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(Nottingham Health Profile (NHP) and EQ-5D) outcome assessments in PH. METHODS: PH patients completed the instruments in a postal survey. Instruments were compared in terms of end effects, association with clinical indicators (Six Minute Walk Test (6MWT) and New York Heart Association class (NYHA)) and ability to discriminate between patients on the basis of symptom severity and perceived general health. RESULTS: In total, 91 patients participated (mean (SD) age: 52.6 (16.0), 64% female, mean (SD) duration of PH: 4.8 (6.0) years). End effects were slight in the CAMPHOR (Energy scale = 10.1% floor/11.2% ceiling; Mood 19.3% floor) but substantial in the NHP. NHP floor effects ranged from 54.9% (Pain) to 11.9% (Physical Mobility) and ceiling effects from 32.5% (Energy) to 0.0% (Pain and Social). NYHA correlations with the NHP ranged from 0.59 (Physical Mobility) to 0.20 (Pain) and with the CAMPHOR from 0.60 (Functioning) to 0.47 (Overall Symptoms). 6MWT distance correlated 0.71 with CAMPHOR Functioning. All CAMPHOR, NHP (except Sleep) and EQ-5D scales discriminated between patients based on perceived general health (p < 0.01). The scales also distinguished between patients according to symptom severity (p < 0.01). All CAMPHOR scales (except Mood) distinguished between NYHA classifications (p ≤ 0.001). Of the generic measures only the NHP Energy and Physical Mobility scales discriminated according to NYHA. CONCLUSIONS: The CAMPHOR had fewer end effects, showed closer association with clinical indicators and greater sensitivity to NYHA class than the generic measures and is therefore recommended for assessing outcome in PH.

#### PCV56

#### PREVALENCE, AWARENESS, TREATMENT, AND CONTROL OF HYPERCHOLESTEROLEMIA AMONG CHINESE AMERICANS

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OBJECTIVES: To assess the prevalence, awareness, treatment, and control of hypercholesterolemia among the Chinese Americans in New York City. METHODS: This is a community-based cross-sectional cohort study. Certified nurses conducted cardiovascular disease screenings among 456 Chinese Americans, 64% women, aged 18 years or older in 2003. Serum total cholesterol concentration was obtained. Risk factors such as smoking, exercise, blood pressure, body mass index, and waist-to-hip ratio were also recorded. Hypercholesterolemia is defined as serum total cholesterol concentration equal to or greater than 200 mg/dL or reported using cholesterol-lowering medications. Hypercholesterolemia awareness and treatment were assessed with standardized questions. RESULTS: The age-adjusted mean total cholesterol concentration in all study subjects was 198 mg/dL (95% CI, 194.28, 200.81) and the prevalence of hypercholesterolemia in our sample was 56%. Hypercholesterolemia awareness, pharmacologic treatment, and control on pharmacologic treatment were 43%, 16%, and 6%, respectively. Non-pharmacologic treatment alone accounted for 7%. In a Pearson correlation analysis, increasing age (p = 0.047) and blood pressure (both diastolic and systolic, p < 0.001) were independently associated with increased rates of serum concentration of cholesterol; increasing body mass index, waist-to-hip ratio, exercise, and smoking are not associated with increased in serum total cholesterol concentrations. CONCLUSIONS: The findings suggest that expanded effort is needed to improve hypercholesterolemia awareness, treatment, and control. Practitioners may need to take a more aggressive stance in screening and treating patients with lipid disorders- with or without existing coronary heart disease.

