effective. Relapse was defined as loss of effectiveness. Safety was evaluated according to the adverse effects (AE) profile.

Results During the study period, 32 patients were included, eight were male (25%)and 24 were female (75%). Mean age was 45 (18–79) years. Previous treatment consisted of antihistamines in 10 (31%) patients, antihistamines+corticoids in nine (28%), and antihistamines+corticoids+ antileukotrienes in 11 (34%). The initial UAS7 was >15 in all patients, and in 11 (34%) cases it was >25. Effectiveness was not evaluated in two patients due to lack of information. Initially all patients received 300 mg of omalizumab once a month for 6 months, and after this time 26 (81%) patients achieved a UAS7 ≤6. Nineteen (59%) patients relapsed after a mean time of 4 (1–14) months, and received a 6 month retreatment. After retreatment 12 (38%) patients reached UAS7 ≤6. Subsequent maintenance was required in 14 (44%) patients, with a dose of 300 mg in six (19%) patients and 150 mg in eight (25%). After 6 months of maintenance treatment UAS7 was ≤6 in 10 (31%) patients. In four (12%) cases UAS7 was never ≤6, and no AE were reported during the treatment.

Conclusion Omalizumab was effective in most cases after a 6 month treatment, but more than a half of the patients required retreatment. Maintenance with lower doses was used in a considerable percentage of patients. Tolerance was excellent, without AE being found.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-182 EXPERIENCE WITH OMALIZUMAB IN THE TREATMENT OF UNCONTROLLED PERSISTENT ASTHMA

JJ Martínez Simón*, EA Álvaro Alonso, I Plo Seco, S Prieto Moix, M Pérez Encinas. *Hospital Universitario Fundación Alcorcón, Hospital Pharmacy, Alcorcón, Spain*

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Background Allergic asthma is the most prevalent phenotype of severe asthma in which treatment with omalizumab has been proven to be beneficial.

Purpose Analyse the effectiveness, efficiency and safety of omalizumab in patients with uncontrolled moderate-to-severe asthma.

Material and methods Retrospective observational study of all patients with uncontrolled persistent asthma who received omalizumab for at least 52 weeks from March 2007 until September 2018. Variables: age, sex, diagnosis, baseline IgE levels, FEV1 (baseline and at 52 weeks after omalizumab); number of exacerbations (NEX), corticosteroid cycles (CC) and emergency visits (EV) 12 months prior to omalizumab and at 12 months after, duration, discontinuation and side effects; and ACT quality of life questionnaire after last administration. The main variable was the reduction in NEX and as secondary variables reduction in CC and EV. Efficiency was estimated by the reduction in EV/patient cost.

Results Thirty-six patients were included, 67% females, mean age 44.2 years (SD=16.9). Sixteen patients were diagnosed with asthma moderate-severe and 20 severe. Mean IgE level was 590.7 IU/ml (SD=1210.2). Seventy per cent of patients had FEV1 <80%. In the 12 months prior to omalizumab the mean NEX, CC and EV was 4.5 (SD=3), 4.4 (SD=3) and 2.2 (SD=1.8), respectively. NEX at 52 weeks was 0.6 (SD=0.9), a significant difference compared to the baseline. CC was reduced to 0.7 (SD=0.9) and mean/patient EV to 0.3 (SD=0.6). Average treatment duration was 52 months (SD=30) and treatment was discontinued in 20 patients, three of those because of efficacy, 12 for inefficacy, one after poor tolerance (diarrhoea, myalgias and tremors) and four for hospital change. Except for one patient, the rest showed good tolerance to omalizumab. Fifty per cent of patients with decreased lung function reached FEV1 >80% at 52 weeks. After the last administration of omalizumab, 72% of patients were under control or reasonably well controlled and 28% not well controlled. The mean cost of asthma EV/patient prior to omalizumab was € 422.9 (SD=356.8) and after omalizumab € 97.2 (SD=247.4).

