For Peritoneal Dialysis and Home Haemodialysis
Enquires contact:

**Aintree University Hospital**
(*Satellite Units: Southport and Waterloo*)
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**Arrowe Park Hospital**
(*Satellite Units: Chester and Clatterbridge*)
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**Royal Liverpool Hospital**
(*Satellite Units: Broadgreen, Halton, Warrington and Whiston*)
Dawn Westhead, Community Dialysis Manager
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If you would like more copies of this leaflet or would like to find out more information about kidney and transplant services across Cheshire and Merseyside, you can contact: Hannah Pulley, Kidney Care Network Manager, on 07920 835576 or email hannahpulley@nhs.net

Copies of the text of this booklet can be made available in large print and arrangements will be made for an audiotape on request. Translation into other languages can also be arranged.
Renal Replacement Therapy (RRT) is the term that describes the treatment for Chronic Kidney Disease (CKD) Stage 5. It replaces the kidney function either through transplantation or through dialysis.

Your doctor and the specialist nurses will discuss the different types of renal replacement therapy available to you, in order for you to make an informed decision about which option you would like to choose.

Not all forms of RRT are suitable for all patients, because of their clinical condition, and if this applies to you, the reasons will be explained to you. You may decide that transplantation or dialysis is not for you, and if this is the case, your doctor will advise you of how you will be looked after through the active supportive care programme.

This leaflet will help you discuss these options in more detail with your doctor, nurse and family members/carer. You may wish to use the space available at the back of this booklet to make a note of any further information you need or questions you may want to ask your doctor or nurse.

Transplantation

Transplantation is not a cure, but is a form of treatment. If you are clinically suitable, it is often felt to be the best type of renal replacement therapy. A pre-emptive transplant (ie, one carried out before dialysis is required) is considered the optimum form of treatment.

Organs can be donated from a living or deceased donor. It is important to recognise that transplants may fail, even after many years, and you will need to return to a dialysis treatment of your choice.

1) **Live Related** is when a member of the recipient’s family donates a kidney.

2) **Live Non-Related**. The kidney is donated by an individual who is not blood related to the recipient, but who is likely to be a partner /spouse or close friend.

3) **Cadaveric** is when a kidney is donated from an anonymous individual who has recently died. This individual would have given permission for their organs to be donated to someone in need.

**Advantages**
- A new healthy kidney takes over the work of the failed kidneys.
- You will be able to lead a more normal lifestyle.
- You will have very few, if any, diet and fluid restrictions.
- There will be fewer clinic visits to the hospital.
- For Live Related, and Live-Non Related transplants, the surgery can be planned in advance.
- For Live Related, and Live-Non Related transplants, the transplanted kidney is less likely to be rejected by the recipient’s body.
Peritoneal Dialysis (PD)

Peritoneal Dialysis uses the peritoneum inside the abdomen to perform the dialysis treatment. A permanent catheter is inserted into the abdomen in a minor surgical procedure to allow the dialysis to take place. A special dialysis fluid fills the peritoneal cavity. This is left in place for a set time then drained out via the same tube. This fluid will contain toxins and excess fluid that will normally be excreted via the bladder. This form of dialysis can be performed in three different ways.

1) Continuous Ambulatory Peritoneal Dialysis (CAPD) is performed manually, usually 4 times a day, taking approx 30 minutes to do each bag exchange.

2) Automated Peritoneal Dialysis (APD) is performed with the help of a machine at night whilst you are asleep. The APD machine controls the timing of exchanges, drains the used solution, and fills the peritoneal cavity with new solution.

3) Assisted Automated Peritoneal Dialysis (AAPD) is the same as APD, but with assistance from community staff for those patients clinically suitable.

Continuous Ambulatory Peritoneal Dialysis (CAPD)

Advantages

- No machinery needed.
- No needles to perform procedure.
- Less restrictive diet and fluid intake than haemodialysis.
- Comfort of your own home, or in various locations such as at work or in your car.
- Privacy and flexibility.
- Fewer restrictions on holidays.
- No travelling to hospital for dialysis.
- Supported by specialist community team.

Disadvantages

- Time spent waiting for a kidney transplant can be long and stressful.
- The transplanted kidney may be rejected, and you will have to commence (or return) to dialysis treatment.
- You will have to take medication (immunosuppressant’s) every day to reduce the risk of your body rejecting the kidney.
- An increase in the risk of infection due to the immuno-suppressant.
- For Live Related, and Live Non-Related transplants, a family member / spouse will have to undergo a surgical procedure.
- For Cadaveric transplants, the surgery cannot be planned in advance. You will be contacted at any point when a kidney is available.
Haemodialysis (HD)

Haemodialysis involves filtering your blood via a machine using an artificial kidney called a dialyser. The blood is taken from your body through a line or via needles in a blood vessel in the arm, pumped around by the machine, through the dialyser and back into your body. As a result, haemodialysis considerably replaces the function of your kidneys.

Haemodialysis is usually performed three times each week for a period of 3 -5 hours per session, but can be performed more frequently and for longer periods. Haemodialysis treatment can be carried out either in your own home or in a haemodialysis unit near to where you live.

There are three different settings where haemodialysis takes place, as follows.

