Reports of Suspected Adverse Reaction to COVID-19 Vaccines (01 March to 11 April 2021)

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About the report

- A summary is presented below of all received suspected adverse reaction reports following COVID-19 vaccination from 01 March 2021, the date when the first vaccine became available, up to 11 April 2021.
- Two (2) vaccines under Emergency Use Authorization (EUA) are currently being used in the vaccination program: the SARS-CoV-2 Vaccine (Vero Cell) Inactivated, [CoronaVac] and COVID-19 Vaccine AstraZeneca.
- Data are based on VigiFlow, the national database of adverse reactions in the Philippines. It includes reports from hospitals, various epidemiology surveillance units (ESUs) of the Department of Health (DOH), and patients/consumers.
- Symptoms or diseases that occur after vaccination are reported if there is a *suspicion* of a possible link. However, it cannot be assumed that there is a causal relationship between the suspected adverse reaction and the vaccine.
- This report contains all suspected adverse reactions regardless of any possible causal relationship.
- Additional information may become available in individual case reports at any time which may change the assessment and figures presented.
- Adverse reaction reports are necessary for the safety assessment of the vaccines, making sure that the benefits always outweigh the risks.
- Reports are constantly reviewed and monitored for the possible emergence/identification of unknown adverse reactions also known as signal. If a signal is identified, investigations, regulatory actions, and timely communication is performed by the FDA.
- A weekly report is published to summarize reported adverse reactions to the COVID-19 vaccines.

Summary

This report is based on an assessment of adverse reaction reports received by 11 April 2021. As per benefit-risk assessment, these reports do not provide a basis for revising the current recommendations regarding use of the COVID-19 vaccines.

The reports received have no new indications of unexpected adverse reactions. The reported reactions are generally in line with what is described in the product information and labels. Most of the reports are minor adverse reactions which include body pain, chills, fatigue, fever, headache, nausea, and pain in the injection sites. These usually appear on the first or second day of vaccination and may last for 2-3 days. Most people tolerate these adverse reactions while others experience greater discomfort.

On 07 April 2021, the FDA posed no objection to the use of CoronaVac for elderly population aged more than 60 years old by the DOH. The decision is based on the recommendation of independent expert panel considering the increasing need to protect the elderly population despite the limited availability of vaccines. The FDA emphasized that vaccination should be preceded by an evaluation of the person's health status and exposure risk to assure that benefits of vaccination outweigh risks.

Vaccination with COVID-19 vaccine AstraZeneca has been temporarily suspended for persons below 60 beginning 08 April 2021 as a precautionary measure to very rare cases of unusual blood clots with low blood platelets while awaiting recommendation from local experts and the World Health Organization (WHO).

COVID-19 vaccines with Emergency Use Authorization in the Philippines

At present, there are four (4) COVID-19 vaccines granted emergency use authorization:

- Pfizer-BioNTech COVID-19 Vaccine (BNT162b2)
- ChAdOx1-S [recombinant] (COVID-19 Vaccine AstraZeneca)
- SARS-CoV-2 Vaccine (Vero Cell), Inactivated (CoronaVac)
- Gam-COVID-Vac (Sputnik V)

Pfizer-BioNTech COVID-19 vaccine is a mRNA vaccine, COVID-19 Vaccine AstraZeneca and Sputnik V are non-replicating viral vectors, and CoronaVac is an inactivated vaccine. All are administered in two doses within an interval of a few weeks.

Statistics regarding reports of suspected adverse reactions

As of 11 April 2021, more than one (1) million individuals were vaccinated with their first dose of CoronaVac and COVID-19 vaccine AstraZeneca. A total of 140,043 have received their second dose of CoronaVac. An aggregate of 24,867 suspected adverse reaction reports were received, evaluated, and analyzed by the FDA.

Demographics

To provide a descriptive overview of the population reporting adverse reactions from COVID-19 vaccines.

