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).

If you are using a web page screen reader and are unable to access this document, please contact the Sentinel Operations Center for assistance at info@sentinelsystem.org.

Overview for Request: cder_mpl1p_wp036

Request ID: cder_mpl1p_wp036_nsdp_v01

Request Description: In this report we examined counts of new users of sacubitril/valsartan, angiotensin-converting enzyme (ACE) inhibitors, and other angiotensin II receptor blockers (ARBs) with heart failure in the Sentinel Distributed Database (SDD). We also captured switching between products.

Sentinel Routine Querying Module: Cohort Identification and Descriptive Analysis (CIDA) module, version 8.1.1, with ad hoc programming

Data Source: We distributed this request to 16 Sentinel Data Partners on December 6, 2019. The study period included data from January 1, 2015 through July 31, 2019. Please see Appendix A for a list of dates of available data for each Data Partner.

Study Design: We designed this request to identify incident use of sacubitril/valsartan, ACE inhibitors, and ARBs among individuals 18 years of age and older with a previous diagnosis of heart failure. Additionally, we identified switches and switching patterns among individuals included in the request. Data were further stratified by age, sex, race, and year. This is a Type 6 analysis in the Query Request Package (QRP) documentation.

Exposures of Interest: Our exposures of interest were ACE inhibitors, ARBs, and sacubitril/valsartan. We identified the exposures of interest using outpatient pharmacy dispensing records and National Drug Codes (NDCs). Each qualifying (index) episode of ACE inhibitors, ARBs, and sacubitril/valsartan was identified; cohort re-entry was allowed. Please see Appendix B for a list of generic and brand names of medical products used to define exposures in this request.

Cohort Eligibility Criteria: We required members included in the cohorts to be continuously enrolled in health plans with medical and drug coverage in the 183 days (6 months) prior to their index exposure date, during which gaps in coverage of up to 45 days were allowed. We also required evidence of a heart failure diagnosis in any care setting in the 183 days prior to or on the index date of each episode. We included the following age groups in the cohort: 18-44, 45-54, 55-64, 65+ years. See Appendix C for a 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) diagnosis codes used to define inclusion criteria in this request. Other inclusion and exclusion criteria varied by cohort; see Product Switching below.

Follow-up Time: Follow-up 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 the data provided by each Data Partner; 4) product discontinuation. We created exposure episodes based on the number of days supplied per dispensing in the outpatient pharmacy dispensing records. We bridged together episodes less than 14 days apart. These "as-treated" episodes are the time during which we assessed switching.

Product Switching:

We examined the following cohorts and switch patterns:

1. New users of ACE inhibitors with no use of ARBs in the prior 183 days and no use of sacubitril/valsartan in the prior 183 days or on the index date.
- Switches to sacubitril/valsartan
- Switches to sacubitril/valsartan and back to ACE inhibitors
- Switches to sacubitril/valsartan and then ARBs

2. New users of ARBs with no use of ACE inhibitors in the prior 183 days and no use of sacubitril/valsartan in the prior 183 days or on the index date.
- Switches to sacubitril/valsartan
- Switches to sacubitril/valsartan and back to ARBs
- Switches to sacubitril/valsartan and then ACE inhibitors

Overview for Request: cder_mpl1p_wp036

3. New users of sacubitril/valsartan with no use of ARBs in the prior 183 days and no use of ACE inhibitors in the prior 183 days or on the index date.
-Switches to ACE inhibitors

4. New users of sacubitril/valsartan with no use of ACE inhibitors in the prior 183 days and no use of ARBs in the prior 183 days or on the index date.
-Switches to ARBs

5. New users of sacubitril/valsartan with use of ACE inhibitors in the prior 183 days but not on the index date.
-Switches to ACE inhibitors

6. New users of sacubitril/valsartan with use of ARBs in the prior 183 days but not on the index date.
-Switches to ARBs

We required members to be enrolled in health plans with medical and drug coverage in the 183 days prior to the switch date for the switch to qualify. The same enrollment gap tolerance of up to 45 days applied. In addition, we allowed a gap of up to 14 days between exposure episodes of different products to be considered a valid switch. All qualifying switches during the query period were included.

Time to switch: We defined time-to-switch as the duration of exposed time to an existing exposure until a later, qualifying switch-to exposure is observed. We operationalized this definition by creating exposure episodes (see Follow-up Time above) and measuring the number of days between dispensing dates of the existing and switch-to exposures. For example, in Cohort 1 described above, for switchers from ACE inhibitors to sacubitril/valsartan then ARBs:

- Time to first switch was the number of days between dispensing dates of the index ACE inhibitor and a later sacubitril/valsartan
- Time to second switch was the number of days between dispensing dates of the sacubitril/valsartan identified in the previous step and an even later ARB

See Appendix D for visualization of the time-to-switch definitions.

Baseline Characteristics: We assessed the following characteristics on the index date of exposure episodes and switches: age, year, and sex. We also assessed the following characteristics in the 183 days prior to and including the index date of exposure episodes and switches: Charlson/Elixhauser combined comorbidity score[1], health service and drug utilization, ambulatory allergy diagnosis or allergy treatment, serious allergy, renal disorders, diabetes, ischemic heart disease, non-steroidal anti-inflammatory drugs (NSAIDs), sirolimus, everolimus, ACE inhibitors, ARBs, sacubitril/valsartan, beta blockers, aliskiren, and angioedema. We identified ambulatory allergy in the ambulatory care setting, serious allergy in the inpatient hospital or emergency department settings, and angioedema in the inpatient hospital, ambulatory, or emergency department settings. All other characteristics were identified in any care setting. Baseline characteristics were defined using ICD-9-CM and ICD-10-CM diagnosis codes, Healthcare Common Procedure Coding System (HCPCS) codes, and NDCs. Please see Appendix E for a list of generic and brand names of medical products and Appendix F for a list of diagnosis and procedure codes used to define baseline characteristics in this request.

Please see Appendices G and H for the specifications of parameters used in analyses for this request.

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

Notes: Please contact the Sentinel Operations Center (info@sentinelsystem.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.sentinelsystem.org/projects/SENTINEL/repos/sentinel-routine-querying-tool-documentation/browse).

[1] Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

Sentinel

Table of Contents

Table of Contents

Table of Contents

Sentinel

Table of Contents

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.

Episodes - 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 exposures (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 requests.

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 exposures 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.

*all terms may not be used in this report

Table 1a-0. Baseline Characteristics for the Starting Episodes of Angiotensin-Converting Enzyme (ACE) Inhibitors in Switch Pattern of ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	703,848	N/A
Number of episodes	740,703	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	72.6	12.7
Age (years)	**Number**	**Percent**
18-44	24,556	3.3%
45-54	50,935	6.9%
55-64	106,199	14.3%
65+	559,013	75.5%
Sex		
Male	357,076	50.7%
Race		
American Indian or Alaska Native	4,640	0.7%
Asian	9,723	1.4%
Black or African American	95,368	13.5%
Native Hawaiian or Other Pacific Islander	1,268	0.2%
Unknown	94,171	13.4%
White	498,678	70.9%
Year		
2015	190,120	25.7%
2016	183,274	24.7%
2017	172,918	23.3%
2018	159,384	21.5%
2019	35,007	4.7%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.7	3.0
	Number	**Percent**
ACE Inhibitors	740,703	100.0%
Aliskiren	462	0.1%
Ambulatory Allergy or Allergy Treatment	287,235	38.8%
Angioedema	799	0.1%
Angiotensin II Receptor Blockers (ARBs) excluding Sacubitril/Valsartan	878	0.1%
Beta Blockers	558,389	75.4%
Diabetes	347,345	46.9%
Everolimus	208	0.0%
Ischemic Heart Disease	462,462	62.4%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	93,867	12.7%
Renal Disorders	305,773	41.3%
Sacubitril/Valsartan	0	0.0%
Serious Allergy	114,950	15.5%
Sirolimus	240	0.0%

Table 1a-0. Baseline Characteristics for the Starting Episodes of Angiotensin-Converting Enzyme (ACE) Inhibitors in Switch Pattern of ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	17.1	19.6
Mean number of emergency room encounters (ED)	0.9	1.8
Mean number of inpatient hospital encounters (IP)	1.0	1.2
Mean number of non-acute institutional encounters (IS)	0.4	1.1
Mean number of other ambulatory encounters (OA)	12.9	17.9
Mean number of filled prescriptions	27.0	22.9
Mean number of generics	11.6	5.7
Mean number of unique drug classes	10.8	5.0

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

Table 1a-1. Baseline Characteristics for the Switch Episodes of Angiotensin-Converting Enzyme (ACE) Inhibitors to Sacubitril/Valsartan in Switch Pattern of ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	6,622	N/A
Number of episodes	6,628	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	69.0	11.8
Age (years)	**Number**	**Percent**
18-44	397	6.0%
45-54	588	8.9%
55-64	1,064	16.1%
65+	4,579	69.1%
Sex		
Male	4,370	66.0%
Race		
American Indian or Alaska Native	16	0.2%
Asian	96	1.4%
Black or African American	697	10.5%
Native Hawaiian or Other Pacific Islander	11	0.2%
Unknown	1,283	19.4%
White	4,519	68.2%
Year		
2015	120	1.8%
2016	1,030	15.5%
2017	2,101	31.7%
2018	2,712	40.9%
2019	665	10.0%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.3	2.7
	Number	**Percent**
ACE Inhibitors	6,628	100.0%
Aliskiren	0	0.0%
Ambulatory Allergy or Allergy Treatment	2,730	41.2%
Angioedema	*****	*****
Angiotensin II Receptor Blockers (ARBs) excluding Sacubitril/Valsartan	241	3.6%
Beta Blockers	6,357	95.9%
Diabetes	2,689	40.6%
Everolimus	*****	*****
Ischemic Heart Disease	5,020	75.7%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	726	11.0%
Renal Disorders	2,421	36.5%
Sacubitril/Valsartan	6,628	100.0%
Serious Allergy	819	12.4%
Sirolimus	*****	*****

Table 1a-1. Baseline Characteristics for the Switch Episodes of Angiotensin-Converting Enzyme (ACE) Inhibitors to Sacubitril/Valsartan in Switch Pattern of ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	18.2	14.5
Mean number of emergency room encounters (ED)	0.7	1.4
Mean number of inpatient hospital encounters (IP)	0.9	1.1
Mean number of non-acute institutional encounters (IS)	0.2	0.6
Mean number of other ambulatory encounters (OA)	8.5	11.6
Mean number of filled prescriptions	30.5	20.7
Mean number of generics	12.8	5.1
Mean number of unique drug classes	11.1	4.5

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1a-2. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan to Angiotensin-Converting Enzyme (ACE) Inhibitors in Switch Pattern of ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	250	N/A
Number of episodes	250	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	67.3	12.3
Age (years)	**Number**	**Percent**
18-44	20	8.0%
45-54	22	8.8%
55-64	49	19.6%
65+	159	63.6%
Sex		
Male	175	70.0%
Race		
American Indian or Alaska Native	*****	*****
Asian	*****	*****
Black or African American	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%
Unknown	61	24.4%
White	150	60.0%
Year		
2015	*****	*****
2016	33	13.2%
2017	88	35.2%
2018	104	41.6%
2019	*****	*****
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.2	2.8
	Number	**Percent**
ACE Inhibitors	250	100.0%
Aliskiren	0	0.0%
Ambulatory Allergy or Allergy Treatment	115	46.0%
Angioedema	0	0.0%
Angiotensin II Receptor Blockers (ARBs) excluding Sacubitril/Valsartan	*****	*****
Beta Blockers	246	98.4%
Diabetes	100	40.0%
Everolimus	0	0.0%
Ischemic Heart Disease	184	73.6%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	18	7.2%
Renal Disorders	95	38.0%
Sacubitril/Valsartan	250	100.0%
Serious Allergy	22	8.8%
Sirolimus	0	0.0%

