

## Stemming the Tide of Hypertension-Overcoming Clinical Inertia

**Rafael R Castillo\***

*Department of Cardiovascular Medicine, Adventist University of the Philippines College of Medicine and Section of Cardiology, Department of Internal Medicine, Manila Doctors Hospital and Cardio-Metabolic Research Unit (CaMeRU), FAME Leaders Academy, Makati City, Philippines*

**\*Corresponding Author:** Rafael R Castillo, Department of Cardiovascular Medicine, Adventist University of the Philippines College of Medicine and Section of Cardiology, Department of Internal Medicine, Manila Doctors Hospital and Cardio-Metabolic Research Unit (CaMeRU), FAME Leaders Academy, Makati City, Philippines.

**Received:** October 24, 2019; **Published:** November 01, 2019

Hypertension (HTN) remains the leading cause of mortality worldwide, accounting for more than 10 million deaths annually. Despite all the advances in the prevention, diagnosis, evaluation, and treatment of HTN, the prevalence, treatment and control rates still leave much to be desired [1]. Roughly only one in seven hypertensive individuals worldwide has their BP controlled to < 140/90 mm Hg.

Even in some high-income countries wherein there is access to adequate medical care and cost-effective antihypertensive medications are readily available, control rate is less than 20%. A little less than half of the hypertensive population are aware they are hypertensive; and although more than half of the aware hypertensives are on medications, only a minority of those receiving treatment (32.5%) have BP < 140/90 mm Hg. Overall, control of HTN worldwide is dismally low with only one out of 7-8 hypertensives having adequately controlled HTN [2].

However, there are also success stories in hypertension prevention and control that can serve as exemplary benchmarks for other countries to emulate and duplicate. One such model is the Canadian experience that showed remarkable improvement in control rate from 13.2% in 1992 to 64.6% in 2009. That is almost like a 500% increase in control rate in a span of 17 years. This could easily be attributable to improved awareness (from 56.9% to 82.5%) and treatment (from 34.6% to 79%) [3].

There is hardly any question that controlling HTN is a top-of-mind goal on the part of practicing physicians and healthcare providers, as well as governments and health policy makers, and much more so, of individuals with elevated BP; but the clinical inertia-in the form of physician inertia and poor patient adherence-proves to be a formidable challenge. The will to do whatever it takes to achieve this goal is wanting and woefully falls short of what needs to be ideally done.

### Clinical inertia

With currently available antihypertensive medications, nine out of 10 hypertensive individuals should be controlled to less than 140/90 mm Hg with combination therapy. Only around one out of ten will have truly resistant HTN, some of which may have a secondary etiology for the HTN. And yet, HTN control worldwide is less than 15% [2].

When asked in surveys about the dismally poor control rate in HTN, many physicians are quick to attribute it to poor patient adherence and ineffective antihypertensive medicines. Other reasons cited are time constraints due to complexity of case and comorbidities of patients, and other risk factors that are being attended to by other physicians [4]. Doctors are generally part of the solution of the healthcare problems of their patients; but there are instances when they unwittingly become part of the problem due to physician inertia.

Clinical inertia has been defined as failure of physicians and other healthcare providers to initiate and subsequently escalate or intensify antihypertensive treatment according to current guidelines [4]. This phenomenon in clinical practice may also be described as the 'elephant in the room' because for the longest time, this was already recognized as a factor for poor control of HTN, but it was not given

the proper attention due to it so it could be adequately addressed. Now, treatment guidelines in HTN discuss it thoroughly and recognize it as a major reason why physicians and healthcare providers fail to adequately control HTN and reduce the incidence of HTN-related cardiovascular events [5,6].

### Low use of combination treatment

A good illustration of physician inertia is the low use of combination therapy in actual clinical practice. It is well known and established that combination treatment is necessary in the big majority of hypertensive patients to attain a BP goal of less than 140/90 mm Hg. And yet, there is still a poor uptake of combination treatment in actual clinical practice worldwide in low-, middle-, upper middle-, and high-income countries. The use of antihypertensive combination treatment ranges only from 12.95% to 15.65% [2].

As shown in a BP-control project study in Spain, treatment inertia among primary care physicians managing hypertensive individuals was quite high such that dose-revision or modification of the initial prescription was only done in 15.4% of hypertensive patients despite inadequate control of the BP for several months after the initial consultation. In 84.6%, no dose-titration of the medicine prescribed was done, nor was there a decision to change it with another drug or use combination treatment. Another fairly recent survey noted intensification of treatment of diagnosed hypertensive patients in only 16% of primary care visits. Initiation of treatment in confirmed hypertensive patients was done in only 26.4% of visits [7]. A similar physician inertia was also shown in several other European countries [8].

