

Clinical Task Instruction

SKILL SHARED TASK

S-MT01: Functional walking assessment

Scope and objectives of clinical task

This CTI will enable the health professional to:

- assess a client's ability to safely and effectively walk,
- develop and implement an appropriate plan to address any identified walking deficits.

VERSION CONTROL

Version: 1.0

Approved (document custodian): Chief Allied Health Officer, Allied Health Professions' Office of Queensland, Clinical Excellence Division.

Date: 31/07/2017

Review: 31/07/2020

This Clinical Task Instruction (CTI) has been developed by the Allied Health Professions' Office of Queensland (AHPOQ) using information from locally developed clinical procedures, practicing clinicians, and published evidence where available and applicable.

This CTI should 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>

Skill sharing can only be implemented in a health service that possesses robust clinical governance processes including an approved and documented scope of skill sharing within the service model, work-based training and competency assessment, ongoing supervision and collaborative practice between skill share-trained practitioners and health professional/s with expertise in the task. A health professional must complete work-based training including a supervised practice period and demonstrate competence prior to providing the task as part of his/her scope of practice. When trained, the skill share-trained health professional is independently responsible for implementing the CTI including determining when to deliver the task, safely and effectively performing task activities, interpreting outcomes and integrating information into the care plan. Competency in this skill shared task does not alter health professionals' responsibility to work within their scope of practice at all times, and to collaborate with or refer to other health professionals if the client's needs extend beyond that scope. Consequently, in a service model skill sharing can augment but not completely replace delivery of the task by profession/s with task expertise.

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

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Requisite training, knowledge, skills and experience

Training

- Mandatory training requirements relevant to Queensland Health/HHS clinical roles are assumed knowledge for this CTI.
- If not part of mandatory requirements complete patient manual handling techniques, including the use of walk belts, and sit to stand transfers.
- CTI S-MT05: Standing balance assessment.
- CTI S-MT02: Prescribe, train and review of walking aids. S-MT02 provides competence in examining walking with aids and should be completed concurrent with S-MT01 if the skill share-trained AHP will implement S-MT01 with clients that use a walking aid. The health professional can implement S-MT01 with the walking aids he/she has demonstrated competence in S-MT02.

Clinical knowledge

To deliver this clinical task an allied health professional is required to possess the following theoretical knowledge:

- interpretation of the normal clinical observations that may impact functional walking including; heart rate, respiratory rate, blood pressure, oxygen saturation, pain scales, exertion scales etc.,
- understanding and ability to identify, from medical record and client observation, common conditions that are potentially exacerbated by walking. This should specifically include conditions identified as contraindications and precautions in the local setting,
- basic elements of a normal walking pattern and common deviations e.g. uneven step length, shuffling, hip hitching, foot drop, freezing, ataxia, etc.,
- potential causes for deviations from a normal walking pattern, including pain, weight bearing restrictions, muscle weakness/tightness, neurological conditions, alcohol abuse, prosthesis, poor vision etc.,
- local falls risk screening and mitigation strategies, programs and/or processes.

The knowledge requirements will be met by the following activities:

- completing training program (as above),
- reviewing the Learning Resource,
- receiving instruction from the lead allied health professional in the training phase.

Skills or experience

The following skills or experience are required by an allied health professional delivering this task:

- competence in measurement of clinical observations relevant to mobilising/exertion where this requirement is relevant to the healthcare setting and client group. This may include blood pressure, heart rate, pulse oximetry, pain scales, exertion scales, etc.,
- competence in the use of mobile oxygen where this is relevant to the healthcare setting.

Indications and limitations for use of 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 has been identified as having walking issues. This may be via referral, subjective history (documented history or client reports recent fall, balance problems, lower limb injury, illness that reduces cardiovascular fitness) or direct observation (looks unsteady/unsafe, incorrectly using/poorly maintained walking aid).
- The client is medically stable and there is no medical prohibition to walking e.g. the medical record indicates that the client can be walked and vital signs are within expected limits, the client has met all care pathway requirements to walk (e.g. haemoglobin level or x-ray review and clearance), or the client is living in the community and is not acutely unwell.

