

# Clinical Task Instruction

## Skill Shared Task

### S-MT07: Assess standing transfer

#### Scope and objectives of clinical task

This CTI will enable the health professional to:

- describe and recognise a normal pattern for a standing transfer, common deviations, and compensatory strategies.
- assess a client's ability to safely and effectively stand transfer.
- support team decision-making with regard to standing transfer safety, function and care planning.

#### VERSION CONTROL

Version: 2.0

Reviewed (Profession): Statewide Directors of Physiotherapy Date: 13/12/2020

Approved: Chief Allied Health Officer, Allied Health Professions' Office of Queensland Date: 28/01/2021

Document custodian: Chief Allied Health Officer, Allied Health Professions' Office of Queensland Review date: 28/01/2024

The CTI reflects best practice and agreed process for conduct of the task at the time of approval and should not be altered. Feedback, including proposed amendments to this published document, should be directed to AHPOQ at: [allied\\_health\\_advisory@health.qld.gov.au](mailto:allied_health_advisory@health.qld.gov.au).

This CTI must be used under a skill sharing framework implemented at the work unit level. The framework is available at: <https://www.health.qld.gov.au/ahwac/html/calderdale-framework.asp>

Please check <https://www.health.qld.gov.au/ahwac/html/clintaskinstructions.asp> for the latest version of this CTI.

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## Local implementation

- The local health service will define the parameters for the local implementation of this CTI. The health service will determine the scope of the individual health professional with regard to:
  - weight bearing status i.e. full weight bearing, weight bearing as tolerated or partial weight bearing.
  - types of walking aid/s e.g. four wheeled walker, hopper frame, crutches, walking stick.
  - environments, particularly sub-acute/rehabilitation ward or community settings.
- The local scope of the skill shared task will be approved by the health service and recorded in the CTI Performance Criteria Checklist.

## Requisite training, knowledge, skills and experience

### Training

- Mandatory training requirements relevant to Queensland Health / Hospital and Health Service (HHS) clinical roles are assumed knowledge for this CTI.
- If not part of mandatory training requirements, complete training in patient manual handling techniques, including lying to sitting techniques, the use of walk belts, and sit to stand transfers.
- If the use of walking aids is within the scope of the local implementation:
  - CTI S-MT05: Assess standing balance
  - CTI S-MT01: Assess functional walking.
  - CTI S-MT02: Prescribe, train and review of walking aids

### Clinical knowledge

- To deliver this clinical task a health professional is required to possess the following theoretical knowledge:
  - the basic elements of standing transfers and common deviations e.g. uneven weight bearing, wide base of support, flexed/stooped posture, hand support, increased postural sway.
  - potential causes for deviations during a standing transfer such as pain, leg length discrepancy, muscle tightness/weakness, poor vision, poor proprioception, vestibular issues.
  - common strategies used to improve standing transfer performance including seat height, seat location, client posture/starting position, manual guidance and cueing strategies.
  - the basic elements of a mobility history including falls and balance, and implications for a standing transfer assessment.
  - local falls risk screening and mitigation strategies, programs and/or processes.
- The knowledge requirements will be met by the following activities:
  - complete the training program (as above).
  - review of the Learning Resource.
  - receive instruction from the lead health professional in the training phase.

## Skills or experience

- The following skills or experience are not specifically identified in the task procedure but support the safe and effective performance of the task or the efficiency of the training process and are:
  - **required** by a health professional in order to deliver this task:
    - competence in measurement of clinical observations relevant to mobilising/exertion where this is relevant to the healthcare setting and client group. This may include blood pressure, heart rate, pulse oximetry, pain scales or exertion scales.
    - competence in the use of mobile oxygen where this is relevant to the healthcare setting.
  - **relevant** but not mandatory for a health professional to possess in order to deliver this task:
    - competence in the assessment of standing balance.

## Indications and limitations for use of a skill shared task

The skill share-trained health professional shall use their independent clinical judgement to determine the situations in which he/she delivers this clinical task. The following recommended indications and limitations are provided as a guide to the use of the CTI, but the health professional is responsible for applying clinical reasoning and understanding of the potential risks and benefits of providing the task in each clinical situation.

