

A Case for a Holistic Approach to the Improvement of Compliance among Hypertensive Patients: A Hospital Review

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ABSTRACT

The second Jamaica Health and Lifestyle Survey completed in 2007–2008 provided evidence that the prevalence of hypertension has increased significantly since 2000–2001. With more of the population living with hypertension, greater will be the need to ensure the best quality of life. A recent survey conducted in the ambulatory section of the Emergency Medicine Division at the University Hospital of the West Indies identified a 36.5% non-compliance rate among the 52 patients prescribed with antihypertensive drugs. The reasons given for non-compliance with their antihypertensive medications are not new and included adverse effects, inconvenience and fear of dependence. However, in the same survey, it was also found that blood pressure was poorly controlled in 69.7% of the self-reported compliant subjects. Together, these points suggest that simply providing access to drugs is inadequate and a more holistic approach will be required to reduce blood pressure at the population level.

Keywords: Antihypertensive medication, hypertension, non-compliance

Un Caso para un Enfoque Holístico Encaminado a Mejorar el Cumplimiento con la Medicación entre los Pacientes Hipertensos: Una Revisión Hospitalaria

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RESUMEN

La segunda Encuesta sobre Salud y Estilo de Vida en Jamaica efectuada en 2007–2008 proporcionó evidencia de que la prevalencia de la hipertensión ha aumentado significativamente desde 2000–2001. Con una población mayor viviendo con hipertensión arterial, se hace mayor la necesidad de garantizar una mejor calidad de vida. Una encuesta reciente realizada en la sección ambulatoria de la División de Medicina de Emergencia en el Hospital Universitario de West Indies, identificó una tasa de cumplimiento de 36.5% entre los 52 pacientes con fármacos antihipertensivos. Las razones esgrimidas para el incumplimiento con sus medicamentos antihipertensivos no son nuevas e incluían efectos adversos, molestias y temor a la dependencia. Sin embargo, en la misma encuesta, también se constató que la presión arterial era pobremente controlada en el 69.7% de los sujetos que auto-reportaron su cumplimiento. Juntos, estos puntos sugieren que simplemente el proporcionar acceso a los medicamentos no es suficiente, y se requiere un enfoque más holístico para reducir la presión arterial a nivel poblacional.

Palabras claves: Medicación antihipertensiva, hipertensión, no cumplimiento

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INTRODUCTION

The most current Jamaica Health and Lifestyle Survey, conducted between 2007 and 2008, is the second of such surveys conducted in Jamaica and will now form the basis of strategic initiative aimed at reducing health burden and improving quality of life (1).

In the previous study of 2000–2001, the prevalence of hypertension was 20.9% (95% confidence interval (CI) 18.4,

23.2%); the second survey, however, has recorded a significant increase to 25.2% [95% CI 23.3, 27.2%] (1–3), a trend likely to continue unless some structured interventions are implemented to curb the burden of this disease, as well as sensitizing patients to the likely complications that are preventable with strict compliance.

The acceptance that compliance with medication regimen is well established as improving hypertensive care (4) is certainly one motivation to continue the current free access to antihypertensive drugs for persons living with this disease (1). However, it will serve the health sector well to remember patients' resistance to a lifetime commitment to drugs, daily routines and their abhorrence of seemingly inescapable adverse effects will forever be a significant barrier to compliance.

SUBJECTS AND METHODS

During the period June–July 2012, a questionnaire-based survey approved by the University Hospital of the West Indies/University of the West Indies/Faculty of Medical Sciences Ethics Committee was conducted among hypertensive persons presenting to the ambulatory section of the Emergency Medicine Division of the University Hospital of the West Indies for reasons related or unrelated to hypertension. Fifty-two persons who indicated that they were prescribed medication for hypertension consented to completing the questionnaire aimed at evaluating reasons for non-compliance. Of the group, 33 (63.5%) indicated that they were taking their prescribed antihypertensive medication. Blood pressures were measured at the time of completing the questionnaire. Of the 19 hypertensive participants not taking their medication, 15 (78.9%) had elevated blood pressure (defined as systolic blood pressure > 140 mmHg or diastolic BP > 90 mmHg) at the time of the survey. The rate of uncontrolled hypertension was nearly as high (69.7%) among those with self-reported compliance.

