Office of Biostatistics and Epidemiology/Division of Epidemiology **Periodic Safety Report Review Checklist** Completed by Reviewer **Product Name** Pfizer-BioNTech COVID-19 Vaccine Manufacturer Pfizer-BioNTech STN# 19736.453 DCC Login ID# **Submission Type PAER PSUR PBRER PADER Submission Format ELECTRONIC PAPER Reporting Period FROM** July 1, 2021 TO July 31, 2021 Date Received by FDA August 16, 2021 August 16, 2021 **Date Routed to Reviewer** Regulatory Information Specialist (RIS) - Name Laura Gottschalk **Deborah Thompson Reviewer - Name** Reviewer Signature Deborah L. (electronic signature) Thompson -S

COMMENTS

This is the 8th Summary Monthly Safety Report for the Pfizer-BioNTech COVID-19 Vaccine (Comirnaty).

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1.	Countries where the product is licensed or authorized for distribution:
	Not Reported US Vorldwide
2.	Estimated number of doses distributed by reporting period/cumulative:
	Not Reported US (b) (4) period / (b) (4) cum
	Not Applicable Worldwide 217,960,099 period / 1,090,385,631 cum
3.	Does this report describe any actions taken by the manufacturer or other regulatory agency for this product (e.g. labeling changes)? Yes No
4.	Have there been any new safety issues identified by the reviewer in this PSUR? Yes 🚺 No
	If YES, please provide pertinent information below AND notify/discuss safety issues with the Team Lead and/or Branch Chief.
	During the reporting period, the European Medicines Agency (EMA) and other Health Authorities requested label updates and Direct Healthcare Professional Communications to address findings on myocarditis and pericarditis following vaccination with BNT162b2. The U.S. Pharmacovigilance Plan was also updated in July to include myocarditis and pericarditis as important identified risks.
	In addition, the following safety signals were addressed or are under evaluation: erythema multiforme, glomerulonephritis and nephrotic syndrome are under evaluation; thrombosis with thrombocytopenia syndrome (TTS) is an ongoing review topic - the sponsor reports that an updated review does not support a causal association with the vaccine; immune thrombocytopenia (TTP) has been reviewed previously and will be reviewed again in PSUR#1 (Dec 19, 2020 through June 18, 2021) - the sponsor reports that the totality of data do not support the ITP signal as a risk.
	The sponsor also provided safety evaluations for the following topics: systemic capillary leak syndrome, transverse myelitis, multisystem inflammatory syndrome (MIS), disseminated intravascular coagulation, dizziness, deafness, tinnitis, blindness/visual disturbances, cerebral hemorrhage and cerebrovascular accident, TTS, and menstrual disorders or post-menopausal hemorrhages. No new safety signals were identified.
	The sponsor also provided observed/expected (O/E) analyses for adverse events of special interest (AESI). In the primary O/E analysis, the following AESIs had the upper limit of the 95% CI >1: acute disseminated encephalomyelitis (ADEM), MIS, myasthenia gravis, polyneuropathy, rhabdomyolysis, and transverse myelitis (TM). In age-stratified analyses, the following AESIs had an O/E >1 for at least one age group: Guillain-Barre syndrome, ischemic stroke, MIS, narcolepsy, and TM; for some AESIs the low numbers of events contributed to variability in the O/E across age groups. The sponsor will continue to monitor these events and will provide additional evaluation in the next SMSR.
	A separate O/E analysis was performed for myocarditis, including by sex and dose using low, mid, and high background rates as well as a 14- and 21-day risk window. The highest O/E ratios were seen in younger age males and post-2nd dose.
	In addition, the O/E analysis for anaphylaxis showed an O/E of 3.795 (95% CI 3.690-3.903), which has continued to decline from previous O/E analyses.
	Conclusions: The contents of this PSUR/PAER do not indicate a need for further regulatory action. Please see the following comments and recommendations:

Reference Documents (X:\DE\MEDICAL OFFICER\Guidance Documents):

- E2C Clinical Safety Data Management: Periodic Safety Update Reports for Marketed Drugs 1996
 Addendum to E2C Safety Data Management: Periodic Safety Update Reports for Marketed Drugs 2004

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