

OTCH training workbook

INTRODUCTION

Within the UK about 25% of people with stroke move directly from acute care to a care home (residential or nursing). Of all care home admissions 20% - 40% have stroke as their admission diagnosis. Stroke is a cause of severe disability in care home residents.

The overall aim of the OTCH study is to evaluate the effectiveness of a targeted course of occupational therapy (with provision of adaptive equipment, minor environmental adaptations and staff education) for people with stroke living in a care home.

This training workshop was developed by Joanna Fletcher-Smith, Kerry Steel, Karen Lett and Claire Edwards on behalf of the 'OTCH study' team. The training was developed especially for staff working in care homes (both nursing and residential) with residents who have had a stroke. We hope that you will find it both informative and useful.

As carers and health workers one of our challenges is to enable people to continue to participate in activity. Activity is essential to human existence, health and wellbeing. It can restore, maintain and improve physical and mental health. Activity that has purpose and meaning is a basic driving force. This need to carry out activity does not lessen as we grow older but the effects of ageing and disability (e.g. stroke, arthritis, and eyesight and hearing problems) can make participating more difficult.

Individual personality, life history, interests and beliefs influence our choice of activity throughout our lives. Activity defines who we are and how we see ourselves in relation to those around us, i.e. family, local community and the wider society.

This workbook and the workshop are intended to increase your understanding of stroke and how it affects a person's ability to carry out daily activities. We will focus on the importance of promoting and supporting meaningful activity for your residents.

What is purposeful and meaningful activity?

Activity: Series of linked actions by an individual which take place on a specific occasion during a set period of time for a particular reason.

Purposeful: Designed; intentional; directed towards a goal or end result; having meaning.

Meaningful: Full of meaning, significant. An activity is meaningful if it is intentional and if it has some significance for the person carrying it out.

WORKSHOP LEARNING OBJECTIVES

This workshop aims to equip you with a basic understanding of:

- **the main causes of stroke**
- **the common effects of stroke**
- **the importance of activity for maintaining health and well-being**
- **how you can support residents with stroke to participate in activity**

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Supporting people in activity

WHAT IS A STROKE?

A stroke is a “brain attack”

In order for the brain to function, it requires a constant blood supply. This provides vital nutrients and oxygen to brain cells.

A stroke happens when the blood supply to part of the brain is cut off and brain cells are damaged or die.

WHAT CAUSES A STROKE?

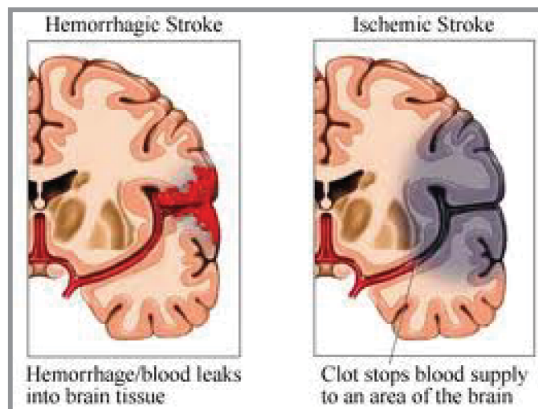
There are two main causes of stroke:

1. **Clot** (infarct)

A clot causes a blockage in the blood flow and results in ischaemia (some death to the area of the brain where the clot has occurred). A clot (also known as an infarction) is caused either by a thrombus (blockage) that occurs due to a build up of debris within the artery of the brain, or an embolism which is a clot that originates from somewhere else in the body. Ischaemic strokes account for 83% of strokes.

2. **Bleed** (haemorrhage)

A bleed is also referred to as a haemorrhagic stroke. This happens when an artery in the brain bursts (aneurysm) and blood bleeds into the brain, either due to the pressure in the artery being too high or because of a weakness in the artery wall. Haemorrhagic strokes account for the remaining 17% of strokes



WHAT IS A TIA OR ‘MINI STROKE’?

TIA stands for Transient Ischaemic Attack

Transient = passing through

Ischaemic = some death to the area of the brain

Attack = short & sudden

The symptoms of a TIA:

- are exactly the same as stroke
- may only last 30 seconds
- resolve within 24 hours

A TIA is a warning! If you suspect one of your residents is having a TIA, treat it as a medical emergency and phone 999. If left untreated, a TIA can lead to a stroke.

