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undersupplied, even though they have a higher charlson-comorbidity index. Still, this study may not clarify whether this is due to costs or patient and physician preference.

#### PMS123

## GENDER DIFFERENCES IN MEDICATION TAKING BEHAVIOUR: A CASE OF OSTEOPOROSIS

Valentina Orlando V<sup>1</sup>, Francesca Guerriero F<sup>1</sup>, valeria Marina Monetti V<sup>2</sup>, Denise Fiorentino D<sup>1</sup>, Francesca Gimigliano F<sup>3</sup>, Giovanni Iolascon G<sup>3</sup>, Enrica Menditto E<sup>1</sup>

<sup>1</sup>University of Naples Federico II, Naples, Italy, <sup>2</sup>AORN Cardarelli, Naples, Italy, <sup>3</sup>Second University of Naples, Naples, Italy

OBJECTIVES: The aim of this study is to perform gender specific analysis regarding the persistence to antiosteoporotic drugs by using administrative databases. METHODS: The data used for this study were obtained from outpatient drug prescriptions, hospital discharges and ambulatory care records collected from January 1, 2005 to December 31, 2008. The study was designed as a retrospective study cohort. Patients 60 years of age or older were included if at least one prescription for any antiosteoporotic drugs had been filled in between January 1, 2006 and December 31, 2006. Persistence was defined as the length of time in days from the date of the index prescription to the date of discontinuation therapy. Discontinuation was evaluated by using the gap method. RESULTS: The final cohort consisted of a total of 7,867 patients (87.2% women). The mean patient age for both genders at the index date was 74.5 years. About one-fifth of all subjects had experienced with spot therapy, but men were more likely than women to have a spot therapy experience (45.4% vs. 14.5%). Approximately 6% of all included patients were switchers: Switching rates were highest for males (18.9%) and lower for female (4.4%). The crude analysis of long-term gender persistence showed a significant difference between women and men users: the relative number of persistence patients after 1 year was 66.4% in men and 44.7% in women. The Kaplan Meier plots of time to persistence start to differ for men vs women approximately 60 days after treatment start. CONCLUSIONS: Gender differences in medication taking behaviour is a relevant issue in drug utilization studies. Our analysis showed that women are more likely to be non-persistent than men in osteoporosis ttherapy.

#### PMS124

# NUMBER OF OSTEOPOROSIS PATIENTS WITH PATHOLOGICAL FRACTURES BY GENDER IN OUTPATIENT CARE IN THE LIGHT OF PHYSIOTHERAPY CARE IN HUNGARY

Molics  $B^1$ , Endrei  $D^1$ , Rátgéber  $L^2$ , Gyuró  $M^1$ , Sebestyén  $A^3$ , Juhász  $R^1$ , Elmer  $D^1$ , Boncz  $I^1$ , Péter  $I^4$ , Juhász  $K^3$ , Járomi  $M^1$ 

<sup>1</sup>University of Pécs, Pécs, Hungary, <sup>2</sup>Ratgeber Academia, Pécs, Hungary, <sup>3</sup>National Health Insurance Fund Administration, Pécs, Hungary, <sup>4</sup>Zsigmondy Vilmos SPA Hospital, Harkány, Hungary

OBJECTIVES: The aim of our study is to determine the number of osteoporosis patients with pathological fractures by gender in outpatient care based on physiotherapy activities. METHODS: The data come from the financial data base of the National Health Insurance Fund Administration (in Hungarian: OEP) involving the year of 2013. The activity list was provided by the rulebook on the application of the activity code list in out-patient care. The osteoporosis with pathological fractures is listed in the International Classification of Diseases (ICD) with code of M80. Population distribution was taken into account on the basis of the data of the Central Statistical Office from January 1st 2013. RESULTS: Based on 151 physiotherapy activities, the annual patient numbers accounted for 39725 persons in the total population. The patient numbers accounted for 2544 persons for males and 37181 persons for females (10,000 per capita the patient numbers were 40 persons for the total population, 5 persons for males and 72 for females).  ${\bf CONCLUSIONS:}$  The higher patient numbers for females can be clearly associated with the prevalence of the basic disease. The total value for the patient numbers by months is higher caused by the aftercare of the same patients that still lasts in the following month. The authors suggest structuring the health care system and distributing resources to follow the needs supported by our findings.

