

SPECIALISED SERVICES NATIONAL DEFINITIONS SET (THIRD EDITION 2008)

Specialised Renal Services (adult) - Definition No. 11

Preface

This definition is part of the third edition of the Specialised Services National Definitions Set (SSNDS) being produced over 2008/10. The SSNDS was last edited in 2002. During 2008/10 each of the definitions in the second edition of the SSNDS will be updated; in addition three new definitions will be added to the Set.

Each definition is drawn up by a process involving providers (clinicians, hospital managers, and information and coding staff), commissioners and patients' groups and is then endorsed wherever possible by relevant national organisations. Finally, when the definition has been signed off by the Department of Health (DH) and the National Specialised Commissioning Group it is published on their websites.

The purpose of a definition is to identify the activity that should be regarded as specialised and therefore within the remit of PCT collaborative commissioning. A service is specialised if the planning population (i.e. catchment area) for that service is greater than one million people. This means that a specialised service would not be provided by every hospital in England; generally, it would be provided by less than 50 hospitals.

The definitions are not prescribed service models nor do they set service standards. Where national standards for a specialised service already exist, these may be referred to in the definition.

Inclusion of a treatment or intervention in a definition should not be taken to mean that there is established evidence of clinical or cost effectiveness.

The production of the SSNDS is an iterative process. The content of individual definitions in the SSNDS will inevitably change over time as new healthcare services which are specialised are introduced into the NHS and other services, which were previously specialised, become commonplace and cease to be considered specialised.

Future editions of the SSNDS will become more refined as the classifications systems develop and become better able to categorise specialised service activity. The current classification systems used in the third edition are the International Classification of Diseases, version 10, and the OPCS Classification of Interventions and Procedures, version 4.

Comments and suggested improvements to the definitions are very welcome and can be sent to the National Specialised Commissioning Group. Contact details are available from the NSCG website: www.nscg.nhs.uk

1. Introduction

The National Renal Service Framework was published in January 2004 (Part I) and February 2005 (Part II) and covers all aspects of renal care including early renal disease, chronic kidney disease (previously known as chronic renal failure), dialysis, transplantation, acute kidney injury (previously called acute renal failure) and appropriate palliative care for patients in whom dialysis is not, or is no longer, appropriate.

Renal services for patients with chronic kidney disease are largely delivered by renal specialists working in the specialist renal centre itself and on an outreach basis to surrounding local hospitals. With the growing prevalence of renal disease in the elderly population, there is an increasing need to provide care for pre-dialysis patients and low clearance renal patients receiving palliative care as close to home as possible; this can be done by increasing local hospital nephrology provision and improving community and primary care services.

Specialist renal centres also treat patients with acute kidney injury.

Kidney transplantation and desensitisation services are provided in 20 of the 50 odd specialist renal centres.

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
- anaemia management and specialist renal dietetic support
- conservative management programmes for established renal failure
- out-patient and in-patient services for acute kidney injury
- transplantation services.

Renal networks made up of all stakeholders, including providers, specialised services commissioners and patients' groups, exist across the country.

2. Rationale for the service being included in the Specialised Services National Definitions Set

Renal services require support from a variety of other services. Specialist surgery is necessary for haemodialysis vascular access and peritoneal dialysis catheter insertion and removal. Specialist radiology support is required for monitoring and intervention for haemodialysis vascular access, renal biopsy support and renal imaging and intervention.

3. Links to other services in the Specialised Services National Definitions Set

Definition No.1, Specialised Cancer Services (adult)

Definition No 13, Specialised Cardiology and Cardiac Surgery Services (adult)

Definition No.19, Specialised Services for Liver, Biliary and Pancreatic Medicine and Surgery (adult)

Definition No.24, Specialised Dermatology Services (all ages)

Definition No.27, Specialised Endocrinology Services (adult)

Definition No.29, Specialised Respiratory Services (adult)

Definition No.30, Specialised Vascular Services (adult)

4. Detailed description of specialised renal activity

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 is 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 the care of a specialised renal centre for further care and, perhaps, dialysis and/or transplantation.

