

LETTER TO THE EDITORS

Impact of changing the recruitment and interview procedures for cornea donation on the consent rate at a University hospital in Switzerland

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Dear Editors,

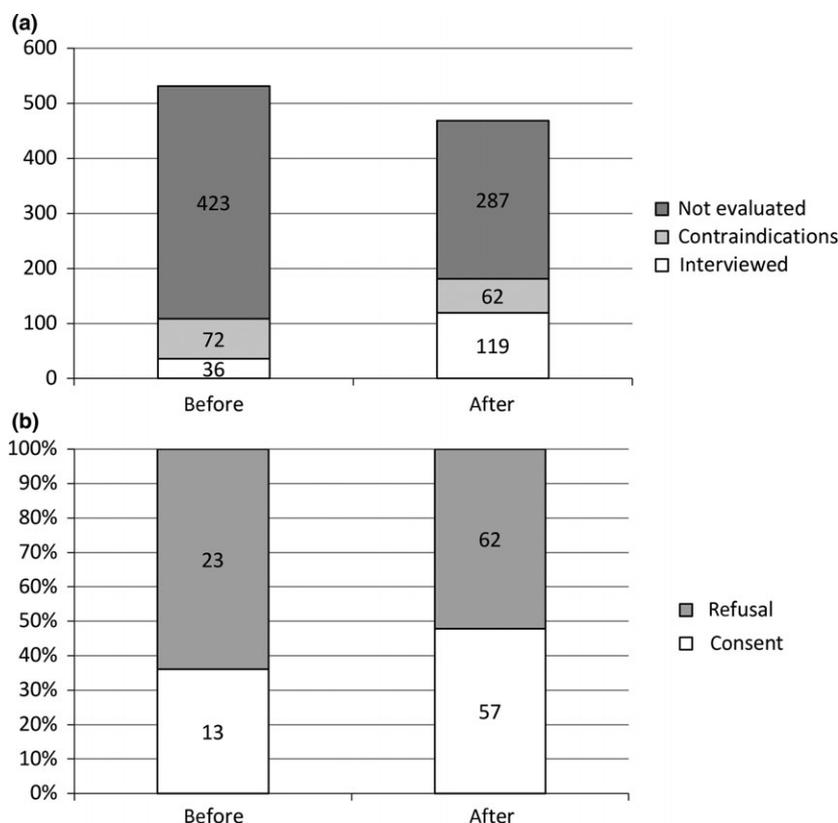
We analyzed the impact of implementing a new concept for obtaining the consent for corneal donation on donor rates at our university hospital. This study emphasizes the potential of process improvements to overcome the shortage of corneal donor tissue and should encourage other clinics in such efforts. In Switzerland, organ and tissue donation is regulated by the national transplantation law, that is, recovery of organs and/or tissue is only allowed if according consent has been given by the deceased person during lifetime. In the common absence of such a declaration, the family members may give the consent, following the presumed wish of the deceased. In contrast to the organ donation process, corneas can be donated postmortem, with the potential to recruit significantly more donors, for example, in case of unexpected death [1]. Nevertheless, there is still an unmet demand for corneal tissue in Switzerland: In 2016, a total of 880 corneal grafts were transplanted, with 475 of those being imported from other countries [2].

Due to the shortage of corneal tissue, the process for obtaining this consent from the relatives of a deceased patient has lately been revised at our hospital. In the previous procedure, the Department of Ophthalmology was responsible for the recruitment: interviews with relatives were performed either by a trained nonmedical staff member (during working days) or by the ophthalmologist on call (during weekends). The interviews were

performed exclusively by phone. For the new recruiting and interview concept, the responsibility to identify potential donors, to screen for potential contraindications, and to ask the relatives for the corneal donation was transferred to all treating medical doctors of the wards in the hospital. In case of a patient's death, the responsible medical doctor on the ward, usually a resident physician, has now the duty to check for any potential contraindication. A standard of operating procedure has been implemented with a clear workflow for the whole process. The new procedure was not only communicated with informative character but was also published as a binding directive by the medical director. Educational lectures of about 15 min with information about the importance of corneal donation and the recruiting/interview procedure were offered for the staff of medical departments with a higher number of deaths (Intensive Care Medicine, Emergency Department and Department of Internal Medicine). A list and explanation of contraindications, and recommendations for the interview procedure were provided. The handout of this training was published in the intranet. Any case (consent or refusal; or exclusion due to contraindication) is recorded by the responsible physician using an intranet form, providing the concerning teams with the relevant information by an automatically generated email.

