

Background Daptomycin is an antibiotic only active against Gram-positive bacteria, with rapid bactericidal activity, a concentration-dependent and post-antibiotic effect. Indicated for complicated skin or soft tissue infections in adults (cSSTI), right side endocarditis due to *Staphylococcus aureus* and *S. aureus* bacteraemia associated with right-side infective endocarditis.

Purpose To perform a retrospective observational study of the use and effectiveness of daptomycin in our hospital.

Materials and Methods We extracted from the hospital computer system (SAP) prescribing data about daptomycin from January to December 2011. The data collected included age, sex, history number, diagnosis, causative organism, prescriber service, treatment duration and reason for suspension.

Results Were treated 85 patients (69% male) with an average age of 63.3 years (range 22–86 years). The average duration of treatment was 20.5 days. Prescribers' services were: cardiac surgery/cardiology (27%), UCI (15%), haematology (12%), internal medicine (12%), nephrology (12%) and others (22%). The diagnoses for which daptomycin was used were: 32% endocarditis, 32% cSSTI, 20% bacteraemia, 11% osteoarticular infection and 5% others. Microorganisms identified were: 11% methicillin-resistant *S. aureus* (MRSA), 20% coagulase-negative *Staphylococcus*, 5% others and 64% was empirical treatment. In 36.5% of prescriptions, daptomycin was used as second-line antibiotic treatment, either because the patient did not respond to previous antibiotic treatment (32%) or due to side effects (39% anaemia with linezolid and 29% renal damage with vancomycin). The reasons for suspending daptomycin were: 77% for improvement/patient discharge or who ended treatment or switched to oral treatment, 9% change in treatment and 14% deceased.

Conclusions In 84% of cases the prescription complied with the authorised indications in datasheet. Daptomycin was prescribed first-choice in 63.5% of treatments. In 64% of case treatment was empirical without subsequent confirmation of the causative organism. It is necessary to establish a mechanism to decrease the rate of use of this antibiotic in the hospital for frontline empirical treatments.

No conflict of interest.

DGI-064 STUDY OF THE USE OF FERRIC CARBOXYMALTOSE (FC) WITHIN THE SYSTEM FOR PREOPERATIVE OPTIMIZATION OF HEMOGLOBIN (HB) IN SCHEDULED SURGERY

doi:10.1136/ejhp-2013-000276.330

M Gómez Pérez, MA Arias Moya, M Hernández Segurado, FJ Bécares Martínez, M Bonilla Porras, E Castillo Bazán, MI Panadero Esteban, G Toledano Mayoral, B Rodríguez Vargas, EM Martín Gozalo. *Hospital Universitario Fundación Jiménez Díaz, Pharmacy, Madrid, Spain*

Background In our hospital there is a protocol for preoperative Hb optimization with the aim of reducing blood transfusions in patients with anaemia and upcoming surgery.

Purpose To evaluate the use of FC in terms of adherence to protocol and effectiveness.

Materials and Methods Descriptive observational study. The study included patients who had received at least one dose of FC in 2011. We collected from the electronic medical record: age, sex, cause of anaemia, iron administered, Hb level, iron saturation, transferrin and ferritin before administration of IV iron and surgery. We evaluated adherence to the protocol and analytical results.

Results We studied 47 patients with an age range between 23 and 87 years (median = 62). 78.7% of the patients met the optimization of Hb protocol (inclusion criteria: anaemia and upcoming surgery). The average increases in Hb after a single administration of 500 mg and 1000 mg of FC were 0.6 g/dl and 1 g/dl respectively. In the case

of patients who had also been given other forms of IV iron before surgery (total average dose of iron administered: 1150 mg) levels increased by a median of 2.05 g/dl. Erythropoietin was also administered to 32.43% of the patients. The mean differences in the rest of the analytical parameters studied before and after administration of iron IV were: serum iron: 40.7 µg/dl, %, iron saturation: 15.8%, transferrin: -41.8 mg/dl ferritin: 378.1 ng/ml. The median time between administration and surgery was 6 days.

Conclusions Our results show a fast increase in Hb in a short time. Restriction of the FC implied making a good selection of patients who may benefit from the higher dose (average increase of 2.05 g/dl needs an average dose of 1150 mg iron to be administered) and higher speed of action (median time between administration and surgery: 6 days). Its use would be justified for fast increases in Hb when, due to the impending surgery, with they would not be obtained in time with other presentations of iron.

