Who should get the kidney machine?

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Author's abstract

This paper considers the problem that arises when the number of patients who need a resource exceeds the supply. An initial decision-making model is proposed that uses two essential criteria, medical prognosis and the priority of life-threatening situations. The model is then subjected to the criticism that it is grotesque to ignore questions relating to the value of, for example, a productive mother over against an aged recluse, and to treat them as having equal rights to access. It is argued that this criticism need not be an expression of prejudice but may reflect a defensible view in which utilitarian considerations enter into the selection process provided that certain fundamental, or 'deontological' rights are observed for all. In the light of the discussion the model is modified in order to contain both a non-utilitarian feature that stresses the intrinsic importance of all persons, and a utilitarian feature that can allow one, in certain circumstances, to take consequences into account, especially those that follow from the 'irreplaceability' of some people.

Introduction: A model for the allocation of a scarce resource among competing patients

There are many different issues concerning the allocation of scarce resources, including the proper distribution of funds i) between health care and other human needs and ii) within the field of health care. In this paper I am concerned with one aspect of the latter issue, namely the proper distribution or 'microallocation' of an already determined quantity of a scarce resource, such as a kidney machine, among competing patients. Sometimes the problem arises because of a shortage of machines, at other times it arises because of a shortage of staff to run the machines. In either case, I shall assume that the most obvious ways of avoiding the problem, such as lobbying for extra funds, have been exhausted (1). The conclusions are relevant to the distribution of organs for transplantation, except that in that case, in addition to the matters considered here, there are issues that relate to the consent of the donors, and these are not

discussed in this paper.

The urgency of this subject can hardly be overstressed. In an influential *Hastings Center Report*, Daniel Callahan has discussed the need to consider 'rationing', and pointed to ways in which, especially in the US, there is a tendency to deflect the issue by concentrating on the need for efficiency and 'cutting the fat', thereby avoiding the reality of the situation (2). Also, we need to recall the situation in the UK, where, at least in the past, many older people have been denied the use of kidney machines because priority has been given to those under fifty-five (3).

I shall proceed by positing a model for decision-making within the context that I have defined, and then I shall refine the model by subjecting it to an obvious criticism. However, the initial model is already devised so as to avoid some of the most likely criticisms. For example, it seeks to avoid a prejudice whereby the rich, or those in other positions of privilege, such as the children of doctors, get priority over the ordinary person.

The model suggests two basic, inter-related criteria for the selection of patients for kidney machines or other scarce resources; medical prognosis and medical emergency. By medical prognosis I mean, in this context, the prospect of medical success 'as measured by percentage of survival and length of survival' (4), taking into account the present state of scientific knowledge, and its likely progress during the life of the patient. The criteria apply as follows: First, there is a medical decision that determines which patients have a reasonable chance of significant long-term benefit. These patients are then placed in order of the likely degree of this benefit unless one of them has a medical emergency of a kind that is likely to be assisted by the use of the resource. When this happens the medical emergency takes precedence, but only over those who have already been given a reasonable prognosis.

What happens when these criteria leave patients with the same level of priority, or when the fuzziness surrounding the criteria means that two or more patients have a priority within the same range? Then two subsidiary criteria apply; first, length of time in the line-up for the resource, and second, coming ahead in a selection process that is deliberately made random, such as the tossing of a coin. These criteria are used in

Key words

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order to avoid discriminating between people on account of race, gender, and alleged value to the community in terms of factors such as economic and artistic contribution, while at the same time making a selection possible in accordance with a predetermined process. The motive for adopting such a model is probably an ethical concern with a principle of equality, perhaps reinforced by references to documents such as the *Canadian Charter of Rights and Freedoms* (5).

In this model the criterion of medical prognosis is also used to handle the difficulty that arises when patients are partly responsible for their condition. This is much discussed in the context of liver transplants for those whose condition is the result of alcoholism (6). According to the model a *past fault* would not be ground for discrimination, but a *present condition*, for example, of continuing alcoholism, could be, if it rendered the medical prognosis poor.

Criticism of the model

There are a number of difficulties that can easily be pointed out with respect to this model. Some of them relate to the use of medical prognosis. For example, as Dr Anthony Monaco has said: 'Rehabilitation potential and capacity for mental recovery are very difficult to use as yardsticks for predicting medical efficiency' (7). However, the criticism that I want to concentrate on goes as follows: Let us suppose that as a result of following the model we are reduced to tossing a coin between two patients, Julie, who is a forty-year-old mother and Bill, who is an eighty-year-old bachelor recluse. (The scenario can be made more dramatic by replacing Bill with a child-molester serving a life sentence in prison, but I prefer to discuss the issue in the context of the more common case.) There is no doubt about most people's emotional reaction to this situation. It would be grotesque, we would hear, not to give the priority to the mother. However, if we are serious about medical ethics and regard it as an intellectual discipline, then we must ask for the *reasons* that can be brought forward to back up the emotional reaction.