#### **CARDIOVASCULAR**

#### CARDIOVASCULAR—Health Policy

PCV57

#### CHRONIC VENOUS DISEASE: COMPLIANCE WITH **TREATMENT**

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OBJECTIVES: To describe the impact on real conditions of a treatment's compliance. METHODS: Between May and July, 2002, 567 GP recruited 1049 female patients spontaneously consulting for CVD. The patients filled in questionnaires (CIVIQ, SF12 and Epworth) in order to evaluate the consequences of their disease. A patients subgroup with RA (treated with ruscus aculeatus, hespéridine méthyl chalcone HMC & acide ascorbique Vit.C ) prescription was identified. RESULTS: The group with 2 tablets a day (n = 135) was called the << "non observant group": (NOG) >>, the group treated with the recommended dosage (4 tablets) a day was called "'observant group': (OG)" (n = 831). Before treatment, both groups were comparable in terms of average age (44.1 vs. 45), height and weight (BMI: 24.3 vs. 24.2). The risk factors have been compared: sedentary lifestyle, family history, underfloor heating, pregnancy. None are significant except sedentary lifestyle (NOG 55% vs. 0:66%, p < 0.0001, test ki2). No significant difference was observed between the NOG and the OG: CIVIQ: 34.3 v. 32, SF12: Physical dimension: 48.2 v. 46.2, Mental Dimension: 42.5 v. 45, Epworth: 7.2 v. 7.8. After a seven day treatment, the same scales were administered, in the NOG, no QoL scale improved. In the OG, SF-12 Mental dimension, CIVIQ and Epworth scores significantly improved at D7 (with p respectively < 0.001, = 0.01, < 0.001). CONCLUSIONS: The compliance with treatment at recommended dosage clearly shows an improvement of specific and non specific quality of life scales at seven days. The future availability of an RA double dose tablet should improve treatment's compliance by decreasing the intakes.

PCV58

#### CHRONIC VENOUS DISEASE: CARE IMPACT

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CVD treatment is based on a double treatment, either conventional (contention or venotonics) or radical (sclerotherapy, surgery). OBJECTIVES: Describing the venotonic and contention association impact on the patients quality of life. METHODS: Between May and July, 2002, 567 GP's recruited 1045 female patients spontaneously consulting for CVD. Two patient subgroups were identified: RA (treated with ruscus aculeatus, hespéridine méthyl chalcone HMC & acide ascorbique Vit.C), RAC: (treated with RA and contention). RESULTS: In both subgroups RA (n = 697) and RAC (n = 269), risk factors were compared: sedentary lifestyle, family history, underfloor heater, pregnancy. Obesity and family history were found most often among the RAC patients (25% v. 16% and 50% v. 34%, p < 0.001 ki2). At inclusion, specific (CIVIQ), non specific (SF12) quality of life (QoL) and daytime sleepiness (Epworth scale) were evaluated through a self-questionnaire. A total of 304 patients answered at D0 and D7. No significant difference was observed between the 2 groups RAC v. RA; CIVIO: 32.3 v. 32.3, SF12: Physical dimension: 45 v. 46.9, Mental dimension: 43.7 v. 45, Epworth: 8.4 v. 7.5. After a 7-day treatment, the same scales were administered. In the RAC group, CIVIQ improved (p =

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0.0004). In the RA group SF12 Mental Dimension, CIVIQ and Epworth significantly improved at D7 versus D0 with respectively p < 0.001, =0.036, p < 0.001). CONCLUSIONS: In the chronic venous disease, associating a contention to a venotonic prescription does not improve the patient's quality of life.

PCV59

### CHRONIC VENOUS DISEASE: THROUGH BODY MASS INDEX Guex $\| ^1$ , Myon $E^2$ , Marionneau $N^2$ , Taieb $C^2$

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Many studies have confirmed obesity as a Chronic Venous Disease (CVD) risk factor. Few studies have described the pathology through Body Mass Index (BMI). OBJECTIVES: To describe the impact of obesity in CVD. METHODS: Between May and July, 2003, 567 GP's recruited 1049 female patients spontaneously consulting for CVD. The patients filled in a series of validated questionnaires in order to evaluate the consequences of their disease. RESULTS: The results of the study concern 1045 patients with a mean age of 44-45 years old (SD 10.70) (min: 18-max: 65); 66% with a professional activity. The patients average size was 164.39cm (SD 5.99) for an average weight of 65.2kg (SD 12.5). The BMI calculation gives an average BMI of 24.17 (SD 4.71). The values issued by the WHO have been taken into account: Thinness: 4%-Normal weight 62%—Overweight: 24%—Obesity: 10%. For each of these subgroups, CIVIQ score is respectively of 21.2-16.6-25.8-32.1. In order to make the analysis easier, we have reduced the two subgroups BMI <27 vs.> 27. CIVIQ score is: 29.8 vs. 40.9 (p < 0.0001). This difference is found through the severity (CEAP) classification: 15% of C0-C2 have a BMI > 27, while they represent 26% of the C3–C6 (p < 0.001). We have tested both subgroups on sedentary lifestyle, family history, underfloor heating and pregnancy risk factors. None are significant except sedentary lifestyle (61% vs. 76%, p < 0.0001). CONCLUSIONS: A more important CVD severity grade is expected for a BMI > 27.