Table 1a-2. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan to Angiotensin-Converting Enzyme (ACE) Inhibitors in Switch Pattern of ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	17.4	12.8
Mean number of emergency room encounters (ED)	0.6	1.5
Mean number of inpatient hospital encounters (IP)	0.8	1.1
Mean number of non-acute institutional encounters (IS)	0.1	0.4
Mean number of other ambulatory encounters (OA)	6.8	8.5
Mean number of filled prescriptions	35.6	22.0
Mean number of generics	13.1	6.4
Mean number of unique drug classes	11.2	5.4

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1b-0. Baseline Characteristics for the Starting Episodes of Angiotensin-Converting Enzyme (ACE) Inhibitors in Switch Pattern of ACE Inhibitors to Sacubitril/Valsartan to Angiotensin II Receptor Blockers (ARBs) in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	703,848	N/A
Number of episodes	740,703	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	72.6	12.7
Age (years)	**Number**	**Percent**
18-44	24,556	3.3%
45-54	50,935	6.9%
55-64	106,199	14.3%
65+	559,013	75.5%
Sex		
Male	357,076	50.7%
Race		
American Indian or Alaska Native	4,640	0.7%
Asian	9,723	1.4%
Black or African American	95,368	13.5%
Native Hawaiian or Other Pacific Islander	1,268	0.2%
Unknown	94,171	13.4%
White	498,678	70.9%
Year		
2015	190,120	25.7%
2016	183,274	24.7%
2017	172,918	23.3%
2018	159,384	21.5%
2019	35,007	4.7%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.7	3.0
	Number	**Percent**
ACE Inhibitors	740,703	100.0%
Aliskiren	462	0.1%
Ambulatory Allergy or Allergy Treatment	287,235	38.8%
Angioedema	799	0.1%
ARBs excluding Sacubitril/Valsartan	878	0.1%
Beta Blockers	558,389	75.4%
Diabetes	347,345	46.9%
Everolimus	208	0.0%
Ischemic Heart Disease	462,462	62.4%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	93,867	12.7%
Renal Disorders	305,773	41.3%
Sacubitril/Valsartan	0	0.0%
Serious Allergy	114,950	15.5%
Sirolimus	240	0.0%

Table 1b-0. Baseline Characteristics for the Starting Episodes of Angiotensin-Converting Enzyme (ACE) Inhibitors in Switch Pattern of ACE Inhibitors to Sacubitril/Valsartan to Angiotensin II Receptor Blockers (ARBs) in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	17.1	19.6
Mean number of emergency room encounters (ED)	0.9	1.8
Mean number of inpatient hospital encounters (IP)	1.0	1.2
Mean number of non-acute institutional encounters (IS)	0.4	1.1
Mean number of other ambulatory encounters (OA)	12.9	17.9
Mean number of filled prescriptions	27.0	22.9
Mean number of generics	11.6	5.7
Mean number of unique drug classes	10.8	5.0

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

Table 1b-1. Baseline Characteristics for the Switch Episodes of Angiotensin-Converting Enzyme (ACE) Inhibitors to Sacubitril/Valsartan in Switch Pattern of ACE Inhibitors to Sacubitril/Valsartan to Angiotensin II Receptor Blockers (ARBs) in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	6,622	N/A
Number of episodes	6,628	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	69.0	11.8
Age (years)	**Number**	**Percent**
18-44	397	6.0%
45-54	588	8.9%
55-64	1,064	16.1%
65+	4,579	69.1%
Sex		
Male	4,370	66.0%
Race		
American Indian or Alaska Native	16	0.2%
Asian	96	1.4%
Black or African American	697	10.5%
Native Hawaiian or Other Pacific Islander	11	0.2%
Unknown	1,283	19.4%
White	4,519	68.2%
Year		
2015	120	1.8%
2016	1,030	15.5%
2017	2,101	31.7%
2018	2,712	40.9%
2019	665	10.0%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.3	2.7
	Number	**Percent**
ACE Inhibitors	6,628	100.0%
Aliskiren	0	0.0%
Ambulatory Allergy or Allergy Treatment	2,730	41.2%
Angioedema	*****	*****
ARBs excluding Sacubitril/Valsartan	241	3.6%
Beta Blockers	6,357	95.9%
Diabetes	2,689	40.6%
Everolimus	*****	*****
Ischemic Heart Disease	5,020	75.7%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	726	11.0%
Renal Disorders	2,421	36.5%
Sacubitril/Valsartan	6,628	100.0%
Serious Allergy	819	12.4%
Sirolimus	*****	*****

Table 1b-1. Baseline Characteristics for the Switch Episodes of Angiotensin-Converting Enzyme (ACE) Inhibitors to Sacubitril/Valsartan in Switch Pattern of ACE Inhibitors to Sacubitril/Valsartan to Angiotensin II Receptor Blockers (ARBs) in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	18.2	14.5
Mean number of emergency room encounters (ED)	0.7	1.4
Mean number of inpatient hospital encounters (IP)	0.9	1.1
Mean number of non-acute institutional encounters (IS)	0.2	0.6
Mean number of other ambulatory encounters (OA)	8.5	11.6
Mean number of filled prescriptions	30.5	20.7
Mean number of generics	12.8	5.1
Mean number of unique drug classes	11.1	4.5

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1b-2. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan to ARBs in Switch Pattern of Angiotensin-Converting Enzyme (ACE) Inhibitors to Sacubitril/Valsartan to Angiotensin II Receptor Blockers (ARBs) in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	162	N/A
Number of episodes	162	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	68.7	12.2
Age (years)	**Number**	**Percent**
18-44	12	7.4%
45-54	11	6.8%
55-64	23	14.2%
65+	116	71.6%
Sex		
Male	101	62.3%
Race		
American Indian or Alaska Native	*****	*****
Asian	*****	*****
Black or African American	*****	*****
Native Hawaiian or Other Pacific Islander	*****	*****
Unknown	40	24.7%
White	99	61.1%
Year		
2015	*****	*****
2016	20	12.3%
2017	49	30.2%
2018	80	49.4%
2019	*****	*****
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.3	3.0
	Number	**Percent**
ACE Inhibitors	135	83.3%
Aliskiren	0	0.0%
Ambulatory Allergy or Allergy Treatment	77	47.5%
Angioedema	0	0.0%
ARBs excluding Sacubitril/Valsartan	162	100.0%
Beta Blockers	155	95.7%
Diabetes	64	39.5%
Everolimus	0	0.0%
Ischemic Heart Disease	120	74.1%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	16	9.9%
Renal Disorders	60	37.0%
Sacubitril/Valsartan	162	100.0%
Serious Allergy	21	13.0%
Sirolimus	0	0.0%

Table 1b-2. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan to ARBs in Switch Pattern of Angiotensin-Converting Enzyme (ACE) Inhibitors to Sacubitril/Valsartan to Angiotensin II Receptor Blockers (ARBs) in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	21.4	22.8
Mean number of emergency room encounters (ED)	1.0	2.2
Mean number of inpatient hospital encounters (IP)	0.9	1.1
Mean number of non-acute institutional encounters (IS)	0.1	0.5
Mean number of other ambulatory encounters (OA)	9.0	15.0
Mean number of filled prescriptions	33.2	21.5
Mean number of generics	13.8	5.6
Mean number of unique drug classes	11.4	5.0

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1c-0. Baseline Characteristics for the Starting Episodes of Angiotensin II Receptor Blockers (ARBs) in Switch Pattern of ARBs to Sacubitril/Valsartan to ARBs in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	318,588	N/A
Number of episodes	333,809	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	73.8	12.1
Age (years)	**Number**	**Percent**
18-44	8,593	2.6%
45-54	18,318	5.5%
55-64	40,546	12.1%
65+	266,352	79.8%
Sex		
Male	140,195	44.0%
Race		
American Indian or Alaska Native	1,930	0.6%
Asian	8,997	2.8%
Black or African American	53,295	16.7%
Native Hawaiian or Other Pacific Islander	668	0.2%
Unknown	41,389	13.0%
White	212,309	66.6%
Year		
2015	67,190	20.1%
2016	73,891	22.1%
2017	82,000	24.6%
2018	91,983	27.6%
2019	18,745	5.6%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.7	2.9
	Number	**Percent**
Angiotensin-Converting Enzyme (ACE) Inhibitors	878	0.3%
Aliskiren	778	0.2%
Ambulatory Allergy or Allergy Treatment	139,741	41.9%
Angioedema	688	0.2%
ARBs excluding Sacubitril/Valsartan	333,809	100.0%
Beta Blockers	244,147	73.1%
Diabetes	173,539	52.0%
Everolimus	112	0.0%
Ischemic Heart Disease	202,268	60.6%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	43,298	13.0%
Renal Disorders	152,729	45.8%
Sacubitril/Valsartan	0	0.0%
Serious Allergy	51,992	15.6%
Sirolimus	151	0.0%

Table 1c-0. Baseline Characteristics for the Starting Episodes of Angiotensin II Receptor Blockers (ARBs) in Switch Pattern of ARBs to Sacubitril/Valsartan to ARBs in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	20.0	22.4
Mean number of emergency room encounters (ED)	0.8	1.7
Mean number of inpatient hospital encounters (IP)	0.8	1.2
Mean number of non-acute institutional encounters (IS)	0.4	1.0
Mean number of other ambulatory encounters (OA)	11.8	17.3
Mean number of filled prescriptions	27.8	22.0
Mean number of generics	12.0	5.8
Mean number of unique drug classes	11.2	5.1

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

Table 1c-1. Baseline Characteristics for the Switch Episodes of Angiotensin II Receptor Blockers (ARBs) to Sacubitril/Valsartan in Switch Pattern of ARBs to Sacubitril/Valsartan to ARBs in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	3,361	N/A
Number of episodes	3,363	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	71.3	11.5
Age (years)	**Number**	**Percent**
18-44	136	4.0%
45-54	219	6.5%
55-64	457	13.6%
65+	2,551	75.9%
Sex		
Male	2,032	60.5%
Race		
American Indian or Alaska Native	*****	*****
Asian	82	2.4%
Black or African American	461	13.7%
Native Hawaiian or Other Pacific Islander	*****	*****
Unknown	588	17.5%
White	2,216	65.9%
Year		
2015	44	1.3%
2016	417	12.4%
2017	956	28.4%
2018	1,542	45.9%
2019	404	12.0%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.6	2.7
	Number	**Percent**
Angiotensin-Converting Enzyme (ACE) Inhibitors	43	1.3%
Aliskiren	*****	*****
Ambulatory Allergy or Allergy Treatment	1,507	44.8%
Angioedema	*****	*****
ARBs excluding Sacubitril/Valsartan	3,363	100.0%
Beta Blockers	3,178	94.5%
Diabetes	1,589	47.2%
Everolimus	0	0.0%
Ischemic Heart Disease	2,607	77.5%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	355	10.6%
Renal Disorders	1,464	43.5%
Sacubitril/Valsartan	3,363	100.0%
Serious Allergy	499	14.8%
Sirolimus	0	0.0%

Table 1c-1. Baseline Characteristics for the Switch Episodes of Angiotensin II Receptor Blockers (ARBs) to Sacubitril/Valsartan in Switch Pattern of ARBs to Sacubitril/Valsartan to ARBs in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	19.8	15.9
Mean number of emergency room encounters (ED)	0.7	2.3
Mean number of inpatient hospital encounters (IP)	0.9	1.1
Mean number of non-acute institutional encounters (IS)	0.2	0.7
Mean number of other ambulatory encounters (OA)	9.2	12.1
Mean number of filled prescriptions	33.1	24.7
Mean number of generics	13.9	5.6
Mean number of unique drug classes	12.0	5.0