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

4.1 Nephrology

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. These out-patient services, because they are provided in many more than 50 hospitals in England, would not generally be regarded as a specialised service but 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. Nephrological conditions covered include all forms of glomerulonephritis, kidney disease associated with systemic diseases such as diabetes mellitus, systemic lupus erythematosus and vasculitis and other causes of chronic kidney disease. In-patient services are also used for management of patients with acute kidney injury (see 4.2 below), complications in patients on dialysis and the investigation and treatment of patients with functioning renal transplants.

4.2 Acute kidney injury (previously known as acute renal failure)

Acute kidney injury (AKI) is characterised by a rapid deterioration in kidney function from any cause. 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:

- 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).

4.3 Dialysis for chronic kidney disease

Dialysis is one of the two main forms of replacement therapy (RRT) which treats very poor or absent kidney function. There are two forms of dialysis: haemodialysis and peritoneal dialysis.

Haemodialysis involves an extra-corporeal circulation of blood through an artificial kidney (i.e. dialysis machine) to correct the blood biochemistry. Haemodialysis is performed in a number of settings -in the renal centre, in other hospitals or in free standing units not in a healthcare environment (both these are commonly known as satellite units) or in the patient's home.

Surgery for haemodialysis vascular access includes: insertion of tunnelled and non tunnelled venous lines for dialysis, arteriovenous fistula formation, exploration or refashioning of arteriovenous fistula, ligation of arteriovenous fistula and insertion and removal of artificial (e.g. polytetrafluoroethylene - PTFE) arteriovenous graft.

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. 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 peritoneal dialysis includes: catheter insertion / removal and dealing with complications of peritoneal dialysis catheters.

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.

Dialysis services include:

- hospital haemodialysis
- satellite haemodialysis
- home haemodialysis
- continuous ambulatory peritoneal dialysis
- automated peritoneal dialysis.

Encapsulating sclerosing peritonitis surgical service (adults)

This service has been nationally commissioned by the National Commissioning Group (NCG) since April 2009 on behalf of English residents. Scottish residents also have

access to the service under an agreement between the NCG and the National Services Division, Scotland. Health Commission Wales has separate commissioning arrangements for Welsh residents. There are two nationally designated centres.

Encapsulating sclerosing peritonitis is an uncommon complication of peritoneal dialysis. The service includes assessment, surgery and follow-up.

4.4 Kidney transplantation

Kidney transplantation is the other form of renal replacement therapy (RRT) which treats very poor or absent kidney function. 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

(i) activities taking place at all specialist renal centres:

- assessment of patient need and suitability for transplantation
- organizing tissue typing and testing for anti – HLA antibodies
- registration of appropriate patients with NHS B&T
- live donor screening
- live donor workup
- post transplant follow up (for life)
- post transplant immunosuppressant drug therapy (for life). (NOTE: The GP often prescribes the drugs but the transplant centre or specialist renal centre remains responsible for all follow-up and changes in therapy)

(ii) activities only taking place at the 20 renal transplant centres:

- donor organ (cadaver) retrieval (NOTE: from April 2009 NHS B&T will commission donor organ retrieval services on a national basis)
- live donor organ retrieval
- cadaveric kidney transplant
- non heart-beating kidney transplant
- live donor kidney transplant
- desensitisation of potential transplant recipients who have high panel reactivity (by plasma exchange, infusion of human immunoglobulin, administration of immunosuppressive agents and other forms of extracorporeal blood circulation).

Pancreas transplantation service

Combined kidney and pancreas transplants are carried out by the pancreas transplant service which has been nationally commissioned by the National Commissioning Group (NCG) since April 2004 on behalf of English residents. Scottish residents also have access to the service under an agreement between NCG and the National Services Division, Scotland. Health Commission Wales has separate commissioning arrangements for Welsh residents. There are six nationally designated pancreas transplant centres.

