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Review Article

Management of hypertension in Nigeria: The barriers and challenges

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Abstract

In recent years there has been increasing concern about the growing burden of cardiovascular disease (CVD) in developing countries. Systemic hypertension remains the commonest form of CVD and is identified as a key modifiable risk factor for cardiovascular morbidity and mortality. Primary and secondary prevention of cardiovascular adverse events are public health priorities. This review highlights the potential barriers and challenges to hypertension care in Africa's most populous country, Nigeria, and proffers relevant recommendations.

More Information

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Introduction

Cardiovascular disease (CVD) is responsible for a large proportion of death and disability worldwide, contributing 43% to the global mortality figure and 15% to the total global burden of diseases in terms of disability-adjusted life years (DALYs) [1-3]. Systemic hypertension remains the commonest form of CVD accounting for over 80% of the global disease burden [2,4]. In Nigeria, hypertension is the commonest form of cardiovascular disorder, occurring in 86.4% of patients with cardiovascular disorders and in 38% of the adult population [5-7].

The pathogenesis of essential hypertension is multifactorial [8]. Numerous physiological alterations have been described in hypertensive individuals, including abnormalities of renal sodium handling, neurohormonal and adrenergic over-activity, endothelial dysfunction, vascular smooth muscle hypertrophy, systemic inflammation, reduced fibrinolytic potential, and enhanced oxidative stress [8-10].

Barriers and challenges to hypertension care

Hypertensive heart disease, defined by the presence of left ventricular hypertrophy in the absence of any cause other than arterial hypertension, has been long considered as one of the most common aetiological conditions predisposing to heart failure [11,12]. There are several barriers to hypertension control at individual, institutional, societal and health care provider levels in Nigeria. These barriers are largely responsible for the observed increase in the incidence of complications in hypertensive patients in spite of the continuous progress of antihypertensive strategies over the years [2,13-15]. Improvement in patient outcome has not kept pace with increase in knowledge about the aetiopathophysiology of the disease [13-15]. The wide 'gap' between guidelines and practice is contributory [16,17]. Evidence from research surveys reveals a lack of awareness of these guidelines among primary care physicians [17].

In many countries, primary health care facilities play vital role in the detection, risk factor assessment and management of hypertension [14,18,19]. However, in Nigeria the detection and management of hypertension in the primary health care setting is poor [18]. There is a shortage of well trained and qualified health care personnel as well as inadequate medical facilities in these primary care centres. Even at the secondary and tertiary health care facilities, there are inadequate numbers of trained professionals. The implication on the health system is quite enormous for two reasons. Firstly, the consequence of the medical workforce shortage is a high patient to doctor ratio in the health care system. Nigeria, with the year 2021 projected population of about 211,400,708 people has approximately 35,000 doctors currently practicing in its health care system [20,21]. This gives a crude estimate of doctor to population ratio of 1 per 6,040, a figure that is much lower than the World Health Organization recommended benchmark of 1 per 1000 and a further depreciation from a 2014 survey report of doctor to population ratio of 1.95 per 1000 population [22,23]. This disproportionate doctor-

population ratio puts increased workload on the relatively few available doctors. This situation has continued to deteriorate with increasing migration of doctors from Nigeria to "greener pastures" abroad. Current statistics show that 1 in 4 doctors trained in this country are currently working in developed countries [24,25]. The critical shortages in human resources for medical practitioners and the mal-distribution of the available medical workforce constitute one of the key causes of exclusion to access to quality health care, and this is especially true in rural communities.

Another dimension to the depletion in medical health care workforce is the unpleasant reduction in patient/doctor interaction time due to excess work pressure and unfriendly consulting clinics environment. Adequate interaction between doctors and patients has implications for individual and public health and has the potential to improve many facets of the health care delivery system from quality to outcomes.

Limited knowledge of hypertension by healthcare professionals, among other factors, has been identified as being responsible for poor hypertension control. Ale, et al. observed a significant gap between guideline recommendations and hypertension care in Nigeria and this situation is further worsened by the general unawareness of current management guidelines among primary care physicians [17].

In addition, a two-way referral system across the various levels of care is lacking in Nigeria health care system resulting in poor follow-up of hypertensive patients to reduce the burden of hypertension-related complications [26].

One key patient-related factor that determines control of hypertension is adherence to recommended therapy. Most studies on compliance with hypertension treatment in Nigeria reported figures ranging from 29% to 50% [27-29]. Adherence/Non-adherence to recommended treatment is dependent on individual factors such as pre-existing beliefs and perception about the illness and available treatment modalities. Patients are often worried about the lifelong nature of essential hypertension and the requirement for prolonged therapy and life style modifications and consequently resort to endless search for 'cures' in alternative medicines, food supplements and local remedies. Adherence to hypertension treatment is also significantly influenced by socio-cultural and economic factors such as adverse traditional and cultural practices, illiteracy and poverty [27,29].

Conclusion

In conclusion, effective policy strategies for appropriate intervention to control hypertension across all health care levels in Nigeria should take into cognizance the patients' socioeconomic circumstances, perceptions and concerns about their illness. These factors should be explored and intervention measures tailored to improve outcome. International migration of doctors and other skilled health workforce to developed countries can be stemmed by improving the work environment and conditions of service of the health workers. A continuing medical education of general medical practitioners in evidence-based hypertension care, as expounded in hypertension guidelines is imperative in bridging the gap between the current practice and the standard recommendations in hypertension care.

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