WHAT ARE THE EFFECTS OF STROKE?

TASK ONE: Please list in your workbook any effects of stroke that you have seen in your residents or that you know about...

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THE EFFECTS OF STROKE

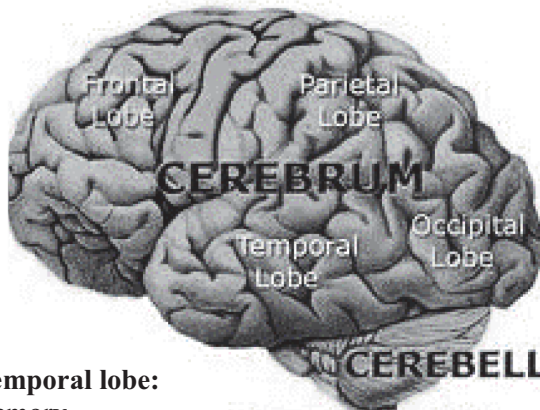
Compare your own list of the effects of stroke to the one below:

- Physical pain
- Weakness or paralysis to one side of the body
- Poor balance
- Problems with sensation
- Difficulty swallowing
- Tiredness or difficulty sleeping
- Difficulty understanding people or communicating (aphasia)
- Visual problems
- Cognitive problems (mental processing)
- Incontinence (Bladder and bowel problems)
- Emotional problems (anxiety, depression, anger, sadness)

There may be more effects of stroke than you knew about. The effect of a stroke is dependent upon where the damage in the brain occurs:-

Frontal lobe:

thinking
planning
organising
problem solving
emotions
behaviour control
memory
movement



Temporal lobe:

memory
understanding
behaviour
hearing
speech
vision

Parietal lobe:

language
reading
perception
sensation

Occipital lobe:

vision

BRAIN STEM

Brain stem:

blood pressure
breathing
consciousness
heartbeat
swallowing

Cerebellum:

balance
coordination

The consequences of a stroke may vary from person to person. The location and extent of the damage to the brain, timely medical treatment and any subsequent rehabilitation may impact on a person's abilities to resume their previous roles and activities. Disability is associated with being unable to perform those daily living tasks previously undertaken.

A DAY IN THE LIFE OF...

TASK TWO (A): Briefly list all the things you did yesterday

- 8 am
- 9 am
- 10 am
- 11 am
- 12 noon
- 1 pm
- 2 pm
- 3 pm
- 4 pm
- 5 pm
- 6 pm
- 7 pm
- 8 pm

TASK TWO (B): Now think of one of your residents and briefly list all the things they did yesterday

- 8 am
- 9 am
- 10 am
- 11 am
- 12 noon
- 1 pm
- 2 pm
- 3 pm
- 4 pm
- 5 pm
- 6 pm
- 7 pm
- 8 pm

Our days are made up of various activities. Some are productive tasks such as doing the grocery shopping, laundry, ironing and cooking meals; some are social activities such as having coffee with a friend. There are recreational or 'leisure' activities that we participate in such as swimming, reading a magazine or watching TV.

These activities are often linked to certain roles that we have in life. We may have certain caring activities that we perform in the role of partner or parent, such as preparing meals and doing the family's laundry. We may also have the role of daughter/son, colleague/worker/volunteer, or friend.

It is important for all of us to have a sense of purpose and meaning in life. It is vital that we value residents' life experience and life history and recognise the roles that they have played in their lives, so that we can try to provide activities that are relevant, purposeful and meaningful to them.

What do your activities say about you (your roles) and the residents activities say about their roles? How have their lives changed as a result of stroke or other diseases of ageing, and coming to live in a care home?

