

gave it to a nurse or doctor on the ward. The nurse and doctor would consider the suggested solution and tick off either 'Yes I agree and have prescribed a laxative' or 'No I don't agree' and return the handout to the pharmacist.

Results A total of 2282 patient medicines were screened and 681 patients had been prescribed opioids. 236 of the patients receiving opioids did not have a prescription for a laxative and the pharmacist filled in an intervention handout for these patients. 25 interventions were accepted by the doctors on the wards and laxatives were prescribed. Unfortunately about 50% of the handouts were never returned to the pharmacy, making it difficult to determine the exact number of interventions accepted. Also a number of patients were discharged before action could be taken. If the intervention were to be repeated the following would be relevant to improve the outcome: better communication with the doctors, ensure that the patients on selected wards are hospitalised for a few days (to make time for intervention) and more time to prepare the ward personnel.

Conclusions The campaign was a success, but more could be done to improve the outcomes of such a campaign. It is important to consider the selection of wards to include in the campaign. On wards where the patients are discharged after a few days it can be difficult to implement the interventions under time pressure.

No conflict of interest.

CPC-117 PROSPECTIVE REGISTRY FOR EVALUATING THE EFFECTIVENESS OF BEVACIZUMAB ALONE OR WITH IRINOTECAN IN RECURRENT GLIOBLASTOMA

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Background Recurrent glioblastoma is nearly always fatal, with median survival rates of approximately 12–14 months. Previous phase II clinical trials showed promising results with bevacizumab, alone or in combination with irinotecan, in patients with recurrent glioblastoma.

Purpose To assess whether the survival of patients with recurrent glioblastoma receiving bevacizumab alone or with irinotecan in everyday practise is comparable to that reported in clinical trials.

Materials and Methods This was a retrospective observational study conducted at a single hospital in Italy. Patients with recurrent glioblastoma who had received bevacizumab alone or with irinotecan from January 2009 to September 2011 were included in our study.

The main outcome measures were progression-free survival (PFS), overall survival (OS), and rates of PFS and OS at 6 months.

Results Median PFS was 5.1 months in the bevacizumab group (n = 9) and 15.4 months in the bevacizumab + irinotecan group (n = 10), with 6-month PFS rates of 45% and 69%, respectively. Median OS was 6.8 months for bevacizumab alone and 11.1 months for bevacizumab + irinotecan, with 6-month OS rates of 100% and 90%, respectively.

Conclusions Although the number of patients included is not sufficient to allow a conclusive statement about the place of bevacizumab in the treatment of recurrent glioblastoma, the data appear promising, and are consistent with the results of clinical trials.

No conflict of interest.

CPC-118 QUICK WINS – INNOVATIVE AND ECONOMIC FOCUS ON USE OF MEDICINES

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Background Medicines account for a large part of the budget in Danish hospitals. National and regional actions are initiated to control drug expenses. Local initiatives aim at involving doctors, nurses and pharmacy staff in taking everyday responsibility for the rational use of drugs.

Purpose To establish systematic and documented cooperation between the Local Drug and Therapeutics Committee, the clinical staff and the pharmacy staff to systematically identify and intervene on avoidable medicines expenses.

Materials and Methods 10 focus areas were identified: Handling free-of-charge drugs, systematic feedback from top-up-service, the staff's (unofficial) use of medicines, reanalysis of statistical material on drug use, input from other pharmacy departments, analysing the use of the 120 most expensive drugs, analysis of disposed medicines, emptying vials (expensive drugs), shift from IV to oral antibiotics, and use of the patients' own medicine, when possible. Through a systematic approach and co-operation on all levels of the organisation, the 10 focus areas were implemented in everyday practise at the hospital.

Results The results were recorded in a report to the Local Drug and Therapeutics Committee in January 2012. A financial estimate was made for 4 out of 10 focus areas. The total result for the 4 intervention areas amounts to a saving of DKK 1,154,500 (€155,000)/year. The saving is based on a conservative estimate. For the remaining six focus areas interventions are still taking place. In 2012 the initiative is spreading to other hospitals in the Capital Region.

Conclusions Through systematic and well-documented cooperation between the Local Drug and Therapeutics Committee, the clinical staff and the pharmacy, it has proved possible to save a considerable amount on the total hospital budget.

No conflict of interest.

CPC-119 RANDOMIZED CONTROLLED TRIAL OF CLINICAL PHARMACY MANAGEMENT OF PATIENTS WITH TYPE 2 DIABETES IN AN OUTPATIENT DIABETES CLINIC IN JORDAN

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Background Glycaemic goals are often not achieved in patients with type 2 diabetes despite the availability of many effective treatments and the documented benefits of glycaemic control in the reduction of long-term microvascular and macrovascular complications.

Purpose To evaluate, in a randomised, controlled trial, the impact of a clinical pharmacy service on clinical outcomes in patients with type 2 diabetes.

Materials and Methods A total of 171 patients (85 interventions vs. 86 usual care) participated in the study. Intervention patients had individualised education and treatment recommendations from a clinical pharmacist while control patients received usual care provided by the clinic. The primary outcome measure was glycaemic control manifested by HbA1c reductions. All other data collected including systolic and diastolic blood pressure, total cholesterol, low density lipoprotein (LDL), high density lipoprotein (HDL), serum triglycerides, medication adherence, and necessary self-care activities formed secondary outcome measures. Between-group differences in the amounts of change from baseline to 6-month follow-up were tested and a p value of <0.05 was considered statistically significant.

