

the most common bone disease and its incidence is rapidly increasing with the aging population. Even if curable, it is often left untreated causing a moderate use of economic resources that could be avoided.

#### PMS129

##### JOIN PROGRESS A EFFICIENCY PARTNERSHIP PROGRAM ON KNEE JOINT REPLACEMENT

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**OBJECTIVES:** Hospital Parc Tauli and Johnson & Johnson, partnered in a program to design and implant a fast track program for knee joint replacement. The objective was to decrease morbidity, functional convalescence, length of stay and increase patient and professionals satisfaction efficiently. **METHODS:** The implementation included 3 phases and two multidisciplinary Workgroups. Clinical aspects based on evidence, combined with organizational optimization, resources distribution and process redesign. Phase I: evaluation, nourished by Kaizen methodologies, Lean and 6 Sigma processes, Blum and Taylor laborer environment and Alex Faicknet Osborn group dynamics were taken under consideration. Phase II: Implantation, using Taylor dynamics to define the strategies to produce improvement on target indicators. Phase III: Monitoring, both from length of stay, security aspects such as morbidity, mortality, readmission rates, patient and professional satisfaction, and economic impact. **RESULTS:** The length of stay is influenced by factors such as patient profile and organizational aspects. Empowered patients are more active. A new patient pathway was developed, initiated when admitted to discharge and post-operative follow up. Improvement on healthcare results, increasing patient and professional's satisfaction, and reducing 50% length of stay, resulting on significant economical savings. **CONCLUSIONS:** Analyzing the patient pathway through an analysis methodology, reingeniering and diagnosis healthcare process (in outcomes and in direct cost), the patient involvement in the whole process can result not only in important efficiency improvement, but also improve the working environment and enhanced team work culture for a continuous process improvement.

#### PMS130

##### ESTABLISHING THE VALUE OF EMERGING BIOSIMILARS

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**OBJECTIVES:** The emergence of biosimilars for blockbuster therapies such as Remicade, Humira, Enbrel and Rituxan/MabThera is changing the paradigm by which traditional market access decisions are made for biologics. Furthermore, the regulatory pathway in Europe and the U.S. has raised uncertainties among clinicians regarding both the efficacy and safety of biosimilar molecules. The objectives of our research were to (1) understand the evolving mechanisms for biosimilar market access, (2) identify the key stakeholders involved in access decisions or influence and (3) determine the value drivers of biosimilars across diverse stakeholder groups. **METHODS:** A large sample of stakeholders (n=271) were engaged, including clinical specialists, payers and patients, across Europe and in the U.S. We performed in-depth qualitative interviews to gain an understanding of the current landscape for biologics and expectations for biosimilars, focusing on RA, Ulcerative Colitis, Crohn's Disease and Psoriasis. **RESULTS:** Our research indicates the fundamental understanding of biosimilars is inconsistent both within stakeholder groups and across different groups. Furthermore, for clinicians, a lack of accurate understanding of biosimilars can be a substantial driver of negative perception and a key barrier to anticipated adoption. Overall, each stakeholder group that will influence biosimilar market access has different value needs and expectations from biosimilars. **CONCLUSIONS:** Our findings highlight the need for a more consistent definition of biosimilar and clinical data requirements and a tailored approach to value communication for key influencers and stakeholders in the biosimilar value chain.

#### PMS131

##### STRATEGIES -BASED ON EVIDENCE- TO RATIONALIZE THE HIGH COST DRUGS NATIONAL LIST IN THE DOMINICAN REPUBLIC

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**OBJECTIVES:** In 2014, the budget for high cost drugs in Dominican Republic (DR) was USD 107 million, accounting for 51% of the MoH budget for medicines. Resources allocated for the 2015 budget were USD 49 million, leaving a shortfall of USD 62 million. The MoH requested technical assistance from the USAID funded SIAPS project to conduct an evidence based analysis of the 98 products included in the list. **METHODS:** Stage 1. Gathering of Evidence and Analysis; SIAPS consultant analyzed the therapeutic benefits and cost, and proposed 4 priority levels: Priority 1: Medicines included in the WHO Essential Medicine List; Priority 2: Included in the list of a Central America and DR procurement mechanism (COMISCA); Priority 3: Not included in the preceding groups but with scientific evidence of therapeutic benefits and approved by EMA and FDA; Priority 0: Medicines for which evidence on benefits was insufficient or for which better/cheaper alternatives were available. Stage 2. Review and approval by national scientific committee. During a two-day workshop, clinical specialists reviewed the proposed priority groups, consulted literature and proposed modifications supported by scientific evidence. **RESULTS:** In the plenary session, the scientific committee, agreed by consensus on the final version of the high cost drugs list to be procured in 2015. Of the 98 medicines, 22 were on the WHO list and 17 were on the COMISCA; 14 of the remaining 59 medicines were also included because there was scientific evidence of its benefits. Total of 45 medicines were removed by consensus, with a budget decrease of 53 % and savings of USD 21 million. **CONCLUSIONS:** A review -based on evidence- followed by a consensus reached with clinical specialists allowed to select the number of products to be

procured, provides alternatives to adjust the budget available and release financial resources for cost effective and sustainable interventions .

