Fresenius Medical Care

Medical Flashlight

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Title

High-flux or low-flux dialysis: a position statement following publication of the Membrane Permeability Outcome study

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Introduction

In 2009 J Am Soc Nephrol published the results of the Membrane Permeability Outcome study, a European prospective, randomised, controlled, multi-centre trial investigating the effect of high-flux dialysis vs low-flux dialysis on patient survival. Recently, Tattersall et al. published a position statement in NDT. The aim of the statement was to **update the current European Best Practice Guideline (EBPG)** regarding the question whether the use of high-, compared to a low-flux dialyser membrane has a measurable effect on survival, solely due to the results of the MPO study.

Results

The revised guidance should be read as:

Synthetic high-flux membranes should be used to delay long-term complications of haemodialysis therapy in patients at high risk (serum albumin < 40 g/l) (level 1A: strong recommendation, based on high-quality evidence). In view of underlying practical considerations, and the observation of a reduction of an intermediate marker (beta-2-microglobulin), synthetic high-flux membranes should be recommended even in low-risk patients (level 2B: weak recommendation, low quality evidence).

- This new recommendation is the consequence of the results of the MPO study regarding improved survival with high-flux membranes in high-risk patients (serum albumin < 40 g/l). This recommendation is supported by a high grade of clinical evidence (current guideline has to be upgraded).
- The evidence level is also level 1A for the effect of flux on serum beta-2-microglobulin.
- Though less strongly supported by clinical data, high-flux membranes should also be recommended in low-risk patients, since many patients have a low albumin at start of dialysis. In addition high-flux membranes effectively reduce middle molecule substances and their price is not substantially higher.

Summary

Due to the results of the MPO study, the evidence level of the existing EBP guidelines regarding recommendation to use high-flux membranes should be upgraded and high-flux membranes should be recommended to high risk and low risk patients.