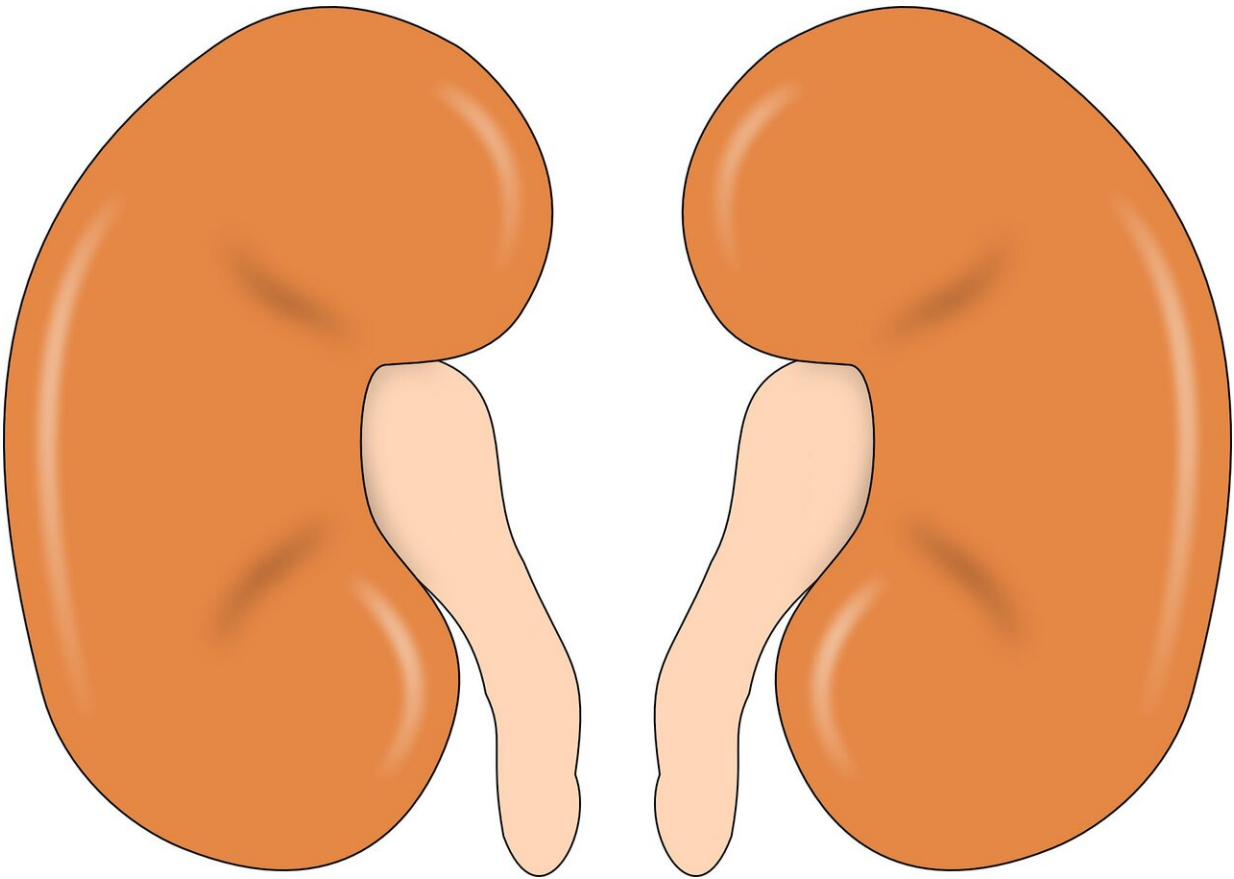


Kidney transplants: Better results can be inferred from a larger number of cases

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In complex operations, is there a correlation between the volume of service provided per hospital and the quality of the treatment outcome?

This question is addressed in eight commissions on minimum volumes that the Federal Joint Committee (G-BA) has issued to the Institute for Quality and Efficiency in Health Care (IQWiG). The IQWiG report is now available for the fifth intervention to be tested, kidney transplantation.

According to this report, in the case of [kidney transplantation](#) there is a correlation between the volume of services and the quality of the treatment outcome: In hospitals with larger case numbers, the chances of survival are higher up to one year after transplantation. For the target figure "transplant failure" no correlation between the volume of services and the quality of treatment can be deduced.

The most frequent organ transplantation in Germany

In cases of chronic [kidney](#) failure, in most cases caused by diabetes or [high blood pressure](#), kidney transplantation is the only treatment option besides dialysis. The organ donation is then made either as a post-mortem donation or as a living donation from direct relatives or people very close to the patient. 5 years after transplantation, 78 percent of postmortem donated kidneys and 87 percent of live donated kidneys still function in the new body (figures for Europe).

Kidney transplantation is the most common organ transplantation in Germany: In 2018, doctors in Germany transplanted 1,671 kidneys after post-mortem [organ donation](#) and 638 kidneys after living donation. The [waiting list](#) for a donor kidney included more than 7,500 patients in the same year. The average waiting time for a kidney transplant is currently more than 8 years.

Currently, a minimum of 25 treatments per hospital location and year is required for kidney transplants (including living donations) in Germany. In contrast to the regulation on the annual minimum volume for liver

transplants, organ removals are not counted as part of the number of interventions required to achieve the minimum quantities.

Positive correlation between service volume and chance of survival

The question of whether hospitals with larger case numbers achieve better treatment results for kidney transplantation than hospitals with smaller case numbers can be answered in the affirmative by IQWiG for the survival chances of patients on the basis of a short-term observation period: For all-cause mortality up to 12 months after transplantation, two of the three studies evaluated in this context show a lower probability of dying with a higher volume of services, although the significance of the results is low. IQWiG researchers cannot derive such a correlation for the medium-term all-cause mortality after 36 months, for which a US study had collected data. After evaluating the data from two relevant studies, the Institute also sees no overall connection between the volume of services and the quality of treatment for the target value "[transplant failure](#)". No usable data were available for the target variables "adverse effects of therapy", "health-related quality of life" and "length of hospital stay", so that no statements can be made on this.

Since none of the included studies included the individual [service](#) quantities of the surgeons, it is also not possible to assess whether more routine kidney transplantation leads to better treatment results.

There are no studies on the effects of minimum case numbers specifically introduced into the care system for kidney transplants. Accordingly, IQWiG cannot make a statement on this.

The report preparation process

In February 2019, the Federal Joint Committee commissioned IQWiG to prepare the report on the relationship between the [volume](#) of services and quality in kidney transplantation in an accelerated procedure as a "rapid report". Intermediate products were therefore not published and not submitted for consultation. The work on this rapid report started in August 2019 and after completion it was sent to the contracting agency, the G-BA, in April 2020.

More information: An English extract of this rapid report will be available soon. If you would like to be informed when it is published, please contact info@iqwig.de

Provided by Institute for Quality and Efficiency in Health Care

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