To assess factors that might make hypertensive persons non-compliant with their medication, whether or not they were currently taking their drugs, twenty statements related to reasons for non-compliance were administered to all 52 study participants by trained assistants. Each statement was read and participants were asked to select 'not sure', 'somewhat sure' or 'very sure'. Selection of 'very sure' was graded as being compliant, while the other selections were deemed as an indication of some level of non-compliance.

RESULTS AND DISCUSSION

The top three factors related to compliance were the occurrence of adverse effects, the need to take medication in the absence of symptoms associated with hypertension and convenience of dosing (Table). The percentage expressing likely non-compliance ranged from 9.6% to 40.4%. These factors are similar to a previous study by Düsing *et al* (5) with some differences, as this survey identified adverse effects as the top reason.

The fact that so many of this group expressed the likelihood of being non-compliant with therapy if they are not experiencing symptoms of the condition is of concern. It suggests a strong perception that hypertension is curable rather than controllable, thus providing further evidence of the need for strategies aimed at educational support.

Diuretics, such as hydrochlorothiazide, form a main group of antihypertensive drugs; the participants (40.4%) highlighted "urination away from home" as a factor likely to be associated with non-compliance. The Caribbean Health Research Council's guidelines for hypertension management specifically describe hydrochlorothiazide therapy as being significantly successful in the Caribbean population (6).

However, with resistance to taking this drug being related to its diuretic effect, then it is conceivable that the balance between the need for therapy and likely disruptions in a patient's daily activities will make it difficult to effectively implement such treatment. By placing greater emphasis on patient's perceptions, it will be possible to tailor treatment and deliver an individualized educational message to encourage compliance.

On the matter of convenience of drug therapy, obviously there are more frontiers to explore; the participants suggested that current regimen do not quite fit into their daily routines and thus drugs provided to these patients must also facilitate a more holistic approach to management.

The safety of drugs is a multidimensional term, balanced between efficacy and risk assessment. These terms are not mutually exclusive as both are certainly influenced negatively by non-compliance. Tackling the increasing prevalence of hypertension and high prevalence of uncontrolled hypertension will require a team approach to management. Implementation of strategies to address these identified factors that influence compliance will most likely make living with hypertension less intrusive and thus support a better quality of life.

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Table: Reasons given for non-compliance by hypertensive patients presenting to the ambulatory section of the Emergency Medicine Division, University Hospital of the West Indies

	Patients not currently taking meds	Patients taking meds	Total
Dosing convenience/distractions	(n = 19)	(n = 33)	(% of 52)
When you are at work	8	7	15 (28.8)
When the time to take them is between your meals	8	5	13 (25)
When you are busy at home	6	5	11 (21.2)
When you are travelling	6	5	11 (21.2)
When you are in a public place	3	8	11 (21.2)
When you take them more than once a day	7	3	10 (19.2)
When you are with family members	5	4	9 (17.3)
When you have other medications to take	6	3	9 (17.3)
When you come home late from work	3	5	8 (15.4)
When there is no one to remind you	3	2	5 (9.6)
Disease symptoms/drug dependence			
When you do not have any symptoms	9	12	21 (40.4)
When you feel you do not need them	10	11	21 (40.4)
When you are afraid of becoming dependent on them	8	10	18 (34.6)
When you feel well	6	7	13 (25)
When you worry about taking them for the rest of your life	6	5	11 (21.2)
Adverse effects/cost			
When they cause some side effects	9	12	21 (40.4)
If they make you want to urinate while away from home	10	11	21 (40.4)
When they cost a lot of money	3	10	13 (25)
When you are afraid they may affect your sexual performance	5	1	6 (11.5)
If they sometimes make you tired	3	3	6 (11.5)