- **At home**
- **In a Satellite Unit** There are a number of these throughout the Cheshire & Merseyside area. Some are operated wholly by NHS staff and some in conjunction with private companies. In all cases, the medical care is provided by doctors working within the NHS who are linked to each satellite units’ lead renal centre.
- **In a Main Renal Centre** In Cheshire and Merseyside these are situated at Aintree Hospital, Arrowe Park Hospital, and the Royal Liverpool Hospital.

The types of patients treated at each of above locations, together with some of the perceived advantages and disadvantages of each setting are shown below.

**Home Haemodialysis** is when haemodialysis treatment is performed in your own home. A small proportion of haemodialysis patients, (around 5% to 8% of the total), are clinically suitable to dialyse at home, subject to other factors, such as having suitable accommodation. Generally, although not exclusively, they tend to be younger patients who prefer the flexibility that home haemodialysis offers them, in terms of the frequency, length and timing of their treatment sessions, to fit in with employment and family life.

Disadvantages
- Usual prescription four times a day, seven days a week.
- Plastic tube will need to be surgically fitted into the abdomen.
- Storage at home is required.
- A period of training is required.
- Risk of peritonitis (inflammation of the peritoneum) increased if strict cleanliness is neglected during bag exchange.
- Small risk of long term damage to your peritoneum.

Automated Peritoneal Dialysis (APD)

**Advantages (in addition to CAPD)**
- Performed overnight whilst asleep.
- Freedom during the day.
- Machine fully portable making travel possible.

**Disadvantages (in addition to CAPD)**
- It can disturb your sleep.

Assisted Automated Peritoneal Dialysis (AAPD)

**Advantages (in addition to CAPD & APD)**
- In situations where there isn’t a family member or carer to assist you, your hospital will send a member of staff from a health care agency, who will come to set up your machine, check blood pressure, and call back the following day to clean the machine and set up for the next treatment.

**Disadvantages (in addition to CAPD & APD)**
- Being available for the health carer to call.
- At present, the machine used for AAPD is not portable. However, if this form of treatment becomes more popular, a portable machine may well be developed.
- Difficulty in dialysing away from home because of making alternative carer arrangements.
Advantages
- Receiving haemodialysis in the home often enables patients to have an improved quality of life.
- Evidence has shown that treatment outcomes for most patients receiving home haemodialysis are far better than the outcomes of patients undergoing treatment in a main centre or satellite unit.
- Greater flexibility to tailor dialysis regimen by changing timing / length of sessions:
  - Makes it easier to lead a more normal life.
  - Flexibility around employment.
  - Reduces fatigue.
- Reduces the need for larger doses of medication.
- More control over your treatment.
- More flexible dialysis regimens may be easier to follow at home that in a unit setting.
- Less restrictive diet and fluid intake on short daily dialysis.
- No frequent, long journeys to the hospital and waiting for dialysis session to start.
- Recovery from dialysis session in the comfort and privacy of home.
- Reimbursement of charges for usage of electricity and water from Lead Centre for dialysis sessions.
- The cost of home conversion is covered by the NHS.
- Supported by specialist community team.

Disadvantages
- Designated room required for machine and minor plumbing alterations.
- Storage facilities required.
- Undergo approximately 3 month training programme.
- Ideally, a helper or carer to be present within home setting during sessions.
- Can impact on home and family life.
- Dealing with any potential problems can be stressful for you and / or your carer.
- You may feel isolated from hospital support staff, and other patients.
- Presence of equipment can be a constant reminder to everyone of your illness.
- Strict diet and fluid intake restrictions on three times a week dialysis.
- May need to undergo hospital based treatment in unfamiliar surroundings if you or your carer becomes ill, with less flexibility as to frequency, length and timing of dialysis sessions.

**Satellite Unit** Patients attending satellite units for haemodialysis, usually have no other major clinical conditions, and are often able to travel independently to these more local facilities; all of which are situated within hospital sites in Cheshire and Merseyside.

**Advantages**
- No disruption to home environment with equipment or storage requirements.
- Nurses available to dialyse you.
- Keeps dialysis regimen separate from family life.
- Access to doctors, nurses and multi-disciplinary team if required.

**Disadvantages**
- Often lengthy journeys to and from dialysis unit.
- May incur lengthy waiting times at unit to start dialysis treatment.
- Long waits at unit for transport to take you home after dialysis treatment.
- Limited flexibility on dialysis times and frequency and length of sessions.
- Strict diet and fluid restriction.
For more detailed literature or more information about any of the therapy options available, contact your doctor or specialist nurse.

You can use this space to make a note of any further information you need or questions you may want to ask your doctor or nurse.

Main Renal Centre Patients treated at a main renal centre usually fall into one of the following categories.

- Patients who are starting dialysis for the very first time.
- Patients who usually dialyse at a satellite unit or at home but who become unwell with an underlying illness.
- Patients who may have a failing transplant or who need, for clinical reasons, to switch from peritoneal dialysis treatment to haemodialysis.
- Patients who are waiting to start the home haemodialysis training programme.
- Patients who waiting for a satellite unit placement.
- Patients who live in the local area in which the lead centre is situated.

Advantages (in addition to Satellite Unit)

- 24 hour, on site, access to doctors, nurses and multidisciplinary team.

Disadvantages (in addition to Satellite Unit)

- Can experience long waiting times for permanent dialysis slots.

It is recognised that many patients will experience more than one of these treatment options during their lifetime.
Enquiries

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