### Indications

- The client is identified as having problems with standing transfers. Problems may be identified through referral, subjective history (documented history or client reports of recent falls/near-falls, balance problems, worsening gait issues, lower limb injury or numbness) or direct observation (looks unsteady/unsafe/shaky with movements) when performing a sit to stand and/or transfer.
- The client is medically stable and there is no medical prohibition to performing a standing transfer or two leg standing e.g. the medical record indicates that the client can be stood up and vital signs are within normal limits, or the client is living in the community and is not acutely unwell.

### Limitations

- The client is unable to sit independently. At a minimum, the client must be able to sit without physical assistance including chair backrest support.
- The client is known to require more than light assistance to stand up from sitting.
- The client is unable to two-leg stand. This may be due to a non-weight bearing restriction, weakness, contracture, amputation, pain, fear.
- The client is on a care pathway/protocol, or has medical or surgical restrictions that prohibit sitting or standing. This may include rest in bed orders or clinical observations that are outside of the normative range such as Haemoglobin or blood pressure. If restrictions (including care pathway/protocol requirements) are unclear, liaise with the health care team.
- The client has moderate to severe lower limb weakness. Crude measures of weakness include an inability to move extended limbs against gravity when lying down/seated, an inability to bridge

(lift bottom off the bed in supine lying position) or inability to stand up from sitting either independently or with light assistance. Testing should not conflict with any medical restrictions e.g. weight-bearing restrictions, open chain prohibitions (extending the knee while foot is not in contact with the floor), hip precautions.

- The client has moderate to severe balance disorders including unexpected episodes of dizziness with a loss of balance and/or fall, or an inability to safely sit or stand up without moderate assistance of someone. Conditions affecting balance include neurological conditions or previous neurological trauma with residual balance deficits, syncope (blood pressure drop when changing position) or vestibular problems. At a minimum, the client must be able to self-identify balance symptom onset and apply self-management strategies such as focusing on an object, staying still or resuming sitting, prior to commencing the task.
- The client has moderate to severe movement disorders including reported/observed frequent freezing episodes, tremor or increased tone that impacts movement control. At a minimum, the client must be able to demonstrate the required movement control for independent sitting and muscle strength (as described in these Limitations) to commence the task.
- The client has moderate to severe cognitive impairment. At a minimum, the client must be able to follow simple commands and respond appropriately to feedback for safety.
- The client has moderate to severe pain or the client is unwilling to participate due to pain i.e. fails to consent to the intervention at this time. Consider timing the task at a time that coincides with client symptom management and/or medication regimen.
- Clinical observations are not within normal or expected limits for the client prior to the task, including low haemoglobin (Hb < 90g/L), increased respiratory rate (>20 breaths/minute), elevated temperature (>38°C), SpO<sub>2</sub> <95%, pulse (<50bpm or >90 bpm), or systolic blood pressure <110 >159 mmHg.

## Safety and quality

### Client

The skill share-trained health professional shall identify and monitor the following risks and precautions that are specifically relevant to this clinical task:

- Shoes should be enclosed, well-fitting and with good traction. If the client does not have shoes, socks/stockings should be removed, bare feet should be documented as part of the assessment and appropriate safety measures monitored including floor surface texture and temperature.

### Equipment, aids and appliances

- When moving from one seated surface to another, it is generally easier for the second surface to be either at the same or slightly lower height. At all times, surfaces should not be lower than popliteal height (posterior knee crease), or higher than the client can comfortably sit with both feet on the ground. The seated surface should also be appropriate for any height restriction requirements e.g. meet hip precautions.
- Safe working load of all surfaces and equipment should be suitable for the client.

## Environment

- Seating surfaces should be placed close together for ease of movement but still allow sufficient distance between to be safe for the client (minimise trips/slips) and allow the health professional to use safe manual handling practices. This may require the movement of other equipment (e.g. bedside table, visitor chair) or the task to be undertaken in an alternative environment i.e. away from the client bedside. Generally, it is easier for a client to transfer to their stronger/unaffected side. The positioning of seating surfaces and direction of transfer should be noted for re-assessment purposes and noted in any recommendations, if relevant.

## Performance of clinical task

### 1. Preparation

- Select an environment and seating surface appropriate for the task.

### 2. Introduce task and seek consent

- The health professional checks three forms of client identification: full name, date of birth, **plus one** of the following: hospital unit record (UR) number, Medicare number, or address.
- The health professional introduces the task and seeks informed consent according to the Queensland Health Guide to Informed Decision-making in Health Care, 2<sup>nd</sup> edition (2017).

