The safety of COVID-19 Vaccine Janssen is continuously monitored and safety updates are regularly provided to the public. This document outlines the outcomes from the assessment of emerging worldwide safety data carried out by EMA’s Pharmacovigilance Risk Assessment Committee (PRAC) (see section 1). It also contains high-level information from the reporting of suspected adverse reactions, which PRAC takes into account in its assessments (see section 2).

This safety update follows the update of 11 November 2021.

**Main outcomes from PRAC's latest safety assessment**

Cutaneous small vessel vasculitis (inflammation of blood vessels in the skin) was recommended by PRAC to be added as a side effect to the product information of COVID-19 Vaccine Janssen.

Since its marketing authorisation in the European Union (EU) on 11 March 2021 until 01 December 2021, almost 18.1 million doses of COVID-19 Vaccine Janssen have been administered in the EU/EEA1.

1. Updates on safety assessments for COVID-19 Vaccine Janssen

During its meeting held 29 November to 02 December 2021, PRAC assessed new safety data for COVID-19 Vaccine Janssen (see section 2 'How safety is monitored').

Cutaneous small vessel vasculitis

*Update to the COVID-19 Vaccine Janssen product information*

PRAC has recommended that cutaneous small vessel vasculitis (inflammation of blood vessels in the skin which may result in a rash, pointed or flat, red spots under the skin’s surface or bruising) should be added to the product information as a possible side effect of COVID-19 Vaccine Janssen.

Cutaneous small vessel vasculitis can be caused by infections as well as medicines and vaccines. In most cases, symptoms resolve with appropriate supportive care.

The conclusion was based on a total of 37 cases reported globally through end of October 2021. In total, 8 cases were assessed by PRAC as being probably related to the vaccine (i.e., close time to onset in relation to vaccination and no alternative explanation), including 6 biopsy-verified cases. A further 10 cases were considered to be possibly related to the vaccine (i.e., close time to onset in relation to vaccination but other causes may also have been responsible). Around 36 million doses of the vaccine were estimated to have been administered globally by the end of October 2021.

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1 The European Centre for Disease Prevention and Control (ECDC) collects these exposure data from EU Member States as well as from the additional countries of the European Economic Area (EEA) Norway, Iceland and Liechtenstein.
The side effect frequency category for small cutaneous small vessel vasculitis will be 'unknown frequency' because it is generally difficult to robustly estimate side effect frequencies from spontaneous data.

EMA confirms that the benefits of COVID-19 Vaccine Janssen continue to outweigh its risks, given the risk of COVID-19 illness and related complications, including hospitalisation and death.

2. How safety is monitored

As for all COVID-19 vaccines, relevant new information emerging on COVID-19 Vaccine Janssen is collected and promptly reviewed. This is in line with the pharmacovigilance plan for COVID-19 vaccines of the EU regulatory network (comprising the regulatory bodies of the EU Member States, EMA and the European Commission).

Summary safety reports

The pharmacovigilance plan for COVID-19 vaccines includes Monthly Summary Safety Reports (MSSRs) which are compiled by the marketing authorisation holders to support timely and continuous benefit-risk evaluations for COVID-19 vaccines used during the pandemic. MSSRs are intended to be compiled for at least the first six months of marketing (afterwards, pandemic summary safety reports may cover time periods longer than a month). These reports complement the submission of Periodic Safety Update Reports (PSURs).

Case reports of suspected side effects

Collecting reports of medical events and problems that occur following the use of a medicine, and therefore might be side effects, is one of the pillars of the EU safety monitoring system. Healthcare professionals and vaccinated individuals are encouraged to report to their national competent authorities all suspected side effects individuals may have experienced after receiving a vaccine even if it is unclear whether the vaccine was the cause. For more information on how to report, including the importance of detailing the vaccine product name and the batch, see Reporting suspected side effects.

