My Diabetes My Way and SCI-Diabetes enable private podiatrists to support Scottish diabetes foot screening

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Diabetes foot disease is associated with significant morbidity and mortality (Tentolouris et al, 2004; Boulton et al, 2005). High-quality and accessible foot care is seen by people with diabetes and the Scottish Government as a real priority. Diabetes foot screening has long been regarded as the cornerstone of good diabetes foot care. This is only the case if the foot screening leads to risk stratification to determine a patient's risk, enabling scarce podiatry resources to be offered to those patients at the greatest risk of developing a foot ulcer, which may lead to an amputation.

As with any screening programme, it should serve as a firstline contact to screen for risk factors, that if detected, leads to the need further assessment, intervention and the implementation of an agreed and tailored treatment plan according to the patient's needs. There is good evidence that foot screening can be effective in identifying an individual's risk of developing a foot ulcer. Subjects at low risk have a 99.6% chance of remaining free from ulceration at 1.7 years of follow-up (Leese et al, 2006).

Scotland is in the enviable position of having an electronic shared patient record for diabetes called SCI-Diabetes (*http://www.diabetesinscotland.org.uk/Groups.aspx?catId=C6*). This is the IT system used across all of Scotland's health board areas, both in primary and secondary care, for the management of people with Diabetes. In 2008, when Scotland's National Diabetes Foot Coordinator, Duncan Stang, was appointed by the Scottish Government, only 25% of the diabetes population in Scotland had a foot screening recorded on the SCI-Diabetes system in the previous 15 months. There was also a marked variation between health boards using this gold standard approved system to carry out and record foot screening.

The foot screening programme incorporated in this system is simple to use, collects all the relevant information required to determine a patient's risk of developing a foot ulcer, automatically calculates this risk status, directs further care (*Figure 1*) and feeds the information into the Scottish Diabetes Survey annually (NHS Scotland, 2017).

The SCI-Diabetes system ensures foot screening is carried out in a structured, evidence-based and standardised manner across Scotland by whichever healthcare professional is carrying out the screening. This multiprofessional approach to basic foot screening works successfully as long as robust and clear referral pathways are in place when risk factors are identified, leading to timely and appropriate treatment.

The training of podiatrists and other healthcare professionals/workers to carry out foot screening in a standardised, evidence-based fashion is delivered across Scotland using the Foot Risk Awareness and Management Education (FRAME) website (*www.diabetesframe.org*). The most important message being that screening as a data collecting exercise on its own is no longer acceptable unless it results in risk stratification, which leads to an appropriate care pathway.

An additional benefit of introducing this training plan was to ensure that the podiatry departments across NHS Scotland supported their GP colleagues to deliver the targets outlined in the Diabetes Action Plan 2010 (Scottish Government, 2010) (*Table 1*) and also to support them in achieving the then newly introduced Quality and Outcomes Framework (QOF) indicator DM 29 (Fox, 2012).

Diabetes care, including foot care, in Scotland is governed/directed by SIGN 116 and 154 (Healthcare Improvement Scotland, 2017). This guideline for foot screening advocates that: "All patients with diabetes should be screened to assess their risk of developing a foot ulcer." There is also the recommendation that the result of a foot screening should be entered onto an online screening tool, such as SCI-Diabetes. This provides accurate, automatic risk stratification and a recommended management plan, including patient information. An additional benefit in using

an automated system is that previous studies have shown that failure to use such a scoring system often results in inaccurate risk stratification which may, in turn, be prone to medico-legal challenge.

All of the targets included by the Scottish Government in the Diabetes Action Plan 2010 (Scottish Government, 2010) were achieved by the Scottish Diabetes Foot Action Group (SDFAG) in March 2012.

High-quality and accessible foot care is seen by people with diabetes as a real priority. Work over the past few years in Scotland, including the launch of the National Foot Screening programme, has delivered this as a priority. It is clearly stated in the 'Diabetic Foot Risk Stratification and Triage' (Updated 2016; Scottish Diabetes Group — Foot Action Group, 2016): "Annual screening by trained Healthcare Worker. Agree personal footcare and self care management plan (as anyone who is 'Low Risk' has no greater chance of developing a foot ulcer than somebody without diabetes). Review footwear. Provide written and verbal education including information on how to access podiatry (urgent or otherwise) as required. Provide cardiovascular risk reduction information. Encourage and signpost all smokers to a smoking cessation programme."

