Anemia in chronic kidney disease patients treated with darbepoetin alpha

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Background:

FDA and EMEA recommend hemoglobin (Hb) values above 10g/dL without exceeding 12g/dL in patients with chronic kidney disease (CKD) treated with darbepoetin alpha (Dalfa) in order to avoid cardiovascular risk.

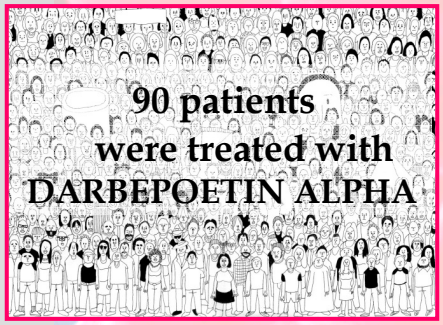
Purpose:

To analyze the adherence to the FDA and EMEA recommendations for the use of Dalfa in the treatment of anemia in CKD patients.

Material and methods: :

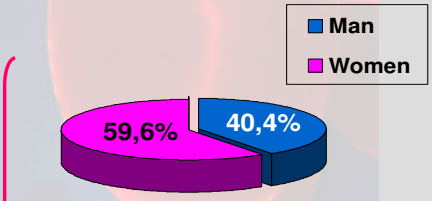
Retrospective study of CKD patients who were dispensed Dalfa at the outpatient area of the Pharmacy Department during August-September 2011. Inclusion criteria: Patients in treatment with Dalfa at least during six months. We evaluated Dalfa dosage and Hb level in the last four dispensations and identified patients with Hb out of range (10g/dl-12g/dL). Data collected: number of total dispensations, Hb levels in each dispensation, Dalfa monthly dosage and changes in prescription if Hb level was out of range.

Results:



INCLUSION

CRITERIA



Hemoglobine level out of the recommended range: 76.9%

Average of **maximum** Hb	Average of **minimum** Hb
12.7 ± 0,2g/dL	10.4 ± 0,7g/dL
Mean dose of 88 ± 12mcg/month throughout the study period	

160 dispensations were made to this group

43.1% of dispensations were associated with HB out of range

56,9 %of dispensations: Hb > 12 mg/dL

Changes in the prescription

NO: 73.9%

Average of maximum Hb	Average of minimum Hb
12,8 ± 0,3g/dL	9,1 ± 0,6 g/dL

YES: 26.1%

Average of maximum Hb	Average of minimum Hb
12,9 ± 0,5g/dL	8,8 ± 1,1 g/dL

Conclusions:

Changes in prescriptions respond to levels below the recommended interval, while levels outside the upper limits were not modified, so it seems necessary to establish a protocol to guarantee the security of the treatment.
Pharmacists could play an important role in controlling laboratory parameters and Dalfa dosage in order to reduce the number of patients with Hb levels out of range.