

Specialised renal services and QIPP

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1. Executive summary

This report forms one in a series by the Specialised Healthcare Alliance looking at services prioritised by the National Specialised Commissioning Group in relation to the delivery of quality and productivity at a time of spending constraint, otherwise known as QIPP. It was particularly informed by a stakeholder workshop on specialised renal services organised by the Alliance and the West Midlands Specialised Commissioning Group in Birmingham on 11th October 2010. A wide range of stakeholders including patients, commissioners, clinicians and other healthcare professionals attended the workshop.

The report sets out some background information on QIPP and specialised renal services before seeking to distil the major themes explored during the workshop in relation to treatment, care and outcomes.

Among the most important points to emerge, attention is drawn to:

- **The importance of better identification of chronic kidney disease (CKD) in primary care given the level of late presentations**
- **The need to clarify the relationship between GP consortia and specialist providers of renal services once the White Paper changes are implemented**
- **The wide variations nationally in home dialysis, and need to provide better support to home dialysis patients**
- **The implication of the inclusion of renal services within the national tariff from April 2011 onwards**

These and other important themes are discussed in section 3 of the report.

2. Background

2.1 QIPP

Quality, Innovation, Productivity and Prevention (QIPP) is the flagship policy being used by the NHS to find the £15-20 billion of savings identified by Sir David Nicholson as necessary in 2011/14 as a result of rapidly rising demand for services and a challenging fiscal climate.¹

The overall aim of the scheme is to combine improvements in quality of care with efficiency savings that can be reinvested in front-line services. Ideally, quality and productivity will go hand-in-hand, providing a better service for the patient, as well as cost savings for the NHS as a whole.²

The National Specialised Commissioning Group (NSCG) has prioritised ten services for taking forward the QIPP agenda, with each Specialised Commissioning Group (SCG) leading on one of the services.

In each case, the NSCG has established three main objectives in relation to QIPP as follows:

- Working through the SCG Finance Network, benchmark and demonstrate value for money in the agreed services;
- Working with the SCG Public Health Network, develop common CQUIN (Commissioning for Quality and Innovation)³ goals for the agreed services;
- Working through the SCG Public Health Network, develop common health outcomes for the agreed services.

The West Midlands SCG is the lead for specialised renal services. The Specialised Healthcare Alliance is working with SCGs to review all ten services with an aim is to ensure a balanced discussion between the four strands of QIPP.

QIPP is clearly important in the context of specialised renal services. Given the often high cost and pace of innovation in specialised renal services, the challenge is to retain and increase quality in an environment where there is pressure to deliver significant efficiency gains and savings.

2.2 Specialised renal services

Scale of kidney disease and treatment

In England in 2008/09 there were over 1.7 million people aged 18 and over who were registered with chronic kidney disease CKD (stages 3-5). This represents an overall crude (not adjusted for age) proportion of 4.1% in the 18 and over age group.⁴

¹ For background on QIPP: *The NHS quality, innovation, productivity and prevention challenge: an introduction for clinicians* (March 2010), available from [here](#)

² See NHS Improvement's [QIPP site](#) for more background

³ The CQUIN payment framework makes a proportion of providers' income conditional on quality and innovation. See [here](#) for more information.

⁴ Statistics taken from *Kidney Disease: Key Facts and Figures, NHS Kidney Care* (September 2010), available from [here](#). Allowing for undetected cases, actual prevalence will be higher.

The population incidence (number of new cases) of acute kidney injury (AKI)⁵ from UK data ranges from 172 per million population (pmp) per year from early data up to 486-630 pmp/year from more recent series, again depending on definition. The incidence of AKI requiring renal replacement therapy (dialysis and transplantation) ranged from 22 pmp/year up to 203 pmp/year.

An estimated 5-20% of critically ill patients experience an episode of AKI during the course of their illness and AKI requiring RRT has been reported in 4-9% of all admissions to intensive-care units. The reported prevalence of AKI from US data ranges from 1% (community-acquired) up to 7.1% (hospital-acquired) of all hospital admissions.