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1c-2. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan to Angiotensin II Receptor Blockers (ARBs) in Switch Pattern of ARBs to Sacubitril/Valsartan to ARBs in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	167	N/A
Number of episodes	167	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	71.7	11.7
Age (years)	**Number**	**Percent**
18-44	*****	*****
45-54	*****	*****
55-64	26	15.6%
65+	124	74.3%
Sex		
Male	106	63.5%
Race		
American Indian or Alaska Native	0	0.0%
Asian	*****	*****
Black or African American	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%
Unknown	30	18.0%
White	109	65.3%
Year		
2015	*****	*****
2016	*****	*****
2017	57	34.1%
2018	78	46.7%
2019	16	9.6%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.7	2.6
	Number	**Percent**
Angiotensin-Converting Enzyme (ACE) Inhibitors	*****	*****
Aliskiren	0	0.0%
Ambulatory Allergy or Allergy Treatment	77	46.1%
Angioedema	0	0.0%
ARBs excluding Sacubitril/Valsartan	167	100.0%
Beta Blockers	160	95.8%
Diabetes	81	48.5%
Everolimus	0	0.0%
Ischemic Heart Disease	120	71.9%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	16	9.6%
Renal Disorders	78	46.7%
Sacubitril/Valsartan	167	100.0%
Serious Allergy	22	13.2%
Sirolimus	0	0.0%

Table 1c-2. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan to Angiotensin II Receptor Blockers (ARBs) in Switch Pattern of ARBs to Sacubitril/Valsartan to ARBs in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	20.3	15.3
Mean number of emergency room encounters (ED)	0.8	1.1
Mean number of inpatient hospital encounters (IP)	0.8	1.2
Mean number of non-acute institutional encounters (IS)	0.2	0.6
Mean number of other ambulatory encounters (OA)	8.9	12.7
Mean number of filled prescriptions	36.8	22.5
Mean number of generics	14.0	6.1
Mean number of unique drug classes	12.1	5.4

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1d-0. Baseline Characteristics for the Starting Episodes of Angiotensin II Receptor Blockers (ARBs) in Switch Pattern of ARBs to Sacubitril/Valsartan to Angiotensin-Converting Enzyme (ACE) Inhibitors in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	318,588	N/A
Number of episodes	333,809	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	73.8	12.1
Age (years)	**Number**	**Percent**
18-44	8,593	2.6%
45-54	18,318	5.5%
55-64	40,546	12.1%
65+	266,352	79.8%
Sex		
Male	140,195	44.0%
Race		
American Indian or Alaska Native	1,930	0.6%
Asian	8,997	2.8%
Black or African American	53,295	16.7%
Native Hawaiian or Other Pacific Islander	668	0.2%
Unknown	41,389	13.0%
White	212,309	66.6%
Year		
2015	67,190	20.1%
2016	73,891	22.1%
2017	82,000	24.6%
2018	91,983	27.6%
2019	18,745	5.6%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.7	2.9
	Number	**Percent**
ACE Inhibitors	878	0.3%
Aliskiren	778	0.2%
Ambulatory Allergy or Allergy Treatment	139,741	41.9%
Angioedema	688	0.2%
ARBs excluding Sacubitril/Valsartan	333,809	100.0%
Beta Blockers	244,147	73.1%
Diabetes	173,539	52.0%
Everolimus	112	0.0%
Ischemic Heart Disease	202,268	60.6%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	43,298	13.0%
Renal Disorders	152,729	45.8%
Sacubitril/Valsartan	0	0.0%
Serious Allergy	51,992	15.6%
Sirolimus	151	0.0%

Table 1d-0. Baseline Characteristics for the Starting Episodes of Angiotensin II Receptor Blockers (ARBs) in Switch Pattern of ARBs to Sacubitril/Valsartan to Angiotensin-Converting Enzyme (ACE) Inhibitors in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	20.0	22.4
Mean number of emergency room encounters (ED)	0.8	1.7
Mean number of inpatient hospital encounters (IP)	0.8	1.2
Mean number of non-acute institutional encounters (IS)	0.4	1.0
Mean number of other ambulatory encounters (OA)	11.8	17.3
Mean number of filled prescriptions	27.8	22.0
Mean number of generics	12.0	5.8
Mean number of unique drug classes	11.2	5.1

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

Table 1d-1. Baseline Characteristics for the Switch Episodes of Angiotensin II Receptor Blockers (ARBs) to Sacubitril/Valsartan in Switch Pattern of ARBs to Sacubitril/Valsartan to Angiotensin-Converting Enzyme (ACE) Inhibitors in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	3,361	N/A
Number of episodes	3,363	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	71.3	11.5
Age (years)	**Number**	**Percent**
18-44	136	4.0%
45-54	219	6.5%
55-64	457	13.6%
65+	2,551	75.9%
Sex		
Male	2,032	60.5%
Race		
American Indian or Alaska Native	*****	*****
Asian	82	2.4%
Black or African American	461	13.7%
Native Hawaiian or Other Pacific Islander	*****	*****
Unknown	588	17.5%
White	2,216	65.9%
Year		
2015	44	1.3%
2016	417	12.4%
2017	956	28.4%
2018	1,542	45.9%
2019	404	12.0%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.6	2.7
	Number	**Percent**
ACE Inhibitors	43	1.3%
Aliskiren	*****	*****
Ambulatory Allergy or Allergy Treatment	1,507	44.8%
Angioedema	*****	*****
ARBs excluding Sacubitril/Valsartan	3,363	100.0%
Beta Blockers	3,178	94.5%
Diabetes	1,589	47.2%
Everolimus	0	0.0%
Ischemic Heart Disease	2,607	77.5%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	355	10.6%
Renal Disorders	1,464	43.5%
Sacubitril/Valsartan	3,363	100.0%
Serious Allergy	499	14.8%
Sirolimus	0	0.0%

Table 1d-1. Baseline Characteristics for the Switch Episodes of Angiotensin II Receptor Blockers (ARBs) to Sacubitril/Valsartan in Switch Pattern of ARBs to Sacubitril/Valsartan to Angiotensin-Converting Enzyme (ACE) Inhibitors in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	19.8	15.9
Mean number of emergency room encounters (ED)	0.7	2.3
Mean number of inpatient hospital encounters (IP)	0.9	1.1
Mean number of non-acute institutional encounters (IS)	0.2	0.7
Mean number of other ambulatory encounters (OA)	9.2	12.1
Mean number of filled prescriptions	33.1	24.7
Mean number of generics	13.9	5.6
Mean number of unique drug classes	12.0	5.0

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1d-2. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan to ACE Inhibitors in Switch Pattern of Angiotensin II Receptor Blockers (ARBs) to Sacubitril/Valsartan to Angiotensin-Converting Enzyme (ACE) Inhibitors in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	30	N/A
Number of episodes	30	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	68.0	12.8
Age (years)	**Number**	**Percent**
18-44	*****	*****
45-54	*****	*****
55-64	*****	*****
65+	17	56.7%
Sex		
Male	19	63.3%
Race		
American Indian or Alaska Native	0	0.0%
Asian	0	0.0%
Black or African American	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%
Unknown	*****	*****
White	19	63.3%
Year		
2015	0	0.0%
2016	*****	*****
2017	*****	*****
2018	14	46.7%
2019	*****	*****
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.8	2.7
	Number	**Percent**
ACE Inhibitors	30	100.0%
Aliskiren	0	0.0%
Ambulatory Allergy or Allergy Treatment	15	50.0%
Angioedema	0	0.0%
ARBs excluding Sacubitril/Valsartan	27	90.0%
Beta Blockers	30	100.0%
Diabetes	16	53.3%
Everolimus	0	0.0%
Ischemic Heart Disease	25	83.3%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	*****	*****
Renal Disorders	14	46.7%
Sacubitril/Valsartan	30	100.0%
Serious Allergy	*****	*****
Sirolimus	0	0.0%

Table 1d-2. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan to ACE Inhibitors in Switch Pattern of Angiotensin II Receptor Blockers (ARBs) to Sacubitril/Valsartan to Angiotensin-Converting Enzyme (ACE) Inhibitors in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	22.5	13.7
Mean number of emergency room encounters (ED)	1.1	1.3
Mean number of inpatient hospital encounters (IP)	1.5	1.5
Mean number of non-acute institutional encounters (IS)	0.0	0.0
Mean number of other ambulatory encounters (OA)	11.6	16.0
Mean number of filled prescriptions	42.1	26.1
Mean number of generics	16.7	5.6
Mean number of unique drug classes	13.5	5.1

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1e-0. Baseline Characteristics for the Starting Episodes of Sacubitril/Valsartan without Same-Day Angiotensin-Converting Enzyme (ACE) Inhibitors in Switch Pattern of Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	30,557	N/A
Number of episodes	31,529	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	71.9	11.8
Age (years)	**Number**	**Percent**
18-44	1,086	3.4%
45-54	2,141	6.8%
55-64	4,214	13.4%
65+	24,088	76.4%
Sex		
Male	19,808	64.8%
Race		
American Indian or Alaska Native	104	0.3%
Asian	381	1.2%
Black or African American	4,254	13.9%
Native Hawaiian or Other Pacific Islander	28	0.1%
Unknown	4,238	13.9%
White	21,552	70.5%
Year		
2015	431	1.4%
2016	4,250	13.5%
2017	9,633	30.6%
2018	13,407	42.5%
2019	3,808	12.1%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.6	2.8
	Number	**Percent**
ACE Inhibitors	0	0.0%
Aliskiren	36	0.1%
Ambulatory Allergy or Allergy Treatment	12,966	41.1%
Angioedema	31	0.1%
Angiotensin II Receptor Blockers (ARBs) excluding Sacubitril/Valsartan	28	0.1%
Beta Blockers	27,293	86.6%
Diabetes	14,956	47.4%
Everolimus	*****	*****
Ischemic Heart Disease	24,176	76.7%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	3,100	9.8%
Renal Disorders	14,168	44.9%
Sacubitril/Valsartan	31,529	100.0%
Serious Allergy	4,166	13.2%
Sirolimus	*****	*****

Table 1e-0. Baseline Characteristics for the Starting Episodes of Sacubitril/Valsartan without Same-Day Angiotensin-Converting Enzyme (ACE) Inhibitors in Switch Pattern of Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	18.4	17.0
Mean number of emergency room encounters (ED)	0.7	1.3
Mean number of inpatient hospital encounters (IP)	0.8	1.1
Mean number of non-acute institutional encounters (IS)	0.3	0.9
Mean number of other ambulatory encounters (OA)	9.3	14.0
Mean number of filled prescriptions	27.6	20.9
Mean number of generics	11.8	5.5
Mean number of unique drug classes	11.1	4.9

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1e-1. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan without Same-Day Angiotensin-Converting Enzyme (ACE) Inhibitors to ACE Inhibitors in Switch Pattern of Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	594	N/A
Number of episodes	595	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	71.7	11.9
Age (years)	**Number**	**Percent**
18-44	28	4.7%
45-54	35	5.9%
55-64	87	14.6%
65+	445	74.8%
Sex		
Male	388	65.3%
Race		
American Indian or Alaska Native	*****	*****
Asian	*****	*****
Black or African American	62	10.4%
Native Hawaiian or Other Pacific Islander	*****	*****
Unknown	92	15.5%
White	427	71.9%
Year		
2015	*****	*****
2016	80	13.4%
2017	185	31.1%
2018	268	45.0%
2019	*****	*****
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	6.3	3.2
	Number	**Percent**
ACE Inhibitors	595	100.0%
Aliskiren	0	0.0%
Ambulatory Allergy or Allergy Treatment	250	42.0%
Angioedema	*****	*****
Angiotensin II Receptor Blockers (ARBs) excluding Sacubitril/Valsartan	12	2.0%
Beta Blockers	548	92.1%
Diabetes	273	45.9%
Everolimus	0	0.0%
Ischemic Heart Disease	496	83.4%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	78	13.1%
Renal Disorders	303	50.9%
Sacubitril/Valsartan	595	100.0%
Serious Allergy	103	17.3%
Sirolimus	0	0.0%

