

Incremental Hemodialysis - A Transition from Conservative Treatment to Renal Replacement Therapy - The Potential in Preserving Residual Renal Function

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Abstract

The 3 sessions/week hemodialytic regimen became a standard of care about 50 years ago, as it was considered optimal for hemodialysis administration. The latest guidelines of KDOQI-*Kidney Disease Outcomes Quality Initiative*, in case of deterioration of the clinical condition, recommend the initiation of dialysis with higher levels of glomerular filtration (< 15ml/min/1.73m²) compared to previous recommendations. As a result, a greater percentage of patients may actually start dialysis treatment with higher residual renal function, only because they experience a clinical deterioration. In patients with a significant decrease in residual function (residual urea clearance (RUC) < 2ml/min/1.73m²) KDOQI

advises a minimum treatment of 3 hemodialysis (HD) sessions per week. In patients with significant residual function (RUC > 3ml/min/1.73m²) the guidelines indicate that the HD regime 2 times/week can be applied. Incremental dialysis is the process of limiting dialysis dose at the initial onset of treatment to provide a more gradual transition toward a standard 3 sessions weekly dose. This regimen may be advised when the RUC exceeds 3 ml/min/1.73m², based on the ability to achieve an efficient HD treatment with 4 h/session, but should be changed if the RUC falls below 2 ml/min/1.73m². Incremental HD may be useful for preserving native kidney function, which is not simply a diuresis preservation, but is

associated with significant benefits in terms of volume control, solute clearance and elimination of uremic toxins.

Keywords: residual renal function, incremental hemodialysis, twice-weekly