D-FC01: Foot screening including pedal pulses and monofilament testing

Scope and objectives of clinical task

This CTI will enable the Allied Health Assistant (AHA) to:

- perform a basic foot check by completing a foot screen including pedal pulse assessment and monofilament testing
- use the criteria in the foot screening tool to identify client risk status
- implement actions based on risk status according to protocol.

© State of Queensland (Queensland Health) 2018

This work is licensed under a Creative Commons Attribution Non-Commercial No Derivatives 3.0 Australia licence. This work is licensed under a Creative Commons Attribution Non-Commercial No Derivatives 3.0 Australia licence. In essence, you are free to copy and communicate the work in its current form for non-commercial purposes, as long as you attribute Queensland Health and authoring unit listed above, and abide by the licence terms. You may not alter or adapt the work in any way. To view a copy of this licence, visit http://creativecommons.org/licenses/by-nc-nd/3.0/au/deed.en.

For further information contact Allied Health Professions' Office of Queensland, PO Box 2368, Fortitude Valley BC QLD 4006, email allied_health_advisory@health.qld.gov.au, phone (07) 3328 9298. For permissions beyond the scope of this licence contact: Intellectual Property Officer, Queensland Health, GPO Box 48, Brisbane Qld 4001, email ip_officer@health.qld.gov.au, phone (07) 3328 9862.

Disclaimer

Queensland Health has made every effort to ensure that the information in this resource, at the time of distribution, is correct. The information in this resource will be kept under review and future publications will incorporate any necessary amendments.

The information in this resource does not constitute clinical advice and should not be relied upon as such in a clinical situation. The information is provided solely on the basis that readers will be responsible for making their own assessment of the matters presented herein and readers are advised to verify all relevant representations, statements and information. Specialist advice in relation to the application of the information presented in this publication must be sought as necessary to ensure the application is clinically appropriate.

In no event, shall Queensland Health be liable (including negligence) for any claim, action, proceeding, demand, liability, costs, damages, expenses or loss (including without limitation, direct, indirect, punitive, special or consequential) whatsoever brought against it or made upon it or incurred by Queensland Health arising out of or in connection with a person's use of information in this publication.
Requisite training, knowledge, skills and experience

Training

- Completion of CTI D-WTS01 When to stop.
- Completion of CTI D-FC02 Foot care advice. D-FC02 provides competence in providing foot care advice and should be completed concurrently with D-FC01. This may be either through delegation or where foot care advice is triggered by a protocol driven delegation process e.g. from the foot screen.
- Mandatory training requirements relevant to Queensland Health/HHS clinical roles are assumed knowledge for this CTI.
- Completion of the following Queensland Health allied health assistant training modules (or corresponding units of competency in HLT43015 Certificate IV in Allied Health Assistance) or equivalent work-based learning:
  – Assist with basic foot hygiene

Clinical knowledge

The following content knowledge is required by an AHA delivering this task:

- basic foot anatomy to the extent required to undertake this CTI including names and locations of bony landmarks and areas of the foot and lower leg and the location of pedal pulses
- first aid in relation to managing minor skin injuries including flushing with sterile water, applying antiseptic and covering with a sterile, dry dressing
- the presenting signs, symptoms and clinical relevance of foot and nail conditions that:
  – will be commonly identified by the allied health assistant in the course of administering the screening examination including fragile skin, bunions, calluses, corns, fungal nail infections and ingrown nails and peripheral neuropathy
  – potentially indicate serious pathology relevant to the screening examination including infection, ischaemia and Charcot Foot.
- basic understanding of core concepts of foot health including:
  – the key characteristics and differences between ‘low risk’, ‘at risk’, and ‘high risk’ feet
  – common foot pathologies including neurological disorders, bone and joint disorders, endocrine and vascular conditions that increase the risk of trauma to the feet e.g. due to a loss of sensation, skin changes, ulceration, infection and deformity
  – that clients with diabetes are more prone to ulceration and infection, especially when circulatory and/or neurological status is compromised
  – that appropriate and timely foot care and advice can prevent foot complications from arising and may result in early intervention being accessed by the client
  – signs of poor footwear selection that may cause or exacerbate foot problems
  – the importance of daily observations of the feet for detection of early changes that might not be felt.
- benefits, risks, limitations and processes for undertaking and recording pedal pulses and monofilament testing.
The knowledge requirements will be met by the following activities:

- completing the training program(s) (listed above)
- reviewing the Learning Resource
- receiving instruction from an allied health professional in training phase.

**Skills or experience**

The following skills or experience are not identified in the task procedure but support the safe and effective performance of the task and are required by an AHA delivering this task:

- Cleaning of equipment after standard contact e.g. the wiping down of equipment using disinfectant wipes and/or cleaning products.
- If telehealth-supported delegation practice and client consultation is part of the local service model, competent use of telehealth equipment.