These spontaneous reports are collected in EudraVigilance, the EU database used for monitoring and analysing suspected side effects. Publicly available information can be accessed via EudraVigilance – European database of suspected drug reaction reports in all EU/EEA languages. Search for "COVID-19 VACCINE JANSSEN (AD26.COV2.S)" to see all suspected side effect cases reported for COVID-19 Vaccine Janssen.
As of 01 December 2021, a total of 31,782 cases of suspected side effects with COVID-19 Vaccine Janssen were spontaneously reported to EudraVigilance from EU/EEA countries; 223 of these reported a fatal outcome\textsuperscript{2,3}. By the same date, almost 18.1 million doses of COVID-19 Vaccine Janssen had been administered to people in the EU/EEA\textsuperscript{4}.

**These reports describe suspected side effects in individuals, i.e. medical events observed following the use of a vaccine. The fact that someone has had a medical issue or died after vaccination does not necessarily mean that this was caused by the vaccine. This may have been caused, for example, by health problems not related to the vaccination.**

The EU regulatory network continuously monitors EudraVigilance to detect any new safety issues. EudraVigilance relies on individual healthcare professionals and patients to report their own experience. The monitoring detects unusual or unexpected patterns in the reports received for further investigation and risk assessment. EMA’s detailed assessments take into account all available data from all sources to draw a robust conclusion on the safety of the vaccine. These data include clinical trial results, reports of suspected side effects in EudraVigilance, epidemiological studies monitoring the safety of the vaccine, toxicological investigations and any other relevant information.

**Planned and ongoing studies**

The company that markets COVID-19 Vaccine Janssen will continue to provide results from ongoing clinical trials. It will also conduct additional studies to monitor the safety and effectiveness of the vaccine as it is used in vaccination campaigns and other clinical practice. For the list of planned and ongoing safety studies for COVID-19 Vaccine Janssen, see the [risk management plan](www.ema.europa.eu).

A [paediatric investigation plan](www.ema.europa.eu) (PIP) for COVID-19 Vaccine Janssen is in place. This describes how the company will collect data on the vaccine’s efficacy and safety for its potential use in children.

In addition, EMA is coordinating [observational studies](www.ema.europa.eu) in EU Member States looking at real-world data from clinical practice to monitor the

\textsuperscript{2} These figures have been calculated excluding cases reported from Northern Ireland (EU reporting requirements for suspected adverse reactions to EudraVigilance apply to Northern Ireland in accordance with the Protocol on Ireland/Northern Ireland).

\textsuperscript{3} Source: EudraVigilance. These figures cannot be extracted directly from the public database of suspected adverse reactions, which groups information per type of side effect. As more than one suspected side effect may have been included in a single case report, the total number of side effects will never match the number of individual cases. Similarly, this public database does not provide the total number of cases reported with a fatal outcome.

\textsuperscript{4} The [European Centre for Disease Prevention and Control (ECDC)](www.ema.europa.eu) collects these exposure data from EU Member States as well as from the additional countries of the European Economic Area (EEA) Norway, Iceland and Liechtenstein.
3. **Other information for COVID-19 Vaccine Janssen**

COVID-19 Vaccine Janssen is a vaccine that was authorised in the EU on 11 March 2021 for use in people aged 18 years and older to prevent COVID-19 when infected with the coronavirus SARS-CoV-2. COVID-19 is a potentially severe disease that may result in death.

COVID-19 Vaccine Janssen contains an adenovirus that has been modified to carry molecules of DNA, which the body uses to temporarily produce the SARS-CoV-2 spike protein. The spike protein does not cause COVID-19. The adenovirus cannot reproduce and does not cause viral disease.

Before COVID-19 Vaccine Janssen was granted an EU marketing authorisation, the efficacy and safety of the vaccine were assessed through pre-clinical studies and large clinical trials. More than 27,000 participants had been given the vaccine in clinical trials.

Like all medicines, this vaccine can cause side effects, although not everybody will experience them. The most common side effects known for COVID-19 Vaccine Janssen are usually mild or moderate and get better within a few days after vaccination.

More information on how COVID-19 Vaccine Janssen works and its use is available in all EU/EEA languages in the medicine overview. This includes information on use in pregnant and breastfeeding women and immunocompromised individuals.

The full product information with the summary of product characteristics and the package leaflet is also available in all EU/EEA languages.