Limitations

Contra-indications and Precautions for a functional walking assessment include all the precautions as listed in CTI S-MT05: Standing balance assessment (review list for details) with the exception of:-

- a weight bearing restriction of weight bear as tolerated
 - where the local health service has determined other weight bearing restrictions to be in the scope for the health professional and they have been trained and assessed as competent as part of this CTI, for example partial weight bear, touch weight bear or non-weight bearing, the health professional will adhere to the local health service decision throughout the task and this will be documented as part of the Assessment Performance Criteria Checklist.
- the use of a walking stick or crutches to mobilise
 - where the local health service has determined walking aids to be “in scope” for the health professional and they have been trained and assessed as competent as part of this CTI for example hopper frame, 4 wheeled walker, the health professional will adhere to the local health service decision throughout the task performance and this will be documented as part of the Assessment Performance Criteria Checklist.

Precautions

If precautions are identified, consider whether a functional walking assessment is necessary and safe for the client and staff. If risks are unclear, discuss with a health professional with expertise in the clinical task.

Implementation of this skill shared task may be appropriate for some minor impediments to weight bearing and movement control if the skill-shared trained health professionals can adequately manage the risk (e.g. through seeking assistance of another staff member, use of a walking aid, etc).

Precautions for a functional walking assessment include the same contraindications as CTI S-MT05: Standing balance assessment (review list for details, including exemptions above).

Additional examples include:

- Orthopaedic or cardiorespiratory surgery with restrictions. These will be documented via protocols, theatre notes, or medical orders. Examples include: weight bearing status (non, touch, partial, full); total hip replacement precautions as per local protocols; x-ray check prior to mobilisation; mobilise with range of movement brace only; sternotomy precautions for upper limb weight bearing as per local protocols; limited distances only etc. The client must be cleared to walk by the medical team or through protocol/care pathway and any restrictions must be adhered to during the task. If restrictions are unclear consult with the treating team.
- Clients on a care pathway that must meet the criteria for mobilisation or adhere to specific guidelines during the task e.g. post-surgical x-ray or haemoglobin level checks may be required prior to mobilisation or adherence to hip precautions (refer to Hospital and Health Service guidelines prior to commencing the task), post-surgical instructions to mobilise only with a range of movement brace or other appliance etc. If restrictions are unclear consult with the treating team.
- Mild increase in effort or cardiovascular response to activity. The client reports or is observed to have mild shortness of breath, light sweating, mild muscular shaking or reports an increase in physical exertion. Symptoms settle quickly once the task is ceased. Client may be required to rest periodically, either in standing or sitting during the task and/or be advised to reduce their walking speed or distance. Review clinical observations and confirm 'normal values' for the client e.g. respiratory rate, blood pressure, oxygen saturation etc. Monitor required clinical observations as per any medical team orders, local protocol or risk assessment. If accepted limits for the individual client have been exceeded, cease task immediately and consult with the medical team.
- Requirement for oxygen. If the client requires or is currently receiving oxygen, discuss mobilising the client with a relevant health professional from the treating team (nurse, doctor and/or physiotherapist) prior to commencing the task.

Contraindications

The points below are contraindications for the delivery of this task by the skill shared trained health professional. If contraindications are identified, the risk of implementing a functional walking assessment as a skill shared task is likely to outweigh the potential benefits. Consult with the physiotherapist, for further assessment and comprehensive intervention planning if a contraindication is noted.

- Contraindications for a functional walking assessment include the same contraindications as CTI S-MT05: Standing balance assessment (review list for details).
- If the signs or symptoms arise during the implementation of the task, consult the medical team immediately.
- Additional examples include:
 - Expressed or indications of significant anxiety with regard to standing and mobilising. This may include "pushing", unsafe or excessive leaning back/extension during the task resulting in the need of more than light assistance to complete the task.
 - Moderate to severe cardiorespiratory disease e.g. chronic obstructive airways disease, emphysema, chronic cardiac failure, etc.
 - Client has weight bearing restrictions or is using a walking aid that the local health service has determined to be out of scope of this skill sharing CTI or that the individual health professional has not been trained and assessed as competent to implement.

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:

- appropriate footwear should be worn at all times during this task - enclosed, well-fitting shoes with good traction or well-fitting “grip socks”. Clients with no footwear or a restriction affecting the ability to wear footwear should have socks and or compression stockings removed prior to mobilising.

