

#### Memorandum

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To: The File

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**Applicant:** Janssen Biotech, Inc.

**Application Number: EUA 27205** 

**Product:** Janssen COVID-19 Vaccine

**Subject:** CBER recommendation to revise the Emergency Use Authorization for the

Janssen COVID-19 Vaccine to limit the authorized use to individuals 18 years of age and older for whom other FDA-authorized or approved COVID-19 vaccines are not accessible or clinically appropriate, and individuals 18 years of age and older who elect to receive the Janssen COVID-19 Vaccine because they would otherwise not receive a COVID-19

vaccine

This memorandum documents CBER's determination that the Emergency Use Authorization (EUA) for the Janssen COVID-19 Vaccine should be revised to limit the authorized use to individuals 18 years of age and older for whom other FDA-authorized or approved COVID-19 vaccines are not accessible or clinically appropriate, and individuals 18 years of age and older who elect to receive the Janssen COVID-19 Vaccine because they would otherwise not receive a COVID-19 vaccine. This determination is based on the risk of thrombosis with thrombocytopenia syndrome (TTS), a potentially fatal adverse reaction that has been causally linked to administration of the Janssen COVID-19 Vaccine, and also takes into consideration the current availability of other FDA-authorized and approved mRNA COVID-19 vaccines, which provide protection against COVID-19 and have not been shown to present a risk for TTS.

# **Executive Summary**

On February 27, 2021, FDA issued an EUA for the Janssen COVID-19 Vaccine for active immunization to prevent coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in individuals 18 years of age and older. The Janssen COVID-19 Vaccine consists of a replication-incompetent recombinant adenovirus type 26 (Ad26) vector expressing the SARS-CoV-2 spike (S) protein. During post-authorization use of the Janssen COVID-19 Vaccine in the United States (U.S.), TTS has been identified as an adverse reaction causally linked to vaccination. TTS is a serious condition characterized by new onset thrombocytopenia and acute venous or arterial thrombosis, including at unusual sites such as the cerebral venous sinus, with onset of symptoms approximately one to two weeks following receipt of the vaccine. The clinical course of TTS shares features with autoimmune heparin-induced thrombocytopenia. Cases of TTS following administration of the Janssen COVID-19



Vaccine have been reported in males and females, in a wide age range of individuals 18 years and older, with the highest reporting rate (approximately 8 cases per million doses administered) in females ages 30 through 49 years; overall, approximately 15% of reported TTS cases have been fatal. Specific risk factors for TTS following administration of the Janssen COVID-19 Vaccine are not known. TTS has also been causally linked to the AstraZeneca COVID-19 Vaccine (not authorized or approved in the U.S.), an adenoviral vectored vaccine that uses a chimpanzee adenovirus vector (ChAdOx1) to express the SARS-CoV-2 spike (S) protein.

The initial recognition of TTS led FDA and the Centers for Disease Control and Prevention (CDC) to recommend a temporary pause in the use of the Janssen COVID-19 Vaccine from April 13 through April 22, 2021, while the agencies thoroughly investigated the initially reported cases. CDC issued a health advisory announcement and FDA authorized revisions to the Janssen COVID-19 Vaccine Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers) to include a Warning about TTS. Since then, FDA and CDC have continued to carefully monitor the safety of the Janssen COVID-19 Vaccine, including by conducting a thorough assessment of all reported suspected cases of TTS.

In December 2021, CDC completed an updated analysis of TTS cases reported to the Vaccine Adverse Event Reporting System (VAERS) among individuals who received the Janssen COVID-19 Vaccine through August 31, 2021. This analysis identified 54 confirmed cases of TTS, including 8 deaths, for overall reporting rates of 3.83 cases of TTS and 0.57 TTS deaths per million administered doses of the Janssen COVID-19 Vaccine. These reporting rates for TTS and TTS deaths were higher than previously recognized. Based on the updated analysis, on December 14, 2021, FDA authorized revisions to the Janssen COVID-19 Vaccine Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers) to include updated information on the epidemiology of cases and to convey that currently available evidence supports a causal relationship between TTS and the Janssen COVID-19 Vaccine. On December 16, 2021, CDC recommended preferential use of approved or authorized mRNA COVID-19 vaccines over the Janssen COVID-19 Vaccine.