The UK Renal Registry collects and analyses information relating to the incidence, clinical management and outcome of kidney disease. In 2008, the acceptance rate for renal replacement therapy (RRT) in England was 109 per million population (pmp).

There were almost 39,500 adult patients receiving RRT in England at the end of 2008, giving an England population prevalence of 767 pmp (split haemodialysis 337 pmp, peritoneal dialysis 69 pmp and transplant 361 pmp).

Policy framework

Renal services are the subject of a National Service Framework (NSF). The Renal NSF, which set out the first ever set of national standards for the treatment of renal disease, was published in two parts, the first in January 2004,⁶ and the second in February 2005.⁷

Part one, Dialysis and Transplantation⁸, focuses on people who already have established renal failure. It sets five standards and identifies 30 markers of good practice for dialysis and transplant services.

Part two, Chronic Kidney Disease (CKD), Acute Renal Failure and End-of-Life Care, focuses on ways to help NHS organisations to prevent chronic kidney disease in people at risk, and develop strategies for identifying people with the condition and slowing down the progression of their disease.

A report published in December 2009 reviewed progress over the five years since the publication of the NSF⁹, all renal units are required to implement the NSF by 2014.

NICE produced a guideline on chronic kidney disease in 2008.^{10,11}

Service pathway and delivery

Kidney services have been a priority for specialised services commissioning since 1998.

⁵ Also known as acute renal failure.

⁶ *National Service Framework for Renal Services: Part One - Dialysis and transplantation* (January 2004), available from [here](#)

⁷ *National Service Framework for Renal Services: Part Two: Chronic kidney disease, acute renal failure and end of life care* (February 2005), available from [here](#)

⁸ The two forms of renal replacement therapy (RRT).

⁹ *Achieving excellence in kidney care: Delivering the National Service Framework for Renal Services* (December 2009), available from [here](#)

¹⁰ NICE Clinical Guideline 73, Chronic kidney disease (September 2008), available from [here](#)

¹¹ NICE quality standards for CKD are currently in development

The renal patient pathway follows the early detection and treatment of chronic kidney disease, pre-dialysis, dialysis, transplantation, acute kidney injury and appropriate palliative care for patients in whom dialysis is not, or no longer, appropriate.

The early stages and treatment of chronic kidney disease are generally carried out in primary care in consultation, where appropriate, with a specialist renal centre. If the patient's kidney function worsens, they are usually transferred to a specialised renal centre for further care and, perhaps, dialysis and/or transplantation.

Patients who do not enter a dialysis programme but instead receive conservative management (palliative care) will receive their care supervised by a specialised centre. They will receive much of their care as possible close to home from their local hospital, community and primary care services.

Renal services for patients with chronic kidney disease are largely delivered by renal specialists working in specialist renal centres, and on an outreach basis to surrounding local hospitals. Specialist renal centres also treat patients with acute kidney injury.

Specialist renal centre services include:

- Nephrology out-patient clinics on site and as an outreach service to local hospitals
- Haemodialysis services on site
- Satellite haemodialysis services
- Support to patients on peritoneal dialysis and home haemodialysis
- Anemia management and specialist renal dietetic support
- Conservative management programmes for established renal failure
- Out-patient and in-patient services for acute kidney injury

Kidney transplantation and desensitisation services are provided in 20 of the 50 odd specialist renal centres. Of the 20 NHS specialist kidney transplant centres, six are in London

There are kidney care networks in all 10 SHA areas across England , which aim to support the commissioning, and planning of kidney services.

National Definition

Definition No. 11 of the third edition of the Specialised Services National Definitions Set (SSNDS) published in 2010 covers specialised renal services.¹²

An overview of the four areas of specialised renal activity, drawing on the national definition, is included as an appendix to the report.

