

Improving corneal donation rates: a three-phase analysis of professional and patient factors

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Aims

This three-phase service evaluation project aimed to assess factors that influence corneal donation at the West Suffolk Hospital NHS Foundation Trust (WSH) and St Nicholas Hospice Care (SNHC).

Methods

Firstly, a questionnaire survey of multidisciplinary team members employed at SNHC was carried out in autumn 2014 to survey their knowledge and experience of corneal donation.

Next, a questionnaire survey was given to patients admitted to SNHC from 25 June to 10 August 2015, unless they: were not eligible for donation, lacked capacity, or had difficulty discussing terminal illness.

Finally, a retrospective study of deaths that occurred in September 2016 at the WSH was carried out. Patients were screened for eligibility for corneal donation based on local guidelines.

Results

Thirty-seven multidisciplinary staff responded to the questionnaire offered to approximately 100 staff members: 92% of respondents never or rarely raised the subject of corneal donation with patients or relatives; 76% had not received any training regarding corneal donation; and 81% felt they did not know enough about corneal donation to discuss it with patients or relatives. These results were used to inform an education programme for the staff.

During the second phase, 15 of 29 inpatients during that period were eligible for corneal donation. The topic of corneal donation was raised with all eligible inpatients and 14 of them were given a service evaluation questionnaire, with one omission in error. There were 11 respondents. Of these, 55% had not heard of corneal donation and 100% were either glad or neutral about being informed about corneal donation. Seventy-three per cent did not find it upsetting to discuss corneal donation, and the remaining 27% indicated that though they found it upsetting, they would have rather have had the conversation than not. The discussion had an impact on patient plans for donation (Table 1).

During the third phase, 85 deaths occurring at WSH were assessed for eligibility. Of these, 30 were likely eligible for corneal

Table 1. Patient decisions about cornea donation before and after discussion (n=11)

Decision	Before discussion	After discussion
Planning to donate corneas	0 (0%)	7 (64%)
Not planning to donate corneas	7 (64%)	1 (9%)
Undecided	3 (27%)	3 (27%)
No answer indicated	1 (9%)	0 (0%)

Table 2. Summary of exclusion criteria met by patients 'not eligible' or only 'potentially eligible' for corneal donation

Exclusion criteria	Not eligible (n=45)	Potentially eligible (n=10)
Age	33 (73%)	0 (0%)
Degenerative neurological disorder	7 (16%)	8 (80%)
Haematological malignancy	4 (9%)	0 (0%)
Blood-borne virus	1 (2%)	0 (0%)
Other (eg history of laser treatment)	0 (0%)	2 (20%)

donation, 45 not eligible, and 10 potentially eligible. The reasons for exclusion are shown in Table 2.

Conclusion

These results highlight factors determining corneal donation rates through an innovative three-phase study. Training and education of staff was identified as lacking by the first phase and addressed through an education programme. The second phase highlighted the willingness of patients to have discussions about corneal donation and the impact of having these discussions. The third phase enabled identification of a target corneal donation rate. Following these interventions, corneal donation rates at SNHC have increased from zero to an average of 50 corneas per year, which is approximately 10% of the national annual cornea shortage. ■

Conflict of interest statement

None declared.

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