### 3. Positioning

- The client's position during the task should be:
  - sitting unsupported e.g. on the edge of the bed or in a chair, feet on the ground.
- The health professional's position during the task should be:
  - standing to the side of the client and slightly in front to monitor the client during the task and provide hands on assistance if required. If the client has a weaker/affected side, assistance is usually provided on this side.

### 4. Task procedure

- The task comprises the following steps:
  1. Explain and demonstrate (where applicable) the task to the client.
  2. Check the client has understood the task and provide an opportunity to ask questions.
  3. Obtain or confirm information from the client (or carer) with regard to current physical capability/problems relevant to standing transfers including:
    - balance history i.e. falls history, ability to sit, stand and mobilise, aids used, medical/surgical restrictions. See Learning resource: balance history - considerations.
    - assistance required for sitting, sit to stand and standing.
  4. On the basis of information provided, determine if the task will progress to include observation of standing transfer performance. See Limitations.
  5. Observe the client in sitting. If the client is unable to sit unsupported, cease the task e.g. cannot sit without back or arm support, or has excessive postural sway, leaning or listing.

Document all observations and refer to a health professional with expertise in the task for further assessment.

6. Determine which side to place the seated surface for the client to transfer to. If the client has an affected side, transferring to the unaffected side will usually be easier and should be observed first.
7. Observe the client's performance of standing up from sitting. If required, provide assistance as per the local health service manual handling protocol.
8. Observe the client's standing alignment and balance. If the client requires more than light assistance to stand, cease the task by asking the client to sit back down. Document the outcome and refer to a health professional with expertise in the task for further assessment.
9. If appropriate, ask the client to step to turn and sit on the adjacent seating surface. Observe the client's ability to step and sit down on the other seated surface, noting if assistance is required.

## 5. Monitoring performance and tolerance during the task

- Common errors and compensation strategies to be monitored and corrected during task include:
  - poor foot placement/uneven weight bearing either whilst standing up or turning to sit down. Provide guidance (manual or cueing) to the client regarding their foot placement and observe any change in performance.
  - the client has contact between the back of their legs and the plinth/bed/chair in standing to maintain balance or does not attain unsupported upright standing. Instruct the client to not lean on the supporting surface and observe any change in performance.
  - the client uses upper limbs for support during the task, including pushing up from the chair and/or reaching for the seated surface they are transferring to. Instruct the client to attempt to stand up/sit down without arm support and/or increasing the seating surface height. Observe any change in performance. If the client is unable to stand without pushing up through their hands/arms, this will form part of the stand transfer recommendation.
  - the client does not control the movement from standing into sitting e.g. lurches, lands heavily, loses balance/falls onto the seated surface, requires to re-adjust self once seated with/without assistance. Instruct the client to attempt to sit down slowly and/or adjust the seating surface height to be higher. Observe any change in performance.
- Monitor for adverse reactions and implement appropriate mitigation strategies as outlined in Safety and quality section above.

## 6. Progression

- If no safety or significant performance problems were evident on assessment, the task may be progressed to more challenging situations. This may include:
  - standing transfer in the other direction i.e. to the affected side or non-dominant side.
  - onto seating surfaces of different heights, either higher or lower.
  - on/off different types of seating surfaces e.g. toilet, car, bed, lounge chair, dining room chair, or
  - in different environments e.g. bathroom, bedroom, dining room, garage.

## 7. Document

- Document the outcomes of the task as part of the skill share-trained health professional's entry in the relevant clinical record, consistent with documentation standards and local procedures. As part of the entry, the skill share-trained health professional should comment on observations during the task:
  - the task parameters including the environment, seat height, direction of movement and location e.g. client's wheelchair to dining room chair, stand transfer assessment both to the left and right.
  - observations including use of hands/arm rests, sitting and standing alignment.
  - the level of assistance required during the standing transfer assessment to complete the task, including the use of a walk belt, movement directions, verbal cueing, physical steadying or manual guidance.
  - recommendation for standing transfer performance. See Learning resource: Outcomes of a standing transfer assessment.
  - if the client's performance of a standing transfer is not at the client's usual baseline, a plan for access to a standing transfer retraining program e.g. referral, implement CTI S-MT11: Prescribe and administer bridging intervention: functional retraining for sit to stand.
- The skill shared task should be identified in the documentation as "delivered by skill shared-trained (insert profession) implementing "CTI: S-MT07: Assess standing transfer" (or similar wording).

