

# Increased cost of erythropoiesis-stimulating agents in some special situations

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## BACKGROUND AND OBJECTIVE

- Certain situations as previous kidney transplant or dialysis may increase the dose requirement of erythropoiesis-stimulating agents (ESA), which is associated with a higher cost.
- The **objective** was to analyze the difference in cost in the use of ESAs between predialysis and dialysis (peritoneal dialysis or hemodialysis) patients and between patients with or without kidney transplant.

## METHODS

- ✓ **Design:** A descriptive, transversal study was carried out in patients treated with ESAs for anaemia secondary to chronic kidney disease in a tertiary hospital over a month in 2011.
- ✓ **ESAs** used were epoetin ( $\alpha$  or  $\beta$ ), darbepoetin  $\alpha$  and continuous erythropoietin receptor activator (CERA).
- ✓ **Principal variable** was patient-month cost, calculated as the cost of the dose unit for each ESA type (IU or mcg) multiplied by the monthly dose per patient.

## RESULTS

333 patients were included (52.6% female; median age 75.2 years)

30.9% patients were on dialysis	EPOETIN (35.0%)	DARBEPOETIN $\alpha$ (58.3%)	CERA (6.8%)
Predialysis (patient-month cost)	92.1 [59.5, 165.6] euros	144.0 [67.2, 229.2] euros	147.5 [98.3, 196.7] euros
Dialysis (patient-month cost)	151.1 [74.1, 239.1] euros	144.0 [72.0, 216.0] euros	393.4 [98.3, 491.7] euros
p	0.06	0.888	0.035

Data is expressed with median (p25, p75)

26.2% patients had previous kidney transplant	EPOETIN (10.3%)	DARBEPOETIN $\alpha$ (33.3%)	CERA (56.3%)
Non-kidney transplant (patient-month cost)	103.2 [63.8, 191.3] euros	144.0 [72.0, 216.0] euros	98.3 [59.0, 147.5] euros
Kidney transplant (patient-month cost)	191.3 [95.6, 414.5] euros	144.0 [72.0, 288.0] euros	196.7 [172.1, 295.0] euros
p	0.060	0.136	0.001

Data is expressed with median (p25, p75)

## CONCLUSIONS

The cost of ESA is superior in both epoetin and CERA for patients with kidney transplant and for patients on dialysis. However, regarding darbepoetin  $\alpha$ , differences have not been found.