

was the most contaminated area, where the 5-FU, Gem, MTX and CP levels were above the German reference value (0.1 ng/cm<sup>2</sup>) and the Ifos and Doc contamination levels were also high. The levels detected on the other three surfaces, ranked in descending order were as follows: workbench, floor and transport box. 5-FU, Gem and CP were present on these surfaces in large quantities.

After seven months the levels of surface contamination showed significant improvement on every surface. MTX, CP, Ifos, Doc were not detectable in the LAF cabinet and the levels of 5-FU and Gem had reduced dramatically.

**Conclusions** The results suggest that implementing an appropriate decontamination method and preparing with closed system drug transfer devices can minimise environmental cytostatics contamination.

No conflict of interest.

## OHP-029 EFFECTS OF A PHARMACIST'S INTERVENTIONS IN A SURGICAL UNIT

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**Background** In the hospital setting, preoperative and postoperative stages can be considered as vulnerable moments when patients receive multiple drugs before, during and after surgical procedures.

A pharmacist's inclusion in the clinical routine can contribute to detecting and solving drug-related-problems (DRPs) in these patients.

**Purpose** To implement and develop a working method that enables DRPs to be detected and solved in patients admitted for scheduled surgery.

**Materials and Methods** Prospective study design over a two-month period. (June–July 2012).

The pharmacotherapy of general surgery inpatients was evaluated by a pharmacist. For each patient, current and home medicines were reviewed. If detected, DRPs were mentioned to the doctor so he/she could assess the need for correction. Any DRPs identified were classified using the Pharmaceutical Care Network Europe (PCNE) system. (Latest revision, January 2010)

**Results** Average age of patients: 63 years.

Number of prescriptions looked through: 167 (Corresponding to 103 patients)

DRPs identified: 77 DRPs (68 in hospital pharmacotherapy and 9 in home medicines): 42 –Related to Treatment effectiveness (P1), 13-Related to Adverse reactions (P2), 19 Related to treatment costs (P3), and 3 in the group of other problems (P4).

Abstract OHP-029 Table 1 Causes of the DRPs identified

Causes	Number of Interventions*	Outcome of intervention
C1-Drug selection	27 (7-Inappropriate drug, 11-No indication for drug, 2-Indication not noticed, 7-Preventive drug not given) No clinically significant drug interactions were found.	Problem totally solved (PTS)
C2-Drug form	10 (Inappropriate drug form used)	PTS
C3-Dose selection	12 (5-Drug dose too low, 7-Drug dose too high)	PTS
C4-Treatment duration	10 (4-Too short, 6-Too long)	PTS
C5-Drug use/ administration process	8 (5-Inappropriate timing of administration, 3- Drug under-administered)	PTS
C6-Logistics	7 (3-Prescribing errors, 4-Dispensing errors)	PTS
C7-Patient	3 (2-Patient forgot to use the drug, 1-Patient used an unnecessary drug)	PTS

\*64 interventions at prescriber level, 9 interventions at patient (or carer) level, 4 at drug level.

**Conclusions** The inclusion of a pharmacist in surgical units can lead to a more efficient and safe use of medicines. Moreover, suggestions were given due consideration by most of the doctors.

No conflict of interest.

## OHP-030 EFFICACY OF HEALTH LITERACY IN THE SELF-EDUCATION OF DIABETIC PATIENTS

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**Background** The increased prevalence of chronic diseases, including diabetes, requires a critical review of models of care and the introduction of new strategies of intervention. Health Literacy (HL) is a tool for educating patients in order to increase their understanding of medical information and thus educate them about their treatment. Diabetic patients are educated to manage the disease in accordance with the perceived needs for better compliance with drug treatment and its outcomes.

**Purpose** To adopt a diagnostic-therapeutic protocol shared between the diabetologist and the pharmacist, and to promote the active inclusion of people with diabetes in the course of their treatment. The secondary aim was to activate an information, monitoring and evaluation system through clinical indicators.

**Materials and Methods** Overall, 70 patients (32 women and 38 men) aged between 35 and 87 used the HL tool themselves and were monitored in this study. Ten patients were treated with insulin + oral hypoglycaemic agents (OHA), 53 with OHA alone and 7 with insulin alone. All patients received a sheet containing clear instructions for the proper management of the disease and treatment. The patient underwent monthly clinical monitoring, and were urged to adopt the right behaviours at home: frequent monitoring of blood glucose, a healthy and balanced diet, moderate activity and preventive screening for diabetes complications.

**Results** Values of blood glucose test, HbA1c, body weight and waist circumference were reduced by 42.2%, 15.2%, 6% and 3.3%, respectively. Compliance was improved in 30% of patients (screening tests carried out on time). Overall patient satisfaction was high.

**Conclusions** Our experience confirms that the multidisciplinary HL tool is useful for improving the communication between doctor/pharmacist and the patient. It is important to consider that the patient learning should focus on simple terms and on the knowledge of complications, in order to obtain good management of diabetes.

No conflict of interest.

## OHP-031 EFFICIENCY AND PROCESS QUALITY INDICATORS ON THE PREPARATION OF ANTIFUNGAL INTRAVENOUS MIXTURES IN A PHARMACY DEPARTMENT

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**Background** Our pharmacy department (PhDp) prepares IV mixtures (IVMs) centrally, for example antifungal drugs. 2 quality indicators (QIs) assess the prescription, distribution and administration process: %IVMs returned from clinical units (standard <20%) and %IVMs recycled (standard >80%), considering that all returned IVMs are validated by a pharmacist to ensure their validity in terms of stability and storage conditions. Also, 2 efficiency indicators assess cost savings: savings from centralised PhDp preparation compared with preparation in clinical units, and savings from recycling antifungal IVMs. Global median %IVM returned is 11%.

**Purpose** To describe and evaluate this process and the efficiency of quality indicators.

**Materials and Methods** Prospective study. Period: 1 year (2011). Academic General Hospital (1,500 beds). Antifungal drugs: liposomal amphotericin B, anidulafungin, caspofungin, voriconazole. Variables: process and efficiency quality indicators. Data source: daily log sheet preparation and return of IVM, and antifungal and infusion solution direct costs; personnel costs weren't considered.

**Results** 3,643 antifungal IVMs were prepared: 35% caspofungin, 32% voriconazole, 21% liposomal amphotericin B, 12% anidulafungin. Process QI: 6.40% antifungal IVMs returned (mainly voriconazole: 10%) and 87% antifungal IVMs recycled (mainly caspofungin: 100%). Total savings: €222,351. Efficiency of the QIs: €155,694 savings from PhDp centralization (mainly voriconazole: €78,659) and €66,657 savings from recycling (mainly caspofungin: €33,025).

**Conclusions** The fact that process quality indicators comply with standards and the very large cost savings for the institution, support PhDp antifungal IVM centralization. Voriconazole IVM centralization allows more cost savings and caspofungin is the most recycled.

No conflict of interest.

### OHP-032 EMTRICITABINE AND TENOFOVIR DISOPROXIL FUMARATE IN HIV-NAIVE PATIENTS: A PHARMACOECONOMIC STUDY

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**Background** Truvada, a fixed-dose combination of antiretroviral drugs (emtricitabine and tenofovir fumarate) indicated for HIV-1, was the 12th most expensive drug prescribed in Piedmont during 2009–2010, with a growth of 12%.

Since July 2011 the School of Hospital Pharmacy in Turin has developed a two-year pharmacoeconomic project regarding high-cost drugs.

**Purpose** To provide to the decision-makers with a management tool to evaluate the treatment costs of HIV patients.

**Materials and Methods** The legislation and articles in epidemiology and pharmacoeconomic journals were reviewed. Drummond's Weighted Checklist method was used to evaluate the pharmacoeconomic articles. A Budget Impact model, based only on the drug costs, was built. The treatment-naive population (290) was extrapolated from the incidence data in Piedmont in 2010. The treatment options relied on the US Department of Health and Human Services guidelines and on the pharmacoeconomic studies. The model suggested a combination of Truvada with: i) efavirenz (NNRTI, Sustiva), ii) atazanavir (PI, Reyataz) + ritonavir (PI booster, Norvir); iii) darunavir (PI, Prezista) + ritonavir (PI booster, Norvir).

**Results** The daily treatment cost for a treatment-naive patient varies from €21.78 to €30.64, while the annual expenditure varies from €7,949.17 to €11,184.45. The Budget Impact was calculated assuming that the 290 new HIV cases had been treated for one year with one of the therapeutic strategies provided. The variation in comparison with association i) were respectively +24.64% for combination ii) and +40.70% for combination iii). Treatment iii) was the most expensive (€324,349.37) and increased the annual expenditure by 40.70% (€938,233.23) as compared with treatment i) (€2305,258.14).

**Conclusions** The Budget Impact analysis will be used to perform pre-assessments of expenditure in order to set up health care programmes for the allocation of the economic resources.

A pharmacoeconomic analysis of cost-effectiveness will be performed between the associations Truvada + Reyataz and Truvada + Sustiva.

No conflict of interest.

### OHP-033 EPIDEMIOLOGICAL STUDY OF INTOXICATIONS BY ALCOHOL AND DRUG ABUSE IN THE EMERGENCY DEPARTMENT OF LUGO HOSPITAL IN 2009

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**Background** Acute poisoning is a condition that generates great demand for care in emergency departments of hospitals.

**Purpose** To find out the epidemiology of severe acute intoxications and study the profile of the intoxicated patients in our hospital.

**Materials and Methods** Retrospective observational study. Inclusion criteria: patients with final diagnosis of acute intoxication during 2009. Sources: admission management software, clinical histories. Data recorded: age, sex, date of entry, type of toxic agent(s) involved, existence of psychiatric background and previous intoxications. Global analysis: SPSS package.

**Results** During the study period 1052 requests for analysis were processed with the following results: (see the table below)

Abstract OHP-033 Table 1

Drugs (% positive)	Sex distribution (% men)	Band age (years)	Majority of intoxications by day of the week (DW)	Months of the year with highest numbers of positives (M)
Ethyl alcohol (65%)	80%	50–59	Sunday	August, June, November.
Benzodiazepines (36%)	50%	40–49	Thursday	June and August
Cannabis (12%)	80%	20–29	Sunday > Friday > Saturday	June and August
Cocaine (6%)	80%	30–39	weekend consumption	August
Opiates (5.4%)	81%	30–39	weekend consumption	April = August

Amphetamines (0.19%): 2 men under the age of 20 and 30 years, M: January, DW: weekend. Barbiturates (0.38%): 4 positive, 75% men, A: 42–54. A temporal distribution (week, month year day) cannot be significant in so few cases.

**Conclusions** For a better understanding of the Spanish reality in terms of acute intoxication referrals, systematic multi-centre, clinical and epidemiological studies are necessary to demonstrate changes in the toxic substance used, the distribution by age, characteristics of subjects, etc. In order to adapt the health care resources, we need to know the diagnosis and any treatment that would contribute to improving the care of intoxicated patients. See table.

No conflict of interest.

### OHP-034 ESTIMATION OF THE ADHERENCE TO BIOLOGICAL TREATMENT IN PATIENTS WITH PSORIASIS

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**Background** Biological agents have changed the treatment of psoriasis, and are used for long-term treatment. For this reason adherence to the treatment is a marker of success.

**Purpose** To quantify the adherence of patients with psoriasis to treatment with biologicals (adalimumab, etanercept and infliximab)

**Materials and Methods** Retrospective observational study of psoriasis patients who were prescribed biologicals. Sex, age, type of