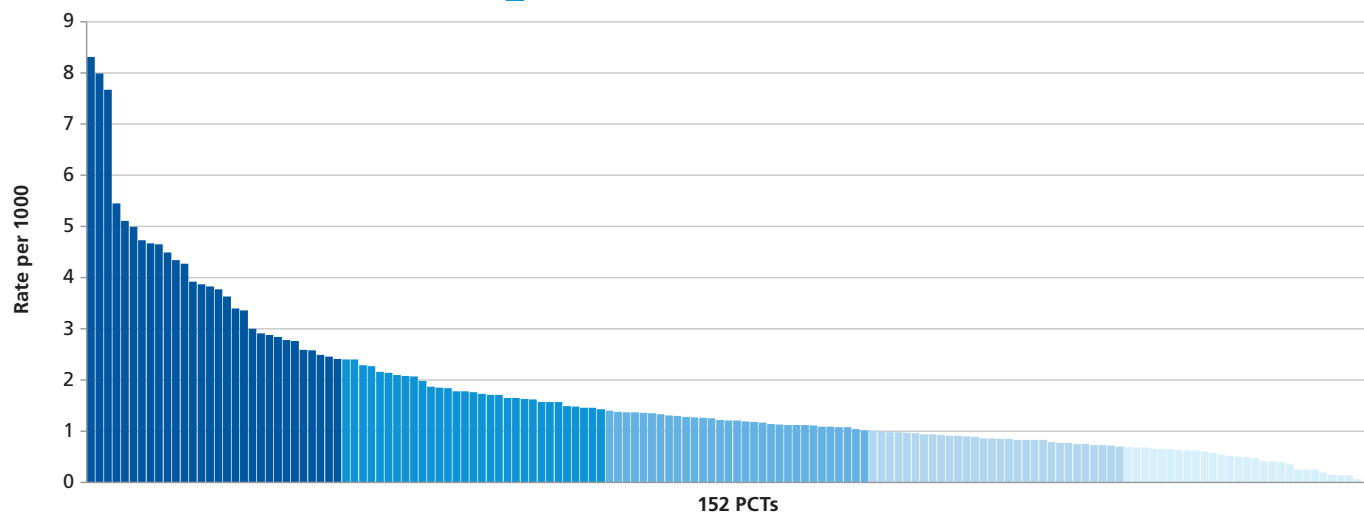
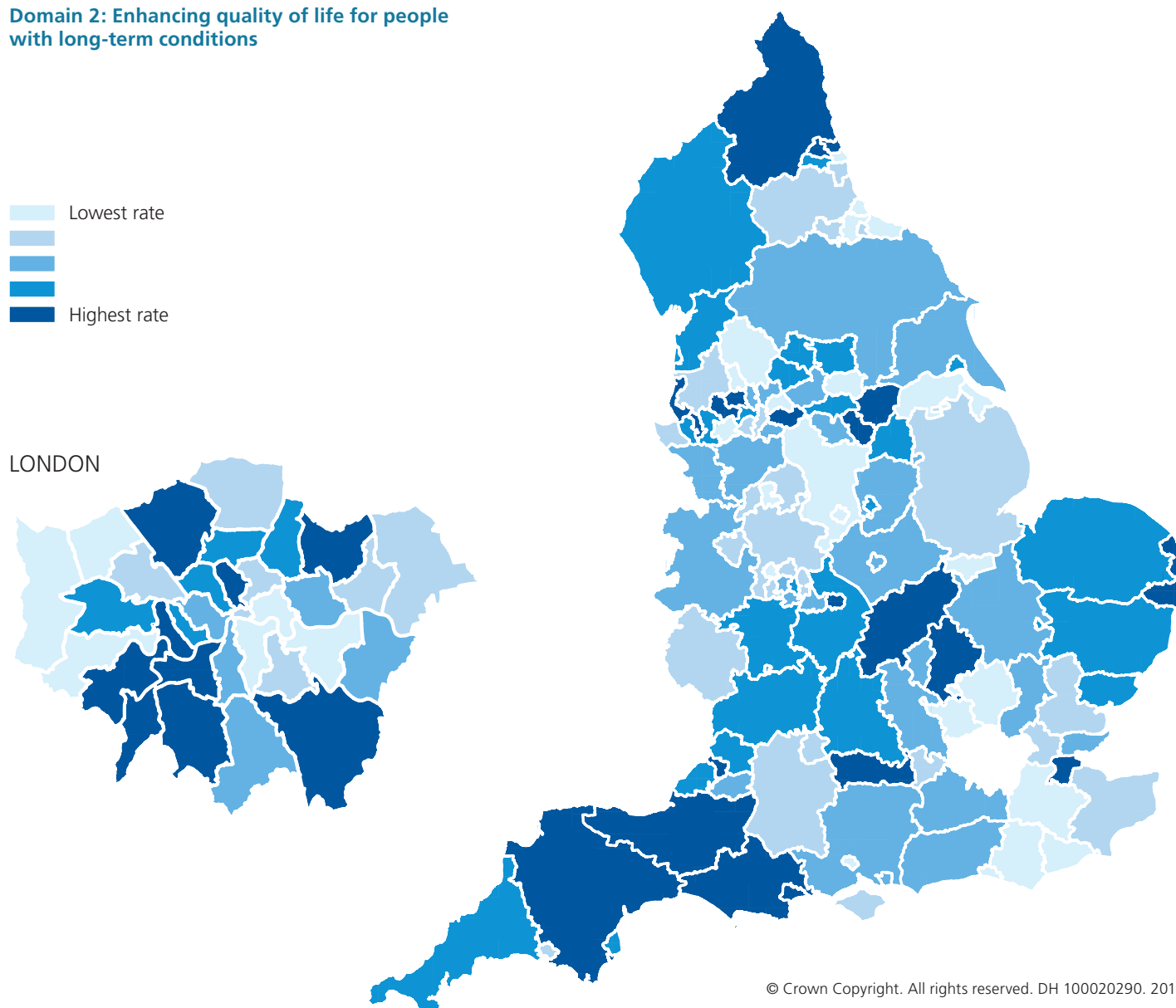