ACTIVITY

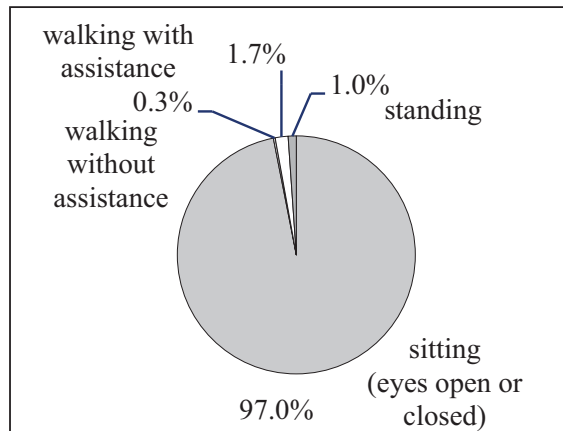
Activity is:

- A basic driving force
- Essential to existence, health and wellbeing
- Can maintain and improve physical and mental health

What we do (activity) helps to define who we are. Our individual personality, life history, interests, values and beliefs influence our choices about the activities in which we choose to participate. The effects of stroke or other diseases of ageing may affect a person's ability to participate in activity but the drive (or desire to participate in activities) often remains!

How do care home residents spend their time?

An observational study undertaken in local care homes by the University of Birmingham in 2004 found the following: 97% of the residents' day was spent sitting, either with their eyes open or their eyes closed.



The risks associated with inactivity are:

- Stiffness and weakness
- Reduced stamina and endurance
- Reduced bone density through non weight-bearing
- Constipation
- Low mood
- Pressure sores, contractures and deformities
- Decline in mental ability
- Increased risk of falls

GIVING AND RECEIVING CARE

Task three is designed to enable you to feel what it is like to lose your independence when carrying out daily activities; the second part of the task shows how small changes in your approach can increase someone's feeling of control with an activity.

TASK THREE (A): With a partner choose one of the following activities (feeding or washing) and answer questions below:

- Feeding – with a partner and using the materials provided, take turns to feed each other.
 - How does it feel to be fed by another person?
 - How does it feel when your control and choice is removed?

- Washing – with a partner and using the materials provided, take turns to wash each other's face.
 - How does it feel to be washed by another person?
 - How does it feel when your control and choice is removed?

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.....

.....

TASK THREE (B): Using the same activity, now try guiding your partner's hand to enable them to feed/wash themselves.

Briefly describe how this feels:

.....

.....

.....

PARTICIPATION IN ACTIVITY

Activity is not about “all or nothing”. Supporting someone to take part in activity increases their control and choice. A person may be able to participate in an activity even if they cannot complete the whole task. Anything that supports a person to perform an activity is likely to increase their feeling of control and choice.

Try breaking down the activity into a series of actions and the skills required to perform the activity. Usually activity is made up of a series linked actions. To participate the person may only be able to achieve one of the actions but is still participating and exercising control and choice. What can you do to support the person? Adaptive equipment may help.

COMMON STROKE EFFECTS, AND STRATEGIES TO TRY WEAKNESS OR PARALYSIS

Weakness (hemiparesis) or paralysis (hemiplegia) to one side of the body

Hemiparesis or hemiplegia refers to the weakness or paralysis to one side of the body and can lead to poor balance when sitting and standing.

Right side brain damage = left hemiplegia

Left side brain damage = right hemiplegia

The severity of weakness varies from person to person. Some individuals experience total paralysis to one side of the body, others have only a slight weakness to one side of the face, the face and one arm, or weakness in the arm and leg.

Problems with sensation

The person may also have accompanying loss of sensation in their affected side.

Sensation is the information the brain receives from the body about how things feel, such as rough, smooth, cold, hot, sharp and blunt. The sensation of light/deep touch may be reduced. Affected limbs may be at risk of injury due to reduced sensation.

CARING FOR THE AFFECTED ARM AND SHOULDER

Shoulder subluxation after stroke

A subluxation is a partial dislocation of a joint. Shoulder subluxation is typically caused by weakened muscles and connective tissue around the glenohumeral (ball and socket) joint of the shoulder. When the muscles are too weak to hold it in place, the head of the humerus bone slides out of the glenoid fossa (the concavity in the head of the scapula that receives the head of the humerus to form the shoulder joint). The gap between the head of the humerus and the shoulder socket can be about the width of two fingers.

