Out of Hours

Overgrazing in general practice: the new *Tragedy of the Commons*

Students of game theory soon become familiar with Hardin's *Tragedy of the Commons*. Based upon William Lloyd's 1833 lecture on population growth,¹ it explores how to stop the overuse of a public good. In 19th-century England the common was an area of land where villagers were able to graze their livestock. Each additional ruminant put out to graze decreased the availability of fodder for the rest of the population; if too many animals were put out the area became worthless, overgrazed, and with no one reaping any benefit.

Lessons learned in game theory become relevant again when moving from secondary to primary care. One quickly becomes aware of the direct financial impact of patients' prescribing and investigation costs. While I'm no advocate for a system where only the rich can afford health care, or a system where patients are charged for access, it can be dispiriting to see patients make appointments not to receive small doses of my limited medical knowledge but to come solely to be prescribed paracetamol or emollients that could be easily bought over the counter. General practice seems a prime example of a resource being overgrazed.

Hardin proposed two solutions to the problem.² One was for government to intervene and regulate the rights of usage for the commons, determine what proportion each villager was allowed and punish those who exceeded the allotted proportion. Few GPs I've come across would welcome increasing bureaucracy and regulation and, as we know, government intervention is rarely without its costs. The other option is privatisation, although not the sort where primary care is auctioned off to large US health conglomerates. Instead the patients would become the owners of the practice, shifting the incentives for savings and efficiencies from doctor to patient. It would be for the patient population to create rules as to how resources should be allocated, to decide the penalties for non-attendance or

breach of rules.

However, allowing patients at a local level to decide on how resources need to be allocated potentially changes the consultation model. At present, while all the models I have come across and used add value to my consultations they seem to leave the elephant in the room unaddressed. Patients often want referral to specialists and in many cases it is wholly appropriate that they are referred. Yet for some a diplomatic dance needs to be enacted. 'Let's run a few tests first' or 'why don't we try this before we refer you' are phrases commonly used. The underlying question is one of justice; it is no secret outside the consulting room that healthcare provision is a rationed resource. It is certainly a dangerous ethical position that leads us to bring rationing up within a consultation, yet often we do exactly that. When we tell patients that we think they should try such-and-such a treatment first the underlying position is often that we do not feel it serves the interest of justice for us to refer them at present.

One of the key concerns about allowing patients to decide on resource allocation rather than their GPs is that of information asymmetry. While patients may come together and decide on appropriate use of resources, they ultimately are not experts in health and safeguards need to be present to ensure their key health indicators are not missed. Similarly, as Mill warned, we must be aware of the tyranny of the majority (or a vocal minority) who may have a disproportionate say in the way in which resources are spent.³

The fundamental principle of economic theory states unlimited wants for limited resources. If general practice becomes overgrazed we all lose. While the *Tragedy of the Commons* dilemma may leave many feeling sceptical as to whether individual interest could ever be subverted for group benefit, there are countless examples of where exactly this has happened. The late Nobel Prize winning economist Elinor

ADDRESS FOR CORRESPONDENCE

Khalil Hassanally

Ilford Medical Centre, 61 Cleveland Road, Essex.

E-mail: khassanally@gmail.com

Ostrom made a study of what she termed 'common-pool resources'⁴ and gave examples where commons were managed sustainably through community ownership.

Although game theory cannot pretend to have all the answers, it does present a framework helping us to better understand the problem and develop solutions allowing primary care to be free for years yet to come.

Khalil Hassanally,

GP ST3, Ilford Medical Centre, Essex.

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