

**CPC-135 THE EFFECT OF GENDER ON THE USE OF MEDICINES IN MULTIPLE SCLEROSIS PATIENTS**

doi:10.1136/ejpharm-2013-000276.592

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**Background** Multiple Sclerosis (MS) is a chronic inflammatory disease of the central nervous system that disables young adults. Epidemiological studies have shown that women are more likely to develop MS than men (ratio 2:1); however, the pathogenesis and treatment of MS in regards to gender has not been extensively studied.

**Purpose** To evaluate gender-related differences of relapsing-remitting MS patients in response to treatment with natalizumab.

**Materials and Methods** AIFA-NEURO records relative to patients treated with natalizumab in the Neurology Division of L'Aquila were examined from May 2007 to September 2012. A total of 39 patients were recruited, of which 82% were females. The average age of patients starting the treatment was 33 for females and 36 for males. An Expanded Disability Status Scale (EDSS) score was assigned for each patient before natalizumab treatment was started. The number of relapses in the 12 months before starting treatment with natalizumab were calculated and recorded.

**Results** EDSS scores were similar (average = 2.8) in females and males. In contrast, females were more likely to have relapses compared to men (1.8 vs. 1.4). Only 3 patients were treated with natalizumab as the first-line drug; all other patients were first treated with a combination of 2 or 3 drugs. Females were more likely than males to have previously been treated with (IFN)- $\beta$  1a compared to (IFN)- $\beta$  1b (62.5% vs. 37.5%), while men had previously been treated with both equally (57%). Additionally, females were more likely to have been treated previously with glatiramer acetate (44% vs. 14%). All patients received an average of 10.5 administrations of natalizumab per year. All patients are currently undergoing treatment except for 5 females who developed autoimmune reactions.

**Conclusions** The study describes gender-related differences in response to pharmacological treatments for MS. The results suggest that research should be conducted into the gender response to MS treatments.

No conflict of interest.

**CPC-136 THE EFFECTS OF USING A TREATMENT PLAN FOR DISPENSING BIOLOGICAL DRUGS IN RHEUMATIC DISEASES IN ASP 8 OF SYRACUSE, ITALY**

doi:10.1136/ejpharm-2013-000276.593

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**Background** Rheumatic diseases are chronic diseases with a high cost. New drugs are the anti-TNF inhibitors adalimumab (A) and etanercept (E). The Infectious Diseases Unit of Umberto I Hospital, Syracuse, Italy, was identified as a Regional Centre for the prescription of biologicals. Furthermore, D.A. 0264/16.02.2011 authorised a regional Treatment Plan (PT) by which these drugs are to be dispensed, health care costs and appropriateness of prescription monitored.

**Purpose** To evaluate the consequences of the PT and the effects of A and E on PCR values and number of joints involved (NJI).

**Materials and Methods** The PT is annual and consists of two sections containing: 1. Demographic features, diagnosis, prior therapy with any failures, clinical and laboratory data (NJI, PCR), date of first prescription and dose of biological agent. 2. Follow-up at 6 months, with the assessment of therapeutic efficacy (excellent, good, adequate, inadequate), side effects and updated clinical data.

**Results** Overall, 56 PTs were examined: 32.7% of patients (mean $\pm$ SD age: 50.7  $\pm$  12.1) taking A and 67.3% (mean $\pm$ SD age: 54.1  $\pm$  13.7) taking E. In subjects treated with A the PCR values were: 0.5  $\pm$  1.0 g/dl (baseline) and 0.1  $\pm$  0.2 g/dl (6 months); NJI were: 11.9  $\pm$  7.2 (baseline) and 10.1  $\pm$  9.2 (6 months). In subjects treated with E, the PCR values were: 2.5  $\pm$  6.2 g/dl (baseline) and 1.2  $\pm$  3.9 g/dl (6 months); NJI were: 15.4  $\pm$  10.8 (baseline) and 8.2  $\pm$  8.2 (6 months).

**Conclusions** The use of A and E has been shown to improve the clinical condition of the patients. Furthermore, the use of the PT has allowed all patients with rheumatic diseases in the province of Syracuse to access a dedicated health facility, reducing their physical/economic inconvenience. A significant economic benefit was recorded for the ASP 8, not having to refund the costs of flow-compensation activation (File F).

No conflict of interest.

**CPC-137 THE PERCENTAGE OF MEDICINES ORDERS FOR INTERMITTENT TREATMENT THAT ARE "REVIEWED" BY A PHARMACIST FOR "SAFE PRESCRIBING"**

doi:10.1136/ejpharm-2013-000276.594

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**Background** A multidisciplinary panel chose the percentage of medicines orders for intermittent therapy that have been reviewed by a pharmacist for safe prescribing as a valid and feasible performance indicator for the Mater Misericordiae University Hospital (MMUH) clinical pharmacy service. Fatalities have been reported due to errors in the prescribing and administration of intermittent medicines. Pharmacists have a recognised role in clearly communicating intermittent medicines orders.

**Purpose**

1. To develop a performance indicator descriptor and data collection tool for the chosen indicator.
2. To measure the percentage of medicines orders for intermittent medicines that had been reviewed by a pharmacist for safe prescribing.

**Materials and Methods** A performance indicator descriptor and data collection tools were developed and piloted. 100 in-patient beds were randomly selected. All patients supplied with methotrexate or an erythropoiesis stimulating agent 14 days prior to data collection were included. Pharmacists were not informed data collection was taking place. An independent pharmacist collected the data to reduce bias. Data collection was checked for inter-rater reliability.

Intermittent medicines were defined as 'safely prescribed' if the day(s) of the week that the medicine was to be taken were stated and the day(s) when the medicine was not to be taken were crossed out in the administration section of the drug chart.

Medicines orders were classified as fully 'reviewed' by a pharmacist when (in addition to checking the dose and frequency of the prescribed medicine) the above parameters, if not entered by the prescriber, were completed by the pharmacist as outlined by the Clinical Pharmacy Services Standard Operating Procedure (SOP).

**Results** 79% (48/61) of medicines orders for intermittent medicines were 'reviewed' by a pharmacist for 'safe prescribing'.

21% (13/61) had been signed as clinically reviewed but did not fully meet the criteria of a safely prescribed intermittent medicines.

11% (7/61) were prescribed as per MMUH prescribing policy and did not require further endorsements by a clinical pharmacist.