CBER has conducted an updated analysis of TTS cases following administration of the Janssen COVID-19 Vaccine that were reported to VAERS through March 18, 2022. Compared to the December 2021 analysis, this analysis found additional cases of TTS including another fatality for a total of 60 confirmed cases and nine fatalities. This updated analysis found reporting rates of 3.23 cases of TTS and 0.48 TTS deaths per million administered doses of the Janssen COVID-19 Vaccine. Based on this analysis, the reporting rate of TTS and TTS deaths following administration of the Janssen COVID-19 Vaccine are not appreciably lower than those based on CDC's December 2021 analysis.

Taking into consideration the most recent analysis of TTS cases, which confirms results from previous analyses, the seriousness of TTS with an often-rapid clinical progression despite prompt recognition and appropriate best available treatment, the potential for long-term and debilitating sequelae, a high case fatality rate for TTS, and the strength of evidence for a causal relationship to the Janssen COVID-19 Vaccine, CBER has determined that a revision to the EUA to limit use of the vaccine is warranted. Specifically, CBER has determined that the vaccine should only be authorized for: (1) individuals 18 years of age and older for whom other FDA-authorized or approved COVID-19 vaccines are not



accessible or clinically appropriate; and (2) individuals 18 years of age and older who elect to receive the Janssen COVID-19 Vaccine because they would otherwise not receive a COVID-19 vaccine. The risk for TTS materially affects the risk/benefit assessment upon which the EUA was based, such that FDA has now concluded that the known and potential risks of the Janssen COVID-19 Vaccine outweigh the known and potential benefits for individuals who are not covered in the revised authorization. CBER's determination also takes into consideration the current availability of other authorized and approved mRNA COVID-19 vaccines, which provide protection from COVID-19 and have not been shown to present a risk for TTS. In addition, CBER concludes that the available data show that, at this time, for individuals 18 years of age and older for whom other FDA-authorized or approved COVID-19 vaccines are not accessible or clinically appropriate, and for individuals 18 years of age and older who elect to receive the Janssen COVID-19 Vaccine because they would otherwise not receive a COVID-19 vaccine, the known and potential benefits of the Janssen COVID-19 Vaccine when used to prevent COVID-19 outweigh the known and potential risks. In these individuals, as compared to not receiving a COVID-19 vaccine, the known and potential benefits of the Janssen COVID-19 Vaccine outweigh its known and potential risks.

# **Background and Regulatory History**

### Authorized Use of the Janssen COVID-19 Vaccine

The Janssen COVID-19 Vaccine consists of an Ad26 vector expressing the SARS-CoV-2 spike (S) protein. On February 27, 2021, FDA issued an EUA for the Janssen COVID-19 Vaccine for active immunization to prevent COVID-19 caused by SARS-CoV-2 in individuals 18 years of age and older. The Janssen COVID-19 Vaccine was initially authorized for use as a single dose. On October 20, 2021, the EUA was subsequently amended to include administration of a single booster dose, either following primary vaccination with a single dose of the Janssen COVID-19 Vaccine or as a heterologous booster dose following completion of primary vaccination with another authorized or approved COVID-19 vaccine.

# Vaccine Effectiveness

The effectiveness data to support the February 2021 EUA included vaccine efficacy analyses among 39,321 participants in the ongoing randomized, placebo-controlled study being conducted in South Africa, certain countries in South America, Mexico, and the U.S. who did not have evidence of SARS-CoV-2 infection prior to receiving the vaccine. Among these participants, 19,630 received the vaccine and 19,691 received placebo. Overall, among these clinical trial participants, primary vaccination with a single dose of the vaccine was approximately 67% effective in preventing moderate to severe/critical COVID-19 occurring at least 14 days after vaccination and 66% effective in preventing moderate to severe/critical COVID-19 at least 28 days after vaccination. Additionally, the vaccine was approximately 77% effective in preventing severe/critical COVID-19 occurring at least 14 days after vaccination and 85% effective in preventing severe/critical COVID-19 occurring at least 28 days after vaccination. These data are included in the Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Provider).



Following authorization of the Janssen COVID-19 Vaccine, published observational studies conducted in the U.S. during a period in which the Alpha and/or Delta variants were predominant reported findings consistent with the pre-authorization clinical trial-reported vaccine efficacy. 1,2,3 Additionally, the results of a test-negative case control study conducted in the U.S. among adults 20 years of age and older, suggest durable protection afforded by the Janssen COVID-19 Vaccine over the study period (from day 14 to 66 after vaccination in the pre-Delta period and from day 14 to 224 after vaccination in the Delta period). Using a test-negative design, a study from CDC's VISION Network evaluated the effectiveness of the Janssen COVID-19 Vaccine during the Omicron variant predominance. Vaccine effectiveness against COVID-19-associated emergency department/urgent care visits was 24% after primary vaccination with the Janssen COVID-19 Vaccine and 54% after a homologous booster dose with the Janssen COVID-19 Vaccine. Vaccine effectiveness against COVID-19-associated hospitalization was 31% after primary vaccination with the Janssen COVID-19 Vaccine and 67% after a homologous booster dose with the Janssen COVID-19 Vaccine.

