

Renal services at night – the latest service modernisation at Abertawe Bro Morgannwg University Health Board

The renal team at Morriston Hospital, in Swansea, is pushing the boundaries of service delivery through patient-centred, professionally-integrated and prudent practices.

The team of doctors, nurses, pharmacists, dieticians and technicians are embedded in the nephrology department to deliver frontline services, removing professional and financial silos and creating an integrated team-based approach.

The integrated model has a clear strategy of:

- workforce modernisation
- centralising service management but localising service delivery
- a patient-centred approach - designing services with patients for patients
- embracing intelligent healthcare – application of information technology for a lean modern service
- empowering patients for supported self-care.

Morriston Hospital has many examples of service modernisation which have delivered better patient care and cost savings which can be reinvested in ongoing service improvements.

Home nocturnal haemodialysis is the latest example of how the renal service can achieve more for less – more for patients in terms of their wellbeing and quality of life with more efficient use of NHS resources.

This strategy has the support from the All Wales Renal Network and is delivering benefits for patients, staff and the service. A can-do attitude is palpable and their achievements are being recognised across the network and beyond.

Nocturnal haemodialysis: What is it and what makes it different?

People of all ages can have renal failure. Their kidneys stop working and they cannot filter fluids and toxins from their body. A typical renal patient with end-stage renal failure must attend a renal dialysis unit three or more times a week. These sessions can last at least four hours. This has considerable impact on a patient's quality of life.

There is a clear need to develop alternative treatments which are less disruptive to a normal life pattern, allowing people to regain a sense of normality and to actively participate in their community.

Home nocturnal haemodialysis offers such an alternative. It is an established treatment in some countries but there are limited programmes in the UK. The renal unit at Morriston Hospital has developed a home nocturnal haemodialysis service – it is the first of its kind in Wales and the renal team has also developed some novel treatment approaches for the first time.

Nocturnal haemodialysis offers a form of more intense dialysis but is a gentler and more regular form of therapy, which is performed by the patient in their own home as they sleep. To fully understand and appreciate its many lifestyle and health benefits, you must understand and appreciate the many restrictions which accompany conventional methods of dialysis. Nocturnal patients no longer endure these restrictions - strict fluid and dietary restrictions no longer apply; the need for medications is substantially reduced and patients' lives no longer revolve around the three visits a week to a hospital. The dialysis process is also more clinically efficient; patients feel better and their blood tests improve.

What impact has it had?

Many people with kidney disease would consider transplantation as the best treatment; however around 45% of patients on dialysis are not suitable for transplant and many of those waiting for transplant will never receive one. Home nocturnal haemodialysis is a meaningful alternative for those facing a lifetime of dialysis. It offers hope for a better quality of life - a stepping stone towards normality is how it has been described by patients.

To date, 28 patients have been trained on nocturnal haemodialysis by the Morriston unit. For those currently receiving nocturnal dialysis, their own words best describe the benefits they gain:

"I have a three-year-old son and was finding it difficult because before this service I had to travel to the hospital for dialysis three times a week. Now I can have dialysis at home while I'm asleep, it means I'm there for my son, my partner can now do more work and I'm enrolling on a college course because I now have the time."

"Nocturnal dialysis has allowed me to feel normal. All the restrictions to my lifestyle have been fixed."

"Taking charge of my own treatment gave me back control and through the self care programme I have been given the confidence to undertake home dialysis. I don't have to take as many tablets either."

"I'm not sure how to put into words quite how much it has improved my life and allowed me to have some normality back. Nocturnal dialysis has had such an impact on the quality of my life - removing so many restrictions and allowing me to work and study again."

The lifestyle benefits for patients are clear. The greater autonomy, independence and flexibility for patients and their families leads to a better quality of family life and freedom to return to work, study and socialise. Because the dialysis is more efficient it removes more toxins so the medication burden is less and the strict dietary and fluid restrictions are lifted.

This alternative model also has an impact on clinical outcomes and quality. Results demonstrate a better clinical target achievement and better blood pressure control. There is improved compliance with dialysis and supportive therapies and the gentler form of dialysis results in better control of biochemical abnormalities and improved vascular health.

Nocturnal dialysis is also more cost effective. It empowers patients to manage their own condition, releasing NHS resources to tackle growing demand. The initial investment needed in terms of equipment, training and preparing the home environment is a fraction of the annual cost of conventional models of dialysis and savings become tangible within months of therapy. Conventional haemodialysis typically costs in the region of £30,000 to £35,000 per person per year. Home nocturnal haemodialysis can reduce the cost by two-thirds.

What makes it prudent?

The nocturnal service is an example of prudent healthcare in action - it is predicated on putting patients at the centre of their own treatment; they are active partners in their care within a multi-professional team.

In line with the ethos of prudent healthcare, the health professionals work at the top of their training, experience and skill set. Workforce modernisation is a key strand of their strategy and through the development of an integrated team the skill set and mix of the whole team is maximised.

The use of technology across the service as a whole, including the nocturnal service, has removed waste and variation and reduced the risk of harm through a consolidated central notes and recording system. The development of a database which automates the prescribing, communication and recording system for the whole renal patient population has improved the service and quality of data, led to better medication management and review and therefore liberated clinical and

administrative time to focus on patient contact, clinical time and service development.

Patients have embraced technology, accessing their healthcare professionals, blood results, medications and dialysis prescriptions online or via smart phones and communicate via new technologies, such as Skype and SMS messaging.

Nocturnal dialysis is a remedy to many of the ills of conventional unit haemodialysis. Its success poses further questions for future management strategies - can more be achieved for less? The department has aspirations to develop a programme for in-centre nocturnal haemodialysis. This would make more efficient use of NHS resources by allowing it to operate at night, which is the hospital's quietest time. Patients who currently cannot fully self care at home would be given the opportunity to benefit from this intensive dialysis approach. More patients could achieve better dialysis and this prudent approach would help meet service demand and improve the health of the dialysis-dependent population.

For more information:

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