

**A PROSPECTIVE, COHORT STUDY OF CONVERSION FROM  
SUBCUTANEOUS TO INTRAVENOUS ADMINISTRATION OF EPOETIN- $\alpha$  IN  
AN IRON REPLETE HAEMODIALYSIS POPULATION.**

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**PROBLEM:** Following the recognition of primary red cell aplasia associated neutralising antibody to EPREX, recommendations have been made it should be administered intravenously where possible. The subcutaneous licence for epoetin- $\alpha$  (Eprex, Ortho-Biotech Europe) in CKD has subsequently been withdrawn.

**PURPOSE:** This study aimed to identify any difference in dose of epoetin when converting from s.c. to i.v administration.

**DESIGN:** We have previously described the use of a computerised decision support system for the management of renal anaemia in the haemodialysis population. The use of this system allows the haemoglobin outcome to be 'locked' or 'clamped' through the utilisation of an intervention threshold and ceiling to produce a sustained and predictable outcome. Using this system we prospectively converted our unselected dialysis population from subcutaneous to intravenous administration of epoetin- $\alpha$  and studied the epoetin doses required to maintain that outcome.

**FINDINGS:** The population (n=93) was studied for 9 months following conversion. The mean haemoglobins at time 0 and 9 months were 11.7g/dl (+/- S.D. 1.7g/dl) and 11.7g/dl (+/- S.D. 1.5g/dl)(p=NS). The median and inter-quartile range (IQR) for ferritin outcomes at month 0 and month 9 were 473ng/ml (IQR 384-571ng/ml) and 554ng/ml (IQR 413-732ng/ml)(p=NS). The EPO dose increased by 29.5% from baseline to month 9 (9118 IU/wk vs. 11810 IU/wk)(p=0.02).

**CONCLUSION:** In this controlled system, conversion from subcutaneous to intravenous administration of EPO resulted in a significant increase in dose required to maintain outcome.

**RELEVANCE:** Although PRCA is a rare complication; conversion to intravenous use following recommendations that were issued after the emergence of the syndrome may have a substantial financial impact on health service resources. Use of a computerised decision support system enables predictable and stable outcomes to be maintained with s.c. or i.v. use of erythropoietin.