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## Correcting acidosis during hemodialysis: Current limitations and a potential solution

**David Tovbin**

Emek Medical Center, Israel

The deleterious catabolic and pro-inflammatory effects of acidosis in hemodialysis (HD) patients and the importance of its correction for limiting mineral bone disorder (MBD), are well known. Although oral base therapy could be a solution for correcting acidosis in HD patients, it increases their already enormous medication load. Thus, this approach is not commonly used. Therefore, we need to rely more on correcting acidosis during the HD procedure. This is difficult to achieve because HD is an intermittent therapy that tries to correct in few hours processes that occurred in few days. In addition, most the acid load accumulates in the extensive extra-plasma compartments while the initial changes during HD are induced through the relatively restricted plasma compartment. Thus, the currently used fixed dialysate bicarbonate concentrations are associated with pre-HD acidosis and intra-dialytic alkalosis. Recently, large scale studies have demonstrated that using higher dialysate bicarbonate concentration and intradialytic alkalosis are deleterious. Decreasing dialysate bicarbonate concentration from an initially high concentration may be a means of correcting acidosis with limited intradialytic alkalosis. Caution may be required with changes in potassium and ionic calcium levels. Some evidence, as well as theoretical considerations, supports such an approach.

### Biography

David Tovbin has completed his MD at Hebrew University School of Medicine, Jerusalem, Israel and his Nephrology Fellowship at Southwestern Medical Center at Dallas, USA. He is currently Head of Nephrology at Emek Medical Center, Afula, Israel and Assistant Clinical Professor at Faculty of Health Sciences, Technion, Institute of Technology, Haifa, Israel for the last seven years. He serves as Head of Hemodialysis Forum of Israeli Society of Nephrology and Hypertension. His main research interests include "Acid-base status and anemia and iron deficiency correction in hemodialysis patients".

DavidT2@clalit.org.il

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