The pancreas transplantation service includes:

- assessment of need and suitability for transplantation
- registration of appropriate patients with NHS B&T
- donor organ retrieval
- either simultaneous pancreas and kidney transplant, pancreas after kidney transplant or pancreas alone transplant including pre-operative assessment, hospital based care, first 12 months of follow-up care
- funding for the first three months of post-transplant drug therapy.

5. Identifying and costing specialised renal activity

5.1 Currencies

- out-patient attendances:
 - nephrology out-patient attendance
 - pre-dialysis out-patient attendance
 - palliative care out-patient attendance
- in-patients and day cases
- dialysis sessions
- HRG codes.

5.2 Classification systems

- ICD 10 diagnostic codes (see Appendix)
Please note that both the specialist centre and the local hospital may use some of these diagnostic codes and hence the codes cannot be used to specifically identify specialised renal services.

- OPCS v4 interventions codes (see Appendix)

5.3 Costing activity

Please refer to the latest Department of Health Guidance on Payment by Results for up to date information on national tariffs and activity included/excluded from tariff.

Please note that not all the Payment by Results inclusions and exclusions listed below are specialised activity, but they are included here for completeness.

(i) In scope of 2009/10 Payment by Results and has national tariffs:

- day case and in-patient admitted patient care

(ii) Excluded from 2009/10 Payment by Results and thus requires a locally negotiated tariff:

- transplantation surgery out-patient attendances (Treatment Function Code:102)
- nephrology out-patient attendances (Treatment Function Code:361)
- renal stents
- renal dialysis services
- high cost drugs
- critical care
- nationally commissioned services
- see also list of specific HRG exclusions.

5.4 Outstanding issues

Outstanding issues raised regarding nephrology:

- About 50% of specialist renal centres do not have a separate pre-dialysis, low clearance clinic for patient education, follow-up and discussion/choice of future mode of dialysis. Identifying these patients in many centres will therefore be a difficult but important process to begin, one that the UK Renal Registry is also keen to start.
- Similarly, although the NSF for Renal part 2 highlights the need to improve palliative care for renal patients either choosing never to have dialysis or stopping dialysis, identifying this patient activity is currently difficult. Not all units have a separate palliative care team for their patients. It has yet to be confirmed whether it is more or less expensive to look after a low clearance patient in the palliative care pathway compared with the normal planning for the dialysis pathway. Collecting this data would be useful and may in future inform both the decision whether there should be a separate category / tariff and how much it should be. The palliative care aspects for these patients can be covered by the palliative care codes and tariff although, presumably, not all units would use the palliative care team (and therefore may not have a tariff for charging).

Outstanding issues raised regarding acute kidney injury:

- Most stable patients in hospital with acute kidney injury have haemodialysis every other day or may receive continuous therapy (i.e. haemofiltration). When dialysis is unbundled from other aspects of care the accurate costing of acute kidney injury in patients with and without dialysis will become possible.
- The management of certain conditions presenting with acute kidney injury may involve plasma exchange which increases the cost and complexity of the patient care. The need to have a code and tariff for plasma exchange has been discussed at the Renal HRG Expert Working Group.

Outstanding issues raised regarding dialysis:

- HRG v4 has separate haemodialysis codes for patients with blood borne viruses (i.e. HRG code LC01) and for patient without (i.e. HRG code LC02). In HRG v3.5, the LC01 code was restricted to patients with hepatitis B and did not cover patients with other transmissible viral infections, such as hepatitis C and HIV.
- Most haemodialysis patients have dialysis 3 times a week but for those patients on home dialysis (less than 10% of the total on haemodialysis) the opportunity exists for more frequent sessions. More frequent dialysis is emerging as a real quality improvement in dialysis care. As the dedicated haemodialysis machine is based in the patient's home, the cost of additional dialysis sessions is not linear (i.e. 6 sessions per week do not cost twice as much as 3 sessions per week). Commonly the haemodialysis service currency is an individual session with costs per session calculated on the basis of 3 sessions per week. This could act as a disincentive to offer more frequent sessions.
- Costs for home haemodialysis patients with blood borne virus should be the same as patients without blood borne viruses so separate HRG codes are not necessary.
- The Renal HRG EWG has proposed that CAPD and APD activity should be separately identified. As infectious diseases such as Hepatitis B make very little or no difference

to the cost of delivering PD, it has been suggested that HRG code LC03A and LC03B should be used for APD and HRG codes LC04A and LC04B should be used for CAPD.