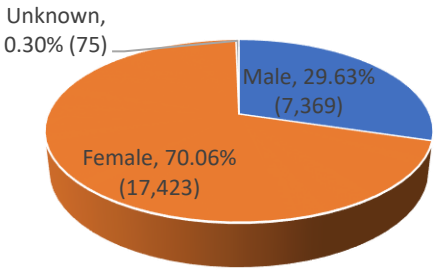

Figure 1. Report distribution by gender

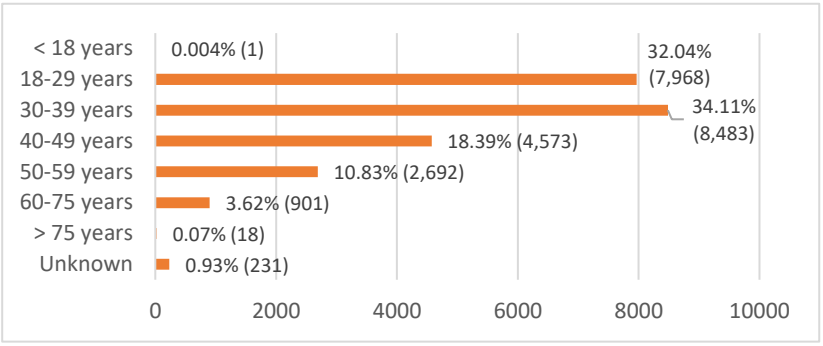

Figure 2. Report distribution by age

The early phase of the vaccination program is intended for the frontline health workers, thus, the high number in the female and younger population might be associated with the data that our health system is dominated by female (75%) and young adults under the age of 35 (65%).[1]

[1] *Human Resource for Health in the Time of the COVID-19 Pandemic: Does the Philippines Have Enough?* https://www.drdf.org.ph/sites/default/files/pdf/COVID-19-Research-Brief-08.pdf

Distribution of reports of adverse reactions for each vaccine

Data shown below are cumulative reports from the start of the vaccination program on 01 March 2021 up until 11 April 2021.

Table 1. Distribution of reports of adverse reactions for each vaccine

Vaccine	Date started	Number vaccinated with first dose[b]	Number vaccinated with second dose[b]	Total number of reports[a]	Reports of non-serious events	Reports of serious events
CoronaVac	01 Mar 2021	515,359	140,043	7,140	6,979	161
AstraZeneca	07 Mar 2021	511,199	0	17,727	17,524	203
TOTAL	**-**	**1,026,558**	**140,043**	**24,867**	**24,503**	**364**

Data source: [a]VigiFlow, [b]NVOC daily report as 6PM, 11 April 2021
Notes: Additional information may become available in individual cases which may change the figures presented
[c]Data concerning various vaccines are not directly comparable. COVID-19 vaccines profile varies, they have not been used for equal periods of time and they have been administered to number of people with different profiles including various age and sex.

Reports of suspected serious adverse reaction

Adverse reactions experienced after vaccination are considered serious when it resulted to any of the following criteria:

- In-patient hospitalization/prolongation of existing hospitalization
- Significant disability/incapacity
- Life-threatening (e.g. anaphylaxis) and death
- Birth defect or congenital malformations
- Considered to be medically important event

Hypersensitivity including severe allergic reactions
Severe allergic reactions have been reported on the use of COVID-19 vaccines including CoronaVac and AstraZeneca. It is very rare (0.009% for CoronaVac and 0.0006% for AstraZeneca from local data) and occurs only in a few vaccinated individuals. It typically occurs in people with a history of severe vaccine reactions. Severe allergic reactions generally occur soon after vaccination and is usually managed with Epinephrine in combination with other medicines. Thus, vaccinees are observed for at least 15 minutes after receiving the vaccine. Epinephrine is readily available in all vaccination sites.

Hypersensitivity including severe allergic reactions to COVID-19 vaccine AstraZeneca have been identified to be biologically possible. AstraZeneca revised the labeling of their product to reflect the changes that the second dose of the vaccine should not be given to those who have experienced a severe hypersensitivity reaction to the first dose of COVID-19 vaccine AstraZeneca.

Increased blood pressure
Part of the screening processes for COVID-19 vaccination program in the Philippines is monitoring the blood pressure (BP) of vaccine recipients. Blood pressure increase has been reported as the top adverse reaction to inactivated vaccine. It is also included as one of the top ten reported reactions to viral vector vaccine.

According to Sison, Divinagracia & Nailes (2019), the latest data on prevalence of hypertension were 28%; 9% of which are unaware that they have hypertension. The BP control rate of 20% may be attributed to the increasing reports of blood pressure increased. Anxiety during vaccination may also cause elevation in blood pressure levels.[2] This shall be continuously monitored if there is a direct causal link with the use of the vaccine.

