

Transplant Coordinators in Germany – Function, Qualification and Options of Education and Certification

SUMMARY

Transplant coordinators play a central role in the coordination of the organ donation process and identification of potential donors in the hospital. Their responsibility is to identify potential donors, report them to the DSO (“Deutsche Stiftung Organtransplanta-

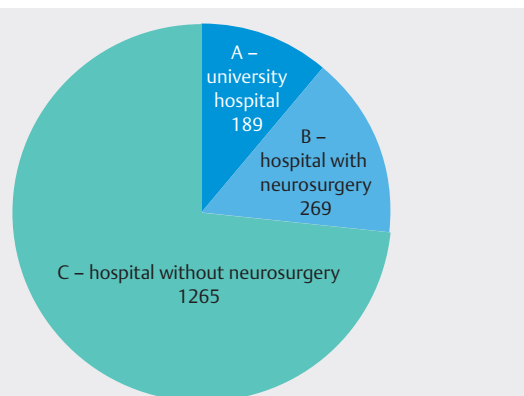
tion”, German Organ Procurement Organization), evaluate the consent to organ donation, ensure that the diagnosis of irreversible brain failure is conducted correctly, and supervise the in-hospital procedures [1].

Transplant coordinators, in Germany called “Transplantationsbeauftragte” (TXB), are hospital-based, intensive care physicians from the medical fields of anaesthesia, internal medicine, neurology, neurosurgery or surgery. They are completely independent in the performance of their duties and report to the medical director of the hospital. According to the German transplantation law (“Transplantationsgesetz”, TPG) every hospital with an ICU is legally bound to nominate at least one transplant coordinator (► Fig. 1).

Function and responsibilities of the transplant coordinator

The role of the transplant coordinator in summary is to coordinate all the processes around a possible organ donation at their hospital. In detail, they have to define the hospital-specific SOPs and instructions for the detection of potential organ donors, for brain death diagnosis, for the dialogue with the relatives, for the appropriate medical treatments (bridgeover) in case of a planned organ

donation [2] and for the evaluation of the explicit or implied consent so as to ensure the involvement of the DSO coordinators in a timely manner. Additional tasks include in-house coordination of a planned explantation in the operating room, staff coordination and, above all, ensuring effective communication between all parties involved, especially the relatives of the donors. The transplant coordinator documents the evaluation and assessment of all eligible in-house patients succumbing to a neurologic diagnosis in the ICU and provides an annual report. Reimbursement of transplant coordinators is based on this reporting and is provided to the hospital by the DSO, which, as a non-profit organization, in turn receives the funds from the National Association of Statutory Health Insurance Funds (GKV). Owing to the German federal structure the TPG [1] requires implementation by additional legislation, the so-called “Ausführungsgesetze” (executive law) to be provided by the 16 federal states to define further details of the responsibilities of the transplant coordinator [3]. Diagnosis of irreversible loss of brain function (brain death) is mandatory for organ donation in Germany and is regulated by the state-approved guideline (Richtlinie zur Feststellung des irreversiblen Hirnfunktionsausfalls) of the German Medical Association (Bundesärztekammer, BÄK) [4]. This guideline stipulates that brain death diagnosis has to be carried out by 2 independent examiners with experience in intensive care medicine. At least one of these has to be a neurologist or a neurosurgeon – the other can be an intensive care physician with experience in brain death diagnosis. The transplant coordinator has to organize the logistics of brain death diagnosis, and although he or she can request support by the coordinators of the DSO, it is ultimately his or her duty to ensure an appropriate process. If one of the examiners for brain death is the transplant coordinator, then the transplant coordinator is not allowed to be involved in subsequent steps of the organ donation. The TPG requires strict separation of the coordination process from other aspects of organ donation to assure impartial conduct.



► Fig. 1 Numbers of transplant coordinators in hospitals category A (university hospital), category B (hospital with neurosurgery) and category C (hospital without neurosurgery) [9].

As described above, transplant coordinators have many responsibilities in addition to the normal duties in the ICU (► **box**). A well-defined job description of tasks that helps to separate those from the routine work has not yet been established in Germany.

With these responsibilities, conditions for transplant coordinators in hospitals are poor compared with the professional and well-organized stakeholders of the transplant system in Germany, and greater professionalization is needed [5–8]. In 2016, the German Interdisciplinary Association for Intensive Care and Emergency Medicine (Deutsche interdisziplinäre Vereinigung für Intensiv- und Notfallmedizin, DIVI) was invited as a representative onto the Permanent Committee on Organ Transplantation (“Ständige Kommission Organtransplantation”, StäKO).

As transplant coordinators are recruited from among intensive care physicians, DIVI now provides them the framework to organize within a scientific society, and also ensures that they have a vote in public committees [6]. In the context of the low numbers of transplantations in Germany, the role and status of transplant coordinators have to be considered among the most relevant factors in improving the overall process of organ donation and transplantation.

