4. HEALTH CARE ACTIVITIES

4.7. Treatment of renal failure (dialysis and kidney transplants)

End-stage renal failure (ESRF) is a condition in which the kidneys are permanently impaired and can no longer function normally. Some of the main risk factors for end-stage renal failure include diabetes and hypertension, two conditions which are generally becoming more prevalent in OECD countries. In the United States, diabetes and hypertension alone accounted for over 60% of the primary diagnoses for all ESRF patients (37% for diabetes and 24% for hypertension) (USRDS, 2008). When patients reach endstage renal failure, they require treatment either in the form of dialysis or through kidney transplants. Treatment in the form of dialysis tends to be more costly and results in a poorer quality of life for patients than a successful kidney transplant, because of the recurrent nature of dialysis.

Taking into account both types of treatment, the proportion of people treated for end-stage renal failure has increased at a rate of almost 6% per year on average across OECD countries over the past two decades (Figure 4.7.2). This translates into a more than threefold increase in the prevalence of treatment for ESRF in 2007 compared with 1985. In 2007, Japan and the United States reported the highest rates, with more than 160 ESRF patients per 100 000 population (Figure 4.7.1). They were followed by Portugal which registered the highest growth rate since 1985. It is not clear why these countries report such strong rates of treatment for ESRF, but it does not seem to be solely or mainly related to a higher prevalence of diabetes, which is not particularly higher in these countries compared with other OECD countries (see Indicator 1.12 "Diabetes prevalence and incidence").

In most OECD countries, a majority of ESRF patients are being treated through dialysis as opposed to receiving a kidney transplant. This can be attributed to the fact that while the prevalence of people suffering from end-stage renal failure has strongly increased in many countries, the number of transplants has remained limited by the number of donors. The exceptions are Finland, Iceland and the Netherlands which have a relatively low level of ESRF patients overall.

The proportion of people undergoing dialysis is much higher in Japan and, to a lesser extent, in the United States, than in other countries (Figure 4.7.3). In Japan, this is partly related to very low rates of kidney transplants, meaning that nearly all Japanese ESRF patients are treated through dialysis. In all countries, there has been a large rise in the number of persons undergoing dialysis over the past 20 years.

Given the supply constraints, kidney transplants are normally performed on patients with end-stage renal failure when these persons cannot live without long and hard dialysis sessions. When successful, these transplants allow people to live again almost normally, without strict diet and activity limitation. Advances in surgical techniques and the development of new drugs preventing rejection have made it possible to carry out more transplants, and to improve their rate of success, than was the case 20 years ago. The prevalence of people living with a functioning kidney transplant has regularly increased since 1985 in all countries with available data. The OECD average rose from eight to 34 people with a functioning kidney transplant per 100 000 population between 1985 and 2007 (Figure 4.7.4). In 2007, the United States, Portugal and Austria reported the highest rates, with more than 45 people with a functioning kidney transplant per 100 000 population. On the other hand, the proportion of people having received a kidney transplant was the lowest in Japan, followed by Korea and the Slovak Republic.

In many countries, waiting lists to receive a kidney transplant have increased, as the demand for transplants has outpaced greatly the number of donors. The rate of transplants is also affected by cultural factors and traditions; transplants may still be less accepted in certain countries such as Japan.

Definition and deviations

The number of patients treated for end-stage renal failure refers to the number of patients at the end of the year who are receiving different forms of renal replacement therapy: haemodialysis/ haemoinfiltration, intermittent peritoneal dialysis, continuous ambulatory peritoneal dialysis, continuous cyclical peritoneal dialysis, or living with a functioning kidney transplant.

6.3

6.4

4.7. Treatment of renal failure (dialysis and kidney transplants)

Japan (2003)

United States

Portugal

Germany

Belgium

Canada

Greece

OECD

France

Austria

Spain

Korea

Denmark

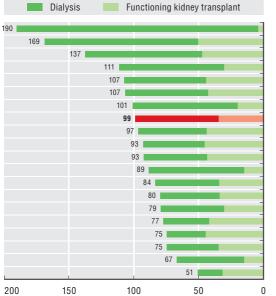
Australia

Finland

Iceland

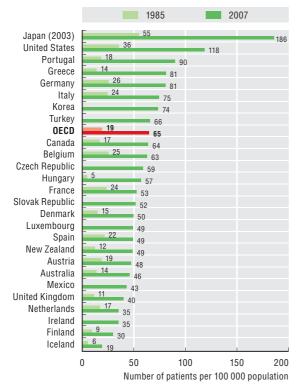
n a

4.7.1 Patients treated for end-stage renal failure, by type of treatment, 2007 (or latest year available)



Number of patients per 100 000 population

4.7.3 Prevalence of patients undergoing dialysis, 1985 and 2007 (or nearest year)



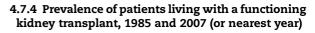
49 59

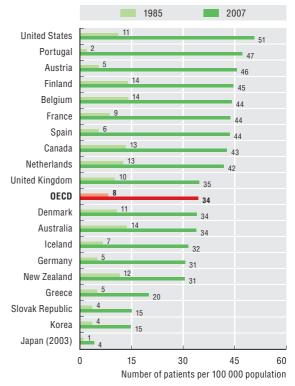
4.7.2 Rise in the prevalence of people treated

for end-stage renal failure, 1985-2007



Average annual growth rate (%)





StatLink and http://dx.doi.org/10.1787/718535684543

Source: OECD Health Data 2009.



From: Health at a Glance 2009 OECD Indicators

Access the complete publication at: https://doi.org/10.1787/health_glance-2009-en

Please cite this chapter as:

OECD (2009), "Treatment of renal failure (dialysis and kidney transplants)", in *Health at a Glance 2009:* OECD Indicators, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/health glance-2009-43-en

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.

