

## Diabetic foot care in Sri Lanka- a way forward

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Diabetes is a serious global public health issue which has been described as the most challenging health problem in the 21<sup>st</sup> century. The number of people with diabetes has risen from 108 million in 1980 to 422 million in 2014. More rapid rise is seen in middle and low-income countries. In Sri Lanka the prevalence of diabetes is 14% and the incidence is higher in certain urban areas. Diabetes places a significant burden of care on the individual, health care professionals and the wider health system. Individuals with diabetes are two to four times more likely to develop cardiovascular disease relative to the general population and have a two to five-fold greater risk of dying from these conditions. Diabetes is a significant cause of non-traumatic lower limb amputations. Still diabetic foot care has been neglected by health care services worldwide. Global prevalence of diabetic foot disease is estimated around 6%, whilst diabetes-related lower-extremity amputation incidence shows great global variability.

In recent years many efforts have been undertaken to teach all health-care workers involved in management of patients with diabetes. Though there have been small scale programs to improve the quality of care of the patients with diabetic foot disease in the country there is no established structured national program.

The Sri Lanka diabetes and cardiovascular initiative (SLDC) is one such program intended to provide sound and cost-effective strategies where health-care professionals and policymakers work together to facilitate the adequate diabetes foot care. This is a 3-year project, funded by the World Diabetes Foundation (WDF) and owned by the ministry of healthcare and nutrition of Sri Lanka. The implementing partners are the Sri Lanka College of Endocrinologists and the Sri Lanka Medical Association.

The SLDC project has major focus on key issues related to diabetes such as gestational diabetes, health of the school child, diabetic foot care, health promotion in the community and prevention of Non-Communicable Diseases. SLDC works mainly through a process of capacity building by educating and training staff and providing basic equipment and material required for the provision of service. The Sri Lanka College of Surgeons and D Foot International work together with the SLDC on the foot care component of this project.

Team approach to manage diabetic foot ulcers with integrated pathways of care that facilitate timely access to limb salvage procedures has been reported to reduce long term amputation rates. The main aim of the SLDC

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project is applying effective interventions to reduce the burden of diabetic foot disease and amputations by team approach. But the challenge, particularly in Sri Lanka, with the less-well-resourced health care system is how to implement the interventions with existing deficiencies in the health care system. In order to further optimize foot care, it is instrumental to identify all or at least many as possible barriers. The main barriers identified by the foot care component of the project were;

- a. Inadequate preventive system for diabetic foot ulcers regarding screening, education, referral systems and escalation pathways as well as podiatry care.
- b. Inadequate training and knowledge on diabetic foot disease in both doctors and nurses.
- c. Inadequate training on how to educate patients for prevention of diabetic foot ulcers and thereby amputations
- d. Deficiency of education material in local languages.
- e. Lack of multi-disciplinary centres for management of diabetic foot ulcers.
- f. Lack of a national guideline on diabetic foot disease and referral and back referral pathways.
- g. Deficiency of prosthetic and orthotic (P&O) services.

Once the barriers are identified, a solution should be created. This involves changing the care process which will be time consuming and costly. The availability of motivated personnel, sufficient funds and limitless energy is therefore the key. The following aspects were addressed by SLDC and new goals were set:

- a. Establishing foot screening service; a tool for screening patients with diabetic foot problems was developed. Several centres (Diabetic clinic –TH Batticaloa, Kandy and Colombo) are now pilot testing the tool. Nearly 58000 patients were screened for diabetes related foot problems.

- b. Training on diabetic foot disease for both doctors and nurses; a training manual and training videos were developed using training materials provided by the D Foot international after performing necessary modifications according to local requirements by a panel of experts.
- c. Training of Trainers programs were organised to train consultant surgeons and physicians provincially.
- d. Patient education material, posters, video and flip charts were developed, printed and distributed for patient education.
- e. Establishing multidisciplinary foot care service for managing diabetic foot problems with specialists.
- f. Development of National guideline on Diabetic foot disease and referral and back referral pathways.
- g. Prosthetic and orthotics services; stakeholders meeting was conducted with the officials of the ministry of Health and Nutrition, Sri Lanka association of P&O, School of P&O, SLDC, Sri Lanka College of Surgeons and D-foot International local representatives. Existing P&O service and its prevailing shortcomings were analysed and discussed. Shortage of staff, space, raw materials and training were discussed and official agreed on principal to provide basic requirements for the P&O centres. One-week training program on diabetic foot orthotics and prosthetics was conducted.

The field of diabetic foot care involves many different professionals and the patient presentations also diverse. Successful management of diabetic foot problem needs the expertise of multidisciplinary team with implementation of universal good care. This involves good attitude of healthcare professionals, patients and health-care system.

## REFERENCES

1. Report on the Diabetic Foot Care Program in Sri Lanka, collaborative partnership between D-Foot international and the SLDCi project (SLCE) / Sri Lanka College of surgeons, Compiled by Dr Charitha Weerasinghe and Dr Samantha Cooray.
2. Global report on diabetes, World Health Organization – 2016.
3. National Survey on Self-Reported Health in Sri Lanka 2014.