Falls Prevention Self Directed Learning Package
Registered/Enrolled Nurses and Allied Health
Christchurch Hospital

Produced by the Christchurch Hospital Falls Committee, CDHB
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Learning Objectives

This self-directed learning package (SLP) has been developed to assist clinical/allied health staff to demonstrate competent knowledge and skills in risk assessment of patients who may be at risk of falls. Completion of this SLP is compulsory for all Nursing and Allied Health staff working within Christchurch Public Hospital.

It is expected that on completion of this package you will be able to:

1. Discuss the importance of falls prevention during and after hospitalisation and know the process for referring patients to falls prevention programmes in the community on discharge.

2. Identify and minimise the risk factors related to falls in the acute hospital environment.

3. Develop knowledge in the use of the Modified Hendrich II Falls Assessment Scale and the use of interventions to reduce the risk of falls.

4. Demonstrate an understanding of falls prevention strategies including sensor systems and non slip socks.

5. Locate, read and understand the Falls Prevention Management Policy.

Note: For nursing staff the Nurse Educator (NE), Clinical Nurse Specialist (CNS), and Charge Nurse Manager (CNM) in your area are able to support you in this process, and provide extra resources if needed. Once you have read the SLP and answered the multi-choice questions please forward your multi-choice test and evaluation form (not the entire package) to one of these people. You will be credited 2 hours professional development time on your individual staff training record for completing this package.

For Allied Health staff your manager or a designated person in your area is able to support you in this process, and provide extra resources if required. One you have read the SLP and completed the multi-choice questions please forward the test and your evaluation form to your manager.
Section 1: Overview

Falls are the leading cause of injury during hospitalisations for older adults (65+ years) and for injury related deaths in this age group.

There is an ongoing serious health issue with the frequency and severity of falls increasing with age:
- 1 in every 3 patients over 65 fall in any given year
- 1 in 2 patients over 80 years of age will fall
- Only 50% of patients will regain their pre fall level of functioning

Falls continue to be an important focus due to the following factors:
- Ageing demographic population in Canterbury
- 70,000 people 65 years of age live in Canterbury
- 11,000 claims per year to ACC for fall related injuries with associated cost of around $11.4 million
- The cumulative incidence of fall claims with ACC is 16%
- Falls are the leading cause of injury with varying degrees of associated mortality and morbidity for the over 65’s
- Falls diminish an individual’s ability to live independently in the community
- Falls cause significant social and psychological impact for the individual

1.1 Fall Settings

The literature and research for falls prevention is divided into 3 settings:
- Community
- Residential care
- Hospital settings both acute and rehabilitation

It is important to note that falls in the different settings will have their individual subset of risk factors and therefore outcomes, interventions and recommendations will vary accordingly. When older people are admitted to hospital they often come with a pre existing fall risk, which may deem them to have an increased risk of having a fall during their inpatient stay.

1.2 Falls in the Hospital Setting

Occurrence:
- Acute environment 2-5% of falls
- Sub acute rehab environment 46%
- Around 50% of falls occur in the Community Setting
- Stroke units are high risk as decreased mobility and increased dependence means there is a greater challenge in minimising the risk of falling
- Patients 65 and older account for 40% of all in patient days and therefore at higher risk of falling
1.3 Consequences

For the patient:

- Increased risk of complications e.g. fractures, lacerations, pneumonia or vascular problems associated with not being able to mobilise
- Decreased confidence
- Increased fear of falling
- Increased risk of institutionalisation (especially if frail and older then 80 years)

For the Hospital:

- Extended length of hospital stay
- Additional cost of diagnostic procedures and/or surgeries
- Cost of staff if one on one care is required (i.e. $500/day)
- Added cost to overall care, a US study estimated the cost of a fall to be $4,233 ($US)

For these reasons, Falls Injury Prevention Initiatives should be a priority in the hospital setting. The inpatient stay often focuses more on the medical care of disease specific illnesses and less attention is given to the functional status of the patient. These are critical determinants for quality of life, physical independence, cost of care and prognosis for older adults.

Falls in the acute hospital setting are a complex issue as often the short length of stay and management of acute illness/surgery limits the ability to identify fall risk and therefore implement the appropriate intervention(s).

We need to minimise the risk of falls during admission as well as implement an appropriate strategy on discharge to maintain a continuum of care. The immediate period following discharge from hospital is associated with three times the risk of falling especially in the three months post discharge. Fall related injuries account for 15% of readmissions within the first month.

To reduce hospital wide fall injuries involves ALL staff having a heightened awareness of at risk patients. Discussion and involvement of the multi-disciplinary team in actively identifying and implementing strategies is vital for ongoing patient safety. Discussion with the patient and family/whanau/carer is also important

The Falls Prevention Management Policy can be located on the intranet under Divisions → Medical/Surgical (Christchurch Hospital) → Falls Prevention → Policy and Form; alternatively it can be located in Volume A Policy and Procedure Manual.
1.4 Definition - FALL

*A patient fall is defined as an event which results in a person coming to rest inadvertently on the ground or floor or other lower level. This includes:

- Falls from cardiovascular causes such as hypotension and transient ischaemic attacks.
- Falls where a person who is found on the ground or floor or other lower level and can not explain why they were there.
- Falls resulting from epileptic seizures.

This excludes

- Falls resulting from sustaining a violent blow.

*Definition from the World Health Organisation and ACHS Hospital Wide Version 11 Clinical Indicator Users’ Manual 2009

For the purposes of reporting patient falls please note:

- Impacting against an adjacent surface (eg wall or furniture), slips, trips & lowering/assisting a patient who is in the act of falling are to be included.
- Developmental falls involving young children that result in no injury are not reported as an incident and are therefore excluded.

1.5 Canterbury DHB H&SS Falls Categories

**No Injury**: There was no obvious/apparent injury noted.

**Minor Injury**: This includes minor bruising, a small skin tear, or the patient reports that they have a painful site or tenderness, but no injury is evident.

**Moderate Injury**: resulting from a patient fall includes: skin tears or lacerations that require suturing; a head injury that required an X-ray but with no further injury noted; major bruising, minor head injuries, and a fractured nose.

**Serious Injury**: resulting from a patient fall most often refers to when a fracture has been sustained, often a fractured femur or fractured pelvis. Often these fractures require surgery. This category would also include moderate to serious head injuries.
Section 2 – Risk Factors

Risk factors are referred to as being intrinsic, pertaining to the individual or, extrinsic which refers to the environment.

The patient presenting with more risk factors has proportionately increased risk of having a fall and examples include:

Intrinsic
- Increasing Age
- Physical/cognitive/visual impairment
- Hypotension
- Medications
- Activity at time of fall
- Decreased strength and balance
- Malnutrition
- Depression
- History of Falls
- Existing co-morbidity e.g. arthritis
- Confusion/Delirium/Dementia
- Altered Elimination
- Fluctuation in mobility
- Diagnosis on admission

Extrinsic
- Hospitalised for 19 days or more
- Environmental hazards
- 2/3 of falls occur at the bedside
- Time of day (most occur when observation capacity of staff is low e.g. night shift)

Section 3 – Falls Risk Assessment

3.1 Modified Hendrich II Falls Assessment Scale

Within Christchurch Hospital the Modified Hendrich II Falls Risk Assessment Scale has been adopted. It is one of the few scales that have been validated for use within the acute hospital environment.

Every patient must be screened with the falls risk assessment on admission using the Modified Hendrich II tool. This is on the Risk Screening Form C24009A. This can be undertaken by staff member. Refer to Appendix 1 (pg 22).

In an acute setting once a patient has transferred from one area / service to another there is often additional clinical information available or a more definitive diagnosis available, so a reassessment of the fall risk at this time is important.

Once the staff member has completed the Modified Hendrich screening tool, and a risk factor is identified within a category (A,B,C,D,E or F) then consider both the corresponding strategies for this risk/s as well as other strategies listed within the other categories.
If two or more categories are selected the patient is considered to be a high falls risk therefore all strategies in every category are to be considered and implemented.

