P-43
BLOOD PRESSURE MEASUREMENT TAKEN BY PATIENTS OR NURSES AVOIDS OBSERVER’S INFLUENCE
Angela Maria Geraldo PIERIN, Gisele Machado Peixoto MANO, Viviane SOUZA, Josiane Costa de LIMA, Katia ORTEGA, Edna Caetano Igoaes, Heloise Holanda SALOMAO, Jose Luis NIHIBURA, Carlos Alexandre SEGRE, Decio Mion Jr. 1Medical School, University of Sao Paulo, Sao Paulo, SP, Brazil, 2Nursing School, University of Sao Paulo, Sao Paulo, SP, Brazil

Several studies have shown that blood pressure measurement is influenced by the observer. However, little is known about the values of office blood pressure measurements (OBPM) taken by patients. Therefore, this study aimed at: a) comparing OBPM performed by doctors, nurses, and patients; b) and identifying the variables which interfere with OBPM. Five hundred and fifteen hypertensive patients were studied (53±11 years; 70% female; 59% not white; 15% showed blood pressure <140/90 mmHg; 17% with mild hypertension, 13% moderate, 15% severe, and 40% isolated systolic hypertension; 68% were under placebo; whereas 32% were under anti-hypertensive treatment). OBPM was measured, according to a randomized order, by a doctor, a nurse, or the patients by themselves. Three consecutive measurements were performed by using an automatic oscillometric device (DIXTAL DX 2710), with the patients in a sitting position after a 5-minute rest. The results showed that (mean±SD): 1) OBPM by the doctor (160±6/20/97±1/1-mm Hg) was significantly higher (p<0.05) than OBPM by the nurse (156±6/20/95±1/15 mm Hg) and the patient (156±2/19/16 ±15 mm Hg). Systolic OBPM by the nurse was similar (p=NS) to OBPM by the patient whereas diastolic blood pressure was significantly lower (p<0.05) in patients with severe hypertension. Systolic OBPM by the patient (192±13 mm Hg) was significantly higher (p<0.05) than OBPM by the doctor (188±9-mm Hg) and the nurse which showed to be similar to each other; 3) both systolic and diastolic blood pressure showed to be significantly lower (p<0.05) when measured by women than when measured by doctors regardless of their gender (154±6/20/95±14 vs. 162±6/19/96±14 vs. 161±6/21/15 mm Hg, respectively) whereas in male patients, no difference was observed between the measurement taken by the patients and the doctor regardless of their gender (157±6/22/97±15 vs. 159±6/22/99±16 mm Hg, 162±6/23/102±17 vs. 162±6/22/101±15 mm Hg). These results show that measurements taken by the patients or themselves by the nurse can avoid blood pressure increase caused by the doctor; and that being a woman or having higher blood pressure interfere with blood pressure measurement taken by the different observers.

Key Words: Blood Pressure Measurement, Hypertension, Observer

P-44
AMBULATORY BLOOD PRESSURE MONITORING (ABPM) IN A BLACK POPULATION IN A DEVELOPING COUNTRY (BARBADOS)
Henry S. Fraser, Rosaline Mellanson-King, George A. Mansour. 1Chronic Disease Research Centre, University of the West Indies, Bridgetown, Barbados, 2Section of Hypertension and Clinical Pharmacology, University of Connecticut Health Centre, Farmington, CT, United States

An ABPM service has been developed at the Hypertension Referral Clinic, Queen Elizabeth Hospital, Barbados, at a time of severe economic restraint, with the gift of an ABPM Monitor. Forty one patients (39 black and 2 white) had satisfactorily completed records. Ten had been attending the Hypertension Clinic for more than five years because of difficulty in maintaining control. Thirty were recent referrals for evaluation and control of severe or resistant hypertension, including 5 with “newly discovered” hypertension and 4 with severe hypertension prior to elective surgery. The age range was 20 to 81 years with 28 males and 23 females. Most patients were receiving multiple drugs (3 or more). The most common reasons for referral were resistance to treatment (RTT) in 30 (73%). White Coat Hypertension (WCH) or White Coat Effect (WCE) was the reason for referral in 20 (48%) patients, either combined with RTT or alone. WCE was confirmed in 34 (83%) - a higher rate than expected; in 5 it was rated very significant, in 24 significant and in 5 mild. Night time dipping of blood pressure was observed in 24 patients, ranging from mild to marked; 17 (42%) were non dippers; one showed marked initial dipping due to a treatment effect (minoxidil). Pre-surgical elevations were shown to be due to a very significant WCE or WCH.

Causes of apparent RTT may include a WCE, poor compliance or a combination. Patients with RTT should be evaluated with ABPM, which is cost effective compared with other costly investigations, hospitalisation and unnecessary long term polytherapy. ABPM is also a valuable tool in patients with isolated hypertension pre-surgery.

Key Words: Resistant Hypertension, Ambulatory Blood Pressure Monitoring, White Coat Effect

P-45
THE PREVALENCE OF HOME BLOOD PRESSURE MONITORING AMONG HYPERTENSIVE FEMALES AND MALES - POLISH HYPERTENSION SURVEY
Radoslaw Szczech, Krzysztof Narkiewicz, Leszek Bieniaszewski, Anna Kosmol, Barbara Krapa-Wojciechowska. 1Hypertension and Diabetology, Medical University of Gdansk, Gdansk, Poland

The results of many studies have shown that the degree of target organ damage is better correlated to HBPM, than it is to office blood pressure. Furthermore the use of HBPM is associated with a better compliance to treatment and with a better blood pressure control. Little is known on the prevalence of HBPM in the population at large. Therefore this study aimed at determining the prevalence of HBPM among hypertensives in a large cohort of 310.579 subjects participating in the Polish Hypertension Survey.

We studied 142.381 hypertensive subjects (72936 females and 69445 males; mean age 49.4±6.2 years, mean BMI 26.5±4.2 kg/m2). Data on HBPM were assessed by questionnaire. HT was defined as SBP>140 mmHg and/or DBP>90 mmHg, or taking antihypertensive treatment.

Among hypertensives, 33% males and 19.7% females did not measure their blood pressure during their past year. 45.5% males and 55.7% females have their blood pressure measured at the office and only 21.5% males and 24.7% females performed HBPM during past year. The percentage of office and home blood pressure measurements during past year among hypertensives according to age is shown in the table below.

<table>
<thead>
<tr>
<th>Age Range</th>
<th>&lt;40y.</th>
<th>40-60y.</th>
<th>&gt;60y.</th>
</tr>
</thead>
<tbody>
<tr>
<td>F/M</td>
<td>F/M</td>
<td>F/M</td>
<td>F/M</td>
</tr>
<tr>
<td>office blood pressure</td>
<td>40/2</td>
<td>35/0*</td>
<td>55/3</td>
</tr>
<tr>
<td>HBPM</td>
<td>17/0</td>
<td>14/3*</td>
<td>25/5</td>
</tr>
</tbody>
</table>

F/M - females/males; * denotes P<0.001

We conclude that the prevalence of HBPM among hypertensives is increasing with age, but in all age groups is dramatically low, especially in males, thus physicians should more recommend HBPM because it might improve medication compliance and overcome some limitations of office blood pressure measurement, e.g. white coat effect.

Key Words: compliance, gender differences, home blood pressure measurement