We retrospectively compared a 6-month period before (March–August 2016) and after (September 2016–February 2017) implementing the new procedure. Before changing the process, a total of 531 patients died within a 6-month observation period. Out of these, 108 cases (20.3%) were evaluated for cornea donation (Figure 1a). After implementation of the new process, in an equal time period of 6 months, 181 (38.7%) out of 468 deaths at our institution were screened for suitability for cornea donation (Figure 1a). So, in the earlier group, 36 interviews were effectively conducted, whereas in 60 cases, contraindications were found, and in 12 cases, the relatives could not be contacted (e.g., no

Figure 1 (a) A total of 531 and 468 deaths before and after revising the recruitment process were registered, with 36 and 119 of them leading to an interview of relatives, respectively ($P < 0.0001$). (b) Interviews for asking consent for cornea donation before and after implementation of the new recruitment process revealed a slight but not significant increase in positive consents.



relatives known/available/existing). In the latter group, after the implementation of the new recruitment process, 119 cases of death lead to an interview, whereas in 51 cases, contraindications were found, and in 11 cases, an interview was not possible (relatives not known/available/existing). The proportion of relatives interviewed for cornea donation increased significantly after revising the recruitment process (36 of 531 vs. 119 of 468 deaths; $P < 0.0001$). Consent for corneal donation was obtained in 13 cases (36% of interviews) before and in 57 cases (47% of interviews) after implementing the new process. This corresponds to a slight increase in consent rate of all interviewed cases, however, not reaching the level of statistical significance (Figure 1b). After introduction of the new process, a total of 44.1% (41 of 93 personal interviews) and 61.5% (16 of 26 phone interviews) of positive consents for corneal donation were obtained by phone and personally, respectively, revealing no significant difference.

Overall, the acceptance to cornea donation with the older process was 2.4% of all deaths of the hospital within a 6 months period, while a total of 12.2% was achieved afterward ($P < 0.0001$). Reporting of deceased patients for potential cornea donation occurred in 38.7% of deceased patients with the new concept compared to

20.3% before. Therefore, the main reason for increasing the number of donors was the higher interview rate due to informed and motivated staff with the training after introduction of the new procedure. Enhancing a procedure involving several departments in a large hospital has to deal with certain limitations in manpower, budget restrictions, and feasibility in daily practice. We assume that involving the medical director of the hospital and the clinical directors of all departments was crucial for the implementation process. Furthermore, a continuous education program via intranet site, meetings, and personal talks to involved medical doctors, organized and performed by the hospital organ-and-tissue-donation coordinator, helped to increase awareness for the new procedure. The hypothesis that a personal interview instead of a phone call would lead to a higher consent rate was not supported by our data. In contrast, Gain *et al.*[3] published a comparison of interviews made face-to-face versus telephone, where a personally conducted interview led to a higher consent rate. Furthermore, in another study, Geissler *et al.*[4] showed data from a single center in 2002, where a consent rate of 72% by interview face-to-face versus 60% by interview by phone was achieved. Concluding, the introduction of a new interviewing process to obtain the consent for

cornea donation was a success. Potentially, with ongoing training even higher donation rates could be achieved. Currently, the demand of corneal tissue can be covered in our hospital. Therefore, we encourage other hospitals to implement similar concepts to better fulfill the demand for corneal tissue for the good of patients with visual impairing corneal diseases.

Funding

The authors have declared no funding.

Conflicts of interest

The authors have declared no conflicts of interests.

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