Patients with a High Falls risk require:
1. A green wrist bracelet
2. A Falls risk label on the patient status board.
3. Fall prevention information brochures for the patient and whanau/family (ensure these are discussed with the patient and family/whanau).

Actions initiated can be documented on the Risk Screening Form C24009A and the Care Assessment and Planning document C24009C. This document enables the staff member to individually assess the patient more comprehensively and identify where strategies can be implemented to decrease the risk of falls. When a strategy is identified as appropriate to use, that category section is then ticked, the strategy is to be initiated and then signed to indicate the action has been implemented.

Once the initial Care assessment and Planning Fall Prevention section is completed the staff member then completes the Risk Management section of the Weekly care plan. See Appendix C (page25)

Transcribe the strategies you have ticked you are using from the Fall Prevention section and add these to the Risk Management section under Fall Prevention – use O for your shift and date.

Use O or D when the patients fall risk is reassessed. Reassessment should occur informally every shift and formally every day.

Document the reassessment
- At least every 24hrs or
- when their health status has changed or
- they have had a fall

by updating your strategies or indicating

3.2 Previous Slip/Trip/Fall (Falls Risk Assessment Category A)

Refer to physiotherapist and/or occupational therapist using the Christchurch Referral Form C24009D, Appendix 6, pg 28

3.2.1 Suitable for Falls Prevention Programme
Using the flowchart (Appendix 4  Flowchart on Falls), assess the patient to see if they would benefit from one of the community programmes. This is often useful to do in collaboration with the physiotherapist, the patient and their family/whanau/ carer.

Discussion with the patient as well as family/whanau may confirm that slips / trips/ falls have been occurring in the home environment. Consider those that describe ‘drop’ attacks, syncope or who are admitted with a diagnosis of ‘collapse ? cause’. Some patients do not readily identify they have been having issues, so direct questioning around collapses, trips or slips may be helpful.

3.2.2 Visual Issues
Assessing a patient’s sight is important, because if a person’s vision is poor then they are at greater risk of a fall. If, when observing a patient, you notice behaviour such as inability to see the details of objects, not wanting to/or unable to read a book or watch television, spilling drinks and bumping into objects, then you should consider the possibility of visual impairment being a problem and test accordingly e.g. assessing visual fields and using the Snellen chart to assess acuity. It is important to ensure the patient is wearing their normal visual aids at the appropriate time.

The “Blue Mountains Eye Study” carried out in Australia in 2002 confirmed that visual impairment is strongly associated with an increased risk of falls. In the hospital environment one may argue that this is even more profound due to the foreign environment. It may also be beneficial to ask your patients when they last had an eye examination or their prescription glasses reassessed as the study also concluded that 45% of the participants in the study would have improved their visual acuity with new glasses.

It is vital to ensure all patients including patients with visual impairment know how to call for help, have a clutter free bed space, have footwear that is easy to locate, be orientated to the ward environment, be placed close to toilet facilities if possible and have any visual or walking aides within reach at all times. Sometimes a light coloured strip of tape can be utilised to show a safe path to the bathroom or toilet facilities. If it has not already been done, document visual difficulties, use signage to indicate a deficit and request a medical review which may be appropriate to identify a potentially reversible condition such as cataracts.

### 3.2.3 Hearing Issues
If a patient appears to lean forward when listening to conversation, asks to have words or sentences repeated, speaks louder then what would be considered normal or has the radio or television volume fairly loud, this indicates they may be hearing impaired. In addition, ensuring that hearing aides are working properly, being used and signs indicating the patient has a hearing impairment are useful.

### 3.3 Unable to “Get up and go” (Falls Risk Assessment Category B)
This is especially related to the patient’s ability to get themselves upright from a sitting position without any assistance. Refer to physiotherapist and/or occupational therapist using the Christchurch Referral Form C24009D, Appendix 6, pg 28.

### 3.3.1 Home Environment
A substantial number of falls occur in the home environment. ACC provides a handout called Standing up to Falls which is available on the wards (or through the physiotherapist) to give to patients and their families. It contains useful information to prevent falls and protect independence in conjunction with other strategies. This resource and several other usual resources in relation to falls prevention can also be downloaded from the website www.acc.co.nz and enter falls prevention in the search field. Discussion with the multidisciplinary team may indicate the need for a referral to an Occupational Therapist (OT) this may be useful if there are any issues that are identified, and an OT home assessment may be suitable.

### 3.3.2 Recent Decrease in Mobility
If the patient has been admitted to the ward with a specific medical condition, such as a stroke or fracture, it is reasonable to immediately consider them a falls risk. If the patient
suffers from a progressively debilitating disease (e.g. cancer or heart failure) they may have fluctuating levels of ability to self care due to fatigue. If a patient is not an obvious falls risk, it is important to determine the patient’s normal level of mobility and function at home by speaking with the patient, family or care facility.

Once this is established, observe the patient attempting to transfer/mobilise with their normal aides. If they are unable to transfer, appear unsteady, reaching out for objects or overbalance while attempting to complete tasks – consider a physiotherapy referral. If a patient is having difficulty managing their normal ADL’s while on the ward (e.g. showering, dressing etc) consider an OT referral.

While awaiting completion of these assessments, it is important to supervise/assist patients as required and ensure the patient is aware that this is in the interests of maintaining their safety during their stay in hospital. If a patient is unsteady because of a medical condition that is likely to resolve in a few days, it is important to provide supervision/assistance as required until resolution. Remember to reassess and review the care plan if unsteadiness persists after the medical condition has resolved – consider a physiotherapy referral. Examples of resolvable conditions are: diarrhoea and vomiting, hypotension, low Hb, low Na+.

Many patients are keen to maintain their independence and the balance between maintaining this and ensuring patient safety may require more regular checks on the patient or increased presence of staff so patients are more willing to ask for assistance.

If mobility aids are available it is also important to ensure that they are appropriate, within reach and can be used safely.

3.3.3 Deconditioning and Falls Prevention Exercise Programme for In-Patients

Up to 50 % of hospitalised patients can experience functional decline as a result of deconditioning. Deconditioning can affect all of the body systems in particular the musculoskeletal, cardiac and respiratory systems. Research indicates that a patient on bedrest may lose up to 5% of their muscle strength per day and this particularly affects the lower limbs.

Possible consequences of deconditioning include disuse osteoporosis, postural hypotension, decreased strength particularly in the lower limbs, alteration of gait, reduced lung capacity and reduced gaseous exchange leading to hypoxia, delirium, decreased confidence and self perception as a person because they are able to do less for themselves. Therefore consequences of deconditioning in turn lead to an increase risk of falls. Early mobilisation regaining function and shorter hospital length of stay reduces the risk of deconditioning and also the risk of falls.

Currently within CPH a project team facilitated by Sarah Whitfield, physiotherapist, is in the process of rolling out a falls prevention exercise programme for patients in acute care. This project will be initially trialled in three wards.

In a recent Cochrane collaboration review it was identified that in hospitals, multifactorial interventions reduced the risk of falls, and supervised exercise programmes demonstrated a significant reduction in the risk of falling. The vision for the falls prevention exercise programme at CPH is a physiotherapy lead programme that will target the “at risk” of falls
population, de-conditioned patients and the elderly. It will start falls prevention as soon as a patient is admitted into the acute setting, comprising a daily exercise programme similar to the Otago Exercise Programme. Patients will be referred on a daily basis if they are medically stable. The sessions will take place in the physiotherapy gym and be run by one physiotherapist with the assistance of one physiotherapy assistant.

3.3.4 Footwear and Non Slip Socks
If a patient appears to be limping, or has poorly fitting footwear, then the risk of falling is heightened. Inappropriate footwear is usually:

- Loose fitting
- Open backed
- Worn soles, or heels
- Poor or no fastenings
- High heels
- Ill-fitting Slippers

Document any poor foot condition and bring this to the attention of the medical team who can then refer urgent cases to the podiatrist on site.

