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Rationing and Triage of Admissions to Intensive Care

Authors

C. D. Gomersall *MBBS*

G.M. Joynt *MBBCh*

Dept of Anaesthesia & Intensive Care

The Chinese University of Hong Kong

Prince of Wales Hospital, Shatin, Hong Kong

Website

www.cuhk.edu.hk/med/ans/med_ans.htm

Correspondence

gomersall@cuhk.edu.hk

This article discusses the ethical basis of triage, current data related to triage and makes a plea for a consensus on definitions.

Refusal of admission to patients referred for Intensive Care is common (Azoulay et al. 2001; Frisho-Lima et al. 1994; Joynt et al. 2001; Metcalfe et al. 1997; Sprung et al. 1999) and occurs for a number of reasons. These include triage, futility and patient preference. Despite the tautology it is important to emphasize that refusal of admission and triage are not synonymous as this misunderstanding causes considerable confusion. Triage is defined as “the action of sorting according to priority”. Inherent in the process is the fact that interventions that provide benefit will be denied to at least some people who could benefit from them.

The ethical principles underlying the practice of Western medicine are beneficence, non-maleficence, veracity, distributive justice and autonomy. Autonomy must inevitably be balanced against the principle of distributive justice and where one patient’s autonomy will directly affect another’s, as in triage, distributive justice must take precedence. This has important implications for the triage process: patient’s opinions are of little relevance in the prioritizing process itself. If a patient receives a high enough priority to warrant admission to ICU then his right to autonomy clearly gives him the right to refuse admission. If, however, he has a low priority for admission his wish to be admitted should not significantly increase that priority: a system of admitting those who make the loudest demands is clearly not just.

In contrast, patient autonomy is of central importance in the concept of futility. It is important to note that treatments not patients are futile. A treatment that is futile is one that has no significant chance of achieving a specified target. It is for the patient to choose what constitutes an acceptable target (Youngner 1996). Thus from an ethical standpoint, refusal on the basis of triage and refusal on the basis of futility are distinct processes.

In order to fulfil the principles of beneficence and nonmaleficence any triage system should aim to maximize the good and minimize the harm to society. It follows that those patients most likely to benefit from Intensive Care should receive the highest priority for admission on the basis that this will maximize the sum benefit. Certainly the guidelines from both the Society of Critical Care Medicine and the American Thoracic Society emphasize the central role of likely benefit in triage decisions (ATS Bioethics Task Force 1997; Task Force of the American College of Critical Care Medicine 1999).

What then is benefit, in the context of triage? Benefit should be considered in many dimensions, including quality of life and consequences for the

family, but survival benefit is the most simple conceptually and is probably the most relevant to Intensive Care. When looked at retrospectively, it is clear that patients who die despite Intensive Care derived no survival benefit, while those who survive may have derived benefit (obviously some of these patients may have survived anyway). This retrospective approach is, however, of no value in the context of triage where one has to make a prediction of likely benefit. In this setting benefit is the predicted increment in probability of survival resulting from Intensive Care. In order to maximize beneficence in societal terms it is also necessary to consider duration of survival. Simplistically it is better to produce an ICU survivor that lives for 10 years than one that lives for 10 days.

Can we estimate benefit, even for a relatively simple dimension such as survival? What little data there are suggest that we cannot estimate likely benefit with any reasonable degree of accuracy (Ramsay et al. 2001): a finding that is not surprising given the paucity of data to help us predict the outcome of critically ill patients who are refused admission to ICU.

The other part of the equation, that has not been widely addressed, is the issue of resource consumption or cost. Again in simple terms, if the cost per additional survivor is low, then it should be possible to produce more survivors with a fixed resource.

So much for the theory; what happens in real life? Unfortunately the data related to the process of triage are limited. Sprung et al. (1999) studied 92 patients who were refused ICU admission (of whom 31 were subsequently admitted). Independent predictors of refusal of admission included diagnosis, age, operative status and a full ICU. Severity of illness was not independently associated with refusal. This, however, is likely to reflect the nature of logistic regression analysis and the likely relationship between severity of illness and probability of admission or refusal. This relationship is likely to be complex with a low probability of admission of patients with a low or very high severity of illness and a high probability of admission for patients with a moderate severity of illness. As a result logistic regression analysis may be misleading.

Certainly, Joynt et al. (2001) found that in 624 patients referred for emergency admission to ICU, the proportion of patients admitted was lowest in those with the lowest and highest severity of illness. In this study refusal of admission on the basis of triage was independently associated with severity of illness (as well as age and diagnostic group). It is noteworthy that this part of the study specifically excluded patients that were considered too well for ICU admission and patients for whom ICU admission was considered futile, thus excluding many patients at the two extremes of severity of illness and avoiding the statistical difficulties of Sprung et al.'s (1999) study.

Azoulay et al. (2001) studied 1,292 patients referred for admission to 26 ICUs, 283 of whom were refused admission. Factors independently associated with admission were age, chronic health and certain diagnoses. A median of four out of twenty recommendations for triage were observed. Whether this reflects inappropriate practice or inappropriate recommendations is not clear. Certainly some of the recommendations would not be appropriate to the process of triage as defined in this article.

Despite the central role that perceived benefit should have in triage, none of the above mentioned authors examined the relationship between perceived benefit and the decision to admit or refuse the patients.

The recurrent finding that age is an independent factor in the decision to admit or refuse a patient may be interpreted by some as evidence of ageism. This view, however, does not take into account the need to maximize benefit to society as a whole. In this context it is entirely appropriate to select patients who are likely to survive longer and, all other things being equal, the younger patients can be expected to survive longer.

Sprung et al.'s (1999) finding that a full ICU is a predictor of a decision to refuse admission to a patient deserves comment as it illustrates one of the difficulties in interpreting research into this area. At first sight the finding may seem obvious: when the ICU is full, patients cannot be admitted and no decision is necessary. This view, however, is based on an interpretation of "full" as being physically full with no patients who can be transferred out the ICU. Careful reading of Sprung et al.'s paper reveals that this was not the definition of "full" as patients continued to be admitted even when the ICU was "full".

What then is the way forward? An agreement on terminology would be a useful initial step. We suggest a definition of "triage" that matches the dictionary definition would be the most appropriate allowing non specialists in the area to easily comprehend its meaning. Given the different ethical basis for the two processes we suggest that refusal on the basis of triage is separated from refusal on the basis of futility or patient preference. We need more data to tell us what happens to the patients we refuse to admit and data to indicate factors related to outcome in this group. Combined with data and our experience of which patients are likely to survive Intensive Care, this will allow us to make a more accurate estimate of likely benefit. To address the cost issue, a study of factors present at the time of assessment, which are related to duration of stay, would be an initial step in allowing us to estimate likely costs.

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