#### PMS132

##### GRAND-4: THE GERMAN RETROSPECTIVE ANALYSIS ON PERSISTENCE IN WOMEN WITH OSTEOPOROSIS TREATED WITH BISPHOSPHONATES OR DENOSUMAB

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**OBJECTIVES:** To be effective, osteoporosis (OP) therapy must be taken consistently and as prescribed. Persistence is critical for successful outcomes, including fracture risk reduction. Few studies compare the persistence of oral bisphosphonate (BPs), IV BPs and denosumab beyond 1 year. This retrospective database analysis evaluated 2-year persistence to oral BPs, IV BPs and denosumab following treatment initiation and the risk of treatment discontinuation. **METHODS:** From the German IMS@LRx database, we included women aged  $\geq 45$  years who initiated an OP treatment after 1-July-2010 (index date = treatment initiation) with  $\geq 2$  years of follow-up until 31-Dec-2014. Persistence (prescription refill gap  $\leq 60$  days and no drug switch) was measured for 2 years from index date, and a Cox proportional hazard regression model was used to estimate the risk of treatment discontinuation (i.e. non-persistence). **RESULTS:** Data from 159,993 women were included in the analysis. Two years after treatment initiation, 39.8 % of those receiving denosumab (n=21,154), 24.8 % receiving IV ibandronate (n=20,472), 21.2 % receiving IV zoledronic acid (n=3,966), and 16.7 % of those receiving oral BPs were persistent. Compared with those receiving denosumab, women receiving IV ibandronate or IV zoledronic acid were at higher risk of treatment discontinuation (HR [95% CI]: 1.65 [1.61-1.69] and 1.28 [1.23-1.33] respectively; p<0.001 for both). Moreover, women treated with oral BPs vs denosumab showed a two-fold risk of treatment discontinuation (HR [95% CI]: 2.02 [1.98-2.06] for alendronate, 2.02 [1.95-2.09] for ibandronate and 1.96 [1.91-2.01] for risedronate; p<0.001 for all). **CONCLUSIONS:** In our database study of women initiating BPs (oral or IV) or denosumab in routine clinical practice, 2-year persistence was highest for denosumab (1.5-2 times higher). Moreover, compared to denosumab, women treated with oral or IV BPs were at higher risk of treatment discontinuation. Such improved persistence may improve clinical outcomes, including increased fracture risk reduction.

#### PMS133

##### SELF-REPORTED RHEUMATIC DISEASES AND EARLY RETIREMENT IN PORTUGAL

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**OBJECTIVES:** We aim to examine the association between self-reported RD and early retirement by using large real-world observational data in Portugal. **METHODS:** We used individual level data from the national, population-based EpiReumaPt study (September 2011 to December 2013). 10,661 inhabitants were randomly surveyed in order to capture and characterize all cases of RD within a representative sample of the Portuguese population, which were stratified by administrative territorial units (NUTSII). In this analysis we used all participants aged between 50 and 65 years old, near the official retirement age (N=2,792; females: 1,727). The association of self-reported RD and early retirement was tested using logistic regression. All estimates were computed as weighted proportions, in order to take into account the sampling design. **RESULTS:** 29.9% of the Portuguese population with ages between 50 and 64 years old were officially retired. Among these, 43.2% were retired due to ill-health, which in turn about a third (30.4%) was specifically due to RD. Thus, 13.1% of all retirees self-reported RD as the main reason for early retirement. More than a third (34.2%; females: 46.3%) of all study population self-reported RD, being also more likely to self-report other main chronic disease (OR: 3.4; CI: 2.53-4.65; p<0.001). 35.2% of RD respondents were retired versus 27.2% of those non-RD (p=0.025). Prevalence of self-reported RD seems to be associated with early retirement (unadjusted OR: 1.45; CI: 1.05-2.01; p=0.025). Some other characteristics are also associated with early retirement, in particular older age, male gender and presence of other chronic diseases. RD association tends to be independently associated with early retirement (adjusted OR: 1.41; CI: 1.03-1.95; p=0.031). **CONCLUSIONS:** These results are similar with previous data from the National Health Survey conducted in Portugal nearly a decade ago and confirms the impact that self-reported RD still have on early retirement.

#### PMS135

##### CHARACTERISTICS OF PATIENTS STARTING BIOLOGIC TREATMENTS FOR RHEUMATOID ARTHRITIS IN THE REAL WORLD: SYSTEMATIC REVIEW

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**OBJECTIVES:** To assess demographic and disease characteristics of rheumatoid arthritis (RA) patients starting treatment with biologic disease-modifying anti-rheumatic drugs (DMARDs) in observational studies. **METHODS:** Systematic review of published observational studies in adult patients with RA treated with one of three biologic DMARDs (etanercept, rituximab, tocilizumab). We identified eligible studies through electronic searches of the MEDLINE and EMBASE databases. Two reviewers screened the articles independently. We extracted study characteristics such as location and calendar period, demographics of study populations, dose, frequency and concomitant therapies, and baseline characteristics such as disease duration,