A subluxation can be exacerbated by years of people pulling on the arm when using it to move the individual. A subluxed (partially dislocated) shoulder will cause pain to the individual and is a condition that can be prevented by good positioning and supporting the weight of the affected arm both during activity and at rest.

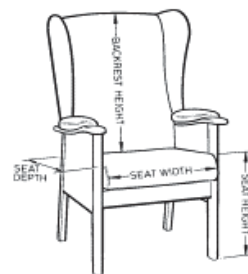
Key strategies to manage weakness or paralysis to one side of the body:

- Always support the weight of the affected arm (when seated, lying in bed, and transferring)
- If you see an individual's affected arm hanging by their side, place it in a supported position, on the arm rest, on their lap or resting on a cushion.
- Avoid pulling on the affected arm when helping with washing and dressing or when transferring.
- Use pillows, cushions or rolled up towels to help support the person when seated.

POSITIONING SOMEONE WITH WEAKNESS OR PARALYSIS

Good supportive positioning after stroke is important to:

- promote comfort
- prevent complications (such as pressure sores)
- enable optimum levels of activity
- promote safe swallowing



When seated aim for hips, knees and ankles to be at 90 degrees

The following points should be considered when selecting a chair for the resident to sit in:

- If the **chair is too low:**

- It is very difficult to stand/sit
- It requires more effort
- there is more pressure going through sitting bones
- it is uncomfortable and can cause pressure sores



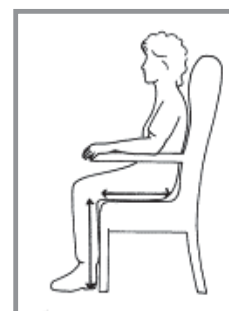
- If the **chair is too high:**

- There is risk of pressure under the thighs, particularly just above the knees
- the person is not able to put feet on the floor
- sitting balance is more difficult
- it is uncomfortable and increases risk of drop foot/stiff ankles



- If the **chair is too deep:**

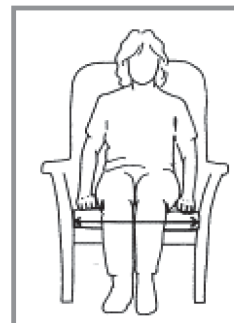
- it causes slumping in chair and the cushion to rub behind the knees
- it may cause bottom to slide forwards and person can slip onto the floor



- If the **chair is too shallow:**
 - the thighs are not supported
 - sitting becomes uncomfortable

- The **width of the chair:**

- should be wide enough to sit comfortably while
- undertaking activities such as reading & writing
- should be narrow enough to make use of the arm rests



- **Pressure cushions:**

- are designed to work with the bottom back in the chair and weight evenly distributed along thighs
- do not work properly if a person is not positioned properly in the chair.

- **Poor positioning:**

- can lead to limited functional skills (eg feeding, reading, personal grooming)
- can lead to contractures, muscle wasting, and loss of sitting balance skills

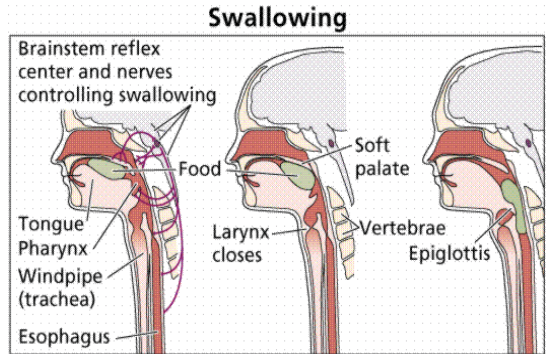
SWALLOWING PROBLEMS (DYSPHAGIA)

The muscles of the mouth and tongue can be affected by stroke, causing difficulty in swallowing. Difficulty swallowing presents a RISK of:

- **Choking**
- **Chest infections**
- **Pneumonia**

Dysphagia, or trouble swallowing, may involve one or more of the following:

- Chewing.
- Tongue movement.
- Preparing food for swallowing.
- The actual swallow movement.



