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# Type 1 Diabetes: A Relatively Unknown Sibling Of Type 2 Diabetes — Ahmad Mahfuz Gazali

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By CodeBlue | 12 November 2021 (<https://codeblue.galencentre.org/2021/11/12/type-1-diabetes-a-relatively-unknown-sibling-of-type-2-diabetes-ahmad-mahfuz-gazali/>)

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Every year on November 14, the world marks World Diabetes Day, which aims to create awareness about diabetes mellitus.

In conjunction with World Diabetes Day, Health director-general Dr Noor Hisham Abdullah has urged Malaysian to pay attention to this chronic disease.

According to the National Diabetes Registry Report 2020, published by the Ministry of Health (MOH), one in five adults in Malaysia aged 18 years and above (<https://www.theborneopost.com/2021/11/10/malaysians-urged-to-pay-attention-to-diabetes-health-dg/>) suffers from diabetes.

The report also mentions that 99.33 per cent of 1.6 million ([https://www.moh.gov.my/moh/resources/Penerbitan/Rujukan/NCD/Diabetes/National\\_Diabetes\\_Registry\\_Report\\_2020](https://www.moh.gov.my/moh/resources/Penerbitan/Rujukan/NCD/Diabetes/National_Diabetes_Registry_Report_2020)) suffer from Type 2 diabetes mellitus, the most common form of diabetes.

Type 2 diabetes mellitus is a metabolic condition that causes the blood sugar level to spike. Most patients develop this condition in middle age or old age.

Type 2 diabetes is the most common form of diabetes mellitus, and lifestyle choices such as diet, lack of exercise, and obesity may influence the risk of developing this disease.

Given that the overwhelming majority of diabetes patients suffer from Type 2 diabetes mellitus, we tend to ignore a more devastating form of diabetes mellitus, namely Type 1 diabetes mellitus.

In contrast to Type 2, Type 1 diabetes mellitus is often diagnosed in children and adolescents.

Type 1 diabetes mellitus, also known as juvenile diabetes or insulin-dependent diabetes, is a chronic condition in which the pancreas produces little or no insulin, an important hormone that regulates blood glucose.

Compared to Type 2 diabetes, Type 1 diabetes is strongly influenced by genetic factors, as demonstrated by various studies conducted worldwide.

The annual report of diabetes in children and adolescents registry ([http://www.acrm.org.my/DiCARE/documents/report/20090810\\_dicareReport.pdf](http://www.acrm.org.my/DiCARE/documents/report/20090810_dicareReport.pdf)) was established in 2006 and 2007 to collect information about diabetes mellitus in children and adolescents in Malaysia.

This report mentioned that 71.9 per cent of diabetes (<http://2nd%20report%20of%20diabetes%20in%20children%20and%20adolescents%20registry%20dicare%202006-2008/>) diabetic children and adolescents in Malaysia suffer from Type 1 diabetes.

In addition, children of low socio-economic background, or more commonly known as the B40 group, are affected by diabetic ketoacidosis (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7982891/pdf/fendo-12-606018.pdf>).

Diabetic ketoacidosis (DKA) is an acute and life-threatening complication of diabetes characterised by high blood glucose, ketoacidosis (metabolic state caused by uncontrolled production of ketone bodies that cause metabolic acidosis), and ketonuria (a medical condition in which ketone bodies are present in the urine).

DKA occurs mainly in patients with Type 1 diabetes, compared to Type 2 diabetes.

Given the similarities between Type 1 and Type 2 diabetes, a study led by Dr Azriyanti Anuar Zaini from the University of Malaya reported that misdiagnosis of Type 1 diabetes was common among children under the age of 5 (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7982891/pdf/fendo-12-606018.pdf>), increasing the risk of these children acquiring DKA.

Furthermore, recent global epidemiological data indicate that more than half of all new cases of Type 1 diabetes also occur in adults.

Data from Sweden, a high-risk area for Type 1 diabetes, indicated a similar incidence rate of Type 1 diabetes ([https://www.diabetesresearchclinicalpractice.com/article/S0168-8227\(08\)00334-3/fulltext](https://www.diabetesresearchclinicalpractice.com/article/S0168-8227(08)00334-3/fulltext)) between individuals below 19 years old and aged between 40 and 100.

Furthermore, a study from China reported that 65.3 per cent of newly diagnosed cases of Type 1 diabetes in China were adults (<https://www.bmj.com/content/360/bmj.j5295>), implying that this condition affects children and adults alike.

Cases of misdiagnosis often occur because Type 1 and Type 2 diabetes present similar signs and symptoms.

Type 1 diabetes diagnosis can be confirmed with laboratory investigation of diabetes-associated autoantibodies and C-peptide levels.

The question is, should we be worried about Type 1 diabetes in Malaysia?