**Safety & quality**

**Client**

- The AHA will apply CTI D-WTS01 When to Stop at all times.
- In addition, the following potential risks and precautions have been identified for this clinical task and should be monitored carefully by the AHA during the task:
  - An increased risk of skin tears is present in older clients (>65 years), particularly if the client has dry, fragile skin, a history of previous skin tears, a prolonged use of steroids or anticoagulants, poor nutrition, dementia/cognitive impairment, dependency/impaired mobility, altered sensory status and oedema. Monitor for skin tears during the screening process. Note any current and new skin tears. If skin damage occurs during the foot screen, apply basic first aid immediately and contact the delegating health professional.
  - when applying basic first aid, check if the client has any known allergies to consumable products e.g. antiseptics, band-aids. If allergies are present, follow local workplace procedures to source suitable alternative dressings.
  - If the client presents with wounds, including skin tears on the lower limb, ensure dressings are clean, dry and intact. If a dressing is not present, liaise with nursing staff to have a dressing applied prior to commencing the task. Avoid the dressing area during the task.
  - If the lower limb or foot has signs of infection including redness, heat, pain on touch or signs of increased swelling, cease the task. Implement local workplace procedure and discuss with the delegating health professional prior to proceeding with the task.

**Equipment, aids and appliances**

- Generally clinics stock non-latex gloves. If only latex gloves are available check for latex allergies prior to commencing the task. If required, source non-latex gloves.
- This task is generally undertaken on a height adjustable bed or chair. Perform an equipment safety check ensuring that the safe working load is suitable for the client, the height adjustment features are functioning, and if in a Queensland Health facility, electrical test tags are valid. If the equipment
is unavailable or becomes unserviceable, cease the task and liaise with the delegating health professional.

- Replacement of the 5.07 monofilament is recommended after 500 uses or after 12 months of use, whichever occurs first.

**Environment**

- Ensure that an appropriate level of client privacy is maintained during the task.

**Performance of Clinical Task**

1. **Delegation instructions**

   - Receive the delegated task from the health professional.
     Note: the delegation instruction for this task may be provided directly from a health professional or as part of a local work instruction or clinical protocol and may be provided concurrently with the instruction for CTI D-FC02 Foot care advice and CTI D-FC03 Low risk foot care.
   - The delegating allied health professional should clearly identify parameters for delivering the clinical task to the specific client, including any variance from the usual task procedure and expected outcomes.
   - Review the medical chart and liaise with medical or nursing staff, if relevant, to determine whether there are any new medical issues which may impact on the suitability for foot care and notify the delegating health professional of any reported changes.

2. **Preparation**

   - Gather the following:
     - foot screening kit including the foot screening form and 5.07 monofilament
     - gloves
     - protection pads or single use apron
     - antiseptic wipes.
   - Wipe down the chair and/or foot rest and work surface with the appropriate disinfectant or cleaning products.

3. **Introduce task and seek consent**

   - The AHA introduces him/herself to the client.
   - The AHA checks three forms of client identification: full name, date of birth *plus one* of the following: hospital UR number, Medicare number, or address.
   - The AHA describes the task to the client. For example:
     - “I'm going to ask you some questions and perform a basic foot assessment. This information will assist the healthcare team to identify whether you require any care for your feet and what steps need to be taken. Depending on the outcome, you may need to consult your general practitioner or podiatrist.”
4. **Positioning**

- The client’s position during the task should be:
  - lying in a supine position or sitting supported with legs outstretched on a height adjustable bed or chair.
- The AHA’s position during the task should be:
  - seated at the foot of the bed or chair directly opposite the client, with the client’s feet at mid-trunk level.

5. **Task procedure**

- Explain and demonstrate (where applicable) the task to the client.
- Check the client has understood the task and provide an opportunity to ask questions.
- Administer the foot screen with the client as prompted by the questions on the Foot Screening Form. This task comprises the following steps:

  1. Ask the client about their foot health and note responses on the Foot Screening Form:
     a. numbness, tingling or burning in the feet?
     b. pain in the calf muscles when walking that is relieved by rest?
     c. current ulcer/s or history of ulceration?
     d. previous amputation/s?
  2. Observe the foot and note any ulceration, infection, skin/nail problems, biomechanical deformities, evidence of surgery, corns and calluses, or oedema. Record observations on the foot screening form.
  3. Pedal pulses:
     a. Explain to the client that this test will check the blood flow to their feet.
     b. Record on the form pulses that are inaccessible or difficult to locate due to bandaging, casts or oedema.
     c. Locate the dorsalis pedis pulse, on top of the foot in line with the 2nd toe back towards the ankle, with your 2nd and 3rd finger tips. Repeat for the other limb.
     d. Locate the posterior tibial pulse on the inside of the ankle, between the ankle bone and back of the heel. Repeat for the other limb.
     e. Record findings on the foot screening form.
     f. As the task proceeds, explain the findings to client. If there are sites at which pulses cannot be palpated, explain that this is not cause for alarm. The podiatrist or delegating health professional may want to undertake further investigations, for example Doppler ultrasound or toe pressure measurements.
  4. Sensory foot exam (monofilament testing):
     a. Explain to the client that this test will identify possible areas of loss of protective pain sensation. This loss of sensation could result in unfelt trauma or a break in the skin leading to infection.
b. Explain the test to the client and demonstrate on an area not likely to be affected by reduced sensation, e.g. wrist, lower arm or upper arm. This will give the client an idea of what to expect.

