intestinal absorption, enterohepatic cycling, distribution and hepatic conjugation. This would explain the rapid and of intense decline in levels, in spite of the high dose of antiepileptic, and the difficulty reversing the situation.

Conclusions Given the magnitude of the reduction in plasma levels, the speed with which it appears and the difficulty of getting it back at TI, we think that monitoring and dose adjustments are not useful to manage this interaction. A change of anticonvulsivant or antibiotic treatment should be considered.

No conflict of interest.

PHC-011 DUAL ABSORPTION IN INTRANASAL ADMINISTRATION: A NEW PHARMACOKINETIC MODEL

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Background The role of pharmacokinetic modelling is important in the development of new formulations. Some of these models are related to a particular dosage form, others are similar to models that have already been developed. Intranasal (IN) administration can be an example of a dosage form with a specific pharmacokinetic model, especially when it is applied to create a systemic effect.

Purpose To design a pharmacokinetic model that adequately describes a dual absorption profile of the concentration-time curve for intranasal administration.

Materials and Methods A strategy to predict dual absorption was developed to describe the pharmacokinetics of an intranasal administration (model1 and model2). A programme for fitting and simulation was developed (SIMLAB). Midazolam nasal spray was used as an example for this model. To validate the final pharmacokinetic model, Monte Carlo simulations were performed.

Results We had trouble fitting the observations to a single one-compartment dual absorption model. In many cases a flip-flop condition occurred in which the fitted absorption rate was lower than the estimated elimination rate, and the elimination rate showed an unrealistic value. To prevent this flip-flop condition, we used the absorption parameters from the associated observations. We developed the following model: the model superposes two one-compartment absorption models where the dose is split up over the two compartment inputs and the concentration-time curves are separated by using different lag-times (t0). Monte Carlo simulations resulted in a plasma concentration-time profile, indicating the median concentration and the 5th–95th percentile ranges. Biphasic profiles were observed starting at a parameter error of 15%, increasing to 13.6% of biphasic profiles at a parameter error of 50%. When increasing the difference between a parameter in Model 1 and Model 2, the contribution of t0 to creating a local minimum exceeded the contribution of ka. The AUC of the measured and estimated curve was 201.6 μg/L*h and 201.3 μg/L*h, respectively.

Conclusions The model developed is able to fit concentration-time curves showing individual dual absorption curves adequately.

No conflict of interest.

PHC-012 ERLOTINIB IN NON-SMALL CELL LUNG CANCER PATIENTS FROM FERNANDO FONSECA HOSPITAL

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Background The oral epidermal growth factor receptor (EGFR) tyrosine kinase inhibitor (TKI) erlotinib is an established second-line treatment for advanced non-small cell lung cancer (NSCLC). Erlotinib delays disease progression and increases survival after first-line chemotherapy in patients with advanced NSCLC as second-line treatment. Maintenance treatment with erlotinib, when compared to placebo, could be associated with a significantly longer progression-free survival and tolerability mainly in EGFR-activating mutation tumours. However second-line treatment with erlotinib is not more effective than chemotherapy (pemetrexed or other). In terms of traditional toxicities associated with chemotherapy, erlotinib seems to have a better safety profile than chemotherapy, with no haematological toxicities. The most common event has been mild to moderate skin rash which is relatively manageable.

Purpose To study erlotinib's efficacy profile in Fernando Fonseca hospital NSCLC patients.

Materials and Methods We followed up 30 NSCLC patients, who had taken erlotinib before and after other approved chemotherapies, during the 14 months starting from June 2011. During this period we collected patient demographics and baseline characteristics and also their EGFR mutational status. To determine erlotinib effectiveness we calculated progression-free survival (PFS) which was defined as the time from starting erlotinib treatment to the date of documented disease progression or death.

Results The median age of our 30 patients was 62.5 years. The most common pathological subtype was adenocarcinoma (66.7%). 46.6% of our patients had received one prior chemotherapy regimen before erlotinib and 36.6% had received two prior chemotherapy regimens before erlotinib. Two patients took erlotinib as a first line treatment. Median PFS for second-line erlotinib patients was 18.7 weeks while for third-line erlotinib patients it was 12.3 weeks. Only 50% of our patients had information available regarding EGFR mutational status; however patients who harboured tumour-associated EGFR activating mutations seemed to have higher response rates to erlotinib. Rash was the most common treatment-related adverse event with erlotinib, as expected.

Conclusions Our results show that maybe there could be a better disease outcome for advanced NSCLC patients if the oral epidermal growth factor receptor tyrosine kinase inhibitor (erlotinib) were administered as a second-line treatment instead of using it as a third-line treatment. As far as EGFR mutational status is concerned it seems that enhanced efficacy is related to EGFR mutation-positive disease.

No conflict of interest.

PHC-013 EXPERIENCE WITH CANNABINOID TREATMENT

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Background Since March 2011 cannabinoids have been authorised in Spain for the treatment of spasticity due to multiple sclerosis (MS). The product is composed primarily of two cannabinoids: CBD (cannabidiol) and THC (delta 9 tetrahydrocannabinol) and it is administered as a metered dose oro-mucosal spray. The dose should be individualised after a titration period.

Purpose To describe the use of CBD-THC in our hospital and to evaluate adverse effects and the quality of life of the patients treated.

Materials and Methods Descriptive study of all patients treated with CBD-THC from March 2011 to September 2012.

Patients were monitored from the start of their treatment. We recorded the titration period, maintenance dose and adverse

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