¹² Definition No. 11 of the third edition of the Specialised Services National Definitions Set (SSNDS) published in 2010, available from [here](#)

3. Main themes

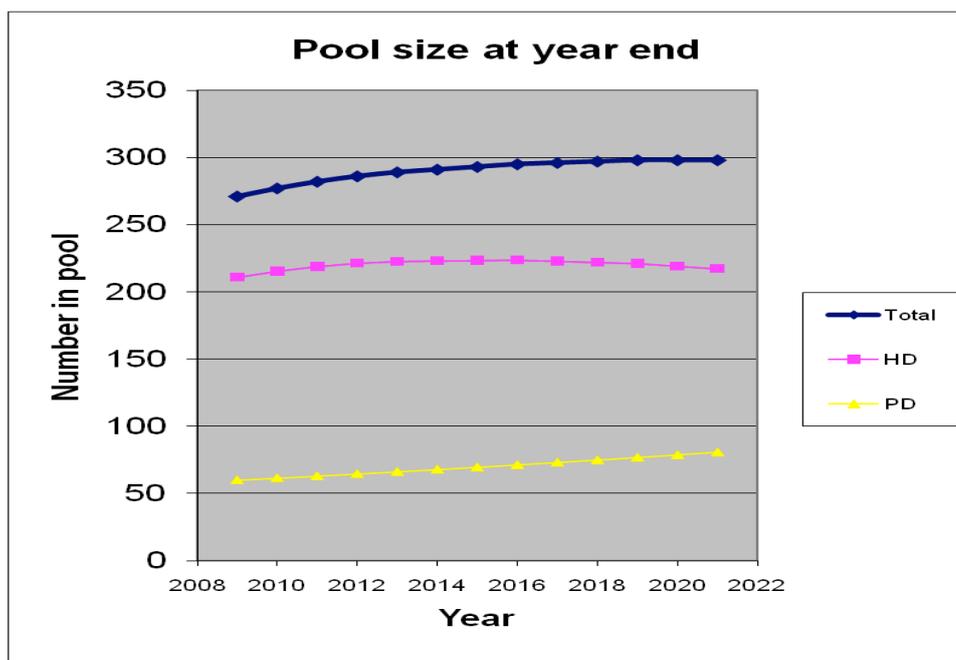
This section of the report elaborates on each of the key themes and issues from the workshop highlighted in the executive summary:

3.1 Need

Analysing the implications of demographic trends for the demand for specialised renal services and their configuration.

RRT (renal replacement therapy) currently accounts for 1.7% of NHS spending. However, demographic trends indicate continuing growth in the need for RRT.

West Midlands SCG is completing a needs assessment to understand the expected growth in renal services over the next 5 years. The challenge is how to make the necessary changes to slow the rate of growth in the dialysis pool. The modeling of West Midlands SCG predicts continued growth in the dialysis pool until the middle years of the decade, after which it is expected to plateau.



West Midlands' focus in responding to these trends is on increasing transplantation (live and cadaveric), increasing utilisation of home therapies and better primary care management of CKD.

3.2 Diagnosis

The need for better identification of chronic kidney disease (CKD) in primary care given the level of late presentations.

One of the greatest challenges in renal care is improving the relationship between primary care and specialised renal services to reduce late presentations and unplanned starts.

According to the NICE guidance, CKD should be largely managed in primary care with referral to nephrologists limited to those with more advanced CKD or progressive CKD.

Late referrals remain significant, but variable. According to the 2009 UK Renal Registry Report¹³, late presentation ranged by centre from 8% to 41% in patients commencing RRT in 2008. The overall rate of late presentation was 22.2%, comparable with the previous year.

In April 2006, CKD stages 3-5 was included in the Quality and Outcomes Framework (QOF) for GPs, along with targets for measuring blood pressure and treating hypertension (if applicable) amongst patients with CKD stages 3-5. Though this may have raised awareness of renal disease in primary care, some suggest this it needs to be incorporated into a wider vascular QOF.

3.3 Commissioning

The implication of the inclusion of renal services within the national tariff from April 2011 onwards.

The Department of Health is proposing to bring renal dialysis within the scope of the mandatory tariff from 2011/12, through the provision of a best practice tariff for this service.

The best practice tariff for adult renal dialysis will incentivise vascular access via a fistula and real choice of home haemodialysis, together with reimbursement on an activity rather than fixed contract basis, using the national renal dataset.