Outstanding issues raised regarding transplantation:

- Only 20 of the specialist renal centres carry out renal transplants but all centres work up patients to go on the transplant list or to become live donors. But in some cases the worked up patient may never receive a transplant and the potential donor may never actually donate. To avoid conflict between centres, clear agreement is needed regarding the responsible provider and the cost of: desensitisation prior to transplantation, work up tests prior to transplantation, tests that are part of the transplant operation and tests that are part of the subsequent care.
- Despite all plasma exchange interventions (i.e. OPCS codes: X32.2, X32.3, X32.4, X32.5 and X34.2) having an HRG code (i.e. SA13, SA14, SA15, SA16 and SA13 respectively) only SA13 has a tariff in 2009/10. This anomaly needs rectifying.

6. National standards and guidelines

Available from the Department of Health – www.dh.gov.uk

- Department of Health (2004) ‘National Service Framework for Renal Services: Part One - dialysis and transplantation’
- Department of Health (2005) ‘National Service Framework for Renal Services: Part Two: Chronic kidney disease, acute renal failure and end of life care’

Available from the National Institute for Health and Clinical Excellence (NICE) – www.nice.org.uk

NICE (2002) ‘Renal failure - home versus hospital haemodialysis, NICE Technology Appraisal TA48’

NICE (2004) ‘Renal transplantation - immuno-suppressive regimens (adults), NICE Technology Appraisal TA85’

NICE (2006) ‘Renal transplantation - immunosuppressive regimens for children and adolescents, NICE Technology Appraisal TA99’

NICE (2006) ‘Anaemia management in people with chronic kidney disease, NICE Clinical Guideline CG39’

NICE (2008) ‘Chronic kidney disease, NICE Clinical Guideline CG73’

NICE (2009) ‘Organ preservation (renal) - machine perfusion and static storage, NICE Technology Appraisal TA165’

NICE (tba) renal cell carcinoma – use of bevacizumab, sorafenib, sunitinib and temsirolimus, NICE Technology Appraisals

Clinical practice guides available from the Renal Association – <http://www.renal.org/pages/pages/clinical-affairs/guidelines.php>

- 1 Chronic kidney disease (2007)
- 2 Complications (2007)
- 3a Haemodialysis (2007)
- 3b Peritoneal dialysis (2007)
- 4 Assessment for transplantation (2008)
- 5 Acute Renal Failure (Acute Kidney Injury) (2008)

Endorsement

Definition No. 11 Specialised Renal Services (adult) has been endorsed by the

British Renal Society
Kidney Alliance
Renal Association

ICD10 codes for Definition No. 11 - Specialised Renal Services (adult) Third edition

Note: that both the specialist renal centre and the local hospital may use some of these diagnostic codes and hence the codes cannot be used to specifically identify specialised renal services.

