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How can bedside rationing be justified despite coexisting inefficiency? The need for ‘benchmarks of efficiency’

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Abstract

Imperfect efficiency in healthcare delivery is sometimes given as a justification for refusing to ration or even discuss how to pursue fair rationing. This paper aims to clarify the relationship between inefficiency and rationing, and the conditions under which bedside rationing can be justified despite coexisting inefficiency. This paper first clarifies several assumptions that underlie the classification of a clinical practice as being inefficient. We then suggest that rationing is difficult to justify in circumstances where the rationing agent is or should be aware of and contributes to clinical inefficiency. We further explain the different ethical implications of this suggestion for rationing decisions made by clinicians. We argue that rationing is more legitimate when sufficient efforts are undertaken to decrease inefficiency in parallel with efforts to pursue unavoidable but fair rationing. While the qualifier ‘sufficient’ is crucial here, we explain why ‘sufficient efforts’ should be translated into ‘benchmarks of efficiency’ that address specific healthcare activities where clinical inefficiency can be decreased. Referring to recent consensus papers, we consider some examples of specific clinical situations where improving clinical inefficiency has been recommended and consider how benchmarks for efficiency might apply. These benchmarks should state explicitly how much inefficiency shall be reduced in a reasonable time range and why these efforts are ‘sufficient’. Possible strategies for adherence to benchmarks are offered to address the possibility of non-compliance.

INTRODUCTION

No healthcare system can provide all patients with all treatments that may have the potential for benefit.¹² Reasons given for this claim include a demographic shift to an older and chronically ill population, the growing gap between what is technically possible and what can be afforded, the rising cost of medical goods and services, and the competition for

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public funds from other sectors. The claim is underscored by evidence from surveys of doctors in a number of countries indicating that they are currently making rationing decisions in outpatient and inpatient medicine.^{3–5} Rationing is defined here and most widely understood internationally as the withholding for reasons of cost of medical interventions that are expected to have net additional benefit for the patient.⁶ Indirect evidence about the practical relevance of bedside rationing has been gathered also for the US healthcare system in several surveys about doctors' willingness to ration healthcare.^{7–9}

In response, various normative frameworks have been developed in the last 10–15 years to encourage or ensure ethically appropriate implementation of unavoidable rationing.^{10–15} These frameworks involve the application of a number of theories of distributive justice—in particular utilitarian, egalitarian, prioritarian and social contractarian theories. In the face of these competing theories, procedures to guarantee due process have been developed. While debate continues about precisely how to prioritise and ration care in the most equitable manner, there is general consensus that when resources are constrained rationing is unavoidable and justifiable, and should be implemented fairly.

A particular challenge to the justifiability of rationing (independent of the fairness of its implementation) is the worry that it might be possible to reduce the need to ration and still control costs simply by eliminating inefficiencies in healthcare delivery. We face substantial evidence of inefficient healthcare delivery,^{16–19} and this evidence is often given as a justification for refusing to talk about or explicitly address the need for rationing.^{20,21} Therefore, this paper aims to clarify under what conditions rationing by clinical practitioners can be more or less justified despite coexistent inefficiency.

At the outset we acknowledge that inefficiency is caused by many factors that are the result of organisational and individual behaviour, and thus healthcare organisations and individual practitioners should be held accountable for pursuing efficient delivery of healthcare services.^{22,23} Thus, the ethical arguments we make here about the relationship between inefficiency and justifiable rationing pertain to organisations and individuals. We believe that individual clinicians will not be able to practice the most efficient care if they do so in the absence of a supportive healthcare organisation. Healthcare organisations need to provide the guidelines that individual clinicians follow. Otherwise, efforts to be efficient will be carried out inconsistently. In particular, in the absence of an organisational set of guidelines, there will be no mechanism for monitoring and reprimanding the non-cooperative clinician who takes advantage of the system for his patients while all other clinicians comply. Having said that, we focus the remainder of the paper on the requirement for efficiency among individual clinicians, for two reasons. First, because we think this demand for clinicians to pursue efficiency is sufficiently important and complicated to warrant exclusive attention. Second, the causes of organisational inefficiency are extremely complicated and require a multitude of solutions that are not germane to the individual clinician, for example that Parker and Newbrander wrote in 1994 about strategies for addressing waste and inefficiency in the healthcare sector.²⁴ They argued that waste in the healthcare is caused by limited information and accountability for decisions about the use of resources. Conflicts of interest and limited accountability are likely to cause corruption and fraud. Proposed solutions require changes in information management, policy, management and technical procedures

that are crucial for building organisational efficiency but not necessarily pertinent to the individual clinician.²²²³

