Updates in Peritoneal Dialysis

By Jennifer Langs

Updates in Peritoneal Dialysis

- New peritoneal dialysis cycler allows remote monitoring of the patient by the nurse
- Voice guided instructions assist patient with set-up and treatment

Updates in Peritoneal Dialysis

- Cloud based technology allows the nurse to see what occurred during patient's therapy
- Allows the nurse to address problems immediately

Updates in Peritoneal Dialysis

- Voice guided instructions walk patient through set up of cycler
- Also assist patient with trouble shooting alarms
- Cycler speaks 3 languages- English, Spanish, French Canadian

Updates in Peritoneal Dialysis

- New intermittent peritoneal dialysis therapy
- Use of one exchange of Icodextrin
- Used when GFR is approx. 9.7 or greater and patient has symptoms

Updates in Peritoneal Dialysis

- Patient only does one exchange using the Ico
- Dwell time is 10-12 hours
- Typically done overnight

Updates in Home Hemodialysis

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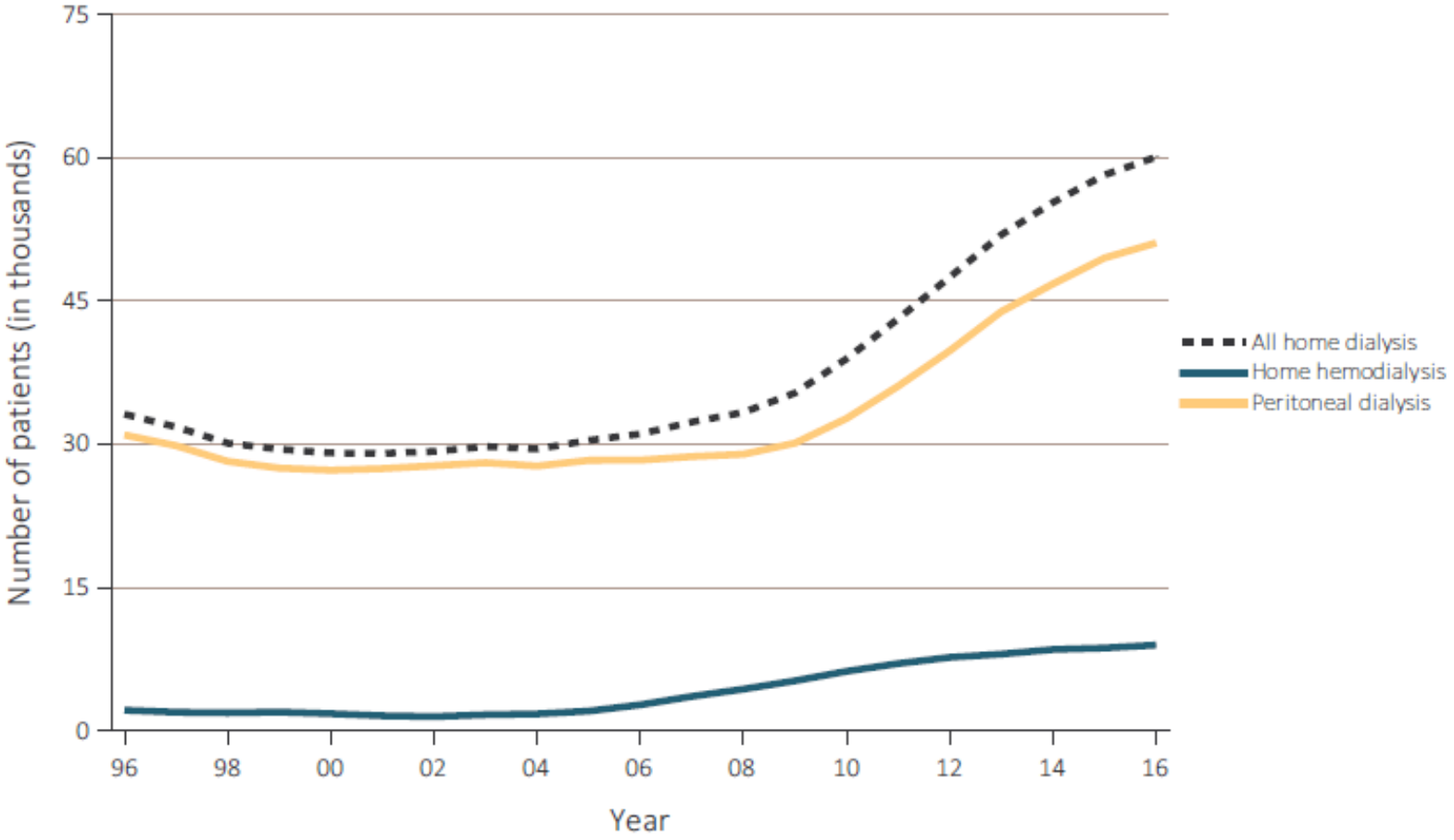
Home Hemodialysis Key Points

- Influences and trends promoting use of home renal replacement therapies
- Improved clinical outcomes
- Patient quality of life
- Innovations and advancements that promote the use of HHD therapy

Vol 2 Figure 1.16 Trends in number of prevalent ESRD cases using home dialysis, by type of therapy, in the United States, 1996-2016



In 1972, when the Medicare Act provided people in the United States with coverage for renal replacement therapy, 40 percent of patients were doing home hemodialysis (HHD).

