Southeast Iowa Experience of Starting a Rural Home Hemodialysis Program Maria Story^{1,2}, Carry Holtkamp², Susan Brown^{1,2}, Doug Conrad², Mary Liechty²

Introduction

The 2019 American Kidney Health Initiative called to increase the number of incident patients on home dialysis modalities by 2025. Our nonprofit rural dialysis organization, Southeastern Renal Dialysis (SRD), offers peritoneal dialysis and in 2022 we added home hemodialysis (HHD).

Methods

Research Phase – Jan-Mar 2022

Literature search & vendor meetings (Outset, NxStage)

Financials and Contract – Apr-Jun 2022

- Machine costs were reduced through use of American Rescue Plan Funds; 8 Tablo machines purchased
- Cross training of staff decreased need to hire
- Remodeled existing office space into HHD training room

Patient Recruitment – Summer 2022

- Bulletin boards in each clinic
- Interdisciplinary team developed patient selection guidelines

HHD Nurse Training – Summer 2022

- Outset Medical Tablo HHD nurse training
- Created HHD clinical policies and procedures
- Nursing staff achieved required clinical competencies
- Supplies ordered & stocked in HHD training room

Water Quality – Summer 2022

- Quality tests performed on source water
- Developed procedures for home Tablo set up, including additional water pretreatment (as necessary), appropriate water/drain connections (garden hose fittings preferred), and routing of water/drain hoses to minimize trip hazards

This modality allows patients more freedom and a chance to gain back some independence in their lives. While still hooked up to a machine, patients are not restricted to a specific chair time and they get to do HD in the comfort of their own home. It's been rewarding to watch patients really take charge in their own care. -Sara, SW



Waiting room bulletin boards to promote HHD

Our patients feel they can be more liberal with diets and fluid intake...and use the time to organize phosphorous binders or plan meals while dialyzing at home -Taylor, RD



TT performing treatment at home



TS training at HHD clinic

Doing home hemodialysis has given me my freedom back. Now I am able to enjoy my life more -KM, patient





Results

First Patients

- 15 out of 154 existing patients interested in HHD
- Home training began in Aug 2022
- Two patients have been performing HHD since Sept 2022
- Achieved State of Iowa Certification for HHD Jan 2023

Patient Outcomes

- Lower BPs (both patients reduced antihypertensives within days of starting HHD), reduced travel times
- One patient returned to full time employment

Nurse outcomes

• Career growth opportunity to become HHD nurse

Challenges

- HHD nurse is a new position for the organization and there was a steep learning curve
 - Learning a new dialysis machine
 - Confidence in teaching patients
 - Planning for potential home adverse events
- Medical director/team had to make decisions about solo-HHD and CVC for vascular access

Conclusions

Starting a rural HHD program took 12 months, required a large time investment from staff (administrator, HHD nurse, biomed technician, physician), and required patients to trust their team's expertise with a new dialysis modality. Our patients and staff are very satisfied with the HHD program and for appropriate patients, this is a life changing modality.

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