

Nutrition and Dietetics Lens in the Management Sickle Cell Disease



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SICKLE CELL disease is the most common severe monogenic disorder in humans. In Africa, 50–90% of children born with sickle cell disease die before they reach their fifth birthday. A cure for sickle cell anemia (SCA) is not available to all who have inherited this devastating genetically inherited disease. However, increasing knowledge that nutritional imbalances are fundamental to the severity of the disease, has produced interest in promoting dietary and nutrition intervention for treating these patients. This review seeks to emphasize the understanding that both children and adults with sickle cell disease require much higher energy and protein consumption (more macronutrient intake) than healthy individuals and tend to suffer from under nutrition if energy intake is consistently low. Shortages may also exist for micronutrients, e.g., Glutathione, which has both anti-inflammatory and anti-oxidant properties. Both chronic inflammation and oxidative

stress are central issues for increased sickle cell disease severity. In conclusion, dedicating more effort and resources to establishing recommended dietary reference intakes (DRIs)/recommended dietary allowances (RDAs) for SCA patients is essential, and nutritional intervention should be integrated as an important treatment in tandem with standard practice.

PROFILE

Prof. Gordon Nguka (PhD) holds a Dip in Clinical Medicine and Surgery, Bsc. Foods Nutrition and Dietetics from Egerton University, Msc. Clinical Nutrition and Pediatric epidemiology, McGill University in Montreal Canada, PhD in Medical Dietetics and Pediatric Physiology and a Post doctorate in Randomized Control Clinical trials of Nutrients and Food products from Emory University, Atlanta Georgia and is serving as an Associate Professor in clinical nutrition and Dietetics in the department of Nutritional Science and Director Open, Distance and E-Learning of Masinde Muliro University of Science and Technology (MMUST). He is also a registered consultant in Kenya in the Area of Clinical Nutrition and Dietetics. From November 2018 was elected the chairman and President of the African Nutritional Sciences Research Consortium (ANSRC) for a Five-year term. From September 2018 was elected by Nutrition and Dietetics academic representative Public and private Universities to represent them in KNDI council as per cap 253B of the Laws of Kenya and Now Chairing The accreditation committee of the Kenya Nutritionists and Dieticians Institute (KNDI).