# Vaccine Safety

The available safety data to support the initial EUA included an analysis of 43,783 participants 18 years of age and older enrolled in the above-mentioned clinical trial. At the time of issuance of the EUA, these participants, 21,895 of whom received one dose of Janssen COVID-19 Vaccine and 21,888 of whom received saline placebo, were followed for a median duration of eight weeks after vaccination. Among a safety subset of 3,356 participants who received Janssen COVID-19 Vaccine, the most common local solicited adverse reaction reported in the 7 days following vaccination was injection site pain (48.6%). The most common systemic adverse reactions reported in the 7 days following vaccination were headache

<sup>&</sup>lt;sup>1</sup> Corchado-Garcia J, Zemmour D, Hughes T, et al. Analysis of the Effectiveness of the Ad26.COV2.S Adenoviral Vector Vaccine for Preventing COVID-19. JAMA Netw Open. 2021;4(11):e2132540. doi:10.1001/jamanetworkopen.2021.32540

<sup>&</sup>lt;sup>2</sup> Moline HL, Whitaker M, Deng L, et al. Effectiveness of COVID-19 Vaccines in Preventing Hospitalization Among Adults Aged ≥65 Years — COVID-NET, 13 States, February–April 2021. MMWR Morb Mortal Wkly Rep 2021;70:1088-1093. DOI: <a href="http://dx.doi.org/10.15585/mmwr.mm7032e3">http://dx.doi.org/10.15585/mmwr.mm7032e3</a>

<sup>&</sup>lt;sup>3</sup> Grannis SJ, Rowley EA, Ong TC, et al. Interim Estimates of COVID-19 Vaccine Effectiveness Against COVID-19—Associated Emergency Department or Urgent Care Clinic Encounters and Hospitalizations Among Adults During SARS-CoV-2 B.1.617.2 (Delta) Variant Predominance — Nine States, June—August 2021. MMWR Morb Mortal Wkly Rep 2021;70:1291–1293. DOI: http://dx.doi.org/10.15585/mmwr.mm7037e2external icon

<sup>&</sup>lt;sup>4</sup> Britton A, Fleming-Dutra KE, Shang N, et al. Association of COVID-19 Vaccination With Symptomatic SARS-CoV-2 Infection by Time Since Vaccination and Delta Variant Predominance. JAMA. 2022;327(11):1032–1041. doi:10.1001/jama.2022.2068

<sup>&</sup>lt;sup>5</sup> Natarajan K, Prasad N, Dascomb K, et al. Effectiveness of Homologous and Heterologous COVID-19 Booster Doses Following 1 Ad.26.COV2.S (Janssen [Johnson & Johnson]) Vaccine Dose Against COVID-19–Associated Emergency Department and Urgent Care Encounters and Hospitalizations Among Adults — VISION Network, 10 States, December 2021–March 2022. MMWR Morb Mortal Wkly Rep 2022;71:495–502. DOI: http://dx.doi.org/10.15585/mmwr.mm7113e2external icon



(38.9%), fatigue (38.2%), myalgia (33.2%), and nausea (14.2%). Unsolicited adverse events considered likely related to Janssen COVID-19 Vaccine included urticaria (all non-serious) in five individuals, hypersensitivity (serious) in one individual, severe pain in the injected arm (serious) in one individual, and generalized weakness, fever, and headache (serious) in one individual.

Numerical imbalances, with more events in vaccine than placebo recipients, were observed for seizures (4 events, including one serious vs. 1 non-serious event), tinnitus (6 events, non-serious vs. 0) and the following thromboembolic events:

- Deep vein thrombosis: 6 events (2 serious; 5 within 28 days of vaccination) vs. 2 events (1 serious; 2 within 28 days of vaccination);
- Pulmonary embolism: 4 events (3 serious; 2 within 28 days of vaccination) vs. 1 event (serious and within 28 days of vaccination); and
- Transverse sinus thrombosis with thrombocytopenia: 1 event (serious, with onset of symptoms 8 days post-vaccination) vs. 0.