PROBLEMS OF THE GENITO-URINARY SYSTEM

Map 54: Rate of urodynamic (pressures and flows) tests undertaken per population by PCT

2010

Domain 2: Enhancing quality of life for people with long-term conditions



Context

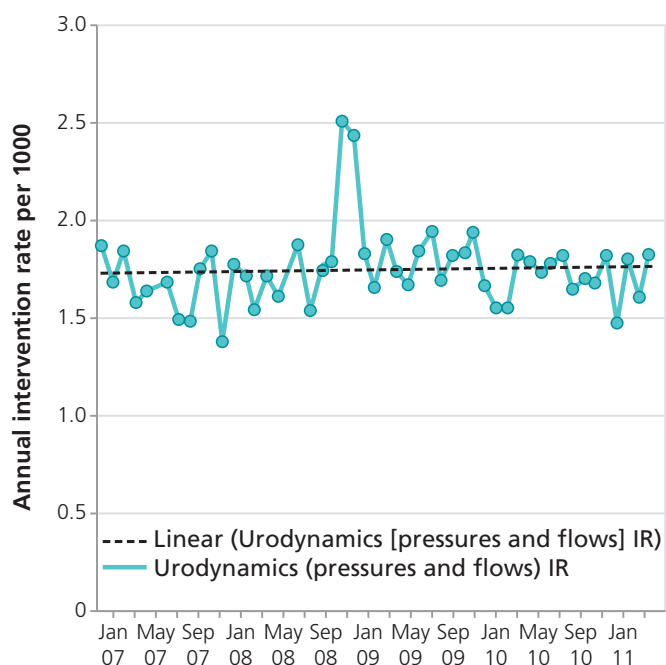
Urodynamics is an umbrella term, and predominantly involves the measurement of pressure and flow. It allows the clinician to determine what physical factors are involved in bladder disorders. This is important, for example, in the diagnosis of different types of incontinence for which there are different indicated treatments. This allows the patient to be offered the optimal therapy. The largest group of patients who undergo urodynamics tests are men with bladder outlet obstruction and women with incontinence. The underlying conditions that require urodynamics tests are more prevalent in older people.

There has been a small increase of 2.8% in the rate of urodynamics (pressures and flows) testing over the last four years (see Figure 54.1).

The current average rate of testing of 1.7 tests per 1000 population is thought to be appropriate for the prevalence and incidence of key conditions. However, as the population ages, need is likely to increase which may lead to an increase in the rate of testing over the long term, broadly in line with the proportion of the population over 60 years of age. Within the next 10 years, it is expected that the number of people over 60 years of age will have increased by around 20%.

Data are taken from DM01, which collects data only on standard urodynamics tests (cystometry and video urodynamics) and not on a more specialised test known as uroflowmetry (free flow rate).

Figure 54.1: Annual intervention rate (IR) for urodynamic (pressures and flows) tests by month from January 2007 to March 2011



Magnitude of variation

For PCTs in England, the rate of urodynamic tests undertaken per 1000 population ranged from 0.01 to 8.3 (831-fold variation). When the five PCTs with the highest rates and the five PCTs with the lowest rates are excluded, the range is 0.2–5.0 per 1000 population, and the variation is 33-fold.

Reasons for the variation in the rate of urodynamic tests are:

- Population demographics – areas with a higher proportion of older people will have higher rates of testing;
- Presence of a large spinal injury unit – areas with or near such units have high rates of testing;
- Availability of departments and appropriate staff, for example, areas with or near a tertiary centre for continence have rates of testing above average, and in some organisations the number of tests performed each month can often be explained by the presence of key members of staff;
- Lack of national guidelines on which diagnostic tests are performed in patients with bladder outlet obstruction and incontinence.

Options for action

At present, there are few guidelines about where and how the urodynamics (pressures and flows) tests should be used. It is important that improved professional guidelines and/or agreements on local pathways and models of care are developed urgently.

Commissioners need to ensure equity of access to services. It is possible that basic urodynamics tests could be easily and more conveniently carried out in primary care, and this could be investigated where it has the potential to increase patient access and reduce unwarranted variation.

