

related cytokines play in it are not yet defined as some of them are pro-angiogenic. Local and systemic inflammatory molecules are being proposed as potential biomarkers of n-AMD progression.

Aim and objectives The aim of this study was to evaluate cytokine values after the ranibizumab loading phase in patients with n-AMD.

Material and methods Prospective, observational study of n-AMD patients with criteria to initiate treatment with ranibizumab. A blood test was performed at the initial visit (prior to the first administration of ranibizumab) and after finishing the loading doses (4 months). Demographic, clinical and blood analytical parameters (C-reactive protein (CRP), β 2-microglobulin, tumour necrosis factor (TNF), interleukins rIL-2, IL-5, IL-6, IL-8 and IL-10) were obtained through electronic medical records. Statistical analysis was performed using Student's t-test (SPSS Statistics V.26, IBM Inc.).

Results A total of 45 patients were included (40% men). Mean age was 80 ± 8 years. 41 patients responded to treatment (14 partially), 2 did not respond to treatment and 2 did not finish the loading phase. Visual acuity obtained a statistically significant improvement in responder patients (EDTRS: 56 ± 17 vs 63 ± 16 , $p < 0.002$).

In responders, changes in cytokine serum levels did not reach statistically significant differences between the initial visit and after the loading phase ($p > 0.05$): TNF (8.97 ± 2.78 vs 9.04 ± 3.75 pg/mL), CRP (0.323 ± 0.387 vs 0.324 ± 0.332 mg/dL), β 2-microglobulin (2.77 ± 0.92 vs 2.85 ± 0.95 mg/L), IL-6 (6.6 ± 3.3 vs 6.5 ± 6.1 pg/mL), rIL-2 (516.0 ± 213.9 vs 529.6 ± 224.9 U/mL). Although IL-8 (51.46 ± 66.5 vs 85.95 ± 115.1 pg/mL) showed an increase after the loading phase, it did not reach statistical significance ($p = 0.088$). IL-5 and IL-10 remained undetected over time in both responders and non-responder patients.

Conclusion and relevance Changes at the end of the loading phase in IL-6 and IL-8 have been described previously with the administration of anti-angiogenics. In our case, no differences were detected, probably due to the low sample size. More studies will be necessary to determine the prognostic potential of the change in systemic cytokines as a response parameter in patients treated with anti-angiogenics in AMD.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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Conflict of Interest No conflict of interest

6ER-028 MARKET EXCLUSIVITY EXPIRY HAS LIMITED EFFECT ON PRICES OF BRAND-NAME ORPHAN DRUGS

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Background and importance R&D and market entry for orphan medicinal products (OMPs) are incentivised with a 10-year market exclusivity period as stated in Regulation (EC) No 141/2000. Notably, OMP prices often remain high after market exclusivity expiry (MEE). This has led to societal debate on OMP pricing. However, transparency on the

purchase prices of OMPs is lacking due to confidentiality issues. Research on OMP prices is needed to support policymaking.

Aim and objectives Our research aimed to explore trends in both list prices and purchase prices of brand-name OMPs before and after market exclusivity expiry in Western European countries.

Material and methods Annual average list prices and purchase prices of brand-name OMPs from a number of university hospitals were collected. The selection of OMPs was in accordance with our research protocol – published EJHP. To capture confidentiality constraints, the annual average price in the year of market exclusivity expiry (MEE=0) was set as index year ($p=100\%$) for list prices and purchase prices separately. Proportions were then created to illustrate price trends over time. **Results** 14 OMPs were included. A first analysis including four hospitals demonstrated that 2 years after market exclusivity expiry (MEE+2), list prices had dropped on average by 2.01% compared to list prices in the year of market exclusivity expiry (MEE=0) and purchase prices increased on average by 0.09% compared to purchase prices at MEE=0. Three years after market exclusivity expiry (MEE+3), list prices dropped on average by 0.56% compared to list prices at MEE=0 and purchase prices increased on average by 0.09% compared to purchase prices at MEE=0.

Conclusion and relevance List prices of brand-name OMPs have dropped very modestly in the first years after market exclusivity expiry compared to the list prices at the times of market exclusivity expiry. The purchase prices of brand-name OMPs even increased slightly on average in the first years after market exclusivity in our dataset. This potentially implies a lack of incentives for pharmaceutical companies to lower prices after market exclusivity expiry. Additional data collection is required to draw more robust conclusions.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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6ER-029 DEVELOPMENT OF A LUDO-PEDAGOGIC TRAINING PROGRAMME FOR THE MANAGEMENT OF A ROBOTISED SYSTEM FOR CYTOTOXIC COMPOUNDING

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Background and importance A robotised system was acquired to automate part of the chemotherapy production. Continuous training of operators is a challenge and we observed an increase of disparity in operators' knowledge over time. Less trained operators became reluctant to use the system.

