Prescribing errors in antineoplastic prescriptions

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Background Validation of antineoplastic prescriptions is an important job in hospital pharmacy to ensure appropriate patient treatment.

Purpose To evaluate the prescribing errors in antineoplastic orders detected during oncology pharmacist validation.

Materials and Methods We conducted a two year prospective study (2010–2011) in which all prescriptions containing antineoplastic agents were reviewed for errors and all were accounted for in the analysis. Adjuvant medicines were excluded. One oncology pharmacist and one second year pharmacy resident were needed for this work. Prescriptions included: standardised chemotherapy order forms (SCOFs), individually typed and handwritten prescriptions. The primary outcome was the number of prescribing errors detected. The error rate was calculated by the ratio of the total number of prescription errors to the volume of prescriptions. Prescribing errors were then classified as follows: dose changed, antineoplastic error, dose reduction error, dose calculation error, dose omission, scheme changed, acronym changed, wrong patient identification, failure of therapeutic programme, antineoplastic omission and addition.

Results The number of prescribing errors detected was 80. The error rate was 0.55% (for a total of 14,600 prescriptions). Principal types of errors detected were: dose changed (1%), antineoplastic error (5%), dose reduction error (14%), dose calculation error (32%), dose omission (12%), scheme changed (12%), acronym changed (1%), wrong patient identification (1%), failure of therapeutic programme (16%), antineoplastic omission (5%) and addition (1%). None of the errors reached the patient.

Conclusions Our study points to the fact that, although chemotherapy prescribing errors are intercepted during pharmacist validation and do not reach the patient, there are still some problems in the chemotherapy ordering process and we should target preventive measures in order to improve patient safety.

No conflict of interest.

Program interventions to optimise the duration of antibiotic treatment

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Background Reducing unnecessarily prolonged antibiotic treatment is one of the main initiatives to ensure the appropriate use of antibiotics.

Purpose To analyse the preliminary results of a pharmaceutical interventions programme trying to minimise the duration of antibiotic treatment, promoted within the antibiotics stewardship programme of a tertiary hospital.

Materials and Methods A protocol was agreed on by the antibiotics stewardship group, to capture via the Pharmacy Department antimicrobial treatments lasting more than 10 days made through the electronic prescribing programme. A pharmacist intervened to suspend or change these antibiotics treatments. We excluded: oncohaematology patients, treatments for urinary tract infections, endocarditis, diabetic foot, empyema, if Pseudomonas aeruginosa was detected or when it was impossible to confirm the type of infection. We analysed the results of interventions from 27 January to 17 July 2012. The following variables were examined: antibiotics involved, prescriber department, number of interventions, indication for treatment and treatment at discharge.

Results A total of 111 interventions were carried out. The most commonly used antibiotics were: amoxicillin/clavulanic acid (15.3%), meropenem (13.5%) and levofloxacin (13.5%). The departments most involved were: Multipartipathological Care (43.2%), Internal Medicine (55.1%) and Pneumology (6.1%). 74.8% of the antibiotic treatments were initiated because of respiratory infection. 18.9% of patients maintained antibiotics at discharge. The overall acceptance of the interventions was 65.8%. Within the accepted interventions, 68.5% caused antibiotic treatment to be suspended and 31.5% caused a change in the antibiotic used.

Conclusions The preliminary result of acceptance of interventions may be considered positive to ensure the programme is continued. To improve the acceptance of the interventions, it is necessary to increase involvement of Internal Medicine and Pneumology. The optimal duration of antibiotic therapy must assess the overall exposure, taking into account that established at the outpatient level.

No conflict of interest.