[2] *Immunization stress-related response (ISRR) - A synopsis*
https://www.who.int/immunization/sage/meetings/2019/april/2_A_synopsis_of_ISRR_Draft_SAGE.PDF?ua=1

Thromboembolic events (clotting risk)
The European Medicines Agency's (EMA) safety committee had concluded that unusual blood clots with low platelets should be listed as a very rare side effect of COVID-19 vaccine AstraZeneca. AstraZeneca shall revise their label to reflect the information on thrombocytopenia and coagulation disorders.

Most of the events occurred within the first 14 days following vaccination. Some of the events had fatal outcome. Persons who have been vaccinated with COVID-19 vaccine AstraZeneca should watch out for the said adverse event and seek immediate medical assistance if they experience any signs of blood clots and low blood platelet such as:

- shortness of breath
- chest pain
- leg swelling
- persistent abdominal (belly) pain
- neurological symptoms, such as severe and persistent headaches or blurred vision
- tiny blood spots under the skin beyond the site of the injection

As a precautionary measure, the FDA recommended to the vaccination program to temporarily suspend the use of COVID-19 vaccine AstraZeneca in individuals less than 60 year of age while the review by experts is ongoing. Since this is a very rare event, the benefits of the vaccine in combating the still widespread threat of COVID-19 continue to outweigh the risks.

Source: AstraZeneca's COVID-19 vaccine: EMA finds possible link to very rare cases of unusual blood clots with low blood platelets

Reports involving death

As of 11 April 2021, several reports of fatal events were received. Most of these events occurred in people with multiple existing comorbidities. Notable causes of deaths are cardiovascular disease which belongs to the three leading causes of death in the Philippines (PSA 2020). An independent committee already assessed some of these events as not related to the vaccine or coincidental events. Other cases are under investigation and continuously being reviewed.

To date, there were no reports of fatal events directly associated with the use of the vaccines currently in use.

Confirmed COVID-19 infections

Reports included 31 confirmed COVID-19 infections. Most of the reported infections were asymptomatic cases. There were two (2) severe cases with a fatal outcome which, upon assessment, are not related to the use of the vaccine. These cases are attributable to the rising number of COVID-19 infections as of this writing.

The vaccines currently being used in the COVID-19 vaccination program are non-replicating viral vector and inactivated vaccines. It does not contain any live virus and does not cause COVID-19 infection in vaccine recipients.

Number of suspected adverse reactions per category

A total of 24,867 case reports containing 59,088 suspected adverse reactions were received from the start of the vaccination program. Multiple suspected adverse reactions may be reported in a single case. Suspected adverse reactions were coded using the Medical Dictionary for Regulatory Activities (MedDRA) terminology to allow international comparison of reports.

The data presented below are categorized by System Organ Class (SOC), the highest in the hierarchy of MedDRA. They are grouped by manifestation site (e.g. gastrointestinal, cardiac) and etiology (e.g. infections, examinations).

Reactions to inactivated vaccine

- CoronaVac

Classification	Number of suspected reactions
General symptoms & reactions in the administration site *E.g. Pain and reaction in the injection site, chills, discomfort*	2,982
Cardiac symptoms *E.g. Palpitations, bradycardia*	286
Ear symptoms *E.g. Ear swelling, vertigo*	8
Examinations *E.g. Increased blood pressure, increased heart rate*	1,586
Eye symptoms *E.g. Eye itchiness, blurred vision*	73
Gastrointestinal symptoms *E.g. Abdominal pain, diarrhea, nausea, vomiting*	806
Hepatobiliary symptoms *E.g. Jaundice*	1
Immune system symptoms *E.g. Allergic reactions*	87
Infections *E.g. Cold symptoms*	259
Metabolism and nutrition-related symptoms *E.g. Decreased appetite*	35
Musculoskeletal symptoms *E.g. Back pain, joint pain, pain in extremities*	523
Neurological symptoms *E.g. Dizziness, headache, syncope*	2,396
Procedural symptoms *E.g. Procedural hypertension, vaccination adverse reaction*	130
Psychiatric symptoms *E.g. Feeling anxious*	19
Renal and urinary symptoms *E.g. Urine coloring yellow, urine frequency*	3
Reproductive symptoms *E.g. Vaginal bleeding, vaginal spotting*	3

Respiratory symptoms *E.g. Cough, nasal congestion, throat irritation*	770
Skin symptoms *E.g. Cold sweat, rash, redness*	1,394
Symptoms in blood and lymphatic system *E.g. Pain in the lymph nodes*	17
Vascular symptoms *E.g. Flushes, low blood pressure*	470