For these events, a causal relationship with the Janssen COVID-19 Vaccine could not be determined based on the data from the clinical trial. The assessment of causality was confounded by the presence of underlying medical conditions that may have predisposed individuals to these events.

On April 13, 2021, as a result of ongoing, post-authorization safety monitoring, FDA and CDC recommended a pause in the use of the Janssen COVID-19 Vaccine, due to reports of TTS, a serious condition characterized by new onset thrombocytopenia and acute venous or arterial thrombosis, including at unusual sites such as the cerebral venous sinus, with onset of symptoms approximately one to two weeks following receipt of the vaccine. These adverse events had been reported to VAERS, a national passive surveillance system. On April 23, 2021, FDA and CDC lifted the recommended pause on the Janssen COVID-19 Vaccine after a thorough evaluation of the available safety data pertaining to TTS and following deliberations of CDC's Advisory Committee on Immunization Practices (ACIP). At the same time, FDA authorized revisions to the Janssen COVID-19 Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers) to include a Warning pertaining to the risk of TTS. Based on available data at the time, the Warning noted that:

- adverse event reports following use of the Janssen COVID-19 Vaccine under EUA suggest an increased risk of thrombosis involving the cerebral venous sinuses and other sites (including but not limited to the large blood vessels of the abdomen and the veins of the lower extremities) combined with thrombocytopenia and with onset of symptoms approximately one to two weeks after vaccination
- most reported cases had occurred in females 18 through 49 years of age
- some cases had been fatal
- specific risk factors and the level of potential excess risk due to the Janssen COVID-19 Vaccine are under investigation
- a causal relationship between thrombosis with thrombocytopenia and the Janssen COVID-19 Vaccine is plausible.

<sup>&</sup>lt;sup>6</sup> https://emergency.cdc.gov/han/2021/han00442.asp



To mitigate the risk of TTS, the Warning also noted that the clinical course of TTS shares features with autoimmune heparin-induced thrombocytopenia and that in individuals with suspected TTS following administration of the Janssen COVID-19 Vaccine, the use of heparin may be harmful and alternative treatments may be needed. The Warning included a recommendation for consultation with hematology specialists and reference to the American Society of Hematology for information on diagnosis and treatment of TTS following administration of the Janssen COVID-19 Vaccine. Additionally, the Warning recommended that recipients of the Janssen COVID-19 Vaccine be instructed to seek immediate medical attention if they develop certain signs and symptoms that are suggestive of thrombosis with thrombocytopenia. The FDA also authorized revisions to the Fact Sheet for Recipients and Caregivers to include information about thrombosis with thrombocytopenia following the Janssen COVID-19 Vaccine.

On December 14, 2021, FDA authorized further revisions to the Janssen COVID-19 Vaccine Fact Sheets to include new safety information on the serious risk of TTS following administration of the Janssen COVID-19 Vaccine. The revisions were based on analyses of TTS cases reported to VAERS through August 31, 2021. These analyses were presented to CDC's ACIP on December 16, 2021. These analyses were based on 54 confirmed TTS cases reported among individuals who received the Janssen COVID-19 Vaccine during the period March 2 through August 31, 2021. During this period, 14.1 million total doses of the Janssen COVID-19 Vaccine had been administered in the U.S. Cases of TTS following administration of the Janssen COVID-19 Vaccine had been reported in males and females, in a wide age range of individuals 18 years and older, with the highest reporting rate in females ages 30-49 years. The analyses indicated that the TTS reporting rate (3.8 per million doses administered overall and approximately 10 cases per million doses in women 30-49 years of age) and the TTS death reporting rate (0.57 per million doses administered overall and approximately 2 per million doses in women 30-49 years of age) were higher than previously recognized. Approximately 40% of individuals with reported TTS did not have an identified risk factor for venous thrombosis. All individuals with reported cases were hospitalized, including 67% who required admission to an intensive care unit. Overall, approximately 15% of TTS cases were fatal. The proportion of TTS cases that were fatal did not decrease after the pause in use of the Janssen COVID-19 Vaccine in April 2021, and none of the individuals with fatal TTS had received intravenous heparin for treatment. Among TTS deaths, the clinical course from onset of symptoms to hospital admission (median time 3 days) and from hospital admission to death (median time 1 day) was rapid. All TTS deaths had features of severe cerebral venous sinus thrombosis.