### PMS125

# NUMBER OF OSTEOPOROSIS PATIENTS WITH PATHOLOGICAL FRACTURES BY MONTHS IN OUTPATIENT CARE IN THE LIGHT OF PHYSIOTHERAPY CARE IN HUNGARY

Járomi  $M^1$ , Rátgéber  $L^2$ , Endrei  $D^1$ , Juhász  $K^3$ , Hanzel  $A^1$ , Gyuró  $M^1$ , Juhász  $R^1$ , Péter  $I^4$ , Boncz  $I^1$ , Molics  $B^1$ 

<sup>1</sup>University of Pécs, Pécs, Hungary, <sup>2</sup>Ratgeber Academia, Pécs, Hungary, <sup>3</sup>National Health Insurance Fund Administration, Pécs, Hungary, <sup>4</sup>Zsigmondy Vilmos SPA Hospital, Harkány, Hungary

OBJECTIVES: The aim of our study is to determine the number of osteoporosis patients with pathological fractures by months in outpatient care based on physicotherapy activities. METHODS: The data come from the financial data base of the National Health Insurance Fund Administration (in Hungarian: OEP) covering the year of 2013. The activity list was provided by the rulebook on the application of the activity code list in out-patient care. The osteoporosis with pathological fractures is listed in the International Classification of Diseases (ICD) with code of M80. RESULTS: Based on 151 physiotherapy activities, the annual patient numbers accounted for 85142 persons in the total population by months. The patient numbers accounted for 5063 persons for males and 80079 persons for females. The patient numbers were 86 persons for the total population, 11 persons for males and 154 for females per 10,000 capita. The patient numbers above average by months could be found in the spring and autumn months (average: population=7095, males=421, females=6673). CONCLUSIONS: The higher patient numbers for females can be clearly associated with the prevalence of the basic (osteoporosis) disease. It would be interesting to examine the correla-

tions between the patient numbers by months in physiotherapy care and the prevalence of fracture development. The authors suggest structuring the health care system and distributing resources to follow the needs supported by our findings.

#### PMS126

#### A SYSTEMATIC REVIEW OF THE COST BURDEN OF GOUT

Neves C, Shields GE, Beard S

BresMed, Sheffield, UK

OBJECTIVES: Gout, a chronic inflammatory arthritis, can result in extensive medical problems due to painful flares and joint damage resulting from the build-up of tophi (deposits of uric acid crystals). The prevalence of gout is rising, which is likely to increase the burden of the disease. We determined the current cost impacts of gout and identified key disease burden factors. We also aimed to highlight data gaps for further investigation. METHODS: A systematic literature review was conducted using the MEDLINE database and The Cochrane Library. Articles published in English between January 2000 and July 2014 that reported the economic burden (in terms of either direct or indirect costs) were identified, and patient and cost data were collated, with key themes and data gaps identified. RESULTS: Of the 323 studies identified, 13 primary studies were relevant to the economic burden of gout. Key variables included serum uric acid levels, presence of tophi and number of flares, which resulted in high healthcare resource use that was frequently attributed to hospitalisation and inpatient stay. The incremental direct cost of gout was reported to be up to US\$21,467 per annum, in cases where patients were experiencing regular acute flares with the presence of tophi. CONCLUSIONS: Patient-level costs associated with the treatment and clinical management of gout can be substantial, depending on disease severity. The identified studies were dominated by direct cost analyses; only three studies specifically considered indirect costs. There was a paucity of non-US data, and there was a lack of published studies estimating the population-wide cost. Despite the limited published data, the review identified a growing number of publications in this area in the last 5 years, suggesting healthcare decision makers' increasing awareness of the wider impacts of gout.

