

Disclaimer

The following report(s) provides findings from an FDA-initiated query using Sentinel. While Sentinel queries may be undertaken to assess potential medical product safety risks, they may also be initiated for various other reasons. Some examples include determining a rate or count of an identified health outcome of interest, examining medical product use, exploring the feasibility of future, more detailed analyses within Sentinel, and seeking to better understand Sentinel capabilities.

Data obtained through Sentinel are intended to complement other types of evidence such as preclinical studies, clinical trials, postmarket studies, and adverse event reports, all of which are used by FDA to inform regulatory decisions regarding medical product safety. The information contained in this report is provided as part of FDA's commitment to place knowledge acquired from Sentinel in the public domain as soon as possible. Any public health actions taken by FDA regarding products involved in Sentinel queries will continue to be communicated through existing channels.

FDA wants to emphasize that the fact that FDA has initiated a query involving a medical product and is reporting findings related to that query does not mean that FDA is suggesting health care practitioners should change their prescribing practices for the medical product or that patients taking the medical product should stop using it. Patients who have questions about the use of an identified medical product should contact their health care practitioners.

The following report contains a description of the request, request specifications, and results from the modular program run(s).

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Overview for Request: cder_mpl1r_wp217

Request ID: cder_mpl1r_wp217_nsdv02_r02

Request Description: In this study we assessed follow-up time and distribution of valganciclovir or ganciclovir treatment in infants with congenital cytomegalovirus infection (cCMV). We also assessed clinical characteristics, laboratory tests performed for cytomegalovirus infection (CMV) diagnosis, hearing loss and hematologic outcomes among infants with CMV who used valganciclovir/ganciclovir treatment. A companion report contains assessment of trends in diagnosis of cCMV or CMV infection (see Sentinel_Report_cder_mpl1r_wp217_nsdv02_r01).

Sentinel Routine Querying Module: Cohort Identification and Descriptive Analysis (CIDA) module, version 11.0.0

Data Source: We distributed this request to 12 Sentinel Data Partners on December 9, 2021. These Data Partners are a subset of the Sentinel Distributed Database (SDD). The study period included data from January 1, 2008 through May 31, 2021. Please see Appendix A for a list of dates of available data for each Data Partner.

Study Design: We identified individuals with incident use of valganciclovir/ganciclovir and evaluated the distribution of follow-up time from the date of incident valganciclovir use. This is a Type 2 analysis in the Query Request Package (QRP) documentation.

Exposure of Interest: We identified incident use of valganciclovir or ganciclovir among individuals with CMV diagnosis before or after treatment initiation and assessed the distribution of follow-up time until censoring from incident valganciclovir/ganciclovir exposure. We identified valganciclovir/ganciclovir treatments using National Drug Codes (NDC). See Appendix C for a list of generic and brand names of medical products for valganciclovir/ganciclovir exposure in this request.

Cohort Eligibility Criteria: We required members to be enrolled in health plans with medical and drug coverage on the index date. The following age groups were examined: 0 - 6 months, 6 months - 1 year, 1 - 2 years, 2 - 3 years, 3 - 4 years, and 4 - 5 years. To evaluate the distribution of valganciclovir use among individuals with CMV, we identified individuals with incident use of valganciclovir or ganciclovir among individuals with CMV diagnosis at any time prior to or within 45 days after the first valganciclovir/ganciclovir dispensing. We assessed the distribution of follow-up time from the incident valganciclovir/ganciclovir exposure until censoring. We repeated this assessment by disease severity.

To define disease severity, we identified four sub-cohorts based on hearing loss and select clinical characteristics. In addition, we identified two cohorts based on hematologic outcomes, requiring CMV diagnosis at any time prior to and up to the first valganciclovir/ganciclovir dispensing. We defined these disease severity sub-cohorts as follows:

- a) *Hearing loss absent, clinical characteristics absent*: To be included in this cohort, we required members to have no history of hearing loss or clinical characteristics prior to and including the index date.
- b) *Hearing loss present, clinical characteristics absent*: To be included in this cohort, we required members to have a history of hearing loss, but no clinical characteristics prior to and including the index date.
- c) *Hearing loss absent, clinical characteristics present*: To be included in this cohort, we required members to have no history of hearing loss, but have a history of any of the clinical characteristics prior to and including the index date.
- d) *Hearing loss present, clinical characteristics present*: To be included in this cohort, we required members to have a history of hearing loss, and have a history of any of the clinical characteristics prior to and including the index date.
- e) *Hematologic outcomes absent*: To be included in this cohort, we required members to have no history of hematologic outcomes within the first 180 days of the valganciclovir/ganciclovir dispensing.
- f) *Hematologic outcomes present*: To be included in this cohort, we required members to have a history of any of the hematologic outcomes within the first 180 days of the valganciclovir/ganciclovir dispensing.

See Appendix G for specifications of parameters describing the different cohorts identified in this request. See Appendix H for diagrams detailing the design for this request.

Follow-up Time: We created exposure episodes based on the number of days of product supplied per dispensing in the outpatient pharmacy dispensing data. We bridged together episodes less than 30 days apart and added 30 days to the end of each episode. Follow-up for valganciclovir/ganciclovir use began on the day of the index dispensing and continued until the first occurrence of any of the following: 1) disenrollment; 2) death; 3) the end of data provided by each Data Partner; 4) the end of the query period; or 5) the end of exposure episode.

Overview for Request: cder_mpl1r_wp217

Baseline Characteristics: We assessed the following characteristics: age, year, sex, geographic region (as defined by the census bureau), race, and ethnicity. In addition, we assessed the following at any time prior to the index date and up to 30 days after the index date: head computed tomography, brain abnormality, other brain abnormality, brain magnetic resonance imaging (MRI), and head ultrasound. We assessed the following clinical tests at any time prior to the index date and up to 15 days after the index date: CMV polymerase chain reaction (PCR) lab test, CMV antigen lab test, and CMV culture lab test. We assessed the following clinical characteristics at any time prior to the index date and up to 15 days after the index date: jaundice, petechiae, splenomegaly, microcephaly, thrombocytopenia, chorioretinitis; we also assessed the aforementioned clinical characteristics at any time prior to the index date up to and including the index date. We assessed the following clinical characteristics within 60 and 180 days from the index date: neutropenia, receipt of red blood cell (RBC) transfusion, receipt of platelet transfusion, and receipt of granulocyte colony-stimulating factor (GCSF) transfusion.

We identified disease severity cohorts using the following clinical characteristics: hearing loss, jaundice, petechiae, hepatomegaly, splenomegaly, microcephaly, thrombocytopenia, chorioretinitis, and brain abnormality; and the following hematologic outcomes: neutropenia, receipt of RBC transfusion, receipt of platelet transfusion, and receipt of GCSF transfusion.

See Appendix B for the list of states and territories included in each census bureau region.

See Appendix D for International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) codes used to define inclusion criteria in this request.

See Appendix E for ICD-9-CM, ICD-10-CM, Current Procedural Terminology, Fourth Edition (CPT-4), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) codes used to define inclusion and exclusion criteria in this request.

See Appendix F for CPT-4, ICD-9-CM, ICD-10-CM, ICD-10-PCS, and Healthcare Common Procedure Coding System, Level II (HCPCS), codes used to define baseline characteristics and hematologic outcomes in this request.

Limitations: Algorithms to define exposures, inclusion, and exclusion criteria are imperfect and may result in misclassification. Therefore, data should be interpreted with this limitation in mind.

Notes: Please contact the Sentinel Operations Center (info@sentinelssystem.org) for questions and to provide comments/suggestions for future enhancements to this document. For more information on Sentinel's routine querying modules, please refer to the documentation (<https://dev.sentinelssystem.org/projects/SENTINEL/repos/sentinel-routine-querying-tool-documentation/browse>).

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**Glossary of Terms for Analyses Using
Cohort Identification and Descriptive Analysis (CIDA) Module***

Amount Supplied - number of units (pills, tablets, vials) dispensed. Net amount per NDC per dispensing.

Blackout Period - number of days at the beginning of a treatment episode that events are to be ignored. If an event occurs during the blackout period, the episode is excluded.

Care Setting - type of medical encounter or facility where the exposure, event, or condition code was recorded. Possible care settings include: Inpatient Hospital Stay (IP), Non-Acute Institutional Stay (IS), Emergency Department (ED), Ambulatory Visit (AV), and Other Ambulatory Visit (OA). For laboratory results, possible care settings include: Emergency Department (E), Home (H), Inpatient (I), Outpatient (O), or Unknown or Missing (U). The Care Setting, along with the Principal Diagnosis Indicator (PDX), forms the Care Setting/PDX parameter.

Ambulatory Visit (AV) - includes visits at outpatient clinics, same-day surgeries, urgent care visits, and other same-day ambulatory hospital encounters, but excludes emergency department encounters.

Emergency Department (ED) - includes ED encounters that become inpatient stays (in which case inpatient stays would be a separate encounter). Excludes urgent care visits.

Inpatient Hospital Stay (IP) - includes all inpatient stays, same-day hospital discharges, hospital transfers, and acute hospital care where the discharge is after the admission date.

Non-Acute Institutional Stay (IS) - includes hospice, skilled nursing facility (SNF), rehab center, nursing home, residential, overnight non-hospital dialysis and other non-hospital stays.

Other Ambulatory Visit (OA) - includes other non overnight AV encounters such as hospice visits, home health visits, skilled nursing facility visits, other non-hospital visits, as well as telemedicine, telephone and email consultations.

Charlson/Elixhauser Combined Comorbidity Score - calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (e.g., in the 183 days prior to index).

Code Days - the minimum number of times the diagnosis must be found during the evaluation period in order to fulfill the algorithm to identify the corresponding patient characteristic.

Cohort Definition (drug/exposure) - indicates how the cohort will be defined: 01: Cohort includes only the first valid treatment episode during the query period; 02: Cohort includes all valid treatment episodes during the query period; 03: Cohort includes all valid treatment episodes during the query period until an event occurs.

Computed Start Marketing Date - represents the first observed dispensing date among all valid users within a GROUP (scenario) within each Data Partner site.

Days Supplied - number of days supplied for all dispensings in qualifying treatment episodes.

Eligible Members - number of members eligible for an incident treatment episode (defined by the drug/exposure and event washout periods) with drug and medical coverage during the query period.

Enrollment Gap - number of days allowed between two consecutive enrollment periods without breaking a "continuously enrolled" sequence.

Patients - treatment episodes; length of episode is determined by days supplied in one dispensing or consecutive dispensings bridged by the episode gap.

Episode Gap - number of days allowed between two (or more) consecutive Exposure (dispensings/procedures) to be considered the same treatment episode.

Event Deduplication - specifies how events are counted by the Modular Program (MP) algorithm: 0: Counts all occurrences of a health outcome of interest (HOI) during an exposure episode; 1: de-duplicates occurrences of the same HOI code and code type on the same day; 2: de-duplicates occurrences of the same HOI group on the same day (e.g., de-duplicates at the group level).

Exposure Episode Length - number of days after exposure initiation that is considered "exposed time."

Exposure Extension Period - number of days post treatment period in which the outcomes/events are counted for a treatment episode. Extensions are added after any episode gaps have been bridged.

Lookback Period - number of days wherein a member is required to have evidence of pre-existing condition (diagnosis/procedure/drug dispensing).

Maximum Episode Duration - truncates exposure episodes after a requester-specified number of exposed days. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

Member-Years - sum of all days of enrollment with medical and drug coverage in the query period preceded by an exposure washout period all divided by 365.25.

Minimum Days Supplied - specifies a minimum number of days in length of the days supplied for the episode to be considered.

Minimum Episode Duration - specifies a minimum number of days in length of the episode for it to be considered. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

Monitoring Period - used to define time periods of interest for both sequential analysis and simple cohort characterization

Principal Diagnosis (PDX) - diagnosis or condition established to be chiefly responsible for admission of the patient to the hospital. 'P' = principal diagnosis, 'S' = secondary diagnosis, 'X' = unspecified diagnosis, '.' = blank. Along with the Care Setting values, forms the Caresetting/PDX parameter.

Query Period - period in which the modular program looks for Exposure and outcomes of interest.

Switch Evaluation Step Value - value used to differentiate evaluation step. Each switch pattern can support up to 2 evaluation steps (0 = switch pattern evaluation start; 1 = first evaluation; 2 = second evaluation).

Switch Gap Inclusion Indicator - indicator for whether gaps in treatment episodes that are included in a switch episode will be counted as part of the switch episode duration.

Switch Pattern Cohort Inclusion Date - indicates which date to use for inclusion into the switch pattern cohort of interest as well as optionally as the index date of the treatment episode initiating the switch pattern. Valid options are the product approval date, product marketing date, other requester defined date, or computed start marketing date.

Switch Pattern Cohort Inclusion Strategy - indicates how the switch pattern cohort inclusion date will be used: 01: used only as a switch cohort entry date. First treatment episode dispensing date is used as index for computing time to first switch; 02: used as switch cohort entry date and as initial switch step index date for computing time to first switch.

Treatment Episode Truncation Indicator - indicates whether the exposure episode will be truncated at the occurrence of a requester-specified code.

Washout Period (drug/exposure) - number of days a user is required to have no evidence of prior exposure (drug dispensing/procedure) and continuous drug and medical coverage prior to an incident treatment episode.

Washout Period (event/outcome) - number of days a user is required to have no evidence of a prior event (procedure/diagnosis) and continuous drug and medical coverage prior to an incident treatment episode.

Years at Risk - number of days supplied plus any episode gaps and exposure extension periods all divided by 365.25.

Washout Period (event/outcome) - number of days a user is required to have no evidence of a prior event (procedure/diagnosis) and continuous drug and medical coverage prior to an incident treatment episode.

Years at Risk - number of days supplied plus any episode gaps and exposure extension periods all divided by 365.25.

*all terms may not be used in this report

Table 1a. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV), Overall in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Patient Characteristics		Number	
Unique patients		372	
Demographic Characteristics		Mean	Standard Deviation
Mean Age (Days)		77.71	137.66
Age (Days)		Number	Percent
≤ 181		343	92.2%
182-364		22	5.9%
365-729		3	0.8%
730-1094		0	0.0%
1095-1459		0	0.0%
1460-1825		0	0.0%
Sex			
Female		178	47.8%
Male		194	52.2%
Race ¹			
American Indian or Alaska Native		0	0.0%
Asian		1	0.3%
Black or African American		27	7.3%
Native Hawaiian or Other Pacific Islander		5	1.3%
Unknown		302	81.2%
White		37	9.9%
Hispanic Origin			
Yes		2	0.5%
No		55	14.8%
Unknown		315	84.7%
Year			
2008		11	3.0%
2009		5	1.3%
2010		11	3.0%
2011		14	3.8%
2012		12	3.2%
2013		16	4.3%
2014		26	7.0%
2015		46	12.4%
2016		53	14.2%
2017		43	11.6%
2018		46	12.4%
2019		49	13.2%
2020		36	9.7%
2021		4	1.1%
Health Characteristics			
Type of Cytomegalovirus (CMV) Diagnosis Code			
cCMV		360	96.8%
CMV		209	56.2%

Table 1a. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV), Overall in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Clinical Characteristics	Number	Percent
Ever, Prior to and Up to 15 Days After Index		
Jaundice	163	43.8%
Petechiae	40	10.8%
Hepatomegaly	34	9.1%
Splenomegaly	34	9.1%
Microcephaly	62	16.7%
Thrombocytopenia	158	42.5%
Chlorioretinitis	25	6.7%
Hearing Loss, Hearing Aid, Cochlear Implant	125	33.6%
Ever, Prior to and Up to 30 Days After Index		
Brain Abnormality	116	31.2%
Other Brain Abnormality	1	0.3%
Within 60 Days From Index		
Neutropenia	54	14.5%
Receipt of RBC transfusion	6	1.6%
Receipt of platelet transfusion	3	0.8%
Receipt of GCSF transfusion	6	1.6%
Hearing Loss, Hearing Aid, Cochlear Implant	153	41.1%
Within 180 Days From Index		
Neutropenia	70	18.8%
Receipt of RBC transfusion	6	1.6%
Receipt of platelet transfusion	3	0.8%
Receipt of GCSF transfusion	8	2.2%
Hearing Loss, Hearing Aid, Cochlear Implant	195	52.4%
Within 365 Days From Index		
Hearing Loss, Hearing Aid, Cochlear Implant	216	58.1%
Ever, Prior to and Up to Index Date		
Jaundice	157	42.2%
Petechiae	38	10.2%
Hepatomegaly	32	8.6%
Splenomegaly	31	8.3%
Microcephaly	58	15.6%
Thrombocytopenia	157	42.2%
Chlorioretinitis	23	6.2%
Brain Abnormality	103	27.7%
Other Brain Abnormality	1	0.3%
Hearing Loss, Hearing Aid, Cochlear Implant	100	26.9%
Ever, Prior to and Up to 45 Days After Index		
Jaundice	163	43.8%
Petechiae	42	11.3%
Hepatomegaly	38	10.2%
Splenomegaly	34	9.1%
Microcephaly	67	18.0%
Thrombocytopenia	159	42.7%
Chlorioretinitis	31	8.3%
Brain Abnormality	119	32.0%
Other Brain Abnormality	1	0.3%

Table 1a. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV), Overall in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Medical Product Use	Number	Percent
Lab Tests (Ever, Prior to and Up to 15 Days After Index)		
CMV PCR (Blood, Urine, Saliva)	141	37.9%
CMV Antigen or Antibody Testing	33	8.9%
CMV Culture	46	12.4%
CMV PCR, CMV Antigen/Antibody Testing, or CMV Culture	152	40.9%
Radiology Tests (Ever, Prior to and Up to 30 Days After Index)		
Head Computed Tomography (CT)	48	12.9%
Brain MRI	125	33.6%
Head Ultrasound	8	2.2%

¹Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

Table 1b. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) (Hearing Loss: Absent, Clinical Characteristic: Absent) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Patient Characteristics	Number	
Unique patients	62	
Demographic Characteristics	Mean	Standard Deviation
Mean Age (Days)	99.40	158.27
Age (Days)	Number	Percent
≤ 181	56	90.3%
182-364	4	6.5%
365-729	1	1.6%
730-1094	0	0.0%
1095-1459	0	0.0%
1460-1825	0	0.0%
Sex		
Female	27	43.5%
Male	35	56.5%
Race ¹		
American Indian or Alaska Native	0	0.0%
Asian	0	0.0%
Black or African American	8	12.9%
Native Hawaiian or Other Pacific Islander	1	1.6%
Unknown	48	77.4%
White	5	8.1%
Hispanic Origin		
Yes	1	1.6%
No	12	19.4%
Unknown	49	79.0%
Year		
2008	2	3.2%
2009	0	0.0%
2010	1	1.6%
2011	4	6.5%
2012	3	4.8%
2013	2	3.2%
2014	0	0.0%
2015	6	9.7%
2016	8	12.9%
2017	11	17.7%
2018	7	11.3%
2019	10	16.1%
2020	7	11.3%
2021	1	1.6%
Health Characteristics		
Type of Cytomegalovirus (CMV) Diagnosis Code		
cCMV	60	96.8%
CMV	31	50.0%

Table 1b. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) (Hearing Loss: Absent, Clinical Characteristic: Absent) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Clinical Characteristics	Number	Percent
Ever, Prior to and Up to 15 Days After Index		
Jaundice	2	3.2%
Petechiae	0	0.0%
Hepatomegaly	1	1.6%
Splenomegaly	0	0.0%
Microcephaly	4	6.5%
Thrombocytopenia	1	1.6%
Chlorioretinitis	0	0.0%
Hearing Loss, Hearing Aid, Cochlear Implant	8	12.9%
Ever, Prior to and Up to 30 Days After Index		
Brain Abnormality	5	8.1%
Other Brain Abnormality	0	0.0%
Within 60 Days From Index		
Neutropenia	5	8.1%
Receipt of RBC transfusion	0	0.0%
Receipt of platelet transfusion	0	0.0%
Receipt of GCSF transfusion	0	0.0%
Hearing Loss, Hearing Aid, Cochlear Implant	15	24.2%
Within 180 Days From Index		
Neutropenia	6	9.7%
Receipt of RBC transfusion	0	0.0%
Receipt of platelet transfusion	0	0.0%
Receipt of GCSF transfusion	0	0.0%
Hearing Loss, Hearing Aid, Cochlear Implant	20	32.3%
Within 365 Days From Index		
Hearing Loss, Hearing Aid, Cochlear Implant	26	41.9%
Ever, Prior to and Up to Index Date		
Jaundice	0	0.0%
Petechiae	0	0.0%
Hepatomegaly	0	0.0%
Splenomegaly	0	0.0%
Microcephaly	0	0.0%
Thrombocytopenia	0	0.0%
Chlorioretinitis	0	0.0%
Brain Abnormality	0	0.0%
Other Brain Abnormality	0	0.0%
Hearing Loss, Hearing Aid, Cochlear Implant	0	0.0%
Ever, Prior to and Up to 45 Days After Index		
Jaundice	2	3.2%
Petechiae	0	0.0%
Hepatomegaly	1	1.6%
Splenomegaly	0	0.0%
Microcephaly	4	6.5%
Thrombocytopenia	1	1.6%
Chlorioretinitis	1	1.6%
Brain Abnormality	6	9.7%
Other Brain Abnormality	0	0.0%

Table 1b. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) (Hearing Loss: Absent, Clinical Characteristic: Absent) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Medical Product Use	Number	Percent
Lab Tests (Ever, Prior to and Up to 15 Days After Index)		
CMV PCR (Blood, Urine, Saliva)	17	27.4%
CMV Antigen or Antibody Testing	2	3.2%
CMV Culture	3	4.8%
CMV PCR, CMV Antigen/Antibody Testing, or CMV Culture	18	29.0%
Radiology Tests (Ever, Prior to and Up to 30 Days After Index)		
Head Computed Tomography (CT)	4	6.5%
Brain MRI	9	14.5%
Head Ultrasound	1	1.6%

¹Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

Table 1c. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) (Hearing Loss: Present, Clinical Characteristic: Absent) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Patient Characteristics	Number	
Unique patients	36	
Demographic Characteristics	Mean	Standard Deviation
Mean Age (Days)	119.78	104.92
Age (Days)	Number	Percent
≤ 181	27	75.0%
182-364	8	22.2%
365-729	1	2.8%
730-1094	0	0.0%
1095-1459	0	0.0%
1460-1825	0	0.0%
Sex		
Female	17	47.2%
Male	19	52.8%
Race ¹		
American Indian or Alaska Native	0	0.0%
Asian	1	2.8%
Black or African American	0	0.0%
Native Hawaiian or Other Pacific Islander	1	2.8%
Unknown	27	75.0%
White	7	19.4%
Hispanic Origin		
Yes	0	0.0%
No	7	19.4%
Unknown	29	80.6%
Year		
2008	0	0.0%
2009	2	5.6%
2010	2	5.6%
2011	2	5.6%
2012	0	0.0%
2013	3	8.3%
2014	1	2.8%
2015	3	8.3%
2016	3	8.3%
2017	5	13.9%
2018	4	11.1%
2019	5	13.9%
2020	6	16.7%
2021	0	0.0%
Health Characteristics		
Type of Cytomegalovirus (CMV) Diagnosis Code		
cCMV	35	97.2%
CMV	22	61.1%

Table 1c. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) (Hearing Loss: Present, Clinical Characteristic: Absent) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Clinical Characteristics	Number	Percent
Ever, Prior to and Up to 15 Days After Index		
Jaundice	0	0.0%
Petechiae	0	0.0%
Hepatomegaly	0	0.0%
Splenomegaly	0	0.0%
Microcephaly	0	0.0%
Thrombocytopenia	0	0.0%
Chlorioretinitis	1	2.8%
Hearing Loss, Hearing Aid, Cochlear Implant	36	100.0%
Ever, Prior to and Up to 30 Days After Index		
Brain Abnormality	3	8.3%
Other Brain Abnormality	0	0.0%
Within 60 Days From Index		
Neutropenia	4	11.1%
Receipt of RBC transfusion	0	0.0%
Receipt of platelet transfusion	0	0.0%
Receipt of GCSF transfusion	1	2.8%
Hearing Loss, Hearing Aid, Cochlear Implant	33	91.7%
Within 180 Days From Index		
Neutropenia	4	11.1%
Receipt of RBC transfusion	0	0.0%
Receipt of platelet transfusion	0	0.0%
Receipt of GCSF transfusion	1	2.8%
Hearing Loss, Hearing Aid, Cochlear Implant	35	97.2%
Within 365 Days From Index		
Hearing Loss, Hearing Aid, Cochlear Implant	35	97.2%
Ever, Prior to and Up to Index Date		
Jaundice	0	0.0%
Petechiae	0	0.0%
Hepatomegaly	0	0.0%
Splenomegaly	0	0.0%
Microcephaly	0	0.0%
Thrombocytopenia	0	0.0%
Chlorioretinitis	0	0.0%
Brain Abnormality	0	0.0%
Other Brain Abnormality	0	0.0%
Hearing Loss, Hearing Aid, Cochlear Implant	36	100.0%
Ever, Prior to and Up to 45 Days After Index		
Jaundice	0	0.0%
Petechiae	0	0.0%
Hepatomegaly	0	0.0%
Splenomegaly	0	0.0%
Microcephaly	0	0.0%
Thrombocytopenia	0	0.0%
Chlorioretinitis	1	2.8%
Brain Abnormality	3	8.3%
Other Brain Abnormality	0	0.0%

Table 1c. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) (Hearing Loss: Present, Clinical Characteristic: Absent) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Medical Product Use	Number	Percent
Lab Tests (Ever, Prior to and Up to 15 Days After Index)		
CMV PCR (Blood, Urine, Saliva)	21	58.3%
CMV Antigen or Antibody Testing	10	27.8%
CMV Culture	7	19.4%
CMV PCR, CMV Antigen/Antibody Testing, or CMV Culture	23	63.9%
Radiology Tests (Ever, Prior to and Up to 30 Days After Index)		
Head Computed Tomography (CT)	7	19.4%
Brain MRI	12	33.3%
Head Ultrasound	1	2.8%

¹Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

Table 1d. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) (Hearing Loss: Absent, Clinical Characteristic: Present) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Patient Characteristics	Number	
Unique patients	210	
Demographic Characteristics	Mean	Standard Deviation
Mean Age (Days)	50.98	53.22
Age (Days)	Number	Percent
≤ 181	203	96.7%
182-364	7	3.3%
365-729	0	0.0%
730-1094	0	0.0%
1095-1459	0	0.0%
1460-1825	0	0.0%
Sex		
Female	98	46.7%
Male	112	53.3%
Race ¹		
American Indian or Alaska Native	0	0.0%
Asian	0	0.0%
Black or African American	15	7.1%
Native Hawaiian or Other Pacific Islander	0	0.0%
Unknown	180	85.7%
White	15	7.1%
Hispanic Origin		
Yes	0	0.0%
No	23	11.0%
Unknown	187	89.0%
Year		
2008	7	3.3%
2009	2	1.0%
2010	6	2.9%
2011	4	1.9%
2012	7	3.3%
2013	8	3.8%
2014	16	7.6%
2015	29	13.8%
2016	34	16.2%
2017	23	11.0%
2018	30	14.3%
2019	24	11.4%
2020	17	8.1%
2021	3	1.4%
Health Characteristics		
Type of Cytomegalovirus (CMV) Diagnosis Code		
cCMV	204	97.1%
CMV	109	51.9%

Table 1d. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) (Hearing Loss: Absent, Clinical Characteristic: Present) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Clinical Characteristics	Number	Percent
Ever, Prior to and Up to 15 Days After Index		
Jaundice	128	61.0%
Petechiae	26	12.4%
Hepatomegaly	24	11.4%
Splenomegaly	27	12.9%
Microcephaly	40	19.0%
Thrombocytopenia	125	59.5%
Chlorioretinitis	18	8.6%
Hearing Loss, Hearing Aid, Cochlear Implant	17	8.1%
Ever, Prior to and Up to 30 Days After Index		
Brain Abnormality	75	35.7%
Other Brain Abnormality	1	0.5%
Within 60 Days From Index		
Neutropenia	32	15.2%
Receipt of RBC transfusion	5	2.4%
Receipt of platelet transfusion	3	1.4%
Receipt of GCSF transfusion	5	2.4%
Hearing Loss, Hearing Aid, Cochlear Implant	57	27.1%
Within 180 Days From Index		
Neutropenia	43	20.5%
Receipt of RBC transfusion	5	2.4%
Receipt of platelet transfusion	3	1.4%
Receipt of GCSF transfusion	7	3.3%
Hearing Loss, Hearing Aid, Cochlear Implant	86	41.0%
Within 365 Days From Index		
Hearing Loss, Hearing Aid, Cochlear Implant	101	48.1%
Ever, Prior to and Up to Index Date		
Jaundice	124	59.0%
Petechiae	24	11.4%
Hepatomegaly	23	11.0%
Splenomegaly	24	11.4%
Microcephaly	40	19.0%
Thrombocytopenia	125	59.5%
Chlorioretinitis	18	8.6%
Brain Abnormality	70	33.3%
Other Brain Abnormality	1	0.5%
Hearing Loss, Hearing Aid, Cochlear Implant	0	0.0%
Ever, Prior to and Up to 45 Days After Index		
Jaundice	128	61.0%
Petechiae	28	13.3%
Hepatomegaly	26	12.4%
Splenomegaly	27	12.9%
Microcephaly	45	21.4%
Thrombocytopenia	126	60.0%
Chlorioretinitis	22	10.5%
Brain Abnormality	77	36.7%
Other Brain Abnormality	1	0.5%