One possible line of reasoning follows from the adoption of a thorough-going utilitarianism that would criticize the whole structure of the initial model on the grounds that there is no need to begin with an insistence on equality, and consequently no requirement that we should seek to avoid discrimination in access to scarce resources in terms of factors such as social usefulness. However, despite the serious treatment that such a philosophy deserves, in this paper I propose to limit the discussion by making the assumption that a significant principle of equality should govern the model, a principle that certainly looks like a deontological principle (8).

There are at least three different grounds that might be used to support a principle of equality as a framework within which any revisions of the initial model must be made. First, it might be supported as a

consequence of holding a Kantian-type philosophy. Second, it might be supported as a result of holding a subtle version of utilitarianism that contains an argument concerning the long-term advantages of adopting an egalitarian perspective. Third, it might be supported by those who hold no firm meta-ethical position but who have decided that, given the existence of a widespread attachment to a principle of equality (however vaguely this may be expressed), they will *choose* to adopt a principle of equality as a starting point. Those in this third group might support their choice by the argument that it is in everyone's interest to find ways of reconciling conflicting interests, and a general acceptance of a principle of equality can assist a more rational debate on ethical issues because it provides a common premise. However, for whatever reason it is adopted, this principle of equality asserts that all persons have a *prima facie* right to be candidates for the use of a scarce resource, and any allocation other than random selection needs justification. At the same time, the principle does *not* commit one to holding that persons have an 'infinite' value (in part, because of the ambiguities involved in such a claim) (9). What the principle does commit one to will become clearer in subsequent sections of this paper.

The revised model

As a result of accepting a principle of equality as a framework for all decisions on the allocation of resources, the model, as revised, begins by placing all in potential need of the resource on a list, and assumes 'a qualified right to health care' (10). Less emphasis is placed on medical prognosis, but there is still a minimum threshold of medical utility that is required before a name appears on the list (11). The model then proceeds to prioritise in terms of criteria that do as little violence as possible to a principle of equality. This is possible because adoption of a principle of equality does not entail that we make no discriminations, only that these discriminations are i) of an appropriate kind and ii) that they are applied according to established rules, and not arbitrarily.

If this last point is stressed, then public concern at the suggestion that explicit criteria are likely to entail the denial of life-saving treatment to some patients may be lessened. There is no way in which this concern can be, or perhaps should be, removed, but once it is generally realised that some rationing is inescapable, then the concern should shift towards the issue of *which* kinds of discrimination are least offensive.

It might be urged that what counts as an appropriate kind of discrimination depends entirely on the kind of culture in which we live. However, there are rational grounds for ruling out some kinds of discrimination in any society, once a principle of equality is accepted. In other words the principle is not infinitely flexible. For example, attempts to justify discrimination in terms of race or gender, can, I think, only be made on the basis of demonstrably false empirical accounts of the nature of race and gender, as in Nazi accounts of race and

Aristotle's of gender. However, once we have a rationally defensible account of who is to be counted as a person, and consequently, the ruling out of the grosser forms of inequality, then the kinds of discrimination that are rationally acceptable may well depend, in part, on the culture, and on the creative decisions that culture makes. For example, in the case of access to a genuinely scarce resource, discrimination in terms of age (whether we agree with it or not), while being unfortunate, is not outrageous *in the same way* that discrimination in terms of colour would be, since discrimination in terms of age has a kind of equality built into it, namely that it can be applied to all persons in an equal way. If age discrimination is adopted by a fair process, in a context of genuine shortage, then the inequality created is within a general context of equality, and is more likely to receive public acceptance.

If the foregoing suggestions are entertained a new question emerges, namely: 'How should a particular culture attempt to find the most appropriate forms of discrimination within the *range* of what is legitimate?'

My next suggestion is that with respect to this question utilitarian considerations can properly be used, provided that we continually look over our shoulders, as it were, to see how far we are departing from an ideal of equality. Such careful use of utilitarian criteria allows for rational decisions to be made in many cases where we would otherwise be reduced to random selection.