DEFINITION OF CLINICAL INEFFICIENCY

There are a variety of definitions of efficiency (and indeed inefficiency) currently in use. For a selection of definitions of efficiency see, for example, the report of the Agency of Healthcare Research and Quality (AHRQ) on healthcare efficiency measures (<http://www.ahrq.gov/qual/efficiency/hcemch1.htm>). The AHRQ defines efficiency as the relationship between a specific product (output) of the healthcare system and the resources (inputs) used to create the product.²²²³

Ideally, clinicians use only those preventive, diagnostic and therapeutic measures for the management of medical conditions (input) that lead to the improvement of patient relevant outcomes (output). In such circumstances doctors practice effective healthcare (from a clinical perspective that focuses on patient-centred outcomes).²⁵ The effectiveness of a specific medical intervention, however, does not indicate whether its application is efficient in comparison to alternative effective interventions.

For illustrative and didactic purposes this paper focuses on two broad types of ‘clinical inefficiency’ that are consistent with the definition used by AHRQ: (A) the provision of health related interventions with no net benefit for the individual patient; and (B) the provision of health related interventions with higher costs but equal benefit compared to alternative interventions for the individual patient.

An example of a type-A inefficiency is cancer screening among patients with advanced cancer. Sima *et al* demonstrated that a sizeable proportion of patients with advanced cancer continue to undergo cancer screening tests that do have side effects (such as every medical intervention) but do not have a meaningful likelihood of providing benefit by altering a patient outcome in any useful way.²⁶ Other examples are annual electrocardiograms or any other cardiac screening for patients who are asymptomatic and at low risk.¹⁷

An example of a type-B inefficiency is the prescription of ranibizumab for the treatment of neovascular age-related macular degeneration that has equivalent effects to bevacizumab but costs much more.²⁷ Another example of type-B inefficiency is imaging for low back pain within the first 6 weeks of developing symptoms.¹⁷²⁷

In the following we briefly introduce four assumptions relevant to our analysis below.

Assumption 1: the determination of inefficiency requires value judgments

When deciding whether an intervention has proven health-related benefits and harms and whether the benefits outweigh the harms (net benefit), value judgments come into play at several levels.²⁹ One needs to decide, for example, whether the quality of the data regarding effectiveness or inefficiency is ‘sufficient’ or ‘acceptable’.³⁰ The need for value judgments, however, does not preclude any reasonable decision about whether or not a medical intervention has a proven net benefit.¹⁷ For example, comorbidity or a history of an adverse reaction to a specific active pharmaceutical agent can exclude the patient from a gold-

standard treatment option. In these cases the doctor may be acting efficiently when prescribing another reasonable medication that has otherwise been proven to be equally beneficial but costs more than the gold standard. However, not every deviation from evidence based clinical guidelines can be reasonably justified by the specific circumstances of individual patients. Inefficiency is verifiable when the reasons for deviation from gold standards are inappropriate.

Assumption 2: categorisation of marginal benefits

Value judgments also play a role in defining ‘marginal benefits’ and in deciding whether interventions with ‘marginal benefits’ should be understood and treated in the same way as interventions that have ‘no net benefit’.³¹ One might argue that when broad consensus has been reached among doctors and other stakeholders through fair and transparent discussion as to whether a marginally beneficial intervention counts as clinically valuable or not, it then follows whether it can be considered as an instance of rationing or as an instance of reducing inefficiency. If it were judged to be clinically valuable, then a decision to withhold it would count as an instance of rationing. If a marginal benefit were not considered clinically valuable then a decision to withhold it would count as an instance of increasing efficiency.