Table 1e-1. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan without Same-Day Angiotensin-Converting Enzyme (ACE) Inhibitors to ACE Inhibitors in Switch Pattern of Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	21.2	17.8
Mean number of emergency room encounters (ED)	1.0	1.9
Mean number of inpatient hospital encounters (IP)	1.2	1.4
Mean number of non-acute institutional encounters (IS)	0.3	0.9
Mean number of other ambulatory encounters (OA)	13.2	16.7
Mean number of filled prescriptions	33.3	20.0
Mean number of generics	14.5	5.8
Mean number of unique drug classes	12.5	5.0

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1f-0. Baseline Characteristics for the Starting Episodes of Sacubitril/Valsartan without Same-Day Angiotensin II Receptor Blockers (ARBs) in Switch Pattern of Sacubitril/Valsartan without Same-Day ARBs to ARBs in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	30,547	N/A
Number of episodes	31,518	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	71.9	11.8
Age (years)	**Number**	**Percent**
18-44	1,082	3.4%
45-54	2,141	6.8%
55-64	4,211	13.4%
65+	24,084	76.4%
Sex		
Male	19,808	64.8%
Race		
American Indian or Alaska Native	104	0.3%
Asian	380	1.2%
Black or African American	4,253	13.9%
Native Hawaiian or Other Pacific Islander	28	0.1%
Unknown	4,234	13.9%
White	21,548	70.5%
Year		
2015	430	1.4%
2016	4,248	13.5%
2017	9,630	30.6%
2018	13,401	42.5%
2019	3,809	12.1%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.6	2.8
	Number	**Percent**
Angiotensin-Converting Enzyme (ACE) Inhibitors	17	0.1%
Aliskiren	36	0.1%
Ambulatory Allergy or Allergy Treatment	12,963	41.1%
Angioedema	31	0.1%
ARBs excluding Sacubitril/Valsartan	0	0.0%
Beta Blockers	27,284	86.6%
Diabetes	14,950	47.4%
Everolimus	*****	*****
Ischemic Heart Disease	24,176	76.7%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	3,101	9.8%
Renal Disorders	14,169	45.0%
Sacubitril/Valsartan	31,518	100.0%
Serious Allergy	4,164	13.2%
Sirolimus	*****	*****

Table 1f-0. Baseline Characteristics for the Starting Episodes of Sacubitril/Valsartan without Same-Day Angiotensin II Receptor Blockers (ARBs) in Switch Pattern of Sacubitril/Valsartan without Same-Day ARBs to ARBs in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	18.4	17.0
Mean number of emergency room encounters (ED)	0.7	1.3
Mean number of inpatient hospital encounters (IP)	0.8	1.1
Mean number of non-acute institutional encounters (IS)	0.3	0.9
Mean number of other ambulatory encounters (OA)	9.3	14.0
Mean number of filled prescriptions	27.6	20.9
Mean number of generics	11.8	5.5
Mean number of unique drug classes	11.1	4.9

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1f-1. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan without Same-Day Angiotensin II Receptor Blockers (ARBs) to ARBs in Switch Pattern of Sacubitril/Valsartan without Same-Day ARBs to ARBs in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	779	N/A
Number of episodes	779	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	73.3	11.0
Age (years)	**Number**	**Percent**
18-44	21	2.7%
45-54	45	5.8%
55-64	84	10.8%
65+	629	80.7%
Sex		
Male	457	58.7%
Race		
American Indian or Alaska Native	*****	*****
Asian	*****	*****
Black or African American	84	10.8%
Native Hawaiian or Other Pacific Islander	0	0.0%
Unknown	108	13.9%
White	569	73.0%
Year		
2015	*****	*****
2016	*****	*****
2017	230	29.5%
2018	361	46.3%
2019	98	12.6%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	6.0	2.9
	Number	**Percent**
Angiotensin-Converting Enzyme (ACE) Inhibitors	14	1.8%
Aliskiren	*****	*****
Ambulatory Allergy or Allergy Treatment	339	43.5%
Angioedema	*****	*****
ARBs excluding Sacubitril/Valsartan	779	100.0%
Beta Blockers	700	89.9%
Diabetes	374	48.0%
Everolimus	0	0.0%
Ischemic Heart Disease	599	76.9%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	74	9.5%
Renal Disorders	384	49.3%
Sacubitril/Valsartan	779	100.0%
Serious Allergy	135	17.3%
Sirolimus	0	0.0%

Table 1f-1. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan without Same-Day Angiotensin II Receptor Blockers (ARBs) to ARBs in Switch Pattern of Sacubitril/Valsartan without Same-Day ARBs to ARBs in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	22.0	19.3
Mean number of emergency room encounters (ED)	0.8	1.7
Mean number of inpatient hospital encounters (IP)	0.9	1.2
Mean number of non-acute institutional encounters (IS)	0.2	0.9
Mean number of other ambulatory encounters (OA)	11.0	13.2
Mean number of filled prescriptions	33.9	23.0
Mean number of generics	13.8	5.6
Mean number of unique drug classes	12.1	5.0

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1g-0. Baseline Characteristics for the Starting Episodes of Sacubitril/Valsartan with Prior Angiotensin-Converting Enzyme (ACE) Inhibitors Use in Switch Pattern of Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	58,141	N/A
Number of episodes	58,524	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	70.1	11.2
Age (years)	**Number**	**Percent**
18-44	2,091	3.6%
45-54	4,366	7.5%
55-64	9,573	16.4%
65+	42,494	72.6%
Sex		
Male	40,218	69.2%
Race		
American Indian or Alaska Native	197	0.3%
Asian	675	1.2%
Black or African American	7,906	13.6%
Native Hawaiian or Other Pacific Islander	68	0.1%
Unknown	8,793	15.1%
White	40,502	69.7%
Year		
2015	1,508	2.6%
2016	11,627	19.9%
2017	18,824	32.2%
2018	21,543	36.8%
2019	5,022	8.6%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.3	2.7
	Number	**Percent**
ACE Inhibitors	58,524	100.0%
Aliskiren	23	0.0%
Ambulatory Allergy or Allergy Treatment	24,520	41.9%
Angioedema	87	0.1%
Angiotensin II Receptor Blockers (ARBs) excluding Sacubitril/Valsartan	5,843	10.0%
Beta Blockers	56,231	96.1%
Diabetes	29,734	50.8%
Everolimus	12	0.0%
Ischemic Heart Disease	46,371	79.2%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	6,520	11.1%
Renal Disorders	23,166	39.6%
Sacubitril/Valsartan	58,524	100.0%
Serious Allergy	6,805	11.6%
Sirolimus	*****	*****

Table 1g-0. Baseline Characteristics for the Starting Episodes of Sacubitril/Valsartan with Prior Angiotensin-Converting Enzyme (ACE) Inhibitors Use in Switch Pattern of Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	18.2	13.8
Mean number of emergency room encounters (ED)	0.7	1.5
Mean number of inpatient hospital encounters (IP)	0.8	1.2
Mean number of non-acute institutional encounters (IS)	0.2	0.8
Mean number of other ambulatory encounters (OA)	8.4	12.1
Mean number of filled prescriptions	32.3	20.2
Mean number of generics	13.4	5.3
Mean number of unique drug classes	11.6	4.6

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1g-1. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan with Prior Angiotensin-Converting Enzyme (ACE) Inhibitors Use to ACE Inhibitors in Switch Pattern of Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	2,398	N/A
Number of episodes	2,401	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	69.6	11.3
Age (years)	**Number**	**Percent**
18-44	96	4.0%
45-54	173	7.2%
55-64	442	18.4%
65+	1,690	70.4%
Sex		
Male	1,664	69.4%
Race		
American Indian or Alaska Native	*****	*****
Asian	29	1.2%
Black or African American	375	15.6%
Native Hawaiian or Other Pacific Islander	*****	*****
Unknown	376	15.7%
White	1,599	66.7%
Year		
2015	46	1.9%
2016	415	17.3%
2017	828	34.5%
2018	930	38.7%
2019	182	7.6%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.6	2.9
	Number	**Percent**
ACE Inhibitors	2,401	100.0%
Aliskiren	*****	*****
Ambulatory Allergy or Allergy Treatment	1,014	42.2%
Angioedema	*****	*****
Angiotensin II Receptor Blockers (ARBs) excluding Sacubitril/Valsartan	156	6.5%
Beta Blockers	2,311	96.3%
Diabetes	1,300	54.1%
Everolimus	0	0.0%
Ischemic Heart Disease	1,959	81.6%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	272	11.3%
Renal Disorders	1,053	43.9%
Sacubitril/Valsartan	2,401	100.0%
Serious Allergy	281	11.7%
Sirolimus	0	0.0%

Table 1g-1. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan with Prior Angiotensin-Converting Enzyme (ACE) Inhibitors Use to ACE Inhibitors in Switch Pattern of Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors in the Sentinel Distributed Database (SDD) on the Switch Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	19.0	14.5
Mean number of emergency room encounters (ED)	0.8	1.7
Mean number of inpatient hospital encounters (IP)	0.9	1.3
Mean number of non-acute institutional encounters (IS)	0.2	0.7
Mean number of other ambulatory encounters (OA)	9.3	12.9
Mean number of filled prescriptions	38.2	22.9
Mean number of generics	14.3	5.9
Mean number of unique drug classes	12.3	5.0

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1h-0. Baseline Characteristics for the Starting Episodes of Sacubitril/Valsartan with Prior Angiotensin II Receptor Blocker (ARB) Use in Switch Pattern of Sacubitril/Valsartan with Prior ARB Use to ARBs in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	41,351	N/A
Number of episodes	41,719	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	72.3	10.8
Age (years)	**Number**	**Percent**
18-44	1,008	2.4%
45-54	2,338	5.6%
55-64	5,212	12.5%
65+	33,161	79.5%
Sex		
Male	25,335	61.3%
Race		
American Indian or Alaska Native	114	0.3%
Asian	966	2.3%
Black or African American	6,034	14.6%
Native Hawaiian or Other Pacific Islander	53	0.1%
Unknown	6,200	15.0%
White	27,984	67.7%
Year		
2015	1,040	2.5%
2016	7,714	18.5%
2017	12,916	31.0%
2018	15,965	38.3%
2019	4,084	9.8%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.4	2.7
	Number	**Percent**
Angiotensin-Converting Enzyme (ACE) Inhibitors	5,776	13.8%
Aliskiren	46	0.1%
Ambulatory Allergy or Allergy Treatment	18,919	45.3%
Angioedema	55	0.1%
ARBs excluding Sacubitril/Valsartan	41,719	100.0%
Beta Blockers	39,603	94.9%
Diabetes	22,434	53.8%
Everolimus	14	0.0%
Ischemic Heart Disease	32,801	78.6%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	4,781	11.5%
Renal Disorders	18,140	43.5%
Sacubitril/Valsartan	41,719	100.0%
Serious Allergy	5,458	13.1%
Sirolimus	*****	*****