ICD10 CODE	ICD10 CATEGORY	ICD10 SUB-CATEGORY	Specialised	Maybe specialised
N000	Acute nephritic syndrome	Acute nephritic syndrome minor glomerular abnormality	x	
N001	Acute nephritic syndrome	Focal and segmental glomerular lesions	x	
N002	Acute nephritic syndrome	Diffuse membranous glomerulonephritis	x	
N003	Acute nephritic syndrome	Diffuse mesangial proliferative glomerulonephritis	x	
N004	Acute nephritic syndrome	Diffuse endocapillary proliferative glomerulonephritis	x	
N005	Acute nephritic syndrome	Diffuse mesangiocapillary glomerulonephritis	x	
N006	Acute nephritic syndrome	Acute nephritic syndrome dense deposit disease	x	
N007	Acute nephritic syndrome	Diffuse crescentic glomerulonephritis	x	
N008	Acute nephritic syndrome	Other acute nephritic syndrome	x	
N009	Acute nephritic syndrome	Acute nephritic syndrome unspecified	x	
N010	Rapidly progressive nephritic syndrome	Minor glomerular abnormality	x	
N011	Rapidly progressive nephritic syndrome	Focal and segmental glomerular lesions	x	
N012	Rapidly progressive nephritic syndrome	Diffuse membranous glomerulonephritis	x	
N013	Rapidly progressive nephritic syndrome	Diffuse mesangial proliferative glomerulonephritis	x	
N014	Rapidly progressive nephritic syndrome	Diffuse endocapillary proliferative glomerulonephritis	x	
N015	Rapidly progressive nephritic syndrome	Diffuse mesangiocapillary glomerulonephritis	x	
N016	Rapidly progressive nephritic syndrome	Dense deposit disease	x	
N017	Rapidly progressive nephritic syndrome	Diffuse crescentic glomerulonephritis	x	
N018	Rapidly progressive nephritic syndrome	Other rapidly progressive nephritic syndrome	x	
N019	Rapidly progressive nephritic syndrome	Rapidly progressive nephritic syndrome unspecified	x	
N021	Recurrent and persistent haematuria	Focal and segmental glomerular lesions	x	
N022	Recurrent and persistent haematuria	Diffuse membranous glomerulonephritis	x	
N023	Recurrent and persistent haematuria	Diffuse mesangial proliferative glomerulonephritis	x	
N024	Recurrent and persistent haematuria	Diffuse endocapillary proliferative glomerulonephritis	x	
N025	Recurrent and persistent haematuria	Diffuse mesangiocapillary glomerulonephritis	x	
N026	Recurrent and persistent haematuria	Dense deposit disease	x	
N027	Recurrent and persistent haematuria	Diffuse crescentic glomerulonephritis	x	
N030	Chronic nephritic syndrome	Chronic nephritic syndrome minor glomerular abnormality	x	
N031	Chronic nephritic syndrome	Focal and segmental glomerular lesions	x	
N032	Chronic nephritic syndrome	Diffuse membranous glomerulonephritis	x	
N033	Chronic nephritic syndrome	Diffuse mesangial proliferative glomerulonephritis	x	
N034	Chronic nephritic syndrome	Diffuse endocapillary proliferative glomerulonephritis	x	
N035	Chronic nephritic syndrome	Diffuse mesangiocapillary glomerulonephritis	x	
N036	Chronic nephritic syndrome	Dense deposit disease	x	
N037	Chronic nephritic syndrome	Diffuse crescentic glomerulonephritis	x	
N038	Chronic nephritic syndrome	Other chronic nephritic syndrome	x	
