CASAG

Delta Variant Knowns, Unknowns and Recommendations

2 December 2021

The CASAG met on during September, October and November to consider if the emergence of the Delta Variant of the COVID-19 Virus would necessitate any modifications to the existing Cross Border Risk Management guidance developed by CAPSCA. In particular, the group focussed on whether any changes might be needed to the multilayered risk management process. During this meeting, the group decided to focus on what is currently known about the Delta variant, as well as to define more clearly what we do not know and where additional investigation would be needed.

What we know:

1. The Delta Variant is much more transmissible than earlier variants [**1**] even for those that are fully vaccinated.
2. The incubation period for the Delta Variant is shorter on average than earlier variants [**2**]. Peak viral loads are higher and tend to be reached more quickly [**3**,**4**]. The result is the viral doubling time is faster and the average time for transmission (i.e., time for one person to transmit to another) is shorter.
3. The emergence of the Delta Variant has not been associated with a decline in the performance of existing tests. Therefore, the use of testing remains effective in mitigating the risk in the air transport environment [**5**].
4. Although there is some waning of overall vaccine effectiveness in preventing cases [**6**,**7**,**8**], vaccination still offers a high degree of protection against hospitalization and death due to the Delta Variant [**9**,**10**].
5. Most States already have widespread circulation of the Delta Variant [**11**]. It is unlikely that undetected translocation of the Delta Variant by travelers would significantly increase the overall risk within a State that already has widespread circulation of the variant.
6. The multilayered risk management process, further developed by CAPSCA [**12**], continues to mitigate the risks of transmission of COVID-19 virus, including the Delta Variant.
7. The non-pharmaceutical interventions such as proper use of face masks, enhanced respiratory and general hygiene, and physical distancing reduce the risk of transmission of all SARS-CoV-2 variants.

What we don't know:

Further investigation is needed to determine how readily breakthrough cases of the Delta Variant can transmit infection. While we are aware that the peak viral load of a breakthrough case is roughly the same as an infected person that was not vaccinated, it appears that this viral load falls much more quickly in previously vaccinated individuals, and we do not know the extent to which the vaccinated individual is infectious, or for how long.

Further investigation is needed concerning optimal booster recommendations.

Conclusions and Recommendations:

The CASAG agreed that the individual recommended measures (i.e., slices of Swiss cheese) should be updated given our growing knowledge of the Delta Variant.

The characteristics of Delta Variant incubation period further support revised ICAO guidance that encourages testing as close as possible to the time of departure. For logistical reasons, high performing rapid antigen tests could be used to achieve this objective [**13**].

Recommendation 1/4:

> That CAPSCA update the Manual to promote the use of risk-based testing as close as possible to departure, and should include information on innovative testing processes.

Recommendation 2/4:

> That CAPSCA update the Manual to distinguish the following preventative objectives:
>
> 1. any infection;
> 2. symptomatic infection;
> 3. hospitalization;
> 4. death; and
> 5. onward transmission.

Recommendation 3/4:

> That further investigation is needed to determine how the Delta Variant transmissibility differs between vaccinated people as compared to the unvaccinated.

Recommendation 4/4:

> That further investigation is needed to determine how vaccination boosters may contribute to the ICAO Cross-border risk mitigation management strategy.

The Group reviewed this document on 23 November 2021. Subsequently, the draft of the above will be presented to CAPSCA. The above recommendations should contribute to developing revised risk management guidance in the near term and mid to long-term focus for the future work of the CASAG.

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