

Managing the Diabetic Foot

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Introduction

2 strategies need to be employed in managing patients with diabetic foot – Prevention (Strategy 1) and Team Approach (Strategy 2).

Strategy 1: Prevention

The most important strategy is to prevent diabetic foot complications from developing. This requires firstly a concerted effort of education to all patients diagnosed with diabetes—how to take care of diabetes itself, how to take care of the foot and also advice on choice of appropriate footwear to be worn. Professionals managing diabetic foot must also be equipped with necessary education too. Secondly, all diabetics must undergo annual foot screening to detect early the “foot at risk” – one pulse or no pulse palpable, neuropathy, callosity etc for early treatment. Prevention can only be truly successful with government intervention and support– by launching national campaigns on patient education and foot screening.

Strategy 2: Team Approach

However, once the complication has developed, this is best treated in a hospital by an inter-disciplinary team comprising of an orthopaedic surgeon or general surgeon, an endocrinologist, a vascular surgeon, an infection disease consultant, a podiatrist and wound care nurses and nurse educators. Team approach is most effective when it is coupled with a clinical pathway used for patients with diabetic foot problems. Team approach plus pathway effectively reduced the average length of stay in hospital, the below knee amputation rate, the complication rate and the re-admission rate.

Protocol for Managing Diabetic Foot Problems

The hospital team must also employ a protocol for management of diabetic foot problems. The protocol must conform to minimal standards required based on international, regional or national guidelines to ensure high quality patient care. ASEAN STANDARDS have been developed in 2015 by ASEAN Plus Expert Wound Group chaired by Dr. Nather. ASEAN guidelines reflect more accurately our cultural and regional needs rather than international guidelines. The NUH Protocol is designed based on ASEAN Guidelines.

Assessment

The protocol dictates accurate and meticulous assessment. The elements of the “diabetic foot triad” must be evaluated – vasculopathy, neuropathy and immunopathy. Investigations included “Markers of Infection” – WBC, CRP, ESR, if necessary Pro-Calcitonin and “Markers of Healing” – HbA1C, Hemoglobin, Albumin and Creatinine.

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Medical Treatment

It is important to ensure good endocrine control and adequate and proper use of appropriate antibiotics. Appropriate dressings must be chosen according to the TIME Guide – Silver Dressings, Iodine Dressings, etc and VAC therapy.

Surgical Treatment

Early surgical treatment must be given-surgical debridement's, amputations (ray, transmetatarsal, Pirog off or Below Knee Amputation), split shin grafting, or revascularisation (angioplasty or vascular bypass or both).

Conclusions

Prevention is the best strategy. But when it fails the complication is best managed by an inter-disciplinary team coupled with a clinical pathway. Only then can we achieve quality care for our patients and achieve a high percentage of limb salvage.

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