

Home Hemodialysis



This special issue of ACKD on home hemodialysis (HHD) represents a timely reflection on the state of HHD in the United States. President Trump's executive order of July 2019 (Advancing American Kidney Health Initiative) laid out an ambitious agenda for expanding the use of home dialysis and preemptive kidney transplantation in the United States. This issue is a compendium of articles that are wide in their breadth and scope, representing an attempt to address a variety of issues involved in implementing such a complex and difficult task.

The growth trajectory of HHD in the United States has been rather slow, despite accumulating evidence of its benefits. With a view to improve clinical outcomes and lower costs, the Advancing American Kidney Health Initiative 2019 outlines what some might call rather "lofty" goals, almost utopian in their reach.

Dr Miller dissects out this issue in a very granular yet precise manner in his article (pp 124-128). He develops the argument that although access to dialysis in the United States can be viewed as "liberal," the same cannot be said for quality and cost. He proposes that it may be plausible to achieve success in only two of the three variables of dialysis delivery (access, quality of care, and cost savings). Success in all three of the variables may be elusive, at least in the current climate.

In the second article in this issue (pp 129-135), Dr Schreiber and colleagues examine the challenges and opportunities in expanding HHD by 2025. They highlight the critical need to address the educational gaps prevalent among the nephrologists and trainees besides recognizing the potentially vital role played by enhancing patient awareness of this modality to address the existing barriers to HHD. They also underscore the importance of transitional care units in this area while addressing multiple other areas of opportunity.

The success of any dialysis modality is largely driven by its cost effectiveness. Dr Weinhandl, in his superb article on this topic (pp 136-142), will help navigate the reader through the complex web of economics of HHD together with its determinants.

With this background, Dr Gupta's article (pp 143-148) provides a nice transition to a "from the trenches" approach for the "real life" delivery of HHD. Her article details out the essential steps needed for strategic thinking when planning to start or expand an HHD program. Continuing in the same vein, Drs Lavoie-Cardinal and Nadeau-Fredette provide an excellent insight into the nitty and gritty of establishing an HHD program including the infrastructural needs as well as the governance model for such programs (pp 149-156).

"Prescribing HHD" is a topic that is probably perceived as most challenging by many nephrologists, especially those who are in early stages of their careers. Dr Glickman and colleagues, using the NxStage machine as an example (because it is the most common dialysis machine used for HHD in the United States), highlight the key features of an HHD prescription based on the physiological underpinnings involved in the use of this

machine (pp 157-163). (Each device for HHD has unique features of its own, and hence, it was not possible to provide an exhaustive review of HHD prescriptions applicable to all machines.)

Establishing a reliable vascular access (the proverbial Achilles' heel of hemodialysis [HD]) is as important in HHD as it is in maintenance HD (three times a week). The article on vascular access by Agarwal and colleagues (pp 164-169) does a wonderful job of addressing the key features important in this critical area related to HHD.

The typical patient on HHD is unique in many aspects. In general, such patients are healthier and more independent. However, this fact should not, in any way or form, make us less rigorous in implementing strict quality assurance and safety measures to protect the patient from any harm. In this regard, the article on quality assurance by More and Tennankore (pp 170-177) focuses on all the key areas required in delivering safe HD at home.

The term transitional care unit is relatively new to the dialysis community. It is for that reason we invited Dr Hussein and colleagues to contribute this important topic in this issue (pp 178-183). They underscore the important role played by transitional care units in providing a structured environment to prepare and educate patients for home dialysis. This is even more important for the so called "crash starters" who, in general, are put on in-center HD by default.

The last article in this issue on Nocturnal HD by Malavade and colleagues (pp 184-189) addresses a very important point in the field of HHD. Despite the putative benefits of intensive HD, the uptake of nocturnal HD (in-center or home) has been low. The Toronto group (one of the world leaders in this modality) very astutely highlights the barriers for the low uptake as well as possible mitigation strategies to resolve this situation.

In closing, I am delighted that we could assemble this array of excellent articles on HHD in this issue. I am thankful to Dr Charuhas Thakar for inviting me to lead this effort and to Samantha Kramer for bearing with me when meeting the deadlines seemed tough.

I am especially grateful to all the contributors, who agreed to undertake this task despite being stretched thin while coping with the pandemic. I hope that our effort will help address many contemporary issues in the field of HHD for the benefit of our patients.

As has often been said, in the end, it should be all about the patients.

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