## References and supporting documents

- Carr, JH and Shepherd RB (1987) A motor relearning programme for stroke. Butterworth-Heinemann: Oxford.
- Queensland Health (2017). Guide to Informed Decision-making in Health Care (2<sup>nd</sup> edition). Available at: [https://www.health.qld.gov.au/\\_data/assets/pdf\\_file/0019/143074/ic-guide.pdf](https://www.health.qld.gov.au/_data/assets/pdf_file/0019/143074/ic-guide.pdf).
- Queensland Health (2020). Normal adult clinical observations are based on the Queensland Adult Deterioration Detection System (Q-ADDS) for Tertiary and Secondary Facilities. Normal ranges reflect the Q-ADDS Score 0. Recording sheet available at Queensland Adult Deterioration Detection System (Q-ADDS) For Day Surgery Units in Rural and Remote Facilities (2020). Accessible at: <http://qheps.health.qld.gov.au/tville/cdsu/clinical-forms/docs/cf-q-adds-dsu-rural-remote.pdf>
- Rochester L, Lord S, Morris M (2013). Chapter 6: The role of physiotherapy in the rehabilitation of people with movement disorders. In Iansek R, Morris ME (Eds), Management in Movement Disorders. Cambridge University Press: New York.

# Assessment: performance criteria checklist

## S-MT07: Assess standing transfer

Name:

Position:

Work Unit:

Performance Criteria	Knowledge acquired	Supervised task practice	Competency assessment
	<i>Date and initials of Lead HP</i>	<i>Date and initials of Lead HP</i>	<i>Date and initials of Lead HP</i>
Demonstrates knowledge of fundamental concepts required to undertake the task through observed performance and the clinical reasoning record.			
Identifies indications and safety considerations for task and makes appropriate decision to implement task, including any risk mitigation strategies, in accordance with the clinical reasoning record.			
Completes preparation for task including selection of an appropriate environment and seating surface for the task.			
Describes task and seeks informed consent.			
Prepares environment and positions self and client appropriately to ensure safety and effectiveness of task, including reflecting on risks and improvements in clinical reasoning record where relevant.			
<p>Delivers task effectively and safely as per CTI procedure, in accordance with the learning resource.</p> <p>a) Clearly explains and demonstrates task, checking client's understanding.</p> <p>b) Gains standing transfer history from medical record and subjectively from the client/carer.</p> <p>c) Confirms client's capacity to participate (physical, cognitive, etc.), including performance of required assessments (clinical observations, sitting balance, ability to follow instructions etc.).</p> <p>d) Appropriately positions seating surfaces for client transfer.</p> <p>e) Observes the client's:</p> <ol style="list-style-type: none"> <li>i) sitting balance</li> <li>ii) standing alignment</li> <li>iii) standing transfer and ceases the task, if required.</li> </ol> <p>f) Describes the clients standing up, standing alignment, stepping to turn and sitting performance, including deviations/abnormalities.</p> <p>During task, maintains a safe clinical environment and manages risks appropriately, including the incorporation of safe manual handling techniques for any assistance provided.</p>			



Monitors for performance errors and provides appropriate correction, feedback and/or adapts task to improve effectiveness, in accordance with the clinical reasoning record.			
Documents in clinical notes including reference to task being delivered by skill share-trained health professional and CTI used.			
If relevant, incorporates outcomes from task into intervention plan e.g. plan for task progression, interprets findings in relation to care planning, in accordance with the clinical reasoning record.			
Demonstrates appropriate clinical reasoning throughout task, in accordance with the learning resource.			
<b>Notes on the scope of the competency for the health professional:</b>			
<p>The health professional has been trained and assessed as competent to deliver this task for the following walking aids:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Single point walking stick</li> <li><input type="checkbox"/> Crutches: <input type="checkbox"/> Axillary <input type="checkbox"/> Canadian</li> <li><input type="checkbox"/> Hopper frame/Pick up frame</li> <li><input type="checkbox"/> Four wheeled walker (4WW)</li> <li>Other _____</li> </ul>			
<p>The health professional has been trained and assessed as competent to deliver the task for the following weight bearing status:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Full Weight Bearing (FWBing)</li> <li><input type="checkbox"/> Weight Bearing as Tolerated (WBAT)</li> <li><input type="checkbox"/> Partial Weight Bearing (PWBing)</li> <li><input type="checkbox"/> Non-Weight Bearing (NWBing)</li> </ul>			
<b>Notes on the service model in which the health professional will be performing this task:</b>			
<p>Including protocols and pathways that the skill share trained health professional has been trained and assessed as competent to use, restrictions relevant to the local service (e.g. patient groups included/excluded, environments) etc.:</p>			

