



EMPHNET's Research Digest

Roadmap for the Management of Type 2 Diabetes and Hypertension in the Middle East: Review of the 2022 EVIDENT Summit

Introduction

Type 2 Diabetes Mellitus (T2DM) and hypertension stand as leading causes of morbidity and mortality in the Middle East, a fact that underscores the urgent need for comprehensive strategies to combat these chronic conditions. This digest provides an overview of the pivotal review titled [“Roadmap for the Management of Type 2 Diabetes and Hypertension in the Middle East: Review of the 2022 EVIDENT Summit.”](#) published in *Advances in Therapy*. The review synthesizes the outcomes of the EVIDENT Summit of 2022, offering a critical examination of the current state of T2DM and hypertension management within the Middle East. It highlights the essential role of personalized treatment approaches, evaluates the efficacy of oral glucose-lowering and antihypertensive agents, and examines the influence of patient, physician, cultural, and governmental factors on disease management. Moreover, it presents

targeted recommendations aimed at improving disease prevention, increasing awareness among the public and healthcare providers, and encouraging the implementation of effective government policies and research initiatives. Through this digest, we aim to succinctly summarize the key findings and recommendations outlined in the review, highlighting the imperative for coordinated efforts to enhance the care and outcomes for individuals with T2DM and hypertension in the Middle East.

Prevalence of Hypertension and T2DM in the Middle East

The Middle East and North Africa (MENA) region is experiencing a rapidly escalating crisis with T2DM, showcasing some of the highest prevalence rates globally. The region stands out with alarmingly high numbers, where estimates suggest that T2DM affects a significant portion of the adult population. This escalating prevalence is closely

linked to factors such as rapid urbanization, increasing rates of obesity, and lifestyle shifts towards more sedentary behaviors, which together fuel the diabetes epidemic in this part of the world.

The global DISCOVER study program found that at the time of initiating second-line treatment, patients from the MENA had a higher mean HbA1c than patients in all other regions. The typical patient profile: individuals aged 47–61 years, with a 63% within the 41–60-year age bracket. Compounding the challenge of managing T2DM, 40% of patients also suffer from hypertension. Hyperlipidemia is also prevalent in 42% of patients, and the mean body mass index stands at 31.1 kg/m², categorizing a substantial portion as obese.

Like T2DM, hypertension is often detected late, complicating efforts to manage it effectively and prevent associated complications. High BP is a major health concern both

globally and in the Middle East, recognized as the primary risk factor for mortality and disability. Recent comprehensive analyses 1,201 studies involving 104 million participants across 184 countries, reveal a stagnant global prevalence of hypertension at ~32% from 1990 to 2019. However, the number of adults living with hypertension globally has seen a significant increase, doubling from 648 million to 1.28 billion within the same period. This rise is observed in low- and middle-income countries, contrasting with a decrease in high-income nations over the last three decades. This disparity is evident in the MENA, where hypertension prevalence in 2019 ranged between 26% and 48% with an overall prevalence rate of 43%.

T2DM and hypertension share common modifiable lifestyle factors, such as obesity, smoking, and physical inactivity, contributing to the diseases' prevalence and the region's burden. However, the path to effective management and control is hindered by under and undertreatment. A study of over 10,000 individuals from diverse Middle Eastern countries highlighted that less than half of those with hypertension were aware of their condition, with 19% achieving effective BP control. Similarly, the region leads the world in T2DM prevalence, with the number of adults with diabetes expected to rise significantly by 2045. Amongst those diagnosed, achieving glycemic control remains elusive, exacerbated by high clinical inertia among healthcare professionals and suboptimal patient adherence to medication regimens.

Clinical Management Guidelines

The clinical guidelines for managing T2DM and hypertension underscore the imperative of individualized, target-driven approaches to ameliorate the risks of complications, mortality, and cardiovascular events. For T2DM, it

is critical to lower HbA1c levels to below 7.0% for most patients, with a patient-centered methodology advocating for the use of newer agents like SGLT2 inhibitors and GLP-1 receptor agonists. These are recommended for patients with cardiovascular risk to achieve and maintain glycemic targets, taking into account patient preferences and clinical scenarios. For hypertension, contemporary guidelines recommend initiating antihypertensive medication at BP < 130/80 mmHg, especially in individuals at high cardiovascular risk. The guidelines endorse the use of single-pill combinations (SPCs) that combine a renin-angiotensin system inhibitor with a calcium channel blocker and/or a diuretic to enhance efficacy, simplify treatment regimens, and improve patient adherence, thereby providing efficient, sustained blood pressure control and improved cardiovascular outcomes.

Both sets of guidelines address the challenges of clinical inertia and suboptimal patient adherence, which significantly hinder achieving optimal control of these conditions. The recommendations include individualized therapy recommendations, a push for early detection and intensive control of blood glucose and blood pressure levels, and the adoption of education, simplified treatment regimens, and patient-physician shared decision-making as central strategies. These approaches aim to enhance outcomes by navigating the complexities of patient preferences and clinical scenarios. Particularly in the Middle Eastern context, where these barriers are notably prevalent, there is a clear need for a concerted effort to overcome clinical inertia and suboptimal patient adherence, thus achieving optimal glycemic and blood pressure control and significantly reducing the dual burden of uncontrolled diabetes and hypertension. Through these integrated strategies, healthcare providers can effectively address the challenges, ensuring the crea-

tion of robust systems capable of safeguarding all communities, especially the most vulnerable.

Roadmap for Enhanced T2DM and Hypertension Management in the Middle East

To address the growing concerns of T2DM and hypertension in the Middle East, a comprehensive action plan focusing on both glucocentric and cardiocentric strategies is essential. The plan should prioritize tackling obesity, early detection of at-risk individuals, and improving glycemic and blood pressure control to reduce the occurrence of diabetes and cardiovascular complications. Key recommendations include implementing disease prevention strategies, raising public awareness, training healthcare professionals, adopting individualized management approaches, and enhancing patient education and self-management support.

Collaborative efforts of healthcare professionals, government bodies, and patients are critical for the effective management of T2DM and hypertension. Despite the high prevalence and the challenges of underdiagnosis and suboptimal control of these conditions, there are opportunities for improvement. Clinical inertia and poor medication adherence present significant barriers, but recent developments such as personalized treatment algorithms and advancements in medication can help overcome these issues.

A proposed roadmap underscores the importance of comprehensive disease management strategies, including heightened public awareness, professional training, personalized care, robust patient education, government intervention, and increased investment in research. Such a collaborative and multifaceted approach is vital for enhancing the quality of care for patients with T2DM and hypertension in the region.

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