PCV60

## TREATMENT OF NEWLY-DIAGNOSED HYPERTENSIVE PATIENTS IN ITALY: A RETROSPECTIVE COHORT STUDY IN PRIMARY CARE

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**OBJECTIVES:** Despite the proven efficacy of antihypertensive drugs (antiHTN) on morbidity and mortality, the extent of undertreatment and non-persistence is extremely high, hampering their effectiveness in real-life. In order to assess drug utilization patterns of newly treated hypertensive patients, we estimated the 1-year risk of stopping initial treatment, the frequency of patients requiring add-on or switch therapy with other antiHTN. METHODS: A retrospective cohort study was conducted using Health Search Database that provided data by 320 Italian general practitioners. All newly-diagnosed hypertensive patients aged ≥ 35 years, who received antiHTN during the first three months after diagnosis were identified and were categorized into one of the following groups: 1) Continuers: patients continuing the first class of antiHTN; 2) Combiners: patients receiving an add-on with another class; 3) Switchers: patients changing from the first medication to another type of antiHTN; and 4) Discontinuers: patients stopping the first type

therapy. RESULTS: Overall, among 13,303 new hypertensives, 19.8% were continuers, 22.1% combiners, 15.5% switchers, and 42.6% discontinuers. The highest proportion of continuers was found for persons starting with angiotensin-II antagonists (ARB's) (25.2%), calcium-antagonists (CCB's) (23.9%), and ACE-inhibitors (23.3%). Starting on diuretics was associated with the highest risk of discontinuing treatment, while the lowest risk was associated with starting on ARB's (Hazard Ratio [HR]: 0.43; 95% Confidence Interval (CI): 0.40–0.47), ACE-inhibitors (HR: 0.50; CI: 0.47–0.53) and CCB's (HR: 0.55; CI: 0.52–0.59). The risk of receiving add-on therapy was associated with a longer duration of therapy. Patients starting with alfa-blockers had the highest risk of switching therapy (HR: 0.50; CI: 0.47-0.53), while patients starting on ARB's (HR: 0.51; CI: 0.42-0.62) or ACE-inhibitors (HR: 0.60; CI: 0.52-0.69) had the lowest risk. CONCLUSIONS: In this cohort the persistence to initial antiHTN is rather low and the need to combine several drugs is often required.

PCV61

# THE USE OF INTERNET-BASED TECHNOLOGY TO ASSESS MEDICATION ADHERENCE IN PATIENTS WITH HYPERTENSION AND TO PROVIDE INTERACTIVE HEALTH INFORMATION

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A major factor why hypertension is often insufficiently controlled is due to poor medication adherence. The AdhereRx is a web-based technology that can assist practitioners in educating patients on the importance of medication adherence. The Morisky scale is a simple validated tool that can detect patient non-adherence to medications. OBJECTIVES: Assess patient medication compliance and hypertension goal achievement using the Morisky survey along with education resources included in the AdhereRx program. METHODS: This study was undertaken in a hospital outpatient pharmacy. Patient presented with an antihypertensive medication prescription was asked to complete the Morisky survey. Results were entered into the AdhereRx website. The most recent blood pressure measurement was recorded. Based on the Morisky score, the pharmacist browsed the online library and provided appropriate printed educational materials from the website in conjunction with individual verbal counseling to the patient. **RESULTS:** Of the 91 men and women with a mean age of 57.56 (standard deviation, 12.09) years, 21% had low to medium level and 79% had a high level of medication adherence. The most common reason patients stopped taking their medication was "forgot to take their medication" followed by "careless", followed by "stop medication when feel better" and "stop medication when feel worse". More patients in the high adherence group achieved blood pressure goal than patients who scored low or medium adherence, 83% vs. 63% respectively (p < 0.001). Patients who had low adherence required more antihypertensive agents to control their blood pressure. In a Pearson correlation analysis, high medication adherence is associated with increased rates of blood pressure goal attainment (p < 0.01). **CONCLUSIONS:** There is a strong positive correlation between medication adherence and blood pressure goal attainment. The AdhereRx web-based program is easy to use and provides specific tools to help practitioners educate their patients to improve medication adherence.