N039	Chronic nephritic syndrome	Chronic nephritic syndrome, unspecified	x	
N040	Nephrotic syndrome	Minor glomerular abnormality	x	
N041	Nephrotic syndrome	Focal and segmental glomerular lesions	x	
N042	Nephrotic syndrome	Diffuse membranous glomerulonephritis	x	
N043	Nephrotic syndrome	Diffuse mesangial proliferative glomerulonephritis	x	
N044	Nephrotic syndrome	Diffuse endocapillary proliferative glomerulonephritis	x	
N045	Nephrotic syndrome	Diffuse mesangiocapillary glomerulonephritis	x	
N046	Nephrotic syndrome	Dense deposit disease	x	
N047	Nephrotic syndrome	Diffuse crescentic glomerulonephritis	x	
N048	Nephrotic syndrome	Other nephrotic syndrome	x	
N049	Nephrotic syndrome	Nephrotic syndrome unspecified	x	
N051	Unspecified nephritic syndrome	Focal and segmental glomerular lesions	x	
N052	Unspecified nephritic syndrome	Diffuse membranous glomerulonephritis	x	
N053	Unspecified nephritic syndrome	Diffuse mesangial proliferative glomerulonephritis	x	
N054	Unspecified nephritic syndrome	Diffuse endocapillary proliferative glomerulonephritis	x	
N055	Unspecified nephritic syndrome	Diffuse mesangiocapillary glomerulonephritis	x	
N056	Unspecified nephritic syndrome	Dense deposit disease	x	
N057	Unspecified nephritic syndrome	Diffuse crescentic glomerulonephritis	x	
N058	Unspecified nephritic syndrome	Unspecified nephritic syndrome other	x	
N060	Isolated proteinuria with specified morphological lesion	Minor glomerular abnormality	x	
N061	Isolated proteinuria with specified morphological lesion	Focal and segmental glomerular lesions	x	
N062	Isolated proteinuria with specified morphological lesion	Diffuse membranous glomerulonephritis	x	
N063	Isolated proteinuria with specified morphological lesion	Diffuse mesangial proliferative glomerulonephritis	x	
N064	Isolated proteinuria with specified morphological lesion	Diffuse endocapillary proliferative glomerulonephritis	x	
N065	Isolated proteinuria with specified morphological lesion	Diffuse mesangiocapillary glomerulonephritis	x	
N066	Isolated proteinuria with specified morphological lesion	Dense deposit disease	x	
N067	Isolated proteinuria with specified morphological lesion	Diffuse crescentic glomerulonephritis	x	
N068	Isolated proteinuria with specified morphological lesion	Other isolated proteinuria with specified morphological lesion	x	
N069	Isolated proteinuria with specified morphological lesion	Isolated proteinuria with specified morphological lesion, unspecified	x	
N070	Hereditary nephropathy, not elsewhere classified	Minor glomerular abnormality	x	
N071	Hereditary nephropathy, not elsewhere classified	Focal and segmental glomerular lesions	x	
N072	Hereditary nephropathy, not elsewhere classified	Diffuse membranous glomerulonephritis	x	
N073	Hereditary nephropathy, not elsewhere classified	Diffuse mesangial proliferative glomerulonephritis	x	
N074	Hereditary nephropathy, not elsewhere classified	Diffuse endocapillary proliferative glomerulonephritis	x	