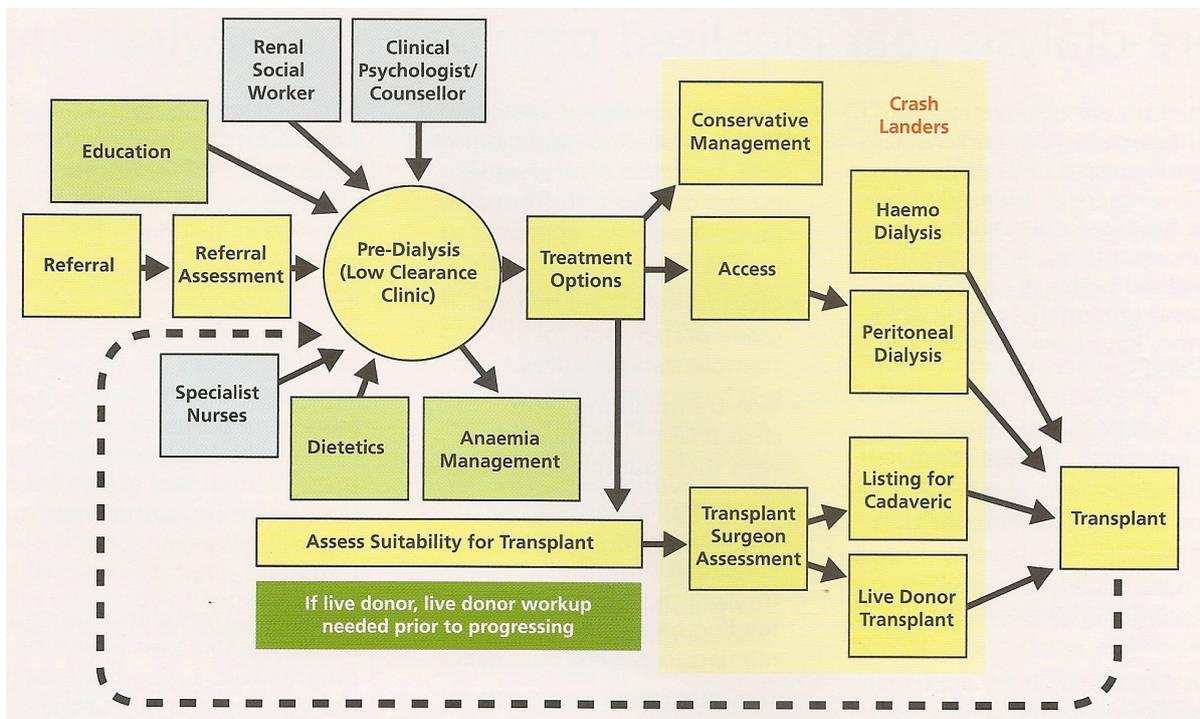
The inclusion of home haemodialysis in the tariff is proposed from April 2012.

One problem identified by specialist commissioners in bringing renal dialysis into the tariff is a lack of HRG codes (the tariff classification codes) for specialised renal services. There is concern that the relevant codes are mainly diagnostic and procedural, creating difficulties for commissioning. In the case of acute kidney injury (AKI), it is not clear what code to use.

West Midlands SCG is reviewing the definition set (see below), and working with providers to redefine clinical pathways and develop a specification for renal services inclusive of core standards and clinical outcome measures.

In analysing effective pre-dialysis pathways, there is a strong case that multi-disciplinary (rather than nephrologist-only) care improves outcomes for patients with stage 5 CKD. Heart of England Foundation Trust, which has implemented a multi-disciplinary care model, has found benefits include reduced inpatient stay, more pre-emptive transplants and improved patient survival on dialysis (see chart below and Appendix 2).

¹³ 2009 UK Renal Registry Report, available from [here](#)



The relationship between GP consortia and specialist providers of renal services once the White Paper changes are implemented.

