Purpose The objective of this work was to evaluate the features of consultations made by patients in these situations.
Materials and Methods observational prospective study performed in all outpatients who demanded an interview with the pharmacist from 01/03/12 to 31/05/12. Data collected: sex, age, pathology, type of question, resolution (yes/no), and whether the patient was sent to another health professional or not.
Results 48 patients were included (56.25% male; mean age 47.25 years). Pathology: 29 HIV; 4 hepatitis C; 3 multiple sclerosis; 3 hepatitis B, and 9 others (one each): lung cancer, renal impairment, rheumatoid arthritis, multiple myeloma, myosarcoma, growth disorder, pulmonary hypertension, glaucoma, and aspergillus infection. Consultations were classified into 9 types showing in brackets the number of each: 1-Drug-drug interactions (14); 2-Apply for extra medication (9); 3-Side effects (8); 4-Dosage and administering(6); 5-Missed or wrong doses(6); 6-Prescription renewal(2); 7-Drug storage(1); 8-Faulty drug(1) and 9-Misunderstanding medical prescription(1). Forty-three consultations were solved by the pharmacist (89.58%). In the other 5 cases, patients were sent to the physician: two were taking the treatment incorrectly and needed a special cheque, two needed to renew the prescription and one was suffering severe side effects.
Conclusions The most common consultations were related to pharmacology except for 18,75% of patients who applied for extra medication (often not possible because of the hospital policy). The pharmacist was able to solve almost 90% of consultations, sending the patients to their doctors just in cases where their health was compromised or new prescriptions were needed.

No conflict of interest.

DGI-005 ANALYSIS OF LEVOFLOXACIN USE IN GERIATRIC UNITS AT A UNIVERSITY HOSPITAL

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Background Overuse of antibiotics, such as fluoroquinolones and third-generation cephalosporins, is a major cause of the emergence of extended-spectrum beta lactamase producing enterobacteriaceae. The use of levofloxacin in elderly inpatients is widespread.
Purpose We investigated the conditions in which this drug was prescribed.
Materials and Methods From 1st January to 31st March 2012, information was recorded on every new levofloxacin prescription from the geriatric units: indication, dose, duration, patient's medical history, renal function and previous antibiotic. In parallel, levofloxacin consumption was assessed and expressed in terms of the number of Defined Daily Doses (DDD) per 1000 patient-days (PD). The consumption was compared with the data from the French antibiotic network "RAISIN".
Results 87 patients had a levofloxacin prescription: 55% for community-acquired pneumonia, 20% for nursing-associated pneumonia, 16% for nosocomial pneumonia, and 9% for others indications. 77% of the patients had previously received another antibiotic (47 amoxicillin/clavulanic acid, 20 ceftriaxone). Among patients without signs of gravity (tachycardia, tachypnea, hypotension), 1 in every 2 received levofloxacin associated with ceftriaxone, although this combination is only for intensive care patients according to the French Society of Infectious Diseases. The mean duration of treatment was 10 days. In 1 in every 2 cases, dosage was too high according to the renal function. As a result, the exposure to levofloxacin was 49 DDD per 1000 PD in acute-care units, and 37 DDD per 1000 PD in skilled units. These results are 4 to 7 times higher than those recorded in the "RAISIN" network. For 20% of the patients, levofloxacin was ineffective and another line of antibiotic was prescribed.
Conclusions Our results suggest that to reduce exposure to fluoroquinolones we should avoid systematic association with ceftriaxone, prescribe levofloxacin as the second line after amoxicillin/clavulanic acid and reduce dose and duration.

No conflict of interest.