A question remains as to how to categorise marginal benefits that have been judged to be of insignificant value in a consensus process but are considered valuable nonetheless by a patient or family. We would suggest that to the extent that someone considers a marginal benefit valuable and it is withheld despite their desire for it, this is an instance of rationing. Whether this instance of rationing is justifiable is a separate question that remains to be determined by examining how equitably the decision to withhold the intervention was taken.

Assumption 3: ethical implications of clinical inefficiency

Both types of clinical inefficiency decrease the possible aggregate extent of healthcare in a society and/or the possibility of achieving other goods by diverting funds that could be used for other effective interventions. In so doing, inefficiencies harm people indirectly by wasting resources that subsequently necessitate rationing. This act of rationing (with its inherent health-related harm, see the definition above) would otherwise not be required. Type-A inefficiency harms in a second way as well, by leading to additional fruitless medical evaluations that would otherwise have been unnecessary and can lead to iatrogenic complications. To the extent that both types of inefficiency are avoidable and lead indirectly to forgone benefits, inefficient provision of medical services poses an ethical problem.

Assumption 4: efficiency can be further improved but will always be imperfect

At present, all healthcare systems have the potential to decrease inefficiency (though not ad infinitum). For example, one study concluded that 447 000 life-years could be saved in the US population over the next 20 years if doctors at the micro level simply follow existing protocols for the use of low-cost β blockers.³² Many other micro-level decisions also bear the potential to decrease inefficiency.¹⁷³³³⁴ Although we lack sound empirical data (in a positive or negative direction) that could support this presumption, we think that there is at least some face validity for the claim that efficiency in healthcare delivery will always be imperfect.

ANALYSIS

Whether an act of rationing is ethically justifiable despite coexisting inefficiency depends on the relationship between the individual or party who makes an inefficient medical decision (resulting in scarce resources) and the individual or party who has to ration healthcare (because of scarce resources). Most problematic is a situation where the individual who makes inefficient clinical decisions is the same individual who rations healthcare. If we assume that bedside inefficiency leads to various harms for patients (see Assumption 3) and that bedside rationing is avoidable (at least to some degree) through decreased inefficiency (see Assumption 4) then bedside rationing cannot be justified under the following conditions: (A) the relevant doctor is aware of budget limitations that have precipitated a scarcity of medical supplies or services in the institution where she practices; and (B) this doctor consciously continues to prescribe a non-beneficial medication (type-A inefficiency), or medications that are more expensive than other medications with equal net benefits (type-B inefficiency).

Bedside rationing on the part of this doctor cannot be fully justified if both conditions are fulfilled because the specific doctor has consciously contributed to the need to ration, which would otherwise have been less necessary.

More complex are those situations where doctors or healthcare managers are not aware of their inefficiency. In these cases, it seems important to determine whether the specific doctor or healthcare manager could and should be aware of specific opportunities to reduce inefficiency. For example, a doctor who often prescribes off-label medications or costly interventions as their initial choice, although clinical guidelines only recommend them as secondary treatment options (following a trial of equally effective but less expensive options), could know better. It would not be sufficient to argue that the doctor was not aware of the inefficiency when easily accessible, evidence-based clinical guidelines (developed by a representative professional society) highlight the ineffectiveness or inefficiency and recommend more efficient alternatives.¹⁷ Doctors bear a certain responsibility to learn more about the consequences of inefficient use of scarce healthcare resources.²⁵³⁵ In any case, this specific doctor should be expected to justify the deviation from the current standard of care. Deviating from clinical guidelines can be more or less justifiable.³⁶

SUFFICIENT EFFORTS TO DECREASE INEFFICIENCY MAKES RATIONING MORE LEGITIMATE

Based on our preceding assumptions and analysis we argue that unavoidable but fair rationing is more legitimate if sufficient efforts are simultaneously undertaken to decrease inefficiency. There is a strong moral imperative underscoring this demand, because inefficiency can harm twice: first by the provision of non-beneficial but sometimes harmful interventions, and second by the subsequent need for rationing beneficial healthcare in other situations. It follows that decision makers who manage, fund, or advise a group of doctors (eg, managers in insurance companies, health funds, hospitals or healthcare organisations) need to encourage improved efficiency among doctors as much as possible.¹⁷²⁵ The term 'as much as possible' takes into account the widely shared assumption that perfect efficiency is

unrealistic and that thresholds for ‘sufficient efficiency’ and ‘sufficient efforts to improve efficiency’ can be determined. It is clearly not sufficient when healthcare managers and health policy decision makers argue that every improvement of efficiency is unrealistic or if they only profess (without explicit actions) that they will improve efficiency in their area of accountability. The need for improved efficiency becomes more urgent when rationing decisions already occur.⁵

