

Abstract OHP-059 Table 1

Drug/Pathology	No. of patients treated	No. different dosages	Syringes made	Syringes consumed	Cost of full dosage form	Cost of individualization	Saving
Adalimumab/Rheumatoid Arthritis	3	2	70	35	€33,971.00	€17,519.31	€16,451.69
Anakinra/Juvenile Idiopathic Arthritis	6	9	2274	809	€58,680.57	€34,804.94	€23,875.63
Pegfilgrastim/Congenital Neutropenia	1	1	148	74	€92,352.00	€4,7263.84	€45,088.16

The results are expressed in the above table:

**Conclusions** Individualization of dosage represents both an optimization of resources and increased patient safety. Repackaging improves difficult-to-measure volume management, avoiding handling in unsuitable conditions by the patient.

No conflict of interest.

### OHP-060 PAEDIATRIC CLINICAL RESEARCH: CURRENT SITUATION AND PHARMACEUTICAL CONSTRAINTS IN FRANCE AND CANADA

doi:10.1136/ejhp-2013-000276.434

<sup>1</sup>A Guérin, <sup>1</sup>C Tanguay, <sup>1</sup>D Lebel, <sup>2</sup>S Prot-Labarthe, <sup>2</sup>O Bourdon, <sup>1</sup>JF Bussièrès. <sup>1</sup>CHU Sainte-Justine, Pharmacy, Montreal, Canada; <sup>2</sup>Hôpital Universitaire Robert-Debré, Pharmacy, Paris, France

**Background** Paediatric clinical research represents a challenge and faces particular pharmaceutical constraints.

**Purpose** The main objective was to describe the current pharmaceutical situation in paediatric clinical research in France and Canada. The secondary objective was to identify factors that discourage paediatric clinical research.

**Materials and Methods** Cross-sectional survey of 12 pharmacy departments from France and 12 from Canada with an online 50-question survey (June–September 2012). The median [minimum–maximum] was calculated for each country and compared using the Mann-Whitney or Fisher's exact test. Respondents were asked to rank, in order of importance from 1–10 (1 being the most important), factors that discourage paediatric clinical research.

**Results** There was a similar number of ongoing paediatric clinical trials in France and Canada (38 [10–81] vs. 20 [4–178],  $p = 0.205$ ). A lower number of pharmacists per hospital was observed in France (17 [11.5–35] vs. 45 [18.9–76.8],  $p = 0.009$ ), but a similar number of pharmacists were assigned to clinical trials (1.5 [1–3] vs. 1.9 [0.2–17.4],  $p = 0.921$ ). Institutional protocols represented the majority of paediatric clinical trials in France (61% [14–100] vs. 25% [0–100]). Similar services were offered, but the majority of French respondents offered help with institutional protocol development (91% vs. 50%,  $p = 0.063$ ). The majority of respondents reported that the payment provided by the investigators was insufficient to cover pharmaceutical support costs and that formulations were not easily obtained from manufacturers. Respondents from both countries ranked more highly the same factors that discourage paediatric clinical research, such as absence of financial interest from the pharmaceutical industry (median rank 2 [1–6] vs. 4 [1–10]), prohibitive cost versus profit ratio (2 [1–3] vs. 3 [2–9]), small patient cohorts per hospital (2 [1–7] vs. 4.5 [1–10]) and the non-availability of appropriate drug formulations (3 [1–9] vs. 5 [1–10]).

**Conclusions** Similar constraints were identified in France and Canada. Further studies are required to identify relevant incentives to better support pharmacists' role in paediatric clinical research.

No conflict of interest.

### OHP-061 PARENTERAL NUTRITION: STANDARDIZED PROCESS FROM PRESCRIPTION TO PREPARATION

doi:10.1136/ejhp-2013-000276.435

L Casorati, A Ragazzi, VM Conte, M Savoldelli, MG Ottoboni, D Ferla, TE Testa. "Ospedale Maggiore" di Crema, Pharmacy, Crema, Italy

**Background** It is widely recognised that Total Parenteral Nutrition (TPN) is essential for the patient's survival and not just for simple assistance. Therefore, it's important that sufficient attention is devoted to assessing the patient's nutritional status. The department of Pharmacy has always been involved in the management of TPN to support the clinical and therapeutic needs of the patient.

**Purpose** To facilitate the physician's delicate task of prescribing a balanced nutritional formula, identifying some standard formulas/recipes for parenteral nutrition bags.

**Materials and Methods** These standard prescriptions have been developed with a nutritionist and the Surgery team and they cover both peripherally administered (low osmolarity) and centrally administered (high osmolarity) solutions. Depending on the patient's clinical needs, we have standardised prescriptions with different volumes (2000 or 2500 ml). In addition to the patient's personal data and anthropometric information, these prescriptions already include all the necessary elements for a balanced diet, including calorie requirements, key macronutrients, proteins, water and micronutrients.