As with other specialist services, one of the challenges on the horizon is the introduction of GP Consortia and its implications for the relationships between primary care and specialised services. As the NHS moves into the new regime of smaller primary care consortia and national specialised commissioning, the new NHS Commissioning Board will need to oversee the relationship and help with linkages.

Discussions are ongoing about the scope of services to be covered by the NHS Commissioning Board, including renal services.

The implications of the forthcoming NICE Quality Standards for CKD.

A NICE quality standard for chronic kidney disease is currently in development¹⁴. The draft standard is available for consultation until 10th November 2010. The anticipated publication date of the finalised standard is June 2011.

The quality standard covers 14 areas which will need to be fed into commissioning and contracting.:

- | | |
|--|--|
| <ul style="list-style-type: none"> • Testing for CKD • Progression • Referral • BP control • Anaemia management • AKI management • Personalised information | <ul style="list-style-type: none"> • AV fistula • Immunisation • HCAs reduced • Transport for HD • Pre-emptive transplantation • Care planning • Conservative kidney care |
|--|--|

¹⁴ NICE Chronic Kidney Disease Quality Standard, details available from [here](#)

3.4 Treatment

The wide variations nationally in home dialysis, and need to provide better support to home dialysis patients.

There is widespread support for the view that home therapies, including continuous ambulatory peritoneal dialysis (CAPD), home haemodialysis (HHD) and nocturnal dialysis should be encouraged on quality, innovation and productivity grounds.

Advances in technology are making home dialysis easier, with the introduction of more user-friendly machines. The improvement in quality of life from home dialysis brings additional health benefits. The most effective response to the neglected problem of dialysis-related depression is home dialysis. In addition, given the current VAT treatment of home dialysis, it offers tangible financial benefits.

NICE has proposed that home dialysis should account for 15% of total treatment.

However, the 2009 UK Renal Registry Report shows wide variation across the country in the prevalence of HHD in the dialysis population. In 2008, the percentage of dialysis patients receiving HHD varied from 0% in 16 centres, to greater than 5% in 4 centres.

Patients and patient representatives complain of a lack of support for HHD and other home therapies.

West Midlands has a CQUIN - 35% of patients on home therapies. It is considering continuing the CQUIN into year 2 with a more ambitious target. It is tendering to improve value for money for home delivery¹⁵ and satellite services, and introducing personal budgets for patient transport.

3.5 Care

Ways of improving patient awareness and choice

With renal tsar Donal O'Donoghue describing Patient Reported Outcome Measures¹⁶ as one of key currencies for the future, one of the challenges in specialised renal services is the development of appropriate PROMs.

The reality of patient engagement and choice in CKD and RRT is far from straightforward. Pre-dialysis it is difficult for patient to make a decision. Further, the switching of treatment is normally due to a failure of treatment rather than patient preference.

