

counting (MA ratio = real/theoretical doses taken). One point (+1 point score) was attributed for MA if: Irb >20 ng/ml or UR >4 nmol/mmol or last dose had been taken <24 h before visit or MA ratio >80%. Three MA levels were assigned: low MA (score <2), intermediate MA (score +3), and sufficient MA (score +4).

**Results** Only 82 patients were sufficiently adherent: 46 and 36 patients among the AB and RB groups, respectively. 52 had intermediate MA (23 and 29, respectively); 30 had low MA (13 and 17, respectively) (inter-groups difference NS). Patients with low MA were younger than sufficient MA patients (50 ± 11 vs. 56 ± 10 yrs,  $p < 0.011$ ); no difference was ascribed to gender or dASBP (152 ± 14 vs. 148 ± 12 mmHg,  $p = 0.16$ ). Other clinical characteristics did not differ except the glomerular filtration rate: lower among adherent patients than low MA patients (95 ± 25 vs. 107 ± 28 ml/min,  $p < 0.02$ ).

**Conclusions** We propose a score of 3 MA levels (low, intermediate, sufficient) based on 4 complementary quantitative and qualitative methods. A combination approach is essential to balance imprecision of observed data. There were no differences in major clinical characteristics between groups. Further comparisons into each group of treatment and longer duration of treatment might be necessary to observe a significant differential effect among MA groups. Therapeutic education sessions could be useful for RH patients who undertake complex treatment.

No conflict of interest.

#### CPC-066 IDENTIFICATION OF PATIENT GROUPS WITH INSUFFICIENT KNOWLEDGE ABOUT THEIR MEDICINES AT HOSPITAL DISCHARGE

doi:10.1136/ejpharm-2013-000276.523

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**Background** Hospital patients in Serbia receive information about their medicines from physicians and nurses. Pharmacists are not involved in medicines counselling. In countries with developed health care, pharmacists provide counselling to patients at discharge.

**Purpose** To establish which groups of hospital patients got the least information about their medicines, since these patients could profit from additional counselling at discharge, provided by pharmacists.

**Materials and Methods** The study was carried out in five hospitals in Serbia, over a period of 8 weeks. Pharmacists collected clinical data from the patient's medical notes. Patients' knowledge of medicines was assessed through an interview using a structured questionnaire, on the morning of discharge. We evaluated 3 groups of patients according to age, length of hospital stay and number of newly-introduced medicines. They were asked seven questions: if they were informed about all medicines, reasons for treatment, the effects of the drug, duration of treatment, posology and method of administration, undesirable effects and interactions. 'Yes' was awarded two points, 'partially' one and 'no' no points. A total ≤10 of all answers per patient was defined as insufficient knowledge.

**Results** 148 patients (mean age 60 years) were interviewed. 74% of patients younger than 65 years and 89% of elder patients showed insufficient knowledge. Length of hospital stay had impact on patient knowledge. 70% who stayed more than 20 days had insufficient knowledge vs. 85% who were hospitalised less than 10 days. Insufficient knowledge increased with number of newly-introduced medicines (80% who had 1 vs. 96% who had ≥5 new drugs on discharge).

**Conclusions** The findings of this study indicate that older patients, those who stay less time in hospital and those who receive

more new drugs on discharge need to get more counselling about their treatment. Serbian pharmacists can take a proactive role for these patients.

No conflict of interest.

#### CPC-067 IMPACT OF A MULTIDISCIPLINARY TEAM ON THE PROPER USE OF CARBAPENEMS: BEFORE/AFTER SURVEY AT TENON HOSPITAL

doi:10.1136/ejpharm-2013-000276.524

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**Background** The optimization of antibiotic therapy has become a major issue. Indeed, the evolution of bacterial resistance requires prescribers to reserve use of antibiotics and especially carbapenems. Various bodies have made recommendations to improve antibiotic regimens and thus preserve the effectiveness of these major antibiotics. At Tenon Hospital, a multidisciplinary unit was created in May 2011. It includes clinicians, bacteriologists, hygienists and pharmacists. Meropenem and ertapenem were already controlled whereas imipenem and doripenem were given without restrictions before May 2011.