Equipment, aids and appliances

- The client should be assessed using their usual walking aid and any other required devices e.g. ankle foot orthoses (AFO), knee brace etc. If their walking aid and/or required device/s are not available a similar trial/loan aid should be provided.
- Confirm that the safe working load of all equipment required for the task is appropriate for the client (e.g. chair to rest, walking aid).
- Ensure all equipment is clean and in good working order as per local infection control protocols. Refer to the manufacturers guidelines for specific maintenance guidelines for the client’s walking aid e.g. check rubber stoppers are present and have tread, adjustment screws or pins are engaged correctly, brakes are working (if relevant). If the equipment is unsafe do not proceed with the assessment.

Environment

- Ensure the planned route is free of trip hazards and obstacles to reduce the risk of falls e.g. pedestrian traffic, equipment and trolleys. It is advisable to position a chair part way along the route or have an assistant following behind with a wheelchair to allow the client to rest if required. Where possible, implement this task in an area with other staff nearby and available in case assistance is required.

Performance of Clinical Task

1. Preparation

- Use information collected from the medical chart to determine the client’s walking history including the use of any aids and/or required assistance (as per the guide to conducting a walking history in the learning resource), identify that any required pre-walking checks have occurred e.g. in the acute care setting x-rays, haemoglobin (Hb) and clinical observations are satisfactory and the client is medically cleared to mobilise.
- ensure the client has their usual walking aid (if relevant), required braces/orthoses and suitable footwear available and appropriately prepared prior to commencing the session. Preparation includes performing a safety check e.g. as per the manufacturers guidelines, local service protocols/procedures, etc.
- appropriately plan the route for mobilisation.

2. Introduce task and seek consent

- The health professional introduces him/herself to the client.

- The health professional checks three forms of client identification: full name, date of birth plus one of the following; hospital UR number, Medicare number, or address.
- The health professional describes the task to the client.
- The health professional seeks informed consent according to the Queensland Health Guide to Informed Decision Making in Healthcare (2012).

3. Positioning

- The client will be in a standing position during the functional walking assessment task. The client will usually be lying or sitting in bed or in a chair, prior to the task. If the client is unable to achieve a standing position independently, provide assistance to stand as per the local hospital and health services manual handling protocol. If the client requires more than one assist (light) cease the functional walking assessment (see limitations) and document the outcome, including the position attained and the assistance required.
- The health professional's position during the task should be:
 - standing to one side, the affected side if relevant, and slightly behind the client to allow observation of the walking pattern,
 - the health professional should be close enough to provide hands on assistance if required.
- If required, an assistant should stand on the affected side (where relevant) and in a position so as not to obstruct the observation of the client's walking pattern. If a client requires more than one assist (light) review the contraindications for this task and cease. An assistant may also follow behind with a wheelchair or other mobile seating if frequent rest breaks are expected.

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 the opportunity to ask questions,
 3. Confirm with the client their current physical capability including the ability to walk, assistance required, aid use and any medical restrictions (weight bearing status, oxygen requirements, etc).
 4. Perform a brief assessment of the client in sitting or lying before commencing the task. This may include: any required clinical observations for the client (blood pressure, respiratory rate etc.), muscle strength (e.g. ability to grip and weight bear through upper limbs, lower limb strength), pain, general movement, balance and ability to follow instructions.
 5. Determine if the client is able to independently sit, sit to stand and stand, including within their weight-bearing restrictions and using their usual walking aid (if relevant). If required, provide assistance as per the local health service manual handling protocol. If the client, requires more than one assist (light), or is unable to adhere to weight bearing restrictions, cease the task and document the outcome.
 6. Instruct the client to stand and pause before walking to allow time for potential postural blood pressure drop, dizziness or pain to subside. Ask the client to "take some steps on the spot" (march on the spot), using their walking aid for support if relevant, to ensure client is able to weight shift adequately (consider weight bearing status – this would not be appropriate if the client has non weight bearing or touch weight bearing orders). Provide assistance as per the manual handling protocol in the service. If the client requires more than one assist (light), or is unable to maintain weight bearing restrictions, cease the task and document the outcome,