Table 1h-0. Baseline Characteristics for the Starting Episodes of Sacubitril/Valsartan with Prior Angiotensin II Receptor Blocker (ARB) Use in Switch Pattern of Sacubitril/Valsartan with Prior ARB Use to ARBs in the Sentinel Distributed Database (SDD) on the Initiation Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	19.5	14.6
Mean number of emergency room encounters (ED)	0.6	1.4
Mean number of inpatient hospital encounters (IP)	0.8	1.2
Mean number of non-acute institutional encounters (IS)	0.2	0.8
Mean number of other ambulatory encounters (OA)	8.5	11.9
Mean number of filled prescriptions	33.6	21.5
Mean number of generics	14.2	5.5
Mean number of unique drug classes	12.2	4.8

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1h-1. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan with Prior Angiotensin II Receptor Blocker (ARB) Use to ARBs in Switch Pattern of Sacubitril/Valsartan with Prior ARB Use to ARBs in the Sentinel Distributed Database on the Switch Date, January 1, 2015 to July 31, 2019

Characteristic[1]	Number	Percent
Number of unique patients	2,361	N/A
Number of episodes	2,367	100%
Patient Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	72.6	10.9
Age (years)	**Number**	**Percent**
18-44	58	2.5%
45-54	132	5.6%
55-64	289	12.2%
65+	1,888	79.8%
Sex		
Male	1,399	59.3%
Race		
American Indian or Alaska Native	*****	*****
Asian	69	2.9%
Black or African American	355	15.0%
Native Hawaiian or Other Pacific Islander	*****	*****
Unknown	350	14.8%
White	1,575	66.7%
Year		
2015	33	1.4%
2016	357	15.1%
2017	822	34.7%
2018	946	40.0%
2019	209	8.8%
Baseline History Prior to Episode Start	**Mean**	**Standard Deviation**
Charlson/Elixhauser Combined Comorbidity Score[2]	5.4	2.7
	Number	**Percent**
Angiotensin-Converting Enzyme (ACE) Inhibitors	225	9.5%
Aliskiren	0	0.0%
Ambulatory Allergy or Allergy Treatment	1,133	47.9%
Angioedema	*****	*****
ARBs excluding Sacubitril/Valsartan	2,367	100.0%
Beta Blockers	2,237	94.5%
Diabetes	1,328	56.1%
Everolimus	0	0.0%
Ischemic Heart Disease	1,869	79.0%
Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)	252	10.6%
Renal Disorders	1,028	43.4%
Sacubitril/Valsartan	2,367	100.0%
Serious Allergy	310	13.1%
Sirolimus	0	0.0%

Table 1h-1. Baseline Characteristics for the Switch Episodes of Sacubitril/Valsartan with Prior Angiotensin II Receptor Blocker (ARB) Use to ARBs in Switch Pattern of Sacubitril/Valsartan with Prior ARB Use to ARBs in the Sentinel Distributed Database on the Switch Date, January 1, 2015 to July 31, 2019

Health Service Utilization Intensity Prior to Episode Start	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	19.8	14.5
Mean number of emergency room encounters (ED)	0.7	1.3
Mean number of inpatient hospital encounters (IP)	0.8	1.2
Mean number of non-acute institutional encounters (IS)	0.2	0.7
Mean number of other ambulatory encounters (OA)	8.6	12.2
Mean number of filled prescriptions	37.8	23.0
Mean number of generics	14.6	5.7
Mean number of unique drug classes	12.5	4.9

[1]All metrics are based on total number of episodes per group, except for sex and race which are based on total number of unique patients

[2]Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 2a. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, and Product

Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
ACE Inhibitors	**703,848**												
2015	189,491	17,052	15,337	17,286	16,659	15,399	15,076	15,751	14,832	15,332	15,808	15,223	16,365
2016	182,616	15,797	15,892	17,087	15,561	14,999	14,826	14,248	15,156	14,766	14,951	14,713	15,278
2017	172,365	15,653	14,337	15,957	14,165	14,758	13,921	13,372	14,617	13,490	14,498	14,175	13,975
2018	158,926	14,731	13,701	14,884	13,825	13,807	12,134	12,632	13,351	11,711	13,442	12,755	12,411
2019	35,007	12,568	10,322	11,057	338	277	233	212	-	-	-	-	-
ARBs	**318,588**												
2015	66,986	5,752	5,249	5,823	5,688	5,298	5,221	5,661	5,366	5,503	5,961	5,491	6,177
2016	73,676	6,220	6,194	6,603	6,143	5,987	5,920	5,785	6,228	6,016	6,145	6,291	6,359
2017	81,773	6,961	6,344	7,287	6,738	7,045	6,622	6,289	7,182	6,381	7,188	6,947	7,016
2018	91,758	7,539	7,066	7,864	8,123	8,321	7,893	7,789	8,380	7,013	7,856	7,378	6,761
2019	18,745	7,117	5,523	5,622	130	137	108	108	-	-	-	-	-
Sacubitril/Valsartan without Same-Day ACE Inhibitors	**30,557**												
2015	431	0	0	0	0	0	0	*****	*****	76	105	106	120
2016	4,241	146	157	227	238	298	368	412	472	432	475	498	527
2017	9,595	643	609	726	701	851	862	808	933	775	889	921	915
2018	13,348	1,113	981	1,158	1,115	1,157	1,095	1,054	1,213	1,079	1,137	1,084	1,221
2019	3,808	1,461	1,147	1,178	*****	*****	*****	*****	-	-	-	-	-
Sacubitril/Valsartan without Same-Day ARBs	**30,547**												
2015	430	0	0	0	0	0	0	*****	*****	76	104	106	120
2016	4,239	146	157	227	238	298	368	412	473	431	475	496	527
2017	9,592	643	607	726	701	851	863	809	933	775	887	921	914
2018	13,342	1,113	979	1,157	1,115	1,159	1,094	1,053	1,210	1,078	1,137	1,084	1,222
2019	3,809	1,462	1,147	1,178	*****	*****	*****	*****	-	-	-	-	-

Table 2a. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, and Product

Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
Sacubitril/Valsartan with Prior ACE Inhibitor Use	**58,141**												
2015	1,508	0	0	0	0	0	0	21	86	239	370	378	414
2016	11,622	429	491	692	739	790	995	1,082	1,327	1,187	1,218	1,371	1,306
2017	18,812	1,282	1,319	1,580	1,590	1,796	1,592	1,533	1,702	1,510	1,715	1,606	1,599
2018	21,530	1,709	1,652	1,927	1,902	2,056	1,855	1,775	1,852	1,480	1,847	1,762	1,726
2019	5,022	1,818	1,462	1,656	27	18	22	19	-	-	-	-	-
Sacubitril/Valsartan with Prior ARB Use	**41,351**												
2015	1,040	0	0	0	0	0	0	13	72	163	249	268	275
2016	7,712	307	326	474	483	616	676	742	776	795	758	876	885
2017	12,902	844	838	1,055	1,029	1,237	1,140	1,049	1,213	1,072	1,157	1,180	1,102
2018	15,949	1,239	1,120	1,325	1,354	1,479	1,284	1,342	1,456	1,197	1,400	1,435	1,334
2019	4,084	1,435	1,188	1,403	17	13	15	13	-	-	-	-	-

[1]Counts of new users over time are reported in year month of valid index date.

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 2b. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Sex

Sex	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
ACE Inhibitors														
Female	2015	*****	*****	7,666	8,690	8,410	7,816	7,566	*****	7,266	*****	*****	7,567	*****
Male	2015	95,015	8,534	7,671	8,596	8,249	7,583	7,510	8,017	7,566	7,762	8,015	7,656	8,205
Other	2015	*****	*****	0	0	0	0	0	*****	0	*****	*****	0	*****
Female	2016	*****	*****	7,682	8,512	7,810	*****	7,463	7,060	7,356	7,267	7,336	*****	7,386
Male	2016	92,805	8,050	8,210	8,575	7,751	7,584	7,363	7,188	7,800	7,499	7,615	7,638	7,892
Other	2016	*****	*****	0	0	0	*****	0	0	0	0	0	*****	0
Female	2017	*****	7,498	6,942	*****	7,037	*****	*****	6,456	7,182	6,533	*****	6,865	*****
Male	2017	88,367	8,155	7,395	8,168	7,128	7,431	7,062	6,916	7,435	6,957	7,397	7,310	7,316
Other	2017	*****	0	0	*****	0	*****	*****	0	0	0	*****	0	*****
Female	2018	77,321	7,048	6,606	7,281	6,781	6,759	5,947	6,119	6,528	5,755	6,493	6,266	5,931
Male	2018	81,605	7,683	7,095	7,603	7,044	7,048	6,187	6,513	6,823	5,956	6,949	6,489	6,480
Other	2018	0	0	0	0	0	0	0	0	0	0	0	0	0
Female	2019	*****	*****	5,169	5,532	138	115	113	87	-	-	-	-	-
Male	2019	17,658	6,373	5,153	5,525	200	162	120	125	-	-	-	-	-
Other	2019	*****	*****	0	0	0	0	0	0	-	-	-	-	-
ARBs														
Female	2015	*****	3,256	2,972	*****	3,300	*****	3,063	*****	3,108	3,163	3,378	3,102	3,462
Male	2015	28,535	2,496	2,277	2,390	2,388	2,236	2,158	2,392	2,258	2,340	2,583	2,389	2,715
Other	2015	*****	0	0	*****	0	*****	0	*****	0	0	0	0	0
Female	2016	*****	3,515	3,456	*****	3,517	3,401	3,369	3,248	3,509	3,439	3,430	3,470	3,549
Male	2016	32,147	2,705	2,738	2,843	2,626	2,586	2,551	2,537	2,719	2,577	2,715	2,821	2,810
Other	2016	*****	0	0	*****	0	0	0	0	0	0	0	0	0
Female	2017	45,796	3,887	3,653	4,057	3,779	4,035	3,696	3,453	4,036	3,579	4,003	3,888	3,863
Male	2017	35,977	3,074	2,691	3,230	2,959	3,010	2,926	2,836	3,146	2,802	3,185	3,059	3,153
Other	2017	0	0	0	0	0	0	0	0	0	0	0	0	0
Female	2018	*****	*****	3,880	4,323	4,499	4,618	4,365	4,263	4,584	3,896	4,356	4,095	3,621
Male	2018	41,283	3,436	3,186	3,541	3,624	3,703	3,528	3,526	3,796	3,117	3,500	3,283	3,140
Other	2018	*****	*****	0	0	0	0	0	0	0	0	0	0	0

Table 2b. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Sex

Sex	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
Female	2019	10,258	3,897	3,053	3,080	63	66	53	46	-	-	-	-	-
Male	2019	8,487	3,220	2,470	2,542	67	71	55	62	-	-	-	-	-
Other	2019	0	0	0	0	0	0	0	0	-	-	-	-	-
Sacubitril/Valsartan without Same-Day ACE Inhibitors														
Female	2015	*****	0	0	0	0	0	0	0	*****	*****	30	32	47
Male	2015	295	0	0	0	0	0	0	*****	*****	*****	75	74	73
Other	2015	*****	0	0	0	0	0	0	*****	0	0	0	0	0
Female	2016	1,435	50	46	72	94	104	123	122	161	153	169	156	189
Male	2016	2,806	96	111	155	144	194	245	290	311	279	306	342	338
Other	2016	0	0	0	0	0	0	0	0	0	0	0	0	0
Female	2017	*****	210	*****	254	258	318	286	279	335	265	323	330	338
Male	2017	6,188	433	382	472	443	533	576	529	598	510	566	591	577
Other	2017	*****	0	*****	0	0	0	0	0	0	0	0	0	0
Female	2018	4,722	355	361	381	420	395	379	378	427	395	424	392	437
Male	2018	8,626	758	620	777	695	762	716	676	786	684	713	692	784
Other	2018	0	0	0	0	0	0	0	0	0	0	0	0	0
Female	2019	1,348	516	429	*****	*****	*****	*****	*****	-	-	-	-	-
Male	2019	2,460	945	718	*****	*****	*****	*****	*****	-	-	-	-	-
Other	2019	0	0	0	0	0	0	0	0	-	-	-	-	-
Sacubitril/Valsartan without Same-Day ARBs														
Female	2015	*****	0	0	0	0	0	0	*****	*****	*****	30	32	47
Male	2015	294	0	0	0	0	0	0	*****	*****	*****	74	74	73
Other	2015	*****	0	0	0	0	0	0	*****	0	0	0	0	0
Female	2016	1,433	50	46	72	94	104	123	122	161	153	169	154	189
Male	2016	2,806	96	111	155	144	194	245	290	312	278	306	342	338
Other	2016	0	0	0	0	0	0	0	0	0	0	0	0	0
Female	2017	*****	210	*****	254	258	318	286	279	335	265	323	330	338
Male	2017	6,187	433	382	472	443	533	577	530	598	510	564	591	576
Other	2017	*****	0	*****	0	0	0	0	0	0	0	0	0	0