Mean differences (for average dose of iron administered: 891.89 mg) in patients who met the Hb optimization protocol

Abstract DGI-064 Table 1

	Hb	Serum iron	% iron saturation	Transferrin	Ferritin
Mean differences	1 g/dl	40.7µg/dl	15.80%	-41.8 mg/dl	378.1 ng/ml

No conflict of interest.

DGI-065 STUDY USING FOSCARNET IN HAEMATOLOGICAL PATIENTS

doi:10.1136/ejhp-2013-000276.331

E García-Sanz, M Manso Manrique, E Santiago Prieto, A Torralba Arranz. *University Hospital Puerta de Hierro Majadahonda, Pharmacy, Madrid, Spain*

Background Cytomegalovirus (CMV) commonly affects bone marrow transplant patients causing significant morbidity and mortality. Foscarnet is a broad-spectrum antiviral agent, active against CMV, but is not the treatment of choice.

Purpose To find out why it was prescribed, to check the treatment efficacy and its adverse effects.

Materials and Methods Retrospective study (2011). Data were obtained from patient clinical records and the pharmacy database. We produced a database with information on demographics, underlying disease, indication, treatment duration, dosage, adverse effects and treatment results based on PCR viral load negativization. We also examined whether there had been prior treatment with ganciclovir and the reason for the change, or the reason for not starting treatment with ganciclovir.

Results 12 patients (8 male) in the haematology department were treated with foscarnet. Median age was 31. Underlying diseases: aplastic anaemia (3), lymphocytic leukaemia (4), myeloblastic leukaemia (1), Hodgkin's lymphoma (1), Burkitt's lymphoma (1), T-cell lymphoma (1), myelodysplastic syndrome (1). In 10 cases a bone marrow transplant had been performed. The indication was to treat cytomegalovirus infection except one case in which it was used for suspected infection by herpes virus 6. In 6 patients ganciclovir was not used first (pancytopenia and problems with engraftment). The other 6 patients had been given ganciclovir and switched due to development of resistance (4) and haematological toxicity (2). Treatment started at low doses and increased as tolerated up to 90 mg/kg.

Efficacy: The average length of treatment was 11.4 days. The treatment was effective in 11 patients (91.6%).

Safety: four patients had no toxicity. We found ulcers on the glans (2), impaired renal function (3) (1 of them requiring dialysis and 1 suspension of treatment), hypomagnesaemia which responded to magnesium supplements (2) and 3 gastric discomfort.

Conclusions

- Foscarnet is an effective alternative in the treatment of CMV infection if there is intolerance or lack of response to ganciclovir.
- Worsening renal function is the most important adverse effect.

No conflict of interest.

DOI-066 SURVIVAL STUDY OF PATIENTS WITH NON-SMALL CELL LUNG CANCER TREATED WITH ERLOTINIB

doi:10.1136/ejhp-2013-000276.332

M Del Barrio Aranda, R Asensi Diez, J González Chavez, R Tamayo Bermejo, I Muñoz Castillo. *Hru carlos haya, pharmacy, Malaga, Spain*

Background Lung cancer is the most common malignancy in the world, with approximately 1.4 million new cases per year, representing 16.6% of all tumours in men and 7.5% in women. It is the leading cause of cancer death.

According to the European Medicines Agency erlotinib is indicated in non-small cell lung cancer.

Erlotinib is a cytostatic selective inhibitor of tyrosine kinase coupled to EGFR.

Purpose To determine the survival of patients with stage IV non-small cell lung cancer (NSCLC) treated with erlotinib.

Materials and Methods Retrospective cohort study of all patients treated with erlotinib from 1 January 2011 to 15 June 2012 in a regional tertiary level hospital. Data collection: Viewed outpatient dispensing programme (Cafydim), reviewed medical records.

Statistical analysis:

1. Kaplan-Meier method: to determine the probability of global survival.
2. Logrank method: to compare the survival distributions of two samples.

Variables investigated: death, treatment time, treatment line and treatment discontinuation, Epidermal Growth Factor Receptor (EGFR) mutation (positive or negative).

Results Fifty patients were included. Thirty of them died. The average survival of the patients was 244.9 days with an IC95% [195.3–294.5]. 50% of the patients were alive at 180 days with IC95% [104.9–255.1].

The probability of remaining alive at the end of the study for patients with first-line treatment was 6.7% vs. 45% with the second or third line.

Survival as a function of treatment dropout: no patients who discontinued treatment during the study lived longer than if they continued treatment (8.7% vs. 18.8%).

No determinations of EGFR mutation were made.

Conclusions Erlotinib is emerging as an effective drug that increases survival in patients with NSCLC if it is administered as second or third line vs. first line.