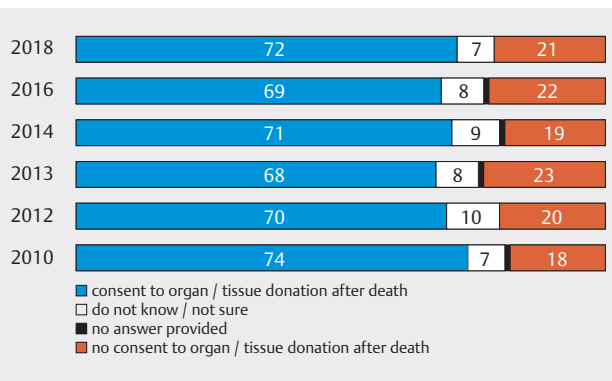
Organ donation in Germany

The population of Germany is overwhelmingly (over 70%) in favour of organ donation (► **Fig. 2**) [10]. On the other hand, this positive attitude does not translate into sufficient numbers of organ donors in Germany. For the whole country the number of organs donated increased in 2018 by 20% over the previous year (► **Fig. 3a**), but there are regional differences. For example, North Rhine-Westphalia (NRW), the most densely populated federal state of Germany (equal in size to the Netherlands), is behind the overall trend with an increase of only 11.6%.

This suggests that the root of the problem is to be found in the structure of the hospitals, as was presented in a nationwide analysis of all inpatient cases by Schulte et al. [7] (► **page 6**). That study and other papers stress that there appears to be plenty of scope for better detection of higher numbers of potential organ donors by improving conditions in the hospitals and for transplant coordinators. This complex problem is now attracting increasing attention from the relevant ministries, politicians and members of other medical specialities. Very frequently the blame for the low donation rates is attributed to the transplant scandal of 2012 (► **page 21**), ignoring the imperative need to de-

RESPONSIBILITIES OF THE TRANSPLANT COORDINATOR

- diagnosis
- communication in sensible phases of brain death diagnosis (team, treating discipline, relatives)
- organ-protective intensive care
- cooperation with DSO
- brain death diagnosis
- in-house-coordination (operating room (OR) team, anaesthesia, resource coordination)
- caring support for relatives
- team-leading, evaluating and reviewing, education and training
- economic efficiency
- standard operating procedures (SOPs)
- documentation and monitoring



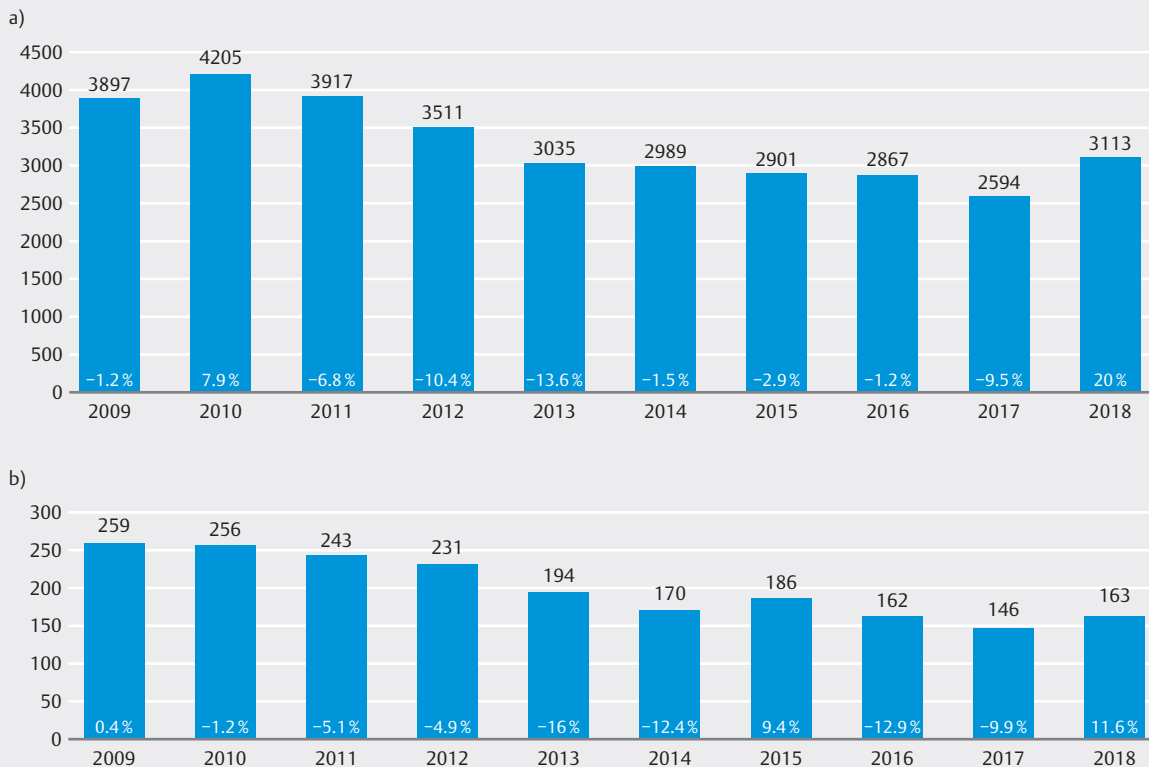
► **Fig. 2** Attitude of the German population to organ donation between 2010 and 2018, all figures in % [10].

velop a culture of organ donation and supportive attitudes within the relevant medical specialist community of intensive care physicians in Germany [6, 11, 12].

