

CHRONIC KIDNEY DISEASE: DOSAGE ADJUSTMENT OF EPOETIN β AND DARBEPOETIN α

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INTRODUCTION

Erythropoietic Agents (EAs) are indicated in anemia associated with Chronic Kidney Disease (CKD).

OBJECTIVES

Determine the average dose of epoetin β and darbepoetin α required to achieve hemoglobin (Hb) levels of 10.0-12.5 g/dl in predialysis patients and rate conversion factor between both EAs.

STUDY DESIGN

Retrospective study.

Patients included: CKD patients who started treatment with EAs between January – December 2012.

Follow-up period: 6 months.

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

Data collected: demographics; baseline: 3 and 6 months data analysis; EA dispensed and posology.

Data: medical and pharmacotherapeutic history (Farmatools®).

RESULTS

Sex		59.3% men
Age		74 years (30-88)
Stage	3a CKD	24.7%
	3b CKD	5%
	4 CKD	57.8%
	5 CKD	12.5%
Basal Hb		10.13 \pm 1.16 g/dl
Serum Ferritin values >100 μ g/l		63.0%

Data	Darbepoetin α Group (n=48)	Epoetin β Group (n=33)
Age (years)	72.3 \pm 11	75.2 \pm 8
Sex men	65.1%	69.7%
Hb (g/dl)	10.0 \pm 1	10.3 \pm 1
Serum Ferritin (μ g/l)	261 \pm 247	258.3 \pm 302

There were not statistically significant differences by EA type (epoetin β group vs. darbepoetin α group ($p \geq 0.05$))

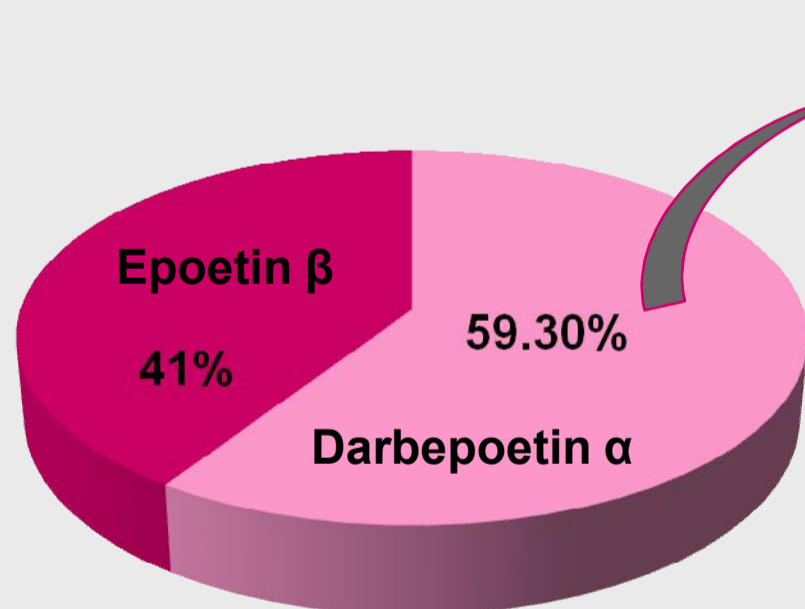


Fig. 1 % of EA type received

At 3 months follow-up
53.1% achieved Hb 10.0-12.5 g/dl.

At 6 months follow-up
62.7% achieved Hb 10.0 g/dl-12,5 g/dl

Epoetin β	6875 UI
Darbepoetin α	20.4 μ g
Relationship between both doses of EPOs (Epoetin β :Darbepoetin α)	337:1

Epoetin β	7035 UI
Darbepoetin α	18.70 μ g
Relationship between both doses of EPOs (Epoetin β :Darbepoetin α)	376:1

67.5% of patients who received darbepoetin α compared with 29.2 % using epoetin β achieved Hb 10.0-12.5 g / dl ($p = 0.003$).

CONCLUSIONS

After 3 and 6 months of EAs therapy, more than 50% of patients got response with a dose ratio between epoetin β and darbepoetin α of 300 IU / 1 μ g.