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

M Murillo Izquierdo, I Castañeda Macías, M Vázquez-Real, L Rendón De Lope*, J Cordero Ramos, C Castillo Martín. *Hospital Universitario Virgen Macarena, Pharmacy Department, Seville, Spain*

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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

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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

¹F Abou-Nahia, ¹R Abu-Jarir, ²M Abou-Nahia, ³D Al-Badriyeh, ²D Abushanab*, ⁴M Abu-Ghalwa, ¹A Mansour, ¹B Kurdi, ⁵H Al Rifai. ¹Hamad Medical Corporation, Neonatal Intensive Care Unit Department, Doha, Qatar; ²Hamad Medical Corporation, Pharmacy, Doha, Qatar; ³Qatar University, College of Pharmacy, Doha, Qatar; ⁴Hamad Medical Corporation, Neonatal Intensive Care Unit Department, Doha, Qatar; ⁵Hamad Medical Corporation, Neonatal Intensive Care Unit, Doha, Qatar

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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.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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No conflict of interest.

6ER-014 PLATELET-RICH PLASMA: WHAT ARE WE REALLY ADMINISTERING TO OUR PATIENTS?

¹R Álvarez Sánchez*, ²MDM Villanova Lopez, ³M Nuñez-Nuñez, ⁴M Murillo-Izquierdo, ⁵J Donaire, ⁶M Cameán, ⁷S Sandoval. ¹Hospital La Linea de La Concepcion, Pharmacy, Hospital San Cecilio, Spain; ²Hospital Hospiten Estepona, Traumatology, Estepona, Spain; ³Hospital San Cecilio, Pharmacy, Granada, Spain; ⁴Hospital Virgen Macarena, Pharmacy, Seville, Spain; ⁵Hospital La Linea de La Concepcion, Traumatology, La Linea de La Concepcion, Spain

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Background Platelet-rich plasma (PRP) has been shown to clinically accelerate the healing of both soft and hard tissues, although its analgesic and anti-inflammatory (AA) activity yields in its concentration on blood-cell counts and certain grown factors. In 2013 PRP changed its condition and aquired the classification of 'medicine' by the drug authorities. Preparation in an open manner is allowed under certain conditions, although techniques are not standarised for its composition.

Purpose We sought to describe and analyse our PRP prepared in our facilities.

Material and methods Following GMP practice guidelines, PRP was manufactured under an open technique. 100 g for 10 min conditions were applied. For each patient, 70 ml of peripheral blood were extracted and 14 ml of PRP was obtained. Cell counts and the contents of vascular endothelial growth factor (VEGF), platelet-derived growth factor AB (PDGF-AB), transforming growth factor beta 1 (TGF-β1), interleukin beta 1 (IL-1β) and insulin growth factor (IGF) concentration of growth factors in PRP were analysed.

Results Seventy-four patients were included. In table 1, peripheral blood sample and PRP composition are shown. Concentration and percentage recovery were 2.28 (2.15–2.36) and 45.6 (43.15–47.14) for platelets; 0.45 (0.39–0.6) and 9.17 (7.83–11.93) for white cells; and 0.01 (0.01–0.01) and 0.22 (0.18–0.29) for red cells, respectively.

Abstract 6ER-014 Table 1 Peripheral blood

	Median	Desv. tip
Hematies (x 10 ⁶ /μl)	4.67	0.46
Haemoglobina (g/dl)	13.81	1.41
Hematocrito (%)	42.57	3.93
Leucocitos (x 10 ³ /μl)	7.33	1.68
Plaquetas (x 10 ³ /μl)	261.53	78.97
Platelet-rich plasma		
Hematies (x 10 ⁶ /μl)	0.053	0.02
Haemoglobina (g/dl)	0.059	0.11
Haematocrito (%)	0.289	0.15
Leucocitos (x 10 ³ /μl)	3.870	2.11
Plaquetas (x 10 ³ μl)	586.216	153.20
IGF (ng/ml)	75.031	32.48
PDGF AB (pg/ml)	17888.097	7475.56
TGFβ-1 (pg/ml)	33484.448	20595.47
VEGF (pg/ml)	553.417	2052.27
IL1B (pg/ml)	230.000	1884.55

Conclusion We obtained high concentration and percentage recovery rates of platelets and poorer rates for the rest of the blood cells (optimal effect) and a significant amount of the pre-selected grown factors proved to be involved in the AA effect of PRP.

REFERENCES AND/OR ACKNOWLEDGEMENTS

None.

No conflict of interest.

6ER-015 IMPACT ON PAIN MANAGEMENT AFTER A SINGLE VISCOSUPPLEMENTATION INTRAARTICULAR INJECTION IN PATIENTS WITH HIP OSTEOARTHRITIS WHO FAILED CONVENTIONAL TREATMENT

¹MDM Villanova Lopez, ²M Nuñez-Nuñez, ³M Murillo-Izquierdo, ⁴AS Raquel*, ⁵J Donaire, ⁶S Sandoval, ⁷M Camean Fernandez. ¹Hospital Hospiten Estepona, Traumatology, Estepona, Spain; ²Hospital San Cecilio, Pharmacy, Granada, Spain; ³Hospital Universitario Virgen Macarena, Pharmacy, Seville, Spain; ⁴Hospital La Linea, Traumatology, La Linea De La Concepcion, Spain; ⁵Hospital Virgen Macarena, Pharmacy, Seville, Spain

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Background Viscosupplementation intraarticular injection with hyaluronic acid (HA) and platelet-rich plasma (PRP) has been shown to improve pain management in osteoarthritis.

Purpose We sought to describe the impact on analgesic consumption and VAS score after a single viscosupplementation intraarticular injection in patients with hip osteoarthritis.

Material and methods Randomised controlled trial to compare the clinical efficacy and safety of a single ultrasound-guided intraarticular injection with autologous PRP versus HA in hip osteoarthritis was performed with a 1 year follow-up (four visits: baseline, 1, 4, 24, 48 weeks). Variables studied included the reduction in: VAS score, analgesic drugs' consumption in doses (defined as total daily-defined-doses and type categorised according to OMS scale: type I, II and III for opioids).

Results A total of 74 patients were randomly assigned to two groups and received one single injection, PRP (38 patients), HA (36 patients). Table 1 shows reduction in analgesic drugs' consumption per group of treatment.

Within the first month, a significant reduction was shown in VAS score for both treatment arms in respect to last visit: 4 (2–6) vs. 7 (5–8) in PRP and 4.5 (2–7) vs. 7 (5–8) in HA; p<0.01. The 42.8% and 35.7% improvement in the PRP and HA groups, respectively, decrease to 28.5% in visit 3 for both arms. Pain management decrease although safer a year of follow-up baseline levels were not achieved and only 3/74 (4%) patients decided to go for surgery during the follow-up period. No adverse events were observed in any of the treatment groups.

Conclusion Viscosupplementation with a single intraarticular injection with HA and PRP seem to be a safe and effective treatment option in improving pain management in hip osteoarthritis, ensuring a delay in surgery. Although the PRP cohort presented better profiles, no significant differences were found with the HA cohort.

REFERENCES AND/OR ACKNOWLEDGEMENTS

None.

No conflict of interest.