Editorial: Paul N Bennett, Rosemary Simmonds and Adrian Buttimore

A Change in Adequacy Standards: Is it Necessary?

"as nurses we should not be rejecting more innovative therapies that offer the promise of a better health outcome and superior quality of life for patients"

In the November issue of the American Nephrology Nursing Journal Molly Cahill provided an important contribution to the discussion of dialysis adequacy standards (Cahill, 2007). This editorial is a response to provide an Australasian perspective related to the issues around "underdialysis", best available evidence, costs of home hemodialysis (HHD), patient selection and training, the accountability of patients and the nurse's role.

Home dialysis in Australia and New Zealand

Australia (30%) and New Zealand (55%) have comparatively high proportions of patients on HHD and peritoneal dialysis (PD) (McDonald, Chang, & Excell, 2007). It is worth noting that Australia (88.2%) and New Zealand (86.2%) are more urbanized countries than the United States (80.8%).and thus home dialysis is often a choice not a necessity. The success and relatively high rates of home dialysis in Australia and New Zealand has resulted from a combination of committed nephrologists, surgeons, nurses and technicians, appropriate training environments and organised home support (Lynn & Buttimore, 2005).

"Adequate" dialysis?

We propose that all patients receiving 4 hours 3 times a week of conventional haemodialysis are being underdialyzed. This regimen is not "adequate" and definitely not optimal. Haemodialysis may only be adequate when all symptoms and signs of uraemia are eradicated, when the patient is fully rehabilitated and when dialysis does not interrupt activities of daily living (Agar, 2006). A more adequate treatment may require flexible regimes such as nocturnal home hemodialysis (NHHD), short daily haemodialysis (sDHD) and peritoneal dialysis (PD). The evidence for the superiority of these treatments is mounting. Risk of death is lower (Blagg, 2005) and observational outcomes are better (Agar, 2007; Saran et al., 2006). One recent randomized control trials (RCTs) has associated these modalities with decreased left ventricular mass (Culleton et al., 2007) However, as Agar (2007) points out, the requirement of an RCT is incongruent with the reality that RCT methodology has never been required of haemodialysis per se.

Costs

Recent authors have shown the clear cost benefits of innovative therapies, such as sDHD and NHHD, over conventional haemodialysis (Agar, 2007; Agar et al., 2005; Lebner, Nesrallah, & Mendelssohn, 2007; McFarlane, Bayoumi, Pierratos, & Redelmeier, 2006; Rolie, Paulsen, Aksnes, & Thorud, 2006). These innovative treatments can decrease the costs of kidney disease which have been suggested are underfunded in the US (Jones, 2008).

Patient selection and training

Australian and New Zealand experience has shown that many people deemed unable to dialyze at home have successfully undertaken home dialysis. As home hemodialysis allows more patients to dialyze independently it frees up valuable in-centre spaces so more patients (acutely ill) may access daily or increased frequency in-centre dialysis. Although the initial home training time is greater (4-12 weeks) our experience has shown that one nurse can provide support for 20 patients receiving home dialysis. All of these factors result in more patients, less nursing time and improved patient outcomes.

Accountability of patients

Cahill (2007) suggests that there is a "lack of accountability on the part of patients to their treatment regimen". In our experience, education is the key to personal accountability. If we empower our patients with a true understanding of the treatment they are receiving they will more likely embrace this responsibility and benefit from it. We would suggest that we, as health professionals, lack accountability if we are not providing dialysis regimens that are more able to meet each patient's needs rather than the "one fits all" 4 hours 3 times per week.

Nephrology nurses are the key

The number of people requiring dialysis is increasing and nephrology nursing and medical staff numbers are decreasing (Cahill, 2007). In addition, it is becoming increasingly more expensive to dialyze all those requiring dialysis. However, as nursing staff we should not be rejecting more innovative therapies that offer the promise of a better health outcome and superior quality of life for our patients. Quite the contrary. We should be advocating and promoting these therapies and be acknowledging not only these benefits, but the awareness that home haemodialysis is cheaper than current in-centre treatments and less demanding on precious nursing and medical resources. Therefore, we question Cahill's (2007) conclusion that "HHD or PD…cannot be achieved with the current nursing shortage, insufficient funding, and some lack of accountability on the part of patients to their treatment regimen". Unfortunately, Cahill's article has supported the argument that nurses may be a "barrier" to the uptake of more frequent and flexible dialysis models (Bennett & Oppermann, 2006).

Finally, in answer to Cahill's titled question "Is it necessary to change adequacy standards?" we respond with an overwhelming yes. Nurses can be the change agents to provide more flexible dialysis opportunities for those who depend on us.

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