using a five-point Likert scale of agreement/disagreement. Patients were also asked if the treatment switch had been informed by the physician or the pharmacist. Basic descriptive statistics (frequencies and percentages) were calculated for all survey questions.

Results A total of 48 patients underwent the medication switch from RPV/FTC/TDF to RPV/FTC/TAF (43±9 years' old; 71% males; 75% born in Spain). Most patients (73%) reported understanding why the switch was made, 90% correctly identified that TAF was associated with reduced bone adverse effects and 83% correctly identified that TAF was associated with reduced renal adverse effects. Only 44% of the patients knew that their cholesterol levels might increase. In regard to the brief handout that was given to all patients, only 17% respondents reported receiving written information about the new medication. Ninety-eight per cent of the patients knew RPV/FTC/TAF must be taken with food and 90% knew that proton pump inhibitors were contraindicated.

Conclusion Patient education from an ambulatory clinic-based HIV specialist pharmacist resulted in high rates of patient satisfaction and understanding of the switch from TDF to TAF-containing ART.

REFERENCES AND/OR ACKNOWLEDGEMENTS

None.

No conflict of interest.

6ER-010

PUBLIC KNOWLEDGE AND PERCEPTION TOWARDS VACCINES IN ITALY

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10.1136/ejhp-pharm-2019-eahpconf.607

Background Vaccines are universally recognised as fundamental tools for guaranteeing public health. However, such programmes have come under scrutiny due to misinformation and anti-vaccine campaigns. Low rates of coverage were shown in Italy, therefore, in 2017 the government enforced 10 compulsory vaccines for children with the 2017–2019 National Vaccine Prevention Plan (PNPV). Even if mandatory vaccination is effective, such practice can create suspicion in the population, making communication in healthcare settings crucial to build back this trust.

Purpose The objective was to determine public knowledge and perception towards vaccinations.

Material and methods A semi-structured questionnaire (12 closed questions, one open-ended question) was distributed to a sample of Italian adult citizens (September 2017–May 2018).

Results One-hundred and fifteen citizens were included (68% females, mean age 40.7±13.2, 54% had at least one child, 53% had a degree). Ninety-one per cent were in favour of vaccinations, associating them with a sense of protection from diseases (84%), 9% expressed doubt while no one was against vaccines. Seventy per cent reported to know how vaccinations work by information that has been obtained through healthcare workers (61%) and the internet (27%). Fifty per cent reported direct or indirect experience with adverse reactions (ADRs) even if only one case was serious; 80% reported that they agreed with the PNPV; 87% stated they knew why vaccinations became compulsory; and 65% thought vaccinations which were included in the PNPV also protect against diseases

that can be brought by immigrants. Ninety-one per cent knew the reason why they received vaccination and 72% had been informed by the clinician about the PNPV. Five per cent reported that all vaccinations were the same, while only 33% knew that anti-HPV vaccination was mandatory also for teenage boys (recent introduction). Thirty-three per cent were concerned about serious ADRs and allergic reactions, while 34% reported no fears concerning vaccination.

Conclusion The analysis has shown that people are in favour of vaccination, however there are strong concerns about side effects and limited knowledge about the diseases that are prevented through vaccination. Therefore, the results highlight the need for information campaigns about vaccinations by healthcare workers where hospital pharmacists are in a pivotal position to increase awareness about the importance of vaccinations.

REFERENCES AND/OR ACKNOWLEDGEMENTS

None.

No conflict of interest.

6ER-011

MODELLING THE IMPACT OF DISCOUNTS ON THE REAL-LIFE COST-EFFECTIVENESS OF BIOLOGIC THERAPIES IN THE TREATMENT OF MODERATE-TO-SEVERE PLAQUE PSORIASIS IN SPAIN

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10.1136/ejhp-pharm-2019-eahpconf.608

Background Biologic therapies represent a significant advance in the treatment of plaque psoriasis. However, these therapies come at a high cost, making evaluation and comparison of each therapies' cost-effectiveness crucial to ensure effective allocation of resources.

Purpose To evaluate the cost-effectiveness of biologic therapies in plaque psoriasis by taking real-world evidence (RWE) on discontinuation and dose adjustment into account in Spain. In addition, the study looked to assess the impact of different levels of discounts on cost-effectiveness.

Material and methods A model was developed which incorporated the probability of treatment discontinuation and dose adjustment with brodalumab, ixekizumab, secukinumab, ustekinumab, adalimumab, etanercept and infliximab over 2 years. The probability of discontinuation and dose adjustment in each case was calculated every 4 weeks based on a literature review of RWE. For brodalumab and ixekizumab, a discontinuation rate of 1% per 4 weeks was assumed in the base case as no RWE is currently available. The effectiveness of each treatment was based on a network meta-analysis. Only direct costs of therapy were considered (list prices). Sensitivity analyses were conducted with different levels of discounts. Cost-effectiveness was assessed as the cost per patient with complete clearance (PASI 100).

Results The modern anti-IL-17 biologic therapies were highly cost-effective compared to the anti-TNFs and anti-IL-12/23. In the base case analysis, the average cost per PASI 100 responder was highest for etanercept at €526,800, followed by ustekinumab (€154,170), adalimumab (€137,511), infliximab (€125,467), secukinumab (€88,100), ixekizumab (€68,467) and brodalumab (€62,165), respectively. Sensitivity analyses indicated that discounts of approximately 80% for etanercept, 40% for ustekinumab, 35% for adalimumab and 30% for

infliximab, respectively, were necessary in order to achieve similar levels of cost-effectiveness as secukinumab, whereas discounts as high as 90% for etanercept, 60% for ustekinumab, 55% for adalimumab and 50% for infliximab were necessary to reach similar levels of cost-effectiveness as ixekizumab and brodalumab.

