burden is important in informing health care planning and policy development. This study was conducted to describe the NHS costs associated with AF management in routine UK clinical practice. METHODS: A retrospective observational study of 825 patients with AF was undertaken in 8 UK primary care practices in 2010. Data were collected from the clinical records of all eligible, consenting patients, for a period of up to 3 years. The first 12 weeks following diagnosis was defined as the 'initiation phase'; the period after week 12 was defined as the 'maintenance phase'. **RESULTS:** Mean (SD) total cost of AF management was £947/€1,153/ 1,476USD (£1,098/€1,337/\$1,711) per patient in the initiation phase and £469/€571/ \$731 (£597/€727/\$930) per patient year in the maintenance phase. Inpatient admissions and secondary care attendances accounted for 83% of total initiation phase and 64% of total maintenance phase costs. Significant variables contributing to high cost in the initiation phase were co-morbid hypertension and lower patient age, although only accounting for 5% of cost variability. Significant variables in the maintenance phase (18% of cost variability) were co-morbid congestive or structural heart disease and diabetes, and day-care attendances, ECGs and hospitalisations in the initiation phase. Mean maintenance phase costs were higher for patients managed by practices providing anticoagulation services (£555/€676/\$865) than patients receiving secondary care anticoagulation (£421/€513/\$656, p=0.002). CONCLUSIONS: The study confirms that inpatient admissions and secondary care attendances contribute most to total AF management costs. None of the variables analysed accounted for much variability in the total cost of AF management, suggesting that it is often not possible to predict which patients will be high NHS resource users. Future work should focus on how to safely reduce avoidable hospital admissions.

### PHS29

## COST OF TREATING PATIENTS WITH OBSTRUCTIVE SLEEP APNEA/HYPOPNEA SYDROME IN THE SOTIRIA CHEST HOSPITAL IN GREECE

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**OBJECTIVES:** Studies estimating the cost of treating patients suffering from the Obstructive Sleep Apnea/Hypopnea Syndrome (OSAHS) have not been conducted in Greece. The aim of this study was to investigate the annual cost of patients with OSAHS and identify the potential economic burden to the patients treated. METHODS: A retrospective study was conducted in the sleep laboratory of Sotiria Chest Hospital in Athens from January 1, 2008 to December 31, 2008. A sample of 340 subjects was screened for OSAHS. Diagnosis was confirmed after polysomnography. Health resources' consumption was derived from patients' analytical records, the annual visits in the sleep laboratory and the purchase of the ventilation devices (CPAP, BiPAP). Outpatient visits' costs included labor costs, overheads, consumables related to the OSAHS patients. The bottom-up approach and the patients' perspective have been used. RESULTS: A total of 262 males and 78 females, mean aged 55,9 ( $\pm$ SD12,4) years participated in this study. Overall mean annual cost reaches approximately €1.685,90 per patient out of which 15% is paid by NHS, 64% by social funds and 21% by patients' out-of-pocket payments. The major cost driver is devices' purchase (66.55%). Patients' out of pocket spending for the purchase of the BiPAP ranges from 5% to 48.6% and of the CPAP from 0% to 33.5% depending on the social fund in which the patient belongs. CONCLUSIONS: Variations are found among patients' social insurance coverage related to the purchase of both devices as well as severe inequalities in patients' cost sharing among the various funds. Further research is needed in similar sleep laboratories in Greece.

### PHS30

# HEALTH CARE COSTS IN PSORIATIC ARTHRITIS (PSA) PATIENTS NEWLY INITIATED ON A BIOLOGIC DISEASE-MODIFYING ANTI-RHEUMATIC DRUG (DMARDS) OR METHOTREXATE (MTX)

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**OBJECTIVES:** To describe health care costs associated with the management of PsA in patients newly initiated on a biologic DMARD or MTX. METHODS: Adult patients with  ${\geq}2$  PsA diagnosis (from office visits), continuously enrolled  ${\geq}6{\text{-month}}$  preand ≥12-month post-index date (i.e., first biologic DMARD/MTX prescription date), and no diagnosis for ankylosing spondylitis were selected from the MarketScan Commercial Claims database (2005-2009). MTX initiators were required to be both biologic and non-biologic DMARD naïve prior to index date. Biologic initiators were required to be biologic-naïve only prior to index date. All-cause and PsA-related total health care costs were estimated during the 12-month study period from a payer perspective (2011 USD). PsA-related medical cost was defined as costs associated with a claim with a PsA diagnosis or with DMARD administration by health care professionals. Office care and monitoring costs were defined as the sum of PsA-related outpatient and other medical services costs (excluding costs for drugs administration). Urgent care costs were defined as the sum of inpatient and emergency room costs. PsA-related pharmacy costs were defined as the sum of biologic and non-biologic DMARD costs. RESULTS: A total of 1,217 MTX initiators and 3,263 biologic initiators met the eligibility criteria. MTX initiators had an average annual total health care cost of \$14,329 where \$6,065 were PsA-related. Pharmacy costs accounted for 80.4% of total PsA-related costs; office care and monitoring costs for 16.3%; urgent care costs for 3.3%. Biologic initiators had an average annual total health care cost of \$30,282 and 67.5% were PsA-related. Pharmacy costs accounted for 92.7% of PsA-related total costs; office care and monitoring cost for 5.1%; urgent care cost for 2.3%. CONCLUSIONS: PsA patients initiating a DMARD incurred substantial health care costs. Although pharmacy costs accounted for most of the PsA-related costs, office care and monitoring costs represented a significant part of the PsA-related costs.

