

100% owing to some patients coming to pick up the medicines before the set date. The method used in this study could be improved with validated adherence questionnaires. Good adherence is necessary to achieve SVR and it is especially important with the new protease inhibitors drugs (boceprevir and telaprevir), due to the complexity of triple therapy, adverse reactions and the high cost. Therefore, hospital pharmacists should collaborate on it with pharmaceutical care clinics specialising in hepatitis C.

No conflict of interest.

CPC-063 HOW DO PHARMACISTS DOCUMENT AND TRANSMIT THEIR INTERVENTIONS? A SURVEY IN SEVERAL FRENCH-SPEAKING COUNTRIES

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Background The role of a clinical pharmacist in providing and transmitting drug information to other health professionals varies greatly between countries. There is no consensus on the most efficient way to document and transmit interventions and its effect on the implementation of recommendations in practise.

Purpose To describe and then compare the methodology of pharmacist's interventions (PIs) in each of the following French-speaking countries: France, Switzerland, Belgium and Quebec.

Materials and Methods 527 on-line questionnaires were distributed (276 in France, 47 in Switzerland, 92 in Belgium, and 112 in Quebec). They contained 36 questions about clinical pharmacy work, the ways of transmitting information and its documentation in the patient record.

Results 160 hospitals answered (total 30.3%; France 33.7%, Switzerland 44.7%, Belgium 23.9%, Quebec 21.4%). In the Swiss hospitals, only 47.4% of pharmacists analysed pharmaceutical prescriptions while 97.4% did in France, 76.5% in Belgium and 100% in Quebec. The same trend could be seen while examining the pharmacist's presence on the wards: 42.1% in Switzerland, 58.4% in France, 85.7% in Belgium and 88.2% in Quebec.

Communications channels for PIs also differed depending on countries: Swiss pharmacists mainly used the phone (56.7% of the cases), followed by personal visits (30.7%). In France and Quebec the preferred methods were writing notes in the patient's record in respectively 39.1% and 36.4% of the cases, followed by phone calls in 25.4% and 32.4%. In Belgium, the communication of PIs was most frequently done through personal visits (40%).

Conclusions Pharmacist's interventions in terms of ways of transmitting drug information and its documentation differ among the 4 countries. Differences in the pharmacist's integration into the ward teams, access to the patient record file and to the medical prescription probably explain the heterogeneity of our results.

No conflict of interest.

CPC-064 HOW IS IT BEST TO REPORT PHARMACEUTICAL INTERVENTIONS TO A MEDICAL TEAM? A CLINICAL RELEVANCE ASSESSMENT

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Background The clinical pharmacy department has recently started working with the medical team of the infectious and tropical diseases department. A pharmacy student, supervised by a clinical pharmacist, cheques 28 patient prescriptions daily.

Purpose To evaluate the impact and quality of pharmaceutical interventions (PIs) issued over a period of 8 months.

Materials and Methods All interventions are recorded and coded according to the criteria defined by the working group of the French Society of Clinical Pharmacy [1]. A note of the relevance is attributed by the pharmacist to each PI, according to Bayliff and Einarson's scale [2].

Results In total, 1947 paper prescriptions were analysed. During this period, 980 patients were hospitalised, 133 (13.6%) were identified as having 209 PIs. Physicians accepted 168 interventions (80%), of which the pharmacist quantified the clinical relevance. A very significant clinical impact (level 2) was attributed to 36 PIs (21.5%), a significant clinical impact (level 1) to 77 (46%) and 54 PIs (32.5%) had an informative objective (level 0). No interventions had a vital clinical impact (level 3).

For each level of relevance, the distribution of PIs was described according to the type of drug-related problems on the one hand and the type of pharmacists' recommendations on the other hand. Highlighting the clinical impact of PIs increased the interest of physicians in pharmaceutical work. Consequently, they asked for pharmaceutical reports more frequently (twice a month instead of once a year).

Conclusions The results reinforce the idea that a regular presence in care encourages collaboration between pharmacists and health care teams.

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No conflict of interest.

CPC-065 HOW TO ASSESS MEDICATION ADHERENCE AMONG PATIENTS WITH RESISTANT HYPERTENSION TREATED WITH TWO DIFFERENT PHARMACOLOGICAL INTENSIFICATION STRATEGIES

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Background Non-adherence to medicines and lifestyle are the main contributors to resistance to antihypertensive treatment (AHT). Various measures to assess medicines adherence (MA) among patients with resistant hypertension (RH) have been proposed but none is fully effective.

Purpose To assess MA with a new scoring system in RH patients included in a randomised controlled trial and the characteristics associated with low MA.

Materials and Methods Patients with RH on 4 week-treatment with irbesartan 300 mg + hydrochlorothiazide 12.5 mg + amlodipine 5 mg, were randomised to either reinforcement of sodium depletion by sequential administration of spironolactone and other diuretics (AB group, n = 82) or reinforcement of renin angiotensin system blockade by sequential administration of ramipril 5–10 mg and bisoprolol 5–10 mg (RB group, n = 82) for 12 weeks. In accordance with the literature, 4 methods were used to evaluate MA: 1/ measurement of plasma irbesartan concentration (HPLC); 2/ measurement of urinary AcSDKP/creatinine ratio (UR) to evaluate ACE inhibitor exposure; 3/last dose of medicine taken before visit; 4/pill

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

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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

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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

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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