Key strategies to manage swallowing difficulties:

- Make sure the person is sitting as upright as possible when eating or drinking.
- Ensure the person remains upright for 15-20 minutes after eating and drinking.
- Avoid noise and any distractions during mealtimes.
- Sipping iced water or sucking on icepops or ice lollies before a meal may stimulate the swallowing mechanism.
- Smaller mouthfuls of food or drink may help.
- Watch and encourage the person to chew their food well.
- Ensure a strong swallow between each mouthful. The person may need to swallow again or cough to clear the throat before taking a second swallow.
- Fatigue may affect a person's ability to swallow. Smaller meals taken more often or with snacks between meals may help with this problem.
- Look out for signs swallowing difficulty. If someone is drooling or coughing at mealtimes this could be a sign of swallowing problems. A referral to speech and language therapy for a swallowing assessment may be required.
- Ensure food and drinks are given at the correct consistency. Is the person on a pureed diet? Should their drinks be thickened?

COMMUNICATION PROBLEMS

Communication problems (aphasia) after stroke are common and affect around a third of people with stroke.

Communication problems after a stroke often result from damage to the parts of the brain responsible for language, but the ability to control the muscles involved in speech may also be affected. The specific problems experienced by the individual will depend on the extent of the damage and which area of the brain has been affected. For most people, the area of the brain mainly responsible for aspects of language is located in the left hemisphere (side). This means that damage in this region can affect the ability to speak, understand, read and write.

Types of communication problems:

Difficulty understanding or “**getting the message in**” = **Receptive aphasia**

Difficulty expressing oneself or “**getting the message out**” = **Expressive aphasia**

Difficulty controlling the muscles involved in speech / “**slurred speech**” = **Dysarthria**

Memory lapses and difficulty with concentration can also affect communication.

There are many different ways in which the ability to communicate may be affected but, generally, the problems are related either to speaking, or understanding what other people are saying. Do not assume that a person with communication problems also has cognitive problems!

Imagine not being able to understand those around you...

Key strategies to help get the message IN (Receptive aphasia):

- Ensure person has glasses/ hearing aid on as appropriate
- Slow down your pace of speech
- Write down key words for the person to see
- Keep sentences simple – one idea per sentence
- Repeat and rephrase
- Summarise and recap regularly
- Use drawings & diagrams to convey ideas

- Use natural gesture
- Use ‘communication ramps’ and props (eg photos, maps, newspapers)

Imagine being able to understand what other people say to you but being unable to speak...

Key strategies to help get the message OUT (Expressive aphasia):

- Encourage use of pen & paper to write/draw key points
- Encourage person to make use of words/drawings you have written down (point, underline, cross them out)
- Don’t rush, be silent & give extra time
- Ask questions – move from general areas to more specific topics
- Check you are understanding correctly (“Have I got this right?”)
- Use props and ramps
- Don’t pretend you understand

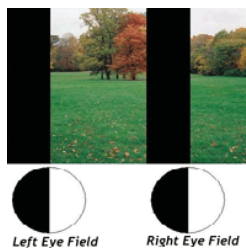
VISUAL PROBLEMS AFTER STROKE

Visual problems are common, (affecting up to 2/3 of stroke survivors). Depending on the area of the brain affected, visual problems may include:

Central vision loss



Visual field loss



There may be **eye movement problems** as well as **visual processing problems**. Processing problems may include impaired depth perception and difficulty locating objects e.g. misjudging the position of a cup and pouring water over its edge rather than into it, or over-reaching for an object.

We rely on our vision when carrying out many daily activities. Visual problems will therefore impact on a person's ability to carry out activities safely and independently.

COGNITIVE PROBLEMS AFTER STROKE

There are some more "hidden" effects of stroke that may affect a person's mental functioning or "cognition".

Cognitive problems include difficulties with **attention and concentration**, **memory** problems, and **difficulty in making sense of the World** around them. People can also have **difficulty recognising common everyday objects** and may be unable to work out sequences of movement required to carry out a daily task such as dressing. A person's **ability to plan, problem solve, organise, initiate and function in socially acceptable ways** can all be affected. People may also experience **emotional problems** such as anxiety, depression, anger or sadness.