Results Compared with baseline values, patients in the intervention group had a mean reduction of 0.8% in HbA1c versus a mean

increase of 0.1% from baseline in the usual care group ($P = 0.019$). The intervention group compared with the usual care group had small but statistically significant improvements in the secondary measures of fasting blood glucose, systolic and diastolic blood pressure, total cholesterol, LDL, serum triglycerides, self-reported medication adherence and self-care activities. Between-group differences in changes in the secondary measures of HDL and body mass index were not significant.

Conclusions The enhanced patient clinical outcomes as a result of pharmacist-led pharmaceutical care in an outpatient diabetes clinic in the present study demonstrate the value of an enhanced clinical pharmacy service in improving diabetes care and achieving the desired therapeutic outcomes for patients with type 2 diabetes.

No conflict of interest.

CPC-120 RANITIDINE-INDUCED SYSTEMIC HYPERSENSITIVITY REACTION: A CASE REPORT

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Background Ranitidine is a histamine-2-receptor antagonist (antiH2) widely used with an excellent safety record. It's a drug included in the premedication for several chemotherapy regimens.

Purpose To report a case of hypersensitivity to ranitidine.

Materials and Methods Case report, literature review.

Results A 68-year-old man was being followed at hospital for management of metastatic lung carcinoma. A third-line treatment with weekly paclitaxel had been decided. The usual premedication includes intravenous ondansetron, ranitidine, dexchlorpheniramine and methylprednisolone. The patient's anamnesis hadn't reported any allergic events.

During the first course, the patient presented pruritus 5 minutes after ondansetron and ranitidine injections. Hypotension and warmth occurred despite the administration of dexchlorpheniramine. 120 mg of methylprednisolone resolved the hypersensitivity completely before the patient received paclitaxel, without further event.

During the next course, ondansetron was replaced by metoclopramide. During the ranitidine infusion the patient presented sweats, hypotension and bronchospasm. Ranitidine infusion was stopped and methylprednisolone overcame the reaction. The patient's condition allowed paclitaxel administration although he refused dexchlorpheniramine.

The need for antiH2 and the most appropriate premedication for the next courses were discussed by the clinician and pharmacist. Hypersensitivity reactions are reported in ranitidine's SPC with an estimated rare frequency and also in the literature review. A case also reported a cross-reaction between antiH2 and other antihistamines [1], while another author excluded it [2].

As no allergic investigation has been performed, all antihistamines have been removed as a precaution. For subsequent courses the premedication included metoclopramide 10 mg and methylprednisolone 80 mg. No other incidents have been reported. This search didn't formally establish the need for antiH2 in paclitaxel premedication.

Conclusion: This case has been reported to the pharmacovigilance centre and reminds clinicians that even commonly used and generally well-tolerated substances can cause serious side effects.

References

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No conflict of interest.

CPC-121 REPORT AFTER ONE YEAR USING OF FINGOLIMOD, THE FIRST ORAL TREATMENT FOR MULTIPLE SCLEROSIS: ANALYSIS OF PATIENTS IN A NEUROLOGY UNIT

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Background Multiple sclerosis (MS) is in Europe the most common neurological disease starting between the ages of 20 and 40 years. It affects approximately 2.5 million people worldwide and is the first cause of non-traumatic disability for young people. Management of this disease has for a long time been limited to treatment of relapses. However, in recent years, significant progresses have been made in the treatment with the appearance of, among others, fingolimod for relapsing-remitting MS in March 2011 in the European Union.

Purpose To observe the impact of fingolimod in the care of patients, and make an assessment of practise in the neurology unit (Professor Pelletier, La Timone hospital, Marseille) one year after fingolimod was approved for use.

Materials and Methods We noted treatment interruptions and their causes, and analysed benefits and side effects reported by patients treated with fingolimod for more than three months. Data collection was based on meetings or telephone interviews with patients and on information taken from medical records.

Results 143 patients started treatment with fingolimod between March 2011 and October 2012, 51 in the last three months. Our analysis was performed on 92 patients, and included 19 meetings and 20 telephone interviews. Four definitive treatment interruptions were identified: three for disease progression (relapses) and one hepatic cytolysis. We also noted two temporary discontinuations for tuberculosis contagion and hives. Preliminary results show that the clinical and biological tolerance was satisfactory in most cases. Furthermore, absence of relapse or improvements in motor status and tiredness were noted by the majority.

Conclusions Fingolimod has changed the management of patients with MS, and many of them have reported an improvement in their quality of life and feel side effects to be acceptable. The imminent arrival of other oral agents should result in clarification of the role of each in the strategy, and might be the subject of comparative studies.

No conflict of interest.

CPC-122 RISK FACTORS IN THE INCIDENCE OF CHEMOTHERAPY-INDUCED EMESIS

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Background Chemotherapy-induced nausea and vomiting (CINV) are the most common side effects after the administration of anti-cancer drugs. CINV appears in a variable percentage of patients, depending on the cytostatic agent and patients' risk factors.

Purpose The aim of this study was to evaluate the effect of the risk factors on the incidence of emesis after the administration of the first cycle of chemotherapy.

Materials and Methods A literature search was conducted for articles addressing the risk factors in CINV. Younger age, female sex, history of motion sickness or pregnancy-induced vomiting, radiotherapy and anxiety/depression were included. A history of alcohol intake was considered a protective factor and it was graded as none, mild (1–5 drinks/month), moderate (6–14) or high (>14) consumption. The impact on complete response (CR) of those risk factors for