Let me illustrate, first, by returning to the criteria of medical prognosis and medical emergency. There is a sense in which these too can be called 'utilitarian' criteria, since, when we follow them, the reason for dropping a patient from a list is that we want to avoid the 'useless' employment of a resource. However, this particular use of a utilitarian criterion is very little in conflict with a basic principle of equality. Equality, we might argue, means equal opportunity to *benefit*, not equal opportunity to *use* a resource, *simpliciter*. It is for this reason that there is sometimes a good case for giving priority to children who are in need of a kidney transplantation. Accordingly, a recent article indicates the evidence for the need of children to have quick access to donated organs if the prognosis is to be good, and concludes: 'We have recently been authorised by the centres participating in Eurotransplant to favour paediatric patients awaiting a kidney' (12).

Next, let us go to the other extreme, and consider a suggested criterion in terms of social position. Smith, a captain of industry, employs hundreds of workers, and it is claimed that his or her death would lead to many workers losing their jobs, and consequently, that Smith should have a higher priority than a worker with a similar prognosis. My grounds for being dubious about this argument are not only a strong suspicion about the irreplaceability of Smith. They include the argument that the regular use of this kind of utilitarian consideration, even if granted some weight, would tend to accentuate a class-structured and class-oriented

society. It is, in other words, sharply in tension with the principle of equality within which the revised model is trying to work.

Does this mean that there should be an *absolute* ban on criteria referring to alleged social usefulness? I think not. Instead, in order to give support to the principle of equality, and to prevent it from being whittled away by those in positions of power, any argument from social usefulness should have to include reference to something like a national emergency. For example, in Britain, it might have been proper to give priority to Winston Churchill in 1941.

More typical cases of the legitimate use of utilitarian considerations fall between the examples of medical efficiency on the one hand and social position on the other, and concern the effects on other people who have close personal links with a patient. In so far as these effects can be construed in the language of rights, then their consideration is not, of course, purely utilitarian, even though we are considering the consequences of an action. Consider again the case of Julie and Bill. If Julie has young children can they be said to have a 'right' to be included in the decision-making process? One thing that makes me nervous about saying yes is that by an extension of the children's claim all of Julie's friends might be said to have a 'right', and if she is a doctor, all her patients, and similarly, if Bill is a great violinist, so can all his listeners! Such extensions of the notion of a 'right' are clearly absurd, but they indicate that when we speak of effects on others we lack a clear principle that tells us exactly who has a 'right' to be considered. My suggestion for dealing with this problem lies at the heart of this paper and is as follows: When we are considering the allocation of a scarce resource, and the medical prognoses for A and B are similar, then the consequences for other people of saving A instead of B can properly be considered *provided there is no realistic substitute for A*. This means, for example, that a mother is irreplaceable, in a way that a heart surgeon is not, except in rare circumstances. Even though a father or foster mother may provide a substitute of a kind for the loss of a mother, there is an irreplaceable loss. However, when a heart surgeon disappears from the scene, although adequate substitution may be difficult, it is not unrealistic to hope for a replacement that is functionally equivalent. Thus, in making decisions regarding priority, the revised model limits the extent to which one must consider effects on other people to cases like parentage, and certain rare specialists, for example, the only available heart surgeon in a wide area. It would not cover the great surgeon or the great violinist *per se*. There will be, inevitably, an element of fuzziness in the lines that are drawn, but such fuzziness, as I have already indicated, is unavoidable. Despite such fuzziness we need a general principle to guide us. Further, I would not complicate this principle by trying to fit it into a theory of rights; I would admit that it is, in a broad sense, utilitarian.

If we allow arguments concerning alleged irreplace-

ability to have weight, then although the only rational approach may sometimes be to toss a coin, or use some other essentially random method of selection, we shall be forced to this essentially unsatisfactory step on fewer occasions. Further, my example of giving priority to a Churchill in a case of national emergency can be seen as a special case of 'irreplaceability', in this case, with respect to a whole population.

The stress on 'irreplaceability' in the revised model makes my position significantly different from that of Marc Basson in his useful paper, *Choosing among candidates for scarce medical resources* (13). At first sight Basson's position seems *very* different from mine, since he defends a selection process in which a suitably appointed committee looks at the 'social worth' of the potential beneficiaries, within a system that he regards as 'paternal', but not 'paternalistic'. However, in a crucial passage, Basson introduces a qualification that registers concerns that are similar to mine, though he does not relate them to a principle of 'equality'. According to him, the selecting committee 'would not have licence to impose its entire system of morals and prejudices on society. It could legitimately select against a murderer or rapist because his actions are against society's best interests, but whether a man or woman attends the 'correct' church, dresses 'properly', or has 'correct' views about premarital sex should not be relevant' (14). However, in my view, any successful attempt to clarify the rules that a selecting committee should be required to follow, if it is to avoid the prejudice that Basson wishes to prevent, would involve the enunciation of the kind of equality principle that I am searching for; and this, in turn, would mean giving 'social worth' a secondary rather than a primary role. This is where I part company with Basson.

