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Pitman, NJ

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H-4
HOME HEMODIALYSIS – OVERVIEW

Home hemodialysis is a renal replacement modality that allows patients to perform their treatments in their own environment. Dialyzing in the home environment allows patients to choose more frequent therapy to improve their overall health status and quality of life. Patients and their partners are taught by the Home Training staff how to perform and manage their entire treatment and make appropriate changes to therapy when indicated. The Home Training team monitors patient care through regular phone contact for support and monthly clinic visits.

TYPES OF HOME/DAILY HEMODIALYSIS

Home hemodialysis can be performed in a variety of frequencies and lengths of treatments (see Table 1).

<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Length of Time</th>
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<tbody>
<tr>
<td>Intermittent</td>
<td>3-4 tx/wk</td>
<td>3-4 hr/day</td>
</tr>
<tr>
<td>Short daily</td>
<td>&gt;3 tx/wk (av 6)</td>
<td>2-4 hr/day</td>
</tr>
<tr>
<td>Nocturnal/extended</td>
<td>Any combination</td>
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Benefits of Home/Daily Hemodialysis

More frequent and longer therapies more closely mimic the natural kidney function; therefore, the patient generally experiences the highest degree of benefits. Some of the major benefits are:

- Improved quality of life – Gaining control over one’s disease, as well as reports of increased energy and libido.
- Reduction of LVH/Hypertension – With increasing frequency, fluid balance is maintained closer to normal function, resulting in less cardiac stress and hypertension. Daily therapy patients eliminate or reduce their medications, particularly antihypertensives.
- Flexibility – Time of day, length, frequency of treatment, and location of treatment. Patients can adjust therapy to their life as opposed to adjusting their life to therapy.
- Eliminate transportation issues – Many times, transportation to and from facilities can be time consuming, expensive, or difficult due to weather conditions.
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### Challenges of Home/Daily Hemodialysis

Despite all the advantages of home/daily hemodialysis, there are some challenges that should be considered.

- **Patient/partner burn-out** – Some patients or partners may not be able to easily integrate therapy into their lifestyle, which may cause stress on the relationship and overall fatigue from the increased workload. When the patient is able to perform most or all of the treatment, it tends to lessen the amount of partner burn-out. Respite care arranged by the Home Training Center should strongly be considered to provide support or care during a patient’s/partner’s illness, unstable vascular access, or vacation.
- **Unstable vascular access** – Learning to cope with a problematic vascular access can be very challenging and frustrating. To reduce frustration and increase patient comfort, the vascular access should be a significant focus during training.
- **Limits of home environment** – Cleanliness and space for equipment and supply storage should be considered. Some patients benefit from provider support and assistance in unloading the home therapy supplies.

### Patient/Partner Selection Considerations

- **Partner** – Most Home Training centers require that patients have a partner available during treatment in case of emergency. In some cases, this is difficult to manage due to the challenges of partner burn-out. Suitable partners include:
  - Spouse.
  - Family member.
  - Friend.
  - Paid aide – Payment must be made by the patient or facility program.
  - Staff assisted – A stable vascular access at the start of training helps minimize frustration and anxiety for the patient and partner. Some facilities provide staff to perform treatments in patient homes.
- **Patient** – The traditional “non-compliant” may be a model home patient and should not be immediately excluded from selection.
  - Stable vascular access – Any vascular access may be used. The buttonhole technique for AV fistulas is increasing in popularity.
  - Medically stable - Medically stable patients are the best candidates. However, some families may elect to manage the care of a less-stable patient at home to provide more comfort.
- **Patient/partner team** – It is ideal when both the patient and partner have optimal vision, hearing acuity, strength, and energy to safely perform the treatments. However, patient/partner teams can be successful as long as they are able to meet the requirements between the two.
- **Home/treatment environment** – Electric and water, a clean location free of pets and outside contaminants.

### Training Program Considerations

The single most important consideration is the home training team, and particularly a supportive physician and enthusiastic training nurse. The training program should include:

- **Assessment of the patient/partner learning styles** – Prior to training, the patient/partner team should be evaluated for particular learning styles. This allows the training team to implement an efficient and effective training program.
- **Training tools** – A written training program with supportive tools is key to successful training. These tools should be adaptable based on the patient/partner team’s specific needs, such as reading level, visual acuity, strength, and dexterity.
PATIENT/SELF-CARE MANAGEMENT

On-going patient management is based primarily on patient need. Typical oversight of self-care management includes:

- **Home visits:**
  - Initial visit prior to training to validate that the home/treatment environment is suitable.
  - Support at the first home treatment to confirm patient effectiveness in their home.
  - Annual visits to review the environment and patient compliance.
- **Clinic visits:**
  - Monthly visits to review the patient's vital signs and dry weight, access, laboratory review, treatment complications, training needs, current medication, dietary compliance, and social service needs.
- **Phone visits:**
  - Support can be provided during routine and emergent calls to and from the patient.
- **Supply delivery:**
  - Arrangements made for routine treatment supplies.
- **Emergency preparedness:**
  - Review and update of emergency preparedness plan.

Other Questions:
For questions and/or concerns please contact us at 888-600-2662.

For more information about nephrology nursing, dialysis, transplantation or other renal disorders check out the American Nephrology Nurses’ Association (ANNA) Web site at www.annanurse.org.