

Summary: In a review discussing the effects of parenteral ascorbic acid administration in hemodialysis patients, the authors conclude, "Parenteral administration of ascorbic acid may be an approach that can overcome problems of vitamin C deficiency in haemodialysis patients - in particular problems of iron overload, erythropoetin resistance, and chronic inflammation." In light of the fact that vitamin C deficiency in hemodialysis patients can not be corrected through oral supplementation with vitamin C (due to the high amounts needed and the limited absorption of high doses given at a time), parenteral ascorbic acid solutions have been found to be an effective alternative. In addition to correcting vitamin C deficiency in this population, parenteral ascorbic acid has been found to prevent iron deficiency anemia as well. The authors discuss the dosage needed - up to 500 mg, 3 times/week. They also mention the importance of monitoring plasma oxalate levels at least once/week, to help prevent the development of hyperoxaluria. The reviewers conclude, "Parenteral administration of ascorbic acid may be an approach that can overcome problems of vitamin C deficiency in haemodialysis patients - in particular problems of iron overload, erythropoetin resistance, and chronic inflammation."

Reference: Parenteral ascorbic acid in haemodialysis patients," Biesalski HK, Curr Opin Clin Nutr Metab Care, 2008; 11(6): 741-6. (Address: Department of Biological Chemistry and Nutrition, University of Hohenheim, Stuttgart, Germany).