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Foot Inspection or Foot Assessment?

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Session aims

1. To establish group position on inspection and assessment
2. Interpret Diabetes foot care guidelines
3. Practical sessions on neurological and vascular
4. Inspection / Assessment - Discussion points
5. Review group algorithm for inspection and assessment
1. Algorithm task

• Inspection or assessment?
2. Key Guidelines

- National minimal skills (*competency*) framework (2006) for foot assessment
Examination of the patients feet should include:

- Testing of foot sensation using 10g monofilament
- Palpation of foot pulses
- Inspection of foot deformity
- …and inspection of footwear
2. Inspection and Assessment identifies risk factors

NICE guidelines (2004) – ref algorithm

- Low current risk
- Increased risk (1 risk factor)
- High risk (x2 risk factors/prev ulcer)
- Ulcerated foot

4 levels (A,B,C,D)

A. Routine basic assessment and care
   1) Identify risk status
   2) provide foot care advice
   3) manage new lesion/ulcer

B. Expert assessment and care of the foot at increased risk but without an active ulcer/lesion
   1) Confirm neuropathy
   2) assess severity of pvd
   3) provide Rx
   4) initiate management plan

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C. Expert assessment and management of existing foot ulcer/lesion/charcot

1) assess multi factorial aetiologies 2) manage infection 3) refer x-ray MRI arterial imaging 4) wound management 5) off loading 6) communicate with carers/family/MDT

D. Management of the patient whose foot ulcer is resolved

1) Education 2) footwear / orthotic insoles 3) continued surveillance and treatment
3. Neuropathy how can we quantify it?

- Light touch
- Protective sensation pain
- Vibration perception
- Temperature perception
3. Neurological Testing - Sensory

- protective pain sensation
- 10 g monofilament
- *Significant for predicting ulcer risk
- practical
3. Neurological Testing - Sensory

Vibration Perception
128 hz tuning fork

Neurosthesiometer
3. Is Vascular disease different in the foot with diabetes?

Yes – severity can be measured by;

- Palpation of foot pulses
- Clinical examination
- Doppler examination and Waveform
- Ankle Brachial Pressure Index (ABPI)
3. Vascular Assessment

Pulse Palpation

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3. Vascular Assessment

- Doppler assessment of foot pulses
- practical
Vascular Assessment

Waveform Analysis

Ankle Brachial Pressure Index
4. Inspect or assess these feet
4. Inspect / assess Foot Deformity
4. Inspect / assess Footwear

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5. Algorithm for inspection & assessment

**Inspection**

1) Cotton wool test / *Monofilament
2) Identify gross foot *deformities
3) *Pulse palpation and Doppler
4) Hands on temp gradient test
5) *Footwear inspection for wear and tear / foreign objects
6) Visual colour check
7) Check for oedema
8) visual check nails
9) Tuning fork
10) visual check skin

**Assessment**

1) *Monofilament
2) Diagnosis complex *deformity/Charcot
3) *Pulses Doppler analysis ABPI TBPI
4) Quantify temperature
5) *Footwear analysis
6) Visual colour check
7) Check for oedema
8) Diagnosis of nail conditions
9) Tuning fork / neurothesiometer
10) Diagnosis of skin conditions
11) Range of joint motion – collagen changes
12) Gait and pressure analysis

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**Diabetic Foot Risk Stratification and Triage**

**Active**
- **Definition:** Presence of active ulceration, spreading infection, critical ischemia, gangrene or unexplained hot, red, swollen foot with or without the presence of pain.
- **Action:** Rapid referral to and management by a member of a Multidisciplinary Foot Team. Agreed and tailored management/treatment plan according to patient needs. Provide written and verbal education with emergency contact numbers. Referral for specialist intervention when required.

**High**
- **Definition:** Previous ulceration or amputation or more than one risk factor present e.g. loss of sensation or signs of peripheral vascular disease with callus or deformity.
- **Action:** Annual assessment by a specialist podiatrist. Agreed and tailored management/treatment plan by specialist podiatrist according to patient needs. Provide written and verbal education with emergency contact numbers. Referral for specialist intervention if/when required.

**Moderate**
- **Definition:** One risk factor present e.g. loss of sensation or signs of peripheral vascular disease without callus or deformity.
- **Action:** Annual assessment by a podiatrist. Agreed and tailored management/treatment plan by podiatrist according to patient needs. Provide written and verbal education with emergency contact numbers.

**Low**
- **Definition:** No risk factors present e.g. no loss of sensation, no signs of peripheral vascular disease and no other risk factors.
- **Action:** Annual screening by a suitably trained Health Care Professional. Agreed self management plan. Provide written and verbal education with emergency contact numbers. Appropriate access to podiatrist if/when required.

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Thank you and take home message

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References and further reading