data was collected via phone calls through a specific questionnaire answered by PM within age ≥ 50 years old who were in the registry and contacted directly by SP researchers. **RESULTS:** We surveyed 1,587 PM women with a mean age of 66.0 y (SD = 9.2). 43% had PM osteoporosis, but only 34.8% of women had previous knowledge of it. Previous diagnosis was mostly done by primary care physicians (57.9%) followed by rheumatologists (19.1%). Of those who had osteoporosis, 70% had osteoporosis treatment in the 12-month period previous to the questionnaire. This decision was driven by patients (61.3%) followed by the physicians (36.2%) and self-reported reasons were economic, polymedication, efficacy, gastrointestinal adverse events and other safety concerns. Of special interest, gastrointestinal adverse events were self-reported by more than a third of those women in the last 12 months previous to the questionnaire. Economic reasons for under-treatment and non-persistence is crucial to attain better health outcomes in post-menopausal osteoporosis.

**PMS19 IDENTIFICATION OF OSTEOPOROSIS & CHRONIC INFLAMMATORY RHEUMATIC DISEASE IN FRENCH CLAIMS DATA**

Belkacem M1, Levê-Chabelot L2, Lafosse L1, Ginoux M3, Van Gasse E4
1University of Lyon, LYON, France, 2MSD France, COURBEVOIE, France

**OBJECTIVES:** Osteoporosis and chronic inflammatory rheumatic diseases (CIRD), including rheumatoid arthritis (RA), psoriatic arthritis (PA) and ankylosing spondylitis (SpA) are major in rheumatologist. In these two therapeutic areas, data collection via structured personal interview and, if needed, later complemented by phone. The national survey Vigilet 2012 was used to collect data from brazilian general population of adults aged ≥ 18 years old. A random sample of the adult national civilian population in Portugal was selected for self-reported reasons for under-treatment and non-persistence is crucial to attain better health outcomes in post-menopausal osteoporosis.

**PMS22 PREVALENCE, COMORBIDITIES AND BURDEN OF SEVERE SPONDYLOARTHRITIS IN FRANCE: ANALYSIS OF A NATIONAL PUBLIC HEALTH INSURANCE DATABASE IN 2012 IN FRANCE**

Claudipere P1, Breban M2, de Chaillust T3, Joubert J4, Laurendeau C5, Goumelen JF1
1CHU Henri Mondor Créteil, Créteil, France, 2CHU Amboise-Porté, Boulogne, France, 3UCB Pharma, Colombes, France, 4Cemka-Eval, Bourg La Reine, France, 5UMS 011 - Inserm - UVSQ, Villejuif, France

**OBJECTIVES:** To examine the resource utilization and direct costs of care in severe spondyloarthropathy (SpA) patients based on a national representative claims database. **METHODS:** The EGB Database is a national representative random sample of 1 out of every 25 claims in the main French public insurance schemes, listing all healthcare consumption and allowing identification of beneficiaries eligible for full health insurance coverage due to severe conditions. The annual economic burden related to severe SpA was estimated by comparing direct medical expenditures (inpatient care and hospitalization costs) at the national level (2012) into population to a control group (i.e. patients not in “Affection de Longue Durée” for the healthcare system, as identified in this representative database analysis.

**OBJECTIVES:** The changes of vitamin D level influencing bone metabolism are seasonal, the effect of seasons on femoral neck fracture healing is unknown. The aim of this study was to determine the effects of seasonal periodicity on incidence of osteonecrosis following primary osteosynthesis of femoral neck fractures in Hungarian elderly population. **METHODS:** This nationwide retrospective observational cohort study based on dataset of National Health Insurance Fund Administrations. Patients over 60 years undergoing internal fixation after primary femoral neck fracture (ICD-10: S72.00) were identified. Developmental osteonecrosis were registered during the 8 years follow-up. The following factors were evaluated: sex, age, type of fracture, season of surgical intervention, day and month of surgical intervention. The survival time was investigated by Kaplan–Meier analysis and log-rank test. The crude incidence rate ratios of osteonecrosis were calculated for factors. The impact of risk factors on the hazard of osteonecrosis was estimated by Cox proportional hazard model. **RESULTS:** 1312 patients were treated for osteonecrosis (69.1% men). This to more health care consumption and treatment changes. **CONCLUSIONS:** In this report, using a large sample from a patient registry, we observed low rates of treatment and high levels of unplanned drug discontinuation in Portugal, suggesting that in this population, under-treatment and non-persistence is crucial to attain better health outcomes in post-menopausal osteoporosis.
Significant correlations were revealed between the occurrence of osteonecrosis and age, gender, fracture site (anterolateral, HR=2.970), fracture displacement (displaced/non-displaced, HR=1.998) and the season of surgery (fall/winter, HR=0.372; spring/summer, HR=0.602, summer/winter, HR=0.455). **CONCLUSIONS:** Wintertime osteosynthesis increases the risk of osteonecrosis. The findings raise the possibility of a seasonal difference in bone quality and impaired fracture healing of femoral neck fracture. The results may help establish an effective strategy for the prevention of serious complications.