If the patient has inappropriate footwear, it is advisable to contact the family/whanau or carer to request more suitable footwear is bought in and explain the rationale clearly. All wards within the medical/surgical division have a supply of non slip socks available for short-term use. The criteria for issuing non slip socks to a patient are as follows:

Acute admission with no appropriate footwear
and/or
A Falls Risk
and/or
Confusion or wandering behaviours and likely to mobilise without footwear
and/or
TED’s and mobile
and/or
Oedematous feet or bandages that limit the use of appropriate footwear

The guidelines for non slip sock use and management are located alongside the sock supply on each ward and also in Appendix 6.

If a patient has no appropriate footwear at home replacement footwear may need to be purchased and information on where to purchase speciality footwear can be found in Patient Falls Information brochures. It is useful to also give this information to the patient and their family.

3.3.4 Weight Loss/Malnutrition
Malnutrition is a serious health problem affecting 15-40% of patients admitted to hospital. It is associated with poorer clinical outcomes such as delayed recovery from surgery/illness, longer length of hospital stay, increased readmissions, increased occurrence of complications, poor wound healing and reduced quality of life. It is a significant issue among acute care patients on admission and frequently worsens during the hospital stay. Groups at risk of malnutrition include patients with chronic diseases, the elderly, those recently
discharged from hospital and those who have limited financial income or are socially isolated. If a patient has a BMI <18.5 or unintentional loss of weight of > 10% or has been eating poorly due to decreased appetite, a dietitian referral is required. The dietitian may request a food and fluid chart to collect information about the quantity of food and fluids the patient is consuming.

All inpatients are screened for malnutrition by completing the Malnutrition Screening Tool within the Care assessment and planning document (C24005A).

Those that are scored at a 2 require biweekly weighing. Patients scoring 3 are referred to a dietitian and will be placed on a high protein/energy diet. Patients who are not malnourished, or at risk of malnutrition will receive a “normal diet”. The ‘catering to you’ associate will discuss menu options with the patient including any cultural requirements and standard dietary modifications e.g. vegetarian, gluten free. Family members and friends are welcome to bring in additional foods for the patient.

If the patient is having swallowing difficulties, a speech language therapy assessment is essential and modifying the texture of their food and fluids may be recommended. If the patient is having difficulty with loose fitting dentures, ascertain if they use a denture adhesive and either ask family to bring it in or obtain ‘polygrip’ from a pharmacy.

Always ensure your patients are positioned appropriately for meals with all required equipment within reach and assistance available for the patient to eat their meals if required. Occasionally family are happy to help with this. If a patient may benefit from adaptive equipment to achieve independent eating then make a referral to the occupational therapist.

It is important to remember to allow the patient sufficient time to eat their meals, as meal times are a very social occasion, and within the hospital environment mealtimes are a significant event in what is often a long day.

**3.4 Risk Taking Behaviour (Falls Risk Assessment Category C)**

If a patient is impulsive, lacks insight or is unable to identify that mobilising, or any other actions (e.g. toileting themselves overnight without assistance) puts them at risk of slipping/falling then a high risk for injury exists. The patient will often not take essential precautions or preventative measures that could easily protect themselves from harm. The first step is to consider the actual environment the patient is in. Is there clutter which may increase the patient’s risk? Is a mobility aid in reach and in sight? Is the patient capable of using the call bell and waiting for staff to respond to this?

Fatigue from chronic disease (e.g. cancer or heart disease) may contribute to a patient attempting to maintain independence in unrealistic circumstances. It is worth taking time to discuss with the patient, family members and friends of the patient if this is usual for the patient, and is there anything that would assist in maintaining safety. Often frequent reminders to ask for assistance before mobilising can help. Writing this on a whiteboard may be useful. Moving the patient to an area of high visibility can assist staff to be aware of the patient, and the patient may be able to more easily ask for assistance. Ensure a call bell is always within reach and the patient knows how to use this.

Initiating regular toileting and increasing the visual checks on the patient is a key part of management as it reduces the risk of injury if the patient is attempting to mobilise to the
toilet, frequent visual checks assist in reminding the patient to remain safe and helps builds rapport and confidence between the patient and the nursing staff. Once the patient becomes confident that staff will be available to assist / supervise them to mobilise or for toileting, they will be less likely to attempt to mobilise in a hurried/ unsafe manner. Placing the patient on a sensor system may also be appropriate (for more information in relation to sensor systems see page 19).

If a safety risk remains a hospital aide (HA) special may be required and an initial request form needs completing. Consider/initiate all possible measures and strategies on the falls management plan before requesting a H/A Special. Discuss the patient’s requirements with the Charge Nurse Manager, or Nurse in Charge. For further information in relation to requesting and monitoring a H/A special please refer to the H/A Specialising Self Learning Package. If there are family members who are willing to come and spend time with the patient, then this is preferable, as it will assist in maintaining the patient’s safety and may reduce agitation due to a familiar presence.

3.5 Medications (Falls Risk Assessment Category D)

Being on more than four medications increases a person’s risk of falling. Within the acute hospital environment it is common for patients to be on a number of medications, however ongoing monitoring of a patient’s medication is important.

Occasionally new symptoms such as dizziness or drowsiness occur soon after a new medication is commenced and when side effects of medications such as a postural drop in blood pressure occur, it is vital to document and investigate. For a list of common medications that may contribute to falls see Appendix 7 pg29.

Medications such as antidepressants, night sedation and tranquillisers are in the very high risk category and should be assessed to ensure that they are not adversely affecting the safety of the patient. Also when adjusting doses of analgesics (especially opioids) patients may experience significant symptoms such as confusion and light headedness which may increase their risk of falling.

If a side effect of a medication is noted, the medical team must be informed, especially if drowsiness or unsteadiness is observed. Exploring the use of non-pharmacological options e.g., a low stimulus environment, may assist in achieving the same effect without the use of medication.

If it is not possible to remove the use of medications, minimising medication is an option that can be explored – especially those medications which are in the high falls risk category. This should be discussed with the medical team.

If a patient is on a sedative, then ensuring a safe environment is important. Ensure clutter is reduced around the bed and make use of night lights. Where possible supervise or assist mobility to reduce the risk of falls. Another option to consider is the use of a bedside commode to reduce mobilisation during the night, but ensure the commode is removed during the day to encourage mobility.

A referral to a pharmacist can be made for a specialist review of the patient’s medication regime. The pharmacist may suggest ways to modify medication doses, or alternative
medication options that may be available. It is vital to ensure that patients are informed of the risk of falls associated with medications they may be prescribed.

Vitamin D improves functionally by improving muscle health and also bone health. An adequate daily intake of Vitamin D and calcium have been shown to reduce the incidence of hip fractures in the elderly by approximately 20%. It is difficult to achieve adequate Vitamin D by diet alone and therefore patients with osteoporosis or osteomalacia (inadequate mineral deposit in the bone related to Vitamin D deficiency) and / or presenting with bone fracture should be reviewed by the medical teams for the prescription of vitamin D and calcium supplements.

Patients that are prescribed antithrombotic and anticoagulant medications require special assessment post fall because of increased risk of internal bleeding.

### 3.6 Confusion/Disorientation (Falls Risk Assessment Category E)

A change of environment and / or an acute clinical event may contribute to a change in mental ability and confusion may be the initial sign of this.

Delirium is often the reason for acute changes in a patient’s cognitive state

Complete the section on Cognitive Assessment in the Care Assessment and Planning booklet (C 24009C) if you identify the patient has cognitive impairment. This section allows you to screen for delirium and requires you to perform part of the Confusion Assessment Method (CAM) and go onto to perform an MSQ to determine the extent of cognitive impairment. A MSQ performed at onset of delirium can be compared to subsequent scores to identify any improvement in cognitive state.

Both of these tools are covered on Page 16 and 17.

To perform the CAM score it is imperative you gain a history from the family to be able to identify onset (within days), if the persons cognitive state fluctuated between night and day, if they were inattentive/distracted/had altered thought process and if they have had any auditory or visual hallucinations. This is best done at point of entry to the hospital when carers and family members are still present

Risk of a delirium is 50% higher in patients with dementia. Delirium can develop during hospitalisation with the iatrogenic factors that occur with treatment. Review the patients’ cognitive state each shift and consult with family/whanau/carer who can confirm if the patient’s cognition has changed/deteriorated or there are new features since admission.