‘BENCHMARKS OF EFFICIENCY’

If clinicians need to ration healthcare these activities become more (though not completely) acceptable when the same actors simultaneously try to reach benchmarks that reflect ‘sufficient’ efficiency. This section aims to introduce the basic concept of ‘benchmarks of efficiency’ with respect to the two types of clinical inefficiency.

‘Benchmarks of efficiency’ need to address specific healthcare activities where inefficiency can be reasonably decreased.³⁷ As we outlined in the previous sections, various value judgments come into play when determining where and how much inefficiency can be reasonably decreased. Because of the influence of value judgments, reasonable disagreement is to be expected (unavoidably). However, reasonable disagreement on where and how much inefficiency can be reasonably decreased should not result in the reluctance to determine benchmarks. As with other decision making that includes reasonable disagreement due to differing value judgments, rational and fair processes should be applied to reach rational and fair decisions. As we also argued above, broad consent in determining benchmarks of efficiency can and should be expected from doctor groups. Recently, some doctor groups have outlined healthcare activities where inefficiency can be reasonably decreased.¹⁷³⁷ For example, the American Board of Internal Medicine (ABIM) Foundation has initiated a campaign (Choosing Wisely) to reduce inefficiency, (<http://choosingwisely.org>). Each of the participating specialty societies has identified a list of five common tests or procedures whose use in their profession should be discussed or questioned. Criteria for the chosen interventions were that: (a) the item should be within the specialty’s purview and control; (b) it should be used frequently and/or carry a significant cost; and, (c) there is evidence to support each recommendation. The Consumers Union has partnered in this effort by creating consumer education materials for each item, intended for patients and their families.

If one were to apply the concept of ‘benchmarks of efficiency’, to the efforts of doctor groups (such as the ABIM Foundation and collaborating specialty groups) and activities (such as Choosing Wisely) one would explicitly set goals regarding how much inefficiency is to be reduced in a reasonable time frame and when the efforts of various individuals and organisations undertaken to fulfil these benchmarks can be called ‘sufficient’. The more specific and transparent those benchmarks are and the more they are realised in the given time frame, the more legitimate are rationing decisions despite coexistent inefficiency.

Take the example of type-A inefficiency that we described above: cancer screening among patients with advanced cancer.²⁶ A benchmark could define that the ineffective use of cancer screening shall be reduced by increasing adherence to screening guidelines by at least 50% within the next 3–5 years in a specific region or group of healthcare providers. If the

benchmark of efficiency has not been fulfilled within the given time period while rationing of any kind of healthcare by the same group of doctors has continued, one could question whether ‘sufficient efforts’ have been undertaken to reduce coexistent inefficiency.

To fulfil these benchmarks, several well developed policy tools could be used by doctor groups and healthcare organisations, including practice guidelines, usage review, medical practice profiling and feedback to providers.²²³⁸³⁹

Apart from defining the accountability of specific parties, setting efficiency benchmarks demands a stepwise process. Setting benchmarks for the more efficient use of specific condition-treatment pairs involves:

- A. Deliberation about and selection of a set of specific insufficiently efficient healthcare practices. As exemplary first steps in this direction see the work by The Good Stewardship Working Group¹⁷ and Qaseem *et al.*³⁷ This process should acknowledge criteria of procedural justice (eg, transparency, justification of weightings and trade-offs, minimising conflicts of interest).¹⁰¹¹⁴⁰ Such procedural criteria help to foster understanding and trust in the application of the more substantial criteria for choosing specific condition-treatment pairs. The Good Stewardship Working Group chose the following more substantial criteria to discuss and justify the selection of specific condition-treatment pairs:
 1. frequency with which doctors engaged in a specific activity in their practice;
 2. potential impact of the activity on quality of care;
 3. potential impact of the activity on cost of care;
 4. strength of the evidence supporting the activity;
 5. ease or difficulty of implementing the activity in their own practice (further research and pilot testing should evaluate whether these criteria result in a fair selection of inefficient healthcare practices).
- B. Determination of how far efficiency can be reasonably improved over a certain time and what counts as ‘sufficient’.
- C. Plan and agree how to implement and adapt strategies to fulfil the benchmark requirements and when these efforts would count as ‘sufficient’.