Table 1d. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) (Hearing Loss: Absent, Clinical Characteristic: Present) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Medical Product Use	Number	Percent
Lab Tests (Ever, Prior to and Up to 15 Days After Index)		
CMV PCR (Blood, Urine, Saliva)	66	31.4%
CMV Antigen or Antibody Testing	11	5.2%
CMV Culture	20	9.5%
CMV PCR, CMV Antigen/Antibody Testing, or CMV Culture	72	34.3%
Radiology Tests (Ever, Prior to and Up to 30 Days After Index)		
Head Computed Tomography (CT)	22	10.5%
Brain MRI	76	36.2%
Head Ultrasound	5	2.4%

¹Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

Table 1e. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) (Hearing Loss: Present, Clinical Characteristic: Present) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Patient Characteristics	Number	
Unique patients	64	
Demographic Characteristics	Mean	Standard Deviation
Mean Age (Days)	120.73	256.42
Age (Days)	Number	Percent
≤ 181	57	89.1%
182-364	3	4.7%
365-729	1	1.6%
730-1094	0	0.0%
1095-1459	0	0.0%
1460-1825	0	0.0%
Sex		
Female	36	56.3%
Male	28	43.8%
Race ¹		
American Indian or Alaska Native	0	0.0%
Asian	0	0.0%
Black or African American	4	6.3%
Native Hawaiian or Other Pacific Islander	3	4.7%
Unknown	47	73.4%
White	10	15.6%
Hispanic Origin		
Yes	1	1.6%
No	13	20.3%
Unknown	50	78.1%
Year		
2008	2	3.1%
2009	1	1.6%
2010	2	3.1%
2011	4	6.3%
2012	2	3.1%
2013	3	4.7%
2014	9	14.1%
2015	8	12.5%
2016	8	12.5%
2017	4	6.3%
2018	5	7.8%
2019	10	15.6%
2020	6	9.4%
2021	0	0.0%
Health Characteristics		
Type of Cytomegalovirus (CMV) Diagnosis Code		
cCMV	61	95.3%
CMV	47	73.4%

Table 1e. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) (Hearing Loss: Present, Clinical Characteristic: Present) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Clinical Characteristics	Number	Percent
Ever, Prior to and Up to 15 Days After Index		
Jaundice	33	51.6%
Petechiae	14	21.9%
Hepatomegaly	9	14.1%
Splenomegaly	7	10.9%
Microcephaly	18	28.1%
Thrombocytopenia	32	50.0%
Chlorioretinitis	6	9.4%
Hearing Loss, Hearing Aid, Cochlear Implant	64	100.0%
Ever, Prior to and Up to 30 Days After Index		
Brain Abnormality	33	51.6%
Other Brain Abnormality	0	0.0%
Within 60 Days From Index		
Neutropenia	13	20.3%
Receipt of RBC transfusion	1	1.6%
Receipt of platelet transfusion	0	0.0%
Receipt of GCSF transfusion	0	0.0%
Hearing Loss, Hearing Aid, Cochlear Implant	48	75.0%
Within 180 Days From Index		
Neutropenia	17	26.6%
Receipt of RBC transfusion	1	1.6%
Receipt of platelet transfusion	0	0.0%
Receipt of GCSF transfusion	0	0.0%
Hearing Loss, Hearing Aid, Cochlear Implant	54	84.4%
Within 365 Days From Index		
Hearing Loss, Hearing Aid, Cochlear Implant	54	84.4%
Ever, Prior to and Up to Index Date		
Jaundice	33	51.6%
Petechiae	14	21.9%
Hepatomegaly	9	14.1%
Splenomegaly	7	10.9%
Microcephaly	18	28.1%
Thrombocytopenia	32	50.0%
Chlorioretinitis	5	7.8%
Brain Abnormality	33	51.6%
Other Brain Abnormality	0	0.0%
Hearing Loss, Hearing Aid, Cochlear Implant	64	100.0%
Ever, Prior to and Up to 45 Days After Index		
Jaundice	33	51.6%
Petechiae	14	21.9%
Hepatomegaly	11	17.2%
Splenomegaly	7	10.9%
Microcephaly	18	28.1%
Thrombocytopenia	32	50.0%
Chlorioretinitis	7	10.9%
Brain Abnormality	33	51.6%
Other Brain Abnormality	0	0.0%

Table 1e. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) (Hearing Loss: Present, Clinical Characteristic: Present) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Medical Product Use	Number	Percent
Lab Tests (Ever, Prior to and Up to 15 Days After Index)		
CMV PCR (Blood, Urine, Saliva)	37	57.8%
CMV Antigen or Antibody Testing	10	15.6%
CMV Culture	16	25.0%
CMV PCR, CMV Antigen/Antibody Testing, or CMV Culture	39	60.9%
Radiology Tests (Ever, Prior to and Up to 30 Days After Index)		
Head Computed Tomography (CT)	15	23.4%
Brain MRI	28	43.8%
Head Ultrasound	1	1.6%

¹Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

Table 1f. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) by Disease Severity (Hematologic Outcomes: Absent) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Patient Characteristics	Number	
Unique patients	270	
Demographic Characteristics	Mean	Standard Deviation
Mean Age (Days)	83.00	151.89
Age (Days)	Number	Percent
≤ 181	246	91.1%
182-364	18	6.7%
365-729	3	1.1%
730-1094	0	0.0%
1095-1459	0	0.0%
1460-1825	0	0.0%
Sex		
Female	130	48.1%
Male	140	51.9%
Race ¹		
American Indian or Alaska Native	0	0.0%
Asian	1	0.4%
Black or African American	20	7.4%
Native Hawaiian or Other Pacific Islander	4	1.5%
Unknown	217	80.4%
White	28	10.4%
Hispanic Origin		
Yes	1	0.4%
No	45	16.7%
Unknown	224	83.0%
Year		
2008	9	3.3%
2009	4	1.5%
2010	9	3.3%
2011	12	4.4%
2012	8	3.0%
2013	10	3.7%
2014	14	5.2%
2015	36	13.3%
2016	40	14.8%
2017	30	11.1%
2018	32	11.9%
2019	33	12.2%
2020	29	10.7%
2021	4	1.5%
Health Characteristics		
Type of Cytomegalovirus (CMV) Diagnosis Code		
cCMV	270	100.0%
CMV	149	55.2%

Table 1f. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) by Disease Severity (Hematologic Outcomes: Absent) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Clinical Characteristics	Number	Percent
Ever, Prior to and Up to 15 Days After Index		
Jaundice	114	42.2%
Petechiae	26	9.6%
Hepatomegaly	23	8.5%
Splenomegaly	23	8.5%
Microcephaly	50	18.5%
Thrombocytopenia	105	38.9%
Chlorioretinitis	14	5.2%
Hearing Loss, Hearing Aid, Cochlear Implant	87	32.2%
Ever, Prior to and Up to 30 Days After Index		
Brain Abnormality	72	26.7%
Other Brain Abnormality	1	0.4%
Within 60 Days From Index		
Neutropenia	0	0.0%
Receipt of RBC transfusion	0	0.0%
Receipt of platelet transfusion	0	0.0%
Receipt of GCSF transfusion	0	0.0%
Hearing Loss, Hearing Aid, Cochlear Implant	106	39.3%
Within 180 Days From Index		
Neutropenia	0	0.0%
Receipt of RBC transfusion	0	0.0%
Receipt of platelet transfusion	0	0.0%
Receipt of GCSF transfusion	0	0.0%
Hearing Loss, Hearing Aid, Cochlear Implant	134	49.6%
Within 365 Days From Index		
Hearing Loss, Hearing Aid, Cochlear Implant	152	56.3%
Ever, Prior to and Up to Index Date		
Jaundice	111	41.1%
Petechiae	25	9.3%
Hepatomegaly	22	8.1%
Splenomegaly	21	7.8%
Microcephaly	47	17.4%
Thrombocytopenia	105	38.9%
Chlorioretinitis	14	5.2%
Brain Abnormality	67	24.8%
Other Brain Abnormality	1	0.4%
Hearing Loss, Hearing Aid, Cochlear Implant	70	25.9%
Ever, Prior to and Up to 45 Days After Index		
Jaundice	114	42.2%
Petechiae	26	9.6%
Hepatomegaly	25	9.3%
Splenomegaly	23	8.5%
Microcephaly	52	19.3%
Thrombocytopenia	105	38.9%
Chlorioretinitis	16	5.9%
Brain Abnormality	74	27.4%
Other Brain Abnormality	1	0.4%

Table 1f. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) by Disease Severity (Hematologic Outcomes: Absent) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Medical Product Use	Number	Percent
Lab Tests (Ever, Prior to and Up to 15 Days After Index)		
CMV PCR (Blood, Urine, Saliva)	98	36.3%
CMV Antigen or Antibody Testing	24	8.9%
CMV Culture	23	8.5%
CMV PCR, CMV Antigen/Antibody Testing, or CMV Culture	106	39.3%
Radiology Tests (Ever, Prior to and Up to 30 Days After Index)		
Head Computed Tomography (CT)	37	13.7%
Brain MRI	84	31.1%
Head Ultrasound	5	1.9%

¹Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

Table 1g. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) by Disease Severity (Hematologic Outcomes: Present) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Patient Characteristics	Number	
Unique patients	68	
Demographic Characteristics	Mean	Standard Deviation
Mean Age (Days)	42.18	29.68
Age (Days)	Number	Percent
≤ 181	68	100.0%
182-364	0	0.0%
365-729	0	0.0%
730-1094	0	0.0%
1095-1459	0	0.0%
1460-1825	0	0.0%
Sex		
Female	31	45.6%
Male	37	54.4%
Race¹		
American Indian or Alaska Native	0	0.0%
Asian	0	0.0%
Black or African American	5	7.4%
Native Hawaiian or Other Pacific Islander	1	1.5%
Unknown	57	83.8%
White	5	7.4%
Hispanic Origin		
Yes	1	1.5%
No	6	8.8%
Unknown	61	89.7%
Year		
2008	2	2.9%
2009	0	0.0%
2010	1	1.5%
2011	0	0.0%
2012	2	2.9%
2013	5	7.4%
2014	10	14.7%
2015	8	11.8%
2016	9	13.2%
2017	8	11.8%
2018	11	16.2%
2019	8	11.8%
2020	4	5.9%
2021	0	0.0%
Health Characteristics		
Type of Cytomegalovirus (CMV) Diagnosis Code		
cCMV	68	100.0%
CMV	35	51.5%

Table 1g. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) by Disease Severity (Hematologic Outcomes: Present) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Clinical Characteristics	Number	Percent
Ever, Prior to and Up to 15 Days After Index		
Jaundice	39	57.4%
Petechiae	13	19.1%
Hepatomegaly	10	14.7%
Splenomegaly	9	13.2%
Microcephaly	10	14.7%
Thrombocytopenia	43	63.2%
Chlorioretinitis	9	13.2%
Hearing Loss, Hearing Aid, Cochlear Implant	25	36.8%
Ever, Prior to and Up to 30 Days After Index		
Brain Abnormality	33	48.5%
Other Brain Abnormality	0	0.0%
Within 60 Days From Index		
Neutropenia	48	70.6%
Receipt of RBC transfusion	5	7.4%
Receipt of platelet transfusion	3	4.4%
Receipt of GCSF transfusion	4	5.9%
Hearing Loss, Hearing Aid, Cochlear Implant	30	44.1%
Within 180 Days From Index		
Neutropenia	64	94.1%
Receipt of RBC transfusion	5	7.4%
Receipt of platelet transfusion	3	4.4%
Receipt of GCSF transfusion	6	8.8%
Hearing Loss, Hearing Aid, Cochlear Implant	43	63.2%
Within 365 Days From Index		
Hearing Loss, Hearing Aid, Cochlear Implant	44	64.7%
Ever, Prior to and Up to Index Date		
Jaundice	38	55.9%
Petechiae	12	17.6%
Hepatomegaly	9	13.2%
Splenomegaly	8	11.8%
Microcephaly	10	14.7%
Thrombocytopenia	43	63.2%
Chlorioretinitis	9	13.2%
Brain Abnormality	31	45.6%
Other Brain Abnormality	0	0.0%
Hearing Loss, Hearing Aid, Cochlear Implant	20	29.4%
Ever, Prior to and Up to 45 Days After Index		
Jaundice	39	57.4%
Petechiae	15	22.1%
Hepatomegaly	12	17.6%
Splenomegaly	9	13.2%
Microcephaly	13	19.1%
Thrombocytopenia	44	64.7%
Chlorioretinitis	11	16.2%
Brain Abnormality	34	50.0%
Other Brain Abnormality	0	0.0%

Table 1g. Aggregated Baseline Characteristics of Valganciclovir (VGCV) Use Among Infants with Congenital Cytomegalovirus (cCMV) by Disease Severity (Hematologic Outcomes: Present) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Medical Product Use	Number	Percent
Lab Tests (Ever, Prior to and Up to 15 Days After Index)		
CMV PCR (Blood, Urine, Saliva)	28	41.2%
CMV Antigen or Antibody Testing	3	4.4%
CMV Culture	17	25.0%
CMV PCR, CMV Antigen/Antibody Testing, or CMV Culture	30	44.1%
Radiology Tests (Ever, Prior to and Up to 30 Days After Index)		
Head Computed Tomography (CT)	7	10.3%
Brain MRI	31	45.6%
Head Ultrasound	1	1.5%

¹Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

Table 2. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)				
Overall				
	372	2,125	142.3	0.4
Hearing Loss: Absent, Clinical Characteristics: Absent				
	62	1,043	20.6	0.3
Hearing Loss: Present, Clinical Characteristics: Absent				
	36	304	14.6	0.4
Hearing Loss: Absent, Clinical Characteristics: Present				
	210	1,149	81.1	0.4
Hearing Loss: Present, Clinical Characteristics: Present				
	64	425	26.0	0.4
Hematologic Outcomes: Absent				
	270	2,011	102.1	0.4
Hematologic Outcomes: Present				
	68	322	27.2	0.4

¹Eligible Members are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

Table 3. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Sex

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)				
Overall				
Female	178	1,024	69.0	0.4
Male	194	1,101	73.3	0.4
Hearing Loss: Absent, Clinical Characteristics: Absent				
Female	27	517	8.1	0.3
Male	35	526	12.5	0.4
Hearing Loss: Present, Clinical Characteristics: Absent				
Female	17	162	6.3	0.4
Male	19	142	8.3	0.4
Hearing Loss: Absent, Clinical Characteristics: Present				
Female	98	509	38.7	0.4
Male	112	640	42.5	0.4
Hearing Loss: Present, Clinical Characteristics: Present				
Female	36	209	16.0	0.4
Male	28	216	10.1	0.4
Hematologic Outcomes: Absent				
Female	130	972	51.7	0.4
Male	140	1,039	50.3	0.4
Hematologic Outcomes: Present				
Female	31	131	11.0	0.4
Male	37	191	16.2	0.4

¹Eligible Members are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

Table 4. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)				
Overall				
2008	11	289	2.4	0.2
2009	5	310	1.1	0.2
2010	11	353	2.8	0.3
2011	14	341	4.4	0.3
2012	12	349	3.2	0.3
2013	16	368	5.9	0.4
2014	26	382	10.2	0.4
2015	46	400	18.4	0.4
2016	53	430	24.1	0.5
2017	43	493	16.7	0.4
2018	46	496	20.5	0.4
2019	49	533	20.1	0.4
2020	36	415	11.8	0.3
2021	4	131	0.7	0.2
Hearing Loss: Absent, Clinical Characteristics: Absent				
2008	2	130	0.3	0.1
2009	0	121	0.0	-
2010	1	124	0.2	0.2
2011	4	129	1.7	0.4
2012	3	132	0.9	0.3
2013	2	134	0.7	0.4
2014	0	147	0.0	-
2015	6	140	2.1	0.4
2016	8	144	2.8	0.4
2017	11	187	3.4	0.3
2018	7	165	2.5	0.4
2019	10	186	2.7	0.3
2020	7	167	3.1	0.4
2021	1	46	0.2	0.2
Hearing Loss: Present, Clinical Characteristics: Absent				
2008	0	27	0.0	-
2009	2	28	0.5	0.2
2010	2	27	0.4	0.2
2011	2	26	0.6	0.3
2012	0	25	0.0	-
2013	3	30	1.2	0.4
2014	1	30	0.3	0.3
2015	3	30	0.9	0.3
2016	3	35	1.1	0.4
2017	5	60	1.6	0.3
2018	4	72	2.0	0.5
2019	5	75	3.7	0.7
2020	6	78	2.2	0.4
2021	0	23	0.0	-

Table 4. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Hearing Loss: Absent, Clinical Characteristics: Present				
2008	7	139	1.6	0.2
2009	2	142	0.3	0.2
2010	6	166	1.8	0.3
2011	4	142	0.8	0.2
2012	7	165	1.9	0.3
2013	8	176	3.0	0.4
2014	16	171	6.0	0.4
2015	29	201	11.8	0.4
2016	34	229	16.3	0.5
2017	23	239	9.6	0.4
2018	30	232	14.1	0.5
2019	24	236	8.4	0.4
2020	17	160	5.0	0.3
2021	3	50	0.5	0.2
Hearing Loss: Present, Clinical Characteristics: Present				
2008	2	47	0.5	0.2
2009	1	64	0.3	0.3
2010	2	84	0.4	0.2
2011	4	79	1.3	0.3
2012	2	78	0.4	0.2
2013	3	90	0.9	0.3
2014	9	90	3.9	0.4
2015	8	86	3.7	0.5
2016	8	90	3.9	0.5
2017	4	101	2.1	0.5
2018	5	97	1.9	0.4
2019	10	115	5.3	0.5
2020	6	74	1.5	0.3
2021	0	24	0.0	-
Hematologic Outcomes: Absent				
2008	9	280	2.1	0.2
2009	4	300	0.8	0.2
2010	9	344	2.2	0.2
2011	12	331	4.1	0.3
2012	8	339	1.6	0.2
2013	10	356	3.4	0.3
2014	14	367	5.3	0.4
2015	36	385	15.1	0.4
2016	40	406	18.9	0.5
2017	30	468	11.3	0.4
2018	32	472	14.4	0.5
2019	33	506	12.2	0.4
2020	29	399	9.8	0.3
2021	4	131	0.7	0.2

Table 4. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Hematologic Outcomes: Present				
2008	2	25	0.2	0.1
2009	0	12	0.0	-
2010	1	26	0.2	0.2
2011	0	24	0.0	-
2012	2	20	0.8	0.4
2013	5	27	2.0	0.4
2014	10	32	3.8	0.4
2015	8	29	2.6	0.3
2016	9	30	3.4	0.4
2017	8	36	3.6	0.4
2018	11	31	5.4	0.5
2019	8	35	3.9	0.5
2020	4	23	1.2	0.3
2021	0	1	0.0	-

¹Eligible Members are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

Table 5. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race¹

	New Users	Eligible Members ²	Years at Risk	Years at Risk
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)				
Overall				
American Indian or Alaska Native	0	3	0.0	-
Asian	1	23	0.4	0.4
Black or African American	27	116	8.5	0.3
Native Hawaiian or Other Pacific Islander	5	10	1.3	0.3
Unknown	302	1,805	118.5	0.4
White	37	168	13.6	0.4
Hearing Loss: Absent, Clinical Characteristics: Absent				
American Indian or Alaska Native	0	2	0.0	-
Asian	0	9	0.0	-
Black or African American	8	51	1.8	0.2
Native Hawaiian or Other Pacific Islander	1	4	0.2	0.2
Unknown	48	908	16.9	0.4
White	5	69	1.8	0.4
Hearing Loss: Present, Clinical Characteristics: Absent				
American Indian or Alaska Native	0	2	0.0	-
Asian	1	3	0.4	0.4
Black or African American	0	9	0.0	-
Native Hawaiian or Other Pacific Islander	1	2	0.4	0.4
Unknown	27	266	11.0	0.4
White	7	22	2.8	0.4
Hearing Loss: Absent, Clinical Characteristics: Present				
American Indian or Alaska Native	0	0	0.0	-
Asian	0	13	0.0	-
Black or African American	15	66	5.7	0.4
Native Hawaiian or Other Pacific Islander	0	3	0.0	-
Unknown	180	965	70.2	0.4
White	15	102	5.2	0.3
Hearing Loss: Present, Clinical Characteristics: Present				
American Indian or Alaska Native	0	0	0.0	-
Asian	0	5	0.0	-
Black or African American	4	12	1.1	0.3
Native Hawaiian or Other Pacific Islander	3	5	0.7	0.2
Unknown	47	358	20.4	0.4
White	10	45	3.8	0.4
Hematologic Outcomes: Absent				
American Indian or Alaska Native	0	3	0.0	-
Asian	1	22	0.4	0.4
Black or African American	20	109	6.4	0.3
Native Hawaiian or Other Pacific Islander	4	9	1.3	0.3
Unknown	217	1,710	82.8	0.4
White	28	158	11.2	0.4

Table 5. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race¹

	New Users	Eligible Members²	Years at Risk	Years at Risk
Hematologic Outcomes: Present				
American Indian or Alaska Native	0	0	0.0	-
Asian	0	3	0.0	-
Black or African American	5	23	1.8	0.4
Native Hawaiian or Other Pacific Islander	1	2	0.0	0.0
Unknown	57	266	24.1	0.4
White	5	28	1.3	0.3

¹Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

²Eligible Members are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

Table 6. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Hispanic Origin

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)				
Overall				
Yes	2	17	0.2	0.1
No	55	232	19.8	0.4
Unknown	315	1,876	122.4	0.4
Hearing Loss: Absent, Clinical Characteristics: Absent				
Yes	1	9	0.2	0.2
No	12	102	3.4	0.3
Unknown	49	932	17.1	0.3
Hearing Loss: Present, Clinical Characteristics: Absent				
Yes	0	3	0.0	-
No	7	27	2.8	0.4
Unknown	29	274	11.8	0.4
Hearing Loss: Absent, Clinical Characteristics: Present				
Yes	0	7	0.0	-
No	23	132	8.5	0.4
Unknown	187	1,010	72.6	0.4
Hearing Loss: Present, Clinical Characteristics: Present				
Yes	1	3	0.0	0.0
No	13	52	5.1	0.4
Unknown	50	370	20.9	0.4
Hematologic Outcomes: Absent				
Yes	1	16	0.2	0.2
No	45	220	17.1	0.4
Unknown	224	1,775	84.8	0.4
Hematologic Outcomes: Present				
Yes	1	3	0.0	0.0
No	6	37	1.6	0.3
Unknown	61	282	25.5	0.4

¹Eligible Members are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

Table 7. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)				
Overall				
Midwest	87	459	33.6	0.4
Northeast	41	231	14.8	0.4
South	193	1,083	72.8	0.4
West	49	320	21.0	0.4
Invalid	0	11	0.0	-
Missing	2	19	0.1	0.1
Other	0	2	0.0	-
Hearing Loss: Absent, Clinical Characteristics: Absent				
Midwest	15	214	4.1	0.3
Northeast	9	143	2.1	0.2
South	37	530	13.2	0.4
West	13	174	4.5	0.3
Invalid	0	4	0.0	-
Missing	0	15	0.0	-
Other	0	2	0.0	-
Hearing Loss: Present, Clinical Characteristics: Absent				
Midwest	6	61	3.4	0.6
Northeast	3	21	0.8	0.3
South	12	96	5.2	0.4
West	3	27	1.8	0.6
Invalid	0	1	0.0	-
Missing	0	1	0.0	-
Other	0	1	0.0	-
Hearing Loss: Absent, Clinical Characteristics: Present				
Midwest	57	266	21.5	0.4
Northeast	23	121	9.4	0.4
South	130	667	48.5	0.4
West	29	187	12.6	0.4
Invalid	0	8	0.0	-
Missing	1	7	0.1	0.1
Other	0	1	0.0	-
Hearing Loss: Present, Clinical Characteristics: Present				
Midwest	9	59	4.5	0.5
Northeast	6	29	2.5	0.4
South	14	105	6.0	0.4
West	4	39	2.0	0.5
Invalid	0	1	0.0	-
Missing	1	1	0.0	0.0
Other	0	0	0.0	-

Table 7. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Hematologic Outcomes: Absent				
Midwest	65	436	23.3	0.4
Northeast	32	220	12.1	0.4
South	140	1,023	53.5	0.4
West	32	302	13.1	0.4
Invalid	0	10	0.0	-
Missing	1	18	0.1	0.1
Other	0	2	0.0	-
Hematologic Outcomes: Present				
Midwest	14	84	6.8	0.5
Northeast	8	16	2.6	0.3
South	36	172	13.7	0.4
West	9	46	4.1	0.5
Invalid	0	2	0.0	-
Missing	1	2	0.0	0.0
Other	0	0	0.0	-

¹Eligible Members are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

Table 8. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Sex and Year

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)				
Overall				
Female				
2008	4	148	0.6	0.1
2009	3	156	0.6	0.2
2010	5	181	1.4	0.3
2011	4	179	1.3	0.3
2012	5	177	1.4	0.3
2013	9	175	3.4	0.4
2014	15	178	5.1	0.3
2015	26	192	10.2	0.4
2016	22	199	11.6	0.5
2017	17	222	6.6	0.4
2018	25	222	11.9	0.5
2019	27	242	10.0	0.4
2020	16	204	5.0	0.3
2021	0	59	0.0	-
Male				
2008	7	141	1.8	0.3
2009	2	154	0.5	0.2
2010	6	172	1.4	0.2
2011	10	162	3.1	0.3
2012	7	172	1.8	0.3
2013	7	193	2.5	0.4
2014	11	204	5.1	0.5
2015	20	208	8.2	0.4
2016	31	231	12.5	0.4
2017	26	271	10.1	0.4
2018	21	274	8.6	0.4
2019	22	291	10.2	0.5
2020	20	211	6.8	0.3
2021	4	72	0.7	0.2
Hearing Loss: Absent, Clinical Characteristics: Absent				
Female				
2008	1	70	0.2	0.2
2009	0	62	0.0	-
2010	0	65	0.0	-
2011	1	77	0.2	0.2
2012	3	73	0.9	0.3
2013	1	72	0.3	0.3
2014	0	79	0.0	-
2015	3	71	0.6	0.2
2016	2	78	0.7	0.3
2017	4	91	0.8	0.2
2018	5	83	2.2	0.4
2019	4	90	1.0	0.3
2020	3	86	1.3	0.4
2021	0	24	0.0	-

Table 8. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Sex and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Male				
2008	1	60	0.1	0.1
2009	0	59	0.0	-
2010	1	59	0.2	0.2
2011	3	52	1.6	0.5
2012	0	59	0.0	-
2013	1	62	0.4	0.4
2014	0	68	0.0	-
2015	3	69	1.5	0.5
2016	6	66	2.1	0.4
2017	7	96	2.6	0.4
2018	2	82	0.3	0.2
2019	6	96	1.6	0.3
2020	4	81	1.9	0.5
2021	1	22	0.2	0.2
Hearing Loss: Present, Clinical Characteristics: Absent				
Female				
2008	0	14	0.0	-
2009	1	18	0.2	0.2
2010	1	17	0.3	0.3
2011	0	14	0.0	-
2012	0	14	0.0	-
2013	1	13	0.6	0.6
2014	1	16	0.3	0.3
2015	2	16	0.3	0.2
2016	2	18	1.0	0.5
2017	3	31	1.1	0.4
2018	2	34	1.3	0.6
2019	1	37	0.3	0.3
2020	3	46	0.9	0.3
2021	0	15	0.0	-
Male				
2008	0	13	0.0	-
2009	1	10	0.2	0.2
2010	1	10	0.2	0.2
2011	2	12	0.6	0.3
2012	0	11	0.0	-
2013	2	17	0.6	0.3
2014	0	14	0.0	-
2015	1	14	0.6	0.6
2016	1	17	0.2	0.2
2017	2	29	0.5	0.3
2018	2	38	0.7	0.4
2019	4	38	3.4	0.9
2020	3	32	1.3	0.4
2021	0	8	0.0	-