Remember that new onset of confusion/agitation is automatically a 2 on the Early Warning Score (EWS). Keep in mind that early recognition and treatment of acute delirium is necessary and it is considered a medical emergency. The key effective treatment is to identify the underlying cause and treat appropriately.

Once a delirium has been identified the Delirium Service Website can direct staff in appropriate treatment and management. This can be located on the intranet → clinical information and services → delirium services website.

Document your strategies to manage and report on the patients cognitive state by completing the Cognitive Assessment section of the Care Assessment and Planning document (C24009C) as well as the Risk Screening section of the weekly care plan document).
A referral to the Delirium Service based at Princess Margaret Hospital is encouraged if the interventions and treatment of the causative factor is not reducing or resolving the delirium. This is useful to discuss with the wider multidisciplinary team.

Assist the patient to remain orientated and safe by the use of:
- Whiteboards
- Distraction boxes and techniques
- The presence of family and friends
- Maintaining the patient’s usual routines (if possible)
- Maintaining consistency of nursing staff (if possible)
- Use and availability of familiar possessions
- Minimise shifting the patient from ward to ward/room to room (if possible)
- Use the patient’s sensory aids such as glasses and hearing aids and ensure that they are in a good working order
- Try to minimise sleep deprivation
- Ensure that an alcohol and drug history is obtained on admission
- Avoid constipation and urinary retention
- Avoid unnecessary bedrest

Refer to Occupational Therapist if their ADLs are compromised using the Christchurch Referral Form C24009D.

### 3.6.1 MSQ – Abbreviated Mental Test Score

1. Age of Patient (allow one year error)
2. Time (allow looking at clock/watch and error of up to one hour)
3. Address for recall at the end of the test i.e. 201 Queen Street – this should be repeated by the patient to ensure comprehension
4. Year (allow previous year)
5. Name of the hospital, or home address
6. Recognition of two people (doctor, nurse etc.)
7. Date of birth (date and month only)
8. Year of World War II (anything from 1939 – 1945)
9. Name of present Prime Minister
10. Count backwards from 20 to 1 (no errors, no clues)

Ask the patient to recall the address given at no. 3.

Score 1 for a correct answer, 0 for incorrect answer – no half scores. Give them only 30 sec to respond to a question.

A score of 7 or less is considered significant and should be reported to the medical team.

### 3.6.2 CAM – Confusion Assessment Method

1. **Feature 1: Acute Onset and Fluctuating Course**
   This feature is usually obtained from a family member or staff member and is shown by positive responses to the following questions:
   - Is there evidence of an acute change in mental status from the patient’s baseline?
   - Did the (abnormal) behaviour fluctuate during the day, that is, tend to come and go, or increase and decrease in severity?

2. **Feature 2: Inattention**
   This feature is shown by a positive response to the following question:
   - Does the patient have difficulty focusing their attention, e.g. are they easily distracted, or having difficulty keeping track of what is being said?
3. **Feature 3: Disorganised Thinking**
This feature is shown by a positive response to the following question:
Is the patient’s thinking disorganised or incoherent, such as rambling or irrelevant 
conversation, unclear or illogical flow of ideas, or unpredictable switching from subject 
to subject?

4. **Feature 4: Altered levels of consciousness**
This feature is shown by any answer other than “alert” to the following question:
Overall the patients’ level of consciousness would be
- Alert [Normal],
- Vigilant [Hyper-alert]
- Lethargic [Drowsy, easily roused]
- Stupor [Difficult to rouse]
- Coma [Unrousable]

A preliminary diagnosis of delirium by CAM requires the presence of 1 AND 2 AND 
either 3 OR 4)
Provide the medical team with your assessment findings.

*For further reference in relation to management of the confused patient refer to the 
Management Guidelines for Common Medical Conditions (12th Ed) 2007. Internal 
Medicine Services (commonly referred to as the blue book). Pg 175-177.*
3.7 Altered Elimination/Continence (Falls Risk Assessment Category F)

Assessing continence and normal toilet regime is a key part of falls prevention management. It has been identified that a large percentage of falls are related to attempts to mobilise to the toilet. Urgency or frequency can result in risk taking behaviours as a patient tries to get to the toilet in time. Difficultly related to unfamiliar clothing (e.g. hospital gowns) or surroundings and the impact of new health problems also may impact on mobility and safety. Take into account I.V fluids or medication (e.g. diuretics and laxatives) or bowel preparations that may impact on changes to elimination.

To assist in planning for nursing care, ask the patient about their usual toilet routine at home, especially at night as this will help determine if assistance may be required.

Ascertain if the patient has a urinary infection that can be treated. Performing a urinalysis to identify a potential urine infection is quick and cost effective. Identifying and documenting other potential areas of concern is also an important part of the ongoing nursing assessment process. In particular:
- Monitoring fluid intake
- Documenting bowel and bladder activity
- Identifying medications such as anti-cholinergics, sedation, narcotics and diuretics/laxatives which may have an impact on continence. A pharmacist is a useful resource to involve in this process
- Monitoring for signs and symptoms of urinary or bowel (norovirus, etc) infections
- Consider the time and amount of caffeinated beverages consumed as these may act a bladder irritants
- Maintaining hydration with frequent drinks, or good access to suitable fluids

It is useful to identify and implement a toileting programme that best suits the patient’s preferred routine. Ensuring that assistance is available with the toileting process can help. If possible, consider moving the patient to a room or space closer to toilet facilities. Also ensure the call bell is available and visible for the patient. Increased visibility of staff will give the patient confidence that staff will respond promptly to use of the call bell for toileting.

If managing continence is part of the nursing care plan, the use of suitable and appropriate devices is important to consider, e.g.
- Bedside commodes
- Urinal bottles
- Smaller pads for urgency
- Larger pads for profound incontinence
- Remembering that the use of pads often serves to increase incontinence problems

Discuss incontinence issues with the medical team. Prior to discharge, consider occupational therapy referral for appropriate equipment e.g. toilet frame. A referral to Nurse Maude Continence service is useful – although there is usually a high demand for this service. There is also a service called “The Shop at Nurse Maude” (24 McDougall Ave) where continence supplies can be purchased. If the patient is on the waiting list for the continence service, it is useful to keep the receipts as reimbursement is often possible.
Section 4 – Sensor Systems

Within Christchurch Hospital we have two sensor systems available; sensor clips and sensor mats.

4.1.1 Assessment Criteria

A sensor system can be used on any patient with the verbal consent of the patient/family/whanau. These systems should reduce the use of restraints (e.g. bedrails) in patients who are cognitively impaired.

Sensor Systems are of particular use in situations where:

- The patient has the potential to intermittently wander from inpatient areas or the staff need to be alerted when the patient is leaving isolation
- The patient has a history of “at risk behaviours” that warrant surveillance
- The patient has impaired cognition/lack of safety awareness which prevents them from calling for assistance before mobilising when they require this assistance to maintain safety
- Patient has the ability to fall/roll/slip from the bed/chair

4.1.2 Contraindications for Use

- The patient must be able to carry his/her own weight and their balance must not be severely compromised when standing
- The unit must not be used on patients at risk of self harm behaviours
- The unit (Sensor Clips Only) must not be used on patients with implanted pacemakers, deep brain stimulators and spinal cord stimulators as the magnetic field generated by the unit could interfere with the magnetic fields in these devices which turn the devices on and off
- If the patient is attempting to mobilise or wander frequently the use of a sensor system may not be appropriate

4.1.3 Responsibilities

- The sensor systems must be used in conjunction with staff diligence in regards to attending to the alert promptly to maintain patient safety.
- For wards with patient status boards the appropriate magnet must be utilised to ensure all staff are aware the sensor system is in use for this patient.
- The RN caring for the patient with a sensor system in place has the ultimate responsibility for the safety of the patient. The RN must also document actions and rationale for using the system in the patient’s notes. In nursing handovers the use of a sensor system must be communicated between all nursing staff including hospital aides.
- The alarm must be responded to immediately by any available clinical staff member.
4.1.4 Sensor Clips

These devices are available in most inpatient wards and are attached via a clip to the patient with a magnet on the opposite end which sits in the unit. When the patient moves the magnet is pulled off and the unit alarms.

