

## **DRY WEIGHT (DW) ASSESSMENT BY BODY COMPOSITION MONITOR (BCM) IN HEMODIALYSIS PATIENTS**

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The purpose of the study was to investigate whether bioelectrical impedance analysis could be appropriate to assess normohydration (DW) in hemodialysis patients. Routine assessment of DW relies primarily on clinical evaluation. Fluid status is extremely important and affects the outcome in dialysis patients.

A BCM (Fresenius Medical Care, Germany) uses a bioimpedance spectroscopy to identify electrical resistances of extracellular water and total body water to calculate overhydration. Once a month measurements were sufficient in patients in a good clinical condition, but in clinically overhydrated or in the symptomatic patients during dialysis, measurements were more often. The reference range for normohydration is defined as -1 to +1 liter after dialysis.

We studied 49 hemodialysis patients (25 males and 24 females), age 64 +/- 13.2 (years: mean, SD), dialytic age 6.1 +/- 6.5 (years: mean, SD), body weight 70.6 +/- 11.3 (kg: mean, SD), diabetics 23, 7%, 100% on high flux filters, 87% on on-line hemodiafiltration, for 10 months. 347 measurements were performed (7, 1 per patient), in total, in a midweek dialysis, before dialysis. An overhydration was found on 71 (20, 5%) measurements, in 12 (24, 8%) patients.

BCM offers the potential for measurement of body fluid non-invasively, inexpensively and simply. It could be used in addition to clinical judgment and be repeated on each dialysis session. In hypertensive patients it helps to treat hypertension. In normotensive patients, if dialysis complications occur, DW should be increased until symptoms disappear or the blood pressure begins to rise. BCM contributes to assess and achieve optimum DW, but requires further research.