



DEPARTMENT OF VETERANS AFFAIRS
UNDER SECRETARY FOR HEALTH
WASHINGTON DC 20420

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The Honorable Fortney Pete Stark
Chairman
Subcommittee on Health
Committee on Ways and Means
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Thank you for your interest in knowing how Veterans Affairs (VA) administers erythropoiesis stimulating agents (ESAs) in the treatment of anemia for End Stage Renal Disease (ESRD). In response to your questions, the following information is provided:

1. How many dialysis patients does the VA treat? What proportion of those patients receive ESAs via subcutaneous versus intravenous (IV) administration?

Response: There are 2064 patients on hemodialysis in the VA dialysis units. Seventy-six percent of these patients receive ESA via subcutaneous (SC) route and 24 percent through intravenous (IV) route.

2. Does subcutaneous administration of ESAs require a lower dose than IV administration in order to reach the same anemia management goal? How much lower of a dose? How does the frequency of the dose compare to IV administration?

Response: The dose of ESA administered via the SC route is 71 units per kg/treatment and by the IV route the dose is higher with 88 units/kg/treatment. There are two ESAs available in the United States, epoetin-alpha (sold as Epogen® and Procrit®, the latter which is only marketed for subcutaneous injection) and darbepoetin (sold as Aranesp®). There is only limited data available comparing intravenous and subcutaneous darbepoetin and the two routes of administration appear to be equivalent in terms of dosing and efficacy. For erythropoietin-alpha, the largest clinical trial, which was done in the VA, demonstrated that the dose required to reach the same target hematocrit was achieved using 25-33 percent less medication when using a subcutaneous route compared to the intravenous route (Kaufman JS et al, N Engl J Med 339:578-583, 1998).