Commissioners and providers should consider developing local models and pathways for how urodynamics tests are used in key diagnostic and treatment pathways.

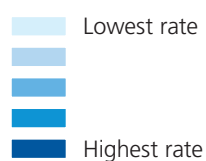
PROBLEMS OF THE GENITO-URINARY SYSTEM

Map 55: Rate of admissions for acute kidney injury (AKI) per all emergency admissions to hospital by PCT

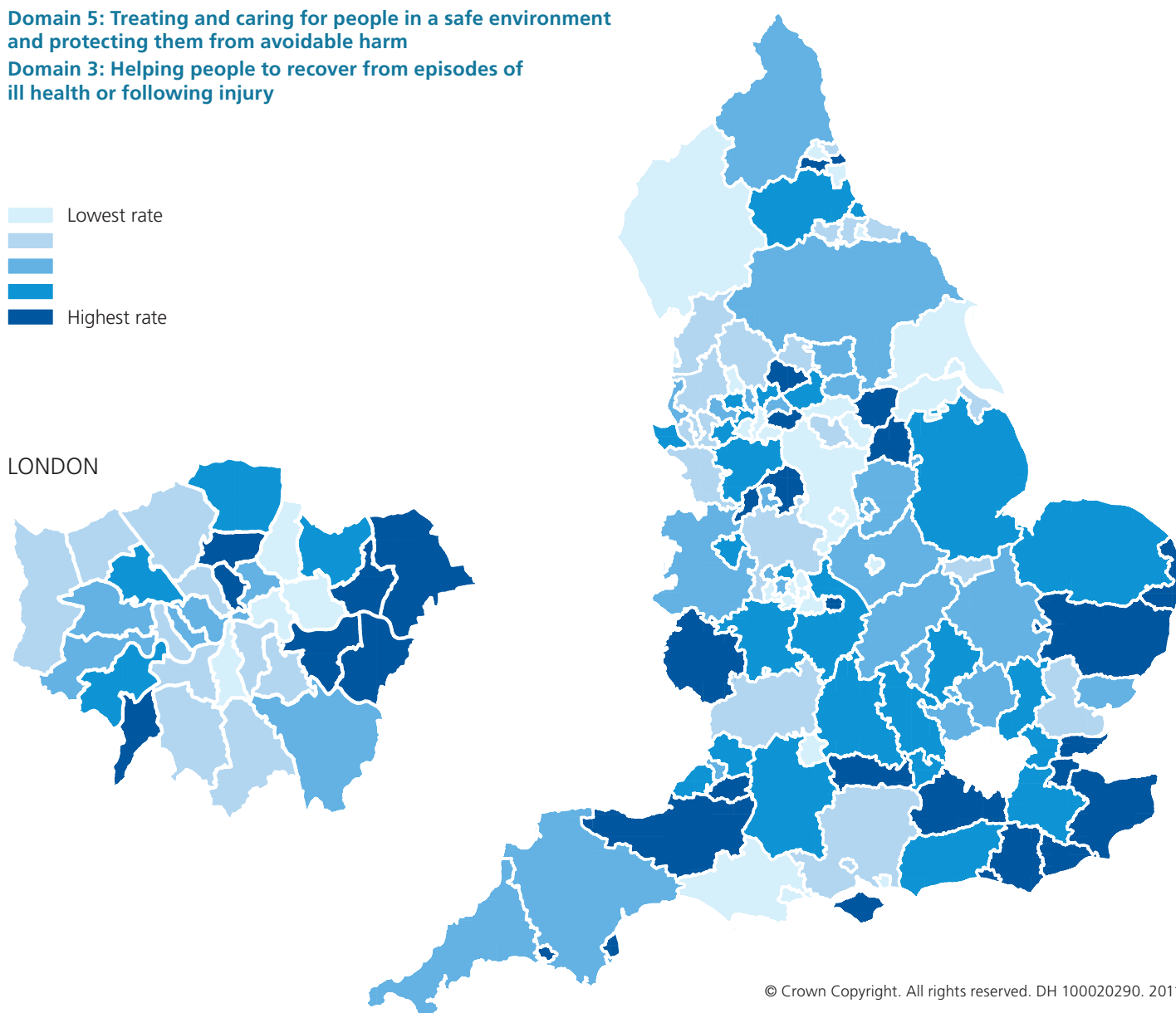
2009/10

Domain 5: Treating and caring for people in a safe environment and protecting them from avoidable harm