Conclusion This analysis shows that omalizumab decreases NEX and CC, achieving a substantial improvement in patients with uncontrolled moderate-to-severe asthma, as well as a reduction in the direct costs of EV. Interruption of treatment in three patients suggests that the effects of omalizumab may persist over time.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-183 COLLABORATION WITH THE OPHTHALMOLOGY SERVICE IN A PUBLIC RESIDENTIAL CARE HOME

[1]MB de-la-Nogal-Fernandez*, [2]P Soler-Bartrina, [2]AV Sanchez-Ferreiro, [3]BC Lopez-Virtanen, [3]SDC Vazquez-Troche, [3]J Valdueza-Beneitez, [3]V Martinez-Fernandez, [3]M Noguerol-Cal, [3]H Casas-Agudo, [3]M Rodriguez-Maria, [4]R Mitchell. *[1]Hospital El Bierzo, Hospital Pharmacy, Ponferrada, Spain*; *[2]Hospital El Bierzo, Servicio de Oftalmologia, Ponferrada, Spain*; *[3]Hospital El Bierzo, Servicio de Farmacia, Ponferrada, Spain*; *[4]Hospital del Bierzo, Fisioterapia, Ponferrada, Spain*

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Background Due to the age and clinical situation of the residents in the nursing home, the collaboration with specialists guarantees continuing care.

Purpose Describe the collaboration of the hospital ophthalmology department in resolving queries or consultations concerning the ophthalmological medication used by the residents in the public nursing home of the referential area.

Material and methods A proposal was presented to the ophthalmology service in December 2017. Two doctors collaborated. A transverse study was carried out in January 2018 with residents using eye-drop treatments and their medical records were revised. Data about the use of medication of the S group (ATC codes) was collected between January 2015 and December 2017.The medications which can interact with ophthalmological diseases, e.g. glaucoma and cataracts, were revised, as were the adverse effects of the eye drops. Recommendations and improvement proposals have been sent.

Results In January 2018, of the 194 residents in the care home, 23 were receiving treatment with artificial tears and seven (average age 82.7 years) were being treated, chronically, with eye drops for glaucoma.

Of the seven patients, only three were being revised by the specialist. For the four residents without follow-up, the ophthalmologist suggested visiting the residence to measure ocular tension and visual acuity, and later book an outpatient appointment in 2018.

Of the seven patients in treatment: one was receiving quadruple therapy (carbonic anhydrase inhibitor, alpha-2adrenergic receptor, beta-blocker and prostaglandin analogues); two received triple therapy; three double therapy; and one received

monotherapy (prostaglandinanalogues). A therapeutic of beta-blockers and prostaglandin analogues was detected.

The greatest use of ophthalmological preparations (2015–2017) corresponded with lubricants, tobramycin-dexamethasone, tobramycin, diclofenac and latanoprost.

Regarding the medication which required to be taken into account with ophthalmological diseases, these were:

1. Anticholinergic drugs which can interact in patients with acute angle–closure glaucoma: hyoscine, tolterodine, tryciclic antidepressant, typical antipsychotic, hydroxycine. Topiramate can produce glaucoma.
2. Alpha–1 adrenergic blockers. The discontinuation (or cancellation or suspension) in cataract interventions needs to be evaluated, due to the risk of inter–operative flaccid iris syndrome.

Conclusion Collaboration with the ophthalmologists was found to be useful and guarantees continuing care and an efficient use of the resources, as well as the acquisition of knowledge.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Improvement of pharmacological treatments in nursing homes: medication review by consultant pharmacists ejhp.bmj.com/content/22/4/207

No conflict of interest.

4CPS-184 OFF-LABEL USES OF BEVACIZUMAB IN OPHTHALMOLOGY IN A MOROCCAN UNIVERSITY HOSPITAL

[1]O El Hamdaoui*, [2]H Elorch, [1]F Rahmaoui, [1]Y Bensouda, [1]Y Elalaoui. *[1]Faculty of Medicine and Pharmacy- Mohammed V University- Rabat- Morocco-, Hospital Pharmacy- Specialty Hospital., Rabat, Morocco; [2]Faculty of Medicine and Pharmacy- Mohammed V University-Rabat- Morocco-, Department of Ophthalmology. Specialty Hospital., Rabat, Morocco*

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Background Bevacizumab is an anti-vascular endothelial growth factor monoclonal antibody. Its off-label use has increased in the management of a variety of ophthalmology diseases.

