomic nervous system (maintains blood pressure, heart rate, respiratory rate, temperature, fluid balance, hormone synthesis, sleep-wakefulness)	**Contralateral weakness** ■ Contralateral sensory loss ■ Vertical and lateral gaze deficits ■ Hypersensitivity response to stimulus ■ Alteration in temperature regulation ■ Diabetes insipidus ■ Abnormal heart and respiratory patterns ■ Impaired blood sugar levels
Cerebellum (Motor Control) ■ Posterior Cerebral Artery ■ Basilar Artery ■ Vertebral Artery	■ Regulates movements of eyes and limbs; helps maintain posture and balance ■ Coordinates voluntary movement, muscle tone, balance and equilibrium ■ Control of fine motor movements	■ Limb and gait ataxia; impaired ability to walk ■ Difficulty judging distance, when to stop ■ Difficulty performing rapid alternating movements ■ Vertigo ■ Tremors ■ Loss of balance and coordination ■ Poor coordination of fine motor movements, weak muscles
Basal Ganglia ■ Middle Cerebral Artery	■ Production of dopamine and coordination of muscle movement and posture	■ Loss of postural control ■ Tremor, rigidity, involuntary movements

This is a quick reference card for your use. The key functions of each area of the brain are highlighted.

Developed in 2005 by Rhonda McNicoll, Jana Lee Breton, Lisa Colizza, Hamilton Health Sciences and Linda Kelloway, Trillium Health Centre.

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APPENDIX 2

SAFE TRANSFERS

When assisting a resident to transfer, ensure the resident's safety and comfort, and promote the resident's highest level of independence. If you are unsure of how to transfer or experience difficulty in assisting, seek the advice and assistance of your physiotherapist.

Before you start the transfer, speak with the resident to ensure he or she understands what you are about to do and how you are going to assist him / her. Move slowly and gently, never pull on the resident's affected arm or under the shoulders, and do not lift the resident. Instead, encourage the resident to participate as much as possible. Employ a problem-solving approach to transfers. If the transfer requires two staff members, communicate clearly with each other as well as with the resident to ensure a co-ordinated effort.

General Principles of a Safe Transfer:

To assess if a person is able to transfer without the mechanical lift, the resident must be able to:

- Lift and hold limb up in the air against gravity.
- Mobilize in bed with minimal to moderate assistance
- Go from a supine to a sitting position with minimal to moderate assistance
- Demonstrate good trunk control when they are sitting at the edge of the bed (can sit with supervision or minimal assistance)

If a person cannot do any of these movements well, a mechanical lift is suggested until they become much stronger. Be flexible with the resident's method of transfer as resident's abilities may fluctuate depending on fatigue. See STABLE Algorithm below to reduce your risk of injury.

Cognition is also an important factor. The resident must be able to follow simple directions to ensure a safe transfer.

STABLE Algorithm for Safe Transfers and Ensuring Good Body Mechanics[18]

S	Maintain in the natural curves of your spine
T	Avoid Trunk twisting
A	Keep your Arms close to your body
B	Maintain a wide Base of support
L	Use your Legs, weight shift
E	Evaluate the Environment (load, abilities, limitations)

Using a Mechanical Lifting Device

Lifting devices such as the Hoyer, ceiling lift do not promote functional recovery and are discouraged for residents who have had a stroke. However, if the resident is unable to roll or otherwise get to the edge of the bed or cannot assist with the transfer, it may be necessary to use a lifting device. When using the device, ensure that the affected arm is positioned inside the sling. Never let the affected arm hang outside the sling. Also, once resident is sitting in the chair, try to remove the sling from under them to avoid skin breakdown.

DO's	DON'Ts
• Review chart/care plan regarding transfer abilities • Assess resident's: · **Cognition:** co-operative and following instructions · **Strength, Endurance & Balance:** ability to lift limbs against gravity, sit on edge of bed, lean forward, stand and take step	• Do not pull on the resident's affected limb • Do not let the affected limb hang ⇨ provide support to the limb or assess the need for a sling • Avoid holding/pulling on resident's clothing • Do not block resident's direction of movement
• Transfer resident towards their strong (unaffected) side. Rearrange furniture as needed. • Set up equipment appropriately prior to transfer: · Position wheelchair at a slight angle to the bed · Remove foot plates/armrests of the side closest to the bed · Lock brakes of wheelchair · Set up equipment if needed i.e. sliding board, walker, etc. · Adjust the height of the bed so that the resident is transferring from a high position to a lower position • Communicate with your partner/resident throughout the transfer process • Use good body mechanics when transferring • Liaise with physiotherapy if there are any concerns	• Do not lift the resident ⇨ the resident should be assisting with all movements • Do not transfer resident if he/she is not able to follow your directions • Do not transfer resident if you need maximum assistance for any mobility ⇨ use mechanical lift