It is also worth noting that the principle of irreplaceability that I am advocating has some similarities with one of the utilitarian principles for microallocation considered by Gerald Winslow in his *Triage and Justice* (15), namely, 'Priority given to those who have the largest responsibilities to dependents'. However, most of Winslow's discussion of this principle is in the context of an overall utilitarianism, whereas irreplaceability is seen here as a subsidiary principle within an overriding egalitarianism (16).

The root meaning of equality

I need to be more specific about what it means to give everyone equality, an equality that, nevertheless, might sometimes allow utilitarian considerations to cause a mother to be preferred to a bachelor. In this section I shall summarise and amplify the suggestions I have already made. I am proposing that the initial model be revised, not only to include a consideration of effects on third parties of the death of 'irreplaceable' persons, but also so as to include the features listed in the rest of this section. The result of this proposal will be that the principle of equality involved in the model is less vague, and the legitimate use of utilitarian

criteria will be clearer.

1. Provided the prognosis is reasonable all patients must be placed on the list of *possible* receivers of the resource. Being put on this list indicates that they cannot properly be passed over in favour of other patients within the same category of medical prognosis unless either i) the others have one or more of a series of specified characteristics that they do not have (such as irreplaceability of the kind described), or ii) they lose out in a random procedure. (The result is that, in form, the proposed system has some similarity to the combination of 'criterion-oriented and random allocation techniques' proposed by Nicholas Rescher (17)).

2. Patients must be brought into the decision-making process in the following ways: They must be informed about what is going on; they must be able to make representations about the listed characteristics that are alleged to apply or not to apply to them; they must have the opportunity to choose to forego their place in favour of someone whom they judge should have priority over them. If they are not mentally competent, someone who 'stands in their shoes' must be involved in the first two of these processes on their behalf. These considerations arise because part of the meaning of giving respect to *persons* is to treat them as entities that make free decisions.

3. The list of specified characteristics cannot include race, gender, religion, or similar factors that are sharply in tension with a principle of equality. This may seem rather vague, however, I think that most discussions of the issue of the allocation of scarce resources take place within a context of some initial agreement at least about the 'grosser' forms of inequality, and in particular about what it is to be a human person (18).

4. With respect to the obvious question: 'What characteristics should be on the list?', it may be that provided the list is known, and open to public debate, it can change from time to time, perhaps, as a colleague writing on the subject suggests, so that no interest is permanently preferred over another (19). Also, the precise content of the list must depend on the scarcity of the resource and on how great a crisis there exists. As I have suggested, if really hard decisions *have* to be made, then there is a case for making age a listed characteristic.

5. Not only must there be a list of characteristics which are, for the time being, accepted as being relevant for making distinctions between patients, the decision-making process involved in applying these characteristics to the individual case must have a basic fairness. Here some traditional elements of natural justice apply, such as that people cannot properly be judges in their own causes. There are also some more specific requirements, for example, a provision that the rich cannot gain a special advantage by having their names included in more than one list of potential receivers of a scarce resource (a problem highlighted in a recent paper) (20).

Despite the vagueness of these five considerations they are sufficient to give a basic meaning to the principle of equality, a meaning that allows one both to uphold a significant equality and properly to make the kinds of discrimination that necessity may force on us in the field of health care. They also give us some idea of what the actual mechanism of selection would look like were the revised model to be accepted. As I see the matter two sets of guidelines need to be generated; first, national ones, incorporating the five principles outlined in this section, and second, local ones operating at the level of the agencies that actually determine who will be the recipients of available organs. The latter guidelines would be subject to the national guidelines, but would add certain specifics, for example concerning the composition of the committee that made the decisions.

In the light of the foregoing it is possible to construct an algorithm of steps with respect to a patient X.

Step 1. Review the medical prognosis. (A – suitable; B – doubtful; C – unsuitable.)

Step 2. Inform and consult X, or X's representative (if X is incompetent).

Step 3. Decide whether to place X on the priority list in the light of steps 1 and 2.

Step 4. Review X's irreplaceability. (A – clearly irreplaceable; B – arguably irreplaceable; C – replaceable.) X's place on the list is then decided.

Step 5. Review the whole list in the light of the criteria presently adopted by the guidelines under which the committee operates. (See item 4 above.)