7. Request the client start walking, using any required assistance and within any medical restrictions (weight bearing status, distance, oxygen requirements etc.) and walking aids previously prescribed. Observe the client's walking pattern and any deviations from a normal pattern or expected performance (refer to Table 1: Factors that contribute to walking performance in the learning resource). The distance walked during the task will depend on the client's abilities but will need to replicate functional walking requirements adequately to inform a walking status recommendation e.g. to the bathroom in an acute ward; to the dining room or recreation room in a aged care facility, to the letterbox or clothes line in a home setting, etc.,
8. Based on information collected make a recommendation to the client and team regarding the client's safe walking status and/or any further management plans required using the clinical reasoning tool in the learning resource e.g. trial of a walking aid, supervision or assistance requirements when mobilising, environmental considerations etc.

5. Monitoring performance and tolerance during the task

- Monitor common errors and compensation strategies during the functional walking assessment and provide feedback to ensure safety (refer to Table 1: Factors that contribute to walking performance in the learning resource). Note any corrections that the client makes in response to verbal prompting or cueing strategies.
- Check that the client is feeling well during the assessment and observe for signs of fatigue (shaking, increase in compensatory patterns of movement), pain or dizziness. If required have the client sit down and rest i.e. seat half way, wheelchair, mobile seating option etc.
- Monitor for adverse reactions and implement appropriate mitigation strategies as outlined in the "Indications and limitations for use of skill shared task" and "Safety and quality" sections above.

6. Progression

If no adverse reactions were evident on assessment, and if indicated by the client's functional goals, the task may be progressed to more challenging situations (refer to the guide to conducting a walking history in the learning resource). This may include:

- assessment in an actual or simulated functional environment e.g. outside, bathroom, busy corridors, kitchen, around corners, through doorways, different floor surfaces etc.,
- progressing to a less supportive walking aid if there are no contraindications, reducing the level of support provided,
- the client may require further assessment if functional walking goals change or factors impacting walking improve or decline e.g. acute exacerbation COPD resolves, change in weight bearing status, a new fall, acute injury to the lower limbs, hospital admission, illness or surgery. This may include a change in the level of assistance required, review of walking aid type and/or requirements.
- in all instances if the client is not safe to walk the health professional will ensure any relevant hospital and health service manual handling and/or falls protocol and management plans are implemented.

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, commenting on:

- walking aid used during the assessment or record "nil aid",

- level of assistance required, including the use of a walk belt, rest stops, verbal cueing or directions, physical steadying or guidance, common errors/compensatory strategies and corrections that the client made in response to verbal prompts/cues/manual guidance etc. If the assessment identified that no assistance is required record 'independent',
- the use of any pain relief, oxygen, or clinical observations monitored during the assessment, and outcomes observed,
- distance mobilised and the environment i.e. outside, ward, bathroom, around bed,
- the skill shared task should be identified in the documentation as “delivered by skill shared-trained (insert profession) implementing CTI S-MT01: Functional walking assessment” (or similar wording).

References and supporting documents

- Queensland Department of Health, 2015. Clinical Task Instruction D-WTS01 When to stop
<https://www.health.qld.gov.au/ahwac/html/clintaskinstructions.asp>
- Queensland Health, 2012. Guide to Informed Decision Making in Healthcare.
<http://www.health.qld.gov.au/consent/default.asp>
- Physiopedia, Gait module, viewed on 21 May, 2015
<http://www.physio-pedia.com/Gait>
- 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.

S-MT01: Functional walking assessment

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 health professional

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

- (a) 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

- (b) 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

- (c) 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

- (d) 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

- (e) 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

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

3. Task 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 health professional

Skill share-trained health professional

Name:

Position:

Lead health professional (trainer)

Name:

Position:

Date this case was discussed in supervision: / /

Outcome of supervision discussion e.g. further training, progress to final competency assessment

Assessment: Performance Criteria Checklist

CTI: S-MT01: Functional walking assessment

Name:

Position:

Work Unit:

Performance Criteria	Knowledge acquired	Supervised task practice	Competency assessment
	Date and initials of supervising AHP	Date and initials of supervising AHP	Date and initials of supervising AHP
Demonstrates knowledge of fundamental concepts required to undertake the task.			
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 completing equipment safety check and confirming with client pre-morbid/usual gait +/- aid(s), ensuring environment is cleared along path to walk, and ensuring client is wearing suitable footwear.			
Describes task and seeks informed consent.			
Positions self and client appropriately to complete task and ensure safety.			
Delivers task effectively and safely as per CTI procedure, in accordance with the learning resource. a) Clearly explains and demonstrates task, checking client's understanding. b) Gains functional walking history from medical record and subjectively from the client/carer. c) Confirms client's capacity to participate (physical, cognitive etc.), including performance of required assessments (clinical observations, strength, general movement, balance, ability to follow instructions etc.). d) Requests client stand and pause before commencing walking. e) Assesses client's walking, ensuring adherence to restrictions, and using required assistance and/or walking aid. f) Describes observed gait abnormalities appropriately. g) During task, maintains a safe clinical environment and manages risks appropriately.			
Monitors for performance errors and provides appropriate correction, feedback and/or adapts task to improve effectiveness, in accordance with the learning resource.			

Performance Criteria	Knowledge acquired	Supervised task practice	Competency assessment
Documents in clinical notes including reference to the task being delivered by the skill share-trained health professional and CTI used.			
If relevant, incorporates outcomes from the task into intervention plans e.g. plan for task progression, interprets findings in relation to care planning, or refers to other members of the healthcare team if required.			
Demonstrates appropriate clinical reasoning throughout task.			
Notes on the scope of the competency for the health professional:			
<p>The health professional has been trained and assessed as competent to deliver this task for the following walking aids:</p> <p><input type="checkbox"/> Single point walking stick</p> <p><input type="checkbox"/> Crutches: <input type="checkbox"/> Axillary <input type="checkbox"/> Canadian</p> <p><input type="checkbox"/> Hopper frame/Pick up frame</p> <p><input type="checkbox"/> Four wheeled walker (4WW)</p> <p>Other _____</p> <p>_____</p>			
<p>The health professional has been trained and assessed as competent to deliver the task for the following weight bearing status:</p> <p><input type="checkbox"/> Full weight bearing (FWBing)</p> <p><input type="checkbox"/> Weight Bearing as Tolerated (WBAT)</p> <p><input type="checkbox"/> Partial Weight Bearing (PWBing)</p> <p><input type="checkbox"/> Non Weight Bearing (NWBing)</p>			
Other restrictions relevant to the local service (e.g. patient groups included/excluded):			
Notes on the service model in which the health professional will be performing this task:			

Comments:

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Record of assessment of competence

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

Review date	/ /
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S-MT01: Functional walking assessment: Learning Resource

Required reading

- Alghwiri AA, Whitney SL. (2012). Chapter 18 Balance and Falls. In Guccione AA, Wong RA, Avers D (ed.), Geriatric Physical Therapy (3rd Ed). St Louis, Missouri, Elsevier. Available through CKN.
- Gait. Available at: <http://www.physio-pedia.com/Gait>
- Guy, P (unknown). Observational gait analyses: Identifying key events in the gait cycle. Accessed 4th November 2016 at: http://www.painfreefeet.ca/site/ywd_painfreefeet/assets/pdf/GAIT_ANALYSIS.pdf
- Performance-Oriented Assessment of Gait. Available at: <https://www.healthcare.uiowa.edu/igec/tools/mobility/tinettiGait.pdf>
- Ries JD (2012). Chapter 17: Ambulation: Impact of age-related changes on functional mobility. In Guccione AA, Wong RA, Avers D (ed.), Geriatric Physical Therapy (3rd Edition) St Louis, Missouri, Elsevier. Available through CKN.
- When to consider not mobilising. Safe prescription of mobilising patients in acute care settings. SAFEMOB. Available at: <http://www.physio-pedia.com/SAFEMOB>
- Required resources:
 - Local Hospital and Health service falls program/ processes

Optional resources:

- Preventing falls and harm from falls is a National Safety and Quality Health Service (NSQHS) Standards. Standard 10 – Preventing falls and harm from falls. Available at: <http://qheps.health.qld.gov.au/psu/safetyandquality/standards/standard-ten.htm>.
- Falls prevention in action – Stay on Your Feet ®. Available at: <https://www.health.qld.gov.au/stayonyourfeet/toolkits/fallpreventionaction>

Guide to conducting a walking history.

