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**Access to novel anti-diabetic agents in resource limited settings: A brief commentary**

Naidoo P *et al.* Access to novel anti-diabetic agents

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**Abstract**

No abstract.

**Key Words:** Type 2 diabetes mellitus; Novel anti-diabetic agents; Resource limited settings; Access

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**Core Tip:** The manuscript addresses the problem of access to novel anti-diabetic agents in resource limited settings.

## INTRODUCTION

Type 2 diabetes mellitus (T2DM) is increasing rapidly in resource limited settings (Misra *et al*<sup>[1]</sup>, 2019). This is likely to be multifactorial in aetiology including urbanisation, sedentary lifestyle and an increase of screening (Wu *et al*<sup>[2]</sup>, 2014). The diabetes epidemic has been paralleled by a rapid increase in the number of new therapies to manage type 2 diabetes (Yu *et al*<sup>[3]</sup>, 2022). These therapies include sodium - glucose transporter 2 inhibitors (SGLT2i), dipeptidyl peptidase-4 inhibitors and glucagon-like-peptide-1 receptor agonists (GLP-1 RAs). The American Diabetes Association and European Association for the Study of Diabetes 2022 consensus report of the management of hyperglycaemia in T2DM recommend an SGLT2i or GLP-1 RA with demonstrated cardiovascular benefit as initial therapy for individuals with T2DM with or at high risk for atherosclerotic cardiovascular disease, heart failure, and/or chronic kidney disease (Davies *et al*<sup>[1]</sup>, 2022).

Unfortunately, in resource limited settings, treating clinicians and patients living with T2DM, have limited access to these therapies due to cost and access constraints. The situation was compounded by the COVID-19 pandemic that consumed financial and human resources, that would otherwise have been used for non-communicable diseases such as diabetes.

The irony is that resource limited settings partake in clinical trials programs that test the safety, efficacy and tolerability of novel therapies. Although these countries partaking in the clinical trial programs, patients in these resource limited settings have constrained access to these interventions regardless of regulatory approval. Post-trial access and care are virtually non-existent in these settings (Usharani *et al*<sup>[5]</sup>, 2013). In the absence of a robust post-trial access program, this places a substantial burden on the patient who contributes to the scientific body of evidence supporting a drug's approval but is unable to obtain treatment benefit beyond a predefined, finite period (Naidoo *et al*<sup>[6]</sup>, 2021).

A major challenge is how to make novel therapies available to patients in resource limited settings. From a clinical perspective, a viable argument is for relevant

authorities to facilitate product access for patients at the highest risk and most likely to benefit from therapies. This will niche these novel agents and thus minimise the number of patients on these therapies. For example, SGLT2is can be used in patients with congestive cardiac failure and with diabetes mellitus thus optimising glycaemic control while also reducing hospitalising for heart failure and subsequently reducing healthcare resource utilisation. This would be more cost effect than rolling out these therapies to all patients with diabetes, which is not financially sustainable in developing countries.

In our experience, requests for controlled access to novel drugs, with real world data collection to inform future clinical decisions, have not been successful. The prevailing perspective of focussing on short term drug costing of SGLT2is and not the future healthcare resource utilisation savings through reduced hospitalisations for heart failure, delayed progression of chronic kidney disease and reduction in mortality, requires a paradigm shift and political willingness to address medium and long-term costs and not just short-term expenditure.

An innovative approach is needed to ensure equity of access to novel treatments within a resource limited setting. As patient advocates, we feel that clinicians are best equipped to lead the process to enable access. Merely submitting drug access applications via existing systems without engagement on the core challenges at hand is frustrating and often futile. How do we as busy clinicians advocate for access? Perhaps the first step is a collective approach. We suggest engaging with relevant stakeholders to define the current challenges and outline potential solutions. This can be done at a national workshop during a diabetes congress. Alignment amongst key stakeholders including patient advocacy groups, health care professional councils, national departments of health, patient advocacy groups, the pharmaceutical industry, treasury and finance departments is needed in order to improve treatment access with the ultimate intention of improving patient outcomes.

In times of economic challenges, it may be necessary to invest funds in urgent related treatment. Furthermore, sourcing drugs from markets that are cost conscious may be an option.

Ultimately, after wide consultation and workshops, laws, acts and regulations will be required to protect the interests of patients and ensure access to novel antidiabetic therapies.

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