Table 8. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Sex and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Hearing Loss: Absent, Clinical Characteristics: Present				
<i>Female</i>				
2008	3	69	0.4	0.1
2009	2	63	0.3	0.2
2010	3	83	0.8	0.3
2011	0	67	0.0	-
2012	2	74	0.5	0.2
2013	7	72	2.5	0.4
2014	8	66	2.8	0.3
2015	17	89	7.3	0.4
2016	12	99	6.7	0.6
2017	8	99	3.6	0.5
2018	16	91	7.6	0.5
2019	15	96	4.6	0.3
2020	5	65	1.7	0.3
2021	0	14	0.0	-
<i>Male</i>				
2008	4	70	1.2	0.3
2009	0	79	0.0	-
2010	3	83	0.9	0.3
2011	4	75	0.8	0.2
2012	5	91	1.5	0.3
2013	1	104	0.5	0.5
2014	8	105	3.2	0.4
2015	12	112	4.5	0.4
2016	22	130	9.6	0.4
2017	15	140	6.0	0.4
2018	14	141	6.5	0.5
2019	9	140	3.9	0.4
2020	12	95	3.3	0.3
2021	3	36	0.5	0.2
Hearing Loss: Present, Clinical Characteristics: Present				
<i>Female</i>				
2008	0	23	0.0	-
2009	0	30	0.0	-
2010	1	40	0.2	0.2
2011	3	39	1.1	0.4
2012	0	39	0.0	-
2013	0	44	0.0	-
2014	6	47	2.1	0.3
2015	4	43	2.0	0.5
2016	6	39	3.3	0.5
2017	2	43	1.1	0.5
2018	2	44	0.9	0.4
2019	7	52	4.1	0.6
2020	5	39	1.2	0.2
2021	0	14	0.0	-

Table 8. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Sex and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Male				
2008	2	24	0.5	0.2
2009	1	34	0.3	0.3
2010	1	44	0.2	0.2
2011	1	40	0.2	0.2
2012	2	39	0.4	0.2
2013	3	46	0.9	0.3
2014	3	43	1.8	0.6
2015	4	43	1.7	0.4
2016	2	51	0.6	0.3
2017	2	58	1.0	0.5
2018	3	53	1.0	0.3
2019	3	63	1.2	0.4
2020	1	35	0.3	0.3
2021	0	10	0.0	-
Hematologic Outcomes: Absent				
Female				
2008	2	142	0.3	0.2
2009	2	151	0.3	0.2
2010	3	176	0.8	0.3
2011	2	171	0.9	0.5
2012	2	170	0.3	0.2
2013	6	169	2.2	0.4
2014	7	169	2.4	0.3
2015	23	188	9.4	0.4
2016	18	189	10.0	0.6
2017	15	215	5.7	0.4
2018	18	212	8.7	0.5
2019	19	229	6.1	0.3
2020	13	196	4.6	0.4
2021	0	59	0.0	-
Male				
2008	7	138	1.8	0.3
2009	2	149	0.5	0.2
2010	6	168	1.4	0.2
2011	10	160	3.1	0.3
2012	6	169	1.3	0.2
2013	4	187	1.2	0.3
2014	7	198	2.9	0.4
2015	13	197	5.7	0.4
2016	22	217	8.9	0.4
2017	15	253	5.7	0.4
2018	14	260	5.8	0.4
2019	14	277	6.1	0.4
2020	16	203	5.2	0.3
2021	4	72	0.7	0.2

Table 8. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Sex and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Hematologic Outcomes: Present				
Female				
2008	2	7	0.2	0.1
2009	0	3	0.0	-
2010	1	15	0.2	0.2
2011	0	10	0.0	-
2012	1	7	0.3	0.3
2013	2	11	0.7	0.4
2014	6	13	1.6	0.3
2015	2	12	0.4	0.2
2016	2	9	0.7	0.3
2017	1	11	0.4	0.4
2018	6	12	3.0	0.5
2019	6	17	3.3	0.5
2020	2	13	0.2	0.1
2021	0	1	0.0	-
Male				
2008	0	18	0.0	-
2009	0	9	0.0	-
2010	0	11	0.0	-
2011	0	14	0.0	-
2012	1	13	0.5	0.5
2013	3	16	1.2	0.4
2014	4	19	2.2	0.5
2015	6	17	2.2	0.4
2016	7	21	2.8	0.4
2017	7	25	3.2	0.5
2018	5	19	2.5	0.5
2019	2	18	0.6	0.3
2020	2	10	1.0	0.5
2021	0	0	0.0	-

¹Eligible Members are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)				
Overall				
Midwest				
2008	2	52	0.5	0.2
2009	3	60	0.5	0.2
2010	7	64	1.7	0.2
2011	2	50	0.3	0.1
2012	2	54	0.7	0.3
2013	2	56	0.8	0.4
2014	8	57	2.9	0.4
2015	6	55	2.8	0.5
2016	12	71	5.8	0.5
2017	9	99	4.2	0.5
2018	12	100	3.8	0.3
2019	12	120	6.4	0.5
2020	8	128	3.0	0.4
2021	2	51	0.4	0.2
Northeast				
2008	0	19	0.0	-
2009	0	27	0.0	-
2010	0	31	0.0	-
2011	4	33	1.1	0.3
2012	4	42	0.7	0.2
2013	4	40	0.8	0.2
2014	2	42	0.6	0.3
2015	8	37	3.1	0.4
2016	3	36	1.7	0.6
2017	3	44	1.0	0.3
2018	4	47	2.2	0.5
2019	3	58	1.8	0.6
2020	6	55	1.8	0.3
2021	0	13	0.0	-
South				
2008	9	162	1.9	0.2
2009	1	166	0.3	0.3
2010	2	201	0.8	0.4
2011	5	206	2.3	0.5
2012	5	204	1.6	0.3
2013	4	217	1.7	0.4
2014	11	214	4.3	0.4
2015	25	230	9.8	0.4
2016	29	246	11.9	0.4
2017	28	279	10.1	0.4
2018	28	280	13.7	0.5
2019	29	282	9.3	0.3
2020	16	154	4.9	0.3
2021	1	34	0.2	0.2

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
West				
2008	0	42	0.0	-
2009	1	49	0.2	0.2
2010	2	53	0.3	0.2
2011	3	48	0.7	0.2
2012	1	46	0.3	0.3
2013	6	54	2.5	0.4
2014	5	67	2.4	0.5
2015	7	76	2.7	0.4
2016	9	74	4.7	0.5
2017	3	68	1.4	0.5
2018	2	66	0.9	0.4
2019	5	69	2.6	0.5
2020	5	73	2.1	0.4
2021	0	29	0.0	-
Invalid				
2008	0	2	0.0	-
2009	0	3	0.0	-
2010	0	4	0.0	-
2011	0	4	0.0	-
2012	0	3	0.0	-
2013	0	1	0.0	-
2014	0	1	0.0	-
2015	0	1	0.0	-
2016	0	1	0.0	-
2017	0	1	0.0	-
2018	0	2	0.0	-
2019	0	3	0.0	-
2020	0	2	0.0	-
2021	0	1	0.0	-
Missing				
2008	0	12	0.0	-
2009	0	5	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	1	0.0	-
2015	0	1	0.0	-
2016	0	2	0.0	-
2017	0	2	0.0	-
2018	0	1	0.0	-
2019	0	1	0.0	-
2020	1	1	0.0	0.0
2021	1	2	0.1	0.1

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Other				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	2	0.0	-
2021	0	1	0.0	-
Hearing Loss: Absent, Clinical Characteristics: Absent				
Midwest				
2008	0	20	0.0	-
2009	0	15	0.0	-
2010	0	15	0.0	-
2011	1	10	0.2	0.2
2012	0	14	0.0	-
2013	0	15	0.0	-
2014	0	20	0.0	-
2015	0	20	0.0	.
2016	2	24	0.5	-
2017	1	39	0.3	0.3
2018	5	36	1.5	0.3
2019	0	40	0.0	-
2020	0	46	0.0	-
2021	0	17	0.0	-
Northeast				
2008	0	12	0.0	-
2009	0	16	0.0	-
2010	0	19	0.0	-
2011	0	20	0.0	-
2012	2	25	0.3	0.2
2013	0	22	0.0	-
2014	0	21	0.0	-
2015	1	16	0.1	0.1
2016	0	18	0.0	-
2017	1	21	0.2	0.2
2018	1	18	0.5	0.5
2019	0	21	0.0	-
2020	1	20	0.4	0.4
2021	0	4	0.0	-

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
South				
2008	2	67	0.3	0.1
2009	0	68	0.0	-
2010	0	72	0.0	-
2011	2	80	1.4	0.7
2012	1	75	0.6	0.6
2013	0	72	0.0	-
2014	0	78	0.0	-
2015	4	79	1.5	0.4
2016	3	80	1.2	0.4
2017	8	103	2.4	0.3
2018	1	87	0.5	0.5
2019	9	99	2.5	0.3
2020	5	69	2.1	0.4
2021	1	14	0.2	0.2
West				
2008	0	20	0.0	-
2009	0	18	0.0	-
2010	1	18	0.2	0.2
2011	1	19	0.2	0.2
2012	0	18	0.0	-
2013	2	25	0.7	0.4
2014	0	27	0.0	-
2015	1	24	0.5	0.5
2016	3	22	1.1	0.4
2017	1	24	0.6	0.6
2018	0	24	0.0	-
2019	1	25	0.2	0.2
2020	1	29	0.7	0.7
2021	0	11	0.0	-
Invalid				
2008	0	0	0.0	-
2009	0	2	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	1	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Missing				
2008	0	11	0.0	-
2009	0	2	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	1	0.0	-
2015	0	1	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	1	0.0	-
2021	0	0	0.0	-
Other				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	2	0.0	-
2021	0	0	0.0	-
Hearing Loss: Present, Clinical Characteristics: Absent				
Midwest				
2008	0	8	0.0	-
2009	1	6	0.2	0.2
2010	2	9	0.4	0.2
2011	0	5	0.0	-
2012	0	5	0.0	-
2013	1	8	0.6	0.6
2014	1	8	0.3	0.3
2015	1	9	0.2	0.2
2016	0	5	0.0	-
2017	2	19	0.8	0.4
2018	1	15	0.2	0.2
2019	2	19	1.8	0.9
2020	1	27	0.7	0.7
2021	0	9	0.0	-

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Northeast				
2008	0	0	0.0	-
2009	0	2	0.0	-
2010	0	2	0.0	-
2011	2	6	0.6	0.3
2012	0	5	0.0	-
2013	1	6	0.0	0.0
2014	0	7	0.0	-
2015	1	4	0.6	0.6
2016	0	2	0.0	-
2017	1	6	0.2	0.2
2018	0	8	0.0	-
2019	0	8	0.0	-
2020	1	13	0.1	0.1
2021	0	2	0.0	-
South				
2008	0	10	0.0	-
2009	0	13	0.0	-
2010	0	14	0.0	-
2011	0	11	0.0	-
2012	0	14	0.0	-
2013	1	13	0.5	0.5
2014	0	11	0.0	-
2015	0	11	0.0	-
2016	3	24	1.1	0.4
2017	1	28	0.3	0.3
2018	2	40	1.5	0.7
2019	2	37	0.8	0.4
2020	4	27	1.5	0.4
2021	0	6	0.0	-
West				
2008	0	3	0.0	-
2009	1	5	0.2	0.2
2010	0	2	0.0	-
2011	0	3	0.0	-
2012	0	1	0.0	-
2013	0	3	0.0	-
2014	0	4	0.0	-
2015	1	6	0.1	0.1
2016	0	4	0.0	-
2017	1	7	0.4	0.4
2018	1	9	0.4	0.4
2019	1	11	1.0	1.0
2020	0	10	0.0	-
2021	0	5	0.0	-

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Invalid				
2008	0	1	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	1	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-
Missing				
2008	0	5	0.0	-
2009	0	2	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-
Other				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	1	0.0	-
2021	0	1	0.0	-

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Hearing Loss: Absent, Clinical Characteristics: Present				
Midwest				
2008	2	30	0.5	0.2
2009	2	35	0.3	0.2
2010	4	30	1.0	0.2
2011	1	20	0.1	0.1
2012	1	26	0.5	0.5
2013	1	24	0.1	0.1
2014	6	28	2.4	0.4
2015	4	28	2.0	0.5
2016	6	35	3.3	0.5
2017	5	48	2.7	0.5
2018	5	41	1.9	0.4
2019	7	54	2.7	0.4
2020	7	47	2.4	0.3
2021	2	18	0.4	0.2
Northeast				
2008	0	7	0.0	-
2009	0	7	0.0	-
2010	0	6	0.0	-
2011	1	5	0.2	0.2
2012	2	10	0.4	0.2
2013	1	13	0.2	0.2
2014	1	16	0.5	0.5
2015	5	15	2.3	0.5
2016	1	18	0.6	0.6
2017	0	19	0.0	-
2018	2	22	1.2	0.6
2019	3	29	1.8	0.6
2020	3	21	1.3	0.4
2021	0	5	0.0	-
South				
2008	5	82	1.1	0.2
2009	0	77	0.0	-
2010	2	99	0.8	0.4
2011	2	96	0.4	0.2
2012	3	100	0.8	0.3
2013	3	110	1.2	0.4
2014	8	97	2.6	0.3
2015	17	115	6.5	0.4
2016	22	133	9.4	0.4
2017	18	137	6.9	0.4
2018	23	136	10.9	0.5
2019	11	122	2.5	0.2
2020	4	62	0.5	0.1
2021	0	12	0.0	-

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
West				
2008	0	18	0.0	-
2009	0	19	0.0	-
2010	0	27	0.0	-
2011	0	18	0.0	-
2012	1	26	0.3	0.3
2013	3	28	1.5	0.5
2014	1	29	0.5	0.5
2015	3	41	1.0	0.3
2016	5	40	3.0	0.6
2017	0	32	0.0	-
2018	0	30	0.0	-
2019	3	29	1.4	0.5
2020	3	27	0.9	0.3
2021	0	12	0.0	-
Invalid				
2008	0	1	0.0	-
2009	0	3	0.0	-
2010	0	4	0.0	-
2011	0	3	0.0	-
2012	0	3	0.0	-
2013	0	1	0.0	-
2014	0	1	0.0	-
2015	0	1	0.0	-
2016	0	1	0.0	-
2017	0	1	0.0	-
2018	0	2	0.0	-
2019	0	1	0.0	-
2020	0	2	0.0	-
2021	0	1	0.0	-
Missing				
2008	0	1	0.0	-
2009	0	1	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	1	0.0	-
2016	0	2	0.0	-
2017	0	2	0.0	-
2018	0	1	0.0	-
2019	0	1	0.0	-
2020	0	0	0.0	-
2021	1	2	0.1	0.1

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Other				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	1	0.0	-
2021	0	0	0.0	-
Hearing Loss: Present, Clinical Characteristics: Present				
Midwest				
2008	0	12	0.0	-
2009	0	18	0.0	-
2010	1	22	0.2	0.2
2011	0	19	0.0	-
2012	1	19	0.1	0.1
2013	0	15	0.0	-
2014	1	13	0.2	0.2
2015	1	14	0.6	0.6
2016	4	15	2.1	0.5
2017	1	18	0.4	0.4
2018	1	21	0.2	0.2
2019	3	30	1.8	0.6
2020	0	29	0.0	-
2021	0	11	0.0	-
Northeast				
2008	0	3	0.0	-
2009	0	7	0.0	-
2010	0	9	0.0	-
2011	1	7	0.2	0.2
2012	0	7	0.0	-
2013	2	10	0.6	0.3
2014	1	8	0.1	0.1
2015	1	7	0.2	0.2
2016	2	7	1.1	0.6
2017	1	9	0.6	0.6
2018	1	10	0.4	0.4
2019	0	12	0.0	-
2020	1	7	0.1	0.1
2021	0	3	0.0	-

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
South				
2008	2	25	0.5	0.2
2009	1	29	0.3	0.3
2010	0	41	0.0	-
2011	1	41	0.5	0.5
2012	1	43	0.2	0.2
2013	0	50	0.0	-
2014	3	50	1.7	0.6
2015	4	46	1.8	0.5
2016	1	51	0.2	0.2
2017	1	56	0.6	0.6
2018	2	49	0.8	0.4
2019	7	59	3.5	0.5
2020	3	21	0.9	0.3
2021	0	6	0.0	-
West				
2008	0	6	0.0	-
2009	0	9	0.0	-
2010	1	12	0.2	0.2
2011	2	12	0.6	0.3
2012	0	9	0.0	-
2013	1	15	0.2	0.2
2014	4	19	1.9	0.5
2015	2	19	1.0	0.5
2016	1	17	0.5	0.5
2017	1	18	0.5	0.5
2018	1	16	0.5	0.5
2019	0	13	0.0	-
2020	1	16	0.5	0.5
2021	0	4	0.0	-
Invalid				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	1	0.0	-
2019	0	1	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Missing				
2008	0	1	0.0	-
2009	0	1	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	1	1	0.0	0.0
2021	0	0	0.0	-
Other				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-
Hematologic Outcomes: Absent				
Midwest				
2008	2	50	0.5	0.2
2009	3	60	0.5	0.2
2010	5	61	1.1	0.2
2011	2	48	0.3	0.1
2012	1	51	0.1	0.1
2013	2	55	0.8	0.4
2014	6	54	1.9	0.3
2015	6	53	2.8	0.5
2016	8	66	4.4	0.6
2017	5	90	2.1	0.4
2018	7	92	2.2	0.3
2019	8	113	3.2	0.4
2020	8	127	3.0	0.4
2021	2	51	0.4	0.2

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Northeast				
2008	0	19	0.0	-
2009	0	26	0.0	-
2010	0	30	0.0	-
2011	4	32	1.1	0.3
2012	3	41	0.5	0.2
2013	3	38	0.7	0.2
2014	0	40	0.0	-
2015	6	35	2.4	0.4
2016	1	33	1.1	1.1
2017	3	43	1.0	0.3
2018	3	45	1.7	0.6
2019	3	57	1.8	0.6
2020	6	53	1.8	0.3
2021	0	13	0.0	-
South				
2008	7	156	1.7	0.2
2009	1	159	0.3	0.3
2010	2	198	0.8	0.4
2011	4	202	2.2	0.5
2012	4	199	1.0	0.2
2013	2	213	0.7	0.4
2014	5	206	1.8	0.4
2015	19	221	8.2	0.4
2016	24	236	9.8	0.4
2017	20	266	7.4	0.4
2018	20	267	9.7	0.5
2019	20	269	6.3	0.3
2020	11	145	3.5	0.3
2021	1	34	0.2	0.2
West				
2008	0	41	0.0	-
2009	0	47	0.0	-
2010	2	51	0.3	0.2
2011	2	47	0.6	0.3
2012	0	45	0.0	-
2013	3	49	1.3	0.4
2014	3	65	1.6	0.5
2015	5	74	1.8	0.4
2016	7	68	3.5	0.5
2017	2	66	0.9	0.4
2018	2	65	0.9	0.4
2019	2	63	0.9	0.4
2020	4	70	1.4	0.4
2021	0	29	0.0	-

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Invalid				
2008	0	2	0.0	-
2009	0	3	0.0	-
2010	0	4	0.0	-
2011	0	2	0.0	-
2012	0	3	0.0	-
2013	0	1	0.0	-
2014	0	1	0.0	-
2015	0	1	0.0	-
2016	0	1	0.0	-
2017	0	1	0.0	-
2018	0	2	0.0	-
2019	0	3	0.0	-
2020	0	2	0.0	-
2021	0	1	0.0	-
Missing				
2008	0	12	0.0	-
2009	0	5	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	1	0.0	-
2015	0	1	0.0	-
2016	0	2	0.0	-
2017	0	2	0.0	-
2018	0	1	0.0	-
2019	0	1	0.0	-
2020	0	0	0.0	-
2021	1	2	0.1	0.1
Other				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	2	0.0	-
2021	0	1	0.0	-

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Hematologic Outcomes: Present				
Midwest				
2008	0	8	0.0	-
2009	0	6	0.0	-
2010	1	6	0.2	0.2
2011	0	4	0.0	-
2012	1	7	0.5	0.5
2013	0	4	0.0	-
2014	2	5	1.0	0.5
2015	0	6	0.0	-
2016	3	8	1.1	0.4
2017	2	11	1.3	0.7
2018	3	7	1.2	0.4
2019	2	13	1.3	0.7
2020	0	5	0.0	-
2021	0	0	0.0	-
Northeast				
2008	0	0	0.0	-
2009	0	1	0.0	-
2010	0	0	0.0	-
2011	0	1	0.0	-
2012	0	0	0.0	-
2013	1	1	0.2	0.2
2014	2	3	0.6	0.3
2015	2	2	0.7	0.4
2016	2	2	0.6	0.3
2017	0	1	0.0	-
2018	1	2	0.4	0.4
2019	0	3	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-
South				
2008	2	15	0.2	0.1
2009	0	4	0.0	-
2010	0	14	0.0	-
2011	0	15	0.0	-
2012	0	7	0.0	-
2013	1	15	0.5	0.5
2014	4	18	1.4	0.3
2015	5	17	1.4	0.3
2016	4	15	1.7	0.4
2017	6	23	2.3	0.4
2018	7	20	3.8	0.5
2019	5	15	2.0	0.4
2020	2	11	0.5	0.2
2021	0	1	0.0	-

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
West				
2008	0	2	0.0	-
2009	0	1	0.0	-
2010	0	4	0.0	-
2011	0	3	0.0	-
2012	1	5	0.3	0.3
2013	3	7	1.3	0.4
2014	2	6	0.8	0.4
2015	1	4	0.5	0.5
2016	0	4	0.0	-
2017	0	1	0.0	-
2018	0	2	0.0	-
2019	1	4	0.6	0.6
2020	1	6	0.7	0.7
2021	0	0	0.0	-
Invalid				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	2	0.0	-
2011	0	1	0.0	-
2012	0	1	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-
Missing				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	1	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	1	1	0.0	0.0
2021	0	0	0.0	-

Table 9. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Census Bureau Region and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Other				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-

¹Eligible Members are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

Table 10. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race and Year¹

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)				
Overall				
American Indian or Alaska Native				
2008	0	2	0.0	-
2009	0	1	0.0	-
2010	0	1	0.0	-
2011	0	1	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	1	0.0	-
2019	0	1	0.0	-
2020	0	1	0.0	-
2021	0	1	0.0	-
Asian				
2008	0	6	0.0	-
2009	0	5	0.0	-
2010	0	6	0.0	-
2011	0	7	0.0	-
2012	0	5	0.0	-
2013	0	3	0.0	-
2014	0	5	0.0	-
2015	0	6	0.0	-
2016	0	7	0.0	-
2017	1	7	0.4	0.4
2018	0	3	0.0	-
2019	0	3	0.0	-
2020	0	4	0.0	-
2021	0	1	0.0	-
Black or African American				
2008	1	20	0.2	0.2
2009	0	20	0.0	-
2010	0	26	0.0	-
2011	1	25	0.2	0.2
2012	0	27	0.0	-
2013	0	27	0.0	-
2014	2	25	0.8	0.4
2015	4	29	1.5	0.4
2016	5	29	1.9	0.4
2017	6	39	1.8	0.3
2018	4	40	1.6	0.4
2019	4	34	0.6	0.1
2020	0	14	0.0	-
2021	0	5	0.0	-

Table 10. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race and Year¹

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
<i>Native Hawaiian or Other Pacific Islander</i>				
2008	0	0	0.0	-
2009	0	1	0.0	-
2010	1	1	0.2	0.2
2011	1	1	0.2	0.2
2012	0	3	0.0	-
2013	0	4	0.0	-
2014	1	4	0.5	0.5
2015	0	3	0.0	-
2016	0	2	0.0	-
2017	0	3	0.0	-
2018	1	3	0.4	0.4
2019	0	1	0.0	-
2020	1	2	0.0	0.0
2021	0	1	0.0	-
<i>Unknown</i>				
2008	5	220	1.3	0.3
2009	5	245	1.1	0.2
2010	7	274	2.0	0.3
2011	12	268	4.1	0.3
2012	11	279	3.0	0.3
2013	15	303	5.2	0.3
2014	20	316	7.6	0.4
2015	40	327	15.8	0.4
2016	38	346	17.9	0.5
2017	34	401	13.6	0.4
2018	39	404	17.9	0.5
2019	40	449	17.7	0.4
2020	32	377	10.7	0.3
2021	4	113	0.7	0.2
<i>White</i>				
2008	5	41	0.9	0.2
2009	0	38	0.0	-
2010	3	45	0.6	0.2
2011	0	39	0.0	-
2012	1	35	0.2	0.2
2013	1	31	0.6	0.6
2014	3	32	1.3	0.4
2015	2	35	1.1	0.6
2016	10	46	4.3	0.4
2017	2	43	1.0	0.5
2018	2	45	0.6	0.3
2019	5	45	1.8	0.4
2020	3	17	1.1	0.4
2021	0	10	0.0	-

Table 10. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race and Year¹

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Hearing Loss: Absent, Clinical Characteristics: Absent				
<i>American Indian or Alaska Native</i>				
2008	0	1	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	1	0.0	-
2019	0	1	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-
<i>Asian</i>				
2008	0	3	0.0	-
2009	0	2	0.0	-
2010	0	1	0.0	-
2011	0	3	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	1	0.0	-
2015	0	1	0.0	-
2016	0	1	0.0	-
2017	0	2	0.0	-
2018	0	1	0.0	-
2019	0	1	0.0	-
2020	0	1	0.0	-
2021	0	0	0.0	-
<i>Black or African American</i>				
2008	1	8	0.2	0.2
2009	0	9	0.0	-
2010	0	12	0.0	-
2011	1	11	0.2	0.2
2012	0	12	0.0	-
2013	0	12	0.0	-
2014	0	9	0.0	-
2015	0	7	0.0	-
2016	0	9	0.0	-
2017	3	20	0.7	0.2
2018	1	13	0.5	0.5
2019	2	15	0.3	0.1
2020	0	4	0.0	-
2021	0	4	0.0	-

Table 10. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race and Year¹

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
<i>Native Hawaiian or Other Pacific Islander</i>				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	1	1	0.2	0.2
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	1	0.0	-
2015	0	1	0.0	-
2016	0	1	0.0	-
2017	0	1	0.0	-
2018	0	2	0.0	-
2019	0	0	0.0	-
2020	0	1	0.0	-
2021	0	0	0.0	-
<i>Unknown</i>				
2008	1	103	0.1	0.1
2009	0	99	0.0	-
2010	1	99	0.2	0.2
2011	2	102	1.4	0.7
2012	3	108	0.9	0.3
2013	2	112	0.7	0.4
2014	0	126	0.0	-
2015	6	121	2.1	0.4
2016	5	120	1.6	0.3
2017	8	155	2.7	0.3
2018	6	137	2.0	0.3
2019	6	155	1.8	0.3
2020	7	156	3.1	0.4
2021	1	39	0.2	0.2
<i>White</i>				
2008	0	15	0.0	-
2009	0	11	0.0	-
2010	0	12	0.0	-
2011	0	12	0.0	-
2012	0	12	0.0	-
2013	0	10	0.0	-
2014	0	10	0.0	-
2015	0	10	0.0	-
2016	3	13	1.2	0.4
2017	0	9	0.0	-
2018	0	11	0.0	-
2019	2	14	0.6	0.3
2020	0	5	0.0	-
2021	0	3	0.0	-

Table 10. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race and Year¹

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Hearing Loss: Present, Clinical Characteristics: Absent				
<i>American Indian or Alaska Native</i>				
2008	0	1	0.0	-
2009	0	1	0.0	-
2010	0	1	0.0	-
2011	0	1	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	1	0.0	-
2020	0	1	0.0	-
2021	0	1	0.0	-
<i>Asian</i>				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	1	0.0	-
2012	0	1	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	1	1	0.4	0.4
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	1	0.0	-
2021	0	0	0.0	-
<i>Black or African American</i>				
2008	0	1	0.0	-
2009	0	1	0.0	-
2010	0	1	0.0	-
2011	0	1	0.0	-
2012	0	0	0.0	-
2013	0	1	0.0	-
2014	0	1	0.0	-
2015	0	2	0.0	-
2016	0	2	0.0	-
2017	0	4	0.0	-
2018	0	5	0.0	-
2019	0	4	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-

Table 10. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race and Year¹

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
<i>Native Hawaiian or Other Pacific Islander</i>				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	1	0.0	-
2018	1	2	0.4	0.4
2019	0	1	0.0	-
2020	0	1	0.0	-
2021	0	1	0.0	-
<i>Unknown</i>				
2008	0	20	0.0	-
2009	2	22	0.5	0.2
2010	0	21	0.0	-
2011	2	20	0.6	0.3
2012	0	23	0.0	-
2013	2	27	0.6	0.3
2014	1	28	0.3	0.3
2015	3	25	0.9	0.3
2016	1	29	0.3	0.3
2017	4	52	1.2	0.3
2018	3	61	1.6	0.5
2019	3	64	2.8	0.9
2020	6	74	2.2	0.4
2021	0	21	0.0	-
<i>White</i>				
2008	0	5	0.0	-
2009	0	4	0.0	-
2010	2	4	0.4	0.2
2011	0	3	0.0	-
2012	0	1	0.0	-
2013	1	2	0.6	0.6
2014	0	1	0.0	-
2015	0	3	0.0	-
2016	2	4	0.8	0.4
2017	0	2	0.0	-
2018	0	4	0.0	-
2019	2	5	0.8	0.4
2020	0	1	0.0	-
2021	0	0	0.0	-