Step 6. Review the decision-making process, to ensure that natural justice has been maintained. (See item 5 above.)

Step 7. If a choice cannot be made between X and others after steps 1 to 6 have been taken, accept a principle of 'first in line', and if this gives no clear answer, a principle of random allocation.

The relation of the practical and the conceptual aspects of the issue.

My final note on this outline of a model for decision-making is that the whole discussion illustrates the need to find a suitable marriage between the practical and the conceptual aspects of issues in bioethics. Awareness of the present situation forces practical issues upon us, such as the necessity of rationing some health care resources. However, without sensitivity to the conceptual aspects of the issue our acts of discrimination will be blind, and 'the unexamined choice is not worth making' (21). The revised model that I have defended attempts to be the product of a sensitivity both to the practical realities and to the conceptual issues (for example, concerning the nature of equality), that face us.

If such a model were to be adopted, say by a hospital ethics committee, there would be the need to appreciate the principles behind the model and there would also be the need to fill in some of the details in

the context of the local situation. This local situation, for example, with respect to the extent of the shortage of the resource and to the nature of the local population, might well demand some creative decision-making and, as a consequence, considerable local variation in the details of the model. Nevertheless, the different models that emerged could all have the kind of framework that I have attempted to outline. If this were to happen we would be a step closer to some international agreement on issues in bioethics (22).

Author's note

An earlier version of this paper was read at the Third International Congress on Ethics in Medicine, held at Stockholm from September 12-15, 1989.

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References and notes

- (1) I am omitting a discussion of the argument that by producing a model for rationing a scarce resource one is thereby becoming party to, and indirectly supportive of, an unacceptable situation.
- (2) Callahan D. Allocating scarce resources. *Hastings Center report* 1988; 18, 2: 14-20. See also Basson M D. Choosing among candidates for scarce medical resources. *Journal of medicine and philosophy* 1979; 4: 314.
- (3) Ward D E. Dialysis or death? Doctors should stop covering up for an inadequate health service. *Journal of medical ethics* 1986; 12: 61-63. See also Parsons V, Lock P. Triage and the patient with renal failure. *Journal of medical ethics* 1980; 6: 173-176.
- (4) This definition is used by Monaco A P in Transplantation: the state of the art. *Transplantation proceedings* 1990; 22,3: 897. Monaco rejects this account of medical success as an adequate ground for the allocation of organs.
- (5) *Canadian charter of rights and freedoms*, section 15, 1. This section, which forbids discrimination under the law with respect to (among other things) age, is, like all the rights and freedoms, limited by the *caveat* of section 1: 'Subject only to such reasonable limits prescribed by law as can be demonstrably justified in a free and democratic society'.
- (6) See, for example, the *Toronto Globe and Mail* 1989 Mar 21: A1: 14.
- (7) See reference (4): 898.
- (8) By a 'deontological' principle I mean one that relates to rights and duties that are alleged to apply regardless of the consequences.
- (9) On this point see reference (2): Basson M D: 324-325.
- (10) See Halper T. *The misfortunes of others*. Cambridge: Cambridge University Press, 1989: ch 4: 167-173.
- (11) Here I am accepting the argument put forward by Dr Anthony Monaco, see reference (4), although he is arguing in the context of kidney donation.
- (12) Zantvoort F A, et al. Allocation of kidneys for pediatric patients. See reference (4): 22, 4: 1434.

- (13) See reference (2): Basson M D: 313–333.
 - (14) See reference (2): 320.
 - (15) Winslow G R. *Triage and justice*. Berkeley: University of California Press, 1982: ch 4: 77–80.
 - (16) But see also Winslow's discussion of the principle in the context of a Rawlsian theory of justice, reference (15) ch 7: 138–140.
 - (17) See reference (2): Basson M D: 329 and Rescher N. The allocation of exotic lifesaving therapy. In Gorovitz S *et al*, eds. *Moral problems in medicine*. Englewood Cliffs, N J: Prentice-Hall Inc, 1976.
 - (18) The notable exception is the issue of whether a fetus should be regarded as a person.
 - (19) Mulholland L A. Rights and priorities in medical care. *Humane medicine* 1987; 3,1: 46.
 - (20) See reference (4): Monaco A P: 898.
 - (21) I am adapting Socrates's remark, 'The unexamined life is not worth living', found in Plato's *Apology* 38a.
 - (22) One of the problems I have not addressed concerns the situation that arises when the prognosis of the bachelor recluse is clearly superior to that of the mother. Can *strong* utilitarian considerations properly allow a change in priority in such cases without undermining the significance of a principle of equality?
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