N075	Hereditary nephropathy, not elsewhere classified	Diffuse mesangiocapillary glomerulonephritis	x	
N076	Hereditary nephropathy, not elsewhere classified	Dense deposit disease	x	
N077	Hereditary nephropathy, not elsewhere classified	Diffuse crescentic glomerulonephritis	x	
N078	Hereditary nephropathy, not elsewhere classified	Other hereditary nephropathy not elsewhere classified	x	
N079	Hereditary nephropathy, not elsewhere classified	Unspecified morphological changes	x	
N080	Glomerular disorders in diseases classified elsewhere	Glomerular disorders in infectious & parasitic diseases classified elsewhere	x	
N081	Glomerular disorders in diseases classified elsewhere	Glomerular disorders in neoplastic diseases	x	
N082	Glomerular disorders in diseases classified elsewhere	Glomerular disorders in blood disorders and disorders involving the immune mechanism	x	
N083	Glomerular disorders in diseases classified elsewhere	Glomerular disorders in diabetes mellitus (E10-E14+ with common fourth character.2)		x
N084	Glomerular disorders in diseases classified elsewhere	Glomerular disorder in other endocrinology, nutrition and metabolic disease.	x	
N085	Glomerular disorders in diseases classified elsewhere	Glomerular disorders in systemic connective tissue disorders	x	
N088	Glomerular disorders in diseases classified elsewhere	Glomerular disorders in other diseases classified elsewhere	x	
N10X	Acute tubulo-interstitial nephritis	Acute tubulo-interstitial nephritis	x	
N118	Chronic tubulo-interstitial nephritis	Other chronic tubulo-interstitial nephritis		x
N140	Drug- and heavy-metal-induced tubulo-interstitial and tubular conditions	Analgesic nephropathy		x
N141	Drug- and heavy-metal-induced tubulo-interstitial and tubular conditions	Nephropathy induced by other drugs, medicaments or biological substances		x
N142	Drug- and heavy-metal-induced tubulo-interstitial and tubular conditions	Neuropathy induced by unspecified drug medicament or biological substances		x
N143	Drug- and heavy-metal-induced tubulo-interstitial and tubular conditions	Nephropathy induced by heavy metals		x
N144	Drug- and heavy-metal-induced tubulo-interstitial and tubular conditions	Toxic nephropathy not elsewhere classified		x
N150	Other renal tubulo-interstitial diseases	Balkan nephropathy	x	
N158	Other renal tubulo-interstitial diseases	Other specified renal tubulo-interstitial diseases		x
N159	Other renal tubulo-interstitial diseases	Renal tubulo-interstitial disease unspecified		x
N162	Renal tubulo-interstitial disorders in diseases EC	Renal tubulo-interstitial disorders in blood diseases and disorders involving the		x
N163	Renal tubulo-interstitial disorders in diseases EC	Renal tubulo-interstitial disorders in metabolic diseases		x
N164	Renal tubulo-interstitial disorders in diseases EC	Renal tubulo-interstitial disorders in systemic connective tissue disorders		x
N165	Renal tubulo-interstitial disorders in diseases EC	Renal tubulo-interstitial disorders in transplant rejection	x	
N168	Renal tubulo-interstitial disorders in diseases EC	Renal tubulo-interstitial disorders in other diseases classified elsewhere		x
N170	Acute renal failure	Acute renal failure with tubular necrosis		x
N171	Acute renal failure	Acute renal failure with acute cortical necrosis		x
N172	Acute renal failure	Acute renal failure with medullary necrosis		x
N178	Acute renal failure	Other acute renal failure		x
N179	Acute renal failure	Acute renal failure unspecified		x
N180	Chronic renal failure	End-stage renal disease	x	
N188	Chronic renal failure	Other chronic renal failure		x
N189	Chronic renal failure	Chronic renal failure unspecified		x
N19X	Unspecified renal failure	Unspecified renal failure		x
N250	Disorders resulting from impaired renal tubular function	Renal osteodystrophy		x
N251	Disorders resulting from impaired renal tubular function	Nephrogenic diabetes insipidus		x
N258	Disorders resulting from impaired renal tubular function	Other disorders resulting from impaired renal tubular funct		x
N259	Disorders resulting from impaired renal tubular function	Disorder resulting from impaired renal tubular function, unspecified		x
N280	Other disorders of kidney and ureter, not elsewhere classified	Ischaemia and infarction of kidney		x
N288	Other disorders of kidney and ureter, not elsewhere classified	Other specified disorders of kidney and ureter		x
N289	Other disorders of kidney and ureter, not elsewhere classified	Disorder of kidney and ureter unspecified		x
N291	Other disorders of kidney and ureter in diseases classified elsewhere	Other disorders of kidney and ureter in infectious and parasitic diseases classified elsewhere		x
N298	Other disorders of kidney and ureter in diseases classified elsewhere	Other disorders of kidney and ureter in other diseases classified elsewhere		x
N990	Postprocedural disorders of genitourinary system, not elsewhere class	Post procedural renal failure		
Q601	Renal agenesis and other reduction defects of kidney	Renal agenesis bilateral	x	
Q602	Renal agenesis and other reduction defects of kidney	Renal agenesis unspecified		x
Q604	Renal agenesis and other reduction defects of kidney	Renal hypoplasia bilateral	x	
Q605	Renal agenesis and other reduction defects of kidney	Renal hypoplasia unspecified		x
Q606	Renal agenesis and other reduction defects of kidney	Potter's syndrome	x	
Q611	Cystic kidney disease	Polycystic kidney infantile type	x	
Q612	Cystic kidney disease	Polycystic kidney adult type	x	
Q613	Cystic kidney disease	Polycystic kidney unspecified		x
Q614	Cystic kidney disease	Renal dysplasia		x
Q615	Cystic kidney disease	Medullary cystic kidney		x
Q619	Cystic kidney disease	Cystic kidney disease unspecified		x
Q620	Congenital obstructive defects renal pelvis and congenital malformation	Congenital hydronephrosis		x
Q622	Congenital obstructive defects renal pelvis and congenital malformation	Congenital megaloureter		x
Q623	Congenital obstructive defects renal pelvis and congenital malformation	Other obstructive defects of renal pelvis and ureter		x
Q633	Other congenital malformations of kidney	Hyperplastic and giant kidney		x
Q638	Other congenital malformations of kidney	Other specified congenital malformations of kidney		x
Q639	Other congenital malformations of kidney	Congenital malformation of kidney unspecified		x