Table 10. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race and Year¹

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Hearing Loss: Absent, Clinical Characteristics: Present				
<i>American Indian or Alaska Native</i>				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-
<i>Asian</i>				
2008	0	3	0.0	-
2009	0	3	0.0	-
2010	0	4	0.0	-
2011	0	5	0.0	-
2012	0	4	0.0	-
2013	0	3	0.0	-
2014	0	4	0.0	-
2015	0	4	0.0	-
2016	0	5	0.0	-
2017	0	2	0.0	-
2018	0	1	0.0	-
2019	0	2	0.0	-
2020	0	2	0.0	-
2021	0	1	0.0	-
<i>Black or African American</i>				
2008	0	10	0.0	-
2009	0	10	0.0	-
2010	0	13	0.0	-
2011	0	13	0.0	-
2012	0	16	0.0	-
2013	0	15	0.0	-
2014	1	14	0.4	0.4
2015	3	18	1.3	0.4
2016	4	16	1.8	0.4
2017	3	17	1.1	0.4
2018	2	20	0.8	0.4
2019	2	15	0.3	0.1
2020	0	10	0.0	-
2021	0	1	0.0	-

Table 10. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race and Year¹

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
<i>Native Hawaiian or Other Pacific Islander</i>				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	3	0.0	-
2013	0	2	0.0	-
2014	0	1	0.0	-
2015	0	1	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-
<i>Unknown</i>				
2008	4	100	1.2	0.3
2009	2	106	0.3	0.2
2010	5	121	1.6	0.3
2011	4	106	0.8	0.2
2012	7	127	1.9	0.3
2013	8	143	3.0	0.4
2014	13	139	5.0	0.4
2015	26	162	10.5	0.4
2016	26	183	12.7	0.5
2017	18	192	7.5	0.4
2018	28	192	13.3	0.5
2019	21	201	7.8	0.4
2020	15	141	4.1	0.3
2021	3	44	0.5	0.2
<i>White</i>				
2008	3	26	0.4	0.1
2009	0	23	0.0	-
2010	1	28	0.2	0.2
2011	0	18	0.0	-
2012	0	15	0.0	-
2013	0	13	0.0	-
2014	2	13	0.7	0.3
2015	0	16	0.0	-
2016	4	25	1.8	0.4
2017	2	28	1.0	0.5
2018	0	19	0.0	-
2019	1	18	0.4	0.4
2020	2	7	0.9	0.4
2021	0	4	0.0	-

Table 10. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race and Year¹

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Hearing Loss: Present, Clinical Characteristics: Present				
<i>American Indian or Alaska Native</i>				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-
<i>Asian</i>				
2008	0	1	0.0	-
2009	0	1	0.0	-
2010	0	1	0.0	-
2011	0	1	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	1	0.0	-
2016	0	2	0.0	-
2017	0	3	0.0	-
2018	0	1	0.0	-
2019	0	0	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-
<i>Black or African American</i>				
2008	0	1	0.0	-
2009	0	1	0.0	-
2010	0	1	0.0	-
2011	0	1	0.0	-
2012	0	1	0.0	-
2013	0	2	0.0	-
2014	1	4	0.4	0.4
2015	1	5	0.2	0.2
2016	1	2	0.2	0.2
2017	0	3	0.0	-
2018	1	3	0.3	0.3
2019	0	2	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-

Table 10. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race and Year¹

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
<i>Native Hawaiian or Other Pacific Islander</i>				
2008	0	0	0.0	-
2009	0	1	0.0	-
2010	1	1	0.2	0.2
2011	0	0	0.0	-
2012	0	1	0.0	-
2013	0	3	0.0	-
2014	1	2	0.5	0.5
2015	0	1	0.0	-
2016	0	1	0.0	-
2017	0	1	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	1	1	0.0	0.0
2021	0	0	0.0	-
<i>Unknown</i>				
2008	0	41	0.0	-
2009	1	58	0.3	0.3
2010	1	72	0.2	0.2
2011	4	69	1.3	0.3
2012	1	64	0.1	0.1
2013	3	76	0.9	0.3
2014	6	72	2.3	0.4
2015	5	66	2.3	0.5
2016	6	73	3.2	0.5
2017	4	79	2.1	0.5
2018	2	77	1.0	0.5
2019	10	102	5.3	0.5
2020	4	68	1.3	0.3
2021	0	20	0.0	.
<i>White</i>				
2008	2	4	0.5	0.2
2009	0	3	0.0	-
2010	0	9	0.0	-
2011	0	8	0.0	-
2012	1	12	0.2	0.2
2013	0	9	0.0	-
2014	1	12	0.7	0.7
2015	2	13	1.1	0.6
2016	1	12	0.5	0.5
2017	0	15	0.0	-
2018	2	16	0.6	0.3
2019	0	11	0.0	-
2020	1	5	0.2	0.2
2021	0	4	0.0	-

Table 10. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race and Year¹

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Hematologic Outcomes: Absent				
American Indian or Alaska Native				
2008	0	2	0.0	-
2009	0	1	0.0	-
2010	0	1	0.0	-
2011	0	1	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	1	0.0	-
2020	0	1	0.0	-
2021	0	1	0.0	-
Asian				
2008	0	6	0.0	-
2009	0	5	0.0	-
2010	0	6	0.0	-
2011	0	7	0.0	-
2012	0	5	0.0	-
2013	0	3	0.0	-
2014	0	5	0.0	-
2015	0	4	0.0	-
2016	0	7	0.0	-
2017	1	7	0.4	0.4
2018	0	3	0.0	-
2019	0	3	0.0	-
2020	0	3	0.0	-
2021	0	1	0.0	-
Black or African American				
2008	1	20	0.2	0.2
2009	0	20	0.0	-
2010	0	26	0.0	-
2011	0	24	0.0	-
2012	0	27	0.0	-
2013	0	27	0.0	-
2014	1	24	0.4	0.4
2015	4	28	1.5	0.4
2016	3	27	1.1	0.4
2017	6	39	1.8	0.3
2018	3	38	1.2	0.4
2019	2	32	0.2	0.1
2020	0	14	0.0	-
2021	0	5	0.0	-

Table 10. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race and Year¹

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
<i>Native Hawaiian or Other Pacific Islander</i>				
2008	0	0	0.0	-
2009	0	1	0.0	-
2010	1	1	0.2	0.2
2011	1	1	0.2	0.2
2012	0	3	0.0	-
2013	0	3	0.0	-
2014	1	4	0.5	0.5
2015	0	3	0.0	-
2016	0	2	0.0	-
2017	0	3	0.0	-
2018	1	3	0.4	0.4
2019	0	1	0.0	-
2020	0	1	0.0	-
2021	0	1	0.0	-
<i>Unknown</i>				
2008	5	213	1.3	0.3
2009	4	235	0.8	0.2
2010	6	266	1.8	0.3
2011	11	260	3.9	0.4
2012	7	270	1.4	0.2
2013	9	294	2.8	0.3
2014	12	305	4.4	0.4
2015	31	316	12.7	0.4
2016	27	326	13.4	0.5
2017	21	376	8.2	0.4
2018	26	384	12.2	0.5
2019	27	426	10.3	0.4
2020	27	364	8.9	0.3
2021	4	113	0.7	0.2
<i>White</i>				
2008	3	39	0.7	0.2
2009	0	38	0.0	-
2010	2	44	0.3	0.2
2011	0	38	0.0	-
2012	1	34	0.2	0.2
2013	1	29	0.6	0.6
2014	0	29	0.0	-
2015	1	34	0.9	0.9
2016	10	44	4.3	0.4
2017	2	43	1.0	0.5
2018	2	44	0.6	0.3
2019	4	43	1.7	0.4
2020	2	16	0.9	0.4
2021	0	10	0.0	-

Table 10. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race and Year¹

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Hematologic Outcomes: Present				
<i>American Indian or Alaska Native</i>				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-
<i>Asian</i>				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	2	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	1	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-
<i>Black or African American</i>				
2008	0	1	0.0	-
2009	0	0	0.0	-
2010	0	1	0.0	-
2011	0	1	0.0	-
2012	0	2	0.0	-
2013	0	2	0.0	-
2014	1	2	0.4	0.4
2015	0	3	0.0	-
2016	2	3	0.8	0.4
2017	0	1	0.0	-
2018	1	4	0.4	0.4
2019	1	2	0.2	0.2
2020	0	2	0.0	-
2021	0	0	0.0	-

Table 10. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Race and Year¹

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
<i>Native Hawaiian or Other Pacific Islander</i>				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	1	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	1	1	0.0	0.0
2021	0	0	0.0	-
<i>Unknown</i>				
2008	0	18	0.0	-
2009	0	11	0.0	-
2010	1	22	0.2	0.2
2011	0	19	0.0	-
2012	2	15	0.8	0.4
2013	5	22	2.0	0.4
2014	7	27	2.6	0.4
2015	7	22	2.4	0.3
2016	7	22	2.6	0.4
2017	8	33	3.6	0.4
2018	10	27	5.0	0.5
2019	7	31	3.7	0.5
2020	3	20	1.2	0.4
2021	0	1	0.0	-
<i>White</i>				
2008	2	6	0.2	0.1
2009	0	1	0.0	-
2010	0	3	0.0	-
2011	0	2	0.0	-
2012	0	2	0.0	-
2013	0	3	0.0	-
2014	2	3	0.9	0.4
2015	1	4	0.2	0.2
2016	0	4	0.0	-
2017	0	2	0.0	-
2018	0	0	0.0	-
2019	0	2	0.0	-
2020	0	0	0.0	-
2021	0	0	0.0	-

¹Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

²Eligible Members are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

Table 11. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Hispanic Origin and Year

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)				
Overall				
Yes				
2008	0	6	0.0	-
2009	0	3	0.0	-
2010	0	3	0.0	-
2011	0	1	0.0	-
2012	0	3	0.0	-
2013	0	4	0.0	-
2014	0	4	0.0	-
2015	0	4	0.0	-
2016	1	5	0.2	0.2
2017	0	4	0.0	-
2018	0	4	0.0	-
2019	0	5	0.0	-
2020	1	5	0.0	0.0
2021	0	2	0.0	-
No				
2008	6	47	1.0	0.2
2009	0	47	0.0	-
2010	2	58	0.5	0.2
2011	2	56	0.3	0.2
2012	1	55	0.2	0.2
2013	1	54	0.6	0.6
2014	5	54	2.4	0.5
2015	5	61	2.1	0.4
2016	11	69	5.3	0.5
2017	8	72	2.7	0.3
2018	5	68	2.0	0.4
2019	7	65	1.6	0.2
2020	2	17	0.9	0.4
2021	0	11	0.0	-
Unknown				
2008	5	236	1.3	0.3
2009	5	260	1.1	0.2
2010	9	292	2.3	0.3
2011	12	284	4.1	0.3
2012	11	291	3.0	0.3
2013	15	310	5.2	0.3
2014	21	324	7.8	0.4
2015	41	335	16.3	0.4
2016	41	356	18.7	0.5
2017	35	417	14.0	0.4
2018	41	424	18.4	0.4
2019	42	463	18.5	0.4
2020	33	393	10.9	0.3
2021	4	118	0.7	0.2

Table 11. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Hispanic Origin and Year

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Hearing Loss: Absent, Clinical Characteristics: Absent				
Yes				
2008	0	2	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	1	0.0	-
2013	0	2	0.0	-
2014	0	2	0.0	-
2015	0	3	0.0	-
2016	1	3	0.2	0.2
2017	0	2	0.0	-
2018	0	2	0.0	-
2019	0	1	0.0	-
2020	0	2	0.0	-
2021	0	0	0.0	-
No				
2008	1	16	0.2	0.2
2009	0	18	0.0	-
2010	0	19	0.0	-
2011	2	23	0.3	0.2
2012	0	22	0.0	-
2013	0	21	0.0	-
2014	0	19	0.0	-
2015	0	17	0.0	-
2016	2	21	1.0	0.5
2017	3	25	0.7	0.2
2018	1	21	0.5	0.5
2019	3	24	0.7	0.2
2020	0	4	0.0	-
2021	0	4	0.0	-
Unknown				
2008	1	112	0.1	0.1
2009	0	103	0.0	-
2010	1	105	0.2	0.2
2011	2	106	1.4	0.7
2012	3	109	0.9	0.3
2013	2	111	0.7	0.4
2014	0	126	0.0	-
2015	6	120	2.1	0.4
2016	5	120	1.6	0.3
2017	8	160	2.7	0.3
2018	6	142	2.0	0.3
2019	7	161	1.9	0.3
2020	7	161	3.1	0.4
2021	1	42	0.2	0.2

Table 11. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Hispanic Origin and Year

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Hearing Loss: Present, Clinical Characteristics: Absent				
Yes				
2008	0	1	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	0	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	1	0.0	-
2016	0	1	0.0	-
2017	0	2	0.0	-
2018	0	2	0.0	-
2019	0	2	0.0	-
2020	0	1	0.0	-
2021	0	0	0.0	-
No				
2008	0	2	0.0	-
2009	0	2	0.0	-
2010	1	3	0.3	0.3
2011	0	3	0.0	-
2012	0	2	0.0	-
2013	1	3	0.6	0.6
2014	0	2	0.0	-
2015	0	5	0.0	-
2016	2	6	0.8	0.4
2017	1	7	0.4	0.4
2018	1	10	0.4	0.4
2019	1	10	0.3	0.3
2020	0	3	0.0	-
2021	0	2	0.0	-
Unknown				
2008	0	24	0.0	-
2009	2	26	0.5	0.2
2010	1	24	0.2	0.2
2011	2	23	0.6	0.3
2012	0	23	0.0	-
2013	2	27	0.6	0.3
2014	1	28	0.3	0.3
2015	3	24	0.9	0.3
2016	1	28	0.3	0.3
2017	4	51	1.2	0.3
2018	3	60	1.6	0.5
2019	4	63	3.4	0.9
2020	6	74	2.2	0.4
2021	0	21	0.0	-

Table 11. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Hispanic Origin and Year

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Hearing Loss: Absent, Clinical Characteristics: Present				
Yes				
2008	0	3	0.0	-
2009	0	2	0.0	-
2010	0	2	0.0	-
2011	0	1	0.0	-
2012	0	3	0.0	-
2013	0	1	0.0	-
2014	0	1	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	2	0.0	-
2020	0	2	0.0	-
2021	0	2	0.0	-
No				
2008	3	27	0.4	0.1
2009	0	27	0.0	-
2010	0	32	0.0	-
2011	0	28	0.0	-
2012	0	28	0.0	-
2013	0	24	0.0	-
2014	2	24	0.8	0.4
2015	2	32	0.8	0.4
2016	6	36	2.9	0.5
2017	4	35	1.7	0.4
2018	1	26	0.4	0.4
2019	3	25	0.7	0.2
2020	2	7	0.9	0.4
2021	0	3	0.0	-
Unknown				
2008	4	109	1.2	0.3
2009	2	113	0.3	0.2
2010	6	132	1.8	0.3
2011	4	113	0.8	0.2
2012	7	134	1.9	0.3
2013	8	151	3.0	0.4
2014	14	146	5.2	0.4
2015	27	169	11.0	0.4
2016	28	193	13.4	0.5
2017	19	204	7.9	0.4
2018	29	206	13.7	0.5
2019	21	209	7.8	0.4
2020	15	151	4.1	0.3
2021	3	45	0.5	0.2

Table 11. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Hispanic Origin and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Hearing Loss: Present, Clinical Characteristics: Present				
Yes				
2008	0	1	0.0	-
2009	0	1	0.0	-
2010	0	1	0.0	-
2011	0	0	0.0	-
2012	0	1	0.0	-
2013	0	1	0.0	-
2014	0	1	0.0	-
2015	0	1	0.0	-
2016	0	1	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	0	0.0	-
2020	1	1	0.0	0.0
2021	0	0	0.0	-
No				
2008	2	5	0.5	0.2
2009	0	5	0.0	-
2010	1	8	0.2	0.2
2011	0	8	0.0	-
2012	1	10	0.2	0.2
2013	0	12	0.0	-
2014	3	15	1.6	0.5
2015	3	17	1.4	0.5
2016	1	15	0.5	0.5
2017	0	18	0.0	-
2018	2	16	0.7	0.4
2019	0	12	0.0	-
2020	0	3	0.0	-
2021	0	3	0.0	-
Unknown				
2008	0	41	0.0	-
2009	1	58	0.3	0.3
2010	1	75	0.2	0.2
2011	4	71	1.3	0.3
2012	1	67	0.1	0.1
2013	3	77	0.9	0.3
2014	6	74	2.3	0.4
2015	5	68	2.3	0.5
2016	7	74	3.4	0.5
2017	4	83	2.1	0.5
2018	3	81	1.1	0.4
2019	10	103	5.3	0.5
2020	5	70	1.5	0.3
2021	0	21	0.0	-

Table 11. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Hispanic Origin and Year

	New Users	Eligible Members¹	Years at Risk	Average Person-Years at Risk
Hematologic Outcomes: Absent				
Yes				
2008	0	6	0.0	-
2009	0	3	0.0	-
2010	0	3	0.0	-
2011	0	1	0.0	-
2012	0	3	0.0	-
2013	0	4	0.0	-
2014	0	4	0.0	-
2015	0	4	0.0	-
2016	1	5	0.2	0.2
2017	0	4	0.0	-
2018	0	4	0.0	-
2019	0	5	0.0	-
2020	0	4	0.0	-
2021	0	2	0.0	-
No				
2008	4	45	0.8	0.2
2009	0	47	0.0	-
2010	1	57	0.2	0.2
2011	1	54	0.2	0.2
2012	1	54	0.2	0.2
2013	1	52	0.6	0.6
2014	2	51	0.9	0.5
2015	4	59	1.9	0.5
2016	11	69	5.3	0.5
2017	8	72	2.7	0.3
2018	5	66	2.0	0.4
2019	5	62	1.3	0.3
2020	2	16	0.9	0.4
2021	0	11	0.0	-
Unknown				
2008	5	229	1.3	0.3
2009	4	250	0.8	0.2
2010	8	284	2.1	0.3
2011	11	276	3.9	0.4
2012	7	282	1.4	0.2
2013	9	300	2.8	0.3
2014	12	312	4.4	0.4
2015	32	322	13.2	0.4
2016	28	332	13.4	0.5
2017	22	392	8.6	0.4
2018	27	402	12.4	0.5
2019	28	439	10.9	0.4
2020	27	379	8.9	0.3
2021	4	118	0.7	0.2

Table 11. Summary of Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021, by Hispanic Origin and Year

	New Users	Eligible Members ¹	Years at Risk	Average Person-Years at Risk
Hematologic Outcomes: Present				
Yes				
2008	0	0	0.0	-
2009	0	0	0.0	-
2010	0	0	0.0	-
2011	0	0	0.0	-
2012	0	1	0.0	-
2013	0	0	0.0	-
2014	0	0	0.0	-
2015	0	0	0.0	-
2016	0	0	0.0	-
2017	0	0	0.0	-
2018	0	0	0.0	-
2019	0	1	0.0	-
2020	1	1	0.0	0.0
2021	0	0	0.0	-
No				
2008	2	5	0.2	0.1
2009	0	1	0.0	-
2010	0	3	0.0	-
2011	0	5	0.0	-
2012	0	2	0.0	-
2013	0	3	0.0	-
2014	2	4	1.0	0.5
2015	1	6	0.2	0.2
2016	0	5	0.0	-
2017	0	1	0.0	-
2018	0	2	0.0	-
2019	1	3	0.2	0.2
2020	0	1	0.0	-
2021	0	0	0.0	-
Unknown				
2008	0	20	0.0	-
2009	0	11	0.0	-
2010	1	23	0.2	0.2
2011	0	19	0.0	-
2012	2	17	0.8	0.4
2013	5	24	2.0	0.4
2014	8	28	2.8	0.3
2015	7	23	2.4	0.3
2016	9	25	3.4	0.4
2017	8	35	3.6	0.4
2018	11	29	5.4	0.5
2019	7	31	3.7	0.5
2020	3	21	1.2	0.4
2021	0	1	0.0	-

¹Eligible Members are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

Table 12. Summary of Time to the End of the At-Risk Period for the Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Number of Episodes by Episode Length												
Total	1-14 Days		15-30 Days		31-90 Days		91-180 Days		181-365 Days		366+ Days	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)												
Overall												
372	11	3.0%	7	1.9%	121	32.5%	110	29.6%	114	30.6%	9	2.4%
Hearing Loss: Absent, Clinical Characteristics: Absent												
74	0	0.0%	1	1.4%	35	47.3%	21	28.4%	16	21.6%	1	1.4%
Hearing Loss: Present, Clinical Characteristics: Absent												
24	0	0.0%	1	4.2%	4	16.7%	8	33.3%	9	37.5%	2	8.3%
Hearing Loss: Absent, Clinical Characteristics: Present												
240	9	3.8%	4	1.7%	76	31.7%	72	30.0%	74	30.8%	5	2.1%
Hearing Loss: Present, Clinical Characteristics: Present												
34	2	5.9%	1	2.9%	6	17.6%	9	26.5%	15	44.1%	1	2.9%
Hematologic Outcomes: Absent												
270	9	3.3%	7	2.6%	84	31.1%	84	31.1%	80	29.6%	6	2.2%
Hematologic Outcomes: Present												
68	2	2.9%	0	0.0%	24	35.3%	14	20.6%	27	39.7%	1	1.5%
Distribution of At-Risk Time in Days, by Episode												
Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation						
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)												
Overall												
1	60	136	199	447	139.8	85.2						
Hearing Loss: Absent, Clinical Characteristics: Absent												
15	60	93	177	447	118.3	74.7						
Hearing Loss: Present, Clinical Characteristics: Absent												
25	95	151	214	447	170.7	105.9						
Hearing Loss: Absent, Clinical Characteristics: Present												
1	61	140	203	420	140.3	84.5						
Hearing Loss: Present, Clinical Characteristics: Present												
12	80	175	219	402	160.7	87.4						
Hematologic Outcomes: Absent												
1	60	135	197	447	138.1	85.8						
Hematologic Outcomes: Present												
12	61	151	208	408	146.0	80.4						

Table 13. Summary of Reasons for End of At-Risk Period for Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021¹

	Censoring Reason										
	End of Exposure Episode ²		Evidence of Death ³		Disenrollment ⁴		End of Data Partner Data ⁵		End of Query Period ⁶		
	Total	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)											
Overall											
	372	302	81.2%	0	0.0%	69	18.5%	23	6.2%	0	0.0%
Hearing Loss: Absent, Clinical Characteristics: Absent											
	62	51	82.3%	0	0.0%	11	17.7%	4	6.5%	0	0.0%
Hearing Loss: Present, Clinical Characteristics: Absent											
	36	27	75.0%	0	0.0%	9	25.0%	6	16.7%	0	0.0%
Hearing Loss: Absent, Clinical Characteristics: Present											
	210	170	81.0%	0	0.0%	40	19.0%	11	5.2%	0	0.0%
Hearing Loss: Present, Clinical Characteristics: Present											
	64	54	84.4%	0	0.0%	9	14.1%	2	3.1%	0	0.0%
Hematologic Outcomes: Absent											
	270	215	79.6%	0	0.0%	55	20.4%	20	7.4%	0	0.0%
Hematologic Outcomes: Present											
	68	57	83.8%	0	0.0%	11	16.2%	1	1.5%	0	0.0%

¹An episode may be censored due to more than one reason if they occur on the same date. Therefore, the sum of the reasons for censoring may be greater than the total number of episodes.

²Represents episodes censored due to end of the exposure episode. In as-treated analyses, exposure episodes are defined using days supplied as recorded in outpatient pharmacy dispensing records, and episodes end after days supplied are exhausted or a pre-determined maximum episode duration is met. In point exposure analyses, exposure episodes end when a pre-determined maximum episode duration is met.

³Represents episodes censored due to evidence of death. Death data source and completeness varies by Data Partner.

⁴Represents episodes censored due to disenrollment from health plan. Data Partners often artificially assign a "disenrollment" date equal to data end date for members still enrolled on that date. Therefore, a patient may have dual reasons for censoring as "disenrollment" and "end of data" on the same day - this can be interpreted as right-censoring in most cases.

⁵Represents episodes censored due to Data Partner data end date. This end date represents the last day of the most recent year-month in which all of a Data Partner's data tables in the Sentinel Common Data Model have at least 80% of the record count relative to the prior month.

⁶Represents episodes censored due to user-specified study end date.

Table 14. Summary of Time to the End of the At-Risk Period Due to End Of Exposure Episode for Exposure of Interest in the Sentinel Distributed Database between January 1, 2008 and May 31, 2021

End Of Exposure Episode by Episode Length¹														
		1-14 Days		15-30 Days		31-90 Days		91-180 Days		181-365 Days		366+ Days		
		Total	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)														
Overall														
	372	302	0	0.0%	0	0.0%	104	34.4%	84	27.8%	107	35.4%	7	
Hearing Loss: Absent, Clinical Characteristics: Absent														
	62	51	0	0.0%	0	0.0%	22	43.1%	15	29.4%	14	27.5%	0	
Hearing Loss: Present, Clinical Characteristics: Absent														
	36	27	0	0.0%	0	0.0%	10	37.0%	7	25.9%	8	29.6%	2	
Hearing Loss: Absent, Clinical Characteristics: Present														
	210	170	0	0.0%	0	26.70%	56	32.9%	49	28.8%	60	35.3%	5	
Hearing Loss: Present, Clinical Characteristics: Present														
	64	54	0	0.0%	0	0.0%	16	29.6%	13	24.1%	25	46.3%	0	
Hematologic Outcomes: Absent														
	270	215	0	0.0%	0	0.0%	71	33.0%	64	29.8%	76	35.3%	4	
Hematologic Outcomes: Present														
	68	57	0	0.0%	0	0.0%	23	40.4%	9	15.8%	24	42.1%	1	
Distribution of At-Risk Time in Days, by Episode														
		Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation						
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)														
Overall														
	36	61	145	205	447	148.3	82.6							
Hearing Loss: Absent, Clinical Characteristics: Absent														
	36	60	96	186	249	120.3	66.6							
Hearing Loss: Present, Clinical Characteristics: Absent														
	51	60	115	213	447	153.7	104.3							
Hearing Loss: Absent, Clinical Characteristics: Present														
	37	74	152	206	420	152.3	84.4							
Hearing Loss: Present, Clinical Characteristics: Present														
	44	79	176	213	344	159.4	74.4							
Hematologic Outcomes: Absent														
	36	61	145	203	420	148.6	81.3							
Hematologic Outcomes: Present														
	41	61	154	210	408	148.3	81.6							

¹Represents episodes censored due to end of the exposure episode. In as-treated analyses, exposure episodes are defined using days supplied as recorded in outpatient pharmacy dispensing records, and episodes end after days supplied are exhausted or a pre-determined maximum episode duration is met. In point exposure analyses, exposure episodes end when a pre-determined maximum episode duration is met.

Table 15. Summary of Time to End of At-Risk Period Due to Evidence Of Death for Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Number of Episodes Censored Due to Evidence Of Death by Episode Length ¹													
		1-14 Days		15-30 Days		31-90 Days		91-180 Days		181-365 Days		366+ Days	
Total		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)													
Overall													
372		0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Absent, Clinical Characteristics: Absent													
62		0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Present, Clinical Characteristics: Absent													
36		0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Absent, Clinical Characteristics: Present													
210		0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Present, Clinical Characteristics: Present													
64		0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hematologic Outcomes: Absent													
270		0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hematologic Outcomes: Present													
68		0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Distribution of At-Risk Time in Days, by Episode													
Minimum		Q1		Median		Q3		Maximum		Mean		Standard Deviation	
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)													
Overall													
N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Hearing Loss: Absent, Clinical Characteristics: Absent													
N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Hearing Loss: Present, Clinical Characteristics: Absent													
N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Hearing Loss: Absent, Clinical Characteristics: Present													
N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Hearing Loss: Present, Clinical Characteristics: Present													
N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Hematologic Outcomes: Absent													
N/A		N/A		N/A		N/A		N/A		N/A		N/A	
Hematologic Outcomes: Present													
N/A		N/A		N/A		N/A		N/A		N/A		N/A	

¹Represents episodes censored due to evidence of death. Death data source and completeness varies by Data Partner.

