

RECOMMENDED CLINICAL PRACTICES FOR MAXIMIZING PERITONEAL DIALYSIS CLEARANCES

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Data from the Canada-U.S.A. (CANUSA) Study have recently confirmed a long-suspected linkage between total clearance and patient survival in peritoneal dialysis (PD). Recognizing that what we have historically accepted as adequate PD simply is not, the Ad Hoc Committee on Peritoneal Dialysis Adequacy met in January, 1996. This committee of invited experts was convened by Baxter Healthcare Corporation to prepare a consensus statement that provides clinical recommendations for achieving clearance guidelines for peritoneal dialysis. Through an analysis of 806 PD patients, the group concluded that adequate clearance delivered with PD can be achieved in almost all patients if the prescription is individualized according to the patient's body surface area, amount of residual renal function, and peritoneal membrane transport characteristics. Use of 2.5 L to 3.0 L fill volumes, the addition of an extra exchange, and giving automated peritoneal dialysis patients a "wet" day are all options to consider when increasing weekly creatinine clearance and KT/V. Rather than specify a single clearance or KT/V target, the recommended clinical practice is to provide the most dialysis that can be delivered to the individual patient, within the constraints of social and clinical circumstances, quality of life, life-style, and cost. The challenge to PD practitioners is to make prescription management an integral part of everyday patient management. This includes assessment of peritoneal membrane permeability, measurement of dialysis and residual renal clearance, and adjustment of the dialysis prescription when indicated.

KEY WORDS: Peritoneal dialysis, adequacy, outcome.

The wise general in his deliberations must consider both favorable and unfavorable factors. By taking into account the favorable factors, he makes his plan feasible; by taking into account the unfavorable, he may resolve the difficulties.

- Sun Tzu, *The Art of War*

The daily regimen of four 2-L exchanges has long been the standardized, accepted continuous ambulatory peritoneal dialysis (CAPD) prescription. Over the last few years, concern has surfaced regarding the relationship between total clearance and clinical outcomes in peritoneal dialysis (PD) patients, and several studies have confirmed that a correlation exists (1-3).

The Canada-U.S.A. (CANUSA) (4) prospective, multicenter cohort study has recently provided specific data that confirm the linkage between small solute clearance and patient survival. CANUSA results have led us to reevaluate our beliefs about clearance "targets," which at 50 L/wk/1.73 m² of creatinine clearance (Ccr) and weekly KT/V > 1.7 may have been too low.

A similar realization by the hemodialysis (HD) community, in 1989, resulted in an increase in the basic hemodialysis prescription in the United States (5). It is vital that PD practitioners make a similar conscious effort to increase PD prescription.

In light of the CANUSA findings, the Ad Hoc Committee on Peritoneal Dialysis Adequacy met in January, 1996. This committee of invited experts was convened by Baxter Healthcare Corporation, and the objective of this committee was to provide a consensus statement that provides clinical recommendations for achieving clearance guidelines for peritoneal dialysis. It should be clearly stated that the recommendations are based on the considered opinion of the committee rather than on any validated scientific data. The aim of this committee was to evaluate clearance guidelines rather than all of the parameters, such as nutrition, that comprise PD adequacy.

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