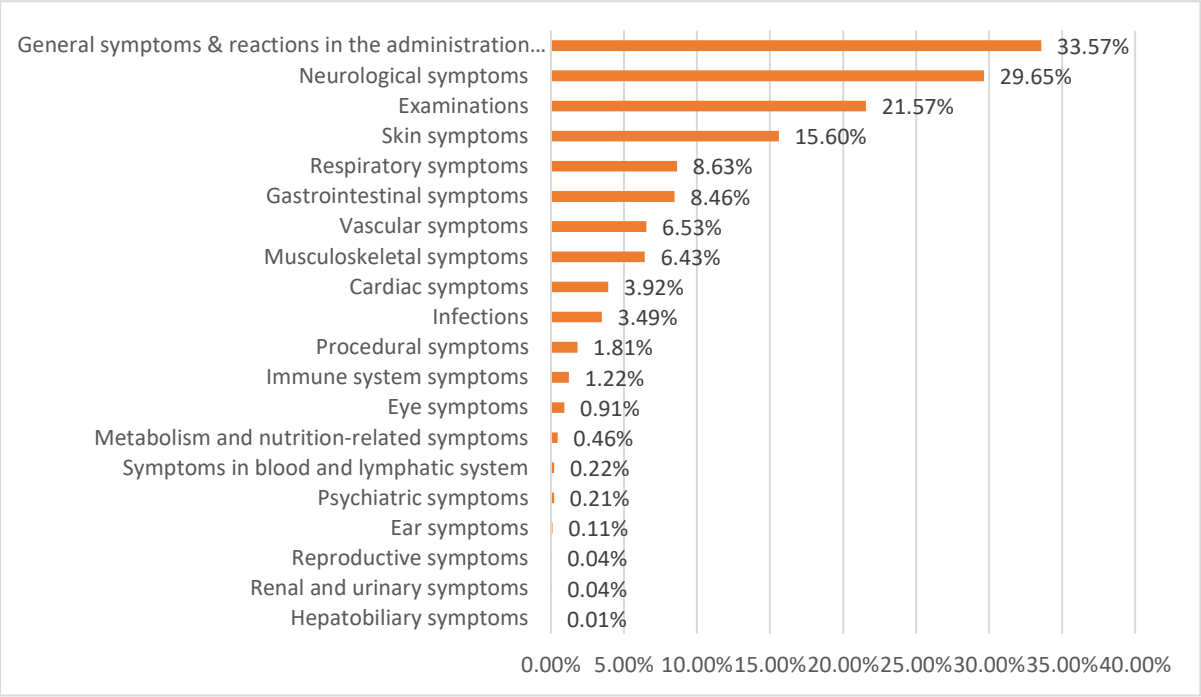

Figure 3. Suspected adverse reaction distribution by SOC for inactivated vaccine

As shown in Figure 3, the SOC containing the greatest number of events were General symptoms and reactions in the administration site (2,982), followed by neurological symptoms (2,396), examinations (1,586), skin symptoms (1,394), gastrointestinal symptoms (806), respiratory symptoms (770), musculoskeletal symptoms (523), vascular symptoms (470), cardiac symptoms (286) and infections (259). The top reported events are blood pressure increased (21.23%), headache (17.65%), vaccination/injection site pain (16.39%), dizziness (10.22%), rash (9.57%), pyrexia (7.34%), pruritus (6.01%), nausea (4.61%), malaise (4.29%), and fatigue (4.03%).

Reactions to non-replicating viral vector vaccine

- COVID-19 vaccine AstraZeneca

Classification	**Number of suspected reactions**
General symptoms & reactions in the administration site *E.g. Pain and reaction in the injection site, chills, discomfort*	23,458
Cardiac symptoms *E.g. Palpitations, bradycardia*	290
Ear symptoms *E.g. Ear swelling, vertigo*	20