In 2003, only 0.7 percent of the dialysis population in this country were doing HHD.

Data Source: Reference Table D.1. December 31 prevalent ESRD patients. Peritoneal dialysis consists of continuous ambulatory peritoneal dialysis (CAPD), continuous cycling peritoneal dialysis (CCPD), and intermittent peritoneal dialysis (other PD) only. Abbreviation: ESRD, end-stage renal disease.

Benefits of HHD

HHD has also been documented to have:

- ✓ improvements in blood pressure regulation
- ✓ regression of left ventricular hypertrophy
- ✓ restoration of left ventricular ejection fraction
- ✓ normalization of phosphate control
- ✓ certain aspects of quality of life related to kidney disease.

Different types of home hemodialysis

Three types of hemodialysis can be performed at home. They are:

1. Conventional home hemodialysis: You do this three times a week for three to four hours or longer each time.
2. Short daily home hemodialysis: This is usually done five to seven times a week using new machines designed for short daily home treatment. Treatments usually last about two hours each.
3. Nocturnal home hemodialysis: Long, slow treatments done at night while you sleep. You may do this kind of dialysis six nights a week or every other night. This depends on what your doctor prescribes for you. Treatments usually last about six to eight hours.

SNF

- On August 10, 2018, the Centers for Medicare & Medicaid Services (CMS) published updated regulations for dialysis facilities. The CMS guidance encompasses several modalities, with a focus on the locations where dialysis services are provided.
- The new guidance reaffirmed CMS' recognition of dialysis in a nursing home setting, making revisions to the State Operations Manual (Chapter 2, ESRD Facilities), adding section 2271A, titled "Dialysis in Nursing Homes."
- This action affirmed that Medicare-approved ESRD facilities may provide dialysis services to skilled nursing facility (SNF) residents in the nursing home within an approved home training and support modality.
- These new requirements include operational, logistical, physical, and staffing guidelines for nursing home dialysis.

Kidney Disease

- 9th leading cause of death in the US in 2017
- Approximately 37 million Americans have CKD
- More than 726,000 Americans have ESRD , 2 million worldwide
- Nearly 100,000 Americans are on the waiting list to receive a kidney transplant
- More than 100,000 Americans begin dialysis each year to treat ESRD
  - 20% die within a year
  - 50% die within 5 years
  - Every day, more than 240 people on dialysis die

Poor outcomes & Poor QOL

- Chronic hemodialysis both greatly reduces quality of life and is associated with extremely high mortality rates, which are up to seven times greater than in the general population
- More than 90% of patients undergoing maintenance hemodialysis use conventional in-center hemodialysis
- Evidence supports clinical outcomes for pts treated with PD or HHD are as good or better than for pts treated with conventional in-center hemo (ICHD)

HOME DIALYSIS IS ASSOCIATED WITH LOWER COSTS AND BETTER SURVIVAL THAN OTHER MODALITIES

Costs

- In addition to poor patient outcomes, there is a tremendous financial cost associated with kidney care. In 2016, the Medicare Program spent approximately $114 billion to care for people with kidney disease or kidney failure.
- The cost associated with the care of patients requiring chronic dialysis is substantial, and the current annual estimate for the US exceeds $49 billion
- These figures highlight a poor quality of life that is unjustifiable given the financial costs of treatment.
- The current administration has prioritized improving kidney care by demanding that the nation support kidney health instead of paying for kidney sickness.

THIS ISN’T WORKING.

Goals of the Kidney Community

- Reduce the risk of kidney failure
- Improve access to and quality of person-centered treatment options
- Improved patient quality of life
- Increase access to kidney transplantation
- Advancements in renal replacement therapies-
  - Product development and innovation in the renal field has been stagnant for 60 years
  - Dialysis and transplantation remain primary treatments for ESRD pts

SIMPLE:

1. Improve lives
2. Expand options
3. Reduce Costs

Technological Advancements

Based upon new technological advancements the need for dialysis centers will be reduced, an artificial kidney will be wearable and implantable, and routine doctors' visits could be a thing of the past.