SUPPORTING MOBILITY AND TRANSFERS

Encourage normal movement wherever possible. Use the correct and appropriate moving and handling techniques if assistance is required - avoid drag lifting and pulling. Consider the environment in which any equipment is to be used.

- **Walking aids**
 - Different types of walking aid offer different support to facilitate walking
People's needs can change over time therefore the type of walking aid should be reviewed regularly
 - Walking aids should be serviced regularly
(i.e. Ferrules, brakes, clips etc)

- **Height of walking aids**
 - Distance between wrist bone and ground when person stands in regular footwear with arms held loosely at their side, for sticks and frames.
- **Size of base of walking aid**
 - The wider the base of support, the more stable the walking aid
- **Wheelchairs**
 - Wheelchairs should be adjusted to suit the user (i.e. cushions, height of footrests)
 - Positioning and posture is important as with seating in chairs
- **Transfers**
 - Encourage normal movement
 - Use correct moving and handling techniques if assistance is required
 - Avoid drag lifting and pulling
 - Support the affected arm
- **Standing up**
 - Position walking aid in front of chair, advise person to:-
 - Move bottom to front of chair
 - Check feet position; feet back, slightly apart
 - Push down on the arms of the chair: do not pull up on walking frame!
 - Lean forward: bring shoulders over knees (or nose over toes)
 - Once standing hold walking aid, tuck in bottom, straighten knees and stand tall

Moving and handling should be according to risk assessment. When helping people: assess the situation and refer to moving and handling policy/advisor within the home.

- **Sitting down**
- Advise person to:-
 - Stand in front of chair with walking aid
 - Feel for the chair on back of legs

- When ready, let go of aid and feel for arms of chair
- Use arms of chair to lower into seat

Once person is seated, the walking aid can be moved within reaching distance

- **Hoisting**

- Always use the appropriate hoists and slings for the task, person's ability, and needs
- Have the correct number of people present to undertake task

TASK FOUR: With a partner try the following:

1. Standing up from a high chair
2. Standing up from a very low chair
3. Try standing up with feet out in front of you
4. Try standing up without bending forward

SUPPORTING PEOPLE IN ACTIVITY

What can **you** do to improve life after stroke for people in your care?

- ❖ When working with a person, encourage activity as soon as possible and whenever possible.
- ❖ By creating the conditions where activity is encouraged and expected, a person's feeling of choice, control and well-being can be maintained or restored.
- ❖ Encourage people to maintain as much independence as possible when undertaking any activity.
- ❖ Create conditions to enable people to achieve maximum independence.

Can a person:

- ❖ be supported physically or positioned better in order to perform the task?
- ❖ be supported to start or finish the task?

- ❖ be prompted or directed through a task – verbally, visually or with suitably placed prompts e.g. handed articles of clothing in the correct order for dressing, given garments the right way up?

- ❖ Demonstrate aspects of the task on each occasion.

- ❖ Change or encourage aspects of the task to be changed to accommodate weakness or paralysis, e.g. a person may use teeth to pull something instead of affected hand.

- ❖ Use adaptive equipment - equipment can bridge the gap between the skills needed to do the task and the skills of the person.

Consider the following when working to promote participation and increase independence in activities:

- Expectation - expect the person to participate
- Motivation – be enthusiastic about the person’s ability to participate
- Opportunity –offer the choice to participate on every occasion
- Time – allow enough time for the person to participate
- Supervision – prompt rather than do when appropriate
- Encouragement and confidence building
- Reinforcement of correct use of equipment and techniques

Something to be aware of.....Tiredness

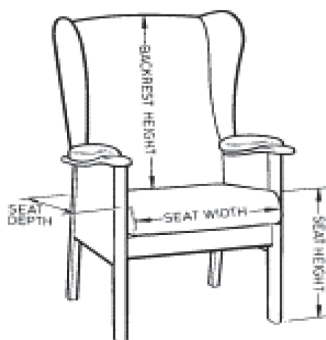
Those tasks that were once easy may now require continuing effort to perform. Overtiring a person can lead to poor performance, increased tone in affected limbs and reduced motivation.