Table 16. Summary of Time to End of At-Risk Period Due to Disenrollment for Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

		Number of Episodes Censored Due to Disenrollment by Episode Length											
		1-14 Days		15-30 Days		31-90 Days		91-180 Days		181-365 Days		366+ Days	
Total Episodes	Total Episodes Censored Due to Disenrollment ¹	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)													
Overall													
372	69	11	15.9%	7	10.1%	16	23.2%	26	37.7%	7	10.1%	2	2.9%
Hearing Loss: Absent, Clinical Characteristics: Absent													
62	11	0	0.0%	0	0.0%	7	63.6%	3	27.3%	0	0.0%	1	9.1%
Hearing Loss: Present, Clinical Characteristics: Absent													
36	9	0	0.0%	2	22.2%	0	0.0%	4	44.4%	3	33.3%	0	0.0%
Hearing Loss: Absent, Clinical Characteristics: Present													
210	40	8	20.0%	4	10.00%	7	17.5%	17	42.5%	4	10.0%	0	0.0%
Hearing Loss: Present, Clinical Characteristics: Present													
64	9	3	33.3%	1	11.1%	2	22.2%	2	22.2%	0	0.0%	1	11.1%
Hematologic Outcomes: Absent													
270	55	9	16.4%	7	12.7%	13	23.6%	20	36.4%	4	7.3%	2	3.6%
Hematologic Outcomes: Present													
68	11	2	18.2%	0	0.0%	1	9.1%	5	45.5%	3	27.3%	0	0.0%

Distribution of At-Risk Time in Days, by Episode							
	Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)							
Overall							
	1	30	91	148	447	103.2	87.8
Hearing Loss: Absent, Clinical Characteristics: Absent							
	34	59	76	172	447	126.9	117.9
Hearing Loss: Present, Clinical Characteristics: Absent							
	15	95	118	199	248	129.4	80.5
Hearing Loss: Absent, Clinical Characteristics: Present							
	1	24	95	146	240	93.4	70.4
Hearing Loss: Present, Clinical Characteristics: Present							
	1	14	64	103	402	91.9	123.8
Hematologic Outcomes: Absent							
	1	27	78	142	447	97.1	91.2
Hematologic Outcomes: Present							
	12	89	143	206	240	133.9	76.2

¹Represents episodes censored due to disenrollment from health plan. Data Partners often artificially assign a "disenrollment" date equal to data end date for members still enrolled on that date. Therefore, a patient may have dual reasons for censoring as "disenrollment" and "end of data" on the same day - this can be interpreted as right-censoring in most cases.

Table 17. Summary of Time to End of At-Risk Period Due to End Of Data Partner (DP) Data for Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Number of Episodes Censored Due to End Of Data Partner (DP) Data by Episode Length													
Total Episodes	Total Episodes Censored Due to End of DP Data ¹	1-14 Days		15-30 Days		31-90 Days		91-180 Days		181-365 Days		366+ Days	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)													
Overall													
372	23	1	4.3%	4	17.4%	7	30.4%	9	39.1%	2	8.7%	0	0.0%
Hearing Loss: Absent, Clinical Characteristics: Absent													
62	4	0	0.0%	0	0.0%	3	75.0%	1	25.0%	0	0.0%	0	0.0%
Hearing Loss: Present, Clinical Characteristics: Absent													
36	6	0	0.0%	1	16.7%	0	0.0%	3	50.0%	2	33.3%	0	0.0%
Hearing Loss: Absent, Clinical Characteristics: Present													
210	11	1	9.1%	3	27.3%	3	27.3%	4	36.4%	0	0.0%	0	0.0%
Hearing Loss: Present, Clinical Characteristics: Present													
64	2	0	0.0%	0	0.0%	1	50.0%	1	50.0%	0	0.0%	0	0.0%
Hematologic Outcomes: Absent													
270	20	1	5.0%	4	20.0%	6	30.0%	7	35.0%	2	10.0%	0	0.0%
Hematologic Outcomes: Present													
68	1	0	0.0%	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%
Distribution of At-Risk Time in Days, by Episode													
		Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation					
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)													
Overall													
		9	33	89	138	248	92.9	63.2					
Hearing Loss: Absent, Clinical Characteristics: Absent													
		40	58	83	131	173	94.5	56.3					
Hearing Loss: Present, Clinical Characteristics: Absent													
		25	95	138	199	248	140.3	79.0					
Hearing Loss: Absent, Clinical Characteristics: Present													
		9	29	44	99	155	65.6	49.9					
Hearing Loss: Present, Clinical Characteristics: Present													
		80	80	98	115	115	97.5	24.7					
Hematologic Outcomes: Absent													
		9	32	84	127	248	89.1	66.0					
Hematologic Outcomes: Present													
		118	118	118	118	118	118.0	N/A					

¹Represents episodes censored due to Data Partner data end date. This end date represents the last day of the most recent year-month in which all of a Data Partner's data tables in the Sentinel Common Data Model have at least 80% of the record count relative to the prior month.

Table 18. Summary of Time to End of At-Risk Period Due to End Of Query Period for Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

		Number of Episodes Censored Due to End Of Query Period by Episode Length													
		1-14 Days		15-30 Days		31-90 Days		91-180 Days		181-365 Days		366+ Days			
Total	Total Episodes Censored	Episodes Due to End of Query Period ¹													
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)															
Overall															
372	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Absent, Clinical Characteristics: Absent															
62	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Present, Clinical Characteristics: Absent															
36	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Absent, Clinical Characteristics: Present															
210	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Present, Clinical Characteristics: Present															
64	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hematologic Outcomes: Absent															
270	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hematologic Outcomes: Present															
68	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Distribution of At-Risk Time in Days, by Episode															
		Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation							
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)															
Overall															
		N/A	N/A	N/A	N/A	N/A	N/A	N/A							
Hearing Loss: Absent, Clinical Characteristics: Absent															
		N/A	N/A	N/A	N/A	N/A	N/A	N/A							
Hearing Loss: Present, Clinical Characteristics: Absent															
		N/A	N/A	N/A	N/A	N/A	N/A	N/A							
Hearing Loss: Absent, Clinical Characteristics: Present															
		N/A	N/A	N/A	N/A	N/A	N/A	N/A							
Hearing Loss: Present, Clinical Characteristics: Present															
		N/A	N/A	N/A	N/A	N/A	N/A	N/A							
Hematologic Outcomes: Absent															
		N/A	N/A	N/A	N/A	N/A	N/A	N/A							
Hematologic Outcomes: Present															
		N/A	N/A	N/A	N/A	N/A	N/A	N/A							

¹Represents episodes censored due to user-specified study end date.

Table 19. Summary of Time to End of Observable Data for Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Number of Episodes by Observable Time													
		1-14 Days		15-30 Days		31-90 Days		91-180 Days		181-365 Days		366+ Days	
Total		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)													
Overall													
372		11	3.0%	7	1.9%	22	5.9%	35	9.4%	60	16.1%	237	63.7%
Hearing Loss: Absent, Clinical Characteristics: Absent													
62		0	0.0%	0	0.0%	8	12.9%	5	8.1%	8	12.9%	41	66.1%
Hearing Loss: Present, Clinical Characteristics: Absent													
36		0	0.0%	2	5.6%	0	0.0%	5	13.9%	6	16.7%	23	63.9%
Hearing Loss: Absent, Clinical Characteristics: Present													
210		8	3.8%	4	1.9%	10	4.8%	22	10.5%	41	19.5%	125	59.5%
Hearing Loss: Present, Clinical Characteristics: Present													
64		3	4.7%	1	1.6%	4	6.3%	3	4.7%	5	7.8%	48	75.0%
Hematologic Outcomes: Absent													
270		9	3.3%	7	2.6%	16	5.9%	29	10.7%	40	14.8%	169	62.6%
Hematologic Outcomes: Present													
68		2	2.9%	0	0.0%	2	2.9%	5	7.4%	17	25.0%	42	61.8%
Distribution of Observable Time in Days, by Episode													
		Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation					
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)													
Overall													
1		235	528	1,163	4,111	825.8	823.6						
Hearing Loss: Absent, Clinical Characteristics: Absent													
34		245	514	1,078	3,501	777.5	746.9						
Hearing Loss: Present, Clinical Characteristics: Absent													
15		218	463	1,038	3,925	820.5	897.6						
Hearing Loss: Absent, Clinical Characteristics: Present													
1		221	554	1,107	4,111	773.4	755.0						
Hearing Loss: Present, Clinical Characteristics: Present													
1		346	673	1,598	4,110	1,047.5	1,026.6						
Hematologic Outcomes: Absent													
1		221	517	1,126	4,111	811.7	850.6						
Hematologic Outcomes: Present													
12		234	680	1,418	2,434	837.8	684.1						

Table 20. Summary of Reasons for End of Observable Data for Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021^{1,2}

	Censoring Reason								
	Total	Evidence of Death ³		Disenrollment ⁴		End of Data Partner Data ⁵		End of Query Period ⁶	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)									
Overall	372	0	0.0%	354	95.2%	170	45.7%	0	0.0%
Hearing Loss: Absent, Clinical Characteristics: Absent	62	0	0.0%	59	95.2%	26	41.9%	0	0.0%
Hearing Loss: Present, Clinical Characteristics: Absent	36	0	0.0%	35	97.2%	14	38.9%	0	0.0%
Hearing Loss: Absent, Clinical Characteristics: Present	210	0	0.0%	201	95.7%	97	46.2%	0	0.0%
Hearing Loss: Present, Clinical Characteristics: Present	64	0	0.0%	59	92.2%	33	51.6%	0	0.0%
Hematologic Outcomes: Absent	270	0	0.0%	259	95.9%	125	46.3%	0	0.0%
Hematologic Outcomes: Present	68	0	0.0%	65	95.6%	29	42.6%	0	0.0%

¹An episode may be censored due to more than one reason if they occur on the same date. Therefore, the sum of the reasons for censoring may be greater than the total number of episodes.

²Time to end of observable data is for characterization purposes only. It does not necessarily represent at-risk time, and does not consider episode end, outcome occurrence, blackout period, or delay risk period start.

³Represents episodes censored due to evidence of death. Death data source and completeness varies by Data Partner.

⁴Represents episodes censored due to disenrollment from health plan. Data Partners often artificially assign a "disenrollment" date equal to data end date for members still enrolled on that date. Therefore, a patient may have dual reasons for censoring as "disenrollment" and "end of data" on the same day - this can be interpreted as right-censoring in most cases.

⁵Represents episodes censored due to Data Partner data end date. This end date represents the last day of the most recent year-month in which all of a Data Partner's data tables in the Sentinel Common Data Model have at least 80% of the record count relative to the prior month.

⁶Represents episodes censored due to user-specified study end date.

Table 21. Summary of Time to End of Observable Data Due to Evidence Of Death for Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

		Number of Episodes Censored Due to Evidence Of Death by Observable Time											
		1-14 Days		15-30 Days		31-90 Days		91-180 Days		181-365 Days		366+ Days	
Total Episodes	Total Episodes Censored Due to Evidence of Death	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)													
Overall													
372	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Absent, Clinical Characteristics: Absent													
62	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Present, Clinical Characteristics: Absent													
36	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Absent, Clinical Characteristics: Present													
210	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Present, Clinical Characteristics: Present													
64	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hematologic Outcomes: Absent													
270	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hematologic Outcomes: Present													
68	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Distribution of At-Risk Time in Days, by Episode													
		Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation					
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)													
Overall													
		N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Hearing Loss: Absent, Clinical Characteristics: Absent													
		N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Hearing Loss: Present, Clinical Characteristics: Absent													
		N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Hearing Loss: Absent, Clinical Characteristics: Present													
		N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Hearing Loss: Present, Clinical Characteristics: Present													
		N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Hematologic Outcomes: Absent													
		N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Hematologic Outcomes: Present													
		N/A	N/A	N/A	N/A	N/A	N/A	N/A					

Table 22. Summary of Time to End of Observable Data Due to Disenrollment for Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

		Number of Episodes Censored Due to Disenrollment by Observable Time											
		1-14 Days		15-30 Days		31-90 Days		91-180 Days		181-365 Days		366+ Days	
Total Episodes	Total Episodes Censored Due to Disenrollment ¹	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)													
Overall													
372	354	11	3.1%	7	2.0%	21	5.9%	35	9.9%	59	16.7%	221	62.4%
Hearing Loss: Absent, Clinical Characteristics: Absent													
62	59	0	0.0%	0	0.0%	8	13.6%	5	8.5%	7	11.9%	39	66.1%
Hearing Loss: Present, Clinical Characteristics: Absent													
36	35	0	0.0%	2	5.7%	0	0.0%	5	14.3%	6	17.1%	22	62.9%
Hearing Loss: Absent, Clinical Characteristics: Present													
210	201	8	4.0%	4	2.0%	10	5.0%	22	10.9%	41	20.4%	116	57.7%
Hearing Loss: Present, Clinical Characteristics: Present													
64	59	3	5.1%	1	1.7%	3	5.1%	3	5.1%	5	8.5%	44	74.6%
Hematologic Outcomes: Absent													
270	259	9	3.5%	7	2.7%	16	6.2%	29	11.2%	40	15.4%	158	61.0%
Hematologic Outcomes: Present													
68	65	2	3.1%	0	0.0%	2	3.1%	5	7.7%	17	26.2%	39	60.0%
Distribution of Observable Time in Days, by Episode													
		Minimum	Q1	Median	Q3	Maximum	Mean	Standard					
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)													
Overall													
		1	225	518	1,107	4,111	793.6	794.3					
Hearing Loss: Absent, Clinical Characteristics: Absent													
		34	225	512	1,078	3,501	772.7	752.2					
Hearing Loss: Present, Clinical Characteristics: Absent													
		15	207	443	1,035	3,251	731.8	733.4					
Hearing Loss: Absent, Clinical Characteristics: Present													
		1	218	529	1,012	4,111	741.9	726.4					
Hearing Loss: Present, Clinical Characteristics: Present													
		1	301	666	1,576	4,110	1,027.2	1,035.4					
Hematologic Outcomes: Absent													
		1	212	513	1,041	4,111	787.1	837.3					
Hematologic Outcomes: Present													
		12	227	610	1,164	2,325	782.4	644.7					

¹Represents episodes censored due to disenrollment from health plan. Data Partners often artificially assign a "disenrollment" date equal to data end date for members still enrolled on that date. Therefore, a patient may have dual reasons for censoring as "disenrollment" and "end of data" on the same day - this can be interpreted as right-censoring in most cases.

Table 23. Summary of Time to End of Observable Data Due to End Of Data Partner (DP) Data for Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

		Number of Episodes Censored Due to End Of Data Partner (DP) Data by Observable Time											
		1-14 Days		15-30 Days		31-90 Days		91-180 Days		181-365 Days		366+ Days	
Total Episodes	Total Episodes Censored Due to End of DP Data ¹	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)													
Overall													
372	170	1	0.6%	4	2.4%	8	4.7%	12	7.1%	18	10.6%	127	74.7%
Hearing Loss: Absent, Clinical Characteristics: Absent													
62	26	0	0.0%	0	0.0%	3	11.5%	2	7.7%	5	19.2%	16	61.5%
Hearing Loss: Present, Clinical Characteristics: Absent													
36	14	0	0.0%	1	7.1%	0	0.0%	3	21.4%	3	21.4%	7	50.0%
Hearing Loss: Absent, Clinical Characteristics: Present													
210	97	1	1.0%	3	3.1%	4	4.1%	6	6.2%	8	8.2%	75	77.3%
Hearing Loss: Present, Clinical Characteristics: Present													
64	33	0	0.0%	0	0.0%	1	3.0%	1	3.0%	2	6.1%	29	87.9%
Hematologic Outcomes: Absent													
270	125	1	0.8%	4	3.2%	7	5.6%	10	8.0%	14	11.2%	89	71.2%
Hematologic Outcomes: Present													
68	29	0	0.0%	0	0.0%	0	0.0%	1	3.4%	2	6.9%	26	89.7%
Distribution of Observable Time in Days, by Episode													
		Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation					
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)													
Overall													
		9	365	829	1,582	4,111	1,081.2	919.8					
Hearing Loss: Absent, Clinical Characteristics: Absent													
		40	245	463	1,105	2,989	762.3	713.9					
Hearing Loss: Present, Clinical Characteristics: Absent													
		25	157	505	1,388	3,925	970.3	1,105.9					
Hearing Loss: Absent, Clinical Characteristics: Present													
		9	423	834	1,502	4,111	1,047.3	832.7					
Hearing Loss: Present, Clinical Characteristics: Present													
		80	592	1,434	2,051	4,110	1,479.2	1,112.8					
Hematologic Outcomes: Absent													
		9	309	760	1,464	4,111	1,030.9	947.1					
Hematologic Outcomes: Present													
		118	680	1,164	1,825	2,434	1,240.6	683.6					

¹Represents episodes censored due to Data Partner data end date. This end date represents the last day of the most recent year-month in which all of a Data Partner's data tables in the Sentinel Common Data Model have at least 80% of the record count relative to the prior month.

Table 24. Summary of Time to End of Observable Data Due to End Of Query Period for Exposure of Interest in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

		Number of Episodes Censored Due to End Of Query Period by Observable Time													
		1-14 Days		15-30 Days		31-90 Days		91-180 Days		181-365 Days		366+ Days			
Total	Total Episodes Censored	Due to End of Query Period ¹													
Episodes		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)															
Overall															
372	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Absent, Clinical Characteristics: Absent															
62	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Present, Clinical Characteristics: Absent															
36	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Absent, Clinical Characteristics: Present															
210	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hearing Loss: Present, Clinical Characteristics: Present															
64	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hematologic Outcomes: Absent															
270	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Hematologic Outcomes: Present															
68	0	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
Distribution of At-Risk Time in Days, by Episode															
		Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation							
Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV)															
Overall															
		N/A	N/A	N/A	N/A	N/A	N/A	N/A							
Hearing Loss: Absent, Clinical Characteristics: Absent															
		N/A	N/A	N/A	N/A	N/A	N/A	N/A							
Hearing Loss: Present, Clinical Characteristics: Absent															
		N/A	N/A	N/A	N/A	N/A	N/A	N/A							
Hearing Loss: Absent, Clinical Characteristics: Present															
		N/A	N/A	N/A	N/A	N/A	N/A	N/A							
Hearing Loss: Present, Clinical Characteristics: Present															
		N/A	N/A	N/A	N/A	N/A	N/A	N/A							
Hematologic Outcomes: Absent															
		N/A	N/A	N/A	N/A	N/A	N/A	N/A							
Hematologic Outcomes: Present															
		N/A	N/A	N/A	N/A	N/A	N/A	N/A							

¹Represents episodes censored due to user-specified study end date.

Table 25. Total Code Counts of Valganciclovir (VGCV) Use Among Infants with Congenital CMV (cCMV) in the Sentinel Distributed Database (SDD) between January 1, 2008 and May 31, 2021

Code	Code Description	Code Category	Code Type	Overall Counts
Overall				
Valganciclovirhcl	Valganciclovirhcl	Prescription	N/A	370
Ganciclovir	Ganciclovir	Prescription	N/A	2
Hearing Loss: Absent, Clinical Characteristics: Absent				
Valganciclovirhcl	Valganciclovirhcl	Prescription	N/A	62
Hearing Loss: Present, Clinical Characteristics: Absent				
Valganciclovirhcl	Valganciclovirhcl	Prescription	N/A	36
Hearing Loss: Absent, Clinical Characteristics: Present				
Valganciclovirhcl	Valganciclovirhcl	Prescription	N/A	208
Ganciclovir	Ganciclovir	Prescription	N/A	2
Hearing Loss: Present, Clinical Characteristics: Present				
Valganciclovirhcl	Valganciclovirhcl	Prescription	N/A	64
Hematologic Outcomes: Absent				
Valganciclovirhcl	Valganciclovirhcl	Prescription	N/A	270
Hematologic Outcomes: Present				
Valganciclovirhcl	Valganciclovirhcl	Prescription	N/A	66
Ganciclovir	Ganciclovir	Prescription	N/A	2

Appendix A. Start and End Dates for Each Data Partner (DP) as of Request Distribution Date (December 9, 2021)

DP ID	Start Date	End Date
DP01	01/01/2008	12/31/2020
DP02	01/01/2000	04/30/2021
DP03	01/01/2000	06/30/2020
DP04	01/01/2004	05/31/2021
DP05	01/01/2007	02/28/2021
DP06	01/01/2000	12/31/2019
DP07	01/01/2005	10/31/2020
DP08	01/01/2000	02/28/2021
DP09	01/01/2000	05/31/2021
DP10	01/01/2006	03/31/2021
DP11	01/01/2008	12/31/2020
DP12	01/01/2000	02/28/2021

The start and end dates are based on the minimum and maximum dates within each DP. The month with the maximum date must have at least 80% of the number of records in the previous month.

Appendix B. List of States and Territories Included in Each Census Bureau Region

Census Bureau Region	States and Territories
Northeast	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, New York, Pennsylvania
Midwest	Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
South	Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma, Texas
West	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, Alaska, California, Hawaii, Washington, Oregon
Other	Northern Mariana Islands, Marshall Islands, Puerto Rico, US Virgin Islands, American Samoa, Micronesia, Guam, Palau
Missing	Missing
Invalid	Recorded geographic location does not match any identifiers per the Sentinel Common Data Model definition

Appendix C. List of Generic and Brand Names of Medical Products Used to Define Exposures in this Request

Generic Name	Brand Name
Valganciclovir/Ganciclovir	
ganciclovir	Cytovene
ganciclovir	ganciclovir
ganciclovir sodium	Cytovene
ganciclovir sodium	ganciclovir sodium
valganciclovir HCl	Valcyte
valganciclovir HCl	valganciclovir

Appendix D. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Category	Code Type
Cytomegalovirus Infection (CMV)			
078.5	Cytomegaloviral disease	Diagnosis	ICD-9-CM
B25.0	Cytomegaloviral pneumonitis	Diagnosis	ICD-10-CM
B25.1	Cytomegaloviral hepatitis	Diagnosis	ICD-10-CM
B25.2	Cytomegaloviral pancreatitis	Diagnosis	ICD-10-CM
B25.8	Other cytomegaloviral diseases	Diagnosis	ICD-10-CM
B25.9	Cytomegaloviral disease, unspecified	Diagnosis	ICD-10-CM
Congenital Cytomegalovirus (cCMV)			
771.1	Congenital cytomegalovirus infection	Diagnosis	ICD-9-CM
P35.1	Congenital cytomegalovirus infection	Diagnosis	ICD-10-CM

Appendix E. List of Current Procedural Terminology, Fourth Edition (CPT-4), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
Hearing Loss			
388.01	Presbycusis	Diagnosis	ICD-9-CM
388.2	Unspecified sudden hearing loss	Diagnosis	ICD-9-CM
389.1	Sensorineural hearing loss	Diagnosis	ICD-9-CM
389.10	Unspecified sensorineural hearing loss	Diagnosis	ICD-9-CM
389.11	Sensory hearing loss, bilateral	Diagnosis	ICD-9-CM
389.12	Neural hearing loss, bilateral	Diagnosis	ICD-9-CM
389.13	Neural hearing loss, unilateral	Diagnosis	ICD-9-CM
389.14	Central hearing loss	Diagnosis	ICD-9-CM
389.15	Sensorineural hearing loss, unilateral	Diagnosis	ICD-9-CM
389.16	Sensorineural hearing loss, asymmetrical	Diagnosis	ICD-9-CM
389.17	Sensory hearing loss, unilateral	Diagnosis	ICD-9-CM
389.18	Sensorineural hearing loss, bilateral	Diagnosis	ICD-9-CM
389.2	Mixed conductive and sensorineural hearing loss	Diagnosis	ICD-9-CM
389.20	Mixed hearing loss, unspecified	Diagnosis	ICD-9-CM
389.21	Mixed hearing loss, unilateral	Diagnosis	ICD-9-CM
389.22	Mixed hearing loss, bilateral	Diagnosis	ICD-9-CM
389.7	Deaf, nonspeaking, not elsewhere classifiable	Diagnosis	ICD-9-CM
389.8	Other specified forms of hearing loss	Diagnosis	ICD-9-CM
389.9	Unspecified hearing loss	Diagnosis	ICD-9-CM
69710	IMPLANT/REPLACE HEARING AID	Procedure	CPT-4
69930	IMPLANT COCHLEAR DEVICE	Procedure	CPT-4
92510	AURAL REHABILITATION FOLLOWING COCHLEAR IMPLANT (INCLUDES EVALUATION OF AURAL REHABILITATION STATUS	Procedure	CPT-4
92601	COCHLEAR IMPLT F/UP EXAM <7	Procedure	CPT-4
92602	REPROGRAM COCHLEAR IMPLT <7	Procedure	CPT-4
92630	AUD REHAB PRE-LING HEAR LOSS	Procedure	CPT-4
92633	AUD REHAB POSTLING HEAR LOSS	Procedure	CPT-4
95.48	Fitting of hearing aid	Procedure	ICD-9-CM
F0DZ05Z	Tinnitus Masker Device Fitting using Hearing Aid Selection / Fitting / Test Equip	Procedure	ICD-10-PCS
F0DZ0ZZ	Tinnitus Masker Device Fitting	Procedure	ICD-10-PCS
F0DZ11Z	Monaural Hearing Aid Device Fitting using Audiometer	Procedure	ICD-10-PCS
F0DZ12Z	Monaural Hearing Aid Device Fitting using Sound Field / Booth	Procedure	ICD-10-PCS
F0DZ15Z	Monaural Hearing Aid Device Fitting using Hearing Aid Selection / Fitting / Test	Procedure	ICD-10-PCS
F0DZ1KZ	Monaural Hearing Aid Device Fitting using Audiovisual Equipment	Procedure	ICD-10-PCS
F0DZ1LZ	Monaural Hearing Aid Device Fitting using Assistive Listening Equipment	Procedure	ICD-10-PCS
F0DZ1ZZ	Monaural Hearing Aid Device Fitting	Procedure	ICD-10-PCS
F0DZ21Z	Binaural Hearing Aid Device Fitting using Audiometer	Procedure	ICD-10-PCS
F0DZ22Z	Binaural Hearing Aid Device Fitting using Sound Field / Booth	Procedure	ICD-10-PCS
F0DZ25Z	Binaural Hearing Aid Device Fitting using Hearing Aid Selection / Fitting / Test E	Procedure	ICD-10-PCS
F0DZ2KZ	Binaural Hearing Aid Device Fitting using Audiovisual Equipment	Procedure	ICD-10-PCS
F0DZ2LZ	Binaural Hearing Aid Device Fitting using Assistive Listening Equipment	Procedure	ICD-10-PCS
F0DZ2ZZ	Binaural Hearing Aid Device Fitting	Procedure	ICD-10-PCS
F0DZ51Z	Assistive Listening Device Device Fitting using Audiometer	Procedure	ICD-10-PCS
F0DZ52Z	Assistive Listening Device Device Fitting using Sound Field / Booth	Procedure	ICD-10-PCS

