J Med Allied Sci 2017; 7 (1): 72-73
www.jmas.in
Print ISSN: 2231 1696 Online ISSN: 2231 170X
Journal of Medical & Allied Sciences

View point

The use of insulin for early diagnosed patients with type 2 diabetes mellitus in primary health care in Indonesia: a general practitioner's perspective

Muhammad Firman Akbar[1], Yessie Hulwatul Ilmi[2]

[1]Department of General Health Service, Sahabat Sehat Clinic, West Lombok, Indonesia.
[2]Department of General Health Service, Public Health Centre of Tanjung Karang, Mataram, Indonesia.

Article history

Received 26 January 2016
Accepted 27 January 2017
Early online 30 January 2017
Print 31 January 2017

Corresponding author

Muhammad Firman Akbar
Department of General Health Service,
Sahabat Sehat Clinic,
West Lombok, Indonesia.
Phone: +62-83875301202
Email: m.f.akbar@dr.com

Abstract

Indonesia, one of the greatest population countries, contributes a significant increase of global prevalence of type 2 diabetes mellitus. The need of insulin treatment is significantly rising as many cases do not meet the recommended glycemic target with oral glycemic lowering drug (OGLD). However, there is a discrepancy between guidelines issued by the Ministry of Health of Indonesia through national formulary and the Indonesian Medical Council through Indonesian medical standard of competency. Here, we described our point of view about the situation of diabetes mellitus in Indonesia, a matter of insulin availability in public health centre, and recommendations to solve this issue.

Key words: Diabetes, Health services, Insulin, Primary health care

DOI: 10.5455/jmas.256922

Increasing trend of diabetes mellitus is seen in Indonesia. The prevalence is relatively higher than that of the International Diabetes Federation report and is likely due to the large number of undiagnosed cases[1,2]. A study in 2006 showed that the majority of population suffering from type 2 diabetes was on oral glycemic lowering drug (OGLD) treatment and almost 20% of the population was treated with insulin with or without OGLD. This study, moreover, concluded that the patients did not meet the recommended target of glycemia, the fasting blood glucose (FBS) and glycated hemoblobin (HbA1c) values were relatively high, measured as 170 mg/dL and 8.3%, respectively[3]. For those who had significant hyperglycemia or OGLD failure to control blood glucose, insulin therapy was recommended to attain good blood glucose control and prevent both diabetic vascular and non-vascular complications[4].

Unfortunately, public health centre (PHC) which serves as primary care in Indonesia does not provide insulin regimen, whereas the availability of insulin is so necessary as the patients initially seek medical care at PHC. Indeed, PHC may play an important role in Indonesia's health system, which offers health services not only in curative, but also in preventive and promotive domains. However, its substantial role is not supported with adequate facilities; for instance in this context of managing blood glucose level, the absence of insulin regimen interferes with delivery of optimal services by general practitioners (GPs) working at PHCs, thus resulting in referral of their patients to secondary and tertiary care hospitals.

The availability of insulin in primary care setting is a recent interesting issue introduced by Pranoto et al[4]. The use of insulin in PHC should be implemented as it could influence services at both PHC and referral hospitals. Physicians in hospitals are

overwhelmed to handle "overwork" referred by general practitioners in PHC. Moreover, the issue also influences patients in terms of cost effectiveness, particularly for those who have lack of access and transportation. It is widely known that the absence of insulin in PHC cannot be separated from the regulations made by government through a national formulary, issued by the Ministry of Health, which regulates the drug supply among primary, secondary and tertiary health facilities. According to the national formulary, both human insulin and insulin analog are only available in secondary and tertiary health services, whereas primary health services only provide biguanide (metformin) and sulfonylurea such as glibenclamide, glipizide and glimepiride[5].

On the other hand, the Indonesian medical standard of competency (SKDI) has a different perspective regarding the skills which must be mastered by general practitioners. In terms of diabetes mellitus management, the SKDI requires GPs to understand the implications of insulin for patients with type 2 diabetes mellitus without any risk of complication. This skill is stated as 4A level in SKDI, a skill which has to be mastered independently after clinical students graduate from medical faculty[6].

Moreover, a question emerges from the discrepancy between the national drug formulary of Ministry of Health and the SKDI released by the Council. The Ministry, indeed, does not provide insulin in PHC, so that this policy consequently compels general practitioners working in PHC to refer their diabetic patients who require insulin therapy to secondary health care facility. It seems that the government has less willingness to empower, while, on the other hand, general practitioners are medically qualified to optimally manage patients who need insulin initiation. Authors believe that a recommendation to revise the national drug formulary is indispensable to plenary services for early diagnosed cases of type 2 diabetes requiring insulin regime. It consequently impacts to the cost efficiency of patients as well as the simplicity of service in primary, secondary and tertiary health care.

Acknowledgement: The authors are members of the Alumni Association of Faculty of Medicine, University of Mataram.

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