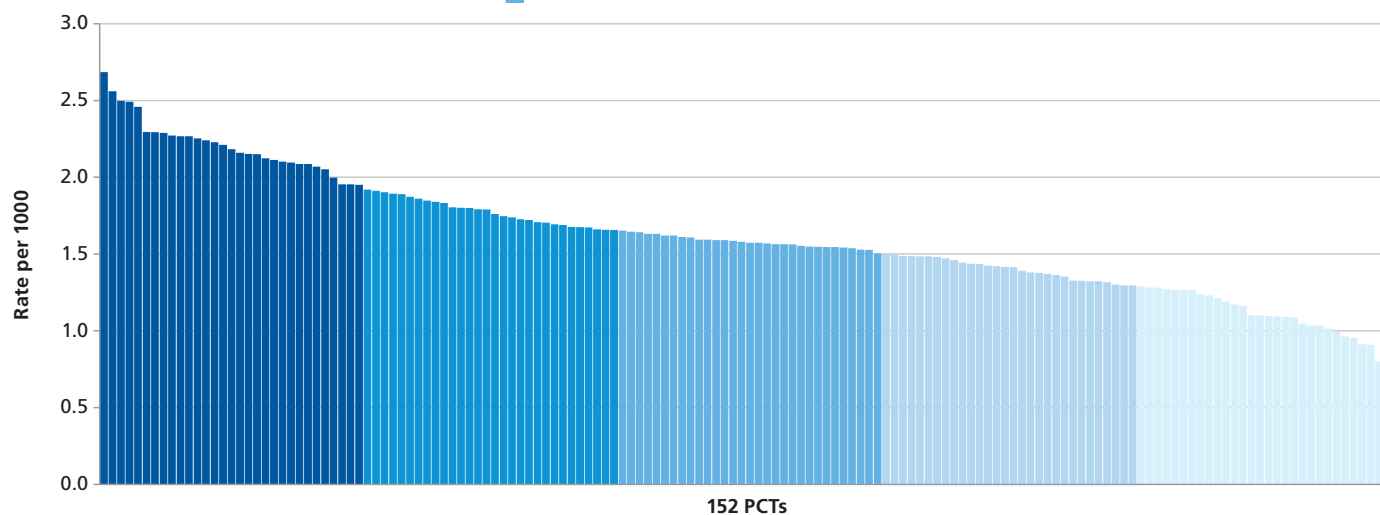
Domain 3: Helping people to recover from episodes of ill health or following injury



LONDON



© Crown Copyright. All rights reserved. DH 100020290. 2011



Context

Acute kidney injury (AKI), also known as acute renal failure, is a medical emergency characterised by the loss of kidney function over hours or days. It is very common, affecting up to 20% of people who are admitted to hospital as an emergency.¹ Older people and people with long-term conditions, such as chronic kidney disease or heart failure, are particularly at risk.

Acute kidney injury is usually the result of illness elsewhere in the body, such as pneumonia or dehydration. Good management of acute illness can prevent AKI in up to 30% of cases.² Early recognition and treatment can prevent progression to more severe stages of AKI. The consequences of AKI can be serious: the mortality rate for severe AKI is up to 50%,³ and survivors may have permanent damage or need lifelong renal replacement therapy.

Management of AKI is resource intensive, costing the NHS £600 million per annum and adding 4.7 days to the mean length of stay.⁴

Admissions attributed to AKI have been rising in recent years,⁴ possibly as a result of increasing awareness, although the results of epidemiological studies show rising prevalence of this condition.

Magnitude of variation

For PCTs in England, the rate of admissions attributed to AKI per all emergency admissions to hospital ranged from 0.4 to 2.7 per 1000 (7-fold variation). When the five PCTs with the highest rates and the five PCTs with the lowest rates are excluded, the range is 1.0-2.3 per 1000, and the variation is 2.4-fold.

This degree of variation could reflect:

- the distribution of AKI risk factors, such as diabetes or chronic kidney disease;
- levels of awareness of AKI and subsequent coding of cases;
- the organisation and management of care for people who are acutely unwell in local healthcare services.

It is recognised that the majority of AKI cases go unrecorded, and so the data for this indicator represent only a fraction of the total burden of AKI on populations and health services.

Options for action

Reducing variation in AKI admissions depends on improving awareness and coding, and focusing on improving the quality and safety of acute care.

For commissioners, it is important:

- to implement an acute care CQUIN (see "Resources", NHS Kidney Care AKI Resource Pack);
- to ensure that the AKI care pathway is defined in every setting where people with acute illness are managed;
- to include tackling AKI in QIPP plans.

For clinicians, it is important to focus on improving the basic care of the acutely unwell including:

- recognising illness severity and deterioration;
- prompt resuscitation;
- timely management of infection and sepsis;
- safe prescribing;
- careful attention to hydration and nutrition.

It is also vital to agree protocols for the referral and safe transfer of patients with AKI.

For managers, it is important:

- to implement an electronic system of AKI alerts in laboratory reporting systems;
- to audit AKI outcomes and quality of care;
- to implement the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) recommendations on AKI (see "Resources").

RESOURCES

- NHS Kidney Care AKI Resource Pack, including audit tools, example protocols, guidelines and CQUIN schemes. http://www.kidneycare.nhs.uk/_Ourworkprogrammes-AcuteKidneyInjury-ToolstoHelpYou.aspx
- National Confidential Enquiry into Patient Outcome and Death (NCEPOD) report into AKI, including recommendations and guidance. <http://www.ncepod.org.uk/2009aki.htm>
- Renal Association Clinical Guidelines on Acute Kidney Injury. <http://www.renal.org/Clinical/GuidelinesSection/AcuteKidneyInjury.aspx>
- NICE Guidance. Acutely ill patients in hospital. <http://www.nice.org.uk/CG50>

This indicator is from the Kidney Care Themed Atlas

1 Uchino S, Bellomo R, Goldsmith D, Bates S, Ronco C (2006) An assessment of the RIFLE criteria for acute renal failure. *Critical Care Medicine* 34: 1913–17.