**Comments:**

Large empty rectangular area for entering comments.

**Record of assessment of competence**

Assessor name:	Assessor position:	Competence achieved:     /     /
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**Scheduled review**

Review date     /     /
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# S-MT07: Assess standing transfer

## Clinical reasoning record

- The clinical reasoning record can be used:
  - as a training resource, to be completed after each application of the skill shared task (or potential use of the task) in the training period and discussed in the supervision meeting.
  - after training is completed for the purposes of periodic audit of competence.
  - after training is completed in the event of an adverse or sub-optimal outcome from the delivery of the clinical task, to aid reflection and performance review by the lead practitioner.
- The clinical reasoning record should be retained with the clinician's records of training and not be included in the client's clinical documentation.

Date skill shared task delivered: \_\_\_\_\_

### 1. Setting and context

- insert concise point/s outlining the setting and situation in which the task was performed, and their impact on the task

### 2. Client

#### **Presenting condition and history relevant to task**

- insert concise point/s on the client's presentation in relation to the task e.g. presenting condition, relevant past history, relevant assessment findings

#### **General care plan**

- insert concise point/s on the client's general and profession-specific/allied health care plan e.g. acute inpatient, discharge planned in 2/7

#### **Functional considerations**

- insert concise point/s of relevance to the task e.g. current functional status, functional needs in home environment or functional goals. If not relevant to task - omit.

#### **Environmental considerations**

- insert concise point/s of relevance to the task e.g. environment set-up/preparation for task, equipment available at home and home environment. If not relevant to task - omit.

#### **Social considerations**

- insert concise point/s of relevance to the task e.g. carer considerations, other supports, client's role within family, transport or financial issues impacting care plan. If not relevant to task - omit.

#### **Other considerations**

- insert concise point/s of relevance to the task not previously covered. If none - omit.

### 3. Task indications and precautions considered

#### Indications and precautions considered

- insert concise point/s on the indications present for the task, and any risks or precautions, and the decision taken to implement/not implement the task including risk management strategies.

### 4. Outcomes of task

- insert concise point/s on the outcomes of the task including difficulties encountered, unanticipated responses

### 5. Plan

- insert concise point/s on the plan for further use of the task with this client including progression plan (if relevant)

### 6. Overall reflection

- insert concise point/s on learnings from the use of the task including indications for further learning or discussion with the lead practitioner

#### Skill share-trained health professional

Name:

Position:

Date this case was discussed in supervision:

Outcome of supervision discussion:

#### Lead health professional (trainer)

Name:

Position:

/ /

e.g. further training, progress to final competency assessment

# Assess standing transfer: Learning resource

Standing up and transferring from one seated surface to another can improve function during activities of daily living. Standing transfers provide the client the ability to move in/out of a car, on/off the toilet, from a wheelchair to another chair. Conducting an assessment of standing transfer performance supports the client and those assisting in maintaining safety, whilst also encouraging independence.