DGI-006 ANALYSIS OF SAVINGS IF THE TREATMENT OF COMMUNITY-ACQUIRED PNEUMONIA (CAP) IS SWITCHED

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Background Levofloxacin exhibits excellent bioavailability as well as pharmacokinetic equivalence between the oral and the parenteral form and is one of the medicines most used in the treatment of CAP.
Purpose The purpose of this study is to evaluate the savings that may be achieved by treating patients affected with CAP with sequential treatment (switching from intravenous to oral treatment).
Materials and Methods Both the cost and duration of treatment with levofloxacin were considered. The cost was given by: unitary cost of levofloxacin, cost of the nursing staff, cost of the material for parenteral infusion, cost of the hospitalisation. The duration was considered to be 5 days for patients without complications, 20 days for patients with complications and 10 days as the average in common clinical practise. This model was applied to reality in the S.C. Pneumologia of the ASO S. Croce and Carle of Cuneo. The patients hospitalised for CAP and treated with levofloxacin were individualised through the A.S.400 computerised applications.
Results In 2011 351 patients were hospitalised and treated with levofloxacin tablets and/or vials in the Pneumology ward; 90% of them were suffering from CAP.

For 10 days of treatment the sequential treatment would enable savings equal to 85€/patient. This saving would allow us to treat 12 more patients in a switched treatment regime. For 20 days of treatment the difference would be equal to 205€/patient quantifiable as 14 more patients with CAP treated in hospital without affecting the budget.
Conclusions Oral treatment, as it is equally effective, turns out to be the best therapeutic alternative in terms of savings. In future we will analyse the discharge letters of these patients under the model used in this study, thus assessing the real savings.

No conflict of interest.

DGI-007 ANALYSIS OF THE PRESCRIPTIONS OF ANTIBIOTICS AS LAST RESORT

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Background The composite index on proper use of antibiotics (ICATB) includes surveillance of the ATBs used, evaluation of ATB prescriptions and the existence of an ATB list associated with checking dispensing with limited duration.
Purpose To examine the conformity of ATBs as last resort prescriptions and to promote their proper use.
Materials and Methods 1988 prescriptions emanating from 7 units were investigated between 2009 and 2011, by taking into account 7 criteria: re-evaluation of the need to continue the treatment, conformity with administrative (AR), clinical/biological (CR), pharmaceutical (PR) requirements, the relevance of the

prescription, the number of phone calls made by pharmacists to physicians and the number of changes made after these phone calls.
Results In 2011, prescriptions were re-evaluated in 69% of the cases, with a statistically significant increase ($p < 0.01$) between 2010 and 2011. Compliance with the AR was 75%, CR was 86%, the PR was 72% and the relevance of the prescription reached 70%. Compliance with these last criteria increased in 2010, but decreased again in 2011. 15% of the prescriptions required a phone call, of which 47% were followed by a change in the prescription.
Conclusions The continuation of ATB treatment requires re-evaluation according to the antibiogram or the clinical evolution. The improvements achieved in 2010 in prescription conformity and in the proper use of ATBs as last resort can be attributed to the distribution of the guide to proper use of anti-infectious drugs and changes in the presentation of prescriptions. Nevertheless, the significant decrease in 2011 requires physicians who are prolific prescribers to be sensitised. The active involvement of pharmacists in the anti-infectious drugs committee contributes to promoting the proper use of ATBs. Pharmacists called less than last year but their phone calls were more targeted and relevant.

No conflict of interest.

DGI-008 ANALYSIS OF THE USE OF CARBOXYMALTOSE IRON IN A UNIVERSITY HOSPITAL

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Background Recently the use of IV carboxymaltose iron at doses of 500–1000 mg has increased in our hospital, even though it is not included in the formulary and it should be only used to avoid blood transfusions.
Purpose To evaluate the use of carboxymaltose iron in a university hospital.
Materials and Methods A longitudinal, descriptive study was carried out in patients treated with iron carboxymaltose from January 2011 to June 2012 in a university hospital. Data was collected from special orders of non-formulary drugs. Variables recorded: sex, age, prescribing service, indication, haemoglobin (Hb) prior to and after the administration of iron, dose of iron and number of administrations in each patient. Safety was also considered by analysing any adverse effects (AEs) reported to the Pharmacy Department.
Results 85 patients were included (60.0% female; median age 50.1 [SD:19.2]). Prescribing services were: Gynaecology and Obstetrics (30.6%), Haematology (29.4%), Nephrology (17.6%), Digestive (12.9%) and others (9.5%). Main indications were: anaemia secondary to chronic kidney disease (CKD) (20.0%), postpartum anaemia (17.6%), undetermined anaemia (14.1%), iron deficiency anaemia (12.9%), gastrointestinal bleeding (8.2%), post-surgical anaemia (8.2%), pre-surgical anaemia (5.9%), others (10.7%) and unspecified indication (2.4%). Mean Hb prior to the iron administration was 9.5 (SD = 2.0) g/dl and 11.5 (SD = 1.7) g/dl after the treatment. Mean dose of carboxymaltose iron used was 754 mg (SD = 251) mg. 71.8% patients received a single iron dose during the study period, 14.1% received two administrations, 5.9% received three administrations and 8.3% received four or more administrations. No AEs associated with the drug were reported to the Pharmacy Department.
Conclusions The main uses of carboxymaltose iron were anaemia secondary to CKD and postpartum anaemia. A third of the prescriptions corresponded to surgical patients. However, 16.5% orders specified neither the indication nor the type of anaemia. Our data has shown effectiveness and safety in the use of carboxymaltose iron.