Equipment

There is a variety of equipment available to assist people to participate in activity. Equipment can bridge the gap between the skills required to perform a task and the skills available to the person. Equipment to assist a person to participate in daily activities should only be used by the person for whom it has been assessed and provided. Equipment should be checked and maintained regularly, according to the manufacturer’s instructions

People with limited mobility or impaired physical abilities can have difficulty standing and sitting. Relatively inexpensive equipment can be provided to assist with these issues, such as chair raisers, bed raisers, raised toilet seats and various types of rails.

Chairs - Aim for hips, knees and ankles to be at 90 degrees



Sensory equipment

The RNID and RNIB provide information and advice on equipment for those who are hearing or visually impaired. This may include the use of hearing aid loops for a room or to use with a TV, vibrating alarm clocks or pagers for hearing impaired residents. Speaking clocks or watches and liquid level indicators may be of benefit to visually impaired residents.

Dressing

Encourage people to consider their choice of clothing. Minimising the need for buttons, zips, rear fastening garments, laces etc can increase someone's ability to manage dressing. Loose top socks are also available. Dressing while sat in a chair may be safer than sitting on the side of the bed. Dressing the bottom half may be easier and safer undertaken on the bed, especially if the person has poor standing balance. To dress on the bed the person may have to be able to lift their bottom off the bed (bridge) to pull up pants etc. A full length mirror provides feedback to the person about their position and how they look.

Dressing upper body- lay garment over the knees with neck furthest away from the body with the sleeves hanging down outside the knees. Put the affected arm into the appropriate arm hole and push garment beyond elbow then either put remaining arm in arm hole and pull over the head or pull over head and then place the unaffected arm through the arm hole.

Undressing upper body-gather and grasp the garment at the back of the head and pull it over the head, then remove arms from the sleeves, usually unaffected side first.

Dressing lower body-consider the use of adaptive equipment to place garments over the toes (helping hand, dressing sticks, braces, pull ups). If able ask the person to cross the affected leg over the unaffected leg to reach over the toes on the affected leg. Place garments over

toes then uncross legs and put garments over toes on non-affected leg. Many people will find this difficult but some may be able to manage it.

Undressing lower body- Lay on the bed to remove garments or stand and let clothes drop past knees, sit to remove feet from within clothes. Consider use of adaptive equipment.

Environment, room layout and clutter

Consider the layout of the furniture within the room with the person/ their family in relation to their needs e.g. position of the bed- consider if the person can have their walking aid within easy reach, get in/out of bed independently, especially if the person can only get in/out on one side of the bed, and is the lighting better in one part of the room. Keep the room clutter free i.e. rubbish bins, movable tables, shoes, trailing alarm button cord. Consider the abilities and needs of the person i.e. access to alarm button, access to armchair with frame.

Positioning

Poor positioning can limit functional skills, such as feeding, reading or personal grooming. It can also lead to contractures, muscle wasting and a loss of sitting balance skills. Also, unless specially assessed and issued most pressure cushions are designed to work with the person's bottom back in chair and their weight evenly distributed along the thighs. Poor positioning can reduce the effectiveness of the pressure cushion.

Personal care

For people who have the use of one hand only, support them to put the soap in a soap dish or on a dry cloth and wipe the flannel over the soap or alternatively use a soap dispenser. Motion sensor soap dispensers are now more readily available. To wring out the flannel, show the person how to put the flannel around the tap and twist it or use a small flannel and squeeze it out with one hand. A suction nail brush or suction denture brush can be used to prevent the brush moving whilst a resident cleans teeth and nails. There is a variety of adaptive equipment to assist people with all aspects of personal care.

Eating

There is a variety of special adaptive cutlery to assist people with eating, depending upon the problem e.g. larger handles, angled cutlery, swivel and weighted handles, combined knife and forks. Plate-guards or special plates can be used to prevent food falling off the plate or make it easier to locate the food when using one hand to eat. Non slip matting prevents the plate

from moving. Ensure the food is placed within the person's field of vision. Ensure the person is positioned to facilitate access to the food and eating. Within the limits of their sitting balance people should be sat upright.

And finally...Encourage meaningful activity whenever possible. Allow people to maintain as much independence as possible by creating conditions that enable each person to achieve maximum independence while remaining safe.