## Required reading

- Lecours J, Nadeau S, Gravel D, Teixeira-Salmela L. (2008). Interactions between foot placement, trunk frontal position, weight-bearing and knee moment asymmetry at seat-off during rising from a chair in healthy controls and persons with hemiparesis. *Journal of Rehabilitation Medicine* 40:200–7. Available at: <https://www.medicaljournals.se/jrm/content/issue/40-3>
- Nuzik S, Lamb R, Vansant AF, Hirt S (1986). Sit to stand movement pattern a kinematic study. *Physical Therapy* 66(11): 1708-13. Available at: [https://www.researchgate.net/publication/19386817\\_Sit-to-Stand\\_Movement\\_Pattern\\_A\\_Kinematic\\_Study](https://www.researchgate.net/publication/19386817_Sit-to-Stand_Movement_Pattern_A_Kinematic_Study)
- Schenkman M, Berger RA, Riley PO, Mann RW, Hodge AW (1990). Whole-body movements during rising to standing from sitting. *Physical Therapy* 70(10): 638-652. Available at: <http://e.guigon.free.fr/rsc/article/SchenkmanEtAl90.pdf>
- Wooh young J, Jensen JL, Griffin L (2019). Muscle activity and balance control during sit-to-stand across symmetric and asymmetric initial foot positions in healthy adults. *Gait & Posture* 71: 138-144. Available through [CKN e-journals](#) for Queensland Health staff.

## Required viewing

- Queensland Health (2012) Patient handling safe work procedures. SWP 6/7. 6a. Patient sits/stands self with prompting. Available at: [http://paweb.sth.health.qld.gov.au/elearning/patient-handling/swp/SWP\\_6\\_7.html](http://paweb.sth.health.qld.gov.au/elearning/patient-handling/swp/SWP_6_7.html)
- BetSeaC (2011). Getting in a Car while following Posterior Hip Precautions after Total Hip Replacement Surgery. Available at <https://www.youtube.com/watch?v=DjseytmVqMo>
- Stroke 4 Carers (n.d.). Daily living activities. 16) How to assist the person in and out of car safely. Available at <http://www.stroke4carers.org/?p=453>

## Optional reading

- Bjerlemo B, Johnels B, Kreuter M (2002). The effect of two different arm positions on body weight distribution when rising from sitting to standing in stroke patients. *Physiotherapy Theory and Practice*; 18:33–41. Available through [CKN e-journals](#) for Queensland Health staff.
- Carr JH, Ow JEG, Shepherd RB (2002). Some biomechanical characteristics of standing up at three different speeds: implications for functional training. *Physiotherapy Theory and Practice*: 18(2): 47-53. Available through [CKN e-journals](#) for Queensland Health staff.

- Thomas D, McMahon A, Thomas YL (2011) Moving and Handling People. The New Zealand Guidelines. Supervised sit to stand. P 90. Section 4. Techniques for moving and handling people. Available at: [http://www.acc.co.nz/PRD\\_EXT\\_CSMP/groups/external\\_ip/documents/guide/wpc108936.pdf](http://www.acc.co.nz/PRD_EXT_CSMP/groups/external_ip/documents/guide/wpc108936.pdf)

## Clinical observation measurements

**Table 1: Normal adult clinical observations (Queensland Health, 2020)**

Blood pressure (systolic)	110 – 159 mmHg
Pulse/heart rate (HR)	50 – 99 beats/min
Temperature (oral)	36.1 °C – 37.9 °C
Respiratory rate (RR)	13 – 20 breaths/min
Oxygen saturation (SpO <sub>2</sub> )	above 95%
Pain score at rest	0 – none 1-3 – mild 4-6 – moderate 7-10 – severe
Functional Activity Scale (FAS) (perform during cough/movement)	A – activity unlimited by pain B – activity mild to moderately limited by pain C – activity severely limited by pain

Note: For children, clinical observations will be related to age and presenting condition. The health professional should liaise directly with the medical team to confirm the expected clinical observations.

Other observations and scales required by the health service for the task delivery in a specific care setting will require specific training in administration and interpretation e.g. Borg perceived exertion scale. Where alternate or additional clinical observation measurements are used, these should be referenced and documented in the Performance Criteria Checklist.

## Balance history – considerations

- Has the client suffered any falls in the past 12 months? If yes:
  - how many?
  - where? E.g. in the bathroom, on the stairs.
  - were there any injuries sustained? E.g. bruising, fractures, lacerations, loss of consciousness.
  - what was the cause? E.g. syncope, dizziness, tripping.
  - which direction did they fall? I.e. forwards, backwards, to the side.

- Determine if the client meets the local service falls prevention program criteria for referral and implement as part of the recommendations of this CTI.
  - when the client is moving around (standing up from sitting, walking, turning) does the client report/appear unsteady or at risk of losing their balance? See Indications section.
  - has the client had any changes to their medications? Side effect of medications can include balance problems. Determine if the change in medications coincides with the change in balance symptoms and liaise with the healthcare team as part of the recommendations of this CTI.
  - is the client currently transferring by using a walking aid? If yes, the health professional must be trained and competent in the use of the walking aid planned for use.

