



# TOUCH THE TOES!

## IMPROVING INPATIENT MANAGEMENT OF DIABETIC FOOT COMPLICATIONS

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### Background

NICE guidance states that every patient with diabetes should have a foot examination within 24 hours of admission. Any new foot ulcer, swelling or discolouration requires urgent assessment by an MDT foot care team. (1)

There is high a high incidence of diabetes in Oxford University Hospitals, with patients with diabetes occupying around 15% beds at any one time. However, there is currently poor compliance with NICE guidance on diabetic foot complications in this trust. Approximately 20% of inpatients with diabetes in OUH will have active foot disease. 80% of these patients had the problem on admission and 20% acquired the problem when in hospital. Foot examination documentation is poor, and rechecking of at-risk feet is rare.

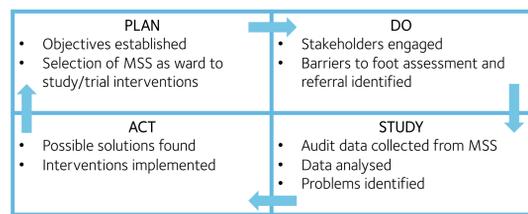
Prompt recognition and treatment of diabetic foot problems is important due to its negative impact on patient quality of life as well as its significant financial impact on the NHS (1). We hoped that our project would begin to identify and address some of the barriers to assessing and managing diabetic foot complications in OUH.

### Objectives

- To identify reasons for non-compliance of NICE guidance on inpatient diabetic foot problems.
- To educate and raise awareness on diabetic foot complications in nursing and medical staff.
- To develop ways to improve assessment of feet, recognition of diabetic foot complications and timely referral to podiatry.

### Methods 1

A PDSA method was used to implement the project.



### Methods 2

Medical Short Stay ward (MSS) was selected to investigate the problem further, and to trial any interventions. This was felt to be a representative medical ward with a high throughput of patients. Stakeholders (medical, nursing and healthcare assistance staff) were approached and engaged.

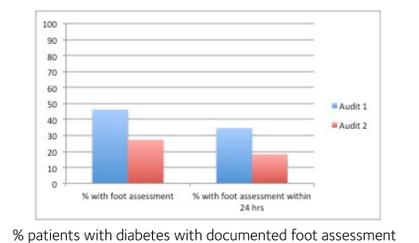
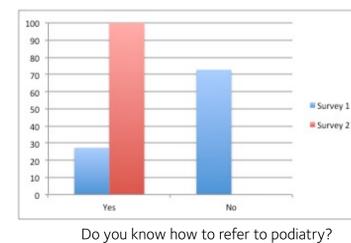
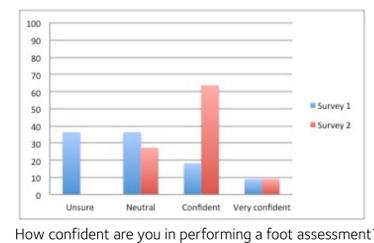
- On questioning the ward staff it was found that there was:
- Low awareness of the NICE guideline on diabetic foot complications.
  - Lack of knowledge in how to accurately assess diabetic feet.
  - Low confidence in triaging those patients needing further input by podiatry.
  - Lack of clarity in criteria/paperwork/process required for a podiatry referral.

In order to address the issues found, we came up with the following improvement strategy:

- Introduce the Ipswich touch test or 'Touch the Toes' test as developed by Rayman et al (2) and promoted by Diabetes UK (3); a simple two-minute assessment tool designed to assess sensitivity in the feet.
- Incorporate the tool into a new assessment/referral form (see over).
- Raise awareness of the clinical guideline and promote the above assessment/referral tool at ward staff teaching session.

A teaching presentation was delivered to nursing and healthcare assistance staff during one of their lunchtime educational sessions. This outlined the problem, the 'Touch the Toes' test and the new assessment/referral tool. We audited the ward before and after intervention, as well as the knowledge of the ward staff.

### Results



### Assessment/referral tool

The new assessment/referral tool is shown below. It incorporates the guideline, instructions for completing the assessment, and how to triage the outcome.

**Diabetic Foot Screening/Referral Tool**

Patient sticker: \_\_\_\_\_ Ward: \_\_\_\_\_  
 Admission date: \_\_\_\_\_  
 Date of assessment: \_\_\_\_\_

**On admission (within 4 hours)**

- All patients with diabetes must have their feet examined on admission to hospital, and then daily while in hospital.
- Many diabetic foot problems are preventable and treatable!

**Assess**

- The foot assessment can be performed by a doctor, nurse or healthcare assistant.
- Check each foot including between the toes and under the heels for any breaks in the skin, necrosis, areas of rubbing or signs of infection and record any concerns in the boxes below. Perform the "Touch the Toes" test to check for loss of sensation.
- File the completed form in the patient's notes and, if necessary, fax a copy to the inpatient podiatry team.
- Referrals to the inpatient podiatry team are required for patients with diabetes and one or more of the following: a) breaks in the skin b) foot ulceration c) unexplained red, hot, swollen foot d) possible or confirmed Charcot Foot.
- All cases of critical limb ischaemia must be seen urgently by a ward doctor and referred to the on call vascular team and inpatient podiatry.

**Performing the "Touch the Toes" test**

- Remove the patient's shoes and socks and ask them to close their eyes.
- Confirm left and right sides by grasping each foot in turn and saying "this is your right foot" and "this is your left foot."
- Very lightly touch the tips of the toes for 1-2 seconds in the sequence shown below with the tip of your index finger. Ask the patient to say "yes" when they feel you touching their toes.
- Record the results by circling Y if the touch was felt and N if it was not. There are no second chances!
- Two or more negatives represents abnormal sensation and high risk for developing foot problems.

Concerns right foot: \_\_\_\_\_

Concerns left foot: \_\_\_\_\_

**Act**

Skin breakdown, deformity, redness or warmth Signs and symptoms of systemic sepsis	Urgent referral to inpatient podiatry team Antibiotics if suspected foot infection (see micro guidelines)
Normal examination but impaired sensation	Heel elevation, daily foot inspection
Normal examination and sensation	Daily foot inspection

Completed by: \_\_\_\_\_ Position: \_\_\_\_\_ Contact number/bleep: \_\_\_\_\_  
 Referral required? Yes  No  If yes, please fax this form to 28359  
 Date: \_\_\_\_\_

### Discussion

Our teaching session addressed the lack of knowledge and confidence of nursing and healthcare staff in assessing and managing diabetic foot complications, as demonstrated by the survey statistics. However, this intervention and the introduction of the new assessment/referral tool did not translate to better ward compliance to the NICE guideline. We believe that this was due to reliance on nursing staff seeking out and completing an extra piece of paperwork, and there was a lack of incentive to do this. We will need to go back to the nursing staff before we enter the next cycle of improvement to find ways to address this issue.

Our future plans include:

- Further teaching session to nursing and healthcare assistance staff
- Engage and teach junior doctors working on medical wards
- Identify ways of incentivising medical and nursing staff to complete assessment and paperwork
- It is likely that this assessment tool will be incorporated to the electronic patient record. We hope that the automated alerts that this could generate would increase adherence to guidelines.

### References

- NICE clinical guideline 119 (2011)
- Rayman et al, The Ipswich Touch Test: A simple and novel method to identify inpatients with diabetes at risk of foot ulceration. Diabetes Care 34:1517-1518, 2011
- Touch the Toes Test, Diabetes UK.  
<https://www.diabetes.org.uk/touch-the-toes-test>