4.1.5 Sensor Mats

These are only available in Wards 18, 19, 29 and 30. The sensor mat is placed under the bed sheets attached to a unit at the head or the end of the bed. When pressure is removed from the mat the unit and a separate console in the office alarms

For further information in relation to the use of sensor systems please refer to the Sensor Systems Policy currently located alongside the units on the wards.
Section 5 – Christchurch Hospital Falls Injury Profile

5.1 Medical & Surgical Services Total Falls Rate

Numerator:
Total number of patient falls, in the period.

Denominator
Total number of inpatient bed days (excluding borders and well babies), in the period

M&SS Total Falls rate (5.1 - ACHS 5.1 equivalent)

4.2 Medical & Surgical Services
INCIDENT REPORTS BY CATEGORY, BY MONTH  2009-10

<table>
<thead>
<tr>
<th>M&amp;SS Category</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>June</th>
<th>Total YTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0 Patient Falls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1 No Injury</td>
<td>35</td>
<td>18</td>
<td>35</td>
<td>34</td>
<td>36</td>
<td>34</td>
<td>36</td>
<td>26</td>
<td>31</td>
<td>19</td>
<td>22</td>
<td>22</td>
<td>326</td>
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<tr>
<td>2.2 Minor Injury</td>
<td>23</td>
<td>19</td>
<td>27</td>
<td>19</td>
<td>23</td>
<td>21</td>
<td>23</td>
<td>22</td>
<td>13</td>
<td>21</td>
<td>16</td>
<td>24</td>
<td>227</td>
</tr>
<tr>
<td>2.3 Moderate Injury</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9</td>
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<td>2.4 Serious Injury</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
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<tr>
<td>Total</td>
<td>58</td>
<td>39</td>
<td>64</td>
<td>56</td>
<td>58</td>
<td>61</td>
<td>60</td>
<td>49</td>
<td>45</td>
<td>42</td>
<td>40</td>
<td>0</td>
<td>572</td>
</tr>
</tbody>
</table>
Appendix 1  Risk Screening Document

Canterbury District Health Board

Te Poi Hari o Waitaha

Christchurch Hospital

RISK SCREENING

Commenced for all patients at point of entry (use patient assessment questionnaire as appropriate) and completed within 6 hours

- Patient label correct
- Patient label not correct
- Update PMS and Update Admission Form

ADVERSE REACTIONS
- No risk identified

- Medicine (specify)
- Food (specify)
- Other (specify)

- Alerts completed
- Update diet
- For 3 or more food allergies
- Dietitian referral

INFECTION PREVENTION AND CONTROL
- No risk identified

- MRSA Alert checked for MRSA, EBSL, VRE, MROR
- Recent diarrhoea / vomiting (potentially infectious)
- Other infectious conditions (specify)
- Transmission based isolation precautions required
- Contact
- Droplet
- Airborne
- Protective

COMMUNICATION/COGNITIVE/MENTAL HEALTH
- No risk identified

- Interpreter required
- Language spoken (specify)
- Hearing Impaired
- Customer services contacted for interpreter (ext 600843) or Duty Manager paged A+H

- Cognitive deficits (refer to screening tools over) (specify)
- Known Communication Barrier (specify)
- Recent changes in ability to make self understood/express self

CONFIDENTIALITY
- No risk identified

- Personal information not be shared with specified person/group (specify)
- Patient’s name requested to be removed from ward identification boards
- Ward Clerk notified
- Notification to the Telephone Office as required
- Alerts completed

PERSONAL PROPERTY
- Not applicable

- Property
  - With patient
  - With family
  - Valuables
  - With patient
  - With family
  - In Hospital Safe

- Meds
  - With patient
  - To Ward for pharmacist
  - At home
  - Yellow Card
  - Yes
  - No
  - NA

PRESSURE INJURY
- No risk identified

- Current Pl on admission (location)
- Stage
- Incident Form completed

- Automatically at Very High Risk
- Document in Care Plan

- No risk (19 to 25)
- At risk (15 to 18)
- Mod risk (13 or 14)
- High risk (10 to 12)
- Very high risk (9 or below)

FAILS (refer to Modified Hendrich over the page)
- No risk identified

- A. Previous Slip/Trip/Fall
- B. Unable to Get up and Go
- C. Risk Taking Behaviour
- D. Medication issues
- E. Confusion/Disorientation
- F. Altered Elimination

- No categories selected (No falls risk)
- 1 category selected (consider strategies)
- 2+ categories selected (high risk consider all strategies)

Fall risk identified but patient not to stay

- Canterbury Falls Prevention Programme referral sent
- Medical Team alerted for GP follow-up
- Patient/family given falls prevention pamphlet and informed of risk
- Physio and OT paged for assessment prior to discharge

ALCOHOL DEPENDENCE/WITHDRAWAL/ABUSE
- No risk identified

- High alcohol intake (refer to alcohol intake info over the page)
- Refer to Medical Team and Social Worker
- Alcohol related admission or high alcohol intake
- Complete CAGE or CRAFT (>18) screen (refer over page)
- Recreational Drug User (specify)

FV5Q
- FV -
- FV + or FV (Signs/symptoms?)
- Preliminary Risk Assessment Form completed
- Or Not asked screening questions
- No staff education

SMOKING
- Current smoker
- Ex Smoker
- Never Smoked
- Exposed to second hand smoke
- Patient advised of Smokefree policy
- NRT provided as appropriate dependent on length of wait/level dependence
- Patient identified as current smoker not being admitted to ward
- Brief advice to quit given
- Quit pack/Quick cards/NRT prescription, given as appropriate

External referral sent
### PRESSURE RISK ASSESSMENT (BRADECN SCALE)

<table>
<thead>
<tr>
<th>Pressure Risk Assessment (Braden Scale)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensory Perception</td>
<td>Completely Limited</td>
<td>Very Limited</td>
<td>Slightly Limited</td>
<td>No impairment</td>
<td>Score</td>
</tr>
<tr>
<td>Moisture</td>
<td>Constantly moist</td>
<td>Very moist</td>
<td>Occasionally moist</td>
<td>Rarely moist</td>
<td>Score</td>
</tr>
<tr>
<td>Activity</td>
<td>Bedfast</td>
<td>Chairfast</td>
<td>Walks occasionally</td>
<td>Walks frequently</td>
<td>Score</td>
</tr>
<tr>
<td>Mobility</td>
<td>Completely immobile</td>
<td>Very Limited</td>
<td>Slightly Limited</td>
<td>No limitations</td>
<td>Score</td>
</tr>
<tr>
<td>Nutrition</td>
<td>Very Poor</td>
<td>Probably inadequate</td>
<td>Adequate</td>
<td>Excellent</td>
<td>Score</td>
</tr>
<tr>
<td>Friction/Shear</td>
<td>Problem</td>
<td>Potential Problem</td>
<td>No apparent Problem</td>
<td>Score</td>
<td></td>
</tr>
</tbody>
</table>

**Total Score**

**If other major risk factors are present (advanced age, fever, poor dietary intake of protein, diastolic pressure below 60, hemodynamically unstable) advance to next level of risk:**

- LOW RISK (SCORE OF 15-18)
- MODERATE RISK (SCORE OF 13-14)
- HIGH RISK (SCORE OF 10-12)
- VERY HIGH RISK (SCORE OF 9 OR BELOW)

### PRESSURE ULCER STAGING (AUSTRALIAN)

**Stage 1:** Observable pressure-related alteration(s) of intact skin whose indicators as compared to the adjacent or opposite area on the body may include changes in one or more of the following: skin temperature (warmth or coolness), tissue consistency (firm or boggy feel) and or sensation (pain, itching). The ulcer appears as a darkened area of persistent redness in lightly pigmented skin, whereas in darker skin tones, the ulcer may appear with persistent red, blue or purple hue.

**Stage 2:** Partial thickness skin loss involving the epidermis and subcutaneous tissue. The ulcer is superficial and presents clinically as an abrasion, blister, or shallow crater.

**Stage 3:** Full thickness skin loss involving damage or necrosis of subcutaneous tissue that may extend down to, but not through, underlying fascia. The ulcer presents clinically as a deep crater with or without undermining of adjacent tissue.

**Stage 4:** Full thickness skin loss with extensive destruction, necrosis or damage to muscle, bone, or supporting structures (for example, tendon or joint capsule). Undermining and sinus tracts may also be associated with Stage 4 pressure ulcers.

### FALL RISK ASSESSMENT (Modified Hendrich II) - Two or more categories involved = High falls risk

- A. Previous Slip/Trip/Fall
  - Any previous slip/trip when walking
  - Reported to have fallen
- B. Unable to Get up and Go
  - Unsuccessful attempts to stand from chair/bed
  - Unable to rise from chair/bed
  - Fluctuation or changes in mobility/ADLs (e.g. fatigue)
- C. Risk Taking Behaviour
  - Strongly independent
  - Unaware of own limitations (includes perceptual difficulties and restrictions)
- D. Medication issues
  - Recent changes to medications
  - Potential side effects from meds
  - E.g. drowsy, increased urinary freq.
- E. Confusion/Dissociation
  - Disoriented thought processes
  - Changes to memory
  - Unable to follow instructions
- F. Altered Elimination
  - Increased frequency for bladder/bowel
  - Urgency
  - Nocte frequency

### CAGE SCREEN (aged >65 years) OR CRAGFT (aged <65 years) - positive CAGE/CRAFFT if 1 or more of the following are selected

- Cut down – has felt short of drinking intake
- Annoyed – by criticism of intake
- Guilty – about quantity of intake
- Eye Opener – drinks in the morning

### Approx Standard Drink Measures (10 g alcohol) ALAC source, High Risk/Harmful Amounts

<table>
<thead>
<tr>
<th>Beer 330 ml</th>
<th>Wine 100 ml</th>
<th>Male</th>
<th>5 standard drinks /per occasion</th>
<th>21 standard drinks/week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spirits 30 ml</td>
<td>Male</td>
<td>4 standard drinks /per occasion</td>
<td>14 standard drinks/week</td>
<td></td>
</tr>
</tbody>
</table>

### CAM SCORE (DELIRIUM)

A positive CAM score requires the patient's diagnosis to feature 1 and 2 and either 3 or 4 of the following:

- Acute Onset and Fluctuating course and
- Inattention
- Disorganised Thinking or
- 4. Altered level of consciousness

### MSQ SCORE

A score of 7 or below indicates impaired cognition (this can be compared to future scores). Count 1 for each question answered correctly.

1. Age (allow one year error)
2. Time to nearest hour
3. Address (for recall at end)
4. Name of Prime Minister
5. Name of hospital
6. Years of Second World War (1939-1945)
7. Date of Birth
8. Count backwards from 20 to 1
9. What year is it?

MSQ = or < 7 – Cognitive Deficit

### SMOKING

- Current Smoker – has smoked at least one cigarette in the last month
- Ex smoker – has smoked more than 100 cigarettes in their life-time
**Appendix 2 Care Assessment and Planning document section**

Care Assessment and Planning:
Initial Assessment

<table>
<thead>
<tr>
<th>FALL RISK ASSESSMENT/MANAGEMENT</th>
<th>Date / Time</th>
<th>Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two or more categories ticked = High Falls Risk, implement the following actions as appropriate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Family informed of fall risk (required action)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Fall prevention information leaflet given to patient/family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Fall risk and strategies discussed with patient and family</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| A. Previous fall/slip/trip/stumble |             |      |
| □ Discuss reasons for previous fall and implement appropriate strategies |             |      |
| □ Ensure hearing, visual and mobility aids are used |             |      |
| □ Orientate to ward environment |             |      |
| □ Items that may be required by patient are within easy reach (e.g. call bell, urinal, drink) |             |      |

| B. Unable to get up and go |             |      |
| □ Encourage use of safe, well fitting footwear |             |      |
| □ Refer to Physiotherapist/Occupational Therapist for risk A and/or B |             |      |

| C. Risk taking behaviour |             |      |
| □ Consider sensor system. |             |      |
| □ Inform family of falls risk and ask if able to support patient. |             |      |
| □ For frequent risk and no family support, consult CNM/NIC re Hospital Aide Specialising. |             |      |

| D. Medications/side effects | Ask medical staff to: |             |      |
| □ Review medications likely to cause falls |             |      |
| □ Consider calcium and vitamin D supplementation if patient over 65 |             |      |
| □ Commence lying and standing blood pressure monitoring as appropriate. |             |      |
| □ Ensure prescribed analgesia administered |             |      |

| E. Confusion/Disorientation |             |      |
| □ Complete CAM score/MSQ on page 5 and refer to medical team as required. |             |      |
| □ Implement and document delirium strategies as required. |             |      |

| F. Altered Elimination |             |      |
| □ 24 hour toileting plan and 2hrly checks in Care Plan |             |      |
| □ Address hydration issues |             |      |

Ref 2399  Authorised by: Director of Nursing  Page 3 of 12  v11 February 2011
### Appendix 3 Weekly Care plan Document page 2

<table>
<thead>
<tr>
<th>MANAGEMENT PLAN</th>
<th>DAILY RISK ASSESSMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>This page must be completed within 24 hours of admission and reviewed and updated daily or as required.</td>
<td>Status: Ongoing</td>
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</tbody>
</table>

- [ ] Communication Barrier  Please specify below
  - Interpreter
  - Enablers

- [ ] Fall Prevention
  Outline ongoing fall prevention strategies from action plan

- [ ] Manual Handling  Please specify below

- [ ] Pressure Injury and Prevention
  Outline ongoing pressure injury prevention strategies from action plan

- [ ] Cognitive Deficits/Delirium  Please specify below

- [ ] Restraint  Please specify below
  Minimisation strategies
  - Enablers  Please specify below

- [ ] Management of Nicotine Dependence  Please specify below

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
<th>Day 6</th>
<th>Day 7</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Initials:</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date/time:</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 4  Flowchart on Falls

Canterbury Region Falls Prevention

Patient 65 years+
living in the community who has fallen; or is at risk of falling; or has fear of falling; or has decreased leg strength and balance

OEP, SOYF and Tai Chi referral form to be completed and faxed to the Central Coordination Centre (CCC), Christchurch
Fax: (03) 355 5225, Ph: (03) 355 5066

Have fallen, are frail and have a fall-related injury

Otago Exercise Programme (OEP)
80 years+ (or 65 years+ for Māori/Pacific Peoples)
Rehabilitation Physiotherapist
Home Based (2010 Interim Strategy only)

Stay On Your Feet (SOYF)
65 years+ (or 55 years+ for Māori/Pacific Peoples)
Trained Volunteer
Home Based

Modified Tai Chi
65 years+ (or 55 years+ for Māori/Pacific Peoples)
Trained Instructor
Community Group Exercise

Muscle Strength & Balance
Rehabilitation Programme
12 Month Programme
6 Home visits Monthly telephone calls

Muscle Strength & Balance Retraining Programme
Six Month Programme
5 Home visits Weekly telephone calls

Strength, Balance, & Flexibility Programme
16 Week Programme
With the option to continue

N.B:
- Please consider concurrent referral to Older Persons Health as appropriate.
- All patients referred to SOYF, OEP and Tai Chi will be offered Green Prescription at the time of discharge from the programme.

September 2010
Appendix 5  Falls Prevention Programmes

Falls Prevention Programmes in Canterbury

Otago Exercise Programme (OEP) and Stay On Your Feet (SOYF)

OEP Eligibility Criteria:
Patients are eligible for the OEP programme if they have fallen, are frail and have a fall-related injury. An ACC Claim is required for this Physiotherapist led interim strategy; the OEP Physiotherapist can complete the claim form as appropriate at the time of initial OEP assessment. If following an assessment the OEP is not deemed to be the appropriate programme for the patient then they may be referred on to SOYF or Modified Tai Chi.