It is encouraged that routine foot screening for low-risk patients is carried out at GP practice level by a suitably trained healthcare professional. It has been recognised throughout the country that the valuable podiatry resource cannot be used to 'screen' patients with low-risk feet. It is encouraged that any patient being screened as being in the 'at risk' categories (Moderate, High/In Remission or Active foot disease) be referred to podiatry for an assessment to a podiatrist for the formulation of a suitable "agreed and tailored management/treatment plan by the podiatrist according to the patients needs" (Scottish Diabetes Group — Foot Action Group, 2016). This approach has been strongly encouraged across NHS Scotland to ensure the patients who have a podiatric need can access the service at the time they require.

This strategy worked well until the financial support for dedicated foot aspects in QOF was replaced in Scotland. Since then, there has been a steady decline in the foot screening figures in Scotland, as shown in the Scottish Diabetes Survey (NHS Scotland, 2017).

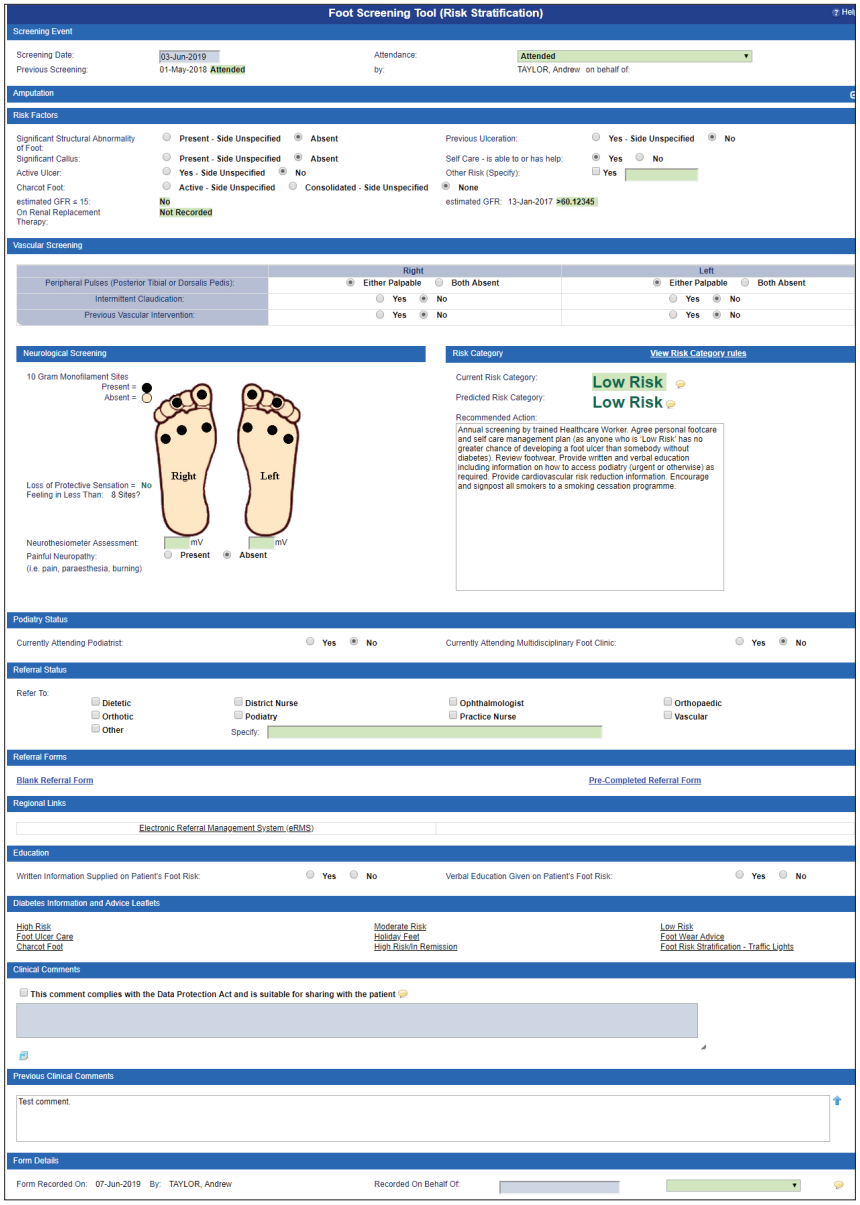

Figure 1. Automated SC-Diabetes foot screening form.