Appendix E. List of Current Procedural Terminology, Fourth Edition (CPT-4), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
F0DZ55Z	Assistive Listening Device Device Fitting using Hearing Aid Selection / Fitting / Test Equipment	Procedure	ICD-10-PCS
F0DZ5KZ	Assistive Listening Device Device Fitting using Audiovisual Equipment	Procedure	ICD-10-PCS
F0DZ5LZ	Assistive Listening Device Device Fitting using Assistive Listening Equipment	Procedure	ICD-10-PCS
F0DZ5ZZ	Assistive Listening Device Device Fitting	Procedure	ICD-10-PCS
H90.3	Sensorineural hearing loss, bilateral	Diagnosis	ICD-10-CM
H90.4	Sensorineural hearing loss, unilateral with unrestricted hearing on the contrala	Diagnosis	ICD-10-CM
H90.41	Sensorineural hearing loss, unilateral, right ear, with unrestricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.42	Sensorineural hearing loss, unilateral, left ear, with unrestricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.5	Unspecified sensorineural hearing loss	Diagnosis	ICD-10-CM
H90.6	Mixed conductive and sensorineural hearing loss, bilateral	Diagnosis	ICD-10-CM
H90.7	Mixed conductive and sensorineural hearing loss, unilateral with unrestricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.71	Mixed conductive and sensorineural hearing loss, unilateral, right ear, with unrestricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.72	Mixed conductive and sensorineural hearing loss, unilateral, left ear, with unrestricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.8	Mixed conductive and sensorineural hearing loss, unspecified	Diagnosis	ICD-10-CM
H90.A21	Sensorineural hearing loss, unilateral, right ear, with restricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.A22	Sensorineural hearing loss, unilateral, left ear, with restricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.A31	Mixed conductive and sensorineural hearing loss, unilateral, right ear with restricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.A32	Mixed conductive and sensorineural hearing loss, unilateral, left ear with restricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H91.0	Ototoxic hearing loss	Diagnosis	ICD-10-CM
H91.01	Ototoxic hearing loss, right ear	Diagnosis	ICD-10-CM
H91.02	Ototoxic hearing loss, left ear	Diagnosis	ICD-10-CM
H91.03	Ototoxic hearing loss, bilateral	Diagnosis	ICD-10-CM
H91.09	Ototoxic hearing loss, unspecified ear	Diagnosis	ICD-10-CM
H91.1	Presbycusis	Diagnosis	ICD-10-CM
H91.10	Presbycusis, unspecified ear	Diagnosis	ICD-10-CM
H91.11	Presbycusis, right ear	Diagnosis	ICD-10-CM
H91.12	Presbycusis, left ear	Diagnosis	ICD-10-CM
H91.13	Presbycusis, bilateral	Diagnosis	ICD-10-CM
H91.2	Sudden idiopathic hearing loss	Diagnosis	ICD-10-CM
H91.20	Sudden idiopathic hearing loss, unspecified ear	Diagnosis	ICD-10-CM
H91.21	Sudden idiopathic hearing loss, right ear	Diagnosis	ICD-10-CM
H91.22	Sudden idiopathic hearing loss, left ear	Diagnosis	ICD-10-CM
H91.23	Sudden idiopathic hearing loss, bilateral	Diagnosis	ICD-10-CM
H91.3	Deaf nonspeaking, not elsewhere classified	Diagnosis	ICD-10-CM
H91.8	Other specified hearing loss	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H91.8X	Other specified hearing loss	Diagnosis	ICD-10-CM
H91.8X1	Other specified hearing loss, right ear	Diagnosis	ICD-10-CM
H91.8X2	Other specified hearing loss, left ear	Diagnosis	ICD-10-CM
H91.8X3	Other specified hearing loss, bilateral	Diagnosis	ICD-10-CM
H91.8X9	Other specified hearing loss, unspecified ear	Diagnosis	ICD-10-CM
H91.9	Unspecified hearing loss	Diagnosis	ICD-10-CM
H91.90	Unspecified hearing loss, unspecified ear	Diagnosis	ICD-10-CM
H91.91	Unspecified hearing loss, right ear	Diagnosis	ICD-10-CM
H91.92	Unspecified hearing loss, left ear	Diagnosis	ICD-10-CM
H91.93	Unspecified hearing loss, bilateral	Diagnosis	ICD-10-CM
V53.2	Adjustment hearing aid	Procedure	ICD-9-CM
Z46.1	Encounter for fitting and adjustment of hearing aid	Procedure	ICD-10-PCS
Jaundice			
774	Other perinatal jaundice	Diagnosis	ICD-9-CM
774.0	Perinatal jaundice from hereditary hemolytic anemias	Diagnosis	ICD-9-CM
774.1	Perinatal jaundice from other excessive hemolysis	Diagnosis	ICD-9-CM
774.2	Neonatal jaundice associated with preterm delivery	Diagnosis	ICD-9-CM
774.3	Neonatal jaundice due to delayed conjugation from other causes	Diagnosis	ICD-9-CM
774.30	Neonatal jaundice due to delayed conjugation, cause unspecified	Diagnosis	ICD-9-CM
774.31	Neonatal jaundice due to delayed conjugation in diseases classified elsewhere	Diagnosis	ICD-9-CM
774.39	Other neonatal jaundice due to delayed conjugation from other causes	Diagnosis	ICD-9-CM
774.4	Perinatal jaundice due to hepatocellular damage	Diagnosis	ICD-9-CM
774.5	Perinatal jaundice from other causes	Diagnosis	ICD-9-CM
774.6	Unspecified fetal and neonatal jaundice	Diagnosis	ICD-9-CM
P58.0	Neonatal jaundice due to bruising	Diagnosis	ICD-10-CM
P58.1	Neonatal jaundice due to bleeding	Diagnosis	ICD-10-CM
P58.2	Neonatal jaundice due to infection	Diagnosis	ICD-10-CM
P58.3	Neonatal jaundice due to polycythemia	Diagnosis	ICD-10-CM
P58.41	Neonatal jaundice due to drugs or toxins transmitted from mother	Diagnosis	ICD-10-CM
P58.42	Neonatal jaundice due to drugs or toxins given to newborn	Diagnosis	ICD-10-CM
P58.5	Neonatal jaundice due to swallowed maternal blood	Diagnosis	ICD-10-CM
P58.8	Neonatal jaundice due to other specified excessive hemolysis	Diagnosis	ICD-10-CM
P58.9	Neonatal jaundice due to excessive hemolysis, unspecified	Diagnosis	ICD-10-CM
P59.0	Neonatal jaundice associated with preterm delivery	Diagnosis	ICD-10-CM
P59.1	Inspissated bile syndrome	Diagnosis	ICD-10-CM
P59.20	Neonatal jaundice from unspecified hepatocellular damage	Diagnosis	ICD-10-CM
P59.29	Neonatal jaundice from other hepatocellular damage	Diagnosis	ICD-10-CM
P59.3	Neonatal jaundice from breast milk inhibitor	Diagnosis	ICD-10-CM
P59.8	Neonatal jaundice from other specified causes	Diagnosis	ICD-10-CM
P59.9	Neonatal jaundice, unspecified	Diagnosis	ICD-10-CM
Petechiae			
772.6	Fetal and neonatal cutaneous hemorrhage	Diagnosis	ICD-9-CM
782.7	Spontaneous ecchymoses	Diagnosis	ICD-9-CM
P54.5	Neonatal cutaneous hemorrhage	Diagnosis	ICD-10-CM
R23.3	Spontaneous ecchymoses	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
Hepatomegaly			
573.1	Hepatitis in viral diseases classified elsewhere	Diagnosis	ICD-9-CM
789.1	Hepatomegaly	Diagnosis	ICD-9-CM
B25.1	Cytomegaloviral hepatitis	Diagnosis	ICD-10-CM
R16.0	Hepatomegaly, not elsewhere classified	Diagnosis	ICD-10-CM
R16.2	Hepatomegaly with splenomegaly, not elsewhere classified	Diagnosis	ICD-10-CM
Splenomegaly			
289.51	Chronic congestive splenomegaly	Diagnosis	ICD-9-CM
289.53	Neutropenic splenomegaly	Diagnosis	ICD-9-CM
789.2	Splenomegaly	Diagnosis	ICD-9-CM
D73.2	Chronic congestive splenomegaly	Diagnosis	ICD-10-CM
D73.81	Neutropenic splenomegaly	Diagnosis	ICD-10-CM
R16.1	Splenomegaly, not elsewhere classified	Diagnosis	ICD-10-CM
R16.2	Hepatomegaly with splenomegaly, not elsewhere classified	Diagnosis	ICD-10-CM
Microcephaly			
742.1	Microcephalus	Diagnosis	ICD-9-CM
Q02	Microcephaly	Diagnosis	ICD-10-CM
Thrombocytopenia			
287.3	Primary thrombocytopenia	Diagnosis	ICD-9-CM
287.30	Primary thrombocytopenia, unspecified	Diagnosis	ICD-9-CM
287.31	Immune thrombocytopenic purpura	Diagnosis	ICD-9-CM
287.33	Congenital and hereditary thrombocytopenic purpura	Diagnosis	ICD-9-CM
287.39	Other primary thrombocytopenia	Diagnosis	ICD-9-CM
287.4	Secondary thrombocytopenia	Diagnosis	ICD-9-CM
287.49	Other secondary thrombocytopenia	Diagnosis	ICD-9-CM
287.5	Unspecified thrombocytopenia	Diagnosis	ICD-9-CM
776.1	Transient neonatal thrombocytopenia	Diagnosis	ICD-9-CM
776.2	Disseminated intravascular coagulation in newborn	Diagnosis	ICD-9-CM
D69.42	Congenital and hereditary thrombocytopenia purpura	Diagnosis	ICD-10-CM
D69.49	Other primary thrombocytopenia	Diagnosis	ICD-10-CM
D69.51	Posttransfusion purpura	Diagnosis	ICD-10-CM
D69.59	Other secondary thrombocytopenia	Diagnosis	ICD-10-CM
D69.6	Thrombocytopenia, unspecified	Diagnosis	ICD-10-CM
P60	Disseminated intravascular coagulation of newborn	Diagnosis	ICD-10-CM
P61.0	Transient neonatal thrombocytopenia	Diagnosis	ICD-10-CM
Chorioretinitis			
363.0	Focal chorioretinitis and focal retinochoroiditis	Diagnosis	ICD-9-CM
363.00	Unspecified focal chorioretinitis	Diagnosis	ICD-9-CM
363.01	Focal choroiditis and chorioretinitis, juxtapapillary	Diagnosis	ICD-9-CM
363.03	Focal choroiditis and chorioretinitis of other posterior pole	Diagnosis	ICD-9-CM
363.04	Focal choroiditis and chorioretinitis, peripheral	Diagnosis	ICD-9-CM
363.05	Focal retinitis and retinochoroiditis, juxtapapillary	Diagnosis	ICD-9-CM
363.06	Focal retinitis and retinochoroiditis, macular or paramacular	Diagnosis	ICD-9-CM
363.07	Focal retinitis and retinochoroiditis of other posterior pole	Diagnosis	ICD-9-CM
363.08	Focal retinitis and retinochoroiditis, peripheral	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
363.1	Disseminated chorioretinitis and disseminated retino-choroiditis	Diagnosis	ICD-9-CM
363.10	Unspecified disseminated chorioretinitis	Diagnosis	ICD-9-CM
363.11	Disseminated choroiditis and chorioretinitis, posterior pole	Diagnosis	ICD-9-CM
363.12	Disseminated choroiditis and chorioretinitis, peripheral	Diagnosis	ICD-9-CM
363.13	Disseminated choroiditis and chorioretinitis, generalized	Diagnosis	ICD-9-CM
363.14	Disseminated retinitis and retinochoroiditis, metastatic	Diagnosis	ICD-9-CM
363.15	Disseminated retinitis and retinochoroiditis, pigment epitheliopathy	Diagnosis	ICD-9-CM
363.2	Other and unspecified forms of chorioretinitis and retinochoroiditis	Diagnosis	ICD-9-CM
363.20	Unspecified chorioretinitis	Diagnosis	ICD-9-CM
363.21	Pars planitis	Diagnosis	ICD-9-CM
363.22	Harada's disease	Diagnosis	ICD-9-CM
363.3	Chorioretinal scars	Diagnosis	ICD-9-CM
363.30	Unspecified chorioretinal scar	Diagnosis	ICD-9-CM
363.31	Solar retinopathy	Diagnosis	ICD-9-CM
363.32	Other macular chorioretinal scars	Diagnosis	ICD-9-CM
363.33	Other chorioretinal scars of posterior pole	Diagnosis	ICD-9-CM
363.34	Peripheral chorioretinal scars	Diagnosis	ICD-9-CM
363.35	Disseminated chorioretinal scars	Diagnosis	ICD-9-CM
H30.0	Focal chorioretinal inflammation	Diagnosis	ICD-10-CM
H30.00	Unspecified focal chorioretinal inflammation	Diagnosis	ICD-10-CM
H30.001	Unspecified focal chorioretinal inflammation, right eye	Diagnosis	ICD-10-CM
H30.002	Unspecified focal chorioretinal inflammation, left eye	Diagnosis	ICD-10-CM
H30.003	Unspecified focal chorioretinal inflammation, bilateral	Diagnosis	ICD-10-CM
H30.009	Unspecified focal chorioretinal inflammation, unspecified eye	Diagnosis	ICD-10-CM
H30.01	Focal chorioretinal inflammation, juxtapapillary	Diagnosis	ICD-10-CM
H30.011	Focal chorioretinal inflammation, juxtapapillary, right eye	Diagnosis	ICD-10-CM
H30.012	Focal chorioretinal inflammation, juxtapapillary, left eye	Diagnosis	ICD-10-CM
H30.013	Focal chorioretinal inflammation, juxtapapillary, bilateral	Diagnosis	ICD-10-CM
H30.019	Focal chorioretinal inflammation, juxtapapillary, unspecified eye	Diagnosis	ICD-10-CM
H30.02	Focal chorioretinal inflammation of posterior pole	Diagnosis	ICD-10-CM
H30.021	Focal chorioretinal inflammation of posterior pole, right eye	Diagnosis	ICD-10-CM
H30.022	Focal chorioretinal inflammation of posterior pole, left eye	Diagnosis	ICD-10-CM
H30.023	Focal chorioretinal inflammation of posterior pole, bilateral	Diagnosis	ICD-10-CM
H30.029	Focal chorioretinal inflammation of posterior pole, unspecified eye	Diagnosis	ICD-10-CM
H30.03	Focal chorioretinal inflammation, peripheral	Diagnosis	ICD-10-CM
H30.031	Focal chorioretinal inflammation, peripheral, right eye	Diagnosis	ICD-10-CM
H30.032	Focal chorioretinal inflammation, peripheral, left eye	Diagnosis	ICD-10-CM
H30.033	Focal chorioretinal inflammation, peripheral, bilateral	Diagnosis	ICD-10-CM
H30.039	Focal chorioretinal inflammation, peripheral, unspecified eye	Diagnosis	ICD-10-CM
H30.04	Focal chorioretinal inflammation, macular or paramacular	Diagnosis	ICD-10-CM
H30.041	Focal chorioretinal inflammation, macular or paramacular, right eye	Diagnosis	ICD-10-CM
H30.042	Focal chorioretinal inflammation, macular or paramacular, left eye	Diagnosis	ICD-10-CM
H30.043	Focal chorioretinal inflammation, macular or paramacular, bilateral	Diagnosis	ICD-10-CM
H30.049	Focal chorioretinal inflammation, macular or paramacular, unspecified eye	Diagnosis	ICD-10-CM
H30.1	Disseminated chorioretinal inflammation	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H30.10	Unspecified disseminated chorioretinal inflammation	Diagnosis	ICD-10-CM
H30.101	Unspecified disseminated chorioretinal inflammation, right eye	Diagnosis	ICD-10-CM
H30.102	Unspecified disseminated chorioretinal inflammation, left eye	Diagnosis	ICD-10-CM
H30.103	Unspecified disseminated chorioretinal inflammation, bilateral	Diagnosis	ICD-10-CM
H30.109	Unspecified disseminated chorioretinal inflammation, unspecified eye	Diagnosis	ICD-10-CM
H30.11	Disseminated chorioretinal inflammation of posterior pole	Diagnosis	ICD-10-CM
H30.111	Disseminated chorioretinal inflammation of posterior pole, right eye	Diagnosis	ICD-10-CM
H30.112	Disseminated chorioretinal inflammation of posterior pole, left eye	Diagnosis	ICD-10-CM
H30.113	Disseminated chorioretinal inflammation of posterior pole, bilateral	Diagnosis	ICD-10-CM
H30.119	Disseminated chorioretinal inflammation of posterior pole, unspecified eye	Diagnosis	ICD-10-CM
H30.12	Disseminated chorioretinal inflammation, peripheral	Diagnosis	ICD-10-CM
H30.121	Disseminated chorioretinal inflammation, peripheral right eye	Diagnosis	ICD-10-CM
H30.122	Disseminated chorioretinal inflammation, peripheral, left eye	Diagnosis	ICD-10-CM
H30.123	Disseminated chorioretinal inflammation, peripheral, bilateral	Diagnosis	ICD-10-CM
H30.129	Disseminated chorioretinal inflammation, peripheral, unspecified eye	Diagnosis	ICD-10-CM
H30.13	Disseminated chorioretinal inflammation, generalized	Diagnosis	ICD-10-CM
H30.131	Disseminated chorioretinal inflammation, generalized, right eye	Diagnosis	ICD-10-CM
H30.132	Disseminated chorioretinal inflammation, generalized, left eye	Diagnosis	ICD-10-CM
H30.133	Disseminated chorioretinal inflammation, generalized, bilateral	Diagnosis	ICD-10-CM
H30.139	Disseminated chorioretinal inflammation, generalized, unspecified eye	Diagnosis	ICD-10-CM
H30.14	Acute posterior multifocal placoid pigment epitheliopathy	Diagnosis	ICD-10-CM
H30.141	Acute posterior multifocal placoid pigment epitheliopathy, right eye	Diagnosis	ICD-10-CM
H30.142	Acute posterior multifocal placoid pigment epitheliopathy, left eye	Diagnosis	ICD-10-CM
H30.143	Acute posterior multifocal placoid pigment epitheliopathy, bilateral	Diagnosis	ICD-10-CM
H30.149	Acute posterior multifocal placoid pigment epitheliopathy, unspecified eye	Diagnosis	ICD-10-CM
H30.89	Other chorioretinal inflammations	Diagnosis	ICD-10-CM
H30.891	Other chorioretinal inflammations, right eye	Diagnosis	ICD-10-CM
H30.892	Other chorioretinal inflammations, left eye	Diagnosis	ICD-10-CM
H30.893	Other chorioretinal inflammations, bilateral	Diagnosis	ICD-10-CM
H30.899	Other chorioretinal inflammations, unspecified eye	Diagnosis	ICD-10-CM
H30.9	Unspecified chorioretinal inflammation	Diagnosis	ICD-10-CM
H30.90	Unspecified chorioretinal inflammation, unspecified eye	Diagnosis	ICD-10-CM
H30.91	Unspecified chorioretinal inflammation, right eye	Diagnosis	ICD-10-CM
H30.92	Unspecified chorioretinal inflammation, left eye	Diagnosis	ICD-10-CM
H30.93	Unspecified chorioretinal inflammation, bilateral	Diagnosis	ICD-10-CM
H31.00	Unspecified chorioretinal scars	Diagnosis	ICD-10-CM
H31.001	Unspecified chorioretinal scars, right eye	Diagnosis	ICD-10-CM
H31.002	Unspecified chorioretinal scars, left eye	Diagnosis	ICD-10-CM
H31.003	Unspecified chorioretinal scars, bilateral	Diagnosis	ICD-10-CM
H31.009	Unspecified chorioretinal scars, unspecified eye	Diagnosis	ICD-10-CM
H31.011	Macula scars of posterior pole (postinflammatory) (post-traumatic), right eye	Diagnosis	ICD-10-CM
H31.012	Macula scars of posterior pole (postinflammatory) (post-traumatic), left eye	Diagnosis	ICD-10-CM
H31.013	Macula scars of posterior pole (postinflammatory) (post-traumatic), bilateral	Diagnosis	ICD-10-CM
H31.019	Macula scars of posterior pole (postinflammatory) (post-traumatic), unspecified eye	Diagnosis	ICD-10-CM
H31.021	Solar retinopathy, right eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H31.022	Solar retinopathy, left eye	Diagnosis	ICD-10-CM
H31.023	Solar retinopathy, bilateral	Diagnosis	ICD-10-CM
H31.029	Solar retinopathy, unspecified eye	Diagnosis	ICD-10-CM
H31.091	Other chorioretinal scars, right eye	Diagnosis	ICD-10-CM
H31.092	Other chorioretinal scars, left eye	Diagnosis	ICD-10-CM
H31.093	Other chorioretinal scars, bilateral	Diagnosis	ICD-10-CM
H31.099	Other chorioretinal scars, unspecified eye	Diagnosis	ICD-10-CM
Brain Abnormality			
330.3	Cerebral degeneration of childhood in other diseases classified elsewhere	Diagnosis	ICD-9-CM
331.3	Communicating hydrocephalus	Diagnosis	ICD-9-CM
331.4	Obstructive hydrocephalus	Diagnosis	ICD-9-CM
331.5	Idiopathic normal pressure hydrocephalus [INPH]	Diagnosis	ICD-9-CM
331.7	Cerebral degeneration in diseases classified elsewhere	Diagnosis	ICD-9-CM
348.89	Other conditions of brain	Diagnosis	ICD-9-CM
348.9	Unspecified condition of brain	Diagnosis	ICD-9-CM
742.2	Congenital reduction deformities of brain	Diagnosis	ICD-9-CM
742.3	Congenital hydrocephalus	Diagnosis	ICD-9-CM
742.4	Other specified congenital anomalies of brain	Diagnosis	ICD-9-CM
742.9	Unspecified congenital anomaly of brain, spinal cord, and nervous system	Diagnosis	ICD-9-CM
793.0	Nonspecific (abnormal) findings on radiological and other examination of skull and head	Diagnosis	ICD-9-CM
G91.0	Communicating hydrocephalus	Diagnosis	ICD-10-CM
G91.1	Obstructive hydrocephalus	Diagnosis	ICD-10-CM
G91.2	(Idiopathic) normal pressure hydrocephalus	Diagnosis	ICD-10-CM
G91.4	Hydrocephalus in diseases classified elsewhere	Diagnosis	ICD-10-CM
G91.8	Other hydrocephalus	Diagnosis	ICD-10-CM
G91.9	Hydrocephalus, unspecified	Diagnosis	ICD-10-CM
G93.89	Other specified disorders of brain	Diagnosis	ICD-10-CM
G93.9	Disorder of brain, unspecified	Diagnosis	ICD-10-CM
Q03.8	Other congenital hydrocephalus	Diagnosis	ICD-10-CM
Q03.9	Congenital hydrocephalus, unspecified	Diagnosis	ICD-10-CM
Q04.0	Congenital malformations of corpus callosum	Diagnosis	ICD-10-CM
Q04.3	Other reduction deformities of brain	Diagnosis	ICD-10-CM
Q04.4	Septo-optic dysplasia of brain	Diagnosis	ICD-10-CM
Q04.5	Megalencephaly	Diagnosis	ICD-10-CM
Q04.6	Congenital cerebral cysts	Diagnosis	ICD-10-CM
Q04.8	Other specified congenital malformations of brain	Diagnosis	ICD-10-CM
Q04.9	Congenital malformation of brain, unspecified	Diagnosis	ICD-10-CM
R90.82	White matter disease, unspecified	Diagnosis	ICD-10-CM
R93.0	Abnormal findings on diagnostic imaging of skull and head, not elsewhere class	Diagnosis	ICD-10-CM
Other Brain Abnormality			
G91.3	Post-traumatic hydrocephalus, unspecified	Diagnosis	ICD-10-CM
Q03.0	Malformations of aqueduct of Sylvius	Diagnosis	ICD-10-CM
Q03.1	Atresia of foramina of Magendie and Luschka	Diagnosis	ICD-10-CM
Q04.1	Arhinencephaly	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
Q04.2	Holoprosencephaly	Diagnosis	ICD-10-CM
Cytomegalovirus Infection (CMV)			
078.5	Cytomegaloviral disease	Diagnosis	ICD-9-CM
B25.0	Cytomegaloviral pneumonitis	Diagnosis	ICD-10-CM
B25.1	Cytomegaloviral hepatitis	Diagnosis	ICD-10-CM
B25.2	Cytomegaloviral pancreatitis	Diagnosis	ICD-10-CM
B25.8	Other cytomegaloviral diseases	Diagnosis	ICD-10-CM
B25.9	Cytomegaloviral disease, unspecified	Diagnosis	ICD-10-CM
Congenital Cytomegalovirus (cCMV)			
771.1	Congenital cytomegalovirus infection	Diagnosis	ICD-9-CM
P35.1	Congenital cytomegalovirus infection	Diagnosis	ICD-10-CM
Neutropenia			
288.0	Neutropenia	Diagnosis	ICD-9-CM
288.00	Neutropenia, unspecified	Diagnosis	ICD-9-CM
288.01	Congenital neutropenia	Diagnosis	ICD-9-CM
288.03	Drug induced neutropenia	Diagnosis	ICD-9-CM
288.04	Neutropenia due to infection	Diagnosis	ICD-9-CM
288.09	Other neutropenia	Diagnosis	ICD-9-CM
776.7	Transient neonatal neutropenia	Diagnosis	ICD-9-CM
D70	Neutropenia	Diagnosis	ICD-10-CM
D70.0	Congenital agranulocytosis	Diagnosis	ICD-10-CM
D70.2	Other drug-induced agranulocytosis	Diagnosis	ICD-10-CM
D70.3	Neutropenia due to infection	Diagnosis	ICD-10-CM
D70.8	Other neutropenia	Diagnosis	ICD-10-CM
D70.9	Neutropenia, unspecified	Diagnosis	ICD-10-CM
P61.5	Transient neonatal neutropenia	Diagnosis	ICD-10-CM
Receipt of RBC transfusion			
30230N1	Transfusion of Nonautologous Red Blood Cells into Peripheral Vein, Open Appr	Procedure	ICD-10-PCS
30230P1	Transfusion of Nonautologous Frozen Red Cells into Peripheral Vein, Open App	Procedure	ICD-10-PCS
30233N1	Transfusion of Nonautologous Red Blood Cells into Peripheral Vein, Percutaneous Approach	Procedure	ICD-10-PCS
30233P1	Transfusion of Nonautologous Frozen Red Cells into Peripheral Vein, Percutaneous Approach	Procedure	ICD-10-PCS
30240N1	Transfusion of Nonautologous Red Blood Cells into Central Vein, Open Approac	Procedure	ICD-10-PCS
30240P1	Transfusion of Nonautologous Frozen Red Cells into Central Vein, Open Approac	Procedure	ICD-10-PCS
30243N1	Transfusion of Nonautologous Red Blood Cells into Central Vein, Percutaneous Approach	Procedure	ICD-10-PCS
30243P1	Transfusion of Nonautologous Frozen Red Cells into Central Vein, Percutaneous Approach	Procedure	ICD-10-PCS
30250N1	Transfusion of Nonautologous Red Blood Cells into Peripheral Artery, Open Ap	Procedure	ICD-10-PCS
30250P1	Transfusion of Nonautologous Frozen Red Cells into Peripheral Artery, Open Ar	Procedure	ICD-10-PCS
30253N1	Transfusion of Nonautologous Red Blood Cells into Peripheral Artery, Percutaneous Approach	Procedure	ICD-10-PCS
30253P1	Transfusion of Nonautologous Frozen Red Cells into Peripheral Artery, Percutaneous Approach	Procedure	ICD-10-PCS

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Code	Description	Code Category	Code Type
30260N1	Transfusion of Nonautologous Red Blood Cells into Central Artery, Open Appro	Procedure	ICD-10-PCS
30260P1	Transfusion of Nonautologous Frozen Red Cells into Central Artery, Open Appr	Procedure	ICD-10-PCS
30263N1	Transfusion of Nonautologous Red Blood Cells into Central Artery, Percutaneous Approach	Procedure	ICD-10-PCS
30263P1	Transfusion of Nonautologous Frozen Red Cells into Central Artery, Percutaneous Approach	Procedure	ICD-10-PCS
30273N	Administration @ Circulatory @ Transfusion @ Products of Conception, Circulatory @ Percutaneous @ Red Blood Cells	Procedure	ICD-10-PCS
30273N1	Transfusion of Nonautologous Red Blood Cells into Products of Conception, Circulatory, Percutaneous Approach	Procedure	ICD-10-PCS
30273P	Administration @ Circulatory @ Transfusion @ Products of Conception, Circulatory @ Percutaneous @ Frozen Red Cells	Procedure	ICD-10-PCS
30273P1	Transfusion of Nonautologous Frozen Red Cells into Products of Conception, Circulatory, Percutaneous Approach	Procedure	ICD-10-PCS
30277N	Administration @ Circulatory @ Transfusion @ Products of Conception, Circulatory @ Via Natural or Artificial Opening @ Red Blood Cells	Procedure	ICD-10-PCS
30277N1	Transfusion of Nonautologous Red Blood Cells into Products of Conception, Circulatory, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
30277P	Administration @ Circulatory @ Transfusion @ Products of Conception, Circulatory @ Via Natural or Artificial Opening @ Frozen Red Cells	Procedure	ICD-10-PCS
30277P1	Transfusion of Nonautologous Frozen Red Cells into Products of Conception, Circulatory, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
9904	Transfusion of packed cells	Procedure	ICD-9-CM
C1010	Whole blood or red blood cells, leukoreduced, cmv negative, each unit	Procedure	HCPCS
C1016	Whole blood or red blood cells, leukoreduced, frozen, deglycerol, washed, eac	Procedure	HCPCS
C1020	Each unit red blood cells, frozen/deglycerolized/washed, leukocyte-reduced, ir	Procedure	HCPCS
C1021	Red blood cells, leukocyte-reduced, cmv negative, irradiated, each unit	Procedure	HCPCS
C9504	RED BLD CELLS DEGLYCEROLIZED EA UNI	Procedure	HCPCS
C9505	Red blood cells, irradiated, each unit	Procedure	HCPCS
P9016	Red blood cells, leukocytes reduced, each unit	Procedure	HCPCS
P9021	Red blood cells, each unit	Procedure	HCPCS
P9022	Red blood cells, washed, each unit	Procedure	HCPCS
P9038	Red blood cells, irradiated, each unit	Procedure	HCPCS
P9039	RBCS DEGLYCEROLIZED EACH UNIT	Procedure	HCPCS
P9040	Red blood cells, leukocytes reduced, irradiated, each unit	Procedure	HCPCS
P9051	Whole blood or red blood cells, leukocytes reduced, cmv-negative, each unit	Procedure	HCPCS
P9054	Each unit whole blood or red blood cells, leukocytes reduced, frozen, deglycerol, washed,	Procedure	HCPCS
P9057	Red blood cells, frozen/deglycerolized/washed, leukocytes reduced, irradiated,	Procedure	HCPCS
P9058	Red blood cells, leukocytes reduced, cmv-negative, irradiated, each unit	Procedure	HCPCS
Receipt of Platelet Transfusion			
30230R	Administration @ Circulatory @ Transfusion @ Peripheral Vein @ Open @ Plat	Procedure	ICD-10-PCS
30230R1	Transfusion of Nonautologous Platelets into Peripheral Vein, Open Approach	Procedure	ICD-10-PCS
30233R	Administration @ Circulatory @ Transfusion @ Peripheral Vein @ Percutaneous @ Platelets	Procedure	ICD-10-PCS