Table 2b. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Sex

Sex	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
Female	2018	4,716	355	361	380	419	395	378	378	425	394	424	392	437
Male	2018	8,626	758	618	777	696	764	716	675	785	684	713	692	785
Other	2018	0	0	0	0	0	0	0	0	0	0	0	0	0
Female	2019	1,348	516	429	398	*****	*****	*****	*****	-	-	-	-	-
Male	2019	2,461	946	718	780	*****	*****	*****	*****	-	-	-	-	-
Other	2019	0	0	0	0	0	0	0	0	-	-	-	-	-
Sacubitril/Valsartan with Prior ACE Inhibitor Use														
Female	2015	*****	0	0	0	0	0	0	*****	*****	59	94	93	129
Male	2015	1,103	0	0	0	0	0	0	*****	*****	180	276	285	285
Other	2015	*****	0	0	0	0	0	0	*****	0	0	0	0	0
Female	2016	*****	124	137	187	222	222	305	317	380	376	*****	414	397
Male	2016	8,206	305	354	505	517	568	690	765	947	811	882	957	909
Other	2016	*****	0	0	0	0	0	0	0	0	0	*****	0	0
Female	2017	5,851	350	396	447	511	579	533	496	516	470	530	515	511
Male	2017	12,961	932	923	1,133	1,079	1,217	1,059	1,037	1,186	1,040	1,185	1,091	1,088
Other	2017	0	0	0	0	0	0	0	0	0	0	0	0	0
Female	2018	6,769	540	490	614	597	642	578	576	590	476	567	560	544
Male	2018	14,761	1,169	1,162	1,313	1,305	1,414	1,277	1,199	1,262	1,004	1,280	1,202	1,182
Other	2018	0	0	0	0	0	0	0	0	0	0	0	0	0
Female	2019	1,577	585	426	551	*****	*****	*****	*****	-	-	-	-	-
Male	2019	3,445	1,233	1,036	1,105	*****	*****	*****	*****	-	-	-	-	-
Other	2019	0	0	0	0	0	0	0	0	-	-	-	-	-
Sacubitril/Valsartan with Prior ARB Use														
Female	2015	352	0	0	0	0	0	0	*****	*****	52	80	97	92
Male	2015	688	0	0	0	0	0	0	*****	*****	111	169	171	183
Other	2015	0	0	0	0	0	0	0	0	0	0	0	0	0
Female	2016	2,880	106	106	176	173	223	253	261	279	318	287	337	361
Male	2016	4,832	201	220	298	310	393	423	481	497	477	471	539	524
Other	2016	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 2b. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Sex

Sex	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
Female	2017	*****	327	332	390	427	464	461	414	463	433	453	*****	442
Male	2017	7,825	517	506	665	602	773	679	635	750	639	704	701	660
Other	2017	*****	0	0	0	0	0	0	0	0	0	0	*****	0
Female	2018	*****	481	418	501	*****	565	524	524	560	471	548	563	550
Male	2018	9,706	758	702	824	809	914	760	818	896	726	852	872	784
Other	2018	*****	0	0	0	*****	0	0	0	0	0	0	0	0
Female	2019	1,603	565	466	554	7	3	5	3	-	-	-	-	-
Male	2019	2,481	870	722	849	10	10	10	10	-	-	-	-	-
Other	2019	0	0	0	0	0	0	0	0	-	-	-	-	-

[1]Counts of new users over time are reported in year month of valid index date.

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 2c. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Age Group

Age Group (years)	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
ACE Inhibitors														
18-44	2015	6,458	601	503	550	552	497	516	592	523	567	531	497	571
45-54	2015	13,578	1,176	1,079	1,243	1,162	1,086	1,069	1,147	1,124	1,172	1,139	1,125	1,114
55-64	2015	26,801	2,292	2,086	2,338	2,258	2,184	2,221	2,237	2,193	2,222	2,348	2,124	2,386
65+	2015	142,667	12,983	11,669	13,155	12,687	11,632	11,270	11,775	10,992	11,371	11,790	11,477	12,294
18-44	2016	6,251	546	527	598	521	497	512	466	552	511	549	499	503
45-54	2016	13,055	1,062	1,162	1,201	1,152	1,058	1,035	1,109	1,145	1,033	1,069	1,011	1,083
55-64	2016	26,856	2,289	2,367	2,462	2,196	2,103	2,133	2,191	2,275	2,215	2,311	2,212	2,227
65+	2016	136,479	11,900	11,836	12,826	11,692	11,341	11,146	10,482	11,184	11,007	11,022	10,991	11,465
18-44	2017	5,818	533	457	534	468	509	476	422	551	479	475	477	462
45-54	2017	12,061	1,113	1,030	1,095	998	1,060	996	893	1,098	962	1,001	932	933
55-64	2017	25,306	2,244	2,063	2,345	2,078	2,026	1,972	2,027	2,152	2,062	2,193	2,146	2,085
65+	2017	129,195	11,763	10,787	11,983	10,621	11,163	10,477	10,030	10,816	9,987	10,829	10,620	10,495
18-44	2018	5,007	445	431	511	420	425	404	419	413	382	401	391	382
45-54	2018	10,146	933	841	925	849	867	787	825	900	788	859	769	831
55-64	2018	22,505	2,060	2,001	2,073	1,942	1,985	1,671	1,733	1,881	1,727	1,912	1,823	1,776
65+	2018	121,281	11,293	10,428	11,375	10,614	10,530	9,272	9,655	10,157	8,814	10,270	9,772	9,422
18-44	2019	908	290	285	278	12	14	15	14	-	-	-	-	-
45-54	2019	1,894	661	547	587	29	26	24	20	-	-	-	-	-
55-64	2019	4,352	1,574	1,253	1,301	78	56	43	47	-	-	-	-	-
65+	2019	27,853	10,043	8,237	8,891	219	181	151	131	-	-	-	-	-
ARBs														
18-44	2015	1,816	141	142	163	166	132	134	140	146	168	175	152	165
45-54	2015	3,782	328	283	315	348	302	303	336	261	275	383	301	365
55-64	2015	8,071	640	639	699	689	605	630	712	678	711	730	633	731
65+	2015	53,322	4,643	4,185	4,646	4,485	4,259	4,154	4,473	4,281	4,349	4,673	4,405	4,916
18-44	2016	1,915	172	161	178	168	169	151	138	145	166	159	158	163
45-54	2016	4,200	339	342	382	346	313	305	336	389	354	385	358	369
55-64	2016	9,049	749	752	757	751	706	739	746	791	751	725	807	809
65+	2016	58,516	4,960	4,939	5,286	4,878	4,799	4,725	4,565	4,903	4,745	4,876	4,968	5,018

Table 2c. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Age Group

Age Group (years)	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
18-44	2017	2,148	177	160	205	170	184	174	158	192	187	183	191	171
45-54	2017	4,596	397	355	426	362	360	387	336	397	392	416	381	403
55-64	2017	10,234	802	777	899	849	863	808	792	933	859	940	853	893
65+	2017	64,802	5,585	5,052	5,757	5,357	5,638	5,253	5,003	5,660	4,943	5,649	5,522	5,549
18-44	2018	2,283	201	183	167	190	214	194	193	222	169	209	195	154
45-54	2018	4,853	373	372	426	397	403	425	418	450	376	452	420	356
55-64	2018	11,101	895	845	936	944	989	950	933	1,032	867	964	934	846
65+	2018	73,530	6,070	5,666	6,335	6,592	6,715	6,324	6,245	6,676	5,601	6,231	5,829	5,405
18-44	2019	398	149	108	122	*****	*****	*****	*****	-	-	-	-	-
45-54	2019	820	293	251	248	*****	*****	*****	*****	-	-	-	-	-
55-64	2019	1,963	744	582	553	20	20	27	17	-	-	-	-	-
65+	2019	15,564	5,931	4,582	4,699	98	102	73	79	-	-	-	-	-
Sacubitril/Valsartan without Same-Day ACE Inhibitors														
18-44	2015	*****	0	0	0	0	0	0	*****	*****	*****	0	*****	*****
45-54	2015	*****	0	0	0	0	0	0	0	*****	*****	*****	*****	*****
55-64	2015	56	0	0	0	0	0	0	0	*****	*****	*****	13	*****
65+	2015	*****	0	0	0	0	0	0	*****	*****	61	84	82	98
18-44	2016	124	*****	*****	*****	*****	*****	*****	15	18	*****	14	11	20
45-54	2016	306	*****	*****	*****	*****	*****	*****	34	46	*****	35	31	38
55-64	2016	572	18	13	30	28	45	53	46	66	61	77	72	64
65+	2016	3,239	118	132	156	193	230	288	317	342	330	349	384	405
18-44	2017	342	18	21	33	18	16	31	27	38	36	39	31	35
45-54	2017	673	39	45	57	39	62	67	40	63	58	65	69	72
55-64	2017	1,335	82	77	109	107	111	127	115	128	106	136	131	112
65+	2017	7,245	504	466	527	537	662	637	626	704	575	649	690	696
18-44	2018	494	34	28	48	45	40	29	40	50	48	41	48	45
45-54	2018	939	75	64	81	77	79	73	66	99	73	86	85	90
55-64	2018	1,816	129	134	137	181	156	151	162	171	151	169	136	151
65+	2018	10,100	875	755	892	812	882	842	786	893	807	841	815	935
18-44	2019	*****	43	31	38	*****	0	0	*****	-	-	-	-	-

