

# THE BIG QUESTION



**“Are immunity passports a good idea?”**



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**T**raditionally, immune responses to a pathogen comprise a non-specific reaction, subsequently adaptive immunity specifically targets the virus. Early studies with COVID-19 patients showed that recovered patients had antibodies against SARS-CoV-2. However, some evidence also suggests neutralising antibody levels might be quite low. Could cellular immunity play an important role? Are there sufficient levels of suitable antibody to be protective? Nobody really knows at this stage; we are waiting to see if immune responses will be protective and valuable in building herd immunity and protecting recovered patients from reinfection.

Immunity passports concern me. While the emergence of some countries from the “first wave” of infection has not resulted in population reinfection, I believe there has been an insufficient duration to understand this situation. As politicians look for ways out of lockdown, immunity passports may appear attractive, but they might provide unjustified assurances of protection, which could be problematic for individuals and communities emerging from the pandemic. There is also a social aspect – do we start labelling members of the community on the basis of immune status? Could this lead to stigmatisation?

Immunity passports might well offer some future assurances and act as a certificate of protection. However, we don’t know enough currently about the long-term efficacy of the immune response to SARS-CoV-2 to be able to offer certainty via immunity passports.

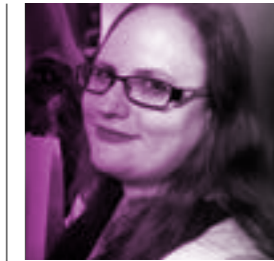


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**U**se of “immunity passports” is controversial. The concept may at first glance appear abhorrent, as it defies many principals, such as equality, that we hold dear. From the infection control perspective, the idea would have been a sound and cautious way to release from lockdown, enabling those with immunity to restart key requirements, whilst protecting those still vulnerable to infection. By doing this, you reduce circulation of the virus but restart priority areas to support the community. Implementation of such a scheme would have been a major concern. Approved antibody testing platforms were not initially forthcoming and are an essential pre-requisite for implementation; so too is serum/blood from the individuals to be tested under lockdown restrictions. How would this be safely collected, labelled and transported for testing? For such a scheme to work, it would have needed to have been deployed as an initial step towards release from lockdown, and we are now far beyond this. Timing of such interventions is a key element for the impact to be beneficial on reducing viral transmission. Having seen the wave of fraudulent clones of track-and-trace messages seeking to gain personal information, it would be no surprise to see something such as an immunity passport open to abuse.

Theoretically, this would have been a safer way to release from lockdown, however, timing, practicalities and behavioural issues would have needed careful management.



## Elaine Cloutman-Green

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**T**he idea of immunity passports isn’t new. After all, most of us will have had our immunisation history recorded as children.

Those of us working in healthcare will have our immunity passport follow us from post to post, in the form of our Occupational Health records. What is new is the idea of an immunity passport for a novel virus within the setting of a pandemic. This change in both virus and setting presents unique challenges.

Firstly, our experience of this virus is short-lived; we can extrapolate from other coronaviruses about mutation rates and virulence changes, but none of us really know. If you have immunity in this case how broad will that immune response be?

Secondly, there are the host factors. Preliminary work undertaken in staff has shown that even if results are antibody positive initially, these antibody responses can rapidly wane and become antibody negative. There is a lot of conjecture about what this means for individuals, as well as from a public health perspective. Does it mean those who were antibody positive will be able to be re-infected?

From an infection prevention point of view, I don’t believe we have the information yet for an immunity passport to be useful, certainly not useful enough that I would be able to use it to risk assess individuals. There’s just too much we don’t know.