Information regarding the client's walking history may be obtained from the client's medical record and a face to face subjective examination. It involves determining the following:

- The client's usual mobility - does the client normally mobilise with a walking aid? If yes, how long have they used a walking aid? How many walking aids does the client use? For example, does the client use the same walking aid indoors and outdoors? in the bathroom? on the stairs?
- Does the client require assistance of another person to walk? Carer? Staff? If so what type of assistance is provided? Manual guidance, verbal cueing, physical assistance etc.
- The client's weight bearing restrictions and expected duration of restrictions?
- Distance the client can walk comfortably before requiring a rest. Limitations that prevent the client from walking further e.g. knee pain, SOB, medical restriction etc.
- Continence issues that may affect the assessment – does the client need to go to the toilet prior to walking? Does the client experience urgency issues, and if so, has this contributed to any previous or 'near' falls?
- Cognitive issues that may affect the assessment e.g. wandering, aggression, difficulty following instructions.

- Functional tasks that client is required to perform whilst walking e.g. carrying items, crossing roads, using escalators, etc.
- Falls in the previous 12 months. The number and cause of these falls e.g. slip, trip, hypotension, dizziness, visual disturbances, medications etc. Were any injuries sustained?
- Activities/hobbies/employment the client participates in and the walking requirements for this activity.
- Client's home environment and any other environment they frequently visit e.g. stairs/carpet/space around house. Does the client use an aid or require support in any of these environments?
- If the client is required to use stairs currently or in the discharge location. The health professional may collect this information but can only assess the client on stairs if it has been deemed to be in scope for the health professional by the local health service and they have been trained and assessed as competent to deliver S-MT04: Stairs mobility assessment.
- Social circumstances and relevance to walking requirements e.g. lives with family or alone, support available from carer for walking, functional tasks undertaken in the home or at work, method of accessing the community drive, taxi or bus?

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. lines on the ground), rhythmical cueing (auditory e.g. metronome beats, 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). 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 walking 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.

Functional walking assessment observations and interpretations

There are many elements to a functional walking assessment. Some aspects of the assessment may occur over a number of sessions. For example an inpatient may initially be assessed for safety to walk to the bathroom but prior to discharge further assessment in more functionally-relevant environments is likely to be required. Table 1 outlines some of the functional walking indicators evident in an assessment and provides examples of the clinical observations and factors that may contribute to the performance problems.

Table 1 Factors that contribute to walking performance

Indicator	Observation	Potential contributing factors to observed performance problems
General		
Walking Aid	Client demonstrates incorrect use of the aid e.g. poor placement of aid, clipping aid with foot, not using brakes appropriately	Aid is in poor working order/maintenance or incorrectly measured and fitted. Client has not been trained to use the aid including its safety features. Cognitive impairment.
Assistance required	Client requests or requires assistance (supervision, standby or manual assistance) to walk. This may include verbal cueing/ prompting, assistance with equipment (oxygen cylinder), supervision to provide guidance to avoid obstacles.	Vision impairment, cognitive impairment, movement disorder (unsteady, ataxic), shortness of breath (needs frequent rests), requires oxygen equipment, lacks confidence or has a fear of falling.
Client needs to steady self in standing before commencing walking.	Client stands and pauses (for an increased length of time). Client may hold onto chair arm rest, walking aid, furniture, closes eyes, squeeze thigh muscles or take a deep breath before walking.	Client may have anxiety about moving (pain, fear etc.), hypotension, balance/ vestibular issues. Client may require or expect a cue/ prompt to proceed.
Limitations to walking not related to gait pattern	Heavy breathing/ shortness of breath, increased respiratory rate, puffing, coughing, wheezing, freezing episodes.	Cardiopulmonary conditions (COPD, emphysema, bronchiectasis, lung cancer), obesity, Parkinson's disease, anxiety.
Gait Observations – using the phases of the gait cycle		
Lower limb - stance	Poor foot placement/ foot strike. Lower limb does not achieve mid-stance posture/ position or prepare for swing. Reduced time in stance/ uneven weight bearing e.g. 'limping'.	Potential contributing factors: Muscle weakness/ contracture in lower limb (hip/ knee/ ankle), ataxia, tremor, deformity, pain, leg length discrepancy, poor proprioception, foot drop, arthritic changes, stroke, Parkinson's Disease, alcohol related neurological conditions.
Lower limb - swing	Poor push-off to initiate swing, lacks foot clearance during swing e.g. catching toes/ scuffing feet	Muscle weakness/ contracture in lower limb, deformity, pain
Upper limb - arm swing	Lack of co-ordination with trunk/ lower limb movement, excessive or no reciprocal arm swing	Muscle weakness/ contracture in upper limb, deformity, pain, anxiety/ tension
Trunk and head movements	Excessive lateral movement (swaying or excessive side bending) – particularly during stance Flexed trunk throughout (stooped posture) and/or downward gaze (watching feet)	Muscle weakness/ contracture, leg length discrepancy, deformity e.g. hyper kyphosis (hunched), poor vision, inappropriate height of walking aid, fear of falling, poor balance
Base of Support	Feet are placed wide apart (including clipping walking aid during swing phase) Feet are close together, swing leg routinely clips stance leg or foot placement crosses the midpoint (scissoring gait)	Poor balance, ataxia (movement control problems of central nervous system causing problems with limb and trunk control), lower limb deformity