c. Ask the client to close their eyes and say ‘yes’ when they feel touch.

d. Apply the tip of the filament at 90 degrees (perpendicular) to the skin on recognised test sites (circled on the foot screening form), avoiding callused areas or other lesions. Bend the filament to a height of 1cm for 1 to 2 seconds. This process applies 10g pressure to the skin.

e. If there is no response, repeat the test on that site twice more.

f. Record responses on the foot screening form diagram with the appropriate symbol. Note either ‘yes’ or ‘no’ to each site. As the task proceeds, inform the client of the findings. If there are sites at which the client responds ‘no’, explain that this is not cause for alarm. The podiatrist or delegating health professional may want to undertake further investigations.

5. Rate the risk profile of the foot. If relevant, implement the local care pathway management plan e.g. implementation of protocol initiated foot care education, client offered an appointment in a low or high-risk foot clinic or provide the client with a list of local private podiatrists.

• During the task:
  – monitor for adverse reactions and implement appropriate mitigation strategies as outlined in the “Safety and quality” section above including CTI WTS01 When to Stop.

• At the conclusion of the task:
  – encourage feedback from the client on the task
  – provide summary feedback to the client, including the foot screen results and any planned actions. Provide the client with an opportunity to make comments or ask questions about the assessment and outcomes.
  – ensure the client is comfortable and safe.
  – wipe down the chair and/or foot rest and work surface with appropriate disinfectant or cleaning products in accordance with local infection control procedures.

6. Document

• Document the outcomes of the foot screening in the clinical record, consistent with relevant documentation standards and local procedures.

• For this task, the following specific information should be presented:
  – signs and reported foot symptoms
  – observations of foot and nail conditions present
  – outcome of the screening tests including pedal pulse status and monofilament testing results
  – where relevant, any protocol driven actions implemented or recommended e.g. prioritisation of referral or basic foot care information provided.

7. Report to delegating health professional

• Provide comprehensive feedback to the health professional who delegated the task.
References and supporting documents

# Assessment: Performance Criteria Checklist

## D-FC01: Foot screening including pedal pulses and monofilament testing

**Name:**

**Position:**

**Work Unit:**

<table>
<thead>
<tr>
<th>Performance Criteria</th>
<th>Knowledge acquired</th>
<th>Supervised task practice</th>
<th>Competency assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Date and initials</td>
<td>Date and initials</td>
<td>Date and initials</td>
</tr>
<tr>
<td></td>
<td>of supervising AHP</td>
<td>of supervising AHP</td>
<td>of supervising AHP</td>
</tr>
<tr>
<td>Demonstrates knowledge of fundamental concepts required to undertake the task.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obtains all required information from the delegating health professional, and seeks clarification if required, prior to accepting and proceeding with the delegated task.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completes preparation for the task including sourcing a copy of the Foot Screening form and a monofilament.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduces self to the client and checks client identification.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describes the purpose of the delegated task and seeks informed consent.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positions self and the client appropriately to complete the task and ensure safety.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivers the task effectively and safely as per delegated instructions and CTI procedure.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Clearly explains and demonstrates the task, checking the client’s understanding.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Ask questions appropriately and records responses accurately on the foot screen document.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Observes the foot and notes any foot conditions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Describes, completes and records the outcomes of the pedal pulse assessment.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Describes, completes and records the outcomes of the monofilament assessment.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) Appropriately records the risk status based on outcomes from the screening questions and tests.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) Identifies and implements any relevant protocol driven actions e.g. prioritisation of referral, delivers foot care education.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h) During the task, maintains a safe clinical environment and manages risks appropriately.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Provides feedback to the client on the foot screen during and at completion of the task.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j) Cleans the chair and/or foot rest.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documents the outcomes of the task in the clinical record, consistent with relevant documentation standards and local procedures.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides accurate and comprehensive feedback to the delegating health professional.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Record of assessment of competence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessor name:</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scheduled review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review date:</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>/ /</td>
</tr>
</tbody>
</table>
Foot screening including pedal pulses and monofilament testing: Learning Resource

Required reading


Required viewing

- State of Queensland (Queensland Health) 2016. Darling Downs Hospital and Health Service: Cunningham Centre. Diabetes management for allied health: Foot screening and low risk foot care. Available at: https://player.vimeo.com/external/173558847.sd.mp4?s=29b17903f926dee4b444c7ae29dba7c202f59c93&profile_id=165

Foot screening form

A locally approved foot screening form should be reviewed independently and in collaboration with the supervising health professional during the training phase.

Local foot screening recording form examples: