Purpose To evaluate adherence to tamoxifen and to identify the most important DTPs in patients with breast cancer on adjuvant endocrine treatment.
Materials and Methods A prospective study was conducted in a university hospital specialising in women's health. Over 6 months patients with breast cancer were included if they were on adjuvant endocrine treatment for at least 1 month. All were interviewed by the pharmacist (Minnesota model). The instrument used to evaluate adherence was the Morisky-Green test.
Results Forty-one patients were included (mean age 55.0 years; ranging from 34–78). In the first visit, the pharmacist identified 82 DTPs (mean: 2.0 ± 1.1 DTPs/patient), 63.4% related to drug safety. The adherence to oral endocrine treatment was 36.6%; according to the Morisky-Green test; among the non-adherent patients 92.3% were non-intentional (mostly by forgetting to take doses of tamoxifen). The patient's average time on endocrine therapy was 24.9 ± 17.6 months.
Conclusions We observed that the DTPs are present in oral endocrine therapy and adherence to this treatment can be considered inappropriate. The results obtained may contribute to the development of strategies in pharmaceutical care to improve adherence to oral endocrine therapy and decrease DTPs in breast cancer patients using tamoxifen.

No conflict of interest.

OHP-004 ADHERENCE TO ANTIRETROVIRAL TREATMENT

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Background Knowledge of the patient's adherence to antiretroviral treatment is extremely useful for monitoring HIV infection. However to measure this reliably is not easy. Several methods have been proposed to calculate adherence, each with its advantages and disadvantages.
Purpose To compare three of the available methods for assessing medicines adherence. To determine the factors associated with non-adherence to highly active antiretroviral treatment (HAART) in HIV/AIDS patients.
Materials and Methods Non-interventional and longitudinal study of patients diagnosed with HIV/AIDS who received HAART (May–June 2010). Three methods for evaluating medicines adherence were studied prospectively: Recording medicines dispensed (RD) from the Pharmacy Department; SMAQ (simplified medicines adherence questionnaire) interview; SMAE (scale for medicines adherence evaluation) interview. We recorded: demographic data (age, sex); years in treatment and daily doses of medicines.
Results 85.2% (104) of patients were males and mean age was 46 years (S8.9) with an average treatment time of 8.7 years (S4.6). 79% of patients have had a change in their medicines at some point in the treatment.

The percentage of patients with greater than 95% adherence was: 77.0% (RD), 62.3% (SMAQ) and 79.4% (SMAE).

By all measures of adherence patients with a single dose of medicine daily (SDM) were more adherent than twice-daily medicines (TDM): RD: 84% vs. 70% ($p = 0.0781$); SMAQ: 70.1% vs. 49.2% ($p = 0.0189$); ESPA: 85.9% vs. 69.2% ($p = 0.0283$) respectively. Patients who had been on HAART between 6–10 years had an adherence of 77.1%, while it was 65.8% for those treated 1–5 years and for patients with over 10 years of treatment, it was 40.8% ($p = 0.002$). Similar results with other measures.
Conclusions Since there is currently no ideal method to determine adherence to treatment, it is important to combine several methods depending on patient characteristics to obtain a measure as real as possible. Years with HAART reduces adherence and SDM regimens schedules appear to have better adherence than TDM regimens. This may affect treatment efficacy positively in the long term.

No conflict of interest.

OHP-005 ADVANTAGES AND DISADVANTAGES OF AN ELECTRONIC PRESCRIBING SYSTEM. ASPECTS TO CONSIDER DURING PHARMACIST VALIDATION.

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Background An electronic prescribing system (EPS) improves the prescription-validation-administration sequence and reduces errors. Nevertheless new questions can appear and it is interesting to take them into account.
Purpose To describe positive and negative aspects that the implementation of an EPS produces in a physician when he/she prescribes, in a nurse during the administration of the drugs and in the pharmacist when he/she validates.
Materials and Methods We recorded the advantages and disadvantages identified by pharmacists as seen by different professionals from the introduction in January 2010 of an EPS.
Results
Positive aspects for the pharmacist: real-time validation (it avoids administration errors and facilitates communication between healthcare professionals); no unreadable or incomplete prescriptions, chance to cheque nurse records (administration time, observations and incidents); quick access to ambulatory care and other hospital admissions medicines records; ability to see and change drug administration rates and information about the drugs is instantly available from databases. Physician: availability of protocols; rapid access to the hospital formulary, automatic drug changes, automatic allergy alerts. Nurse: drugs appear automatically on the administration records, they can request medicines directly from the prescription screen.

Negative aspects for the pharmacist: repeated validation is required of unchanged prescriptions; errors can be made if the medicine is changed (e.g. duration of treatment). Physician: errors due to lack of knowledge of trade names (e.g. insulin); the existence of protocols can lead to incorrect prescriptions (e.g. for elderly people); errors due to ignorance of the programme (former frequencies of administration are retained); need to delete old prescriptions. Nurse: they cannot change the administration schedule; some services don't use yet the EPS.
Conclusions The implementation of EPS improves many aspects for all the health professionals involved. Pharmacist validation is more complete, real time and faster. It is necessary to know the programme well to detect new errors as they arise in order to correct them.

No conflict of interest.

OHP-006 ADVERSE EFFECTS OF DAY-HOSPITAL CANCER TREATMENT MONITORED AT HOME: CREATION OF A PHYSICIANÑPATIENT LOGBOOK

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Background Most anticancer drugs bring adverse effects (AEs) occurring during treatment-free intervals (TIs) while the patient is at home. A significant difference exists between AEs that really

happen at home and those reported to physicians at the time of the subsequent course.

