DCVMN COVID-19 Committee
Meeting Minutes
April 14th, 2021

**Attendees**: Adriansjah Azhari (AA), Apoorv Kumar (AP), Dat Do (DD), Linjiang Yang (LY), Linsen Du (LD), Marcos Freire (MF), Raches Ella (RE), Rajinder Suri (RS), Ricardo Palacios (RPG), Sekar Thangaraj (ST), Sunil Gairola (SG), Valeria Brizzio (VB), Sonia Pagliusi (SP), and Sonia Villasenor (SV). **Excused:** Kalpana Sarode (KS), Ladda Suwitruengrit (LS).
TC started at 12.05 CET and finished at 13:19 CET

- AA chaired the meeting and welcomed the participants. AP gave an epidemiological update. Second and third waves in total cases as well as in death rates are observed. North America and Europe remain as with highest disease burden. Asia is coming up, probably because India is going into a second wave. Uruguay is reaching its highest peak. It is remarkable that UK has a good vaccination and now is seeing very low disease and death rates.

- VB gave an update on total vaccines doses administered; a total of 814 million doses have been administered in 512 countries since mid-December 2020. Being USA, China and India at the lead in the number of doses administered. However, in number of doses administered per 100 persons, Israel, UAE and Chile are at the lead with 118.76, 91.38 and 62.96 respectively.
- VB also showed the vaccine tracker, a new sub-unit vaccine has been approved for Emergency Use from Zhifei Longcom in China. VB also showed the tracker of vaccines under clinical trials per platform by DCVMs, the companies that are doing CMO are SII with AZ, Fiocruz with AZ, Butantan with Sinovac and BioFarma with Sinovac. In the next meeting, together with LS they will show more details of the DCVMs partnerships on Covid vaccines.

- SP talked about the WHO variants approaches. The Variants of Concern (VOC) are now the focus of WHO as well as of the manufacturers. Many variants have been detected around the world, but only few show higher infectivity. The VOC include the UK variant (B1.1.7), the South Africa variant (B1.351), the Brazilian variant (P1) and a new one in California; they are all spreading in different countries. The SA variant has not reached Latin America and the Brazilian variant has not reached Africa. The classifications proposed by the CDC are Variant of Interest (VOI), VOC and Variant of High Consequence (which we do not have yet). WHO is focusing on VOI and VOC. WHO is keen to help analyze the data available on the vaccines effectiveness against the variants if they receive the data from the manufacturers. They consider mostly *in vitro* neutralization data and also observation data of post-marketing monitoring. AZ, Moderna and Pfizer have published a number of papers on the impact of their vaccines on the variants, but studies on cross protection are still missing for other vaccines, e.g. Bharat, Gamaleya, J&J, Novavax, Sinoparm and Sinovac . DCVMN could potentially facilitate financially to sponsor any laboratory studies or field monitoring studies that companies are interested in doing through academic collaborations or CRO, if there is interest.
- SP also presented WHO's slides indicating that there are no changes on recommendations for Clinical management, infection prevention control nor other measures. WHO is willing to create a framework of evidence, similar to the PIP (cf. https://www.who.int/influenza/pip/en/), to recommend new antigen needs in COVID vaccine modifications based on data. This would facilitate industry operations as well as liability. WHO asks developers and manufacturers to speed the assessment of existing vaccines against the variants and cooperate with WHO to develop global standards to facilitate the rapid development of new measures against the pandemic. WHO will coordinate the decision making process to trigger the switch of manufacturing of variant vaccines in the future. Some companies have started to develop vaccines against the SA variant which seems to be the most aggressive.
- AA asked if there is any discussion in WHO about multivalent vaccines. SP said there are discussions about it among manufacturers, but not sure in WHO. Maybe it is easier in the mRNA-based vaccines. AA suggested to map out the variants within DCVMN countries.