Examinations *E.g. Increased blood pressure, increased heart rate*	1,399
Eye symptoms *E.g. Eye itchiness, blurred vision*	190
Gastrointestinal symptoms *E.g. Abdominal pain, diarrhea, nausea, vomiting*	2,347
Immune system symptoms *E.g. Allergic reactions*	162
Infections *E.g. Cold symptoms*	503
Metabolism and nutrition-related symptoms *E.g. Decreased appetite*	315
Musculoskeletal symptoms *E.g. Back pain, joint pain, pain in extremities*	5,372
Neurological symptoms *E.g. Dizziness, headache, syncope*	8,627
Procedural symptoms *E.g. Procedural hypertension, vaccination adverse reaction*	1,605
Psychiatric symptoms *E.g. Feeling anxious*	24
Renal and urinary symptoms *E.g. Urine coloring yellow, urine frequency*	5
Reproductive symptoms *E.g. Vaginal bleeding, vaginal spotting*	9
Respiratory symptoms *E.g. Cough, nasal congestion, throat irritation*	978
Skin symptoms *E.g. Cold sweat, rash, redness*	1,491
Symptoms in blood and lymphatic system *E.g. Pain in the lymph nodes*	24
Vascular symptoms *E.g. Flushes, low blood pressure*	421

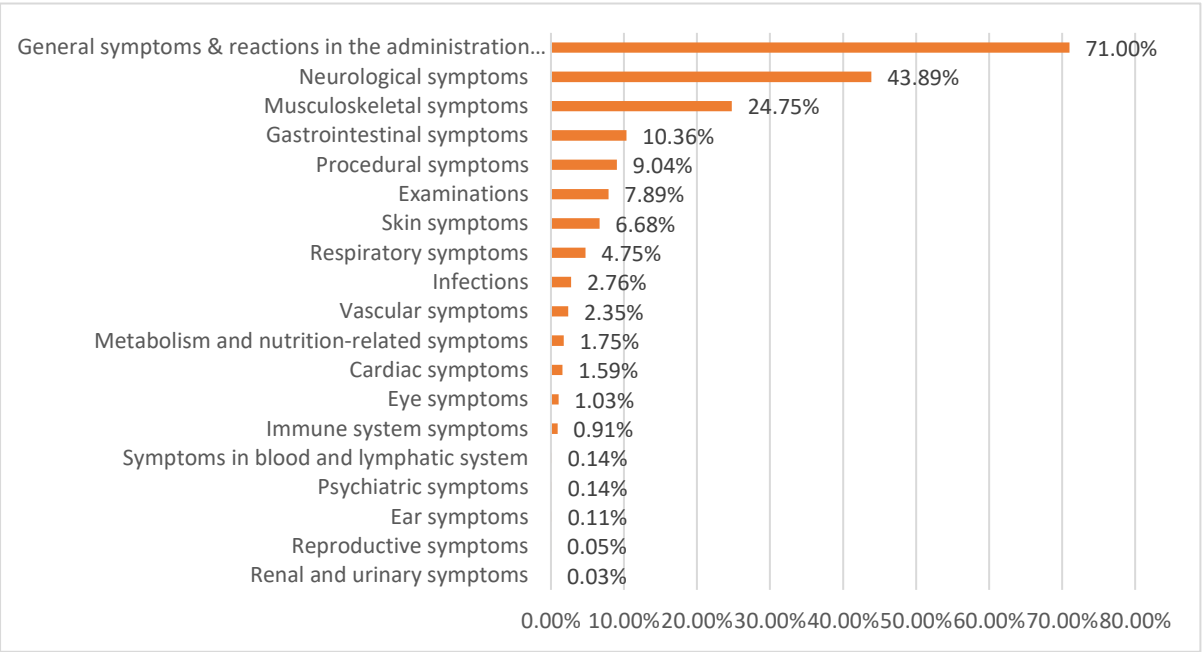

Figure 4. Suspected adverse reaction distribution by SOC for viral vector vaccine

As shown in Figure 4, the SOC containing the greatest number of events were General symptoms and reactions in the administration site (23,458), followed by neurological symptoms (8,627), musculoskeletal symptoms (5,372), gastrointestinal symptoms (2,347), procedural symptoms (1,605), skin symptoms (1,491), examinations (1,399) and respiratory symptoms (978). The top reported events are pyrexia (46.26%), headache (38.24%), vaccination/injection site pain (24.23%), chills (19.22%), myalgia (19%), malaise (15.46%), fatigue (14.24%), arthralgia (9.18%), vaccination complication (9.02%), and blood pressure increased (7.64%).

Reporting of suspected adverse reactions following vaccination

Individuals who received their COVID-19 vaccination shots can report any suspected adverse reaction to any of the following:

- Immunization site where you were vaccinated
- Directly to the vaccine emergency use authorization holder
- FDA online reporting system

Kindly **report only to one** of the above to avoid duplication of reports.