It is necessary to determine EGFR mutations to prevent drugs being administered to patients with negative mutations.

No conflict of interest.

DOI-067 TELAPREVIR, A NEW PROTEASE INHIBITOR FOR TREATMENT OF HEPATITIS C VIRUS

doi:10.1136/ejhp-2013-000276.333

C Blazquez Romero, MT Franco Sereno, S Ibañez García, BM Muñoz Cejudo, A Martín Siguero, AI Fernandez Marchante, VL Areas Del Aguila, C Encinas Barrios. *Hospital General, Farmacia, Ciudad Real, Spain*

Background Hepatitis C virus (HCV) infection is a major health problem in the western world. Current treatment with interferon (IFN) and ribavirin (RBV) is able to produce a sustained virological

response in approximately 50% of patients with genotype-1. Telaprevir (TPV) represents a change in the treatment of HCV.

Purpose To describe the proportion of patients who had undetectable plasma HCV-RNA at week 4 and 12 of treatment, the haemoglobin and platelets level during treatment and the most frequently reported adverse events.

Materials and Methods We conducted a retrospective study of all patients who started triple therapy in 2012. We collected demographics (age and sex), genotype, pre-treatment response, haemoglobin, platelets, plasma HCV-RNA at weeks 0, 4 and 12 and reported adverse events.

Results Since January 2012, 9 patients began treatment with RBV+IFN+TPV with a mean of age of 49 (SD:6.2). 89% were male. Genotype-1a was predominant (95%).

Five patients were previous non-responders, three were relapsers and one was missing.

The mean haemoglobin at weeks 0, 4 and 12 was 15.5 (SD:1.2), 13.0 (SD:1.7), and 11.3 (SD:1.9) mg/dl respectively and the mean platelets at week 0, 4 and 12 were 217 (SD:142.4), 132 (SD:46.2) and 121 (SD:33.9) respectively. The mean of plasma HCV-RNA at the beginning was log 6.55 (SD:0.39). At week 4, 8 patients (88.9%) had undetectable plasma HCV-RNA and 1 had to discontinue treatment (HCV-RNA: log5.63). At week 12, 7 patients had undetectable plasma HCV-RNA. One patient had to discontinue treatment due to severe anaemia.

The most frequent adverse event was anaemia (89%); in two cases it was even necessary to administer erythropoietin. Other adverse events were rash, fatigue and haemorrhoids.

Conclusions Our rate of undetectable plasma HCV-RNA at week 4 is high (89%) which allowed TPV to be suspended at week 12 and RBV+IFN treatment to be shortened to 24 weeks.

Anaemia was the major serious adverse event reported.

No conflict of interest.

DOI-068 THE EFFECT OF MAIN GENE POLYMORPHISMS ON STABLE DOSES OF ACENOCOUMAROL IN LONG-TERM ANTICOAGULATION TREATMENT

doi:10.1136/ejhp-2013-000276.334

E Jiménez Varo, M Cañadas Garre, M Aguilera Gómez, A Rodríguez, MA Calleja Hernández. *Hospital Universitario Virgen de las Nieves, Pharmacogenetic Unit, Granada, Spain*

Background Several variants in CYP2C9 (CYP2C9*2 and especially the CYP2C9*3 allele) and VKORC1 genes (especially the 1639G>A polymorphism) are associated with effective coumarin derivative dose. The rs2108622 polymorphism in the gene encoding cytochrome P450, family 4, subfamily F, polypeptide 2 (CYP4F2) could also influence warfarin dose with relevant effects on coumarin response. Concomitant drugs metabolised by CYP450, such as proton pump inhibitors, mainly metabolised by CYP2C19, may increase the risk of overanticoagulation in long-term oral anticoagulation therapy. Acenocoumarol pharmacokinetics may result altered with the presence of the C3435T gene polymorphism in the P-glycoprotein and has been associated to higher warfarin dose requirements in patients with deep vein thrombosis.

Purpose Our aim was to evaluate the influence of VKORC1, CYP2C9-(CYP2C9*2 and CYP2C9*3 alleles), CYP4F2*2, CYP2C19*17 and MDR1-C3435T gene polymorphisms on the achievement of stable anticoagulation dose in patients treated with acenocoumarol.

Materials and Methods Patients with atrial fibrillation, pulmonary embolism, deep vein thrombosis, metallic aortic valve and metallic mitral valve prosthesis treated with acenocoumarol at a third level hospital were genotyped by Polymerase Chain Reaction (PCR)-Restriction Fragment Length Polymorphism, direct sequencing or real time PCR. Clinical, pharmacological and socio-demographic