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Perspective

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COVID-19 health passes: current status and prospects for a global approach

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COVID-19 vaccination is a major game-changer in controlling the pandemic, additionally contributing to reversing travel restrictions and reopening travel (CDC Travelers' Health, available at https://wwwnc.cdc.gov/travel).[1,2] The documentation of COVID-19 status in the form of a certificate or 'passport' has been under discussion since travel restrictions were imposed. Early on, the unknown nature of immunity following COVID-19 infection did not support the idea of an 'immunity passport'.[3] Data have accumulated, which suggest persistence of immunity from natural infection or from certain vaccines possibly for a year or even longer,[4–6] strongly supporting a significant level of protection during travel. The vaccines that have received European Medicines Agency (EMA) and US Food and Drug Administration (FDA) and Emergency Use Authorization (EUA) provide reasonable defence against the variants of concern identified to date.[7,8] Also, studies indicate reduction in SARS-CoV-2 infection in unvaccinated household members of vaccinees; UK analysis found that the likelihood of household transmission was 40–50% lower when compared to households of unvaccinated index patients.[9]

Advances in many fields have aided the pandemic response, but the developments of optimal digital documentation tools for vaccination, testing and immunity have lagged. Airline and other companies have developed dozens of digital apps, but it is unclear who will accept which app and how that will be determined. Some countries have introduced certification for COVID vaccination or recovery using QR codes, such as Israel's Green Pass and the UK's NHS COVID Pass. Similarly, the European Union has implemented an 'EU Digital COVID Certificate' (https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/safe-covid-19-vaccines-europeans/eu-digital-covid-certificate_en). This allows fully vaccinated EU residents to travel within the EU without testing or quarantine. Arrivals from outside the EU will need a certificate demonstrating immunization with vaccines approved by the EMA, and some will require QR codes. The official German Foreign Ministry website, e.g. explicitly mentions the existing International Certificate of Vaccination or Prophylaxis (ICVP, known as the Yellow Card or Carte Jaune) being an accepted document option for EMA-endorsed vaccines (https://www.auswaertiges-amt.de/en/coronavirus/2317268). Some countries in Asia, including Japan and Thailand, have issued paper-based vaccine passport for their citizens. Like the USA and South Africa, these do not display any QR codes.

Concern has been raised that a 'health certificate' or 'vaccine passport' imposes inequity. When vaccines are not widely available and only persons with certain privileges are vaccinated, such inequity exists.[10] As of 22 July 2021, just 20 000 million Africans,

or 1.5% of the continent's population are fully vaccinated so far, and just 1.7% of the 3.7 billion doses given globally have been administered in Africa. However, when vaccines become widely available and accessible, and when all persons who wish to be vaccinated can do so along with documentation of their vaccination, the concern about equity will subside. Throughout history, health certificates were used to document protection from contagious diseases, such as inoculation with cowpox against smallpox and yellow fever, and thus they are a well-proven public health tool to control epidemic diseases. With respect to concerns about inequity of global vaccine distribution, we should also keep in mind that millions of people in direct tourism jobs and their families particularly in lower-income countries will benefit if at least vaccinated tourists can visit again. The International Society of Travel Medicine (ISTM) has issued a position statement to advocate for a global framework for a reliable, equitable, interoperable and globally accepted certification process to document COVID-19 vaccination, testing results and recovery from COVID-19 infection (ISTM Position Statement; Call for the development of a global framework for a reliable, equitable, interoperable and globally accepted certification process for COVID-19 vaccination and/or infection status; available at https://www.istm.org/tmn5-2021). Other leaders have urged for the use of the standardized ICVP as a paper format along with digital platforms.[3,11] The International Health Regulations (IHR) 2005 allow for such an addition.