Global data estimates that there is an annual increase between 3 to 5 per cent of incidences of Type 1 diabetes (<https://onlinelibrary.wiley.com/doi/10.1111/j.1464-5491.2006.01925.x>) from the past decade.

Furthermore, environmental factors have been postulated to cause an increase in the Type 1 diabetes (<https://www.nature.com/articles/s41574-019-0254-y>) incidence rate worldwide.

Given the global trend of increasing Type 1 diabetes incidences, more attention should be given to Type 1 diabetes in Malaysia.

Compared to Type 2 diabetes, the current treatment for Type 1 diabetes is limited to insulin administration.

Health minister Khairy Jamaluddin has announced the start of a campaign called the National Agenda for a Healthy Malaysia.

More awareness should be created on various non-communicable diseases, mainly genetically influenced diseases in line with this campaign.

Let us create a better and healthier Malaysia by spreading awareness of all non-communicable diseases, including Type 1 diabetes.

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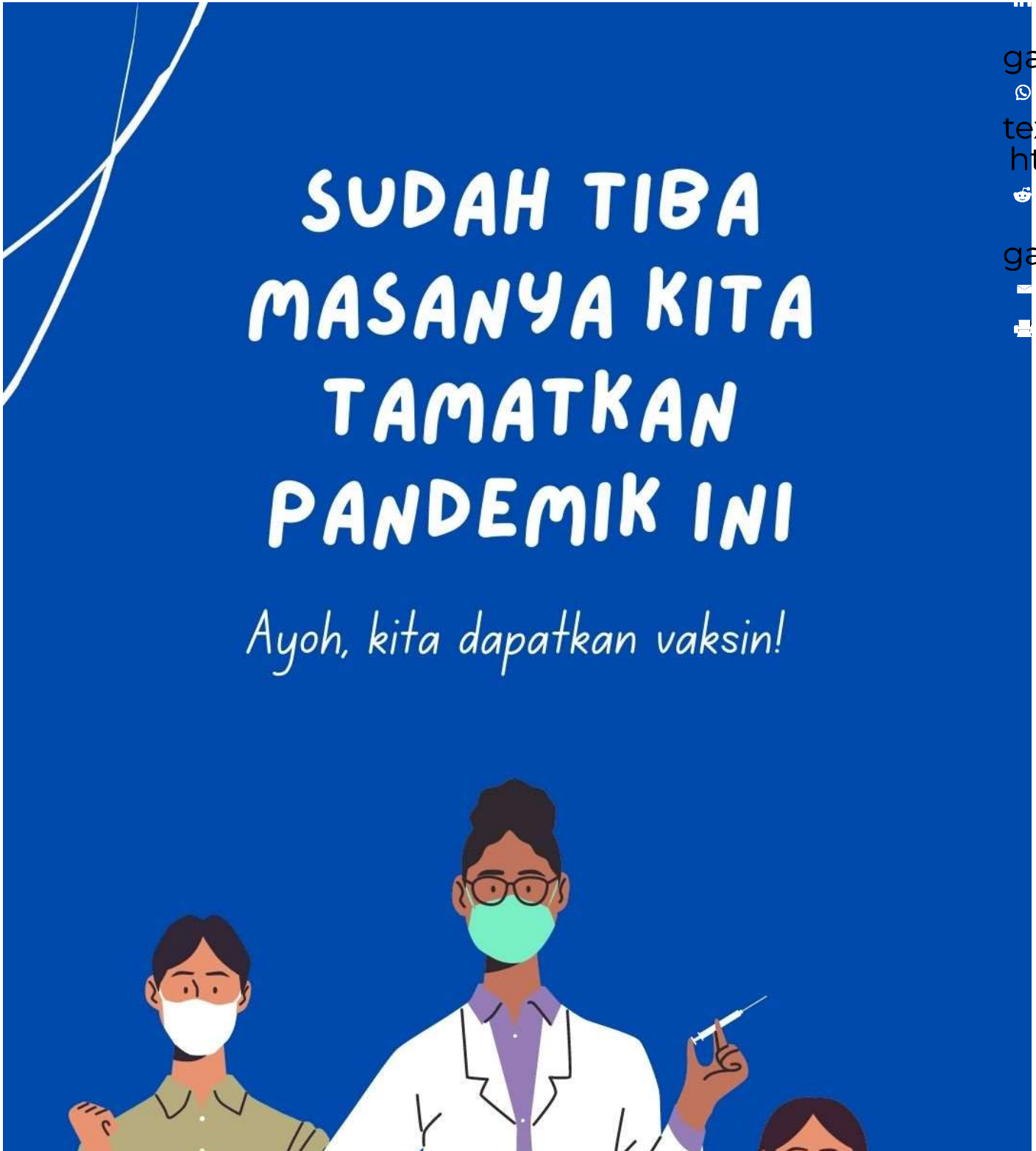
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