2 Stevens PE, Tamimi NA, Al Hasani MK, et al (2001) Non-specialist management of acute renal failure. *Quarterly Journal of Medicine* 94: 533–540.

3 Waikar S, Liu K, Chertow G (2008) Diagnosis, Epidemiology and Outcomes of Acute Kidney injury. *Clin J Am Soc Nephrol* 3: 844–861.

4 <http://www.hesonline.nhs.uk>

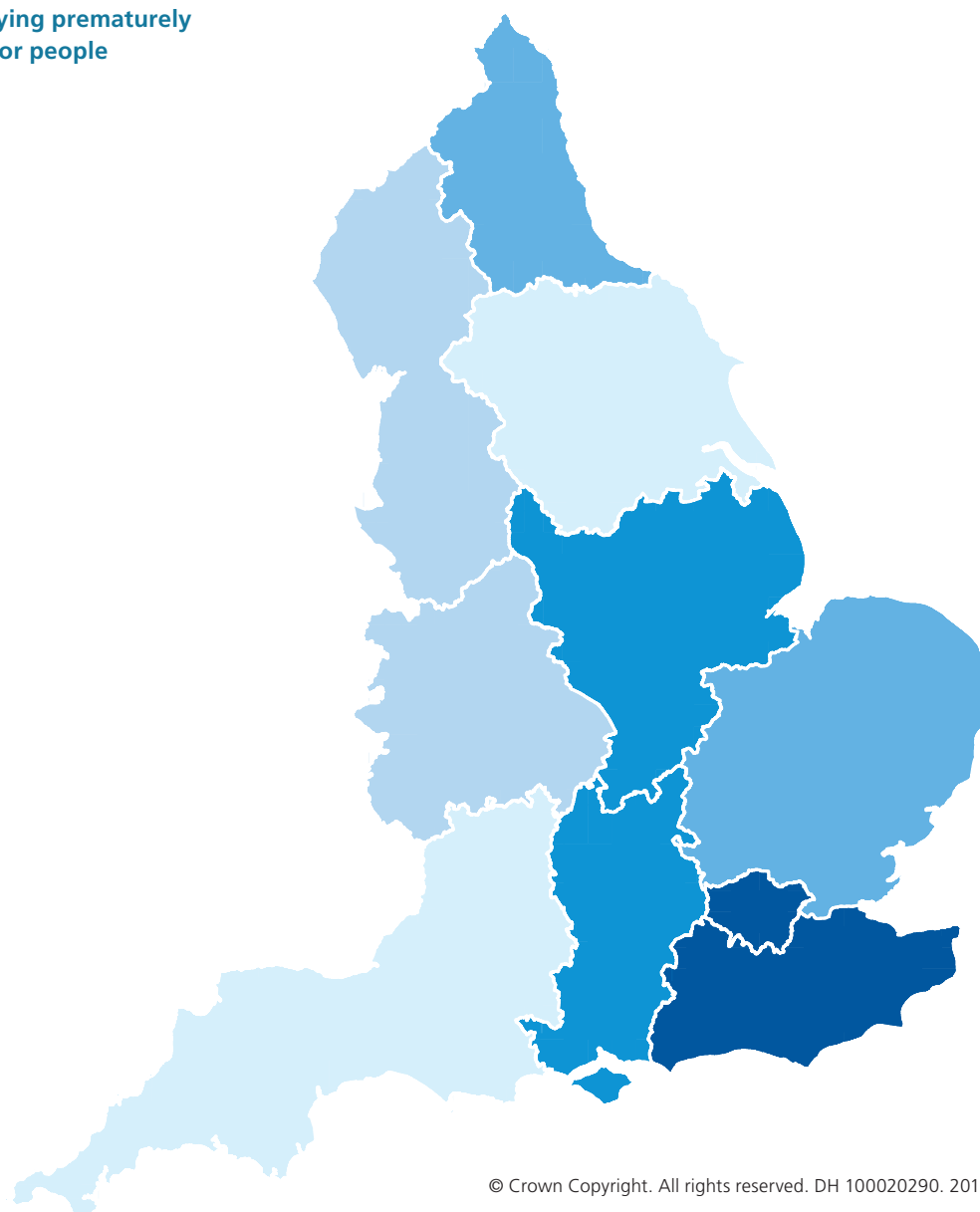
PROBLEMS OF THE GENITO-URINARY SYSTEM

Map 56: Rate of kidney transplants from living donors per population by SHA

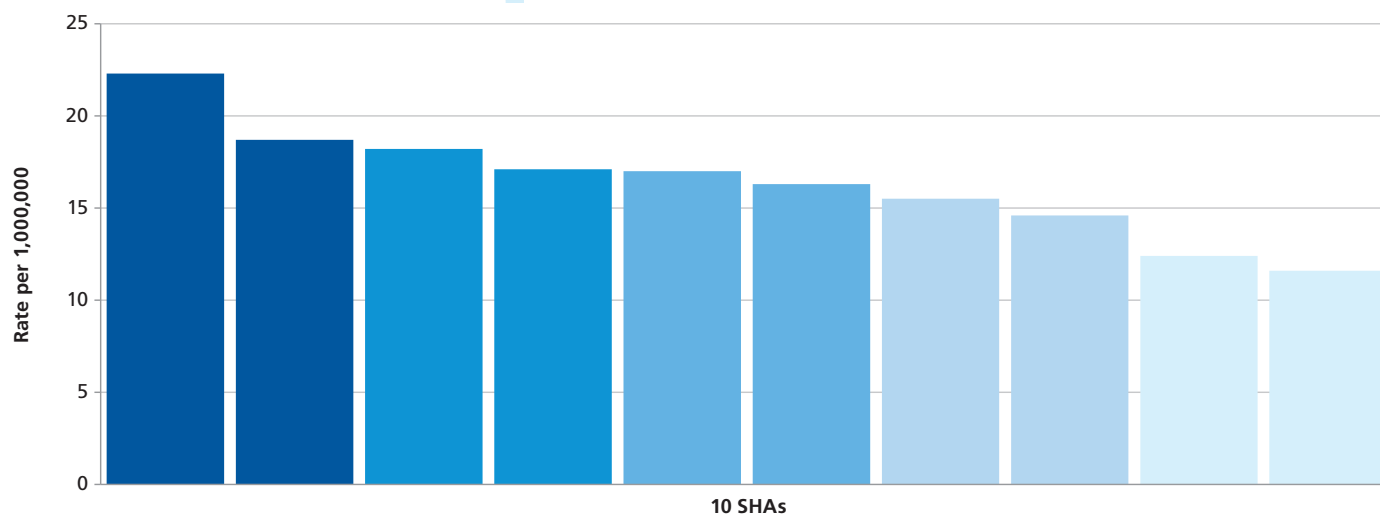
2010/11

Domain 1: Preventing people from dying prematurely
Domain 2: Enhancing quality of life for people with long-term conditions

Lowest rate
Highest rate



© Crown Copyright. All rights reserved. DH 100020290. 2011



Context

Organ transplantation is the preferred form of therapy for many patients with end-stage kidney failure. In the UK in 2010/11, the number of people on the kidney transplant list fell by 4% from 7183 to 6871. However, the number of people waiting represents 111 patients per million population (pmp), and the number registered on the active transplant list at 31 March 2011 to receive a kidney or a kidney and pancreas transplant has increased by 38% since 2002.

Of the patients on the waiting list:

- › 24% are transplanted within one year;
- › 65% are transplanted within 5 years.

For an adult, the median waiting time for a kidney transplant is 1153 days, just over three years.

The number of living donor transplants performed has increased markedly over the last 10 years, and, despite a fall of 2% in living donor kidney transplants in 2010/11, living donation represents more than one-third of the total kidney transplant programme, and is integral to saving people's lives. The overall rate of kidney transplants from living donors for England in 2010/11 was 16.5 pmp.

There are three types of living donation:

- › Directed living donation to relatives or friends, which represent the vast majority of living donations;
- › Non-directed living donation, also known as altruistic donation, where a person donates a kidney to a stranger through the national matching and allocation system for kidneys from deceased donors;
