were included in Ukrainian open multicenter study on antihypertensive effects of generical enalapril (E).

205 pts with mild to moderate arterial hypertension (AH) were included in 12-week open multicenter study. All patients were treated by E in doses according to the general practical physician prescriptions. If monotherapy was ineffective the. The aim was evaluate and compare the office and ambulatory blood pressure (ABP) control in mild to moderate hypertensive patients, who were included in Ukrainian open multicenter study on antihypertensive effects of generical enalapril (E).

205 pts with mild to moderate arterial hypertension (AH) were included in 12-week open multicenter study. All patients were treated by E in doses according to the general practical physician prescriptions. If monotherapy was ineffective the hydrochlorothiazide was added. Baseline and on 4, 12 weeks of the treatment there were performed office BP measurements and ABP monitoring (“Meditech”, Hungary).

The target office BP (<140/90 mm Hg) was achieved in 52.2% pts on monotherapy and in 61.2% - on combined therapy. But the full normalization of the average 24-hour ABP (<125/80 mm Hg) or day-time ABP (<135/80 mm Hg) we noted only in 45.7 and 49.6% of these pts. At 12 week among all treated pts only 30.8 and 31.4%, who were on monotherapy, and 34.6 and 36.6%, who were on combined therapy, had normal 24-hour or day-time ABP. In our short-time observation the correlation between office and 24-hour systolic BP decreasing (RR) was 0.63 (p<0.05); between office and 24-hour diastolic BP decreasing - 0.42 (NS).

More than a half of patients with good office BP control had high level of ABP. And 6.3 and 5.9 % patients, who demonstrated well controlled the 24-hour and day-time ABP respectively, had poor office BP control. So it is necessary for better treatment results to provide the ABP monitoring for all pts.

Key Words: BP Control, Office, Ambulatory

P-141
SELECTIVE PHYSICIAN BLOOD PRESSURE RE-MEASUREMENT IN THE OFFICE SETTING MAY CONTRIBUTE TO POOR HYPERTENSION CONTROL
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Blood pressure (BP) measurement practices in primary care are largely undocumented, and may be an important factor in population hypertension control. In our large, primary care clinic network, physicians complain that initial office staff (OS) readings “cannot be trusted” and the majority of them report selective remeasurement of blood pressures that they consider unusual. In order to assess the relationship between OS BP levels, physician re-measurement and treatment actions, we analyzed a database of 2,186 hypertension follow-up visits containing OS and physician BP readings and physician treatment actions. The probability of physician re-measurement increased with the OS diastolic (DBP) level from 55% at OS DBP of 70-89 mmHg to 69% at OS DBP ≥110 mmHg. There was no relationship between OS systolic readings and physician re-measurement, and further analyses were limited to DBP readings. The difference between physician and OS readings was consistent with regression to the mean (−3 mmHg at OS DBP levels of 90-99 mmHg to −9 mmHg at OS DBP of 110-110 mmHg). Overall, 70% of physician DBP levels were lower than initial OS readings, and in patients with OS DBP ≥90 mmHg, 84% of physician readings were lower. In patients with OS DBP ≥90 mmHg, a drug treatment change was ordered in 57% of encounters in which physician readings were higher than OS readings, but in only 28% of encounter in which physician readings were lower. Strong zero digit preference was observed in both OS and physician readings (>60% of values). We conclude that selective physician rechecking of higher OS DBP readings results in systematically lower physician measurements. Regression to the mean contributes to physician perceptions that OS readings are inaccurate, and selection of higher OS values for re-measurement may lead to postponement of treatment intensification.

