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Covid-19: clearing bottlenecks by changing roles

Initiatives to adapt into alternative roles could prevent critical healthcare resources being overwhelmed.

The UK government's response to Covid-19 has been criticised for ill-preparedness, early failure to pursue testing and contact tracing, and vacillation over a lock-down.[i,ii] Our medical community is making a concerted effort to contend with the crisis. UK policy must speedily put sound principles of viral epidemiology into practice against this pandemic. A critical determinant of our success will also be how well we innovate and improvise under unprecedented circumstances.

Official briefings and public cameos about Covid-19 testing, including by the UK prime minister, have been inconsistent.[iii] Specifics relating to diagnostic screening of professionals and the public are being revised on a daily basis.[iv] A test of whether individuals have recovered from an earlier bout of Covid-19 is not yet available. Such an antibody assay would establish if a previously infected person had generated an immune response, potentially offering a measure of safety for such individuals to preferentially take on more high-risk clinical exposures. It could also facilitate the use of convalescent serum containing these antibodies to treat and potentially prevent severe progression in other patients.[v] I can personally attest to the value this could bring.

I fell abruptly ill on Saturday, 1 Feb 2020. I had developed a dry cough the previous day at suppertime, which I ascribed to a mouthful of wine having travelled under rather than over my epiglottis. I woke the next morning with a headache and fatigue. The non-productive cough was relegated to a supporting role by fever, sore throat, chills and body aches over the next 24 hours. Spurts of diarrhoea, without nausea or vomiting, provided the denouement. I felt exhausted and lay in bed all weekend. I was scheduled to be the duty Vascular Surgeon for a week from Monday, 3 Feb 2020; I was forced to call in sick.

I returned to work on Thursday, completed forty-eight hours on-call, and felt utterly washed out again. In hindsight, my auto-reply email about being on sick leave with a cold and flu virus had been naively presumptuous; it said I was reasonably certain it was 'a home-grown strain rather than an imported variety.' A week later, still struggling, I remarked to my team, "whatever this bug was, I certainly hope none of you get it". It was a full three weeks before I

felt back to normal. My symptomatology in February suggests I could have had a mild episode of Covid-19 infection, and may now possibly be immune to it, but your guess is as good as mine. Like many colleagues, I have not been tested for coronavirus.

Our world has changed beyond recognition in the intervening period. We vascular surgeons are now deferring operations on aortic aneurysms at the size we would normally operate upon them to prevent rupture. Thoracic surgeon Joel Dunning is turning shifts in as an ICU nurse;[vi] echocardiographer Liz Wolfe volunteered as a cleaner in her unit.[vii] An airline pilot in London has been working to deliver supermarket supplies.[viii] We anticipate having to sequentially shut down hospital services – elective work, urgent cases and possibly very soon, everything but the treatment of severe pneumonia. For all the talk of buying, building and splitting ventilators,[ix] the likely point of failure will be staff depletion. We cannot hope to tackle this crisis by simply flogging *any* healthcare system harder – but particularly not one that has been hobbling along, overworked and understaffed, for over a decade.

I felt ill again nine days ago – nine weeks after my index episode. I had a sore throat, mild headache and malaise. I was not feverish, but ached and suffered bouts of diarrhoea. Seventy-two hours later I was back to normal. I may have had an unrelated illness; alternatively, my Immunoglobulin response from an initial exposure may have fought off a second encounter with this SARS-Cov2 coronavirus. There is presently no way of knowing. Three of my fellow consultants have been off simultaneously with these symptoms as I wrote this – there are only seven of us in the department.

The UK is on the verge of a first peak of lethal coronavirus pneumonia. The lack of diagnostic testing thus far has required frontline staff to self-isolate indiscriminately. Our national guidance for returning-to-work advises only half the safety period (7 days) compared to the WHO recommendation (2 weeks).[x] We face a potential double whammy of uninfected clinicians staying away, while contagious colleagues return prematurely and worsen nosocomial spread. Alongside, the disgruntlement about Personal Protective Equipment (PPE) guidance and availability rumbles on, with the frequency of official updates rivalled only by the workplace variations in their application.

The one variable that nurses, doctors, technicians, therapists, sonographers and students can address is the weakest link of vital human resources. In some Trusts, available ICU nurse

numbers may limit how many patients can be offered mechanical ventilation effectively. In others, the bottleneck may be a lack of staff to administer intravenous fluids, antibiotics or even oxygen on an overflowing ward. At this time of extraordinary physical and emotional strain upon workers, shift lengths and rota frequencies in medical wards and Intensive Care Units need to be decreased, not increased. Unless we look after one another well, our human resources will burn out before our hospital beds spill over to the floor. The only realistic option is for non-specialists to redeploy *en masse*, to provide strength in numbers to hold the fort.

This crisis is our opportunity of a lifetime to join ranks as one towards mitigating enormous casualties. We must seize initiative and redeploy in roles that can contribute at points of need. Joel Dunning in Middlesborough and Liz Wolfe in Leicestershire have it right; so does first officer Peter Login, normally of British Airways, now of Tesco. Unfettered diagnostic screening, adequate PPE and reliable antibody testing will offer invaluable confidence about personal safety to healthcare staff who are learning on the job in alien clinical settings. While our family and friends stay home to #FlattenTheCurve, those of us able to fill key roles could make a vital difference through #CovidKindness.

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