Purpose To set up a comprehensive tool for AE reporting by patients and to assess whether it leads to an improvement in patients' quality of life.

Materials and Methods All consecutive patients treated in a day hospital oncological ward (digestive, thoracic, dermatological and haematology) over four courses of chemotherapy were included. A physician-patient logbook of 14 questions (rated from 1 = absence to 4 = strong) was completed daily during the first and third TIs. A global score was calculated for each course and compared to the results of QLQc30 forms.

Results Thirty-four patients were included, with a mean age of 59.9 and a male/female ratio of 1.3. A majority of metastatic diseases (67.6%) had a WHO performance status (PS) score of 0/1 (88.2%). Most frequent AEs during the first TI were eating disorders (1.72 ± 0.11) and pain (1.41 ± 0.08). The daily score progressively decreased over subsequent TIs. Mean global score was 1.31 ± 0.06 and 1.14 ± 0.06 after the first and third TI, respectively. The frequency of all side effects decreased between the first and third courses. Eating disorders (1.28 ± 0.10) and neuropathy (1.23 ± 0.08) were the most frequent AEs in the third TI. Results of QLQc30 forms showed an improvement of the quality of life between the first and fourth courses. Most important improvements concerned nausea/vomiting (respectively score 22.1 to 8.3) and loss of appetite (score 31.4 to 21.2).

Conclusions A better awareness of AEs of anti-cancer drugs may improve their management. The use of a logbook could be helpful, as its interpretation may be related to an improvement in the quality of life.

No conflict of interest.

OHP-007 AN OLD FRIEND FOR MINIMISING COST: DIRECT INTRAVENOUS ADMINISTRATION

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Background The increase in drug spending and the decrease in resources make it necessary to look for strategies for minimising costs.

Purpose To describe the strategy for administering high-consumption intravenous drugs (IVd) directly and estimating the associated resources saved in an Intensive Care Unit (ICU).

Materials and Methods We obtained a list of drugs whose consumption in the ICU was more than 1,000 units/year.

After a literature review, we selected those that could be safely administered via IVd but are usually administered in intermittent intravenous infusion. We prepared a table containing instructions for their reconstitution and administration.

For four weeks two nurses administered the medicines that had been prescribed and were included in the table via IVd, recording: drug, time spent in preparation & administration and adverse reactions related to the route of administration.

After collecting data:

We estimated the direct cost savings in fluids if all drugs consumed by the unit and included in the table had been administered by IVd during 2010.

We compared the time spent on the preparation and administration of drug doses used in routine practise versus time used to implement this strategy.

Results The ICU used more than 1,000 units/year of each of 39 intravenous drugs, of which 12 were included in the table: metoclopramide, colistimethate, hydrocortisone, phytonadione, pantoprazole, amoxicillin/clavulanic acid, dexamethasone, piperacillin/tazobactam, furosemide, methylprednisolone, meropenem and ranitidine.

The nurses made 117 administrations via IVd (following the usual procedure) of these drugs. The average time was 6.5 minutes for preparation and administration of each dose and no adverse reactions were detected related to the route of administration.

We estimate the ICU can save 28,000€/year.

Conclusions Direct IV administration can be safe and efficient.

The extension of a programme of this type throughout the Hospital could increase efficiency and rational use of medicines significantly.

No conflict of interest.

OHP-008 ANALYSIS OF COSTS AND CONSUMPTION OF MEDICAL DEVICES FOR EXTRACORPOREAL PHOTOCHEMOTHERAPY IN SIENAÍS UNIVERSITY HOSPITAL (AOUS)

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Background Extra-corporeal photochemotherapy (ECP) is a procedure that exposes mononuclear blood cells, obtained through centrifugation, to ultraviolet irradiation, in the presence of the DNA binding agents such as 8-methoxypsoralen (8-MOP). Two methods can be used:

ON-LINE, which consist of irradiation of cells through extracorporeal circulation (the only method used in AOUS until 2011).
OFF-LINE, which consist of leukapheresis of concentrated lymphomonocytotic cells, irradiation and subsequent reinfusion (this method was introduced in AOUS in 2012).

Purpose The objective of this study was to analyse the costs and consumption data of the Medical Device (MD) necessary for ECP in the period 2007–2011, and make a prediction of costs and consumptions in the light of the introduction of the new method.

Materials and Methods We analysed the costs and consumption data of the MD used in ECP in AOUS, extrapolating from the hospital's computer database. Then an estimate of consumption and costs over the period was calculated. The literature and technical specifications of the MD were also consulted to find for what purposes ECP is indicated.

Results ECP is mainly used for T-cell-mediated diseases such as organ transplant rejection, systemic sclerosis, bullous pemphigus, acute and chronic graft-versus-host-disease (GvHD).The period considered to have the highest consumption was in 2008, with 956 kits consumed (at a cost of €756,099.96) and 5 UV lamps (€7,987.50). In subsequent years, there was a progressive decrease in materials consumed. The average consumption was 867 kits/year, with cost/year of €767,178.82. The cost of an off-line ECP kit is €300.99 and a leukapheresis kit is €169.4. The estimated annual cost of the product if using the off-line method would be €409,922.21, versus €914,080.83 using the on-line method.

Conclusions By using the off-line method and the prices of the new contract, AOUS would save 55% compared to the current cost of the on-line method, equal to €504,158.62. A further savings factor is the fact that the lamps for the ECP with the new contract are provided free of charge. This will allow better reallocation of financial resources.

No conflict of interest.