**Purpose** To assess the impact of this new organisation, a study compared the requirements for carbapenems before and after the antibiotic management team was created.

**Materials and Methods** All patients who received at least one dose of carbapenem were included. Bacteriological and biological characteristics of each patient were found. The compliance of each prescription with the available guidelines was assessed studying the duration of treatment, dose and indications. Two periods were defined: the first between January 2009 and September 2010 and the second between June 2011 and May 2012.

**Results** Duration of the treatment was the single criteria that had changed for ertapenem and meropenem. The impact of this team is greater for the prescriptions of doripenem and imipenem. Establishment of that team shortened the duration of treatment: 2 days for doripenem and 4 days for imipenem. The number of unjustified prescriptions of imipenem decreased from 45% to 5% for empirical treatments and from 51% to 20% for documented treatments.

**Conclusions** Reduced length of treatment is important and reduces the selection pressure. This explains why carbapenem-resistant bacteria have been isolated only four times in the past year. Results obtained are similar to those obtained in two Parisian hospitals.

No conflict of interest.

#### CPC-068 IMPACT OF OPTIMISING PRESCRIPTIONS TO REDUCE THE RISK OF FALLS IN ELDERLY PEOPLE

doi:10.1136/ejpharm-2013-000276.525

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**Background** The increase in life expectancy increases the risk of falls, leading to dependence and death. Some studies have shown a link between inappropriate prescriptions and falls.

**Purpose** The main objective of this study was to evaluate if we could reduce falls and potentially readmissions by optimising the prescription of drugs in elderly people.

**Materials and Methods** From May to December 2011, we enrolled patients admitted for falls in a geriatric post-acute care

unit. For each patient, we detected potentially inappropriate medication (overuse, misuse and underuse) depending on the chronic conditions and suggested drug modifications to the general practitioner (GP). Three months after discharge, we phoned the GPs to find out if the pharmaceutical interventions had been accepted or not, and if patients had fallen again.

**Results** 96 patients (65% of women; median age 85 years) were admitted for falls due to medicines. 86% of the patients were living at home. Medicines involved with the risk of falling were essentially diuretics, benzodiazepines, calcium inhibitors, antiarrhythmics, sartans, anticholinesterases. The modifications usually suggested related to diuretics, benzodiazepines, anticholinergics, vitamin-calcium supplements, osteoporosis treatment and the use of stockings. Among patients called three months later, 75% of the suggestions were still respected, but 29% of the patients had fallen again. There was no difference in the number of falls for patients for whom the modifications had been respected and those for whom they had not been.

**Conclusions** This study suggested that falls were more frequent among patients living at home; work needs to be done to secure elderly people's houses. The importance of inappropriate prescriptions on fall events was also underlined. Falls occurred because of multifactorial mechanisms: inappropriate home fittings, sarcopenia, neurodegenerative diseases and inappropriate medicines. One way of reducing the risk of falling in elderly people is to improve the medication.

No conflict of interest.

#### CPC-069 IMPLEMENTATION OF A CLINICAL PHARMACY AND MEDICINES DISPENSING SERVICE IN A CHEMOTHERAPY DAY TREATMENT UNIT

doi:10.1136/ejhp-2013-000276.526

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**Background** Cancer patients at the Oxford University Hospitals NHS Trust receive the majority of their chemotherapy treatments as daycase patients. The clinical pharmacy service provision to patients receiving chemotherapy did not move with the patients from the inpatient to the daycase setting. The lack of clinical pharmacy provision to the day treatment unit (DTU) resulted in medicines wastage and an increase in nursing time to educate patients on their medication.

**Purpose** The pharmacy service to the DTU was reconfigured to provide a clinical pharmacy and medicines management service, and to dispense medicines as pre-packs at the patients' bedside.