Indicator	Observation	Potential contributing factors to observed performance problems
Movement control and fluency	Gait pattern is not consistent (e.g. foot placement variation in width and length) Movement control and fluency (smoothness) impacted by freezing or problems initiating a step, shaking, tremors, floppy or stiff looking limbs (hypotonic/hypertonic)	Fatigue, anxiety, increased/ reduced muscle tone, neurological disorders e.g. Parkinson's Disease, cerebral palsy, alcohol abuse

As part of fully assessing the client's walking it is essential to review the client in more functionally relevant environments and confirm that the task can be performed without a loss of balance or change in the level of assistance required. A functional walking assessment includes observing performance in actual or simulated environments, performed in similar contexts. For example, walking around the house, opening a door whilst carrying a cup of tea, crossing the road to get to the shops, etc.

Table 2 outlines some of the functional walking indicators evident in an assessment and provides examples of the clinical observations and factors that may contribute to the performance problems.

Table 2 Functional walking assessment – able to perform listed task without loss of balance or change in the level of assistance required

Indicator	Observation	Potential contributing factors to observed performance problems
Turn/change direction/ negotiating corners	Clients reaches for support (furniture/ wall), increase in trunk movement outside base of support, feet cross over, client significantly reduces speed of movement	Dizziness, poor balance, muscle weakness (bilateral or unilateral), poor proprioception, ataxia, fear, vision impairment
Manoeuvre in tight spaces/ around obstacles e.g. furniture, equipment, bathroom	Client reaches for support (sink/ rails), client 'falls into' or bumps walls/ furniture with trunk/ lower limb	Poor balance, muscle strength or control, perceptual problems including vision impairment or single-sided neglect
Walk and talk	Client stops to answer questions, gait pattern worsens +/- level of assistance changes when client speaks.	Poor balance, hearing impairment
Walk and carry e.g. cup of water)	Item is dropped/ spilt during walking. Tremors are observed. Gait pattern worsens +/- level of assistance changes during task	Poor balance, muscle strength or control
Open/close a door	Unable to use door handle (turn/manipulate handle, push or pull door open or closed), feet are bumped, loss of balance	Cognitive impairment, poor balance, muscle strength or control, perceptual problems including vision impairment or single-sided neglect
Busy environments with other people/ noise/ distractions	Clients reaches for assistance (furniture/ wall), increase in loss of balance episodes, significant reduction in walking speed/ fluency	Vision or cognitive impairment, poor balance, muscle strength or control
Changes in floor surface e.g. carpet, tile, lino	Client reaches for assistance (furniture/ wall), increase in loss of balance episodes, significant reduction in walking speed/ fluency	Vision or cognitive impairment, poor balance, muscle strength or control

Indicator	Observation	Potential contributing factors to observed performance problems
Outside – concrete footpaths/ gravel/ grassed areas/ slopes	Clients reaches for assistance, increase in loss of balance episodes, significant reduction in walking speed/ fluency	Vision or cognitive impairment, poor balance, muscle strength or control
Ramps/ Slopes/ Stairs (noting rail usage)	Clients reaches for assistance, increase in loss of balance episodes, significant reduction in walking speed/ fluency	Vision or cognitive impairment, poor balance, muscle strength or control

Outcomes of a functional walking assessment

The observations of the client during the walking assessment need to be collated to formulate a recommendation.