The SDFAG decided to devise an additional strategy to try and address the decline in these national figures. It was appreciated that many of the low-risk patients were probably not receiving NHS podiatry treatment, due to lack of podiatric need and that the 'motivation levels' at GP practice level had diminished to carry out foot screening due to the change in QOF. However, it was realised that many patients, especially the low-risk patients, were attending private podiatry and if a way could be found to link, in a much more cohesive manner, with the private podiatry sector (who currently have no way of accessing the SCI-Diabetes system due to lack of

Table 1. Targets outlined in the Diabetes Action Plan 2010.

• Within the previous 15 months, in line with the NHS QIS clinical standards, 80% of people with diabetes should have an allocated foot risk score which should be electronically communicated to all healthcare professionals involved in the care of the patient. This score should be communicated effectively and clearly to patients
• All patients with low risk feet should have access to education for self management of foot care. This should be supported by the national foot care leaflets, which will be available online for healthcare staff in a variety of languages
• IT links are required to allow transfer of diabetes information between the national diabetes database and the main four GP systems with particular reference to transfer of foot screening information

NHS log in) regarding foot screening then this could benefit patients and all care providers.

A new service is now available, which aims to promote communication and increased interaction between private and NHS podiatry services to improve access to and the recording of standardised, evidence-based, diabetes foot screening. This service will allow private podiatrists to carry out diabetes foot screening using the online service 'My Diabetes My Way; (NHS Scotland, 2019). My Diabetes My Way is the NHS Scotland interactive diabetes website to help support people who have diabetes, their family and friends (*Figure 2*).

When a patient who uses My Diabetes My Way attends their appointment, they may simply log into their account and go to their foot screening results page. From there, private podiatrists can access to the foot screening tool and record data for the patient, logged against their Health & Care Professions Council reference number. Once screening has been completed and submitted, it will be transferred to NHS systems, allowing it to be shared with any healthcare professional involved in the patients care, and contribute to national statistics. More information on the process and how to access the service can be viewed at *https://vimeo.com/290466307/920e6bff62*. ■

Boulton A, Vileikyte L, Ragnarson-Tennvall G, Apelqvist J (2005) The global burden of diabetic foot disease. *Lancet* 366(9498): 1719–24

Healthcare Improvement Scotland (2017) *SIGN Guideline 116: Management of Diabetes. A National Clinical Guideline*. Available at: https://bit.ly/2LcEDat (accessed 06.06.2019)

Healthcare Improvement Scotland (2017) *SIGN Guideline 154: Pharmacological management of glycaemic control in people with type 2 diabetes. A National Clinical Guideline*. Available at: https://bit.ly/2wBjuSk (accessed 06.06.2019)

Fox M (2012) QOF indicators for PAD: have the cavalry finally arrived? *The Diabetic Foot Journal* 15(2): 61–3

Leese GP, Reid F, Green V et al (2006) Stratification of foot ulcer risk in patients with diabetes a population-based study. *Int J Clin Prac* 60(5): 541–5

NHS Scotland (2017) Scottish Diabetes Survey 2017. Available at: https://bit.ly/2wyVu2f (accessed 03.06.2019)

NHS Scotland (2019) *My Diabetes My Way*. Available at: https://bit.ly/2JWb8NV (accessed 03.06.2019)

Scottish Government (2010) *Diabetes Action Plan 2010: Quality Care for Diabetes in Scotland*. Available at: https://bit.ly/2EPI3zj (accessed 03.06.2019)

Scottish Diabetes Group — Foot Action Group (2016) *Diabetic Foot Risk Stratification and Triage*. Available at: https://bit.ly/2XrEruB (accessed 06.06.2019)

Tentolouris N, Al-Sabbagh S, Walker MG et al (2004) Mortality in diabetic and non-diabetic patients after amputations performed from 1990 to 1995: A 5-year follow-up study. *Diabetes Care* 27(7): 1598–604

Figure 2. The 'My results' tab on the My Diabetes My Way website.