The Conundrum of Resource Allocation

When Much is Not Enough

Healthcare is a bottomless pit. No matter how resources are obtained or distributed, demand will always exceed supply. In historical times, when medicine, such as there was, was much less successful at prolonging life or relieving suffering, it mattered less that the best healthcare was available only to the relatively affluent. Life was "nasty, brutal and short" for most, even the privileged.

Healthcare is much more capable today. Lifespans have lengthened, mostly because of environmental improvements such as better sanitation, water supply and nutrition, but also because medicine can simply do more. Where once patients suffered and died, today they could be cured sometimes, cared for often, but always comforted,[1] as they live longer lives so afforded. All of these consume resources.

RESOURCE ALLOCATION

When demand exceeds supply for any goods, there must necessarily be some mechanism to decide who gets and who goes without, as any Economics textbook would explain. It is not possible to provide every healthcare service of potential benefit to everyone who needs (or merely wants) them. This is especially so with the ageing and multi-morbid population, increasing medical capabilities and concomitant costs, inherent and sometimes intractable wastage and inefficiencies, and local and international competition for consumers, professionals and providers.

Resource allocation is subject to the Iron Triangle of Access, Quality and Cost: "Who gets what quality and at what cost?" Allocation can be at what is known as the *macro* level (or the systems level; eg, how much for healthcare compared to other sectors), the *meso* level (or the organisational level; eg, how much for which providers) and the *micro* level (or within the care delivery process; eg, what does each patient get and not get), based on a mix of competing principles of equality, equity, rights, outcomes and the ability to pay. The conversation is complicated by the different weights, and even different definitions, that people give to these principles.

Ultimately, when there are insufficient resources to accommodate all needs, some will be denied. Healthcare rationing

PROFILE

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is "a conscious decision or the adoption of an explicit policy that excludes certain persons with known medical need from treatment that might save, prolong or significantly enhance the quality of their lives."[2] The paradigmatic example of rationing in healthcare is the triaging of casualties on the battlefield, but this will occur at all levels and in all situations. There is thus a need for clear, fair and publicly acceptable institutional and professional policies to ensure that such decisions are transparent and defensible and to avoid arbitrary "bedside" rationing. If the clinician is unsure of their institution's policy and practices, it is important that they ask for guidance.

Resource allocation in the public sector is especially critical, being subject not just to economics but to politics, society and nationhood as well. It is an increasing challenge to balance the obligations to current and potential patients under the care of one doctor, one department, one hospital, one cluster and at the national level. Serving one patient can mean depriving another, if not of actual material resources, at least of the professional's time and attention. More resources for healthcare may compromise other national priorities like education, housing and national defence, and ultimately national economic survival.

Resource allocation in the private for-profit sector balances between the need to do the best for each patient and the sustainability and profitability of the business. The obvious danger here is over-servicing, to provide any service so long as the patient can pay. Higher prices are one way to increase profit, but there are constraints to how much prices can be raised before the payers push back, so increasing volume and frequency is an alternative.

Profits are revenues less expenditure, so another less obvious temptation is to under-provide resources to control costs. For example, where optimal resourcing for best operational efficiency and clinical effectiveness might recommend a particular surgical device in each of three operating theatres and an additional spare in the storeroom to minimise risks and maximise throughput, an organisation more concerned for its capital outlay would have just one for all three theatres and none in the storeroom.

HEALTHCARE FINANCING

The allocation of healthcare resources ultimately rests on the foundation of the financial organisation of a country's healthcare. There are many national models for healthcare financing because they can differ on how resources are gathered (eg, general taxation, social and community insurance, charity, fee-for-service), governed (eg, central direction, legislative direction, commissioning, through employers, free market), risk-pooled (eg, as governmental budgets, through various types of insurance, through families and communities), and finally distributed (eg, through public, private and charity organisations) in many configurations.

Singapore has elements of many of the above, and emphasises free choice of services, self and family accountability, and reliance on

free market competition, with the Government as the provider of last resort. There is a two-tier system within the public sector which on one level provides access to decent subsidised healthcare, and on the other, competes directly with the private for-profit sector without societal subsidies. The so-called "public sector" is operating very much in the private sector space.

It is not easy to specify what a "decent minimum" in healthcare is. Would this prefer the therapeutic to the enhancement, or life-saving to improving quality of life? There can be compromises on the ground to both the access and quality of healthcare if healthcare organisations focus on their business interests, and there is thus a need for institutional or organisational ethics (which will be the subject of another article).

THE CLINICIAN'S ROLE

What is the clinician to do in practice amid such complexity? Every clinician, no matter how august or powerful, is still only one cog in a vast machinery. Many, if not most, resource allocation decisions that affect an individual doctor's care delivery are beyond their control.

McKneally et al[3] point out that the clinician's goal is to provide optimal care within the circumstances that pertain to the situation, including any unavoidable or imposed limits. The clinician should therefore:

- Choose interventions known to be beneficial on the basis of evidence.
- Minimise the use of marginally beneficial tests or interventions.
- Seek the tests or treatments that will achieve the goal for the least cost.
- Advocate for one's own patients but not manipulate the system to gain unfair advantage.
- Resolve conflicting claims for scarce resources justly and on the basis of morally relevant criteria (like need and benefit).
- Inform patients of the impact of cost constraints, but do so in a sensitive way without blaming others and increasing anxiety.
- Seek resolution of unacceptable shortages at the appropriate levels.

It can be a challenge for the clinician to handle this complexity at the bedside, especially in conversation with distressed patients and anguished relatives. It may be true that a particular resource (eg, an intensive care unit bed) is in high demand and that one patient's occupancy deprives another perhaps needier patient, but it would be disastrous to speak too plainly. People do understand that other people need care as well and can sympathise with the clinician's dilemma, but are less receptive when it appears that other people have apparently higher priority or preference. While they accept that other patients also need as much appropriate attention, they would not like to feel that they themselves are receiving less.

It would also be counterproductive to blame the administration or, in the public sector, the government. This only aggravates the distress and angst of the patients and their families and adds little to the therapeutic environment. It implies that "more could be done, if only…", leading to more guilt, anger and dissatisfaction.

Some might argue that such a course of action is not only unprofessional of the clinician, but also cowardly to thus deflect responsibility to others if the objective is only to direct anger and angst away from themselves. We are all part of the same healthcare system. Of course, the clinician is not to blame if resources are insufficient, but neither are the hospital administrators nor the government who have their own challenges to make supply meet demand.

Ultimately, the focus needs to be on the healing and caring of the patient. Clinicians must advocate for their own patients and act in their best interests within the limits imposed on their capabilities by the circumstances, understanding that even if more resources were available, the demand would simply ratchet up to create the next gap.

CONCLUSION

Doctors trained to do the best for every patient will inevitably find limits to what they can do. Sometimes it is just the current state of the art. Sometimes it is the patient who comes too late or who does not cooperate with treatment. The doctor learns to deal with these, but when a resource, possibly available to others or just within arm's reach, is denied because of allocation rules, it can be hard to swallow. The art and science of medicine today extends beyond managing just the patient. ◆

References

1. Variously attributed to Hippocrates, Benjamin Franklin, Edward Trudeau and others.
2. Priester R, Caplan AL. Ethics, Cost Containment, and the Allocation of Scarce Resources. Investigative Radiology 1989;24:918-26.
3. McKneally MF, Dickens BM, Meslin EM, Singer PA. Resource allocation. Can Med Assoc J 1997;157:163-7.