#### PMS127

## RELIABILITY OF MANUFACTURERS' BUDGET IMPACT ESTIMATES FOR SEVERE RHEUMATOID ARTHRITIS DRUGS IN POLAND

Zawodnik S1, Tatara T1, Iwanczuk T1, Sliwczynski A2, Brzozowska M2

<sup>1</sup>Agency for Health Technology Assessment and Tariff System in Poland (AOTMiT), Warsaw, Poland, <sup>2</sup>Medical University of Lodz, Lodz, Poland

OBJECTIVES: To compare the total value of payer's expenditures on Cimzia (certolizumab pegol) and RoActemra (tocilizumab) in patients with severe rheumatoid arthritis estimated in the manufacturers' Budget Impact Analyses (BIAs) submitted with the reimbursement applications to AOTMiT and actual expenditures of the National Health Fund (NHF). METHODS: Annual public payer's expenditures estimated in manufacturers' BIAs for Cimzia and RoActemra and actual expenditures reported by the NHF were compared. RSSs were not taken into account. Analysed drugs were chosen on the basis of the same indication and financing through the same therapeutic programme in Poland. Actual expenditures and population size were taken from the financial reports of the NHF for the first and second year (actual data on 11 months for expenditures were extrapolated to one year) of reimbursement for each drug. RESULTS: For drugs Cimzia and RoActemra in patients with severe rheumatoid arthritis, the sum of total expenditures estimated in BIAs submitted with the reimbursement applications was 18,04 million PLN in the first year and 28,47 million PLN in the second year, and they were lower than the actual expenditures reported by the NHF: 20,03 million PLN and 36,51 million PLN, respectively. The expenditures estimated in BIAs were underestimated by 10%in the first year of reimbursement and 22% in the second year of reimbursement. Population size estimated in BIAs in comparison to its actual size from the NHF reports was underestimated by 61% in the first year and 57% in the second year of reimbursement. **CONCLUSIONS:** In the case of drugs chosen for this analysis, total payer's expenditures estimated in BIAs submitted with the reimbursement applications were underestimated in comparison to the real life expenditures of the NHF in Poland.

### PMS128

PREVENTION OF FRAGILITY FRACTURES IN OSTEOPOROTIC PATIENTS: CAN THE SECONDARY THERAPY HELP CONTAIN COSTS FOR ADMISSIONS? A RETROSPECTIVE, OBSERVATIONAL CASE CONTROL STUDY BASED ON ASL PAVIA'S ADMINISTRATIVE DATABASES

Ronco GL<sup>1</sup>, Mirosa D<sup>2</sup>, Silvia V<sup>2</sup>, Carlo C<sup>2</sup>

<sup>1</sup>Emmonos S.A., Fenegro', Italy, <sup>2</sup>A.S.L. Pavia, Pavia, Italy

 $\textbf{OBJECTIVES:} \ \text{Osteoporosis is one of the commonest bone diseases in which bone}$ fragility is increased. There are several possibilities for the prevention of primary, secondary and tertiary osteoporosis but until now they have not been promoted enough and bone fragility is thought about only after the onset of a fracture (tertiary prevention). Preventative strategies against osteoporosis can be aimed at either optimizing the peak bone mass obtained, or reducing the rate of bone loss. Optimization of peak bone mass may be more amenable to public health strategies. METHODS: A group of patients over 50 year old that has been treated with medicines included in the AIFA Note 79 during a period of 5 years is studied in comparison with a similar group that has not been treated with medicines included in the AIFA Note 79 for the same period time. For both groups are also extracted inpatient and outpatient medical records and medicine prescriptions. Only patients treated for at least three years are considered significant. To avoid confounding the resulting data were standardized and stratified. RESULTS: The total expenditure for patients compliant with therapy who have had access to the hospital is less than twenty-eight percent compared to the total expenditure for patients not receiving therapy or not compliant. CONCLUSIONS: Osteoporosis is