

# DOSAGE ADJUSTMENT OF EPOETIN $\beta$ AND DARBEPOETIN $\alpha$ IN CHRONIC KIDNEY DISEASE.

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## OBJECTIVES

Erythropoietin (EPO) is indicated in treatment of anaemia associated with chronic kidney disease (CKD). Determination of epoetin  $\beta$  and darbepoetin  $\alpha$  average dose required to achieve adequate levels of hemoglobin (Hb) in patients with CKD not yet undergoing dialysis and rate conversion factor between both EPOs.

## STUDY DESIGN

Retrospective study.

Patients included: stage 3 to 5 CKD who started treatment with EPO between January 2012-December 2012.

Follow-up period: 6 months.

Hb target range: 10.0 g/dL-12.5 g/dL.

Data collected: sex, age, CKD stage; baseline, 3 and 6 months data analysis; type of EPO and posology.

Data: medical and pharmacotherapeutic history (Farmatools®).

## RESULTS

Patients included (n = 81)		
Sex		59.3%
Age		73.8 years (30-88)
Stage	3 CKD	29.7%
	4 CKD	57.8%
	5 CKD	12.5%
Basal Hb		10.13 $\pm$ 1.16 g/dL
Serum ferritin values >100 ng/mL		63.0%

Type of EPO and dosage		
		Average weekly dose
Epoetin $\beta$	40.7%	7.718,18 $\pm$ 6.155,72UI
Darbepoetin $\alpha$	59.3%	20.55 $\pm$ 10.30 $\mu$ g
Patients who changed EPO treatment		46.9%

Hb and Hematocrit levels				
Average increase	After 3 months		After 6 months	
	Average increase	p	Average increase	p
Hb level	1.52 g/dL	<0.001	1.60 g/dL	<0.001
Hematocrit level	4.82 g/dL	<0.001	5.08 g/dL	<0.001

After 3 months, 53.1% of patients had Hb 10.0-12.5 g/dL. Average weekly dose to achieve Hb target range: 6.875,0 UI of epoetin  $\beta$  and 20.4  $\mu$ g of darbepoetin  $\alpha$ , which represent a relationship between both doses of EPOs: 337:1.

## CONCLUSIONS

EPO increase statistically significantly Hb and hematocrit baseline levels after 3 and 6 months of treatment. The relationship between both doses of EPOs to achieve Hb target range (epoetin  $\beta$ : darbepoetin  $\alpha$ ) found in our study is different from the relationship described in the Summary of Product Characteristics (337:1 vs 200:1 respectively).