Documentation of the assessment should include concise objective statements describing the client's walking including assistance required, aids used, gait pattern, limitations to walking environment, symptoms etc.

The recommendation must then clearly state if the client is:

- safe to continue to walk as observed i.e. no changes/ proposed intervention. This should include a statement that the client be re-referred should issues/ concerns arise
- safe to walk within restrictions. This will include a list of recommendations for example:-
 - with the use of a new prescribed walking aid that has been assessed as suitable (including name of the walking aid and the observed gait with the prescribed aid),
 - within limited environments and/or times (on ward only, in house, during the day etc.),
 - with support (supervision, assistance etc),
 - for a period of time (e.g. whilst on weight bearing restrictions etc.),
 - It must also include a plan to address the identified deficits/ issues being addressed. This may be a review in an appropriate timeframe e.g. when weight restrictions will change, or referral for management of observed deficits with a health professional with expertise in the area e.g. muscle stretching and strengthening program, balance exercises etc., see learning resource).
- not safe to walk. This must include a plan to address the identified deficits/ issues. This may include further assessment and/or intervention with a health professional with expertise in the area.

Guide to Clinical Reasoning

1. Setting and context

Inpatient vs. community outpatient

2. Client

Presenting condition and history relevant to task:

- presenting medical condition,
- past medical history (e.g. falls history, neurological disorder, orthopaedic history),
- visual status (i.e. wears glasses, other conditions),

- relevant assessment findings.

General care plan:

- inpatient vs. outpatient,
- discharge planning relevant to service,
- community services involved.

Functional considerations:

- functional needs in the home environment,
- upper limb function – is client able to grip and reach,
- cognition – is client able to follow/retain instructions,
- walking method prior to admission/referral:
 - problems reported,
 - walking (independent/uses aid/physical assistance).
- sit-stand (independent/uses aid/physical assistance),
- general longitudinal timeline of level of mobility.

Environmental considerations:

- consider height, widths, types and any adaptations of equipment at primary place of residence – detail any concerns:
 - toilet,
 - bed,
 - stairs,
 - kitchen cupboards and benches,
 - entrance/steps,
 - driveway/pathway,
 - space around house,
- consider constraints or obstructions present,
- social considerations,
- others residing in home environment,
- carer able to safely assist,
- carer education received,
- home care services able/available to help,

3. Task indications and precautions considered

- Medical status and stability.
- Subjective history indications.
- Client weight bearing status.

4. Outcomes of task

- Aid used (y/n).
- Assistance required (y/n).
- Client needs to steady self before setting off after standing up (y/n).

- Is heel strike present? (y/n) If no, describe.
- Is stance phase normal? (y/n) If no, describe.
- Is toe off normal? (y/n) If no, describe.
- Is swing phase normal? (y/n) if no, describe.
- Are client's steps even? (y/n) if no, describe.
- Is the client weight bearing evenly (if permitted under weight bearing restrictions)? (y/n) If no, describe.
- Is the client limping, catching their toes or scuffing their feet? (y/n) If yes, describe.
- Does the client walk with their feet close together (i.e. Narrow base of stand (BOS))? (y/n)
- Is client steady in turning / changing direction? (y/n) If no, describe.
- Client able to walk and talk (y/n).
- Client able to walk and carry (y/n).
- Does the client's gait look "abnormal"? (y/n) if yes, describe.
- Client able to ascend/descend steps (if required) – refer to CTI S-MT04 stairs mobility assessment (y/n)

5. Plan

- Consider subjective assessment and home/social environment to confirm level of mobility is suitable for home environment.
- Plans for client follow up (e.g. Implement *CTI– SMT-02 - assess, prescribe and trial walking aids*), refer for assessment to address the observed abnormal walking patterns due to conditions that would benefit from rehabilitation (i.e. The client has not previously participated in strengthening, flexibility or balance exercises or has had a deterioration in function since previous participation).

6. Overall reflection

- Was the outcome of the functional walking assessment safely completed?
- Is there a clear plan recommendation regarding the clients current mobility status?
- Further assessment or treatment indicated.
- Referral options/plans.
- Further learning indicated.