## Assessment of a Standing transfer

Standing transfer assessment requires an understanding of the normal movement patterns for standing up, standing alignment, stepping and sitting down.

### Sit to stand

- The following information is adapted from Carr, JH and Shepherd RB (1987) *Chapter 6: Standing up and sitting down. A motor relearning programme for stroke. Butterworth-Heinemann: Oxford.* It describes the essential components for standing up and sitting down and the common deviations observed.
- The essential components of standing up are:
  - foot placement. Both feet should be placed back behind the knees to allow a base under the centre of gravity as it moves forward.
  - the trunk should incline forward by the hips flexing and the neck and trunk remaining in extension.
  - the knees should move forward allowing the centre of gravity to shift over the feet and the weight of the body to be shifted forward and upward.
  - extension of the hips and knees, for final standing alignment.
  - before sitting down it is important that the whereabouts of the seat is confirmed, either through feeling with the hand or against the back of the legs.
- The essential components of sitting down are:
  - inclination of the trunk forward by flexion at hips and the neck and trunk remaining in extension.
  - movement of the knees forward.
  - these movements combined allow the pelvis to move backwards and downwards.
  - knee flexion.
- It is important to observe the trajectories of both the knees and shoulders during the movement. Common observations of poor performance include:
  - uneven weight bearing. Generally, there is increased weight bear through the unaffected side. Uneven weight bearing may be demonstrated by uneven foot placement, slipping of the affected side at the commencement of movement, wide base of support, or on objective measurement with a scale or pressure gauge. Where reduced weight bearing is evident on one

side, provide manual guidance and/or cueing to encourage weight bearing through the affected side.

- co-morbidities which may impact on uneven weight bearing include arthritic joints, knee replacements, lower limb weakness making “knees over toes” unachievable, unilaterally or bilaterally. Request positioning of foot/feet to be as close as possible to ‘normal’ positioning. It is possible to attempt assessment with one foot further forward than the other, noting the reason for poor foot placement/uneven weight bearing.
- lack of forward movement and transfer of the centre of gravity. That is, not moving shoulders over feet and/or moving knees forward as part of initiating the movement of standing up or sitting down. This may be demonstrated when standing up by the client flexing the trunk and head instead of the hips, wriggling forward on the chair in an attempt to get weight over feet, rocking forward and backwards in an attempt to gain momentum to complete the movement, or using arms to push up. When sitting down the client may reach for arm rests to control the movement, land heavily, readjust themselves or lose their balance once seated. This is commonly due to poor lower limb strength/flexibility, poor foot placement (see above). Determine if the client requires the compensatory strategy by asking them to perform the movement without using momentum/hands/wriggling etc. Consider raising the surface of the seat to reduce the movement required and/or providing manual guidance for a normal trajectory.

## Balanced standing

- The following information is adapted from Carr JH and Shepherd RB (1987), *Chapter 7: Balanced standing. A motor relearning programme for stroke*. Butterworth-Heinemann: Oxford. It describes the essential components to maintaining upright standing and common deviations observed.
- The essential components of standing alignment are:
  - feet a few inches apart
  - legs straight with hips in front of ankles
  - shoulders over hips
  - shoulders level with head balanced
  - trunk erect.
- The ability to make:
  - postural adjustments in preparation/anticipation of movement, and
  - ongoing postural adjustments whilst performing a task.
- The analysis of standing consists of observation of the client’s alignment in quiet standing, followed by ability to make postural adjustments when challenged e.g. closing eyes, when moving (e.g. deep breath, head/trunk turning, reaching), responding to the environment (e.g. timer, rocking of a boat etc.). Common compensatory strategies include:
  - wide base of support, i.e. feet too far apart or one turned out.
  - voluntarily restricts movement, i.e. holds themselves stiffly, holds their breath, legs remain in contact with the bed/plinth when the client is in standing, is unwilling to turn head to look behind.
  - shuffling of feet instead of making postural adjustments to maintain balance.
  - takes a step prematurely, i.e. as soon as the centre of gravity moves.