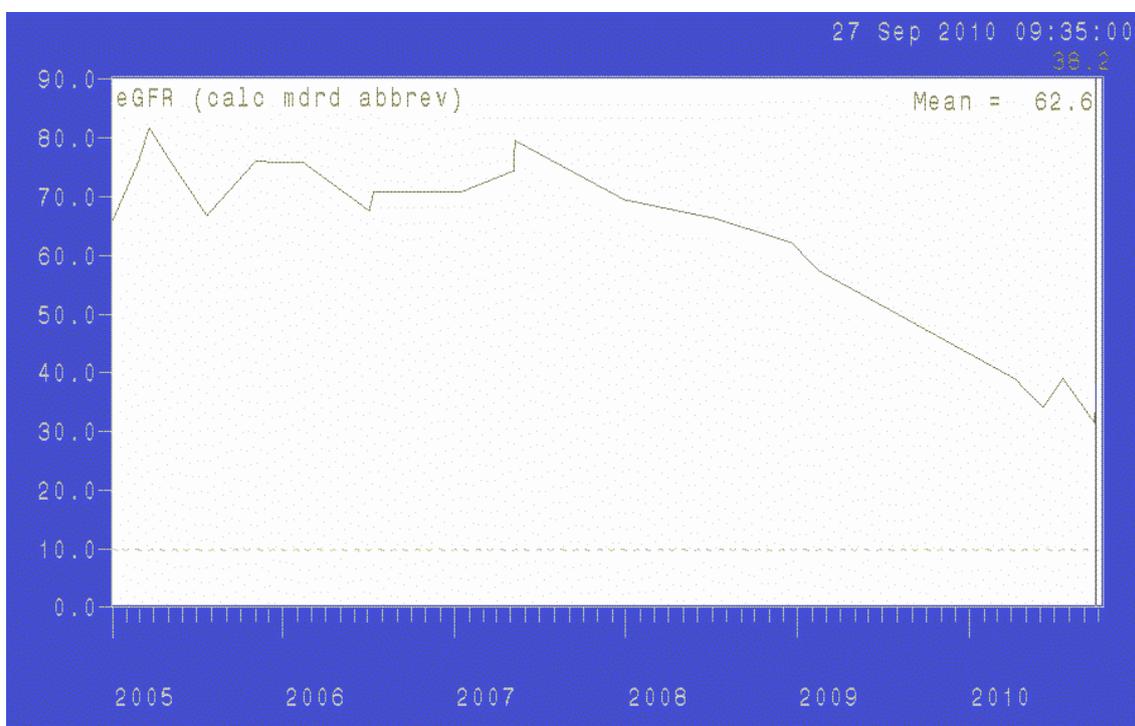
¹⁵ Both Level 1 (provision of home conversion, equipment and supplies and support) and Level 2 (provision of modality choice, education, training and outreach).

¹⁶ See [here](#) for more information on PROMs.

There are initiatives already underway to improve patient awareness and choice, notably Renal Patient View¹⁷. A project of RIXG (the Renal Information Exchange Group), a UK group representing renal patients and the renal team, it aims to provide online information about renal patients' diagnosis, treatment, and their latest test results. Patients can share this information with anyone they want, and view it from anywhere in the world.

Some trusts such as Heart of England have taken steps to enable patient choice, with proactive encouragement of home therapies. Measures included individual assessment and education to facilitate patient choice, and patient-led seminars to aid the decision-making process.

Various ideas have been proposed to encourage greater patient awareness and involvement, such as simple charts that help to demystifying Glomerular Filtration Rate (GFR, which describes the flow rate of filtered fluid through the kidney).



Such eGFR charts could be offered through the Renal Patient View tool.

¹⁷ See [here](#) for the Renal Patient View website.

4. Appendices

4.1 SSNDS Definition No 11. Specialised Renal Services - Summary

Specialised service area	Notes
Nephrology	<ul style="list-style-type: none"> • Nephrology out-patient clinics in local hospitals are almost invariably provided on an outreach basis by medical and nursing staff from the specialist renal centre and will include general nephrology clinics and specialist clinics such as pre-dialysis clinics, vasculitis clinics or anaemia clinics. • Because they are provided in many more than 50 hospitals in England, these out-patient services, would not generally be regarded as a specialised service. However, commissioners may choose to commission them as part of the overall service provided by the specialist renal centre. • In-patient nephrology services are provided at the specialist renal centre. These are used for investigation and treatment of renal diseases including kidney biopsies, management of fluid and electrolyte disorders, initiation of immunosuppression and treatment of hypertension. • In-patient services are also used for management of patients with acute kidney injury (see below), complications in patients on dialysis and the investigation and treatment of patients with functioning renal transplants.
Acute kidney injury (AKI, previously known as acute renal failure)	<ul style="list-style-type: none"> • Most patients with acute kidney injury require in-patient investigations and treatment. If renal replacement therapy is necessary, this can occur in an intensive care unit with / without input from a specialist renal team or as an in-patient in the specialist renal centre. • Acute kidney injury services cover: <ul style="list-style-type: none"> - AKI from pre renal causes – most commonly sepsis and hypotension - AKI from renal causes – most commonly drug induced, acute glomerular injury and exposure to renal toxins - AKI from post renal causes – mechanical obstruction from any cause. • Patients are usually followed up in nephrology out-patients as they recover kidney function. • They may require ongoing treatment for renal causes of AKI (e.g. immunosuppression for renal vasculitis) or, if slow to recover kidney function, they may have out-patient dialysis (almost always haemodialysis).
Dialysis for chronic kidney disease (CKD)	<ul style="list-style-type: none"> • There are two forms of dialysis - haemodialysis and peritoneal dialysis.¹⁸ • Haemodialysis is performed in a number of settings: <ul style="list-style-type: none"> - The renal centre - Other hospitals - Free standing units not in a healthcare environment¹⁹ or

