Preemptive kidney transplantation: an ethical challenge for organ allocation policies

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Abstract

Preemptive transplants are advisable in advanced stages of kidney disease. The clinical advantages of preemptive transplantation over dialysis are evident.

Nevertheless, preemptive transplantations raise ethical concerns, particularly regarding the allocation of medical resources.

The present article proposes some criteria for organ allocation policies regarding preemptive transplantations: criteria regarding medical benefit and justice are absolutely essential when addressing the issue of organ allocation, but other ethical values should also be taken into account. The “principle of double effect” offers useful pointers.

Key words: Bioethics, Organ transplantation, Prevention

Preemptive kidney transplants are performed when damage to the kidneys has reached the point at which dialysis is the only possible alternative to a transplant but before the patient begins dialysis. There is considerable evidence that preemptive transplants have several clinical advantages (1) and that these are unrelated to the age, gender or other characteristics of the recipient (2). The clinical outcome of preemptive transplants, in particular, is more satisfactory than when the transplant is performed after dialysis has been initiated. The outcomes of living donor transplants are also better than those of deceased donor transplants (3). Preemptive kidneys have also been successfully transplanted during combined organ transplants (4). The quality of life is undoubtedly improved by the fact that the patient is freed from the constraints of dialysis. Preemptive transplants from living donors offer distinctly greater benefits than those from deceased donors and some preemptive transplantation programmes actively encourage living organ donations.

However, preemptive transplants raise a number of ethical issues and the balance between ethical criteria becomes particularly difficult.

A set of problems concerns justice and equity: the offer of a preemptive transplant to a patient who is not yet on dialysis unquestionably penalises patients already on dialysis who may have been on the waiting list for a long time (for example in Italy on 31 December 2016, 6598 patients were active on the waiting list for a kidney and the total number of patients on an organ donation waiting list was 8859). Therefore, policies for allocating organs to people awaiting a transplant constitute a major ethical challenge. The adoption of allocation policies is a responsibility of health authorities, taking into account the technical framework indicated by transplants experts.

The main ethical principles in organ allocation concern equity (every patient should have the same chance), priority (which is a balance of seriousness of the illness, length of waiting, and other aspects), and net benefit (which is a balance of urgency and outcome) (5). However, many other ethically relevant principles are also involved: autonomy, responsibility, equity, efficiency, utility, therapeutic outcome, medical urgency, and so forth. Under specific circumstances, other parameters may also be taken into consideration (6). For example, in the case of serious emergencies, it may be necessary to consider selection of patients on the basis of their importance for the well-being of others.

Various organ allocation models can be developed based on the hierarchical importance assigned to a given principle over the others, but none of the principles should be completely disregarded.

The utilitarian theories (7) are consequentialist: according to the model of social utility, resource allocation should maximize the social advantage (the subject who is most useful to the community is favored); according to the beneficence model, utility should be measured in terms of either the number of lives saved or life expectancy. Prioritarianism favors the worst-off (8). A multiplicity of theories emphasize impartiality (eg, allocation based on waiting time (9), allocation by lottery (10)). Approaches based on justice and equity recognize both the existence of differences among persons and the demand for fairness (11). In most points-based allocation systems, waiting time has generally been considered to be a primary determinant of rank, but increasing attention is being paid to life expectancy (12). The balance between these criteria, which correspond roughly to justice-based and utility-based systems, seems to be fluctuating (13).

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system in which the most relevant criteria are considered according to a hierarchical order—urgency, likelihood of success, time on waiting list—seems to be reasonable (14). However, because kidney transplantation is not usually a life-saving procedure (given that dialysis can compensate), in this specific case waiting time is decisive.

As regards preemptive transplantation, the relevant principle in the assessment of organ allocation seems to be the one which ethics and philosophy usually define as that of “double effect”, in which an action performed towards a good end (to benefit a person before he or she starts dialysis) also has an unintentional negative effect (it harms a waiting-list patient on dialysis). The “principle of double effect” was already recognised in Scholastic philosophy (15), and has been widely debated in recent decades (16). The principle provides useful indications to determine whether, from an ethical perspective, it may be acceptable to act in search of something good while being aware that the action will also involve something bad. As for the case in point, the “good” is the transplant which allows a patient to avoid dialysis (in line with a utilitarian concept), and the “bad” result consists in the fact that another patient, who is being dialysed and on a waiting list, will be forced to wait longer (thus partially transgressing the justice principle).

Briefly, according to the “principle of double effect” an act that is performed with good intentions (such as therapy, risk prevention) but which also has harmful consequences (such as curbing freedom) is morally acceptable only if four conditions are met:

- the principal aim of the act, and the act itself, are good;
- the harmful effects are not intentionally pursued;
- the harmful effects are not the aim of the act and the good effect is not a direct cause-and-effect result of the harmful effect;
- the intended good effect is as great as or greater than the harmful effects and proportionate to them (17).

In the case of preemptive transplantations compliance with the first three criteria can easily be verified. The fourth, however, appears somewhat more problematic. A number of policies for organ allocation exist to handle this situation from the ethical point of view, each policy addressing a particular value (18). As in this case the key values involved are justice and beneficence, it may be helpful to consider the following points when attempting to find a balance between contrasting needs.

The possibility of a preemptive transplant should not be excluded: this would amount to the denial of a possible treatment.

All the facilities that perform such transplants should adopt the same set of very clear rules and algorithms. The criteria for the inclusion and exclusion of patients for preemptive transplants should be set down in extremely clear terms.

Preemptive transplants should be offered only in geographical areas where rates of donation are high and the average time lapse between the start of dialysis and registration on a waiting list is brief.

The possibility of preemptive transplants from cadavers should not be excluded a priori: although transplants from live donors offer improved prospects in terms of efficacy, they raise highly significant ethical problems.

In conclusion, medical benefit and justice are essential criteria for organ allocation, but other ethical values should also be taken into account: a fair process requires that a decision-making extends beyond medical criteria and political considerations. An essential requisite in order to find acceptable solutions is choosing common rules. The. An ethical perspective is necessary to support the selection of reference principles and the possible methods to implement them.

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