Key Words: Hypertension Control, Primary Care, Physician Measurement Error

P-142
NONDIPPING OF NOCTURNAL BLOOD PRESSURE IS ASSOCIATED WITH ENDOTHELIAL ACTIVATION IN ESSENTIAL HYPERTENSION
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The lack of a normal nocturnal fall in blood pressure levels from day to night has been reported to be associated with increased target organ damage. Since endothelial activation represents a fundamental step in the development of hypertension-related vascular damage, we evaluated the impact of circadian blood pressure profile on endothelial activation in uncomplicated essential hypertensive patients. Circulating levels of soluble (s) intercellular cell adhesion molecule-1 (ICAM-1), vascular cell adhesion molecule-1 (VCAM-1) and endothelial (E)-selectin were assessed in 40 non-obese, non-diabetic, non-atherosclerotic hypertensive patients and 28 normotensive subjects. Both groups were matched for sex, age, body mass index and metabolic features. Hypertensive patients were distinguished in dipper (n=22) or non-dipper (n=18) according with their day-night blood pressure changes (>10% or <10% of daily blood pressure levels, respectively) assessed by 24-hour ambulatory blood pressure monitoring. Circulating soluble adhesion levels (µgL) were similar in hypertensive patients and control subjects (sICAM-1: 141±29 vs 139±21, respectively, n.s.; sVCAM-1: 507±72 vs 473±77, respectively, n.s.; sE-selectin: 89±17 vs 81±16, respectively, n.s.). When hypertensive patients were divided according with nocturnal blood pressure decrement, all of the three adhesion levels were higher in non-dipper hypertensives than in dipper ones (sICAM-1: 157±32 vs 128±18, respectively, p<0.002; sVCAM-1: 538±55 vs 482±76, respectively, p<0.002; sE-selectin: 98±9 vs 81±19, respectively, p<0.002) in spite of similar clinic systolic (149±6 vs 152±7 mmHg, respectively, n.s.) and diastolic (105±5 vs 103±5 mmHg, respectively, n.s.) blood pressure levels. All of the three endothelial adhesion levels were similar in dipper hypertensive patients and normotensive subjects. Our study demonstrated that in uncomplicated essential hypertensive patients blunted nocturnal blood pressure fall was combined with increased circulating levels of sICAM-1, sVCAM-1 and sE-selectin concentrations.

Key Words: Endothelium, Adhesion Molecules, Nondipping status

P-143
AMBULATORY PULSE PRESSURE IS A RELATIVELY SLEEP INDEPENDENT VARIABLE
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Blood pressure has been described as consisting of a pulsatile component (pulse pressure) and a steady component (mean arterial pressure). The former is related to ventricular contraction, arterial stiffness and wave reflection, while the latter is determined by peripheral vascular resistance and cardiac output. Several studies have shown that pulse pressure is a potent predictor of cardiovascular risk. Many factors are known to influence blood pressure e.g. sympathetic activity, diet and state of alertness. However, the effect of sleep on pulse pressure has not been addressed before. We undertook this study in order to clarify this effect.

We studied 240 consecutive subjects who were referred to our unit for ambulatory blood pressure monitoring. There were 99 males and 141
females, the majority of which were treated hypertensives. Mean age was 58±17 years. Thirty three subjects were diabetic, 75 non-dippers.

Twenty four hour mean arterial pressure (MAP) was 97.1±9.8mmHg. Awake and asleep MAP were 100.6±9.9mmHg and 87.6±10.3mmHg respectively. Twenty four hour awake and asleep pulse pressure were 59.6±12.6mmHg and 57.8±13.1mmHg. MAP dip was 12.8%, 95% confidence interval (CI) 11.9-13.7 whereas pulse pressure dip was 3.7%, 95% CI 2.6-4.8. Thus, MAP dip was more than 3.5 times the pulse pressure dip (p<0.0001). This held true for diabetic, male, female, obese, elderly or young subjects. Pulse pressure correlated strongly with systolic blood pressure (correlation coefficient 0.70, p<0.0001). However, despite the high correlation between the two parameters systolic blood pressure dip was more than 2.5 times the pulse pressure dip (p<0.0001). We conclude that although pulse pressure is derived from blood pressure, it is more constant during a 24h period, with a lesser effect of sleep as compared to mean arterial pressure. Pulse pressure is a marker of the compliance properties of the aorta and major vessels, which are not under sympathetic or circadian influence. On the other hand, mean arterial blood pressure is determined by peripheral vascular resistance and cardiac output, which are strongly influenced by sympathetic activity and circadian rhythm. This more rigid nature of the pulse pressure could also partly explain the better prognostic value of pulse pressure compared to blood pressure.

Key Words: Pulse Pressure, Sleep, Dipping

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CLINIC, HOME AND AMBULATORY PULSE PRESSURE: COMPARISON AND REPRODUCIBILITY
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Objective: Recent evidence suggests that pulse pressure (PP) is an independent predictor of cardiovascular risk. The objective of this study is to compare mean values and reproducibility of PP obtained by measuring blood pressure in the clinic (CPP), at home (HPP) and with ambulatory monitoring (APP).