OPCS codes for Definition No. 11 - Specialised Renal Services (adult) Third edition		
OPCS CODE	OPCS Category	OPCS Sub-Category
L741	Arteriovenous shunt	Insertion of arteriovenous prosthesis
L742	Arteriovenous shunt	Creation of arteriovenous fistula NEC
L743	Arteriovenous shunt	Attention to arteriovenous shunt
L744	Arteriovenous shunt	Banding of arteriovenous fistula
L745	Arteriovenous shunt	Thrombectomy of arteriovenous fistula
L746	Arteriovenous shunt	Creation of graft fistula for dialysis
L748	Arteriovenous shunt	Other specified arteriovenous shunt
L749	Arteriovenous shunt	Unspecified arteriovenous shunt
L752	Other arteriovenous operations	Repair of acquired arteriovenous fistula
L753	Other arteriovenous operations	Embolisation of arteriovenous abnormality
M011	Transplantation of kidney	Autotransplantation of kidney
M012	Transplantation of kidney	Allotransplantation of kidney from live donor
M013	Transplantation of kidney	Allotransplantation of kidney from cadaver NEC
M014	Transplantation of kidney	Allotransplantation of kidney from cadaver heart-beating
M015	Transplantation of kidney	Allotransplantation of kidney from cadaver heart non-beating
M018	Transplantation of kidney	Other specified transplantation of kidney
M019	Transplantation of kidney	Unspecified transplantation of kidney
M026	Total excision of kidney	Excision of rejected transplanted kidney
M081	Other open operations on kidney	Open biopsy of lesion of kidney
M084	Other open operations on kidney	Exploration of transplanted kidney
M131	Percutaneous puncture of kidney	Percutaneous needle biopsy of lesion of kidney
M171	Interventions associated with transplantation of kidney	Live kidney donor screening
M172	Interventions associated with transplantation of kidney	Pre-transplantation of kidney work-up - recipient
M173	Interventions associated with transplantation of kidney	Pre-transplantation of kidney work up – live donor
M174	Interventions associated with transplantation of kidney	Post-transplantation of kidney examination -recipient
M175	Interventions associated with transplantation of kidney	Post-transplantation of kidney examination – live donor
M178	Interventions associated with transplantation of kidney	Other specified interventions associated with transplantation of kidney
M179	Interventions associated with transplantation of kidney	Unspecified interventions associated with transplantation of kidney
X322	Exchange blood transfusion	Exchange of plasma (single)
X323	Exchange blood transfusion	Exchange of plasma (2-9)
X324	Exchange blood transfusion	Exchange of plasma (10-19)
X325	Exchange blood transfusion	Exchange of plasma (>19)
X342	Other intravenous transfusion	Transfusion of plasma NEC
X401	Compensation for renal failure	Renal dialysis
X402	Compensation for renal failure	Peritoneal dialysis NEC
X403	Compensation for renal failure	Haemodialysis NEC
X404	Compensation for renal failure	Haemofiltration
X405	Compensation for renal failure	Automated peritoneal dialysis
X406	Compensation for renal failure	Continuous ambulatory peritoneal dialysis
X408	Compensation for renal failure	Other specified compensation for renal failure
X409	Compensation for renal failure	Unspecified compensation for renal failure
X411	Placement of ambulatory apparatus for compensation for renal failure	Insertion of ambulatory peritoneal catheter
X412	Placement of ambulatory apparatus for compensation for renal failure	Removal of ambulatory peritoneal catheter
X421	Placement of other apparatus for compensation for renal failure	Insertion of temporary peritoneal catheter
X451	Donation of organ	Donation of kidney