Purpose The aim of this study was to analyse the off-label use of bevacizumab, outside of oncology indications, in the department of ophthalmology, in the Specialty Hospital of Rabat.

Material and methods Retrospective observational study including all ophthalmology patients under bevacizumab treatment between January 2017 and August 2018. Collected data were demographic- and treatment-related, the data were gathered from the medical records and from the pharmacy software.

Results Eighty-five patients (68.5% females, average age 62.66 ±13 years) received intravitreal administration of bevacizumab in hospital (100 mg/4 ml). The dose used was 2.5 mg (0.1 ml). All of the injections used were off-label.

Off-label indications identified were 65% (64/85) of diabetic macular oedema (DME), 20% (10/85) of age-related macular degeneration (AMD) and 15% (11/85) of macular oedema secondary to retinal vein occlusion (RVO). On average, 5±1.53 injections were used to treat DME, 10±2.15 injections for AMD and 7±3.42 injections for RVO.

The course of the disease was assessed by optical coherence tomography examination, which showed a 75% improvement in patients treated for DME, 60% of patients with OVR and 40% of patients with AMD.

During the study period, 32 vials were used to treat 85 patients (786 injections), on average 25 injections per vial (37.5% of volume lost per vial). Each vial cost € 230. If the corresponding number of vials had been used, the total cost would have been € 7360.

Cost per patient were € 46 (DME), € 92 (AMD) and € 65 (RVO). Cost per diseases were € 2944 (DME), € 920 (AMD) and € 708 (RVO).

Compared to Lucentis (ranibizumab), has a label use for these pathologies. The cost differences are significant at about € 6 per injection for Avastin and € 800 per injection for Lucentis.

Conclusion The off-label use of bevacizumab appears to be useful as a salvage treatment for ocular diseases. The high economic impact makes it necessary to rationalise bevacizumab prescription and to prepare a pre-filled syringe in the pharmacy to prevent loss of volume and to reduce the risk of infection.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

4CPS-185 THE EFFECTIVENESS OF ENZYME REPLACEMENT THERAPY IN THE MANAGEMENT OF GAUCHER DISEASE

[1]H Attjioui, [2]A Cheikh, [1]Z Aliat, [1]M Lazrak, [1]I Bennani, [3]H Mefetah, [1]M Bouatia*. *[1]Mohammed V University-Faculty of Medicine and Pharmacy of Rabat, Chis, Rabat, Morocco; [2]Abulcasis University, Pharmacy, Rabat, Morocco; [3]Paediatric Hospital, Pharmacy, Rabat, Morocco*

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Background Gaucher disease is a rare genetic disorder, due to a deficiency of glucocerebrosidase activity. It is most often manifested by hepatosplenomegaly, haematological and biochemical disorder. First-line treatment is based on enzyme replacement therapy (ERT).

Purpose To evaluate the tolerance and effectiveness of ERT in children with type 1 Gaucher disease.

Material and methods We report the case of four patients with type 1 Gaucher disease treated with ERT (once every 15 days) at the neuro-metabolic diseases unit of our hospital. The evaluation was performed on the basis of primary effectiveness variables (haemoglobin concentration, platelet count, liver parameters) and the reporting of adverse events.

Results There were three girls and one boy, whose clinical signs were manifested by hepatosplenomegaly and haematological disorder in all patients.

Patient 1: 9-year-old girl, early diagnosis,1 year of treatment with imiglucerase, 5 months of interruption and resumption of ERT.

Parameter	Before ERT	During ERT	% change of parameters
Haemoglobin (g/dl)	10.7	13	+21%
Platelets x109/l	95	195	+105%
AST	49	24	−51%
ALT	24	19	−20%

Patient 2: 17-year-old girl, 10 months of treatment with imiglucerase.

Parameter	Before ERT	During ERT	% change of parameters
Haemoglobin (g/dl)	8.5	10.6	+25%
Platelets x109/l	41	391	+800%
AST	22	19	−13%
ALT	6	6	0%