- › Paired/pooled living donation where an incompatible donor/recipient couple is paired anonymously with another couple in the same situation to exchange suitably matched organs between couples.

From January 2012, the National Living Donor Kidney Sharing Schemes (NLDKSS) will also include altruistic donor chains, where a non-directed living donor has an opportunity to donate into the paired/pooled scheme to generate a chain of transplants, with the last donation being to a recipient on the national transplant list.

The data for this indicator are from NHS Blood and Transplant (NHSBT).

Magnitude of variation

For SHAs in England, the rate of kidney transplants from living donors ranged from 11.6 to 22.3 pmp, a variation of almost twofold (1.9-fold).

Reasons that explain some of the variation include differences in:

- › Demography;
- › The prevalence of kidney disease;
- › Local attitudes towards living donation.

Much of the variation is likely to be due to differences in:

- › referral practice to transplant centres;
- › practices within transplant centres.

Options for action

NHSBT have developed a strategic plan for living kidney donor transplantation that aims to promote continued expansion in this type of kidney transplantation, ensuring consistency of practice and the highest standards of donor care and safety.

Commissioners and providers need to ensure that they are implementing national guidelines and protocols to maximise living kidney donation.

RESOURCES

- › NHS Blood and Transplant (NHSBT). Information on transplant activity by centre and nationally. <http://www.uktransplant.org.uk/ukt/statistics/statistics.jsp>
- › NHSBT. Information on the process of allocation of living kidney donor organs. [http://www.organdonation.nhs.uk/ukt/about_transplants/organ_allocation/kidney_\(renal\)/living_donation/living_donation.jsp](http://www.organdonation.nhs.uk/ukt/about_transplants/organ_allocation/kidney_(renal)/living_donation/living_donation.jsp)
- › NHSBT Potential Donor Audit (PDA). http://www.uktransplant.org.uk/ukt/statistics/potential_donor_audit/potential_donor_audit.jsp

This indicator is from the Organ Donation and Transplantation Themed Atlas; it also appears in the Kidney Care Themed Atlas.