APPENDIX 3

ENSURING HYDRATION AND NUTRITION

Fluid Requirements

Most people need about 1-½ to 2 litres (6 to 8 cups) of fluid per day. Take the time to find out what types of juice, milk and other drinks the resident prefers. Frozen juice bars, Popsicles, Jell-O, pudding, ice cream, soup, meal supplements (such as Ensure and Boost) and puréed fruit contain liquid to contribute to the resident's fluid intake.

Before offering any of these foods, though, ensure the resident can have them. If the resident has a swallowing problem, contact the speech-language pathologist to determine the appropriate liquid consistency and best-tolerated food items.

Estimated Fluid Content of Common Foods

Food	Serving Size	Fluid Provided
Jell-O	½ cup or 125 mL	105 mL
Pudding (vanilla, chocolate)	85 g	56 mL
Ice cream	100 mL	34 mL
Sherbet	100 ml	50 mil
Yogurt	100 g	75 mL
Puréed fruit	125 mL	108 mL
Cream soup	120 mL	107 mL
Juice or milk	125 mL	109 mL

½ cup = 125 mL
1 cup = 250 mL
1 litre = 4 cups = 1,000 mL
2 litres = 8 cups = 2,000 mL

Food Textures

All residents need a recommended selection from the food texture list and a recommended selection from the liquid texture list.

Name of the Modified Texture Diet	Standard used to assess	Examples from the SHSC menu	Examples of items not included
Regular	• no restriction	• roast beef • raw vegetables & hard fruits • chewy bread (e.g. bagels, crusty buns) • pineapple, grapes, wieners, sausages • all salads	
Mechanical Soft ("soft solids")	• all foods are soft and easily cut with a metal fork in the middle and the edges • food texture combinations allowed (e.g. fruit salad plate, casseroles)	• Salisbury steak, chicken fingers • Mixed consistencies in foods: stews, casseroles, pastas, pies, etc • Breads, soft sandwiches • Canned fruit, orange sections • All fish, tuna, egg, salmon salad fillings • All eggs and cheese • Most cakes and pies (no nuts or seeds)	• No toast, hard buns • No green salads • no encased meats (e.g. sausage, wieners) • no hard cookies • no foods with skins (corn, peas) • no nuts or seeds
Minced (This food is ground up into very small bits, and is moist and soft, requiring very little chewing before it is swallowed)	• must be moist, soft-textured and easily formed into a bolus • minimal variation in texture	• meats are ground or minced into small pieces and moistened • soft, minced vegetables and fruit • salad fillings (e.g. tuna salad), not containing hard bits • oatmeal, cottage cheese • scrambled eggs	• no bread • no mixed consistencies (e.g. vegetable soup) • no dry foods
Puréed (All food is a uniform smooth texture with no lumps or hard bits, which does not need to be chewed before it is swallowed)	• uniform smooth texture • no lumps, hard bits • drops off a spoon	• yogurt, custards, puddings • puréed meat and vegetables • cream of wheat	• no oatmeal • no heavy or sticky purees • no seeds or fruit in yogurt

Liquid Consistencies

Diet	Standard	Description of Texture	Avoid
Regular	• no restrictions	• any thin liquid tolerated	
Thin, no mixed consistencies	• avoid foods mixed with liquids or served in a liquid	• water, tea, coffee, juice • broth, bouillon, cream soups • milk, creamer, milkshakes • powders mixed into drinks (e.g.: instant hot chocolate or instant breakfast) • strained canned fruit • ice cream & sorbet • popsicles, ice, Resource or other liquid supplements	• fruit served in juice • soups with small bits of solid food (e.g. chicken noodle, vegetable soup, lentil soup) • soupy stews • dry cereal (served with milk) • juicy fruits (e.g. orange sections)
Nectar-thick (green box)	• **Must open the box and pour it into a cup or use with a straw** • may drink with a wide straw	• Resource Nectar-thick products (milk, water, juices) • strained cream soups • ice cream & sorbet (melts to a nectar-thick consistency) • cold tomato juice or V8 • **Resource mixed equally with honey-thick milk** to form a nectar-thick drink	• all liquids from 'no mixed consistency' category • Resource liquid supplements
Honey-thick (purple box)	• Must be sipped from a cup **(no straws)**	• Resource Honey-thick products (milk, water, juices) • All fruit purées • **Extra-thick cream soups**	• all liquids from the 'no mixed' and 'nectar-thick' categories • most cream soups • Jell-O, ice cream & sorbet • Milk in hot cereal requires individual assessment by SLP
Pudding-thick	• **Must open the container and use a spoon** • Thickened to a solid level – eaten with a spoon	• extra-thick juices • fruit purées	• all liquids from the 'no mixed', 'nectar', and 'honey' categories • thin purées • milk mixed in hot cereals • Jell-O requires individual assessment by SLP
Fruit purée	• Must open the container and use a spoon	• fruit purées (apple, pear, peach, etc)	• all thickened fluids • all of the above