- In the next year the University of Washington Medicine will launch a clinical trial of their manufactured wearable Artificial Kidney. The trial, done in collaboration with the Food and Drug Administration (FDA) will test the effectiveness of the ten pound wearable battery-powered artificial kidney which is attached as a belt around the waist.
- Great strides have been made in medical technology, organ preservation and the development of more effective drugs to prevent rejection. Success rates of transplant surgeries have advanced a great deal.
- Communicating with patients outside of the office is not something most physicians do, but this is already changing dramatically. Telehealth, video conferencing, email and patient portals.

Kidney Health Initiative- August 2018

- KHI, a public-private partnership between the American Society for Nephrology (ASN) and the U.S. Food and Drug Administration (FDA), was created in September 2012 to focus on promoting the development of safe and effective therapies for kidney disease and improving the lives of millions of kidney patients with end stage renal disease (ESRD).
- August 2018- **Technology Roadmap for Innovative Approaches to Renal Replacement Therapy.** Driving the renal field forward and improving kidney patient's lives
- The four high priority RRT research activities that the Roadmap focuses on are:
  - **Enhanced dialysis**
  - **Portable and/or wearable kidneys**
  - **Biohybrid and or implantable kidneys**
  - **Regenerated kidneys**

2019 KidneyX- $2.6 Million in Prizes

- KidneyX, a public-private partnership between the US Department of Health and Human Services (HHS) and the American Society of Nephrology (ASN), aims to accelerate innovation in the prevention, diagnosis, and treatment of kidney diseases.
- Prize competition that challenges the public to develop better treatment options- Redesign treatment for kidney failure

Future Innovations in Kidney Care

- American Association of Kidney Patients
- Home Dialyzors United
- IGA Nephropathy Foundation of America, Inc.
- National Kidney Foundation
- Oxalosis and Hyperoxaluria Foundation
- PKD Foundation

July 10, 2019- Advancing American Kidney Health Initiative(AAKHI)

- Executive order signed by President Donald Trump
- US Department of Health & Human Services (HHS) along with Centers for Medicare and Medicaid Services (CMS)are responsible for enforcing this order
- HHS developed proposed required payment model to adjust payment incentives to encourage:
  - Preventative kidney care
  - Increasing patient choice for higher value care
  - Increasing access to kidney transplants

Summary of AAKHI

- Awareness initiative
- Payment model to identify and treat at-risk patients earlier in disease development
- Payment model to increase home dialysis and kidney transplants
- Encourage development of an artificial kidney
- Increasing utilization of available organs
- Supporting living donors

CMS/HHS Response

- Proposing the End-Stage Renal Disease (ESRD) Treatment Choices (ETC) Model to encourage greater use of home dialysis and kidney transplants for Medicare beneficiaries with ESRD, while reducing Medicare expenditures and preserving or enhancing the quality of care furnished to beneficiaries with ESRD
- CMS proposes to achieve these goals by adjusting certain payments to nephrologists and other clinicians managing beneficiaries with ESRD (Managing Clinicians) and ESRD facilities selected to participate in the model.
- Participation in the proposed ETC model would apply to applicable Medicare claims with dates from January 1, 2020 through June 30, 2026

Response from Kidney Community

- Professional associations in nephrology, dialysis providers and patient groups joined recent criticism by the Medicare Payment Advisory Commission in telling CMS Administrator Seema Verma to drop plans to implement the ESRD Treatment Choices model this January.
- The agency received 330 responses to the proposed incentive plan before ending the comment period on Sept. 16.
- ASN, the National Kidney Foundation, and the Renal Physicians Association Send Joint Response to CMS


ANY
QUESTIONS?

References

- National Kidney Foundation. https://www.kidney.org/atoz/content/homehemo . Accessed on October 22, 2019.
- Jablonski KL, Chonchol M. Recent advances in the management of hemodialysis patients: a focus on cardiovascular disease. *F1000Prime Rep*. 2014;6:72. Published 2014 Aug 1. doi:10.12703/P6-72
- Tennankore KK, et al.Survival and hospitalization for intensive home hemodialysis compared with kidney transplantation. *J Am Soc Nephrol.* doi:10.1681/ASN.2013111180.
- White, David. ASN, the National Kidney Foundation, and the Renal Physicians Association Send Joint Response to CMS Regarding ESRD Treatment Choice Model. *Kidney News Online*. Accessed October 22, 2019, https://www.kidneynews.org/policy-advocacy/leading-edge/asn-the-national-kidney-foundation-and-the-renal-physicians-association-send-joint-response-to-cms
- Centers for Disease Control and Prevention. Chronic Kidney Disease in the United States, 2019. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2019.