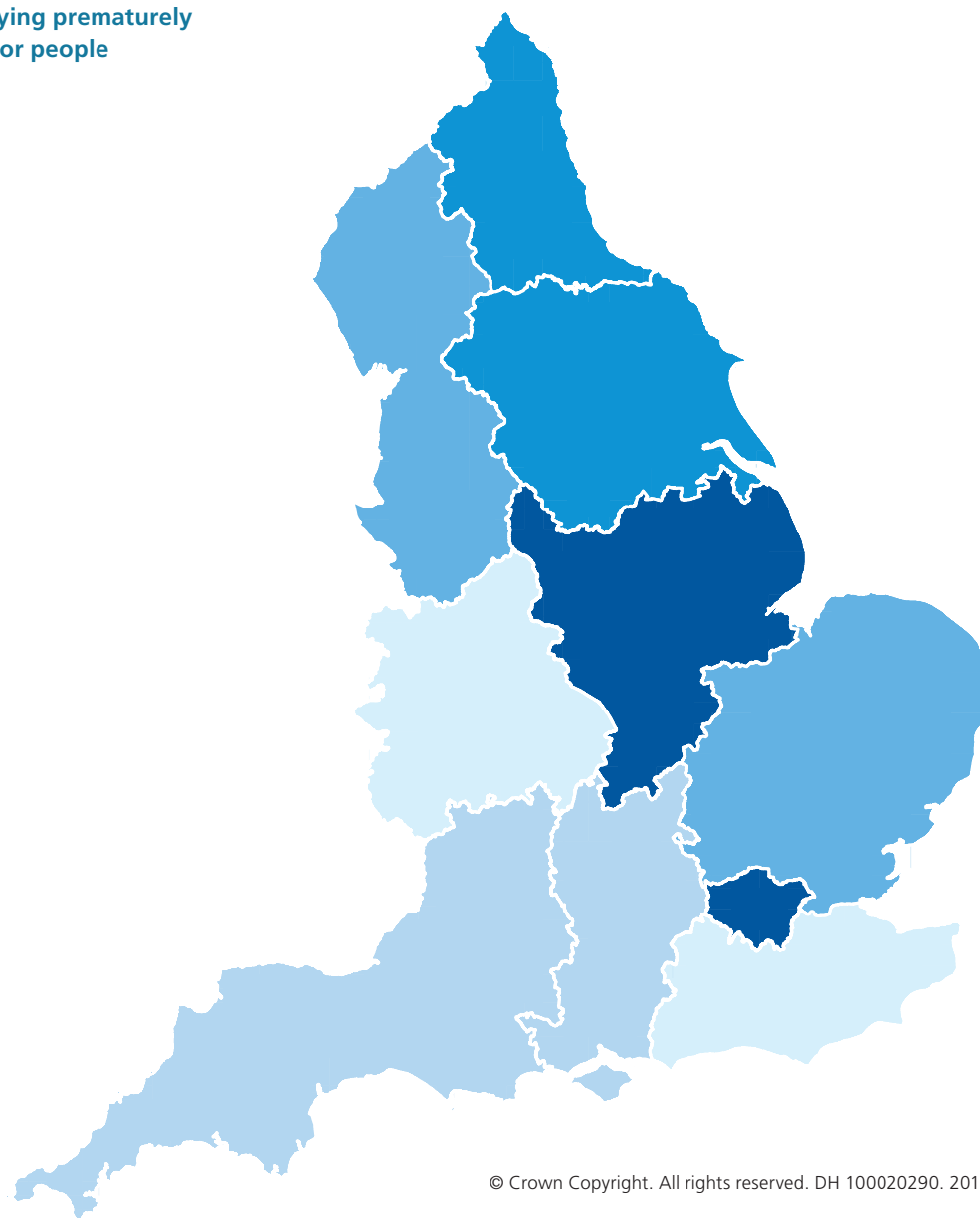
PROBLEMS OF THE GENITO-URINARY SYSTEM

Map 57: Rate of kidney transplants from deceased donors per population by SHA

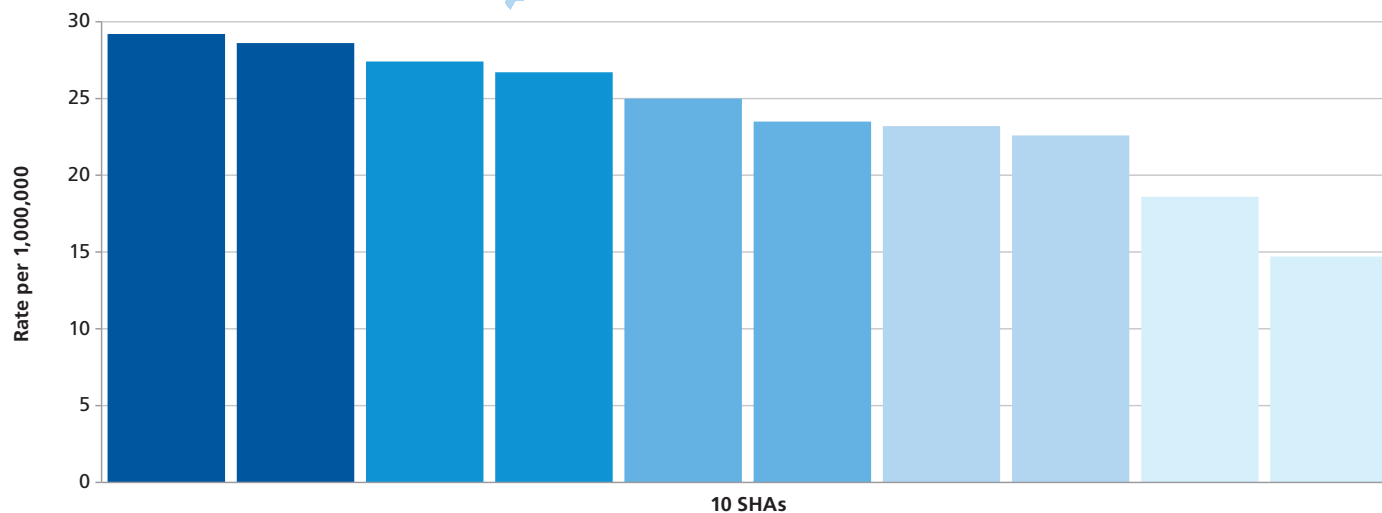
2010/11

Domain 1: Preventing people from dying prematurely
Domain 2: Enhancing quality of life for people with long-term conditions

Lowest rate
Highest rate



© Crown Copyright. All rights reserved. DH 100020290. 2011



Context

Organ transplantation is the preferred form of therapy for many patients with end-stage kidney failure. In the UK in 2010/11, the number of people on the kidney transplant list fell by 4% from 7183 to 6871. However, the number of people waiting represents 111 patients per million population (pmp), and the number registered on the active transplant list at 31 March 2011 to receive a kidney or a kidney and pancreas transplant has increased by 38% since 2002.

Of the patients on the waiting list:

- 24% are transplanted within one year;
- 65% are transplanted within 5 years.

For an adult, the median waiting time for a kidney transplant is 1153 days, just over three years.

The number of deceased kidney donors increased by 3% in 2010/11, and the number of deceased donor kidney transplants increased by 1%. Deceased donation represents 60% of the total kidney transplant programme. The overall rate of kidney transplants from deceased donors for England in 2010/11 was 24.1 pmp.

There are two main types of deceased donors:

- Donors after brain death, who still comprise the majority;
- Donors after circulatory death, a form of donation becoming increasingly more common, and may exceed kidneys donated after brain death if the current trajectory is maintained.

The data for this indicator are from NHS Blood and Transplant (NHSBT).

Magnitude of variation

In SHAs in England, the rate of kidney transplants from deceased donors pmp ranged from 14.7 to 29.2, a twofold variation.

