O 62

Extended darbepoetin alfa dosing apparently reduced erythropoiesis stimulating agent requirement to achieve haemoglobin target

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Background
The efficacy of extended darbepoetin alfa dosing beyond once-weekly in end-stage renal disease (ESRD) patients has not been sufficiently explored.

Objectives
To evaluate efficacy of extended dosing in ESRD patients to maintain haemoglobin levels.

Methods
We evaluated two groups of ESRD patients: Group I with 16 patients receiving darbepoetin once a week over 12 months and group II with 16 patients receiving darbepoetin once a week during the first 6 months and extended darbepoetin doses (multiple doses: 10 or 20 doses over 6 months) over the remaining 6 months. We evaluated darbepoetin doses, total intravenous iron administration, haematological and inflammatory data, and iron metabolism.

Results
During the first 6 months, patients in group I required 0.5±0.3 µg/kg/week darbepoetin with a total consumption of 11,520 µg for all patients; patients in group II required 0.5±0.4 µg/kg/week with a total consumption of 13,000 µg for all patients. In the following 6 months, a small increase in the darbepoetin doses (0.6±0.2 µg/kg/week) and in total darbepoetin for all patients (12782 µg) was observed in group I. A significant decrease in the darbepoetin dose was observed in group II (0.35±0.2 µg/kg/week) as well as in total darbepoetin consumption (8,880 µg). No significant differences were observed between the two groups in haematocrit and haemoglobin concentration, iron status, inflammatory markers and iron administration doses.

Conclusion/Application to practice
Results showed that both dosing regimens are equivalent in terms of maintaining target haemoglobin concentration, and that an extended darbepoetin alfa dosing seems to reduce the required darbepoetin doses (when calculated and compared per week).