Sinovac Vaccine

Type of vaccine

The Sino-vac CoronaVac (COVID-19 Vaccine, Vero Cell) is an inactivated vaccine. Its easy storage requirements make it very manageable and particularly suitable for low-resource settings. World Health Organization's Strategic Advisory Group of Experts on Immunization (SAGE) has issued recommendation on Sinovac COVID 19 vaccine 01 June 2021.

Composition

The active ingredient is Inactivated SARS-CoV-2 Virus (CZ02 strain); adjuvant is Aluminum hydroxide and excipients are: disodium hydrogen phosphate dodecahydrate, sodium dihydrogen phosphate monohydrate, sodium chloride.

Description

The CoronaVac is a milky-white suspension. Stratified precipitate may form which can be dispersed by shaking.

Intended Use

For susceptible people aged18 years and older.

Administration

The recommended scheduling is two-dose (0.5ml) schedule with a spacing of 28 days, given intramuscularly. If the second dose is administered less than two weeks after the first, the dose does not need to be repeated. If administration of the second dose is delayed beyond four weeks, it should be given at the earliest possible time.

A large phase three trial in Brazil showed that after administration of the two doses at an interval of 14 days, the vaccine prevented symptomatic disease in 51% of those vaccinated and prevented severe COVID-19 and hospitalization in 100% of the studied population.

Booster doses

There is currently no evidence indicating a need for further doses once an individual has received two doses.

Does it work against new variants of SARS-CoV-2 virus?

In an observational study, the estimated effectiveness of Sinovac-CoronaVac in health workers in Manaus, Brazil, where P.1 accounted for 75% of SARS-CoV-2 samples was 49.6% against

symptomatic infection. Effectiveness has also been shown in an observational study in Sao Paulo in the presence of P1 circulation (83% of samples).

Assessments in settings where the P.2 Variant of Concern was widely circulating – also in Brazil - estimated vaccine effectiveness of 49.6% following at least one dose and demonstrated 50.7% two weeks after the second dose. According to the National University of Singapore's Yong Loo School of Medicine the effectiveness of the vaccine in the original type is 50 to 90%.

Vaccination of Specific Population

Research is limited to speak to efficacy in age group older than 69 years, however, World Health Organization (WHO) recommends vaccinating these individuals.

The available data on the use of Sinovac-CoronaVac (COVID-19) vaccine in pregnant women are insufficient to assess its efficacy in pregnancy and whether or not there is a potential risk to the pregnancy. However, this vaccine is an inactivated vaccine with an adjuvant that is commonly used in many other vaccines with a well-documented safety profile and are used in pregnancy such as Hepatitis B and Tetanus vaccine. Further studies are expected to evaluate safety and immunogenicity in pregnant women. The recommendation in pregnancy is limited to use when the benefits of the vaccine is thought to outweigh the potential risks in the pregnancy, highlighting to the patient the lack of safety data information.

It is recommended for persons with comorbidities that are at particular increased risks of severe COVID-19. This includes individuals with obesity, cardiovascular disease and respiratory disease.

WHO recommends the use of the COVID-19 vaccine Sinovac-CoronaVac in lactating women. The vaccine efficacy is expected to be similar in lactating women as in the general population. WHO does not recommend discontinuing breastfeeding after vaccination.

Persons who are immunocompromised or who are HIV positive should receive the vaccine, given that this vaccine is non-replicating. These individuals are of higher risk of severe COVID-19 disease and should be protected.

Persons who have previously had SARS-CoV-2 infection

The vaccine can be given to persons who previously were infected with the COVID-19 virus. Data shows that symptomatic re-infection is unlikely up to 6 months post natural infection. As a result vaccination can be delayed in the later months of this period.

Contraindications

Persons with a history of anaphylaxis to any components of the vaccine, should not receive it.

The vaccine should not be given to persons with an acute PCR-confirmed COVID-19, instead they should wait until fully recovered from the acute illness and the criteria for ending isolation have been met.

Anyone with a temperature greater than 38.5°C should postpone vaccination until fever resolves.