The December 14, 2021, revisions to the Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers) included addition of a Contraindication for individuals with a history of thrombosis with thrombocytopenia following the Janssen COVID-19 Vaccine or any other adenovirus-vectored COVID-19 vaccine. Revisions were also made to the Warning about TTS to include updated information on the epidemiology of cases and to update CBER's causality assessment to convey that currently available evidence supports a causal relationship between TTS and the Janssen COVID-19 Vaccine. This causality assessment takes into consideration the distinctive clinical and laboratory features of TTS, the clustering in time after vaccination, plausible pathogenic mechanisms, and the association of TTS with two adenoviral vectored COVID-19 vaccines. TTS also has been causally linked to the

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<sup>&</sup>lt;sup>7</sup> https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2021-12-16/02-COVID-See-508.pdf

<sup>&</sup>lt;sup>8</sup> See I, Lale A, Marquez P, et al. Case Series of Thrombosis With Thrombocytopenia Syndrome After



AstraZeneca COVID-19 Vaccine (not authorized or approved in the U.S.), a vaccine that uses a chimpanzee adenovirus vector (ChAdOx1) to express the SARS-CoV-2 spike (S) protein. Of note, TTS has not been associated with mRNA COVID-19 vaccines.<sup>8</sup> The Janssen COVID-19 Vaccine Fact Sheet for Recipients and Caregivers was also revised to include updated information on TTS.

At the December 16, 2021, ACIP meeting, the ACIP reviewed evidence on COVID-19 vaccine effectiveness, COVID-19 vaccine safety and adverse events (including TTS following the administration of the Janssen COVID-19 Vaccine), and an updated benefit-risk assessment of COVID-19 vaccines to determine whether the interim recommendations for the use of the Janssen COVID-19 Vaccine in the U.S. should be updated. Given the U.S. vaccine supply with widespread availability of mRNA COVID-19 vaccines, the analysis included the differential benefits and risks of the Janssen COVID-19 Vaccine compared with mRNA COVID-19 vaccines. The benefit-risk assessment considered the high TTS case fatality rate and potential for severe, long-term health impacts from TTS following the Janssen COVID-19 Vaccine, compared with the less severe myocarditis-associated outcomes (including no confirmed deaths due to myocarditis among fully reviewed deaths reported to VAERS) observed after receipt of mRNA COVID-19 vaccines. ACIP unanimously recommended a clinical preference for individuals to receive an mRNA COVID-19 vaccine over the Janssen COVID-19 Vaccine. On December 16, 2021, CDC endorsed the ACIP's updated recommendation. <sup>10</sup> In its Interim Clinical Considerations for Use of COVID-19 Vaccines Currently Approved or Authorized in the U.S., CDC states a preference for mRNA COVID-19 vaccines over the Janssen COVID-19 Vaccine for all vaccine-eligible people and recommends that the Janssen COVID-19 Vaccine may be offered when there is a contraindication to mRNA COVID-19 vaccines, when a person would otherwise remain unvaccinated for COVID-19 due to limited access to mRNA COVID-19 vaccines, or when a person wants to receive the Janssen COVID-19 Vaccine despite the safety concerns identified.<sup>11</sup>

Once the CDC issued its preferential recommendation for individuals to receive an mRNA COVID-19 vaccine over the Janssen COVID-19 Vaccine, this recommendation was incorporated into the CDC COVID-19 Vaccination Provider Agreement for vaccine providers. This is likely a major reason for the lower uptake of the Janssen COVID-19 Vaccine in recent months as the number of doses administered declined from three million during the period September through December 2021 to approximately one million during the period January through April 2022. 12

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COVID-19 Vaccination—United States, December 2020 to August 2021. Ann Intern Med. Published online January 18, 2022. doi:10.7326/M21-4502

<sup>&</sup>lt;sup>9</sup> Oliver SE, Wallace M, See I, et al. Use of the Janssen (Johnson & Johnson) COVID-19 Vaccine: Updated Interim Recommendations from the Advisory Committee on Immunization Practices — United States, December 2021. MMWR Morb Mortal Wkly Rep 2022;71:90–95. DOI: http://dx.doi.org/10.15585/mmwr.mm7103a4

<sup>&</sup>lt;sup>10</sup> https://www.cdc.gov/media/releases/2021/s1216-covid-19-vaccines.html

<sup>&</sup>lt;sup>11</sup> https://www.cdc.gov/vaccines/covid-19/clinical-considerations/interim-considerations-us.html#considerations-Janssen

<sup>&</sup>lt;sup>12</sup> CDC COVID-19 Vaccinations in the United States, Jurisdiction, available at https://data.cdc.gov/Vaccinations/COVID-19-Vaccinations-in-the-United-States-Jurisdi/unsk-b7fc; updated April 25, 2022.