**Results** This review has provided standardised guidance and support to the medical staff in writing the prescriptions for TPN, also giving a range of choices in the initial nutritional approach to the patients. Standardized prescriptions offer a better balance of electrolyte content than those of ready-to use commercial formulations. This approach has improved familiarity with TPN throughout the hospital, by implementing the use of customised bags not only in critical care departments, leading to better cost management.

**Conclusions** The purpose of nutritional support is not only to avoid malnutrition and its complications, but also to change the pathogenic mechanisms of diseases. For a proper use of artificial nutrition it is necessary to have an in-depth knowledge of the problems of malnutrition. For this reason, it is essential to have a multi-disciplinary approach in which the pharmacist connects different functions.

No conflict of interest.

### OHP-062 PATIENT-ORIENTED CARE IN PHARMACY CONSULTATION CENTRE: ANALYSIS OF PHARMACIST INTERVENTIONS

doi:10.1136/ejhp-2013-000276.436

M Lzicar, K Buzkova, V Cilikova, J Coupkova, V Holub. St. Ann's University Hospital in Brno, Hospital Pharmacy, Brno, Czech Republic

**Background** The number of drugs used has increased in recent years. Some patients need an explanation of how to use their drugs and how to prevent medical errors. The pharmacy consultation centre in St. Ann University Hospital has offered a service for more than 11 years for in- and outpatients. They can consult pharmacists about their drug-related problems.

**Purpose** To analyse what the most frequent topics of consultations were in 2011 and 2012.

To find out how pharmacists provide counselling to patients by repeat cheque-up appointments.

**Materials and Methods** Patient records were examined retrospectively in 2011 and 2012 (January–September) looking at the number of visits, age and sex of patients, topics of patient questions. Pharmacists offered patients repeat cheque-up appointments to increase the compliance with recommendations.

**Results** The authors performed 85 consultations in the last two years for 47 patients (number of new patients: 25 in 2011, 22 in 2012). Median age was 64.5 years, 25 women and 22 men. Median

duration of consultation was 21 minutes. The most frequent topics of consultation: potential drug interactions 36%, correct use of drugs 19%, drug side effects 6.5%, weight loss 6.5%. Pharmacist interventions included the recommendation 'how to use it' 57.4%, replacement and/or discontinuation of drugs 6.4%, diet and lifestyle change 14.9%. The number of patients who visited the consultation centre repeatedly according to the recommendations, was 17 (68%) in 2011 and 13 (59%) in 2012.

**Conclusions** Patient-orientated care in pharmacy consultation centre enables us to prevent the patients from using the drugs incorrectly. Analysis of the data showed a variety of interventions by the hospital pharmacists, who helped patients with their problems by several repeated consultations.

No conflict of interest.

#### OHP-064 PHARMACEUTICAL EXPENSES FOR WELFARE OUTPATIENTS AND POLITICAL REFUGEES IN A PAEDIATRIC ATHENS HOSPITAL, DURING 2011 AND FIRST HALF OF 2012

doi:10.1136/ejpharm-2013-000276.437

M Angelakou, N Kouri, P Menegakis. *Hospital Aglaia Kyriakou, Pharmacy, Athens, Greece*

**Background** In Greece the expense of public pharmaceuticals (medicines prescribed by hospitals and public insurance funds) in 2009 was 5.1 billion corresponding to 2.4% of GNP, while the corresponding average rate for OECD countries was 1.5%. In 2012 the target is 2.88 billion. In addition, following the country's enrolment in the financial stability mechanism in 2010, the NHS (National Health System) was substantially enlarged because of the increased demand for public health system services while simultaneously there were cuts in NHS financing due to austerity measures.

**Purpose** To record and evaluate the pharmaceutical expenses due to the outpatients covered by Social welfare and the political refugees which all were served by the paediatric hospital pharmacy during 2011 and the first half of 2012.

**Materials and Methods** Information was acquired from the hospital pharmacy computerised data system.

**Results** During 2011, 1250 prescriptions covered by welfare insurance were dispensed, of which 91% concerned children of Greek citizenship, and 9% immigrant children with political refugee documentation (mainly from Nigeria, Iraq, Afghanistan, Ethiopia and Syria).

The total cost was 113,525 euro. The first semester of 2012 830 prescriptions were dispensed costing 96,180 euro of which 86.5% were for children of Greek citizenship and the other 13.5% was for children with refugee status.

#### Conclusions

1. The pharmaceutical expenses concerning children covered by the welfare system and refugee children are increasing rapidly (especially for refugee children)
2. Given the current crisis in Greece, we urgently have to devise an effective policy to control the increasing pharmaceutical expenditure.

No conflict of interest.