**PM24 PREDICTORS OF 10-YEAR MORTALITY AFTER PRIMARY FEMORAL NECK FRACTURE IN ELDERLY PATIENTS**

Yuhan K1, Gajdácsi J2, Molics B3, Roncz M4, Sebestyén A1

1National Health Insurance Fund Administration, Pécs, Hungary; 2National Health Insurance Fund Administration, Budapest, Hungary; 3University of Pécs, Pécs, Hungary; 4University of Pécs, Pécs, Hungary

**OBJECTIVES:** Hip fractures are followed by increased mortality in the elderly. The study was carried out to analyse the mortality rate and predictors for mortality over 10 year period in patients over 60 years suffered from primary femoral neck fracture and to investigate the effect of sex, age, gender, type of fracture, comorbidities, type of surgery, time to surgery and further surgical treatment. Predictors for mortality were evaluated by Cox proportional hazard model and logistic regression analysis using yearly intervals. The patients survived 2 years before investigation. Kaplan-Meier analysis was used to calculate the log-rank test. RESULTS: 3783 patients were included in the study. The mortality rate was 30.76% in the first year, and 80.65% at 10 years. The mortality showed a tendency to decrease during the following decade. Cox regression identified higher age (years, HR=1.024), male gender (female/male, HR=0.776), fracture type (extracapsular/Garden-II, HR=1.276, and GardenIII-IV/Garden-II, HR=1.194), comorbidities (presence/absence, HR=1.361), type of surgical treatment after femoral neck fractures (surgical treatment, HR=1.218) and more than 12 hours (12-24/6-0 hours, HR=1.188) and absence of further surgical treatment (presence/absence, HR=0.756) as significant risk factors for overall mortality. Logistic regression analysis showed significantly higher risk of men up to 5 years, higher age up to 10 years, comorbidities up to 4 years, type of fracture and surgical delay of the primary treatment up to 2 years. Kaplan-Meier method gave parallel results with risk factor analysis. **CONCLUSIONS:** Assessing the impact of risk factors on 10 year mortality after primary femoral neck fracture is difficult. We found associations between clinical determinants and late mortality, which require further investigations regarding the long period of time until death.

**PM25 RELATIONSHIP BETWEEN GPX1 PRO198LEU POLYMORPHISM AND SUSCEPTIBILITY OF KASHIN-BECK DISEASE**

Chen Q1, Wang ZL1, Xiong YM2, Liu DP3, Chen GXM1, Yu GX4

1Key Laboratory of Trace Elements and Endemic Diseases, National Health and Family Planning Commission, Xian (Xi’an) Joint University, Xian, China; 2The fifth hospital of Xi’an, Xi’an, China; 3Institute of Endemic Diseases, Xi’an, China; 4China Academy of Chinese Medical Sciences, Beijing, China

**OBJECTIVES:** Glutathione peroxidase 1 (GPX1) is a ubiquitously expressed selenium-dependent enzyme that protects cells against oxidative damage by reducing hydrogen peroxide and lipid peroxide to side products. In the present study, we investigated the possible association between the proline-leucine polymorphism (198Pro/Leu, rs1050450) present in the GPX1 gene and the susceptibility of Kashin-Beck disease (KBD) to a Chinese population. Meanwhile, we detected the mRNA expression of GPX1 in blood and cartilage tissues between KBD and controls in order to analyze the transcriptional activity of GPX1 and explore molecular mechanism of KBD. The GPX1 Pro198Leu genotype was determined in 161 KBD cases and 312 control individuals with polymerase chain reaction-restriction fragment length polymorphism assay (PCR-RFLP). The mRNA expression level of GPX1 was detected by Real-time PCR. **RESULTS:** The genotypic and allelic frequency of GPX1 were different statistically between KBD patients and healthy controls (P=0.016, 0.043, respectively). We found an overall protective effect of the Pro/Pro genotype on the risk of KBD. Carriers of Pro/Leu and Leu/Leu had an increased risk of KBD compared with homozygous wild-type (Pro/Pro) individuals (OR, 1.781, 95% CI, 1.127-2.814, P = 0.016). The results of real-time PCR showed a significant difference of mRNA level of GPX1 in whole blood between the two groups (P=0.026), and expression of GPX1 mRNA in KBD patients decreased significantly compared with controls. However, no significant difference was observed in cartilage tissues (P=0.162). **CONCLUSIONS:** The study suggested that the 198Pro/Leu polymorphism of GPX1 gene might be a genetic risk factor for KBD in the Chinese population. These results also indicated that this polymorphism at the GPX1 locus was a common event in KBD development and that expression of GPX1 mRNA in KBD patients decreased significantly compared with controls might be involved in the pathogenesis of KBD. This research is supported by National Natural Science Foundation of China (No. 81371191, 81172610).