- MF presented on the P1 variant in Brazil. It appeared in the Amazonic region. It was then detected in Japan due to travelers who were in Brazil. This strain is a VOC. At first the P1 variant was prevalent only in the Amazonic region, in January, but now the P1 and P2 strains are the most prevalent in Brazil, mostly P1 in the North and South of the country. P2 is VOI. The preclinical *in vitro* studies of the protection of the AstraZeneca/Fiocruz vaccine against the P1 variant show that despite the RBD mutations of P1, it is easier to neutralize than the B.1.351. MF

mentioned about a press release of a study together with several organizations that show that the Coronavac is able to neutralize the P1 strain.

- MF mentioned that the Genomica network in Brazil is doing strain surveillance that circulate in Brazil. Several institutes collect the samples and then they are sequenced. MF also mentioned about an article published in Science, "Hard choices emerge as link between AstraZeneca vaccine and rare clotting disorder becomes clearer", although the number of cases is very low, but it is something to worry about. Bio-Manguinhos has now received the definitive Marketing authorization in Brazil. They are starting the formulation of the API in Brazil with the objective of producing around 100.4 million doses by July 2021. Regarding the adverse events, ANVISA requested them to modify the vaccine package insert as to inform the risk of thrombosis and thrombocytopenia.
- MF finally said that using this new technology it is a challenge to consider new strains, and it needs to be discussed with the NRA how will they deal if the seed lot needs to be changed, because until today the seed lot is prepared to be used for long time to reduce the number of passages. This is something very important. SP asked if they have plans to produce a P1 vaccine. MF said that it is something that would have to be discussed with AZ and with ANVISA, mostly if the seed lot has to be changed. SP asked if AZ could prepare a new seed lot for Bio-Manguinhos. MF said that first of all AZ should prepare a new construct for adenovirus expressing some proteins, which could take 2 weeks; but the problem is to produce it in GMP conditions and qualify and certify it; and finally, if new clinical studies will be required or not. Time is concerning. So maybe it is easier to change the mRNA vaccines than the ones based on biotechnology.

- RPG presented on the P1 and the inactivated vaccine Coronavac. The neutralization assays between the B.1.128 (or P2) and the P1 and P2 variants was consistent. The response is a little bit better in P2 than in the parental strain. A couple of field studies show that there was a significant decrease in the number of cases in health care workers after vaccination, and even more after the second dose. Other study shows that the number of cases in persons within the age groups of 80+ have significantly decreased, having been the first groups to have been vaccinated in the country; even more being within the period in which the P1 variant has been predominant in the country.
- SP asked RPG if they are planning to make variant vaccines based on the technology they have. RPG said that with the current information they have about the clinical effectiveness and the neutralization antibodies, it seems that the vaccine is effective against P1 and P2 variants so probably it is not necessary to make a new vaccine for these variants. MF said that it is the same case in which it is not easy to prepare a new seed lot. SP added that maybe it is better if the recommendation to change comes from WHO and not from the manufacturer.

- SV mentioned that the participants of the Covid committee has been changing. Some members who volunteered at the beginning are no longer participating and others who were not in the original list have been regularly participating, so maybe it is better to change the list of the members on our website in accordance to the real participation. LY suggested to resend the invitation to all our Covid vaccine R&D or manufacturer members and call for volunteers for this WG. AA added that this group is very important in linking with several organizations related to Covid, so we need to encourage the members to attend this meeting. SP suggested to invite Biovac for the next meeting to present on the South African variant and the vaccines. We can also have RE. (??)
- RS also commented that although it is a good idea on the South African variant, it is better to focus on what our manufacturers are doing and what their needs are, and up to now we don't have a member working on COVID variants in South Africa.
- SV suggested to have the next meeting on the 4th May. RS suggested to create a doodle to check on the best time and date.

-----End-----

*Notes taken by SV, edited by SP*

Adriansjah Azhari - Chair DCVMN COVID-19 Committee

Nyon, April 15th, 2021