Since the initial authorization of the Janssen COVID-19 Vaccine, in addition to being updated to include new safety information on the serious risk of TTS, the Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers) has been revised to include Warnings for Guillain-Barré syndrome (July 12, 2021), syncope (August 30, 2021) and immune thrombocytopenia (ITP) (January 11, 2022), as follows:

- Reports of adverse events following use of the Janssen COVID-19 Vaccine under EUA suggest an increased risk of Guillain-Barré syndrome during the 42 days following vaccination.
- Syncope (fainting) may occur in association with administration of injectable vaccines. Procedures should be in place to avoid injury from fainting.
- Reports of adverse events following use of the Janssen COVID-19 Vaccine under EUA suggest
  an increased risk of ITP during the 42 days following vaccination. Individuals with a history of
  ITP should discuss with their healthcare provider the risk of ITP and the potential need for
  platelet monitoring following vaccination with the Janssen COVID-19 Vaccine.

Revisions were also made to the Fact Sheet for Recipients and Caregivers informing about Guillain-Barré syndrome, ITP, and syncope.

### Updated Analysis of VAERS Data on TTS through March 18, 2022

CBER and CDC reviewed additional cases of TTS reported to VAERS from August 31, 2021, through March 18, 2022. An additional six confirmed cases of TTS were found including an additional fatality, bringing the total number of reported TTS cases to 60 with nine fatalities. The updated analysis found reporting rates of 3.23 cases of TTS and 0.48 TTS deaths per million administered doses of the Janssen COVID-19 Vaccine. The reporting rates for TTS following administration of the Janssen COVID-19 Vaccine varied by age and sex as seen in the table below.

	Females	Males
Age group (years)	Reporting rate (per million doses administered)	Reporting rate (per million doses administered)
18-29	4.31	1.92
30-39	8.24	1.56
40-49	7.83	3.29
50-64	3.91	2.31
<u>≥</u> 65	1.37	0

Twenty (33%) of the 60 cases of TTS received the Janssen COVID-19 Vaccine after the pause on April 13, 2021. Forty cases occurred in females and 20 in males. The median age was 44.5 years with a range 18–70 years. Twenty-eight (47%) of the cases occurred in women under the age of 50 years. Thirty (50%) of the cases had cerebral sinus venous thrombosis. All cases resulted in hospitalization with 39 (65%) resulting in admission to the intensive care unit. For those who survived, the median length of hospitalization was 9 days with a range of 1-132 days. As of the last available data, one individual is still hospitalized, 41 were discharged home and 9 were discharged to a post-acute care facility.



#### Recommendation

The Janssen COVID-19 Vaccine at this time continues to meet the EUA criterion for effectiveness for use in individuals 18 years of age and older. However, considering the seriousness of TTS with an often-rapid clinical progression despite prompt recognition and appropriate best available treatment, the potential for long-term and debilitating sequelae, a high case fatality rate for TTS, and the strength of evidence for a causal relationship to the Janssen COVID-19 Vaccine, CBER has determined that a revision to the EUA to limit use of the vaccine is warranted. Specifically, CBER has determined that the risk for TTS materially affects the risk/benefit assessment upon which the EUA was based such that vaccine should only be authorized for (1) individuals 18 years of age and older for whom other FDA-authorized or approved COVID-19 vaccines are not accessible or clinically appropriate; and (2) individuals 18 years of age and older who elect to receive the Janssen COVID-19 Vaccine because they would otherwise not receive a COVID-19 vaccine. CBER's determination takes into consideration the current availability of other FDA-authorized and approved mRNA COVID-19 vaccines, which provide protection against COVID-19 and have not been shown to present a risk for TTS. The available data show that, for individuals 18 years of age and older for whom other FDA-authorized or approved COVID-19 vaccines are not accessible or clinically appropriate, or who would otherwise not receive a COVID-19 vaccine, the known and potential benefits of the Janssen COVID-19 Vaccine when used to prevent COVID-19 outweigh the known and potential risks. In these individuals, as compared to not receiving a COVID-19 vaccine, the known and potential benefits of the Janssen COVID-19 Vaccine outweigh its known and potential risks. But for other individuals, the vaccine should not remain authorized.

CBER is requiring relevant revisions to the authorized Fact Sheet for Healthcare Providers Administering Vaccine (Vaccination Providers) and the authorized Fact Sheet for Recipients and Caregivers to reflect this revision to the EUA and to provide updated information on the risk of TTS.