While WHO IHR has not designated COVID-19 vaccination as a requirement for crossing international borders, some relevant WHO activities and publications on ICVP are noted and continue to be updated:

(1) WHO formed a Smart Vaccination Certificate Working Group: https://www.who.int/groups/smart-vaccination-certificate-working-group
(2) WHO call for public comments: https://www.who.int/news-room/articles-detail/call-for-public-comments-interim-guidance-for-developing-a-smart-vaccination-certificate-release-candidate-1
(2) As per the 'Interim position paper: considerations regarding proof of COVID-19 vaccination for international travellers', currently, proof of COVID-19 vaccination is 'not' recommended as a condition of departure or entry for international travel. Countries are advised to take a risk-based approach to international travel in the context of COVID-19. Additionally, along with the digital implementation of Smart Vaccination Certificates (SVCs), it is recommended that the COVID-19 vaccination status should still be recorded through the paper-based International Certificate for Vaccination and Prophylaxis based on the model presented in Annex 6 of the IHR. Travel clinics traditionally document at least all travel related immunizations in this document.
(3) WHO Interim position paper on considerations regarding proof of COVID-19 vaccination for international travellers: https://www.who.int/news-room/articles-detail/interim-position-paper-considerations-regarding-proof-of-covid-19-vaccination-for-international-travellers.
(4) At the eighth meeting of the IHR Emergency Committee, on 15 July 2021, the following recommendation was issued (https://www.who.int/news/item/15-07-2021-statement-on-the-eighth-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-coronavirus-disease-(covid-19)-pandemic): 'Recognize all COVID-19 vaccines that have received WHO Emergency Use Listing in the context of international travel. In addition, States Parties are encouraged to include information on COVID-19 status, in accordance with WHO guidance, within the WHO booklet containing the International Certificate of Vaccination and Prophylaxis; and to use the digitized version when available'. Moreover, the Committee recommended that WHO expedite updates to the ICVP and digital tools to document the COVID-19 status of travellers, including vaccination, history of COVID-19 infection and SARS-CoV-2 results.

Similar to previous occasions, a substantial number of countries (State Parties) do not adhere to WHO recommendations. Some permit entry for travellers who have been vaccinated or exempt them from certain testing or quarantine requirements. Unfortunately, some State Parties do not accept vaccine certificates from others, and travellers have been stranded in transit. Some State Parties have imposed requirements for digital apps and QR codes and deny recognition of hand-written paper certificates.

What should travel medicine providers advise travellers? Current status supports the following recommendations with respect to paper documentation:

'For domestic travel', each jurisdiction/country developed its own vaccine certificate; e.g. COVID-19 vaccination centres in the US issue the CDC 'white card'. This is an adequate paper-based format within the country as proof of COVID-19 vaccination and may be accepted by some other countries. Some countries (e.g. France) may require specific digital tools, such as QR codes for domestic travel and for certain activities.

'For international travel', providers may document in ICVP as noted in the WHO communications, following the model in Annex 6 of IHR, based on verification of the COVID-19 vaccination from one's own country's document, official immunization registries or electronic health records. Additionally, travellers should also carry a copy of all other proof of COVID-19 vaccination, history of COVID-19 infection and SARS-CoV-2 test results. This may facilitate the task of check-in staff at airports and other ports of entry and provide reliable evidence in times when increasingly false documents are in circulation. Currently, the statuses of recovery from COVID-19 and SARS-CoV-2 tests are documented independently, but possibly future guidance can instruct on documenting together with vaccination. Further guidance will be needed if booster doses become recommended.

Given the rapidly changing policies, travellers must themselves up to the day of departure, review the requirements of their origins and destinations for the exact health certification needed. Travel health professionals would be naive to accept such a responsibility. Another complication is the lack of global acceptance/recognition of specific COVID-19 vaccines. For example, the EU generally recognizes only vaccines approved by the EMA (i.e. BioNTech/Pfizer, Moderna, Johnson & Johnson and AstraZeneca), although some countries within the EU may accept some other vaccines. China previously only facilitated entry for

travellers who were vaccinated with Chinese-made vaccines but recently issued recognition of Western-made vaccines as well (https://www.fmprc.gov.cn/ce/ceus/eng/notices/t1870474.htm).

To facilitate safer travel, any digital app must assure data security, be easily accessible and inter-operable with others and be globally accepted. High vaccination rates can allow safer travel worldwide with respect to COVID-19. Last but not least, the threat of COVID-19 and development of new variants will persist in non-immune populations. Several COVID-19 vaccines have demonstrated robust effectiveness, especially in reducing the risk of severe illness and hospitalization and have allowed the reopening of the economy, including the travel sector. We urge universal support for vaccine access and vaccination efforts around the world.

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