#### PHS31

## DETERMINATION OF THE ANNUAL HEALTH INSURANCE COST OF OUTPATIENT CARE PHYSIOTHERAPY SERVICES FOR MUSCULOSKELETAL AND CONNECTIVE TISSUE DISEASES

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OBJECTIVES: To evaluate the most frequent outpatient care physiotherapy services provided for musculoskeletal and connective tissue diseases and determine the total health care expenses of them. METHODS: Data were derived from the countrywide database of Hungarian Health Insurance Administration (HHIA), based on official reports of outpatient care institutes in 2008. The total numbers of different physiotherapy services were determined by selecting the reported specific diagnoses codes and counting the number treatments provided for that specific diagnosis code. The different types of treatment codes are listed in the chapter of the Guidelines of HHIA for 'Physiotherapists, massage-therapists, conductors and other physiotherapy practices'. The musculoskeletal and connective tissue diseases are listed in the International Classification of Diseases (ICD) with code of M00-M99. RESULTS: The total number of the 151 different types WHO-classified physiotherapy services was 29045736 in the year of 2008, 17455468 (60.1%) of them with the ICD code group M00-M99. The services with highest incidence are the followings: 1) ultrasound therapy 2011189 (11.52%); 2.) iontophoresis 1586016 (9.08%); 3) massage therapy with hand 1946364 (5.42%); 4) middle frequency electrotherapy 932474 (5.34%); and 5) passive motion therapy on multiple limbs 821314 (4.7%). The number of the 20 most frequent types of therapies was 14285957, which is the 81.84% of all cases. The total health insurance reimbursement of the treatments of diseases with ICD code M00-M99 was 4.713 billion Hungarian Forint (18.76 million EUR). CONCLUSIONS: The 60.1% of the total number of physiotherapy services were provided for the treatments of diseases with ICD code M00-M99, supporting the notion that physiotherapy is dominantly used in the treatment musculoskeletal diseases. The financial cost of the outpatient care physiotherapy of diseases with ICD code M00-M99 exceeded the 50% of the total budget provided for physiotherapy services.

### PHS32

## DETERMINATION OF THE ANNUAL HEALTH INSURANCE COST OF OUTPATIENT CARE PHYSIOTHERAPY SERVICES FOR TRAUMA PATIENTS

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<sup>1</sup>University of Pécs, Pécs, Hungary, <sup>2</sup>South-Trasdanubian Regional Health Insurance Fund Administration, Pécs, Hungary, <sup>3</sup>University of Pécs, Zalaegerszeg, Hungary, <sup>4</sup>National Institute for Quality- and Organizational Development in Healthcare and Medicines, Pécs, Hungary OBJECTIVES: To evaluate the most frequent outpatient care physiotherapy services provided for trauma patients and determine the total health care expenses of them. METHODS: Data were derived from the countrywide database of Hungarian Health Insurance Administration (HHIA), based on official reports of outpatient care institutes in 2008. The total numbers of different physiotherapy services were determined by selecting the reported specific diagnoses codes and counting the number treatments provided for that specific diagnosis code. The different types of treatment codes are listed in the chapter of the Guidelines of HHIA for 'Physiotherapists, massage-therapists, conductors and other physiotherapy practices'. The injuries caused by trauma are listed among with all type of injuries, poisoning and other external mechanisms in the International Classification of Diseases (ICD) code group of S00-T98. RESULTS: The total number of the 151 different types WHOclassified physiotherapy services was 29045736 in the year of 2008; 3188650 of them with the ICD code group S00-S99. The services with the highest incidence are the followings: 1) individual physiotherapy 352406 (11.15%), 2) muscle strengthening exercises 251398 (7.88%), 3) stretching of contractures 247442 (7.76%), 4. circulation enhancing physiotherapy 230930 (7.24%) and 5) exercises against resistance 210703 (6.61%). Of all body regions, the knee and the lower leg demanded the highest number of treatments (22.4%), followed with the shoulder (22.31%), elbow (18.7%) and wrist (14.18%); while the lowest number of services was required after the head (1.71%) and neck (0.67%) traumas. The total health insurance reimbursement of diseases with ICD code S00-S99 was 962 million Hungarian Forint (3.829 million EUR). CONCLUSIONS: The number of treatments accompanied diseases with ICD code S00-S99 in the year of 2008 shows a relatively low percentage ( $\sim$ 11%) of all physiotherapy services.

## PHS33

COST ANALYSIS OF DIALYSIS PRACTICE IN TURKEY

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OBJECTIVES: End stage renal failure is expected to become a major health problem for Turkey due to aging population and the increasing incidence of chronic diseases with renal effects. It was reported that end stage renal failure incidence with a need for transplantation has risen from 350 to 847 per million population from 1998 to 2009. In addition, the number of patients needing dialysis treatment has also risen from 3069 to 46659 for the same years. Dialysis treatment is predominantly in