

# Drug compliance among hypertensive patients in a teaching hospital

## ABSTRACT

**Objective:** To determine the compliance rate and associated factors among hypertensive patients in a teaching hospital.

**Study Design:** A cross-sectional study.

**Materials and Methods:** Ethical approval taken from the Institutional Ethics Committee (No. 00101/9/2013). One hundred adult hypertensive patients were interviewed using a pretested, structured, closed ended questionnaire. Inclusion criteria include all adult hypertensive patients attending outpatient clinic from 1<sup>st</sup> to 28<sup>th</sup> November 2013 at King Saud Medical City. Exclusion criteria include only if the patient refuse to participate in the study.

**Results:** After calculating the compliance of each patient, we found that 63 of the patients had >80% compliance rate. The most common causes of noncompliance were felt good (reported by 59 patients out of 100), simply forgot (56%), had problems taking pills at specified time (55%), and felt asleep through dose time (52%).

**Conclusion:** The compliance rate with medications was good, but there was a proportion of patients were noncompliant because maybe they need better education and family support.

**Key words:** Anti-hypertensive drugs; compliance; hypertension

## Introduction

Data from the National Health and Nutrition Examination Survey showed that the overall age-adjusted prevalence of hypertension among the U.S. adults aged 18 and over was 28.6% in 2009-2010; 81.9% were aware of their hypertension and 76.4% were currently taking medication to control their high blood pressure.<sup>[1,2]</sup> The prevalence of hypertension was similar for men and women at nearly one-third. The prevalence increased with age and was highest among older adults.<sup>[3]</sup> According to a community-based study conducted by a major national study on coronary artery disease among Saudis study, the prevalence of hypertension was 26.1%.<sup>[4]</sup> In a

similar study in Tabuk, Saudi Arabia, the compliance rate was only 53.0%.<sup>[5]</sup> Our study aimed to determine the compliance rate and associated factors among hypertensive patients in King Saud Medical City.

## Materials and Methods


In a cross-sectional study over 4 weeks period conducted among outpatient clinic at King Saud Medical City, 100 adult, hypertensive patients of both sexes, were recruited. Inclusion criteria were all adult hypertensive patients attended the outpatient clinic at King Saud Medical City in November

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2013. Patients who refused to participate in the study were excluded.

Data collection tool was a pretested, structured, mostly closed-ended questionnaire administered by interview. Information obtained included sociodemographic characteristics, patient's reported compliance, and the reasons for noncompliance.

### Ethical consideration

Ethical approval was taken from the Institutional Ethics Committee (No. 00101/9/2013), and written consent is taken from all participants.

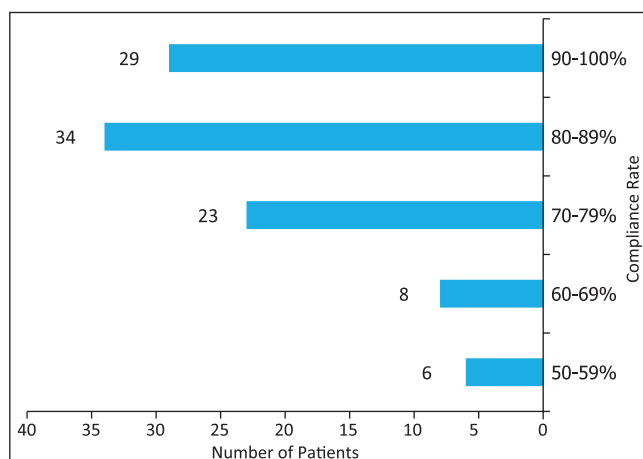
### Results

One hundred hypertensive patients (74 males) were studied. The mean age was 56 year (range: 30-90 years). Almost two-thirds of the patients had only elementary education (60%) followed by high school (15%). About 57% of the patients were known hypertensive >5 year, 18% <2 year, and 25% between 2 and 5 years. About 88% claimed that they are taking their drugs regularly. To evaluate the compliance of the patients, we gave marks for each question in the questionnaire and after calculating the compliance of each patient we found that 63 of the patients had >80% compliance rate [Figure 1].

The most common causes of noncompliance are shown in Figure 2.

### Discussion

In our study, patients between 40 and 49 years showed the



**Figure 1: Compliance rate among hypertensive patients in a teaching hospital in Riyadh, Saudi Arabia. To evaluate the compliance, we gave marks for each question in the questionnaire and after calculating the compliance of each patient we found that 63 of the patients had >80% compliance rate**

best compliance while between 80 and 89 years were the worst and those with high education level showed better compliance. Looking at compliance with the treatment duration, we found that patients who use drugs <5 years were more likely to be compliant while those with longer duration tend to be less compliant.

In Saudi Arabia, we found only one study to estimate the compliance rate and associated factors among a population of hypertensive subjects registered in hospitals and primary health care centers in Tabuk. The compliance rate was 53.0%. It was associated positively with male sex, and negatively with older age, symptoms of illness and drug side effects. The degree of blood pressure control was worse among noncompliant subjects. Reasons for noncompliance included the asymptomatic nature of hypertension, a shortage of drugs, side effects, forgetfulness, and lack of health education.<sup>[5]</sup>

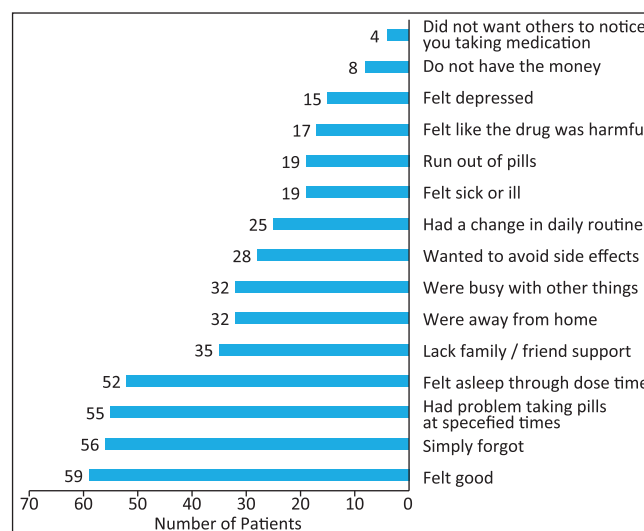
We think in our study the compliance was higher than the above studies because of the availability of free drugs to the patients and easy accessibility to health centers in Riyadh, Saudi Arabia.

### Conclusion

The compliance rate with medications was good, but there is a proportion of patients were noncompliant because maybe they need better education and family support.

### Financial support and sponsorship

Nil.



**Figure 2: The most common causes of noncompliance to anti-hypertensive medications were felt good (reported by 59 patients out of 100), simply forgot (56%), had problems taking pills at specefied time (55%) and felt asleep through dose time (52%)**

### Conflicts of interest

There are no conflicts of interest.

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