Conclusion According to this economic model, modern anti-IL-17s are highly cost-effective compared to anti-TNFs and anti-IL-12/23. Though discounts may be a way of making anti-TNFs and anti-IL-12/23 more cost-effective, this study indicates that very high levels of discounts would be necessary to achieve this.

REFERENCES AND/OR ACKNOWLEDGEMENTS

None.

Conflict of interest Corporate-sponsored research or other substantive relationships: employee at LEO Pharma.

6ER-012 EFFICACY AND SAFETY ANALYSIS OF ALEMTUZUMAB IN RELAPSING-REMITTING MULTIPLE SCLEROSIS

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10.1136/ehjpharm-2019-eahpconf.609

Background Alemtuzumab is a humanised monoclonal antibody against CD52 approved for relapsing-remitting multiple sclerosis (RRMS), which is a progressive illness affecting the central nervous system (CNS).

Purpose The objective of the present study was to evaluate the efficacy and safety of alemtuzumab.

Material and methods A retrospective study was carried out in a university hospital. Patients treated with alemtuzumab were included for the November 2016–November 2017 period. Data was drawn from clinical digital history and visits from the outpatients module. Demographic data (age, gender), clinical data (diagnosis, previous treatments, number of cycles, Expanded Disability Status Scale (EDSS) before and after treatment, number of relapses since the start of alemtuzumab, MRI lesions' evolution) and safety data (adverse events (AE), blood tests) were registered.

Results Twenty-five patients were found, 20 (80%) of whom were females. Mean age was 41.5 (± 9.3). Twenty-three patients (92%) had a diagnosis of RRMS, one (4%) secondary progressive and one (4%) primary progressive. All patients went through the second infusion cycle during the studied period. Twenty-one patients (84%) had received a mean of the previous treatments of 1.9 (± 1.1), the rest of them were naïve. Mean EDSS before treatment was 4.7 (± 1.7) and after was 3.5 (± 2). Between the first and second cycle (1 year), none of them had a relapse. Confirmed by MRI, 16 patients (64%) had a reduction in CNS lesions and six (24%) had no change. The most reported AE during infusion were migraine: 14/25 patients; rash: 9/25 patients; fever: 5/25 patients; pruritus: 3/25 patients; and hypotension 3/25 patients. After infusion, the most reported AE were rash: 12/25, asthenia: 6/25, upper respiratory infection: 5/25, candidiasis: 4/25 and insomnia: 4/25. In blood tests, 100% had lymphopaenia, with a mean duration of 6.3 months (± 3.7) after the first cycle and 4.9 months (± 2.9) after the second cycle.

Conclusion Alemtuzumab seems to be an effective treatment for RRMS as shown by the reduction in EDSS before and

after treatment, any relapse between cycles in our population and lesion reduction in the 64% of patients and no change in 24% of patients. Most of the AE were mild, with migraine being more prevalent during infusion and rash after it.

REFERENCES AND/OR ACKNOWLEDGEMENTS

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5522829/>

No conflict of interest.

6ER-013 A PILOT RANDOMISED DOUBLE-BLINDED PLACEBO-CONTROLLED TRIAL OF PROPHYLACTIC SILDENAFIL IN PRETERM INFANTS AT RISK OF BRONCHOPULMONARY DYSPLASIA

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10.1136/ehjpharm-2019-eahpconf.610

Background Bronchopulmonary dysplasia (BPD) is associated with poor long-term neurodevelopmental outcomes and an increased readmission risk because of respiratory conditions. Since the 2005 FDA approval of sildenafil for adults with pulmonary artery hypertension, and despite a 2012 black box warning against long-term use in 1–7 years' old children due to increased risk of death at high doses, there has been an increasing trend of utilising the off-label preparation of sildenafil in infants.

Purpose A proof-of-concept randomised double-blind pilot study was conducted to investigate the use of sildenafil in preventing BPD in preterm infants.

Material and methods The pilot trial was conducted in the neonatal intensive care unit of the Women's Wellness and Research Center. Infants with a gestational age of 24^{0/7}–29^{6/7} weeks were eligible if they needed respiratory or oxygen support greater than or equal to 25%, and if they were at post-natal age of <24 hours at randomisation. Forty preterm infants were randomly assigned to receive off-label oral sildenafil (0.5 mg/kg every 6 hours) or a placebo solution, for 1 week. The primary endpoints were the incidence of BPD and death at 36 weeks postmenstrual age (PMA), and the occurrence of side effects. Secondary outcomes included the incidence of BPD and the provision of respiratory support at day 28 of life; duration of oxygen use; fraction of oxygen used at 36 weeks' PMA and 28 days of life; duration of hospitalisation; the incidence of significant retinopathy of prematurity; and severe intraventricular haemorrhage, periventricular leukomalacia, necrotising enterocolitis, patent ductus arteriosus and sepsis.

Results No significant differences were observed between the sildenafil and placebo study groups in mortality (10% vs. 20%, $p=1.00$), respiratory support (30% vs. 25%, $p=0.57$) and side effects (0% vs. 0%) at 36 weeks' PMA. No significant differences were also detected with any of the secondary outcomes.

Conclusion The off-label use of oral sildenafil did not demonstrate benefits in the prevention of BPD nor in reducing mortality in the extreme and very preterm infants. Future studies are needed to support the current off-label use of sildenafil in preventing BPD in this extremely vulnerable population.