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Authors

Kim, Taehee
Obi, Yoshitsugu
Rhee, Connie M
[et al.](#)

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LONGITUDINAL CHANGES IN SERUM FERRITIN IN CONTEMPORARY COHORT OF OVER 100,000 INCIDENT HEMODIALYSIS PATIENTS. Taehee Kim¹; Yoshitsugu Obi¹, Connie M Rhee¹; Elani Streja¹; Csaba P Kovesdy²; Rajnish Mehrotra³, Kamyar Kalantar-Zadeh¹. ¹Harold Simmons Center, UC Irvine, Orange, CA; ²Nephrology, Univ. Tennessee, Memphis, TN; ³Univ Washington, Seattle, WA.

Recent rise in serum ferritin levels in prevalent hemodialysis patients (HD) has been attributed to changes in practice pattern including IV iron and/or ESA administration. However some of these changes may be independent of the above factors. We evaluated the changes of serum ferritin levels over 5 years in incident hemodialysis patients. We hypothesize that ferritin levels will increase over time independent of a patient's baseline ferritin level.

Recent rise in serum ferritin levels in prevalent hemodialysis patients (HD) has been attributed to changes in practice pattern including IV iron and/or ESA administration. However some of these changes may be independent of the above factors. We evaluated the changes of serum ferritin levels over 5 years in incident hemodialysis patients. We hypothesize that ferritin levels will increase over time independent of a patient's baseline ferritin level.

In a cohort of 108,818 incident HD patients starting dialysis, we obtained quarterly data for 5 years (2007-2011) from patient's 1st dialysis date, including ferritin levels, demographics, and other lab measurements. Patients were divided into 4 groups according to their mean baseline quarter ferritin level (<200, 200-<500, 500-<800, ≥800 ng/mL). Time-varying multilevel mixed models were used to analyze the trajectory of ferritin over 20 patient quarters.

The 108,818 incident HD patients were 63±15 years old, included in 44% female, 32% African American, 15% Hispanic, and 58% diabetics.

Median serum ferritin of 4 groups (<200, 200-<500, 500-<800, ≥800 ng/mL) were 123 ng/mL, 323 ng/mL, 625 ng/mL, and 1265 ng/mL, respectively. Ferritin levels increased in parallel across the 4 categories of baseline ferritin in casemix/MICS & iron dose adjusted model (Figure).

Additional studies are warranted to understand the rise of serum ferritin over time and the effect of serum ferritin at the start of dialysis.