It is reasonable to expect higher BP control rates of around 30% in clinical practice, and even higher in randomized clinical trials (RCTs) with control rates of 40%-60%. However, there appears to be still some degree of physician or investigator inertia as suggested by the observation that in more than one third of the hypertensive patients enrolled in the RCTs, they were still maintained on their initial antihypertensive regimens with no uptitration despite inadequately controlled HTN [9].

### Patient adherence

Patient inertia or poor patient adherence to treatment is the flipside of clinical inertia [10]. This can be reflected in the low motivation to have their BP checked. This is noted in opportunistic BP screening projects, wherein around 15% of adult participants discovered to be hypertensive had their BP checked for the first time although they are well aware of the hazards of HTN and that every adult individual should have their BP checked [11].

Many still have the misconception that hypertensives without symptoms cannot have a potentially serious HTN; hence, the lack of a sense of urgency in having one's BP checked if one is asymptomatic. It only takes a few minutes to check one's BP, but sparing those few minutes seems to be too much of an initiative to take for many.

### Effective interventions

There is no quick fix in addressing the problem of clinical inertia and poor patient adherence to treatment. A systematic review and meta-analysis found several interventions that can address these major barriers in HTN control, and these interventions involve thorough physician and/or patient education leading to an enhanced physician-patient interaction. Other interventions also involve physician reminders and feedback, patient reminders and adherence counseling, and ambulatory BP monitoring particularly to diagnose white coat and masked HTN [4].

A higher percentage of patients with controlled BP was noted, with up to a 41% better chance of achieving target BP in those exposed to an intervention. The number needed to treat ranged from 12 to 23, indicating the efficacy of the interventions [4]. There was some heterogeneity though noted between studies. Nonetheless, there can be no two arguments about it that a dedicated and highly engaged physician or healthcare provider can effectively motivate a hypertensive patient to be more adherent with the medications and other instructions particularly on lifestyle modifications that he or she is given.

It is reasonable to assume that the needed technology and interventions to diagnose, evaluate and treat hypertensive patients are already available in most countries. We don't need another potent antihypertensive molecule or novel combination of treatments. Addressing clinical inertia and patient adherence through guideline-adherent treatment initiation and intensification of proven cost-effective antihypertensive medications is likely our best bet in significantly improving control rates and stemming the tide of HTN worldwide.

### Bibliography

1. Beaney T, *et al.* "May Measurement Month 2017: an analysis of blood pressure screening results worldwide". *Lancet Global Health* 6.7 (2018): e736-e743.
2. Chow CK, *et al.* "Prevalence, awareness, treatment, and control of hypertension in rural and urban communities in high-, middle-, and low-income countries". *Journal of the American Medical Association* 310.9 (2013): 959-968.
3. McAlister FA, *et al.* "Changes in the rates of awareness, treatment and control of hypertension in Canada over the past two decades". *Canadian Medical Association Journal* 183.9 (2011): 1007-1013.
4. Milman T, *et al.* "Clinical inertia in the pharmacological management of hypertension: A systematic review and meta-analysis". *Medicine (Baltimore)* 97.25 (2018): e11121.
5. Yang Q, *et al.* "Antihypertensive medication adherence and risk of cardiovascular disease among older adults: a population-based cohort study". *Journal of the American Heart Association* 6.6 (2017).
6. Cheng EM, *et al.* "Clinical inertia in the management of blood pressure after a stroke". *Stroke* 45.1 (2014): AW303.
7. Mu L and Mukamal KJ. "Treatment intensification for hypertension in US ambulatory medical care". *Journal of the American Heart Association* 5.10 (2016): e004188.
8. Wang YR, *et al.* "Outpatient hypertension treatment, treatment intensification, and control in Western Europe and the United States". *Archives of Internal Medicine* 167.2 (2007): 141-147.
9. Castillo RR. "Council's corner: Hypertension issues-personal view". *HTN News (ISH)* 46/47 (2016): 32-33.
10. Pan J, *et al.* "Determinants of hypertension treatment adherence among a Chinese population using the therapeutic adherence scale for hypertensive patients". *Medicine (Baltimore)* 98.27 (2019): e16116.
11. Castillo RR, *et al.* "May Measurement Month 2017: an analysis of blood pressure screening in the Philippines-South-East Asia and Australasia". *European Heart Journal Supplements* 21 (2019): D92-D96.

**Volume 6 Issue 12 December 2019**

**©All rights reserved by Rafael R Castillo.**