One might ask whether the benchmark approach we have suggested adequately addresses the concern we raised at the outset. Will there be a tight enough correlation between compliance with efficiency demands and legitimacy of rationing? Should we not specify that if a clinician does not follow guidelines regarding the proper indications for a particular procedure, rationing of that procedure by that clinician is not as justifiable as it would be had he followed the guidelines? For example, if a clinician does not follow guidelines regarding the proper indications for MRI studies, any rationing of MRIs by that clinician should be considered unjustified. Some might argue for such a tight correlation. Others might endorse a broader understanding of ‘correlation’ between sufficient efforts to reduce inefficiency on the one hand and more legitimate bedside rationing on the other. According to this broader understanding, the crucial point is that a doctor tries to decrease inefficiency sufficiently (in

different situations). If the doctor does so his efforts to ration healthcare are more legitimate. We would acknowledge that the approach we have outlined here is most consistent with the broader view and does not offer a tight correlation at this point. For those who endorse a tighter correlation, additional steps (benchmarks) must be set.

ADHERENCE TO BENCHMARKS: GOVERNING THE COMMONS

Several questions concerning the practicability of this benchmark-based approach might be raised that we briefly address here; namely: how should an organisation ensure that its doctors are efficient? How might one address the possibility that if the strategy we suggest is not uniformly adopted, this could exaggerate disparity in care received by patients seeing differing doctors?

We offer two suggestions regarding cooperation. One is that the benchmark approach we outlined above could also consider issues of justice. It is likely that healthcare rationing, if not carried out fairly, would harm lower socioeconomic classes more because they are less able to buy in the private sector what has been rationed in the publicly-financed sector. Population-based research is needed to assess the distribution of harms related to inefficiency and rationing among more or less vulnerable populations. If the best available evidence demonstrates the existence of an unjust distribution of rationing-related harms, benchmarks of 'sufficient efforts' to decrease this type of injustice can further increase the ethical legitimacy of the unavoidable rationing of healthcare. See the UK National Institute for Health and Clinical Excellence (NICE) equality schemes and the NICE annual equality report that take first steps in this direction.⁴¹⁴²

A useful possibility to address the problems of inconsistency and non-compliance is to learn from successful strategies for addressing these problems in dealing with historic cases of common resource problems. Ostrom, for example, describes how the tragedy of the commons encountered in circumstances of limited natural resources such as limited water supplies are sustainably addressed by groups that regulate themselves.⁴³ In regulating themselves they foster consistent compliance. Several characteristics that distinguish such successful groups could also be applied to groups of clinicians in the healthcare sector: clearly defined boundaries; congruence between rules and local conditions; participation in rule making by those who are affected; monitoring of behaviour by those who must follow the rules or their designees; use of graduated sanctions that depend on the seriousness of misbehaviour; easy access to conflict resolution mechanisms for those who participate in allocation decisions; and the ability for those who participate in allocation decisions to devise their own institutional structure.⁴³

CONCLUSIONS

While it is unrealistic to expect that healthcare delivery can be completely efficient, sufficient efforts to improve efficiency are warranted before rationing can be justly carried out. We recommend the use of benchmarks for efficiency for the definition of sufficient efforts and for evaluation purposes. Additional practice-oriented strategies need to be used for the selection of and adherence to such benchmarks. We describe the adherence to such

benchmarks as a necessary (and often neglected) but clearly not sufficient requirement for just bedside rationing. Needless to say, further substantial and procedural principles should be acknowledged when making ‘all things considered’ judgments about just or unjust cases of bedside rationing.¹⁰¹¹¹⁵

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