No conflict of interest.

DGI-009 ANALYSIS OF THE USE OF ERYTHROPOIESIS-STIMULATING AGENTS IN A UNIVERSITY HOSPITAL

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Background The use of erythropoiesis-stimulating agents (ESA) in the treatment of anaemia due to chronic kidney disease (CKD) is highly variable regarding patient characteristics and doses, including the equivalence among ESAs stated in the label product.
Purpose To evaluate the use of ESAs for anaemia due to CKD in a university hospital.
Materials and Methods A descriptive, transversal study was performed in patients treated with ESAs for anaemia secondary to CKD in a university hospital over a month. The principle variable was monthly dose of ESA. Secondary aims were to assess: efficacy (defined in terms of haemoglobin levels [Hb]) and safety (defined in terms of percentage of patients with Hb >13 g/dl). Variables collected were: demographic characteristics, ESA type and dose, prescribing Service, Hb, serum creatinine (Cr), C-reactive protein, albumin, ferritin, transferrin saturation index, folate, vitamin B12 and parathyroid hormone (PTH).
Results 333 patients were included (52.6% female; median age 75.2 years). 69.1% patients were on pre-dialysis, 27.6% on haemodialysis and 3.3% on peritoneal dialysis. The prescription profile was: 23.4% epoetin, 41.4% darbepoetin α and 35.1% CERA. 97.0% prescriptions from Nephrology Service. Median [p25, p75] dose/month was: epoetin (12857 [8571, 25714] IU), darbepoetin α (86 [43, 129] mcg), CERA (75 [50, 100] mcg). Hb levels: epoetin (11.9 [11.3, 12.5] g/dl), darbepoetin α (11.9 [11.1, 12.8] g/dl), CERA (12.1 [11.0, 12.8] g/dl); $p = 0.860$. Patients with Hb> 13 g/dl: 11.5% epoetin, 19.6% darbepoetin α, 22.2% CERA; $p = 0.639$. Patients treated with CERA had more favourable levels of Cr, albumin and PTH than those treated with epoetin and darbepoetin α ($p < 0.05$).
Conclusions Efficacy and safety were similar for different types of ESAs. CERA dose was lower than the recommended equivalence stated in the label product for the doses of epoetin and darbepoetin α obtained, although patients treated with CERA had a better kidney function.

No conflict of interest.

DGI-010 ANALYSIS OF THE USE OF FINGOLIMOD IN PATIENTS WITH MULTIPLE SCLEROSIS IN A UNIVERSITY HOSPITAL

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Background Multiple Sclerosis (MS) is a chronic, inflammatory and degenerative disease, which affects the Central Nervous System [1].

Fingolimod (FTY) is a medicine indicated in the treatment of MS patients with active exacerbation/remitting episodes. Being an expensive, innovative treatment it has been the subject of careful monitoring.
Purpose To evaluate the use of FTY between May 2011 and September 2012. To evaluate the benefits in reducing disease progression.
Materials and Methods Retrospective analysis of FTY use in MS patients in outpatient care, followed in Demyelinating Diseases Consultation. The number of outbreaks and Kurtzke Expanded Disability Status Scale (EDSS) scores, blood pressure and heart rate were examined using a pharmacy database and patients' medical records.