**Materials and Methods** One pharmacist and half of a technician were funded from cost savings to implement the new service. Medication record cards were developed for each supportive regimen as a counselling aid to patients. A patient satisfaction survey was undertaken prior to initiating the new service, and two months after initiation. Drug expenditure and medicine wastage savings were recorded prior to and two months after implementation of the service. A satellite pharmacy was set up to dispense medicines next to the DTU. A trolley was used to dispense pre-packs at the bedside. Data was collected prior to and two months after initiation of the new service to assess patient satisfaction, impact on nursing time, medicines wastage and savings.

**Results** It was anticipated that approximately £25,000 [€31,000] per month would be saved on medicines wastage. Patients were very satisfied with the new service. The service resulted in a reduction in nursing time of 37.5 hours/week. The results of the service impact after two months will be presented.

**Conclusions** The DTU pharmacy service ensures medicines optimisation, reduces medicines expenditure, and improves the quality of patient care. Patients receiving chemotherapy as inpatients

always benefited from a clinical pharmacy service, so it is appropriate to provide this service in the day case setting.

No conflict of interest.

#### CPC-070 IMPORTANCE OF RESIDUAL INVESTIGATIONAL MEDICINAL PRODUCT COUNT

doi:10.1136/ejhp-2013-000276.527

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**Background** Good Clinical Practice specifies the role of the pharmacist in clinical trials. For each prescription dispensed for a named patient, the pharmacist is responsible for educating the patient on the treatment, counting any residual Investigational Medicinal Product (IMP), and thus for evaluating the compliance.

**Purpose** To assess the importance of pharmaceutical vigilance about IMPs.

**Materials and Methods** This prospective study took three months. For each named-patient prescription dispensed, a count of returned treatment (RT) by the patient from the previously dispensed medicines was performed to assess compliance.

**Results** 117 RTs were analysed. 43 additional RTs from 1 clinical trial were not included in this study due to the impossibility of evaluating compliance (posology changes not notified to the pharmacy and unsuitable secondary packaging). The non-conformity rate was 20% (23 RT). 39% (n = 9) of the non conformities (NC) were due to allowing empty boxes not to be returned. In 61% (n = 14) of NC there was a discrepancy between the expected count of returned IMPs and the one actually made, showing poor compliance.

Average counting time was 12 minutes (5–30 min).

An exact count of returned IMP was operated during dispensing for 34% of returns and after dispensing for 66%. In all cases, a global analysis was performed before the prescription was dispensed.

**Conclusions** This study points out the major role of the pharmacist in the education of the patient enrolled in clinical trials, about the return of all experimental medicines and the therapeutic schedule. It appeared very important to evaluate compliance while the pharmacist was dispensing the next prescription, independently of the time consumed, in order to correct possible errors in taking the medicines at that time.

No conflict of interest.

#### CPC-071 INCIDENCE AND CAUSES OF CAPECITABINE DOSE ADJUSTMENT IN COLON CANCER PATIENTS

doi:10.1136/ejhp-2013-000276.528

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**Background** Capecitabine is indicated in colon cancer alone or in combination. Recommended posology is calculated with reference to the body surface area (BSA) and pharmacotherapeutic regimen, although adjustments can be made if drug-related toxicity occurs.

**Purpose** To describe the incidence of capecitabine dose adjustment in colon cancer patients (CCPs). To analyse the reasons for this adjustment.

**Materials and Methods** Retrospective observational study of 49 CCPs treated with capecitabine with at least 3 cycles of 14 days from June 2011 to February 2012. Data were collected from the dispensary and medical history. The severity of the toxicity was classified according to the CTCAEv.4.

**Results** Forty-nine patients were enrolled: 25 male, average age of 61 (34–82), average BSA of 1.75 m<sup>2</sup>. Most of them presented ECOG0 (26 patients) at the beginning of the treatment, followed by ECOG1