

USE OF ERYTHROPOIESIS-STIMULATING AGENTS IN ANEMIA SECONDARY TO CHRONIC KIDNEY DISEASE IN A TERTIARY HOSPITAL

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BACKGROUND AND OBJECTIVE

Erythropoiesis-stimulating agents (ESA) are one of the most used drugs delivered at Outpatient Pharmacy. Different ESA are available in clinical practice and, consequently, there are a high variety in the management of the anemia secondary to chronic kidney disease (CKD).

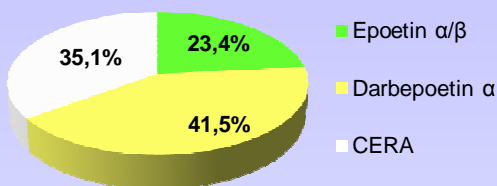
Our **objective** was to analyze the use profile of ESA in the treatment of anemia due to CKD in daily clinical practice, and to evaluate their effectiveness, safety, dosages and the factors which influence the resistance of these drugs.

METHODS

- ✓ **Design:** A descriptive, cross-sectional study was carried out in adult patients with anemia due to CKD treated with ESA in the Outpatient Pharmacy of a tertiary hospital.
- ✓ We recorded type and dose of ESA (**epoetin α/β** , **darbepoetin α** and **CERA**) and described the use profile.
- ✓ ESA impact was assessed:
 - **Effectiveness**= optimal levels of hemoglobin (Hb)
 - **Safety**= high levels of Hb
 - **Cost**= cost/patient-month according to dosage and ex-factory price
- ✓ **Equipotent doses** of ESA and the factors which influence the resistance to ESA were also evaluated.

RESULTS

333 patients included



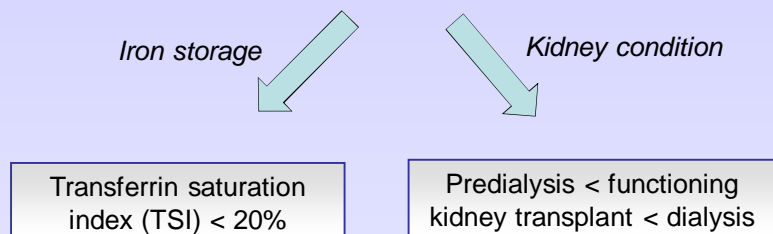
Patients treated with CERA had better values of serum creatinine, C-reactive protein, albumin and parathyroid hormone, and 94% of them were not on dialysis.

ESA	Doses/patient-month median (p25-p75)
Epoetin α/β	12857 (8571-21714) UI
Darbepoetin α	85.7 (42.9-128.6) mcg
CERA	75.0 (50.0-100.0) mcg

No statistical differences among different types of ESA were found in **effectiveness** and **safety**:

- The median (p25-p75) of Hb was 11.9 (11.1-12.7) g/dl
- Hb level was superior to 13 g/dl in 16.5% of the cases

Patient characteristics associated to resistance (high doses and costs)



CONCLUSIONS

- ✓ No differences in effectiveness and safety were found among different ESA, although patients treated with CERA showed better clinical characteristics.
- ✓ Dialysis, renal transplantation and low TSI were the most important factors related to ESA resistance and, therefore, to its efficiency.