Table 2c. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Age Group

Age Group (years)	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
45-54	2019	*****	64	51	70	0	*****	*****	*****	-	-	-	-	-
55-64	2019	416	141	132	141	0	*****	*****	0	-	-	-	-	-
65+	2019	*****	1,213	933	929	*****	*****	*****	*****	-	-	-	-	-
Sacubitril/Valsartan without Same-Day ARBs														
18-44	2015	*****	0	0	0	0	0	0	*****	*****	*****	*****	*****	*****
45-54	2015	*****	0	0	0	0	0	0	0	*****	*****	*****	*****	*****
55-64	2015	55	0	0	0	0	0	0	0	*****	*****	16	13	13
65+	2015	346	0	0	0	0	0	0	*****	*****	61	84	82	98
18-44	2016	123	*****	*****	*****	*****	*****	*****	15	18	*****	14	11	20
45-54	2016	305	*****	*****	*****	*****	*****	*****	34	46	*****	35	30	38
55-64	2016	572	18	13	30	28	45	53	46	67	61	77	71	64
65+	2016	3,239	118	132	156	193	230	288	317	342	330	349	384	405
18-44	2017	341	18	20	33	18	16	31	27	38	36	39	31	35
45-54	2017	674	39	45	57	39	62	67	40	63	59	65	69	72
55-64	2017	1,338	82	77	109	107	111	129	116	128	106	136	131	112
65+	2017	7,239	504	465	527	537	662	636	626	704	574	647	690	695
18-44	2018	492	34	27	48	45	40	29	40	49	48	41	48	45
45-54	2018	939	75	64	81	78	79	73	66	99	73	86	84	90
55-64	2018	1,811	129	133	136	181	156	150	162	169	151	168	137	151
65+	2018	10,101	875	755	892	811	884	842	785	893	806	842	815	936
18-44	2019	*****	43	*****	38	*****	0	0	*****	-	-	-	-	-
45-54	2019	*****	64	*****	70	0	*****	*****	*****	-	-	-	-	-
55-64	2019	416	141	*****	141	0	*****	*****	0	-	-	-	-	-
65+	2019	3,091	1,214	933	929	*****	*****	*****	*****	-	-	-	-	-
Sacubitril/Valsartan with Prior ACE Inhibitor Use														
18-44	2015	75	0	0	0	0	0	0	0	*****	*****	17	18	24
45-54	2015	137	0	0	0	0	0	0	*****	*****	*****	27	42	35
55-64	2015	273	0	0	0	0	0	0	*****	*****	42	68	68	78
65+	2015	1,023	0	0	0	0	0	0	18	59	161	258	250	277
18-44	2016	471	*****	*****	25	40	30	35	42	61	51	66	47	53

Table 2c. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Age Group

Age Group (years)	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
45-54	2016	956	*****	*****	49	61	67	62	83	116	102	110	122	105
55-64	2016	1,989	69	79	105	118	138	190	177	244	185	219	240	227
65+	2016	8,206	312	358	513	520	555	708	780	906	849	823	962	921
18-44	2017	732	51	71	57	56	65	54	53	74	47	82	54	68
45-54	2017	1,446	88	100	124	108	154	113	118	129	120	137	131	124
55-64	2017	3,157	206	234	254	251	272	257	241	291	267	304	294	288
65+	2017	13,478	937	914	1,145	1,175	1,305	1,168	1,121	1,208	1,076	1,192	1,127	1,119
18-44	2018	693	42	49	57	64	75	50	59	60	63	65	50	59
45-54	2018	1,555	110	118	131	127	163	141	116	149	111	133	116	141
55-64	2018	3,497	252	259	314	295	332	314	293	294	247	294	312	292
65+	2018	15,785	1,305	1,226	1,425	1,416	1,486	1,350	1,307	1,349	1,059	1,355	1,284	1,234
18-44	2019	120	38	*****	44	*****	*****	*****	*****	-	-	-	-	-
45-54	2019	269	86	*****	86	*****	*****	*****	*****	-	-	-	-	-
55-64	2019	652	225	191	217	*****	*****	*****	*****	-	-	-	-	-
65+	2019	3,981	1,469	1,160	1,309	*****	*****	12	11	-	-	-	-	-
Sacubitril/Valsartan with Prior ARB Use														
18-44	2015	32	0	0	0	0	0	0	0	0	*****	*****	12	*****
45-54	2015	43	0	0	0	0	0	0	*****	*****	*****	*****	16	*****
55-64	2015	141	0	0	0	0	0	0	*****	*****	32	27	33	37
65+	2015	824	0	0	0	0	0	0	*****	59	117	209	207	221
18-44	2016	204	*****	*****	*****	11	17	21	20	*****	23	22	32	23
45-54	2016	473	*****	*****	*****	35	37	34	37	*****	58	63	56	57
55-64	2016	1,031	35	39	65	57	74	86	90	108	112	120	120	126
65+	2016	6,004	246	257	385	380	488	535	595	617	602	553	668	679
18-44	2017	322	21	21	22	22	28	23	31	32	28	34	28	32
45-54	2017	745	42	52	65	48	80	61	59	66	62	82	68	62
55-64	2017	1,667	104	108	149	102	145	145	124	166	141	159	157	169
65+	2017	10,168	677	657	819	857	984	911	835	949	841	882	927	839
18-44	2018	383	24	31	31	32	33	24	42	37	32	36	35	28
45-54	2018	903	62	70	77	76	93	57	76	85	77	87	69	74

Table 2c. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Age Group

Age Group (years)	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
55-64	2018	1,958	123	140	145	169	177	172	163	188	144	181	198	159
65+	2018	12,705	1,030	879	1,072	1,077	1,176	1,031	1,061	1,146	944	1,096	1,133	1,073
18-44	2019	65	20	*****	25	*****	*****	*****	*****	-	-	-	-	-
45-54	2019	172	52	*****	61	*****	*****	*****	*****	-	-	-	-	-
55-64	2019	411	151	117	128	*****	*****	*****	*****	-	-	-	-	-
65+	2019	3,436	1,212	1,003	1,189	*****	*****	*****	*****	-	-	-	-	-

[1]Counts of new users over time are reported in year month of valid index date.

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 2d. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Race

Race	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
ACE Inhibitors														
American Indian or Alaska Native	2015	1,120	115	93	100	95	98	90	94	92	85	83	83	98
Asian	2015	2,456	234	183	225	205	193	189	195	244	194	202	175	227
Black or African American	2015	27,375	2,412	2,230	2,459	2,314	2,227	2,238	2,388	2,164	2,259	2,284	2,164	2,368
Native Hawaiian or Other Pacific Islander	2015	292	19	26	26	18	25	16	25	25	25	34	24	30
White	2015	132,815	12,088	10,831	12,272	11,828	10,807	10,496	10,898	10,265	10,590	11,087	10,657	11,397
Unknown	2015	25,433	2,184	1,974	2,204	2,199	2,049	2,047	2,151	2,042	2,179	2,118	2,120	2,245
American Indian or Alaska Native	2016	1,320	110	97	112	125	102	119	138	118	109	91	105	99
Asian	2016	2,441	234	240	233	211	189	205	166	190	158	208	209	203
Black or African American	2016	25,468	2,199	2,215	2,370	2,224	2,118	2,040	2,008	2,184	2,038	2,085	2,082	2,061
Native Hawaiian or Other Pacific Islander	2016	294	25	23	27	30	16	24	25	23	25	22	34	20
White	2016	127,481	11,098	11,168	12,089	10,820	10,585	10,470	9,727	10,460	10,306	10,361	10,114	10,680
Unknown	2016	25,612	2,131	2,149	2,256	2,151	1,989	1,968	2,184	2,181	2,130	2,184	2,169	2,215
American Indian or Alaska Native	2017	1,155	112	111	122	102	98	85	72	93	96	97	93	79
Asian	2017	2,326	210	205	226	221	203	198	173	209	151	164	175	201
Black or African American	2017	23,729	2,158	2,033	2,269	1,952	2,035	1,874	1,831	2,066	1,863	2,023	1,872	1,875
Native Hawaiian or Other Pacific Islander	2017	327	22	29	21	16	33	28	31	33	26	36	25	28
White	2017	121,110	11,041	9,982	11,172	9,934	10,444	9,828	9,398	10,216	9,431	10,171	9,995	9,857
Unknown	2017	23,718	2,110	1,977	2,147	1,940	1,945	1,908	1,867	2,000	1,923	2,007	2,015	1,935
American Indian or Alaska Native	2018	1,059	102	92	98	96	94	80	87	86	83	84	81	80

Table 2d. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Race

Race	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
Asian	2018	2,262	213	203	197	213	182	165	172	211	159	210	153	190
Black or African American	2018	21,053	1,934	1,789	1,979	1,836	1,813	1,611	1,649	1,832	1,586	1,819	1,689	1,613
Native Hawaiian or Other Pacific Islander	2018	375	26	27	36	27	32	25	22	36	34	39	32	39
White	2018	113,088	10,494	9,821	10,603	9,856	9,865	8,667	9,025	9,399	8,249	9,560	9,055	8,794
Unknown	2018	21,089	1,962	1,769	1,971	1,797	1,821	1,586	1,677	1,787	1,600	1,730	1,745	1,695
American Indian or Alaska Native	2019	277	97	*****	*****	*****	*****	*****	*****	-	-	-	-	-
Asian	2019	713	201	167	211	40	41	29	24	-	-	-	-	-
Black or African American	2019	4,787	1,733	1,434	1,497	32	32	32	27	-	-	-	-	-
Native Hawaiian or Other Pacific Islander	2019	55	28	*****	*****	*****	*****	*****	*****	-	-	-	-	-
White	2019	27,115	9,818	8,028	8,580	231	176	142	140	-	-	-	-	-
Unknown	2019	2,060	691	607	674	24	*****	*****	*****	-	-	-	-	-
ARBs														
American Indian or Alaska Native	2015	416	*****	*****	*****	*****	*****	*****	*****	*****	36	26	35	*****
Asian	2015	1,686	141	113	150	141	136	147	148	142	136	147	132	156
Black or African American	2015	11,689	903	909	1,045	1,036	969	953	976	1,007	983	1,005	941	1,007
Native Hawaiian or Other Pacific Islander	2015	112	*****	*****	*****	*****	*****	*****	*****	*****	16	13	11	*****
White	2015	44,204	3,863	3,505	3,820	3,662	3,482	3,421	3,748	3,541	3,600	3,939	3,633	4,114
Unknown	2015	8,879	800	680	764	802	667	654	751	636	732	831	739	853
American Indian or Alaska Native	2016	402	27	*****	27	47	31	36	*****	27	37	37	40	30
Asian	2016	1,924	168	167	200	175	156	149	125	151	123	153	175	189

Table 2d. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Race

Race	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
Black or African American	2016	12,522	1,056	1,059	1,173	1,018	973	1,058	971	1,079	1,036	1,060	1,050	1,038
Native Hawaiian or Other Pacific Islander	2016	147	13	*****	14	14	13	11	*****	17	14	12	14	11
White	2016	48,485	4,158	4,113	4,300	4,037	4,004	3,894	3,768	4,069	3,940	4,007	4,144	4,173
Unknown	2016	10,196	798	813	889	852	810	772	883	885	866	876	868	918
American Indian or Alaska Native	2017	521	45	*****	71	40	41	30	34	43	*****	49	48	32
Asian	2017	2,540	189	196	210	200	231	208	221	213	179	218	236	246
Black or African American	2017	14,071	1,173	1,126	1,274	1,136	1,188	1,210	1,102	1,248	1,139	1,174	1,190	1,172
Native Hawaiian or Other Pacific Islander	2017	180	12	*****	15	15	16	17	17	15	*****	19	15	22
White	2017	53,652	4,590	4,155	4,718	4,444	4,704	4,273	4,109	4,732	4,141	4,798	4,560	4,557
Unknown	2017	10,809	952	810	999	903	865	884	806	931	872	930	898	987
American Indian or Alaska Native	2018	622	54	50	57	62	45	53	41	51	71	51	50	40
Asian	2018	2,759	217	192	215	251	323	329	259	251	199	201	160	170
Black or African American	2018	15,337	1,216	1,157	1,336	1,315	1,383	1,299	1,324	1,423	1,214	1,385	1,241	1,110
Native Hawaiian or Other Pacific Islander	2018	248	20	15	18	20	27	20	29	29	24	16	18	12
White	2018	60,936	5,065	4,763	5,250	5,408	5,558	5,229	5,126	5,520	4,592	5,121	4,868	4,566
Unknown	2018	11,856	967	889	988	1,067	985	963	1,010	1,106	913	1,082	1,041	863
American Indian or Alaska Native	2019	131	45	*****	*****	0	*****	0	*****	-	-	-	-	-
Asian	2019	628	209	155	189	21	23	16	15	-	-	-	-	-
Black or African American	2019	3,169	1,264	911	921	15	19	17	22	-	-	-	-	-