Methods: A total of 393 hypertensive subjects (mean age 51.5±11.5 [SD] years, 59% men, 35% treated) measured CPP (2 visits), HPP (6 days) and APP (24 hours). The reproducibility of PP was assessed using the SD of differences (SDD) between measurements in 133 untreated subjects who had repeated CPP (5 visits), HPP (6 days) and APP measurements (2 occasions).

Results: There was no difference between mean CPP (51.0±13.3 mm Hg) and HPP (50.2±11.0) whereas APP (48.8±8.4) was lower than both CPP (mean difference 2.3±10.3 mm Hg, 95%CI 1.2, 3.3, p<0.01) and HPP (1.5±7.8, 95%CI 0.7, 2.3, p<0.01). The SDD between repeated measurements was about 10 mm Hg for CPP (1 visit), 5.2 for HPP (2 days) and 4 mm Hg for APP (24-hour). For a parallel comparative trial aiming to detect a difference of 3 mm Hg PP in the effect of two drugs, 415 subjects would be required when using CPP compared to 127 using HPP and 63 using APP.

Conclusions: These data suggest that although differences among mean values of CPP, HPP and APP are small, differences in reproducibility are important and should be taken into account in the design of trials assessing drug effects on PP.

Key Words: Pulse Pressure, Reproducibility, Home Blood Pressure

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PHYSICIAN MANAGEMENT OF EDEMA AND DESTABILIZED BLOOD PRESSURE IN COX-2 USERS WITH OSTEOARTHRITIS AND TREATED HYPERTENSION
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Background: Treatment guidelines have been established separately for the management of osteoarthritis (OA) and hypertension, but guidelines do not exist for the management of both conditions simultaneously. In that treatment of one common condition (OA) may exacerbate another common condition (hypertension), the question arises how should clinicians efficiently manage patients in the absence of guidelines.

Objective: To describe how physicians manage clinically significant edema and/or destabilized blood pressure (BP) in OA patients with hypertension, when rofecoxib or celecoxib is initiated.

Methods: A cross-sectional survey was administered to physicians attending arthritis educational programs in the US between June and August 2001.

Results: 828 physicians completed the survey. The most common physician specialties were family practice (FP, 33%), internal medicine (IM, 25%), orthopedics (ORS, 15%), and rheumatology (Rheum, 11%). Physicians expect that most patients will contact them, by telephone or office visit, when they experience edema (68.4%). Physicians often request a follow-up visit for BP monitoring (65.6% of the time) after initiating a COX-2 specific inhibitor. Of the physician specialties, FPs and IMs were most likely to schedule a follow-up visit for BP monitoring, whereas ORS were least likely. The presence of edema and/or destabilized BP generally led to the discontinuation of the COX-2 inhibitor (50-65% of time). IMs and FPs were most likely to treat edema by initiating or modifying diuretic therapy (33-51% of time). For destabilized BP, an antihypertensive was initiated or modified 40-55% of time by FPs/IMs. ORS generally would refer patients to IMs/FPs. Differences in the management of edema and/or destabilized BP were noted depending on which COX-2 inhibitor was prescribed. Physicians were more likely to switch from rofecoxib to celecoxib (23-34% switch to celecoxib from rofecoxib vs 3-4% switch to rofecoxib from celecoxib). Physicians were also more likely to adjust the celecoxib (19-28%) than rofecoxib dose (7-11%).

Conclusions: A significant percentage of physicians reported that they monitor patients with OA and hypertension for destabilized BP and edema following initiation of a COX-2 specific inhibitor. When edema and/or destabilized BP are identified, physicians intervene in most cases (90%). Since managing patients with edema and destabilized BP can be costly, physicians should consider the increased incidence of edema and destabilized BP observed with rofecoxib relative to celecoxib when making treatment decisions.

Key Words: COX-2 Specific Inhibitors, Management, Survey

P-146
OFFICE BLOOD PRESSURE (OBP) OR 24HR-AMBULATORY-BLOOD-PRESSURE-MONITORING (ABPM)? BOTH OF THEM ARE NECESSARY TO EVALUATE HYPERTENSION (HT) IN RENAL TRANSPLANT RECIPIENTS (RTR)
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Because cardiovascular disease is a significant contributor to death in RTR, diagnosis and treatment of HT is very important in this special...