SOYF Eligibility Criteria:
Patients are eligible for the SOYF programme if they have a fear of falling, have decreased leg strength; decreased balance; or have had a fall in the last 12 months (does not have to be an ACC claim and includes slips and trips that have not resulted in person lying prone on the floor).

These two home based falls prevention programmes BOTH provide points 1 – 5 and the chart below denotes the significant differences:

1. Programmes consist of a set of leg muscle strengthening and balance retraining exercises that progress in difficulty, and also incorporate a walking plan.
2. The exercises are individually tailored and progressed during a series of home visits by a trained instructor.
3. To promote adherence to their individualised programme, participants record on a calendar the days they complete the programme and the instructor telephones them between home visits.
4. The people are living in the community or an independent unit of a retirement village (excludes rest home residents). At completion of OEP it is expected that people are referred onto SOYF or Modified Tai Chi.
5. All patients are routinely offered a Green Prescription (GRx) at completion of OEP or SOYF.
6. These programmes are not suitable for people with significant cognitive impairment.

<table>
<thead>
<tr>
<th>OEP</th>
<th>SOYF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Older persons aged 80+ (or 65+ for Māori and Pacific Peoples)</td>
<td>Older persons aged 65+ (or 55+ for Māori and Pacific Peoples)</td>
</tr>
</tbody>
</table>
| 12 month programme  
  - 6 home visits - 5 home visits in first 6 months, final home visit at 12 months.  
  - Second 6 months – monthly phone calls | 6 month programme  
  - 5 home visits  
  - Weekly phone calls |
| Service delivered by OEP trained physiotherapist. | Service delivered by trained volunteers |

Modified Tai Chi
The eligibility criteria for the Modified Tai Chi programme is the same as the SOYF programme above.
1. Community based Tai Chi classes using a specific set of Tai Chi exercises which focus on building strength and balance.
2. 16 week introductory course
3. Course consists of 1 class per week over 16 weeks at a number of community venues led by trained Tai Chi Instructors.
4. Maintenance classes are available for participants who have completed the 16 week programme.

Green Prescription (GRx)
1. GRx exercise specialist phones monthly for 4 months to provide ongoing support.
2. GRx also provides guidance on appropriate local community based physical activities.
3. Final discharge report sent to original referree by GRx.

September 2010
# Appendix 6 Referral Form

**CANTERBURY FALLS PREVENTION REFERRAL FORM**

<table>
<thead>
<tr>
<th>Date of referral:</th>
<th>Ref No: (office use only)</th>
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</table>

<table>
<thead>
<tr>
<th>Patient name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Street</td>
</tr>
<tr>
<td>Phone number</td>
<td>Suburb</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date of Birth - dd/mm/yy</th>
<th>NHI number</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patient aware of referral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>

Which ethnic group or groups does the patient state they belong to? Tick the box or boxes which apply

<table>
<thead>
<tr>
<th>NZ European</th>
<th>Māori</th>
<th>Samoan</th>
<th>Cook Island Māori</th>
<th>Tongan</th>
<th>Niuean</th>
<th>Chinese</th>
<th>Indian</th>
<th>Other (please state)</th>
</tr>
</thead>
</table>

Relevant medical conditions, including those effecting mobility and cognition

<table>
<thead>
<tr>
<th>GP details (name, practice, phone and fax numbers)</th>
</tr>
</thead>
</table>

If non GP referral, referrers details (name, position, workplace)

<table>
<thead>
<tr>
<th>phone number:</th>
<th>fax number:</th>
</tr>
</thead>
</table>

I have informed the GP

| YES | NO |

Please tick the appropriate provider for your patient

<table>
<thead>
<tr>
<th>SOYF 65+ (or 55+ Māori/Pacific Peoples)</th>
<th>OEP Frail 80+ (or 65+ Māori/Pacific Peoples)</th>
<th>Tai Chi 65+ (or 55+ Māori/Pacific Peoples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trained Volunteer (in home)</td>
<td>Fall related injury Physiotherapist (in home)</td>
<td>Trained Instructor</td>
</tr>
</tbody>
</table>

Please return this form to: Central Coordination Centre
Christchurch
Fax: (03) 355 5225, Ph: (03) 355 5066

For further information on SOYF and Modified Tai Chi phone (03) 373 8280, for OEP phone (03) 962 9250.

September 2010
### Appendix 7  Medications & Falls: Managing the Risks

**Canterbury District Health Board**

**Medications and Falls: Managing the Risks**

It isn't always possible to stop a medication because of falls risk but it is possible to manage that risk.

<table>
<thead>
<tr>
<th>Medication*</th>
<th>Why falls may occur</th>
<th>What you can do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antihypertensives (e.g. metoprolol, clazapril)</td>
<td>Decreased blood pressure leading to dizziness</td>
<td>Tell the patient to sit up/stand up/change position slowly</td>
</tr>
<tr>
<td>Antidepressants, Antipsychotics, Antiepileptics (e.g. citalopram, quetiapine, sodium valproate)</td>
<td>Decreased alertness, dizziness/unsteadiness, sedation</td>
<td>Let patients know that they may be less alert/feel drowsy. Tell patient to sit up/stand up/change position slowly</td>
</tr>
<tr>
<td>Corticosteroids (Long Term Use: usually at doses equivalent to prednisone 40 – 60mg/day or above)</td>
<td>Muscle weakness in the arms, legs and neck</td>
<td>Let patients know they may develop muscle weakness when starting high dose or long-term corticosteroid therapy. Encourage physiotherapist input/exercise programme.</td>
</tr>
<tr>
<td>Diabetes medications (e.g. insulin, gliclazide)</td>
<td>Lower blood sugar levels leading to dizziness/unsteadiness</td>
<td>Give doses at appropriate times with regard to food to prevent hypoglycaemia</td>
</tr>
<tr>
<td>Diuretics (e.g. furosemide) Laxatives (e.g. Movicol, Laxsol, Microlax enemas)</td>
<td>Frequent/urgent trips to the toilet</td>
<td>Ensure regular opportunities for toileting. Diuretics should be taken in the morning or early afternoon</td>
</tr>
<tr>
<td>Pain medication (e.g. morphine, codeine)</td>
<td>Decreased alertness, dizziness/unsteadiness, sedation</td>
<td>Tell the patient to sit up/stand up/change position slowly</td>
</tr>
<tr>
<td>Sedatives Sleeping tablets (e.g. zopiclone, diazepam, lorazepam)</td>
<td>Decreased alertness, dizziness/unsteadiness, sedation</td>
<td>Good sleep hygiene should always be trialled where possible prior to the intitiation of sedatives for sleep. Let patients know that they may be less alert/feel drowsy. Tell the patient to sit up/stand up/change position slowly</td>
</tr>
</tbody>
</table>

*Note: This is only a guide to common medications that increase falls risk, not a comprehensive list. For more information ask your pharmacist.*

---

**Educate the patient:**

- It is vital that patients understand the risks of falls associated with their medication. Educating the patient will allow them to be actively aware of dangers and modify behaviours to avoid potential hazards.
- Tell patients of any changes to their medications – new medications and changes to existing ones may cause new/increased side effects.

**Regular monitoring:**

- Be alert for side effects that can lead to an increased falls risk such as sedation, unsteadiness, hypotension, and hypoglycaemia.
- If patients experience light headedness or dizziness ensure they are supervised when mobilising.

