

Blagg CR, Kjellstrand CM, Ting GO, Young BA. Comparison of survival between short-daily hemodialysis and conventional hemodialysis using the standardized mortality ratio. *Hemodialysis International* 2006;10:371-4 (www.ishd.net or www.blackwellpublishing.com/HDI)

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More frequent hemodialysis (5 or more times weekly, both short during the day and long overnight) has been shown to improve patient well-being, reduce symptoms during and between treatments, and have beneficial effects on clinical outcomes. Because of the relatively small patient sample sizes, there are little or no data on mortality from any single study at this time. This study compares survival in 117 U.S. patients treated by short-daily hemodialysis in 2003 and 2004, with patients reported in the 2003 data from the United States Renal Data System (USRDS). Expected mortality was calculated from the USRDS and compared with observed actual mortality. The standardized mortality ratio (SMR) was used to adjust for differences in patient age, sex, race, and cause of renal failure. The SMR for the short-daily hemodialysis patients was 0.39, statistically significantly better ($p < 0.005$) than data from the overall U.S. population of hemodialysis patients and indicating that daily hemodialysis patients had a 61% better survival. Patients treated by short-daily hemodialysis have a better survival rate than comparable populations treated by conventional hemodialysis.

Comments by Todd S. Ing, MD

Dr. Blagg and his colleagues have reported a 61% better survival in 117 U.S. "daily" (6 treatments per week) dialysis patients compared to the overall U.S. population of conventionally hemodialyzed patients. The results are indeed encouraging and seem to be a step in the right direction in establishing the superiority of more frequent dialysis treatments. Proponents of more intensive dialytic therapies (1) would likely be pleased. However, the present study is not a randomized, controlled study. As a result, certain investigators, citing the want of scientifically vigorous data, will not likely be convinced (2,3). The dialysis community is anxiously awaiting the results of the NIH-sponsored investigations comparing more intensive dialysis therapies with the conventional, thrice weekly (3-4 hours for each treatment) approach.

References:

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