APPENDIX 4

SUGGESTED POST-STROKE EXERCISES

Exercises can be done either in a seated or lying position.

Choose at least 2 exercises from each group. To perform these exercises, the resident should be able to sit independently in a chair or locked wheelchair. If possible, the resident's feet should be flat on the floor.

Exercises[1]	Instructions
Head Turns	• Look over the right shoulder, count to 5. • Look over the left shoulder, count to 5. • Repeat the sequence 5 times.
Head Tilts	• While looking forward, tilt the head to the right shoulder, count to 5. • While looking forward, tilt the head to the left shoulder, count to 5. • Repeat the sequence 5 times.
I Don't Know	• Look forward and shrug the shoulders up to the ears, count to 5. • Lower the shoulders to the starting position, count to 5. • Repeat the sequence 5 times.
Shoulder Rolls	• Look forward, roll both shoulders forward; repeat 5 times. • Look forward, roll both shoulders backward; repeat 5 times.
Airplanes	• Hold onto a stable surface with the right hand. • Lift the left arm straight out to the front. • Circle the left arm 5 times to the right and 5 times to the left. • Return the arm to the side. • Repeat the sequence using the right arm. *Modification: If the resident is able, he or she can do this exercise with both arms at the same time.*
Check Those Toes	• Lift the toes up while keeping heels touching the floor, count to 5. • Lower the toes to the floor. • Repeat up to 10 times.

Exercises[1]	Instructions
Show Those Toes	• While keeping the left foot on the floor, lift the right foot until the right knee is as straight as possible. • Point the toes forward, and then flex the toes back. • Repeat 10 times. • Lower the foot to the floor. • Repeat the sequence using the left foot. or • Circle the right foot clockwise 5 times. • Circle the right foot counterclockwise 5 times. • Lower the foot to the floor. • Repeat the sequence using the left foot. *Caution: This exercise may not be suitable for residents who have had a hip replacement or who have severe degeneration of the hip joint.*
Popeye Exercise	• Hold the right arm straight down at the side. • Keep the elbow glued to the waist. • Face the palm forward. • Bend the elbow. • Lift the palm up to the shoulder. • Return to the starting position. • Repeat up to 10 times. • Switch to the left arm and repeat up to 10 times. *Advanced level: Hold a weight in each hand or use an elastic exercise band.*
Hugs	• Hold slightly bent arms horizontally out to the side. • Face the palms towards each other. • Bring the arms in towards the centre and give yourself a hug, count to 5. • Open the arms out to the side, keeping them slightly bent. • Repeat the sequence up to 10 times. *Advanced level: Hold a weight in each hand.*

Exercises[1]	Instructions
Fly Away Wings	• Hold both arms straight down at the sides with palms facing the thighs. • Raise both arms out to the sides. • Stop at shoulder height, count to 5. • Lower to the starting position. • Repeat the sequence up to 10 times. *Advanced level: Hold a weight in each hand.*
Scrub the Countertop	• Hold the arms as straight as possible out front with the palms facing down. • Keep the elbows at shoulder height as you pull the hands towards the chest. • Straighten the arms as you return to the starting position. • Repeat up to 10 times. *Advanced level: Hold a weight in each hand or use an elastic exercise band anchored behind the chair.*
Bring in the Band	• Lift the knees one after the other (right, left, right, left) as if marching. • Work up to 60 without stopping. (Each knee lift counts as 1.)
Dance Away the Night	• Begin with the knees and feet as close together as possible. • Lift the left knee about ½ inch. • Move the left leg 5 to 6 inches out to the left side. • Return to the starting position. • Repeat up to 10 times. • Repeat the sequence using the right leg. *Advanced level: Attach a weight to each ankle.*
Sitting Ballet	• Lift both heels 1 to 3 inches off the floor, count to 5. • Lower both heels to the floor. • Repeat up to 10 times.

APPENDIX 5

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