**Rationalise use:**

- Will non-pharmacological methods help?
- The need for medications can change over time. Ask pharmacist/medical team to review medicines.
Appendix 8  Guidelines for Non-slip Socks Use and Management

Guidelines for Non Slip Socks Use and Management

**Criteria for Patient Use**
- Acute admission with no appropriate footwear
- A falls risk
- Confusion or wandering behaviours and likely to mobilise without footwear
- IED’s and mobile
- Ornamental feet or bandages that limit use of appropriate footwear

If the patient meets one or more of the above criteria a Health Professional can access Non Slip Socks from Ward Stock

Measure patient’s feet to choose appropriate size, ensure non-slip treads cover sole of foot

Educate patient and family on their use:
- Single use
- Able to be worn in bed
- Contact staff for a new pair if soiled

Encourage family to bring appropriate footwear from home if/when appropriate

Document rationale for use in the patient notes and document in care plan to:
- Review feet every shift
- If wound present under socks - view wound each shift
- Replace non slip socks when soiled
- Encourage use of appropriate footwear as a replacement for non slip socks when able

On discharge ensure non slip socks are discarded

Explain to patient/family risk associated with using non slip socks in home environment

Authorised by Christchurch Hospital Fall Prevention Committee

April 2010

Ordering Details
- Terrycloth Medical Non-Slip Socks Double Tread
  - Medium (Green) - Oracle no. 149721
  - Large (Blue) - Oracle no. 149722
  - X-Large (Navy) - Oracle no. 149723
  - Bariatric (Gray) - Oracle no. 149724

Please note socks are a small fit
Appendix 9  Staff Information Fact Sheet – Falls Prevention

Canterbury District Health Board
Te Poari Hauora o Waitaha

Falls Prevention Management Programme
Information Fact Sheet for Staff

All clinical and support staff have a key role in minimising the risk of patients falling in hospital without compromising their mobility and functional independence.

Patient who have been assessed with a high risk of falling have
- A green bracelet around wrist.
- A green fall risk sticker on patient allocation white board.
- A green fall sign at bedside.

While patients are in the acute hospital environment they are at risk of falling.
You can help to minimise the risk of patient falling by:

- Ensuring fall risk and strategies are discussed with patient and families.
- Ensuring the patient has within reach: call bell, mobility aids, food tray, and personal belongings.
- Removing non essential equipment/furniture.
- Advising patient to call for assistance before mobilising.
- Assisting the patient with regular toileting.
- Reviewing delirium strategies as required.
- Orientating patient to ward environment.
- Ensuring the bed is at correct height: low for risk of rolling out of bed.
- Ensuring the patient is using sensory aids such as glasses and hearing aids.
- Ensuring the patient is wearing appropriate footwear when mobilising or transferring.
- Rationalise drug therapy for patients on multiple medications.
- Recognise medications that may increase falls risk (including sedatives, antipsychotics, diuretics and bowel preparations, blood pressure and diabetes medications etc).
- Referring the patient to the ward dietitian if malnourished and/or underweight.

If you have any concerns about any patients please discuss and/or inform nursing, allied health and medical staff immediately.

Ref. 2441  Authorised by: Medical Surgical Falls Prevention Group  Date of Issue: December 2009
Multi-Choice Test

I have read and understand the Falls Prevention Management Policy in Volume A Policies and Procedures.

Name & Designation

Signature

Please circle the most appropriate answer

1. The Community Falls prevention programme has three components, they are:
   1. Otago Exercise programme, Green prescription and Tai Chi
   2. Tai Chi, Stay on your Feet and Older Persons Health
   3. Stay on your Feet, Otago Exercise Programme and Tai Chi
   4. Older persons health, Green Prescription and Stay on your Feet

2. On the Modified Hendrich II Scale “Unable to get up and go” is classified as
   1. Inability to get out of bed in the mornings
   2. Inability or difficulty of rising from the side of a bed or a chair
   3. Unable to get up from the floor independently
   4. Unable to mobilise so requires a hoist to transfer

3. Which of the following medications may increase a patient’s risk of falls?
   1. Antidepressants, antipsychotics, antiepileptics
   2. Diuretics and Laxatives
   3. Sedatives
   4. All of the above

4. A patient suffering from which of the following risk factors may be prone to falls
   1. Malnutrition
   2. Visual Impairment
   3. Cognitive Impairment
   4. All of the above
5. If a patient is able to mobilise, but still considered to be at risk, what do you first consider:
   1. Move the patient to an area of high visibility
   2. Consider completing a hospital aide special request checklist
   3. Ensure the area is free of clutter
   4. Ensure mobility aids are within easy reach of the patient
   5. Increase visual checks of the patient
   6. All of the above
   7. 1, 3, 4 and 5

6. Medication that increases bone density and bone strength are:
   1. Vitamin C and Zinc
   2. Vitamin D and Magnesium
   3. Vitamin D and Calcium
   4. Calcium and Vitamin C and Zinc

7. An adequate daily intake of Vitamin D and calcium have been shown to reduce the risk of hip fractures in the elderly by approximately:
   1. 15%
   2. 20%
   3. 5%
   4. 50%

8. A positive CAM score is when the patient has features:
   1. 1 and 2 and either 3 or 4
   2. 1 and 2 and 3
   3. 1 and 3 and 4
   4. 1 or 2 or 3 or 4

9. The Scale used within the Christchurch Hospital to screen for potential falls risk is called the:
   1. Hendrich Scale
   2. Heimlich Score
   3. Modified Hendrich II Scale
   4. Hendricks Score
10. The Modified Hendrich II Falls Risk Assessment Scale should be completed for which of the following patients?
   1. Patients who are over 80 years of age only
   2. Only patients who are admitted with a fall related injury
   3. All patients who are admitted to hospital
   4. None of the above

11. In the above Scale, if two or more categories are present then:
   1. The patient is safe to mobilise unaided
   2. All of the strategies in every category should be completed
   3. The patient must only be hoisted
   4. Only the ticked categories of the management plan need to be completed

12. How often should the Fall Risk Management Strategies/ Plan be reviewed?
   1. It doesn’t need reviewed once completed
   2. Weekly
   3. At least every 24 hours
   4. At least every 72 hours

13. Unsuitable footwear for patient at risk of falls in the hospital environment can be considered to be:
   1. Socks
   2. TED Stockings
   3. Sandals
   4. Many brands of slippers
   5. All of the above

14. If a patient does not have suitable footwear, then:
   1. The patients family should be contacted to bring in safe footwear
   2. Non slip socks should be issued as a temporary measure
   3. The patient should remain on bed rest
   4. 1 and 2

15. A significant MSQ could be considered to be:
   1. Between 3 – 5
   2. Less than 6
   3. 7 or less
   4. 8-10
17. Who has ultimate responsibility for the safety of a patient who has a sensor system in place?
   1. The Medical team caring for the patient
   2. The Occupational Therapist for the ward
   3. The Registered Nurse caring for the patient
   4. The ward physiotherapist

18. The use of sensor clips is **contraindicated** in patients who:
   1. Can weight bear
   2. Have cognitive impairment
   3. Are at risk of wandering off the ward
   4. Have implanted pacemakers, deep brain and spinal stimulators

19. A Falls Prevention Referral Form can be completed by
   1. Physiotherapist, Occupational therapist, Social worker
   2. Doctors
   3. Nurses
   4. All of the above

20. Which of the following statements is accurate?
   1. 70% of patients will regain to their pre level of functioning post a fall
   2. Canterbury does not have an aging demographic population
   3. 1 in every 10 patients over 80 fall in any given year
   4. Only 50% of patients will regain to their pre level of functioning post a fall

When completed, please return to your NE, CNS or CNM for marking.

*Thank you*
Marked by:

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature</td>
<td>Designation</td>
</tr>
</tbody>
</table>

Mark /20
Reference List


Evidence Based Guidelines for the nutritional management of malnutrition in adult patients across the continuum of care. (2009). Nutrition and Dietetics; 66: S1


Keast, C. (2009). Review of falls in areas that have used sensor systems. Dept of Nursing, CPH


RN + Falls Watch System and the Care Sense Personal Monitor System. (2010). Manufactures Instructions (Endoventure)


**Evaluation Form**

Please complete this evaluation form and send back to your NE or CNS with the multi choice test.

Name (optional) .................................................................

Work Area ..............................................................................

<table>
<thead>
<tr>
<th>The content of this self learning package:</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased my awareness in relation to the importance of falls prevention during and after hospitalization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has enabled me to identity and minimise the risk factors related to falls in the acute hospital environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has provided me with adequate information to enable me to use the Modified Hendrich II Falls Risk Assessment Scale.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Do you have any other comments /recommendations in relation to the Falls Prevention Self Learning Package?

Thank you