#### OHP-065 PHARMACEUTICAL SERVICES IN HOSPITALS IN SERBIA

doi:10.1136/ejpharm-2013-000276.438

<sup>1</sup>I Popovic, <sup>2</sup>T Savkovic, <sup>3</sup>D Krupnikovic, <sup>4</sup>A Tadic, <sup>5</sup>M Ilic, <sup>6</sup>D Loncarevic, <sup>7</sup>S Vezmar Kovacevic, <sup>8</sup>B Miljkovic. <sup>1</sup>Institute of oncology and radiology of Serbia, Hospital Pharmacy, Belgrade, Serbia; <sup>2</sup>Zvezdara University Medical Center, Hospital Pharmacy, Belgrade, Serbia; <sup>3</sup>Clinical Center Serbia, Hospital Pharmacy, Belgrade, Serbia; <sup>4</sup>Health Center Uzice, Hospital Pharmacy, Uzice, Serbia; <sup>5</sup>Institute for Orthopaedic Surgery Banjica, Hospital Pharmacy, Belgrade, Serbia; <sup>6</sup>Medical Center Bezanjska Kosa, Hospital Pharmacy, Belgrade, Serbia; <sup>7</sup>Faculty of Pharmacy University of Belgrade, Clinical Pharmacy and pharmacokinetics, Belgrade, Serbia

**Background** The role of hospital pharmacists is changing worldwide. Pharmacists are becoming more and more involved in the treatment of patients and the provision of pharmaceutical care (PC). Consequently, increased numbers of pharmacists in hospitals are necessary and/or better organisation of traditional activities.

**Purpose** To identify the number and categories of pharmaceutical services and time frame for such activities in order to improve the organisation of pharmaceutical services in hospitals.

**Materials and Methods** The research was conducted in 21 hospital pharmacies out of 61. Data were collected through a questionnaire, which contained 51 pharmaceutical services classified into 12 categories. Services were defined by the Section for hospital pharmacies in Serbia in accordance with the conclusions of the global conference regarding the future of hospital pharmacy (Basel 2008).

Pharmacists were asked if they practise certain types of service, how often and how much time they consume for each service they practise.

**Results** The average number of pharmacists in a hospital pharmacy was two but varied between 1 and 6. A pharmacist provided on average 30 services per day (15–42). On average during workdays pharmacists devoted most of their time to: data processing (28%; 2.1 h), dispensing drugs (23%; 2 h), ordering (12%; 1 h) and supply (10%; 45 min), while the share related to PC was only 8% or 35 minutes per day.

**Conclusions** The results of research showed that supply and storage of medicines are the most frequent and time-consuming activities. Therefore, not enough time is left for patients and PC. Finally, in order to improve pharmaceutical activities in Serbia it is necessary to increase the number of pharmacists in hospitals, consolidate procurement across the region and streamline data processing services.

No conflict of interest.

#### OHP-066 PHARMACOECONOMIC EVALUATION OF FOLLICLE-STIMULATING HORMONE (URINARY VS. RECOMBINANT) IN CONTROLLED OVARIAN HYPERSTIMULATION

doi:10.1136/ejpharm-2013-000276.439

JM Martínez-Sesmero, M García Palomo, AR Rubio Salvador, JJ Cía Lecumberri, P Moya Gómez. *Hospital Virgen de la Salud, Pharmacy, Toledo, Spain*

**Background** Controlled ovarian hyperstimulation (COH) is mainly based on management of follicle-stimulating hormone (FSH). FSH may be obtained from the urine of menopausal women (u-FSH) or through recombinant biotechnology (r-FSH).

**Purpose** To conduct a pharmacoeconomic evaluation of different FSH (u-FSH vs. r-FSH) in COH.

**Materials and Methods** We conducted a bibliographic review to compare the efficacy of u-FSH and r-FSH in COH (Database: PubMed, keywords: FSH and COH, randomised and controlled clinical trials, from 2005 to 2011). The efficacy indicators were: progression rate in pregnancy (pregnancy remained at 12 weeks) and the number of mature oocytes obtained. We determined the cost per unit of efficacy (using current Spanish drug prices in 2012) and the incremental cost-efficacy ratio (ICER) with their sensitivity analysis. Setting: Assisted Reproduction unit in tertiary teaching hospital that serves an average of 340 patients per year. Statistical analysis powered by SPSS 15.0.

**Results** We analysed 10 clinical trials in women being treated with COH. The pooled data of the progression of pregnancy was 26.2% (FSH-r) vs. 22.3% (FSH-u) (difference = 3.9%; 95% CI = 1.2–5.9), and the average number of mature oocytes was: 9.0 (FSH-r) vs. 7.1 (FSH-u) (difference = 1.9; 95% CI = 0.7 to 4.1). The cost per pregnancy for r-FSH was €2,832.3 (€1,628.2–€3,754.3) and €2,332.5 (€1,526.1–€2,884.7) for u-FSH, so that the ICER in the pregnancy rate was 128.1 (85.1–147.4). The cost per number of mature oocytes