Appendix E. List of Current Procedural Terminology, Fourth Edition (CPT-4), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
30233R1	Transfusion of Nonautologous Platelets into Peripheral Vein, Percutaneous Approach	Procedure	ICD-10-PCS
30240R	Administration @ Circulatory @ Transfusion @ Central Vein @ Open @ Platelets	Procedure	ICD-10-PCS
30240R1	Transfusion of Nonautologous Platelets into Central Vein, Open Approach	Procedure	ICD-10-PCS
30243R	Administration @ Circulatory @ Transfusion @ Central Vein @ Percutaneous @ Platelets	Procedure	ICD-10-PCS
30243R1	Transfusion of Nonautologous Platelets into Central Vein, Percutaneous Approach	Procedure	ICD-10-PCS
30250R	Administration @ Circulatory @ Transfusion @ Peripheral Artery @ Open @ Platelets	Procedure	ICD-10-PCS
30250R1	Transfusion of Nonautologous Platelets into Peripheral Artery, Open Approach	Procedure	ICD-10-PCS
30253R	Administration @ Circulatory @ Transfusion @ Peripheral Artery @ Percutaneous @ Platelets	Procedure	ICD-10-PCS
30253R1	Transfusion of Nonautologous Platelets into Peripheral Artery, Percutaneous Approach	Procedure	ICD-10-PCS
30260R	Administration @ Circulatory @ Transfusion @ Central Artery @ Open @ Platelets	Procedure	ICD-10-PCS
30260R1	Transfusion of Nonautologous Platelets into Central Artery, Open Approach	Procedure	ICD-10-PCS
30263R	Administration @ Circulatory @ Transfusion @ Central Artery @ Percutaneous @ Platelets	Procedure	ICD-10-PCS
30263R1	Transfusion of Nonautologous Platelets into Central Artery, Percutaneous Approach	Procedure	ICD-10-PCS
30273R	Administration @ Circulatory @ Transfusion @ Products of Conception, Circulatory @ Percutaneous @ Platelets	Procedure	ICD-10-PCS
30273R1	Transfusion of Nonautologous Platelets into Products of Conception, Circulatory, Percutaneous Approach	Procedure	ICD-10-PCS
30277R	Administration @ Circulatory @ Transfusion @ Products of Conception, Circulatory @ Via Natural or Artificial Opening @ Platelets	Procedure	ICD-10-PCS
30277R1	Transfusion of Nonautologous Platelets into Products of Conception, Circulatory, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
9905	Platelet transfusion	Procedure	ICD-9-CM
C1011	Platelet, hla-matched leukoreduced, apheresis/pheresis, each unit	Procedure	HCPCS
C1012	Platelet concentrate, leukoreduced, irradiated, each unit	Procedure	HCPCS
C1013	Platelet, hla-matched leukoreduced, apheresis/pheresis, each unit	Procedure	HCPCS
C1014	Platelet, leukoreduced, apheresis/pheresis, each unit	Procedure	HCPCS
C1015	Platelets, pheresis, leukocyte-reduced, CMV negative, irradiated, each unit	Procedure	HCPCS
C1017	Platelet, leukoreduced, cmv-negative, apheresis/pheresis, each unit	Procedure	HCPCS
C1019	Platelet, leukoreduced, irradiated, apheresis/pheresis, each unit	Procedure	HCPCS
C9500	Platelets, irradiated, each unit	Procedure	HCPCS
C9501	Platelets, pheresis, each unit	Procedure	HCPCS
C9502	PLATELETS PHERESIS IRRADIATED EA UN	Procedure	HCPCS
P9019	Platelets, each unit	Procedure	HCPCS
P9031	Platelets, leukocytes reduced, each unit	Procedure	HCPCS
P9032	Platelets, irradiated, each unit	Procedure	HCPCS
P9033	Platelets, leukocytes reduced, irradiated, each unit	Procedure	HCPCS
P9034	Platelets, pheresis, each unit	Procedure	HCPCS
P9035	Platelets, pheresis, leukocytes reduced, each unit	Procedure	HCPCS
P9036	PLATELETS PHERESIS IRRADIATED EA UNIT	Procedure	HCPCS
P9037	Platelets, pheresis, leukocytes reduced, irradiated, each unit	Procedure	HCPCS
P9052	PLT HLA-MATCHD LEUKOCYTES RDUC EACH	Procedure	HCPCS
P9053	PLT PHERES LEUKOCYT RDUC CMV-NEG EA	Procedure	HCPCS

Appendix E. List of Current Procedural Terminology, Fourth Edition (CPT-4), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
P9055	PLT LEUKOCYT RDUC CMV-NEG APH/PHERS	Procedure	HCPCS
P9072	PLT PHRS PATH RDUC/RPD BACT TST E U	Procedure	HCPCS
Q9988	PLATELETS PATHOGEN REDUCED EA UNIT	Procedure	HCPCS
Receipt of GCSF Transfusion			
C9058	Injection, pegfilgrastim-bmez, biosimilar, (Ziextenzo) 0.5 mg	Procedure	HCPCS
C9119	Injection, pegfilgrastim, per 6 mg single dose vial	Procedure	HCPCS
J1440	Injection, filgrastim (G-CSF), 300 mcg	Procedure	HCPCS
J1441	Injection, filgrastim (G-CSF), 480 mcg	Procedure	HCPCS
J1442	Injection, filgrastim (G-CSF), excludes biosimilars, 1 mcg	Procedure	HCPCS
J1446	Injection, TBO-filgrastim, 5 micrograms	Procedure	HCPCS
J1447	Injection, tbo-filgrastim, 1 mcg	Procedure	HCPCS
J2505	Injection, pegfilgrastim, 6 mg	Procedure	HCPCS
Q4053	Injection, pegfilgrastim, 1 mg	Procedure	HCPCS
Q5101	Injection, filgrastim-sndz, biosimilar, (Zarxio), 1 mcg	Procedure	HCPCS
Q5108	Injection, pegfilgrastim-jmdb, biosimilar, (Fulphila), 0.5 mg	Procedure	HCPCS
Q5110	Injection, filgrastim-aafi, biosimilar, (Nivestym), 1 mcg	Procedure	HCPCS
Q5111	Injection, pegfilgrastim-cbqv, biosimilar, (Udenyca), 0.5 mg	Procedure	HCPCS
Q5120	Injection, pegfilgrastim-bmez, biosimilar, (ZIEXTENZO), 0.5 mg	Procedure	HCPCS
S0135	Injection pegfilgrastim, 6 mg	Procedure	HCPCS

Appendix F. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Baseline Characteristics and Hematologic Outcomes in this Request

Code	Description	Code Category	Code Type
Hearing Loss			
388.01	Presbycusis	Diagnosis	ICD-9-CM
388.2	Unspecified sudden hearing loss	Diagnosis	ICD-9-CM
389.1	Sensorineural hearing loss	Diagnosis	ICD-9-CM
389.10	Unspecified sensorineural hearing loss	Diagnosis	ICD-9-CM
389.11	Sensory hearing loss, bilateral	Diagnosis	ICD-9-CM
389.12	Neural hearing loss, bilateral	Diagnosis	ICD-9-CM
389.13	Neural hearing loss, unilateral	Diagnosis	ICD-9-CM
389.14	Central hearing loss	Diagnosis	ICD-9-CM
389.15	Sensorineural hearing loss, unilateral	Diagnosis	ICD-9-CM
389.16	Sensorineural hearing loss, asymmetrical	Diagnosis	ICD-9-CM
389.17	Sensory hearing loss, unilateral	Diagnosis	ICD-9-CM
389.18	Sensorineural hearing loss, bilateral	Diagnosis	ICD-9-CM
389.2	Mixed conductive and sensorineural hearing loss	Diagnosis	ICD-9-CM
389.20	Mixed hearing loss, unspecified	Diagnosis	ICD-9-CM
389.21	Mixed hearing loss, unilateral	Diagnosis	ICD-9-CM
389.22	Mixed hearing loss, bilateral	Diagnosis	ICD-9-CM
389.7	Deaf, nonspeaking, not elsewhere classifiable	Diagnosis	ICD-9-CM
389.8	Other specified forms of hearing loss	Diagnosis	ICD-9-CM
389.9	Unspecified hearing loss	Diagnosis	ICD-9-CM
69710	IMPLANT/REPLACE HEARING AID	Procedure	CPT-4
69930	IMPLANT COCHLEAR DEVICE	Procedure	CPT-4
92510	AURAL REHABILITATION FOLLOWING COCHLEAR IMPLANT (INCLUDES EVALUATION OF AURAL REHABILITATION STATUS	Procedure	CPT-4
92601	COCHLEAR IMPLT F/UP EXAM <7	Procedure	CPT-4
92602	REPROGRAM COCHLEAR IMPLT <7	Procedure	CPT-4
92630	AUD REHAB PRE-LING HEAR LOSS	Procedure	CPT-4
92633	AUD REHAB POSTLING HEAR LOSS	Procedure	CPT-4
95.48	Fitting of hearing aid	Procedure	ICD-9-CM
F0DZ05Z	Tinnitus Masker Device Fitting using Hearing Aid Selection / Fitting / Test Equipment	Procedure	ICD-10-PCS
F0DZ0ZZ	Tinnitus Masker Device Fitting	Procedure	ICD-10-PCS
F0DZ11Z	Monaural Hearing Aid Device Fitting using Audiometer	Procedure	ICD-10-PCS
F0DZ12Z	Monaural Hearing Aid Device Fitting using Sound Field / Booth	Procedure	ICD-10-PCS
F0DZ15Z	Monaural Hearing Aid Device Fitting using Hearing Aid Selection / Fitting / Test Equipment	Procedure	ICD-10-PCS
F0DZ1KZ	Monaural Hearing Aid Device Fitting using Audiovisual Equipment	Procedure	ICD-10-PCS
F0DZ1LZ	Monaural Hearing Aid Device Fitting using Assistive Listening Equipment	Procedure	ICD-10-PCS
F0DZ1ZZ	Monaural Hearing Aid Device Fitting	Procedure	ICD-10-PCS
F0DZ21Z	Binaural Hearing Aid Device Fitting using Audiometer	Procedure	ICD-10-PCS
F0DZ22Z	Binaural Hearing Aid Device Fitting using Sound Field / Booth	Procedure	ICD-10-PCS
F0DZ25Z	Binaural Hearing Aid Device Fitting using Hearing Aid Selection / Fitting / Test Equipment	Procedure	ICD-10-PCS
F0DZ2KZ	Binaural Hearing Aid Device Fitting using Audiovisual Equipment	Procedure	ICD-10-PCS

Appendix F. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Baseline Characteristics and Hematologic Outcomes in this Request

Code	Description	Code Category	Code Type
F0DZ2LZ	Binaural Hearing Aid Device Fitting using Assistive Listening Equipment	Procedure	ICD-10-PCS
F0DZ2ZZ	Binaural Hearing Aid Device Fitting	Procedure	ICD-10-PCS
F0DZ51Z	Assistive Listening Device Device Fitting using Audiometer	Procedure	ICD-10-PCS
F0DZ52Z	Assistive Listening Device Device Fitting using Sound Field / Booth	Procedure	ICD-10-PCS
F0DZ55Z	Assistive Listening Device Device Fitting using Hearing Aid Selection / Fitting / Test Equipment	Procedure	ICD-10-PCS
F0DZ5KZ	Assistive Listening Device Device Fitting using Audiovisual Equipment	Procedure	ICD-10-PCS
F0DZ5LZ	Assistive Listening Device Device Fitting using Assistive Listening Equipment	Procedure	ICD-10-PCS
F0DZ5ZZ	Assistive Listening Device Device Fitting	Procedure	ICD-10-PCS
H90.3	Sensorineural hearing loss, bilateral	Diagnosis	ICD-10-CM
H90.4	Sensorineural hearing loss, unilateral with unrestricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.41	Sensorineural hearing loss, unilateral, right ear, with unrestricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.42	Sensorineural hearing loss, unilateral, left ear, with unrestricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.5	Unspecified sensorineural hearing loss	Diagnosis	ICD-10-CM
H90.6	Mixed conductive and sensorineural hearing loss, bilateral	Diagnosis	ICD-10-CM
H90.7	Mixed conductive and sensorineural hearing loss, unilateral with unrestricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.71	Mixed conductive and sensorineural hearing loss, unilateral, right ear, with unrestricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.72	Mixed conductive and sensorineural hearing loss, unilateral, left ear, with unrestricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.8	Mixed conductive and sensorineural hearing loss, unspecified	Diagnosis	ICD-10-CM
H90.A21	Sensorineural hearing loss, unilateral, right ear, with restricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.A22	Sensorineural hearing loss, unilateral, left ear, with restricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.A31	Mixed conductive and sensorineural hearing loss, unilateral, right ear with restricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H90.A32	Mixed conductive and sensorineural hearing loss, unilateral, left ear with restricted hearing on the contralateral side	Diagnosis	ICD-10-CM
H91.0	Ototoxic hearing loss	Diagnosis	ICD-10-CM
H91.01	Ototoxic hearing loss, right ear	Diagnosis	ICD-10-CM
H91.02	Ototoxic hearing loss, left ear	Diagnosis	ICD-10-CM
H91.03	Ototoxic hearing loss, bilateral	Diagnosis	ICD-10-CM
H91.09	Ototoxic hearing loss, unspecified ear	Diagnosis	ICD-10-CM
H91.1	Presbycusis	Diagnosis	ICD-10-CM
H91.10	Presbycusis, unspecified ear	Diagnosis	ICD-10-CM
H91.11	Presbycusis, right ear	Diagnosis	ICD-10-CM
H91.12	Presbycusis, left ear	Diagnosis	ICD-10-CM
H91.13	Presbycusis, bilateral	Diagnosis	ICD-10-CM
H91.2	Sudden idiopathic hearing loss	Diagnosis	ICD-10-CM

Appendix F. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Baseline Characteristics and Hematologic Outcomes in this Request

Code	Description	Code Category	Code Type
H91.20	Sudden idiopathic hearing loss, unspecified ear	Diagnosis	ICD-10-CM
H91.21	Sudden idiopathic hearing loss, right ear	Diagnosis	ICD-10-CM
H91.22	Sudden idiopathic hearing loss, left ear	Diagnosis	ICD-10-CM
H91.23	Sudden idiopathic hearing loss, bilateral	Diagnosis	ICD-10-CM
H91.3	Deaf nonspeaking, not elsewhere classified	Diagnosis	ICD-10-CM
H91.8	Other specified hearing loss	Diagnosis	ICD-10-CM
H91.8X	Other specified hearing loss	Diagnosis	ICD-10-CM
H91.8X1	Other specified hearing loss, right ear	Diagnosis	ICD-10-CM
H91.8X2	Other specified hearing loss, left ear	Diagnosis	ICD-10-CM
H91.8X3	Other specified hearing loss, bilateral	Diagnosis	ICD-10-CM
H91.8X9	Other specified hearing loss, unspecified ear	Diagnosis	ICD-10-CM
H91.9	Unspecified hearing loss	Diagnosis	ICD-10-CM
H91.90	Unspecified hearing loss, unspecified ear	Diagnosis	ICD-10-CM
H91.91	Unspecified hearing loss, right ear	Diagnosis	ICD-10-CM
H91.92	Unspecified hearing loss, left ear	Diagnosis	ICD-10-CM
H91.93	Unspecified hearing loss, bilateral	Diagnosis	ICD-10-CM
V53.2	Adjustment hearing aid	Procedure	ICD-9-CM
Z46.1	Encounter for fitting and adjustment of hearing aid	Procedure	ICD-10-PCS
Jaundice			
774	Other perinatal jaundice	Diagnosis	ICD-9-CM
774.0	Perinatal jaundice from hereditary hemolytic anemias	Diagnosis	ICD-9-CM
774.1	Perinatal jaundice from other excessive hemolysis	Diagnosis	ICD-9-CM
774.2	Neonatal jaundice associated with preterm delivery	Diagnosis	ICD-9-CM
774.3	Neonatal jaundice due to delayed conjugation from other causes	Diagnosis	ICD-9-CM
774.30	Neonatal jaundice due to delayed conjugation, cause unspecified	Diagnosis	ICD-9-CM
774.31	Neonatal jaundice due to delayed conjugation in diseases classified	Diagnosis	ICD-9-CM
774.39	Other neonatal jaundice due to delayed conjugation from other causes	Diagnosis	ICD-9-CM
774.4	Perinatal jaundice due to hepatocellular damage	Diagnosis	ICD-9-CM
774.5	Perinatal jaundice from other causes	Diagnosis	ICD-9-CM
774.6	Unspecified fetal and neonatal jaundice	Diagnosis	ICD-9-CM
P58.0	Neonatal jaundice due to bruising	Diagnosis	ICD-10-CM
P58.1	Neonatal jaundice due to bleeding	Diagnosis	ICD-10-CM
P58.2	Neonatal jaundice due to infection	Diagnosis	ICD-10-CM
P58.3	Neonatal jaundice due to polycythemia	Diagnosis	ICD-10-CM
P58.41	Neonatal jaundice due to drugs or toxins transmitted from mother	Diagnosis	ICD-10-CM
P58.42	Neonatal jaundice due to drugs or toxins given to newborn	Diagnosis	ICD-10-CM
P58.5	Neonatal jaundice due to swallowed maternal blood	Diagnosis	ICD-10-CM
P58.8	Neonatal jaundice due to other specified excessive hemolysis	Diagnosis	ICD-10-CM
P58.9	Neonatal jaundice due to excessive hemolysis, unspecified	Diagnosis	ICD-10-CM
P59.0	Neonatal jaundice associated with preterm delivery	Diagnosis	ICD-10-CM
P59.1	Inspissated bile syndrome	Diagnosis	ICD-10-CM
P59.20	Neonatal jaundice from unspecified hepatocellular damage	Diagnosis	ICD-10-CM
P59.29	Neonatal jaundice from other hepatocellular damage	Diagnosis	ICD-10-CM
P59.3	Neonatal jaundice from breast milk inhibitor	Diagnosis	ICD-10-CM

Appendix F. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Baseline Characteristics and Hematologic Outcomes in this Request

Code	Description	Code Category	Code Type
P59.8	Neonatal jaundice from other specified causes	Diagnosis	ICD-10-CM
P59.9	Neonatal jaundice, unspecified	Diagnosis	ICD-10-CM
Petechiae			
772.6	Fetal and neonatal cutaneous hemorrhage	Diagnosis	ICD-9-CM
782.7	Spontaneous ecchymoses	Diagnosis	ICD-9-CM
P54.5	Neonatal cutaneous hemorrhage	Diagnosis	ICD-10-CM
R23.3	Spontaneous ecchymoses	Diagnosis	ICD-10-CM
Hepatomegaly			
573.1	Hepatitis in viral diseases classified elsewhere	Diagnosis	ICD-9-CM
789.1	Hepatomegaly	Diagnosis	ICD-9-CM
B25.1	Cytomegaloviral hepatitis	Diagnosis	ICD-10-CM
R16.0	Hepatomegaly, not elsewhere classified	Diagnosis	ICD-10-CM
R16.2	Hepatomegaly with splenomegaly, not elsewhere classified	Diagnosis	ICD-10-CM
Splenomegaly			
289.51	Chronic congestive splenomegaly	Diagnosis	ICD-9-CM
289.53	Neutropenic splenomegaly	Diagnosis	ICD-9-CM
789.2	Splenomegaly	Diagnosis	ICD-9-CM
D73.2	Chronic congestive splenomegaly	Diagnosis	ICD-10-CM
D73.81	Neutropenic splenomegaly	Diagnosis	ICD-10-CM
R16.1	Splenomegaly, not elsewhere classified	Diagnosis	ICD-10-CM
R16.2	Hepatomegaly with splenomegaly, not elsewhere classified	Diagnosis	ICD-10-CM
Microcephaly			
742.1	Microcephalus	Diagnosis	ICD-9-CM
Q02	Microcephaly	Diagnosis	ICD-10-CM
Thrombocytopenia			
287.3	Primary thrombocytopenia	Diagnosis	ICD-9-CM
287.30	Primary thrombocytopenia, unspecified	Diagnosis	ICD-9-CM
287.31	Immune thrombocytopenic purpura	Diagnosis	ICD-9-CM
287.33	Congenital and hereditary thrombocytopenic purpura	Diagnosis	ICD-9-CM
287.39	Other primary thrombocytopenia	Diagnosis	ICD-9-CM
287.4	Secondary thrombocytopenia	Diagnosis	ICD-9-CM
287.49	Other secondary thrombocytopenia	Diagnosis	ICD-9-CM
287.5	Unspecified thrombocytopenia	Diagnosis	ICD-9-CM
776.1	Transient neonatal thrombocytopenia	Diagnosis	ICD-9-CM
776.2	Disseminated intravascular coagulation in newborn	Diagnosis	ICD-9-CM
D69.42	Congenital and hereditary thrombocytopenia purpura	Diagnosis	ICD-10-CM
D69.49	Other primary thrombocytopenia	Diagnosis	ICD-10-CM
D69.51	Posttransfusion purpura	Diagnosis	ICD-10-CM
D69.59	Other secondary thrombocytopenia	Diagnosis	ICD-10-CM
D69.6	Thrombocytopenia, unspecified	Diagnosis	ICD-10-CM
P60	Disseminated intravascular coagulation of newborn	Diagnosis	ICD-10-CM
P61.0	Transient neonatal thrombocytopenia	Diagnosis	ICD-10-CM
Chorioretinitis			
363.0	Focal chorioretinitis and focal retinochoroiditis	Diagnosis	ICD-9-CM

Appendix F. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Baseline Characteristics and Hematologic Outcomes in this Request

Code	Description	Code Category	Code Type
363.00	Unspecified focal chorioretinitis	Diagnosis	ICD-9-CM
363.01	Focal choroiditis and chorioretinitis, juxtapapillary	Diagnosis	ICD-9-CM
363.03	Focal choroiditis and chorioretinitis of other posterior pole	Diagnosis	ICD-9-CM
363.04	Focal choroiditis and chorioretinitis, peripheral	Diagnosis	ICD-9-CM
363.05	Focal retinitis and retinochoroiditis, juxtapapillary	Diagnosis	ICD-9-CM
363.06	Focal retinitis and retinochoroiditis, macular or paramacular	Diagnosis	ICD-9-CM
363.07	Focal retinitis and retinochoroiditis of other posterior pole	Diagnosis	ICD-9-CM
363.08	Focal retinitis and retinochoroiditis, peripheral	Diagnosis	ICD-9-CM
363.1	Disseminated chorioretinitis and disseminated retino-choroiditis	Diagnosis	ICD-9-CM
363.10	Unspecified disseminated chorioretinitis	Diagnosis	ICD-9-CM
363.11	Disseminated choroiditis and chorioretinitis, posterior pole	Diagnosis	ICD-9-CM
363.12	Disseminated choroiditis and chorioretinitis, peripheral	Diagnosis	ICD-9-CM
363.13	Disseminated choroiditis and chorioretinitis, generalized	Diagnosis	ICD-9-CM
363.14	Disseminated retinitis and retinochoroiditis, metastatic	Diagnosis	ICD-9-CM
363.15	Disseminated retinitis and retinochoroiditis, pigment epitheliopathy	Diagnosis	ICD-9-CM
363.2	Other and unspecified forms of chorioretinitis and retinochoroiditis	Diagnosis	ICD-9-CM
363.20	Unspecified chorioretinitis	Diagnosis	ICD-9-CM
363.21	Pars planitis	Diagnosis	ICD-9-CM
363.22	Harada's disease	Diagnosis	ICD-9-CM
363.3	Chorioretinal scars	Diagnosis	ICD-9-CM
363.30	Unspecified chorioretinal scar	Diagnosis	ICD-9-CM
363.31	Solar retinopathy	Diagnosis	ICD-9-CM
363.32	Other macular chorioretinal scars	Diagnosis	ICD-9-CM
363.33	Other chorioretinal scars of posterior pole	Diagnosis	ICD-9-CM
363.34	Peripheral chorioretinal scars	Diagnosis	ICD-9-CM
363.35	Disseminated chorioretinal scars	Diagnosis	ICD-9-CM
H30.0	Focal chorioretinal inflammation	Diagnosis	ICD-10-CM
H30.00	Unspecified focal chorioretinal inflammation	Diagnosis	ICD-10-CM
H30.001	Unspecified focal chorioretinal inflammation, right eye	Diagnosis	ICD-10-CM
H30.002	Unspecified focal chorioretinal inflammation, left eye	Diagnosis	ICD-10-CM
H30.003	Unspecified focal chorioretinal inflammation, bilateral	Diagnosis	ICD-10-CM
H30.009	Unspecified focal chorioretinal inflammation, unspecified eye	Diagnosis	ICD-10-CM
H30.01	Focal chorioretinal inflammation, juxtapapillary	Diagnosis	ICD-10-CM
H30.011	Focal chorioretinal inflammation, juxtapapillary, right eye	Diagnosis	ICD-10-CM
H30.012	Focal chorioretinal inflammation, juxtapapillary, left eye	Diagnosis	ICD-10-CM
H30.013	Focal chorioretinal inflammation, juxtapapillary, bilateral	Diagnosis	ICD-10-CM
H30.019	Focal chorioretinal inflammation, juxtapapillary, unspecified eye	Diagnosis	ICD-10-CM
H30.02	Focal chorioretinal inflammation of posterior pole	Diagnosis	ICD-10-CM
H30.021	Focal chorioretinal inflammation of posterior pole, right eye	Diagnosis	ICD-10-CM
H30.022	Focal chorioretinal inflammation of posterior pole, left eye	Diagnosis	ICD-10-CM
H30.023	Focal chorioretinal inflammation of posterior pole, bilateral	Diagnosis	ICD-10-CM
H30.029	Focal chorioretinal inflammation of posterior pole, unspecified eye	Diagnosis	ICD-10-CM
H30.03	Focal chorioretinal inflammation, peripheral	Diagnosis	ICD-10-CM
H30.031	Focal chorioretinal inflammation, peripheral, right eye	Diagnosis	ICD-10-CM

Appendix F. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Baseline Characteristics and Hematologic Outcomes in this Request

