Limitations to contingency measures: reflections from Covid-19 surges in the UK

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Introduction

The above paper helpfully outlines the case for attending to contingency planning as well as to crisis measures during a pandemic. It provides a helpful framework for reflecting on the experiences of healthcare staff during Covid-19 to develop a more robust contingency phase. We do so, ourselves, in the context of the UK, particularly London where the prevalence of Covid-19 stretched resources despite considerable and continuing efforts to increase capacity as the depth of the crisis was understood. Recognising the inevitable increase in cases once community transmission took hold, the UK government's strategy was to keep case load manageably within the capacity of the National Health Service (NHS). All public health interventions were modelled and planned accordingly with insufficient regard to contingencies.

Increase in surge capacities

A consistent strategy to tackle strain in the NHS caused by the COVID-19 pandemic has been to massively increase bed capacity to admit and treat patients, largely by expanding existing healthcare facilities. Conventional capacity had a cut off of 90% bed occupancy (NICE 2018). However, new wards, and most notably temporary hospitals, were opened in some metropolitan areas to further increase the number of beds available (Broom, 2020). Alongside this, attempts at recruitment among retired staff and healthcare students and redeploying staff were utilised to provide care, as well as procurement of anticipated key equipment such as ventilators during the first wave (Accounts Committee, 2020, p. 3).

However, the procurement of these limited resources, inevitably for ventilators, has been uneven within the NHS which functions practically more as a series of separate organisations. This means that rapid expansions of some resources in one part may not be matched by others, leaving the expanded resources unusable and creating geographical variations in care. The best examples of this issue are the Nightingale hospitals. Very few of these facilities actually received patients and their success was crippled due to a lack of staff (Collins, 2020). Another key limitation was the novel nature of the coronavirus, and the lack of information surrounding appropriate treatment. In the first wave, the treatment value of ventilators was overstated, which were often superseded by machines providing continuous positive airway pressure (CPAP) and more effective medications for treatment (Torjesen, 2021). In addition, extra capacity amongst local private hospitals was primarily used for diverting some essential non-Covid-19 care.

Diluting standards of care

One method used to address the issues of expanding capacity across the NHS was the "dilution" of treatment and/or care. In this context, dilution refers to a weakened or less strict standard concerning the use of scarce resources when treating patients, to allow resources to be spread more thinly across a patient cohort. An example of this is the dilution of staffing ratios across intensive care units during pandemic waves, when surge capacity was at its zenith and the NHS was experiencing unprecedented levels of staff illness. For example, the usual 1:1 ratio of intensive care nurses to patients was officially reduced to 1:2 (Royal College of Nursing, 2020). Another example of dilution is the lowering of target saturations for all hospitalised patients across the NHS to conserve supply and prevent oxygen supply failure. Previous target saturations of 94-98% were reduced to 92-96% in the first instance (NHS 2020). This resulted in many patients receiving less oxygen to prevent

a complete loss of oxygen for all patients, or a situation where oxygen would be completely unavailable to some patients (National Health Service, 2020).

As many local ICU reached 100% capacity or above, ICU become a national resource seeing significantly higher rates of transfer between hospitals becoming the norm at some hospitals (Pittard *et al.*, 2020). However, the extent of and procedures for such transfers were somewhat obscure to frontline staff increasing their concern about what resources were available to them.

This dilution of standards, while avoiding explicit references to rationing, has had negative psychological consequences for staff. In particular, the gap between diluted standards and regular standards of care can lead to what has become known as moral injury in healthcare workers (Greenberg *et al.*, 2020, p. 1). Dilution was also not enough to completely avoid significant bed and staffing shortages in some local areas, leaving clinicians on the frontline responsible for further allocation decisions beyond guidance (Kmietowicz, 2020).

Immunity from tort action and professional anxiety

Prior to the first wave of the pandemic, the General Medical Council clarified its approach to regulating medical professionals during the pandemic, stating "where a concern is raised about a registered professional, it will always be considered on the specific facts of the case, taking into account the factors relevant to the environment in which the professional is working". However this statement continued to highlight the importance of existing guidance as a tool for determining negligence (General Medical Council, 2020). The gap between existing guidance and the reality of frontline conditions in some areas could therefore lead to increase rates of litigation against doctors in the future. Legal bodies representing doctors have seen increased rates of contact throughout the pandemic. This professional anxiety has led to some calls for tort immunity to prevent unnecessary prosecution of competent clinicians working under difficult circumstances (Medical Defence Union, 2020). However this call has been rejected by regulatory bodies (Dyer, 2021).

Rationing guidelines

There was growing demand amongst staff for national, authoritative rationing protocol which is usually reserved for crisis management. This has the advantage of removing the responsibility of devising decision-making tools from frontline staff, as well as the ability to take into account systematic information that may not be accessible to a single clinician (Mansbach, 2011). Such a rationing protocol may itself fail to address the psychological issues of current approaches to resource allocation. An authoritative rationing protocol may also lack flexibility that allows it to adjust to a rapidly changing frontline environment, precipitate decisions made from paramedic and first responders, and could create a sense of panic in the wider population with more severely ill patients choosing to stay at home rather than seek help. Such explicit protocols could also lead to unnecessarily harsh decisions becoming routine for longer than is necessary should the availability of frontline resources rapidly improve or cases rapidly decline. Certainly, at times, crisis measures were declared in London allowing further very specific facilities to be mobilised to redeploy extra resources such as emergency vehicles to become field or makeshift ambulances.

Clinical ethics committees, supported decision making, and virtues

An ethical framework centralising supported decision making and virtue ethics could help to alleviate the psychological burden of the pandemic, by empowering frontline staff with the tools to cope during a temporary healthcare crisis. Such a framework could be critical when current clinical guidelines no longer work and before rationing protocols are issued in extremis. As cases surge and

resources become scarce, frontline staff justifiably need to know what plans and policies are ready to help them manage their case load. Ad hoc measures which are not communicated across the sector do nothing to alleviate professional distress. Virtues such as courage, prudence, and justice have been shown to encourage healthy coping strategies during other stressful life events and cultivating these virtues in the workforce could allow them to provide this support in a healthcare environment (Swift *et al.*, 2002; Gustems-Carnicer and Calderón, 2016). Virtues can also provide a tool for shaping how we should think about negligence in such cases to explicitly incorporate the context of the crisis to prevent unnecessary and burdensome prosecution. The Bolam test is an example of a legal precedent that resonates strongly with actual professional practice. It could be used by healthcare staff in advance to gauge possible future negligence claims rather than to reflect on practice as experienced and expected by professionals before the pandemic. Appealing to an advance Bolam test could avoid reliance on perceived inflexible professional duties by consulting a virtuous example of good practice to determine negligence in the specific contingency and/or crisis context that is examined (Norrie, 1985).

Conclusion

The move from contingency to crisis management during a surge in cases can be difficult to determine. Even when there is a crisis of certain resources, employing rationing protocols could have far reaching consequences beyond decisions between immediate patients whom they are designed to cover. Transparency in policy, practice and context, however, is essential especially when the central plank of the pandemic strategy is threatened and there is political pressure avoid a full-blown crisis requiring rationing of resource. Supported decision making and appeals to virtue could bridge the gap between redundant clinical guidelines and rationing protocols. There is now much ethical analysis of which lives to try to save during a pandemic all else being equal, but they rarely are. It is ironic that while in conventional mode human factor issues are commonly viewed as the weak points in the system, yet insufficient structural contingency planning necessarily puts the onus on human ingenuity, or as the authors describe 'turfing' of responsibility.

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