



CAMP NELU SUPPORTS YOUTH FOR DIABETES

Diabetes Education

One of our major visions at camp NELU is to create an environment in which children, adolescents, care givers and allied health professionals involved in diabetes care can receive state of the art education and training to optimize diabetes care within the South African framework. The majority of children with diabetes reside in the public sector and much of the facilities and specialist care is located in the private sector. More concerning is that many areas of South Africa have limited or no access to specialist health care. This plan hopes to address this imbalance in a positive manner for the long term benefit of all children with diabetes.

Among developed nations, type 1 diabetes mellitus is one of the leading chronic diseases of childhood. Early detection, vigilant management, improved delivery of and access to ongoing care, and consistent self-management skills are key strategies for preventing or lessening much of the burden of diabetes.

All people with diabetes deserve optimal care, but in general the quality of care in most areas of South Africa remain suboptimal. Optimal diabetes care for children and adolescents is complicated by

the fact that the daily demands of diabetes management must be superimposed on the already demanding challenges of physical and emotional growth. Diabetes care for children should thus be a customised team effort of specialists who are equipped to deal effectively with not only medical needs, but also the unique educational, nutritional, physical activity and behavioural needs of the child or adolescent.

Barriers to optimal care include; lack of resources, inadequate numbers of healthcare professionals, and most importantly a general lack of understanding and knowledge about day to day care. Diabetes care places a huge strain on families, communities and places an additional burden on family's already limited finances and time.

Many children and adolescents are facing a greater burden associated with early appearance of diabetes and an increased risk of complications with longer duration of disease. Early detection, improved access to and delivery of care, and better self-management are key strategies for preventing much of the burden of diabetes.

Several lines of evidence show the importance of good diabetes care to improve the quality of life, reduce the chances for acute and chronic complications and create the basic conditions to reach an independent life with diabetes.

More intensive treatment may contribute to the reduction of complications in children with diabetes. 'Intensive' treatment aims to maintain blood glucose as close to normal as possible on a continuous basis, and is distinguished from 'conventional' treatment by increased

vigilance in blood glucose testing, responsive adjustments to insulin dosage based on current blood glucose level as well as food intake and exercise, and regular visits with the diabetes healthcare team.

On a daily basis decisions about food choices, insulin administration, activities and monitoring need to be integrated to achieve appropriate regulation of the disease. Diabetes self-management education for every child and their family is essential to achieve this level of care. Core education topics include insulin administration and usage, prevention and management of both high and low blood sugars and meal planning. Psychosocial support for the family can be integrated into the management plan right from the onset. These interventions have been proven to provide better blood sugar control and result in fewer admissions in the short-term and in the long-term would be expected to reduce the rate of diabetes complications.

The long term complications of diabetes can be very severe, leading to early onset of heart disease and early death. Other complications that seriously affect quality of life of people with diabetes include blindness, kidney failure and nerve damage. Diabetic ketoacidosis (DKA) is the leading cause of death in children with type 1 diabetes. Unfortunately the majority of children in South Africa present in DKA as their first presentation of diabetes. Every effort will be made to educate communities and increase the level of awareness of diabetes so that children can be diagnosed before the onset of DKA. A study in Italy showed that it is possible to prevent most episodes of DKA at diabetes onset using a relatively simple educational approach that targets both families, school personnel and health care professionals.

Funding inadequacies affect care at all levels and lead to preventable illness and death. Children and adolescents with diabetes are still dying from DKA and low blood sugars. Those who have poorly controlled diabetes as a result of poor access to care and diabetes education, those who lack family support or stability, and families who cannot afford adequate medical care are the most vulnerable and also disproportionately suffer the devastating consequences of long term poor control.

Prevention of both acute and chronic complications due to diabetes is only possible when basic needs for care are met and blood sugar targets are maintained. If basic care is not being met, diabetes will progressively destroy the lives of those affected with accompanying impact on their families. Optimal care helps to prevent or delay the complications of diabetes.

Self-management is an integral part of diabetes care and targets can only be achieved by empowering and equipping children and families to optimally manage diabetes in their home environment with therapy tailored to each individual situation.

Ways need to be found to expand access to specialised multidisciplinary teams in as many communities as possible, including strategies to link rural and remote clinics to the nearest multidisciplinary resource, thereby supporting broad-based implementation of optimal diabetes care strategies.

Education at diabetes camps at Camp Nelu will allow access to the specialist multidisciplinary education team consisting of diabetes

specialists, educators, dieticians, and psychologists in a non-threatening family based setting.

Overview of diabetes education:

- Information on the symptoms of diabetes
- Explanation of low and high blood sugars and subsequent DKA and prevention there of.
- Reasons for regular glucose monitoring and guidelines for target levels
- The role of insulin treatment and explanation of treatments
- Injection technique for insulin and safe insulin storage and handling
- Diet education will be family and individual based to provide and practical teaching given on practical solutions covering meal planning and preparation including shopping, food choices, how to grow your own family vegetables, healthy food preparation techniques and portion sizes for optimal blood sugar control. Information on proper nutrition and exercise with a sample day's menu that can be customised to the ethnic groups in the community
- instructions for using strips to monitor blood and urine for glucose and ketones
- information on adjustment of insulin dose to coincide with activity, food, concurrent illness and travel
- advice for parents on communicating with schools and other organisations such as sports teams
- Set up local diabetes support groups

A successful multidisciplinary diabetes program has already been running from Camp NELU since 2005, initiated and managed by Dr David Segal, a specialist in diabetes care, and his team.

Successes include the training of diabetes youth leaders, who are teens with diabetes who undergo an advanced training program to help facilitate and ensure the smooth running of camps. In addition these youths are ambassadors for diabetes in their schools and communities. They are role models to all of the children and teens who come on camps and have even participated in national and international diabetes meetings.

A similar training course will be provided for nurses and other allied health professionals in district and community centres across South Africa to aid in the care of local diabetic community.

Family and patient education will be provided at the camp to cover the core skills involved in diabetes self-management for both the person with diabetes and their care givers. To date hundreds of children from all walks of life and all financial and educational backgrounds have been taken on camps with ages from 6 years to 26 years, to learn these skills. Our vision is to invite families and their community health care support on camps lasting 3-5 days to teach these skills.

School children with diabetes from across the country will be able to attend these camps to learn self-care skills and return to their school with the knowledge of how to manage diabetes in the school setting and prevent many of the school related complications that occur.

Conclusion

This initiative will spread diabetes education to all corners of South Africa and improve diabetes related outcomes and quality of life for many thousands of South Africans.