¹⁸ **Haemodialysis** involves an extra-corporeal circulation of blood through an artificial kidney (i.e. dialysis machine) to correct the blood biochemistry. **Peritoneal dialysis** involves insertion of a dialysis catheter through the abdominal wall into the patient's peritoneal cavity. Dialysis fluid can then be instilled and drained out through the catheter.

Specialised service area	Notes
	<ul style="list-style-type: none"> - The patient's home. • The two common forms of peritoneal dialysis are continuous ambulatory peritoneal dialysis (CAPD), where the patient does on average four manual exchanges per day, and automated peritoneal dialysis (APD), where a machine runs fluid in and out of the peritoneal cavity, usually at night whilst the patient is asleep. • Both forms of peritoneal dialysis require specialist medical, nursing and other care and these services are provided by the specialist renal centres. • Surgery for haemodialysis and peritoneal dialysis is carried out by the renal surgeons at the specialist renal centre or by these staff on an outreach basis at local hospitals.
Kidney transplantation	<ul style="list-style-type: none"> • The kidney transplantation service is a specialised service carried out by specialist renal transplant centres of which there are around 20 centres in England. • All transplantation is coordinated through NHS Blood and Transplant Authority (NHS B&T) with retrieved cadaveric kidneys shared out on the basis of national NHS B&T protocols using defined acceptance and matching criteria. • Live donor kidney transplantation has increased dramatically in the UK in the past decade and there are national NHS B&T protocols for paired live donor transplantation (when blood group or tissue type incompatibility make transplantation from the relative difficult or impossible, a paired transplant from another live donor may be possible) and also for altruistic, unrelated live donor transplants. • The kidney transplantation service includes <ul style="list-style-type: none"> (i) activities taking place at <u>all</u> specialist renal centres: (ii) activities <u>only</u> taking place at the 20 renal transplant centres: • Combined kidney and pancreas transplants are carried out by the pancreas transplant service which has been nationally commissioned by the National Commissioning Group since April 2004 on behalf of English residents. There are six nationally designated pancreas transplant centres.
Source: National Definition	

¹⁹ Other hospitals or free-standing units not in a healthcare environment are both commonly known as satellite units.

4.2 Pre-dialysis pathway design – Heart of England Foundation Trust case study

Heart of England experience

- Pre-dialysis population 400 patients across 4 hospital sites
- 4 Kidney Failure CNS
- Individual assessment and education to facilitate patient choice
- Patient led seminars to aid decision-making process
- MDT Nurse Led Clinics across 4 hospital sites
- Referral to MDT- Anaemia, Access, Renal Dietician, Social Worker, OT, transplantation teams
- Conservative Management programme
- Promotion of Hepatitis B Vaccination

Evidence

- Increased Numbers starting dialysis with permanent Access.(p=0.04)
- Reduced line infections (audit data)
- Reduced Inpatient Stay (P=0.005)
- Improved anaemia management (p=0.02)
- Increased number of pre-emptive transplants
- Patient Survival on Dialysis improved

Outcomes 2009

- Take on rate approx 140pmp
- 84% of known patients had permanent access on starting Dx
- 19% Unplanned starts
- 89% new starters chose HD
- 11% new starters chose PD
- <11% HD pts on lines

Note:

Reference for evidence: Fenton et al, Multi disciplinary care improves outcome of patients with stage 5 chronic Kidney disease. Nephron clinical practice April 2010

Source: Annette Dodds, Kidney Failure CNS & Roger Adkins, CAPD CNS, Heart of England Foundation NHS Trust