One reason for variation is differences in regional demography, particularly the proportion of black and minority ethnic (BME) groups in the population, who are three times more likely to need a kidney transplant but only 1.2% of people from the South Asian and 0.4% of people from the Black communities have joined the Organ Donation Register (ODR).

There is also large inter-centre variation in the number of kidneys transplanted from donors after circulatory death; such kidneys are not currently shared through the national kidney allocation scheme.

Other possible reasons for variation include differences in:

- The prevalence of kidney disease;
- The rate of referral to transplant centres.

Options for action

Commissioners and providers need to ensure that they are:

- Implementing national guidelines and protocols to maximise deceased kidney donation;
- Supporting the work in acute hospital and Foundation Trusts of Donation Committees, Clinical Leads in Organ Donation and Specialist Nurses for Organ Donation, all of whom are working to ensure that organ donation becomes a "usual" event (see case-study in the Organ Donation and Transplantation Themed Atlas).

Commissioners and providers could consider supporting the NHSBT BME campaign locally to encourage people from the BME community to join the ODR.

RESOURCES

- NHS Blood and Transplant (NHSBT). Information on transplant activity by centre and nationally.
<http://www.uktransplant.org.uk/ukt/statistics/statistics.jsp>
- NHSBT Potential Donor Audit (PDA).
http://www.uktransplant.org.uk/ukt/statistics/potential_donor_audit/potential_donor_audit.jsp
- NHSBT. Information on the process for allocation of deceased kidney donor organs, and Renal National Protocols and Guidelines.
[http://www.organdonation.nhs.uk/ukt/about_transplants/organ_allocation/kidney_\(renal\)/kidney_\(renal\).jsp](http://www.organdonation.nhs.uk/ukt/about_transplants/organ_allocation/kidney_(renal)/kidney_(renal).jsp)

This indicator is from the Organ Donation and Transplantation Themed Atlas