- flexes at hips/pokes bottom out instead of moving forward at the ankles in reaching forward.
- moves at trunk instead of weight shifting when moving sideways.
- use of arms e.g. grabs for support, holds arms out sideways or forwards to counterbalance shifts in body weight.

## Elements of a standing transfer assessment

- With the client in a sitting position, observe the client performance of:
  - standing up from sitting
  - standing alignment
  - taking one to two small steps to turn
  - confirming the location of the seat
  - sitting down.
- A client should be assessed for each of the above elements to assist in identifying deficits/issues and developing a recommendation.

## Cueing

Cueing is a strategy used to support movement disorders. External cueing and attention is provided external to the client. This may be via the environment, another person or piece of equipment. Internal cueing occurs when attention and self-instruction are internally generated. Both external and internal cueing can assist clients to improve gait performance (stride length, initiation, freezing, turning).

Modes of delivery for cueing include spatial cues (visual e.g. nose over toes), rhythmical cueing (auditory e.g. 1,2,3 stand up, somatosensory, visual), sensory stimulation (e.g. touch, vibration), attention/ cognitive strategies (e.g. internal focus on movement) and verbal instructional cues (therapist or self-generated) (Rochester, Lord, Morris, 2013). Clients may use a combination of both internal and external cueing at any one time, for example self-talk to focus on lines on the ground etc. Health professionals performing a standing transfer assessment need to be aware of any cueing used (external or internal) during the assessment process, noting the impact on client performance, including the reliance/requirement for cueing on safety.

## Management strategies to address standing transfer assessment deficits

- Ergonomic/engineering controls to make the task easier e.g. increasing the seat height, removing arm rests from seats to allow closer placement/easier access of seating, provide a visual cue e.g. wall/mirror.
- Rehabilitation program – this may include practice of sit to stand and standing balance in different environments, strengthening or stretching exercises, use of cueing strategies or manual guidance.
- Patient manual handling – teaching the staff/carer manual handling techniques including verbal prompts for foot placement, use of manual guidance.
- Incorporation of compensatory strategies – this may include the encouragement of compensatory movements including: use of arm rests to push up, rocking movements for momentum, reaching for surfaces (rails), foot placement to use a wider base of support or assistance including manual guidance, cueing, supervision, physical assistance. Short term use of compensatory strategies may be necessary to maintain safety and function, however a rehabilitation program with a goal to

improve standing transfer ability should also be included as part of recommendations so that standing transfer performance can be optimised as part of the management plan. If unclear if a rehabilitation program is required for the client, liaise with a health professional with expertise in standing transfer retraining.

## Outcomes of a standing transfer assessment

- The observations and measurement of a client's standing transfer performance needs to be collated to form a recommendation.
- The assessment needs to document the observation of the client's posture during the movement, balance responses, assistance required/provided and limitations (height of chair, types of environments).
- The recommendation must then clearly state if the client is:
  - safe to stand transfer independently i.e. no changes/proposed intervention. This should include a statement that the client be re-referred should issues/concerns arise.

or

- safe for standing transfers with a list of restrictions and/or recommendations. These may include:
  - within limited environments and/or times (beside bed, during the day).
  - with prescribed equipment e.g. seat heights >50cm with arm rests.
  - with compensatory strategies including the type of strategy e.g. using arms to push up, using a rocking motion for momentum.
  - supports required such as verbal cueing, manual guidance or physical assistance.
  - There must also include a plan to further reduce the risk of falls. This may include further recommendations:
    - how transfers will occur whilst adhering to the limitations, particularly if the limitations includes bathrooms e.g. implementation of local falls assessment protocol/processes for assessment of alternative transfer options e.g. hoist or use of bedside commode/mobile commode.
    - prescription of a functional retraining program by a health professional with expertise in the task.

or

- not safe for standing transfers. This must include a plan to address the identified deficits/ issues. This may include further assessment with a health professional with expertise in the areas of:
  - manual handling equipment or techniques
  - standing transfers
  - balance/strength deficits e.g. individual program, falls and balance class, muscle stretching and strengthening program
  - home modifications e.g. shower/dressing rail
  - alternative housing/living environment options e.g. respite, residential care facility
  - other e.g. re-assessment after a period of time such as when medical/surgical restrictions are changed, medication regime is established, clinical observations are within normal or expected limits.