The need for new legal requirements on adequate funding for the hospitals, better conditions for the transplant coordinators and nationwide availability of brain death diagnosis was recognized and the first changes to the legislation have been made recently in an amendment to the transplantation law (2. Gesetz zur Änderung des Transplantationsgesetzes).

Initiatives in education, qualification and certification

A new nationwide joint working group (called “Initiativplan”) under the leadership of DSO and supported by the Ministry of Health has now been implemented with wide attendance by the representatives of the important organizations concerned with organ donation



► **Fig. 3a), b)** Post-mortem organ donor numbers (top of column); percentage (foot of column) indicates change from previous year; 3a: Germany 3b: North Rhine Westphalia [9].

in Germany to develop supporting measures in accordance with the recent amendment of the Transplantation Law [13] (► **page 23**, for list of participating institutions see also ► **page 19**).

Transplant coordinators themselves have also developed initiatives. For example, in North Rhine-Westphalia they are now organized as an association (the “AG TXB NRW e.V.”) to make their voices heard and to take part in finding innovative solutions.

As an organization the AG TXB NRW e. V. has already implemented a number of activities:

- a course “Brain Death Diagnosis” in cooperation with the German Medical Association
- a participatory course “Transplant Coordinator” in cooperation with DSO and the German Medical Association
- a participatory course “Refresher for Experienced Transplant Coordinator”
- participation in various committees, relevant panels, forums and work groups, such as “Initiativplan,” in NRW and throughout Germany

To provide further support the DSO offers additional information and material for download on their website www.dso.de.

From the perspective of transplant coordinators in Germany, it would be advantageous to establish a common organization across all of the federal states of Germany. A German Group of Transplant Coordinators should be established in the regional medical associations with a joint committee embedded in the structures of the German Medical Association, for example the StäKO; this would provide a much higher degree of organization in the work of the transplant coordinators. Membership of the Advisory Board of the DSO would also be important. In addition, transplant coordinators should develop a common level of education and qualification or certification and seek cooperation with international groups working in transplant coordination.

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► **Table 1** “Initiativplan”: List of participating institutions and organisations.

List of institutions	
German	English translation
• Bundesärztekammer, BÄK	• German Medical Association
• Deutsche Krankenhausgesellschaft, DKG	• German Hospital Federation
• GKV-Spitzenverband	• National Association of Statutory Health Insurance Funds
• Verband der privaten Krankenversicherungen	• PKV e.V., Association of Private Health Insurance Funds
• Gesundheitsministerkonferenz der Länder, GMK	• 2018 Ministers of Health Conference
• Bundeszentrale für gesundheitliche Aufklärung, BZgA	• Federal Center for Health Education
• Deutsche Transplantationsgesellschaft, DTG	• German Transplant Society
• Deutsche Interdisziplinäre Vereinigung für Intensiv- und Notfallmedizin e. V., DIVI	• German Interdisciplinary Association of Intensive Care and Emergency Medicine
• Deutscher Pflegerat	• German Care Council
• Bundesverband der Organtransplantierten e.V., BDO	• German Association of Organ Transplant Recipients
• Verband Lebertransplantierte Deutschland e.V.	• German Association of Liver Transplant Recipients
• Bundesverband Niere e.V.	• German Kidney Patient Association
• Netzwerk Spenderfamilien für Angehörige und Freunde von Organspendern	• Donor Families Network for Family and Friends of Organ Donors
• Transplantationsbeauftragter des Universitätsklinikums Schleswig-Holstein Kiel	• Transplant coordinator of Schleswig-Holstein University Hospital in Kiel
• Transplantationsbeauftragter der Klinik für Anästhesie und Intensivmedizin des St. Bernhard-Hospitals Kamp-Lintfort GmbH	• Transplant coordinator of the Department of Anesthesiology and Intensive Care of St. Bernhard-Hospital Kamp-Lintfort GmbH
• Transplantationsbeauftragter des Klinikums Neumarkt i.d. Oberpfalz	• Transplant coordinator of Klinikum Neumarkt i.d. Oberpfalz
• Stiftung ÜBER LEBEN	• Organ Donation Initiative
• Deutsche Stiftung Organtransplantation, DSO	• German Organ Procurement Organisation