Aim and objectives To create a short, playful, standardised and sustainable training on the robot and to evaluate its impact on our operators.

Material and methods The Kern cycle was used to set up the training created with LearningDesigner software. Participants answered a survey on their knowledge about technology. Knowledge about the robot was assessed by a 0-to-24 scale

Abstract 6ER-029 Table 1

Criteria (mean (SD))	Before	After	6 months
Knowledge (0–24)	13.7 (5.7)	18.5 (3.1) ($p=0.002$)	18.4 (4.1) ($p=0.004$)
Confidence (0–100)	48.5 (40.1)	75.6 (19.2) ($p=0.013$)	60.2 (38.1) ns
Motivation (0–100)	57.6 (39.2)	86.6 (11.7) ($p=0.024$)	70.4 (33.6) ns

questionnaire. Operators were classified as mentor or apprentice. Motivation and confidence were recorded on 0-to-100 scales. These three criteria were also assessed after the training and after 6 months. Satisfaction was collected on a six-point Likert scale.

Results Three games were created for a 1 hour 30 min training with pairs of players. (1) Game ‘knowing the manufacturing steps’: the 16 steps of the process were printed on cards to put back in the right order. (2) Game ‘knowing the criteria for using a molecule with the robot’: fake Pokémon cards presenting a molecule and its specificities (stability, viscosity, usual dosage, etc.) were created. Teams should guess if the molecule can be used with the robot and why. (3) Game ‘knowing how to handle errors during production’: inspired by the ‘Who Wants to Be a Millionaire?’ TV show. Four answers were suggested, issued from real-life problems. A debriefing followed every game. Seven mentor/apprentice teams participated. Participants strongly agreed that objectives, structure and subject were appropriate (80%), playful and interactive (83%). Table a presents the results (p is for before/after or before/6 months. ns, non-significant).

Conclusion and relevance For this complex tool, we created a short and playful training appreciated by operators. We showed an improvement of knowledge with a remembrance until 6 months. Confidence and motivation slightly decreased over time, highlighting the importance of adding a coaching during daily practice.

REFERENCES AND/OR ACKNOWLEDGEMENTS

Conflict of interest No conflict of interest

Section 7: Post Congress additions

11SG-009 IMPLEMENTATION AND EVALUATION OF TELEPHARMACY DURING THE COVID-19 PANDEMIC IN AN ACADEMIC MEDICAL CITY: PAVING THE WAY FOR TELEPHARMACY

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Background and importance A leading public healthcare institution implemented a disruptive innovation of telepharmacy in pursuit of compliance with the National COVID-19 Response Framework. It emerged and proved to be an essential and critical pillar in suppression and mitigation strategies. Telepharmacy innovation resulted in pharmacy staffing protection and provided uninterrupted access and care continuum to the pharmaceutical services, both for COVID-19 and collateral care.

Aim and objectives To evaluate the impact of implementing telepharmacy during the COVID-19 pandemic on the safety of pharmacy staff and patients.

Material and methods The Pharmacy Department redesigned a new workflow that combined both on-site and remote staff through a secured VPN access to our health information system (HIS) (figure 1). This new design prevents any direct interaction between pharmacist and patient or with other health care providers, and at the same time the new changes will not compromise patient safety and medication distribution.

Results The Pharmacy Department has the capacity to switch all outpatient prescriptions to be requested through the online portal and a total of 14 618 medication shipments were home delivered from 15 March to 10 June 2020. 14 618 medication shipments were delivered out of 25 520 online requests submitted; the difference between the number of delivered prescriptions and received requests was due to repeated submissions by patients or because the refill due date did not arrive.

WhatsApp Business has been initiated for direct communication between patients and pharmacists. A total of 10 030



Abstract 11SG-009 Figure 1

Abstract 11SG-009 Table 1

Parameter	Online refill
March 2020	3340
April 2020	9413
May 2020	4990
10 June 2020	7777
Total number of requests during 2019	488
Total number of requests in 2020	25 520
Total shipped 15 March to 10 June 2020	14 618
WhatsApp sent message	14 633
WhatsApp received message	26 613
Orders verified by remote access (outpatient)	4650
Orders verified by remote access (inpatient)	5380