

PRESS STATEMENT DIRECTOR GENERAL OF HEALTH MALAYSIA

LAUNCHING OF THE CLINICAL PRACTICE GUIDELINES (CPG) ON MANAGEMENT OF TYPE I DIABETES MELLITUS IN CHILDREN & ADOLESCENTS

Type 1 diabetes mellitus (T1DM) is the most common type of diabetes mellitus in children and adolescents. The International Diabetes Federation, in 2015, estimated that worldwide more than half a million (542,000) of children below 15 years of age are living with diabetes, of whom 86,000/year are newly diagnosed. Incidence varies markedly around the world and is increasing at 3 - 4% yearly. Western Pacific region has an estimated 60,000 cases. In Malaysia, a total of 490 children and adolescents with T1DM were registered with the Diabetes in Children and Adolescents Registry (DiCARE) 2006 - 2009, with limitation where site participation and patient reporting were entirely voluntary. The mean age of diagnosis was 7.5 years. A local study showed that an increasing percentage of diabetes ketoacidosis (DKA) at diagnosis was observed from year 2000 (54.5%) to year 2009 (66.7%).

Two large international collaborative projects, the Diabetes Mondiale Study (DiaMond) and the Europe and Diabetes Study (EURODIAB), have shown that the rate of new cases in many countries is highest among younger children. There are a number of clinical implications for this phenomenon. Diagnosis in a young child may be delayed or missed because of subtle and misleading symptoms. Moreover, younger children with diabetes may be more likely than their older peers to present with DKA at the time of diagnosis. Due to the disease onset at young age, these children may face more years of hyperglycaemia with increased risk of complications. Even those from high-income countries have at least twice the mortality rate of children without the disease. These combined factors place a significant burden on health system and increase the cost of healthcare.

Limited health professional expertise in childhood diabetes and lack of diabetes education can result in very poor outcomes. Frequent misdiagnosis on disease onset may lead to the child that dies untreated or a high risk of early death from hypoglycaemia or DKA. For those who survive, very poor blood glucose control may occur contributing to impaired quality of life. The children may drop out of school, cannot find employment and develop severe diabetes complications in their 20s or even earlier.

It is hope that this CPG will increase the awareness and knowledge of those managing T1DM so that patients with the disease can be identified early, ideally before the development of DKA as this acute condition is associated with high morbidity and mortality. The most common cause of mortality in patient presented with DKA is cerebral oedema, a complication which is much more likely to occur in young patients below the age of 18 years compared with adult patients. Thus, the CPG provides guidance on the assessment and diagnosis of DKA and its appropriate management. The recognition of cerebral oedema is highlighted based on the diagnostic criteria which will allow timely treatment to be instituted.

This CPG also emphasises on accurate classification of diabetes and proper management of T1DM to achieve glycaemic target early in the disease in order to reduce complications and healthcare cost. These include guidelines on insulin therapy, medical nutrition therapy, psychological support and monitoring of the medical condition. There are also guidelines on screening for chronic complications such as retinopathy, nephropathy, neuropathy and cardiovascular morbidity. A holistic approach to treating various special situations in T1DM is addressed such as exercise, sick day, eating out, schooling, travelling, surgery, partial remission phase and even fasting during Ramadan.

Thus, it is timely that the CPG is developed and provides evidence-based guidance to those who are directly or indirectly involved in the management of children and adolescents with T1DM. The utilisation of the CPG by all healthcare providers will help to reduce current clinical practice variations and provide optimum care for the patients.

Ministry of Health is always supportive of any effort aimed at improving delivery of healthcare services. This includes the various implementation strategies of the CPG which helps to equip healthcare providers with relevant knowledge and skills when managing patients with T1DM. In relation to that, training of core trainers nationwide based on the CPG training module will be conducted soon after the official launching of the CPG.

Thank you.

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