Code	Description	Code Category	Code Type
H30.032	Focal chorioretinal inflammation, peripheral, left eye	Diagnosis	ICD-10-CM
H30.033	Focal chorioretinal inflammation, peripheral, bilateral	Diagnosis	ICD-10-CM
H30.039	Focal chorioretinal inflammation, peripheral, unspecified eye	Diagnosis	ICD-10-CM
H30.04	Focal chorioretinal inflammation, macular or paramacular	Diagnosis	ICD-10-CM
H30.041	Focal chorioretinal inflammation, macular or paramacular, right eye	Diagnosis	ICD-10-CM
H30.042	Focal chorioretinal inflammation, macular or paramacular, left eye	Diagnosis	ICD-10-CM
H30.043	Focal chorioretinal inflammation, macular or paramacular, bilateral	Diagnosis	ICD-10-CM
H30.049	Focal chorioretinal inflammation, macular or paramacular, unspecified eye	Diagnosis	ICD-10-CM
H30.1	Disseminated chorioretinal inflammation	Diagnosis	ICD-10-CM
H30.10	Unspecified disseminated chorioretinal inflammation	Diagnosis	ICD-10-CM
H30.101	Unspecified disseminated chorioretinal inflammation, right eye	Diagnosis	ICD-10-CM
H30.102	Unspecified disseminated chorioretinal inflammation, left eye	Diagnosis	ICD-10-CM
H30.103	Unspecified disseminated chorioretinal inflammation, bilateral	Diagnosis	ICD-10-CM
H30.109	Unspecified disseminated chorioretinal inflammation, unspecified eye	Diagnosis	ICD-10-CM
H30.11	Disseminated chorioretinal inflammation of posterior pole	Diagnosis	ICD-10-CM
H30.111	Disseminated chorioretinal inflammation of posterior pole, right eye	Diagnosis	ICD-10-CM
H30.112	Disseminated chorioretinal inflammation of posterior pole, left eye	Diagnosis	ICD-10-CM
H30.113	Disseminated chorioretinal inflammation of posterior pole, bilateral	Diagnosis	ICD-10-CM
H30.119	Disseminated chorioretinal inflammation of posterior pole, unspecified eye	Diagnosis	ICD-10-CM
H30.12	Disseminated chorioretinal inflammation, peripheral	Diagnosis	ICD-10-CM
H30.121	Disseminated chorioretinal inflammation, peripheral right eye	Diagnosis	ICD-10-CM
H30.122	Disseminated chorioretinal inflammation, peripheral, left eye	Diagnosis	ICD-10-CM
H30.123	Disseminated chorioretinal inflammation, peripheral, bilateral	Diagnosis	ICD-10-CM
H30.129	Disseminated chorioretinal inflammation, peripheral, unspecified eye	Diagnosis	ICD-10-CM
H30.13	Disseminated chorioretinal inflammation, generalized	Diagnosis	ICD-10-CM
H30.131	Disseminated chorioretinal inflammation, generalized, right eye	Diagnosis	ICD-10-CM
H30.132	Disseminated chorioretinal inflammation, generalized, left eye	Diagnosis	ICD-10-CM
H30.133	Disseminated chorioretinal inflammation, generalized, bilateral	Diagnosis	ICD-10-CM
H30.139	Disseminated chorioretinal inflammation, generalized, unspecified eye	Diagnosis	ICD-10-CM
H30.14	Acute posterior multifocal placoid pigment epitheliopathy	Diagnosis	ICD-10-CM
H30.141	Acute posterior multifocal placoid pigment epitheliopathy, right eye	Diagnosis	ICD-10-CM
H30.142	Acute posterior multifocal placoid pigment epitheliopathy, left eye	Diagnosis	ICD-10-CM
H30.143	Acute posterior multifocal placoid pigment epitheliopathy, bilateral	Diagnosis	ICD-10-CM
H30.149	Acute posterior multifocal placoid pigment epitheliopathy, unspecified eye	Diagnosis	ICD-10-CM
H30.89	Other chorioretinal inflammations	Diagnosis	ICD-10-CM
H30.891	Other chorioretinal inflammations, right eye	Diagnosis	ICD-10-CM
H30.892	Other chorioretinal inflammations, left eye	Diagnosis	ICD-10-CM
H30.893	Other chorioretinal inflammations, bilateral	Diagnosis	ICD-10-CM
H30.899	Other chorioretinal inflammations, unspecified eye	Diagnosis	ICD-10-CM
H30.9	Unspecified chorioretinal inflammation	Diagnosis	ICD-10-CM
H30.90	Unspecified chorioretinal inflammation, unspecified eye	Diagnosis	ICD-10-CM
H30.91	Unspecified chorioretinal inflammation, right eye	Diagnosis	ICD-10-CM
H30.92	Unspecified chorioretinal inflammation, left eye	Diagnosis	ICD-10-CM
H30.93	Unspecified chorioretinal inflammation, bilateral	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H31.00	Unspecified chorioretinal scars	Diagnosis	ICD-10-CM
H31.001	Unspecified chorioretinal scars, right eye	Diagnosis	ICD-10-CM
H31.002	Unspecified chorioretinal scars, left eye	Diagnosis	ICD-10-CM
H31.003	Unspecified chorioretinal scars, bilateral	Diagnosis	ICD-10-CM
H31.009	Unspecified chorioretinal scars, unspecified eye	Diagnosis	ICD-10-CM
H31.011	Macula scars of posterior pole (postinflammatory) (post-traumatic), right eye	Diagnosis	ICD-10-CM
H31.012	Macula scars of posterior pole (postinflammatory) (post-traumatic), left eye	Diagnosis	ICD-10-CM
H31.013	Macula scars of posterior pole (postinflammatory) (post-traumatic), bilateral	Diagnosis	ICD-10-CM
H31.019	Macula scars of posterior pole (postinflammatory) (post-traumatic), unspecified eye	Diagnosis	ICD-10-CM
H31.021	Solar retinopathy, right eye	Diagnosis	ICD-10-CM
H31.022	Solar retinopathy, left eye	Diagnosis	ICD-10-CM
H31.023	Solar retinopathy, bilateral	Diagnosis	ICD-10-CM
H31.029	Solar retinopathy, unspecified eye	Diagnosis	ICD-10-CM
H31.091	Other chorioretinal scars, right eye	Diagnosis	ICD-10-CM
H31.092	Other chorioretinal scars, left eye	Diagnosis	ICD-10-CM
H31.093	Other chorioretinal scars, bilateral	Diagnosis	ICD-10-CM
H31.099	Other chorioretinal scars, unspecified eye	Diagnosis	ICD-10-CM
Brain Abnormality			
330.3	Cerebral degeneration of childhood in other diseases classified elsewhere	Diagnosis	ICD-9-CM
331.3	Communicating hydrocephalus	Diagnosis	ICD-9-CM
331.4	Obstructive hydrocephalus	Diagnosis	ICD-9-CM
331.5	Idiopathic normal pressure hydrocephalus [INPH]	Diagnosis	ICD-9-CM
331.7	Cerebral degeneration in diseases classified elsewhere	Diagnosis	ICD-9-CM
348.89	Other conditions of brain	Diagnosis	ICD-9-CM
348.9	Unspecified condition of brain	Diagnosis	ICD-9-CM
742.2	Congenital reduction deformities of brain	Diagnosis	ICD-9-CM
742.3	Congenital hydrocephalus	Diagnosis	ICD-9-CM
742.4	Other specified congenital anomalies of brain	Diagnosis	ICD-9-CM
742.9	Unspecified congenital anomaly of brain, spinal cord, and nervous system	Diagnosis	ICD-9-CM
793.0	Nonspecific (abnormal) findings on radiological and other examination of skull and head	Diagnosis	ICD-9-CM
G91.0	Communicating hydrocephalus	Diagnosis	ICD-10-CM
G91.1	Obstructive hydrocephalus	Diagnosis	ICD-10-CM
G91.2	(Idiopathic) normal pressure hydrocephalus	Diagnosis	ICD-10-CM
G91.4	Hydrocephalus in diseases classified elsewhere	Diagnosis	ICD-10-CM
G91.8	Other hydrocephalus	Diagnosis	ICD-10-CM
G91.9	Hydrocephalus, unspecified	Diagnosis	ICD-10-CM
G93.89	Other specified disorders of brain	Diagnosis	ICD-10-CM
G93.9	Disorder of brain, unspecified	Diagnosis	ICD-10-CM
Q03.8	Other congenital hydrocephalus	Diagnosis	ICD-10-CM
Q03.9	Congenital hydrocephalus, unspecified	Diagnosis	ICD-10-CM
Q04.0	Congenital malformations of corpus callosum	Diagnosis	ICD-10-CM
Q04.3	Other reduction deformities of brain	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
Q04.4	Septo-optic dysplasia of brain	Diagnosis	ICD-10-CM
Q04.5	Megalencephaly	Diagnosis	ICD-10-CM
Q04.6	Congenital cerebral cysts	Diagnosis	ICD-10-CM
Q04.8	Other specified congenital malformations of brain	Diagnosis	ICD-10-CM
Q04.9	Congenital malformation of brain, unspecified	Diagnosis	ICD-10-CM
R90.82	White matter disease, unspecified	Diagnosis	ICD-10-CM
R93.0	Abnormal findings on diagnostic imaging of skull and head, not elsewhere classified	Diagnosis	ICD-10-CM
Other Brain Abnormality			
G91.3	Post-traumatic hydrocephalus, unspecified	Diagnosis	ICD-10-CM
Q03.0	Malformations of aqueduct of Sylvius	Diagnosis	ICD-10-CM
Q03.1	Atresia of foramina of Magendie and Luschka	Diagnosis	ICD-10-CM
Q04.1	Arhinencephaly	Diagnosis	ICD-10-CM
Q04.2	Holoprosencephaly	Diagnosis	ICD-10-CM
Cytomegalovirus Infection (CMV)			
078.5	Cytomegaloviral disease	Diagnosis	ICD-9-CM
B25.0	Cytomegaloviral pneumonitis	Diagnosis	ICD-10-CM
B25.1	Cytomegaloviral hepatitis	Diagnosis	ICD-10-CM
B25.2	Cytomegaloviral pancreatitis	Diagnosis	ICD-10-CM
B25.8	Other cytomegaloviral diseases	Diagnosis	ICD-10-CM
B25.9	Cytomegaloviral disease, unspecified	Diagnosis	ICD-10-CM
Congenital Cytomegalovirus (cCMV)			
771.1	Congenital cytomegalovirus infection	Diagnosis	ICD-9-CM
P35.1	Congenital cytomegalovirus infection	Diagnosis	ICD-10-CM
CMV PCR Test (Blood, Urine, Saliva)			
87483	Infectious agent detection by nucleic acid (DNA or RNA); central nervous system pathogen (eg, Neisseria meningitidis, Streptococcus pneumoniae, Listeria, Haemophilus influenzae, E. coli, Streptococcus agalactiae, enterovirus, human parechovirus, herpes simplex virus type 1 and 2, human herpesvirus 6, cytomegalovirus, varicella zoster virus, Cryptococcus), includes multiplex reverse transcription, when performed, and multiplex amplified probe technique, multiple types or subtypes, 12-25 targets	Procedure	CPT-4
87495	Infectious agent detection by nucleic acid (DNA or RNA); cytomegalovirus, direct probe technique	Procedure	CPT-4
87496	Infectious agent detection by nucleic acid (DNA or RNA); cytomegalovirus, amplified probe technique	Procedure	CPT-4
87497	Infectious agent detection by nucleic acid (DNA or RNA); cytomegalovirus, quantification	Procedure	CPT-4
87910	Infectious agent genotype analysis by nucleic acid (DNA or RNA); cytomegalovirus	Procedure	CPT-4
CMV Antigen or Antibody Testing			
86644	Antibody; cytomegalovirus (CMV)	Procedure	CPT-4
86645	Antibody; cytomegalovirus (CMV), IgM	Procedure	CPT-4
87198	Cytomegalovirus, direct fluorescent antibody (DFA)	Procedure	CPT-4

Appendix F. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Baseline Characteristics and Hematologic Outcomes in this Request

Code	Description	Code Category	Code Type
87271	Infectious agent antigen detection by immunofluorescent technique; Cytomegalovirus, direct fluorescent antibody (DFA)	Procedure	CPT-4
87332	Infectious agent antigen detection by immunoassay technique, (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], immunochemiluminometric assay [IMCA]) qualitative or semiquantitative, multiple-step method; cytomegalovirus	Procedure	CPT-4
CMV Culture			
87252	Virus isolation; tissue culture inoculation, observation, and presumptive identification by cytopathic effect	Procedure	CPT-4
87254	Virus isolation; centrifuge enhanced (shell vial) technique, includes identification with immunofluorescence stain, each virus	Procedure	CPT-4
Head Computed Tomography (CT)			
70450	Computed tomography, head or brain; without contrast material	Procedure	CPT-4
70460	Computed tomography, head or brain; with contrast material(s)	Procedure	CPT-4
70470	Computed tomography, head or brain; without contrast material, followed by contrast material(s) and further sections	Procedure	CPT-4
70480	Computed tomography, orbit, sella, or posterior fossa or outer, middle, or inner ear; without contrast material	Procedure	CPT-4
70481	Computed tomography, orbit, sella, or posterior fossa or outer, middle, or inner ear; with contrast material(s)	Procedure	CPT-4
70482	Computed tomography, orbit, sella, or posterior fossa or outer, middle, or inner ear; without contrast material, followed by contrast material(s) and further sections	Procedure	CPT-4
0351	CT Scan-Head Scan	Procedure	RE
Brain MRI			
70551	Magnetic resonance (eg, proton) imaging, brain (including brain stem); without contrast material	Procedure	CPT-4
70552	Magnetic resonance (eg, proton) imaging, brain (including brain stem); with contrast material(s)	Procedure	CPT-4
70553	Magnetic resonance (eg, proton) imaging, brain (including brain stem); without contrast material, followed by contrast material(s) and further sequences	Procedure	CPT-4
0611	Magnetic Resonance Technology-MRI-Brain/Brain Stem	Procedure	RE
88.91	Magnetic resonance imaging of brain and brain stem	Procedure	ICD-9-PCS
B030Y0Z	Magnetic Resonance Imaging (MRI) of Brain using Other Contrast, Unenhanced and Enhanced	Procedure	ICD-10-PCS
B030YZZ	Magnetic Resonance Imaging (MRI) of Brain using Other Contrast	Procedure	ICD-10-PCS
B030ZZZ	Magnetic Resonance Imaging (MRI) of Brain	Procedure	ICD-10-PCS
B33RY0Z	Magnetic Resonance Imaging (MRI) of Intracranial Arteries using Other Contrast, Unenhanced and Enhanced	Procedure	ICD-10-PCS
B33RYZZ	Magnetic Resonance Imaging (MRI) of Intracranial Arteries using Other Contrast	Procedure	ICD-10-PCS
B33RZZZ	Magnetic Resonance Imaging (MRI) of Intracranial Arteries	Procedure	ICD-10-PCS
Head Ultrasound			

Appendix F. List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Baseline Characteristics and Hematologic Outcomes in this Request

Code	Description	Code Category	Code Type
76536	Ultrasound, soft tissues of head and neck (eg, thyroid, parathyroid, parotid), real time with image documentation	Procedure	CPT-4
76536	US SOFT TISSUE HEAD & NECK REAL TIME IMGE DOCM	Procedure	CPT-4
88.71	DIAGNOSTIC ULTRASOUND OF HEAD AND NECK	Procedure	ICD-9-PCS
B040ZZZ	Ultrasonography of Brain	Procedure	ICD-10-PCS
BH4CZZZ	Ultrasonography of Head and Neck	Procedure	ICD-10-PCS
BW4FZZZ	Ultrasonography of Neck	Procedure	ICD-10-PCS

Appendix G. Specifications Defining Parameters for this Request

This request executed the Cohort Identification and Descriptive Analysis (CIDA) tool, version 11.0.0, to estimate rates of Valganciclovir (VGVC) or Ganciclovir (GGVC) use in children with Congenital Cytomegalovirus Infection (cCMV) and Cytomegalovirus Infection (CMV) in the Sentinel Distributed Database (SDD).

Query Period: January 1, 2008 - May 31, 2021
Coverage Requirement: Medical and Drug Coverage
Pre-Index Enrollment Requirement: No pre-enrollment requirement
Post-Index Enrollment Requirement: 0 days
Enrollment Gap: 0 days
Age Groups: ≤45 days (For CMV index); 0 < 6 months, 6 months < 1 year, 1 < 2 years, 2 < 3 years, 3 < 4 years, 4 - 5 years (For VGCV index)
Distribution of Index-Defining Codes: Valganciclovir, Ganciclovir
Censor Output Categorization: Yes (Overall, censor days by 1-14, 15 - 30, 31 - 90, 91 - 180, 181 - 365, and >365) - For valganciclovir assessments only
Stratifications: Sex, Year, Ethnicity, Region, Sex & Year, Ethnicity & Year, Race & Year, Region & Year
Freeze Data: Yes

Scenario	Index	Cohort Definition	Exposure								
			Maximum Exposure Episode Duration	Care Setting	Treatment Episode Gap	Exposure Episode Extension	Minimum Exposure Episode Duration	Minimum Days Supplied	Censor Treatment Episode at Evidence of:	Flag for PEPR	
1	cCMV or CMV	First valid exposure episodes during query period;	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes
2	cCMV or CMV	First valid exposure episodes during query period;	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3	cCMV or CMV	First valid exposure episodes during query period;	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
4	cCMV or CMV	First valid exposure episodes during query period;	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
5	cCMV or CMV	First valid exposure episodes during query period;	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Appendix G. Specifications Defining Parameters for this Request

Scenario	Index	Cohort Definition	Exposure								
			Maximum Exposure Episode Duration	Care Setting	Treatment Episode Gap	Exposure Episode Extension	Minimum Exposure Episode Duration	Minimum Days Supplied	Censor Treatment Episode at Evidence of:	Flag for PEPR	
6	cCMV or CMV	First valid exposure episodes during query period;	180 days	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes
7	cCMV or CMV	First valid exposure episodes during query period;	180 days	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
8	cCMV or CMV	First valid exposure episodes during query period;	180 days	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
9	cCMV or CMV	First valid exposure episodes during query period;	180 days	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10	cCMV or CMV	First valid exposure episodes during query period;	180 days	Any care setting	N/A	N/A	N/A	N/A	N/A	N/A	
11	cCMV or CMV	First valid exposure episodes during query period;	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes
12	cCMV or CMV	First valid exposure episodes during query period;	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes
13	VGVC or GGVC	First valid exposure episodes during query period;	N/A	Any care setting	30 days	30 days	1 day	1 day		*Death; *DP end date; *Query end date; *Episode End Date *Disenrollment	Yes

Appendix G. Specifications Defining Parameters for this Request

Scenario	Index	Cohort Definition	Exposure						Censor Treatment Episode at Evidence of:	Flag for PEPR
			Maximum Exposure Episode Duration	Care Setting	Treatment Episode Gap	Exposure Episode Extension	Minimum Exposure Episode Duration	Minimum Days Supplied		
14	VGVC or GGVC	First valid exposure episodes during query period;	N/A	Any care setting	30 days	30 days	1 day	1 day	*Death; *DP end date; *Query end date; *Episode End Date *Disenrollment	Yes
15	VGVC or GGVC	First valid exposure episodes during query period;	N/A	Any care setting	30 days	30 days	1 day	1 day	*Death; *DP end date; *Query end date; *Episode End Date *Disenrollment	Yes
16	VGVC or GGVC	First valid exposure episodes during query period;	N/A	Any care setting	30 days	30 days	1 day	1 day	*Death; *DP end date; *Query end date; *Episode End Date *Disenrollment	Yes
17	VGVC or GGVC	First valid exposure episodes during query period;	N/A	Any care setting	30 days	30 days	1 day	1 day	*Death; *DP end date; *Query end date; *Episode End Date *Disenrollment	Yes
18	VGVC or GGVC	First valid exposure episodes during query period;	N/A	Any care setting	30 days	30 days	1 day	1 day	*Death; *DP end date; *Query end date; *Episode End Date *Disenrollment	Yes
19	VGVC or GGVC	First valid exposure episodes during query period;	N/A	Any care setting	30 days	30 days	1 day	1 day	*Death; *DP end date; *Query end date; *Episode End Date *Disenrollment	Yes

Appendix G. Specifications Defining Parameters for this Request

Scenario	Index	Cohort Definition	Exposure					Minimum Exposure Episode Duration	Minimum Days Supplied	Censor Treatment Episode at Evidence of:	Flag for PEPR
			Maximum Exposure Episode Duration	Care Setting	Treatment Episode Gap	Exposure Episode Extension					
20	VGVC or GGVC	First valid exposure episodes during query period;	N/A	Any care setting					*Death; *DP end date; *Query end date; *Episode End Date *Disenrollment		
21	VGVC or GGVC	First valid exposure episodes during query period;	N/A	Any care setting					*Death; *DP end date; *Query end date; *Episode End Date *Disenrollment		
22	VGVC or GGVC	First valid exposure episodes during query period;	N/A	Any care setting					*Death; *DP end date; *Query end date; *Episode End Date *Disenrollment		

Appendix G. Specifications Defining Parameters for this Request

Inclusion/Exclusion Criteria				
Scenario	Inclusion/ Exclusion Group	Criteria	Evaluation Period Start	Evaluation Period End
1	N/A	N/A	Ever (Prior to Index)	N/A
2	Hearing Loss	Exclusion	Ever (Prior to Index)	15 days
	Clinical Characteristics	Exclusion		
3	Hearing Loss	Inclusion	Ever (Prior to Index)	15 days
	Clinical Characteristics	Exclusion		
4	Hearing Loss	Exclusion	Ever (Prior to Index)	16 days
	Clinical Characteristics	Inclusion		
5	Hearing Loss	Inclusion	Ever (Prior to Index)	15 days
	Clinical Characteristics	Inclusion		
6	N/A	N/A	Ever (Prior to Index)	N/A
7	Hearing Loss	Exclusion	Ever (Prior to Index)	15 days
	Clinical Characteristics	Exclusion		
8	Hearing Loss	Inclusion	Ever (Prior to Index)	15 days
	Clinical Characteristics	Exclusion		
9	Hearing Loss	Exclusion	Ever (Prior to Index)	15 days
	Clinical Characteristics	Inclusion		
10	Hearing Loss	Inclusion	Ever (Prior to Index)	15 days
	Clinical Characteristics	Inclusion		
11	VGVC or GGVC	Inclusion	0	45 days
12	VGVC or GGVC	Inclusion	0	180 days
13	cCMV	Inclusion	Ever (Prior to Index)	45 days
14	cCMV	Inclusion	Ever (Prior to Index)	45 days
	Hearing Loss	Exclusion	Ever (Prior to Index)	0 days
	Clinical Characteristics	Exclusion	Ever (Prior to Index)	0 days

Appendix G. Specifications Defining Parameters for this Request

Inclusion/Exclusion Criteria				
Scenario	Inclusion/ Exclusion Group	Criteria	Evaluation Period Start	Evaluation Period End
15	cCMV	Inclusion	Ever (Prior to Index)	45 days
	Hearing Loss	Inclusion	Ever (Prior to Index)	0 days
	Clinical Characteristics	Exclusion	Ever (Prior to Index)	0 days
16	cCMV	Inclusion	Ever (Prior to Index)	45 days
	Hearing Loss	Exclusion	Ever (Prior to Index)	0 days
	Clinical Characteristics	Inclusion	Ever (Prior to Index)	0 days
17	cCMV	Inclusion	Ever (Prior to Index)	45 days
	Hearing Loss	Inclusion	Ever (Prior to Index)	0 days
	Clinical Characteristics	Inclusion	Ever (Prior to Index)	0 days
18	cCMV	Inclusion	Ever (Prior to Index)	0 days
	No Hematologic Outcomes	Exclusion	0	180 days
19	cCMV	Inclusion	Ever (Prior to Index)	0 days
	Any Hematologic Outcomes	Inclusion	0	180 days
20	cCMV or CMV	Inclusion	-45 days	0 days
21	cCMV or CMV	Inclusion	-45 days	0 days
22	cCMV or CMV	Inclusion	-45 days	0 days

Appendix G. Specifications Defining Parameters for this Request

Scenario	Covariates	Covariates				Blackout Period
		Principal Diagnosis Position	Exclude Evidence of Days Supply if Event Washout Includes Dispensings	Event De-Duplication	Forced Supply to Attach to Dispensings	
1	Clinical characteristics, Lab tests, Radiology, CMV culture	N/A	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
2	N/A	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
	Selected clinical characteristics include Jaundice, Petechiae, Hepatomegaly, Splenomegaly, Microcephaly, Thrombocytopenia, Chorioretinitis, Brain abnormality	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
3	N/A	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
	Selected clinical characteristics include Jaundice, Petechiae, Hepatomegaly, Splenomegaly, Microcephaly, Thrombocytopenia, Chorioretinitis, Brain abnormality	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified

Appendix G. Specifications Defining Parameters for this Request

Covariates						
Scenario	Covariates	Principal Diagnosis Position	Exclude Evidence of Days Supply if Event Washout Includes Dispensings	Event De-Duplication	Forced Supply to Attach to Dispensings	Blackout Period
4	N/A	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
	Selected clinical characteristics include Jaundice, Petechiae, Hepatomegaly, Splenomegaly, Microcephaly, Thrombocytopenia, Chorioretinitis, Brain abnormality	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
5	N/A	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
	Selected clinical characteristics include Jaundice, Petechiae, Hepatomegaly, Splenomegaly, Microcephaly, Thrombocytopenia, Chorioretinitis, Brain abnormality	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified

Appendix G. Specifications Defining Parameters for this Request

Covariates						
Scenario	Covariates	Principal Diagnosis Position	Exclude Evidence of Days Supply if Event Washout Includes Dispensings	Event De-Duplication	Forced Supply to Attach to Dispensings	Blackout Period
6	Clinical characteristics, Lab tests, Radiology, CMV culture	N/A	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
		Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
7	Selected clinical characteristics include Jaundice, Petechiae, Hepatomegaly, Splenomegaly, Microcephaly, Thrombocytopenia, Chorioretinitis, Brain abnormality	N/A	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
		Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified

Appendix G. Specifications Defining Parameters for this Request

Covariates						
Scenario	Covariates	Principal Diagnosis Position	Exclude Evidence of Days Supply if Event Washout Includes Dispensings	Event De-Duplication	Forced Supply to Attach to Dispensings	Blackout Period
8	N/A	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
	Selected clinical characteristics include Jaundice, Petechiae, Hepatomegaly, Splenomegaly, Microcephaly, Thrombocytopenia, Chorioretinitis, Brain abnormality	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
9	N/A	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
	Selected clinical characteristics include Jaundice, Petechiae, Hepatomegaly, Splenomegaly, Microcephaly, Thrombocytopenia, Chorioretinitis, Brain abnormality	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified

Appendix G. Specifications Defining Parameters for this Request

Scenario	Covariates	Covariates				Blackout Period
		Principal Diagnosis Position	Exclude Evidence of Days Supply if Event Washout Includes Dispensings	Event De-Duplication	Forced Supply to Attach to Dispensings	
10	N/A	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
	Selected clinical characteristics include Jaundice, Petechiae, Hepatomegaly, Splenomegaly, Microcephaly, Thrombocytopenia, Chorioretinitis, Brain abnormality	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
11	Clinical characteristics, Lab tests, Radiology, CMV culture	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
		Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified

Appendix G. Specifications Defining Parameters for this Request

Covariates						
Scenario	Covariates	Principal Diagnosis Position	Exclude Evidence of Days Supply if Event Washout Includes Dispensings	Event De-Duplication	Forced Supply to Attach to Dispensings	Blackout Period
12	Clinical characteristics, Lab tests, Radiology, CMV culture	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
		Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
13	N/A	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
		Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified

Appendix G. Specifications Defining Parameters for this Request

Covariates						
Scenario	Covariates	Principal Diagnosis Position	Exclude Evidence of Days Supply if Event Washout Includes Dispensings	Event De-Duplication	Forced Supply to Attach to Dispensings	Blackout Period
14	N/A	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
	Selected clinical characteristics include Jaundice, Petechiae, Hepatomegaly, Splenomegaly, Microcephaly, Thrombocytopenia, Chorioretinitis, Brain abnormality, Neurologic abnormality	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
15	N/A	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
	Selected clinical characteristics include Jaundice, Petechiae, Hepatomegaly, Splenomegaly, Microcephaly, Thrombocytopenia, Chorioretinitis, Brain abnormality	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified

Appendix G. Specifications Defining Parameters for this Request

Covariates						
Scenario	Covariates	Principal Diagnosis Position	Exclude Evidence of Days Supply if Event Washout Includes Dispensings	Event De-Duplication	Forced Supply to Attach to Dispensings	Blackout Period
16	N/A	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
	Selected clinical characteristics include Jaundice, Petechiae, Hepatomegaly, Splenomegaly, Microcephaly, Thrombocytopenia, Chorioretinitis, Brain abnormality	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
17	N/A	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
	Selected clinical characteristics include Jaundice, Petechiae, Hepatomegaly, Splenomegaly, Microcephaly, Thrombocytopenia, Chorioretinitis, Brain abnormality	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified

Appendix G. Specifications Defining Parameters for this Request

Scenario	Covariates					
	Covariates	Principal Diagnosis Position	Exclude Evidence of Days Supply if Event Washout Includes Dispensings	Event De-Duplication	Forced Supply to Attach to Dispensings	Blackout Period
18	N/A	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
	Selected hematologic outcomes include, Neutropenia, Receipt of Rbc transfusion, Receipt of platelet transfusion, Receipt of GCSF transfusion	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
19	N/A	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified
	Selected hematologic outcomes include, Neutropenia, Receipt of Rbc transfusion, Receipt of platelet transfusion, Receipt of GCSF transfusion	Only applicable for Inpatient and Institutional stays: *Principal; *Secondary; *Unknown	*Washout lookback period should search for evidence of days supply; *Washout lookback period should search for only evidence of a dispensing date	*Count all occurrences of an HOI during exposure period *De-duplicates occurrences of the same event code and code type on the same day *De-duplicates occurrences of the same event group on the same day	Numeric specified; Indicates a forced supply that should be attached to the NDC to replace the event code's RxSup value	Numeric specified

International Classification of Diseases, Ninth Revision (ICD-9) and Tenth Revision (ICD-10), Healthcare Common Procedure Coding System (HCPCS) and Current Procedural Terminology (CPT) codes are provided by Optum360.

National Drug Codes (NDCs) are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."

Appendix H. Diagram Detailing the Design for this Request

- Cohort D**
- Index on Valganciclovir/Ganciclovir
 - Cohort requires no pre-index enrollment, and
 - requires CMV diagnosis prior to and within 45 days after index date for cohorts with disease severity assessments defined by clinical characteristics
 - requires CMV diagnosis prior to and up to index date for cohorts with disease severity defined by hematologic outcomes
 - Assessment of Valganciclovir treatment duration

Disease Severity Assessments
Hearing Loss: Evaluate hearing loss prior to and including index date
Clinical Characteristics: Evaluate Clinical characteristics prior to and including index date
Hematologic Outcomes: Evaluate Hematologic outcomes from index date up to 180 days after index date.