Table 2d. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Race

Race	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
Native Hawaiian or Other Pacific Islander	2019	25	*****	*****	*****	*****	*****	*****	0	-	-	-	-	-
White	2019	13,568	5,133	4,046	4,089	86	83	66	65	-	-	-	-	-
Unknown	2019	1,224	449	366	380	*****	*****	*****	*****	-	-	-	-	-
Sacubitril/Valsartan without Same-Day ACE Inhibitors														
American Indian or Alaska Native	2015	*****	0	0	0	0	0	0	0	*****	*****	0	*****	*****
Asian	2015	*****	0	0	0	0	0	0	0	0	*****	*****	*****	*****
Black or African American	2015	53	0	0	0	0	0	0	0	*****	*****	*****	*****	15
Native Hawaiian or Other Pacific Islander	2015	0	0	0	0	0	0	0	0	0	0	0	0	0
White	2015	303	0	0	0	0	0	0	*****	*****	55	73	68	90
Unknown	2015	63	0	0	0	0	0	0	0	*****	*****	16	21	11
American Indian or Alaska Native	2016	*****	0	0	0	0	*****	*****	0	*****	*****	*****	*****	0
Asian	2016	39	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Black or African American	2016	579	*****	*****	*****	*****	*****	*****	*****	76	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	2016	*****	0	0	0	0	0	0	*****	0	0	0	0	*****
White	2016	2,936	99	114	149	178	216	261	286	317	297	323	333	368
Unknown	2016	670	22	24	36	27	39	61	62	68	66	90	89	88
American Indian or Alaska Native	2017	25	0	*****	*****	*****	*****	*****	0	*****	*****	*****	*****	*****
Asian	2017	97	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Black or African American	2017	1,307	*****	84	*****	100	103	117	*****	132	92	124	134	127
Native Hawaiian or Other Pacific Islander	2017	13	*****	*****	*****	0	*****	0	*****	0	*****	*****	*****	*****

Table 2d. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Race

Race	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
White	2017	6,733	468	430	485	517	618	597	567	647	554	600	639	638
Unknown	2017	1,420	*****	89	120	*****	114	136	120	142	118	152	134	132
American Indian or Alaska Native	2018	47	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Asian	2018	181	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Black or African American	2018	1,942	141	141	171	175	159	146	170	184	161	163	174	171
Native Hawaiian or Other Pacific Islander	2018	13	*****	*****	*****	*****	0	*****	*****	0	0	0	0	*****
White	2018	9,215	809	687	814	751	838	763	701	832	715	765	739	839
Unknown	2018	1,950	145	*****	157	157	141	159	164	174	183	197	*****	185
American Indian or Alaska Native	2019	*****	*****	*****	*****	0	0	0	0	-	-	-	-	-
Asian	2019	*****	21	*****	*****	0	*****	*****	*****	-	-	-	-	-
Black or African American	2019	565	215	161	185	*****	0	0	*****	-	-	-	-	-
Native Hawaiian or Other Pacific Islander	2019	*****	*****	0	0	0	0	0	0	-	-	-	-	-
White	2019	2,936	1,136	891	899	*****	*****	*****	*****	-	-	-	-	-
Unknown	2019	222	82	72	68	0	0	0	0	-	-	-	-	-
Sacubitril/Valsartan without Same-Day ARBs														
American Indian or Alaska Native	2015	*****	0	0	0	0	0	0	*****	0	*****	0	*****	*****
Asian	2015	*****	0	0	0	0	0	0	0	0	*****	*****	*****	*****
Black or African American	2015	52	0	0	0	0	0	0	0	*****	*****	*****	*****	15
Native Hawaiian or Other Pacific Islander	2015	0	0	0	0	0	0	0	0	0	0	0	0	0
White	2015	303	0	0	0	0	0	0	*****	*****	55	73	68	90
Unknown	2015	63	0	0	0	0	0	0	0	*****	*****	16	21	11

Table 2d. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Race

Race	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
American Indian or Alaska Native	2016	*****	0	0	0	0	*****	*****	0	*****	*****	*****	*****	0
Asian	2016	38	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Black or African American	2016	578	21	*****	*****	32	38	*****	*****	76	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	2016	*****	0	0	0	0	0	0	*****	0	0	0	0	*****
White	2016	2,935	99	114	149	178	217	261	286	318	296	323	331	368
Unknown	2016	671	*****	24	36	*****	39	61	62	68	66	90	90	88
American Indian or Alaska Native	2017	25	0	*****	*****	*****	*****	*****	0	*****	*****	*****	*****	*****
Asian	2017	97	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Black or African American	2017	1,307	*****	*****	111	100	103	116	*****	132	93	124	134	127
Native Hawaiian or Other Pacific Islander	2017	13	*****	*****	*****	0	*****	0	*****	0	*****	*****	*****	*****
White	2017	6,731	468	430	485	517	618	598	568	647	553	598	639	637
Unknown	2017	1,419	88	87	120	77	114	137	120	142	118	152	134	132
American Indian or Alaska Native	2018	47	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Asian	2018	181	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Black or African American	2018	1,941	141	140	171	175	159	145	170	184	161	163	175	171
Native Hawaiian or Other Pacific Islander	2018	13	*****	*****	*****	*****	0	*****	*****	0	0	0	0	*****
White	2018	9,213	809	686	813	750	840	763	700	831	714	766	739	840
Unknown	2018	1,947	145	131	157	158	141	159	164	172	183	196	163	185
American Indian or Alaska Native	2019	*****	*****	*****	*****	0	0	0	0	-	-	-	-	-
Asian	2019	*****	*****	*****	*****	0	*****	*****	*****	-	-	-	-	-

Table 2d. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Race

Race	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
Black or African American	2019	565	215	161	185	*****	0	0	*****	-	-	-	-	-
Native Hawaiian or Other Pacific Islander	2019	*****	*****	0	0	0	0	0	0	-	-	-	-	-
White	2019	2,938	1,137	892	899	*****	*****	*****	*****	-	-	-	-	-
Unknown	2019	221	82	71	68	0	0	0	0	-	-	-	-	-
Sacubitril/Valsartan with Prior ACE Inhibitor Use														
American Indian or Alaska Native	2015	*****	0	0	0	0	0	0	0	0	*****	*****	*****	*****
Asian	2015	*****	0	0	0	0	0	0	*****	*****	*****	*****	*****	*****
Black or African American	2015	194	0	0	0	0	0	0	*****	18	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	2015	0	0	0	0	0	0	0	0	0	0	0	0	0
White	2015	1,020	0	0	0	0	0	0	*****	53	171	259	243	277
Unknown	2015	272	0	0	0	0	0	0	*****	*****	33	67	71	87
American Indian or Alaska Native	2016	23	*****	0	*****	0	*****	*****	*****	*****	*****	*****	*****	*****
Asian	2016	110	*****	*****	*****	*****	*****	*****	*****	16	11	15	18	*****
Black or African American	2016	1,562	*****	*****	*****	*****	*****	19	*****	185	170	167	203	200
Native Hawaiian or Other Pacific Islander	2016	*****	0	*****	*****	*****	0	0	0	*****	*****	*****	*****	0
White	2016	8,025	322	351	505	514	555	707	773	883	807	804	932	873
Unknown	2016	1,890	58	63	105	114	140	154	171	238	194	226	214	215
American Indian or Alaska Native	2017	67	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Asian	2017	205	*****	*****	*****	*****	*****	*****	13	*****	*****	*****	*****	*****
Black or African American	2017	2,648	*****	187	225	193	222	224	236	257	201	282	231	205

Table 2d. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Race

Race	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
Native Hawaiian or Other Pacific Islander	2017	16	0	*****	*****	0	*****	*****	*****	*****	*****	*****	*****	*****
White	2017	12,941	888	900	1,083	1,136	1,257	1,109	1,027	1,177	1,044	1,153	1,094	1,079
Unknown	2017	2,935	197	213	247	234	282	241	246	249	237	256	249	287
American Indian or Alaska Native	2018	73	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Asian	2018	265	*****	*****	31	20	*****	*****	*****	*****	*****	29	*****	*****
Black or African American	2018	2,882	220	229	266	230	297	216	250	265	206	245	244	217
Native Hawaiian or Other Pacific Islander	2018	34	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
White	2018	14,871	1,224	1,145	1,339	1,352	1,385	1,291	1,211	1,269	1,012	1,247	1,223	1,183
Unknown	2018	3,405	234	257	280	288	340	313	285	289	239	314	270	296
American Indian or Alaska Native	2019	*****	*****	*****	*****	*****	*****	0	0	-	-	-	-	-
Asian	2019	86	24	*****	*****	*****	*****	*****	*****	-	-	-	-	-
Black or African American	2019	690	265	182	233	*****	*****	*****	*****	-	-	-	-	-
Native Hawaiian or Other Pacific Islander	2019	*****	*****	*****	0	*****	0	0	0	-	-	-	-	-
White	2019	3,886	1,428	1,139	1,266	15	*****	*****	*****	-	-	-	-	-
Unknown	2019	324	84	111	119	*****	*****	*****	*****	-	-	-	-	-
Sacubitril/Valsartan with Prior ARB Use														
American Indian or Alaska Native	2015	*****	0	0	0	0	0	0	0	0	*****	0	0	*****
Asian	2015	*****	0	0	0	0	0	0	0	*****	*****	*****	*****	*****
Black or African American	2015	148	0	0	0	0	0	0	0	12	25	33	32	46
Native Hawaiian or Other Pacific Islander	2015	*****	0	0	0	0	0	0	0	0	0	0	*****	0

Table 2d. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Race

Race	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
White	2015	697	0	0	0	0	0	0	*****	*****	108	170	187	177
Unknown	2015	161	0	0	0	0	0	0	*****	*****	25	42	36	44
American Indian or Alaska Native	2016	18	*****	*****	*****	0	0	*****	*****	*****	*****	*****	*****	0
Asian	2016	116	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Black or African American	2016	1,149	45	56	71	71	*****	96	79	109	118	131	151	142
Native Hawaiian or Other Pacific Islander	2016	*****	0	*****	0	0	*****	0	0	*****	0	*****	*****	*****
White	2016	5,165	219	224	333	323	429	470	528	517	504	470	564	585
Unknown	2016	1,255	*****	*****	*****	*****	99	96	120	138	154	139	139	147
American Indian or Alaska Native	2017	43	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Asian	2017	297	14	22	27	23	24	33	21	24	23	27	34	26
Black or African American	2017	1,852	122	123	157	137	180	156	143	167	166	175	182	149
Native Hawaiian or Other Pacific Islander	2017	11	*****	0	*****	*****	*****	*****	0	*****	0	*****	0	*****
White	2017	8,660	601	570	681	723	832	734	700	830	711	781	775	728
Unknown	2017	2,039	104	122	185	143	197	212	179	187	166	166	184	196
American Indian or Alaska Native	2018	43	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Asian	2018	399	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Black or African American	2018	2,315	176	162	191	195	204	197	198	237	134	207	229	189
Native Hawaiian or Other Pacific Islander	2018	27	0	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
White	2018	10,644	858	734	918	897	975	838	882	955	812	945	956	882
Unknown	2018	2,521	163	200	173	216	258	213	218	224	211	211	216	219

Table 2d. Summary of New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Month, Year, Product, and Race

Race	Year	New Users[1]	January	February	March	April	May	June	July	August	September	October	November	December
American Indian or Alaska Native	2019	*****	*****	*****	*****	0	0	0	0	-	-	-	-	-
Asian	2019	128	*****	*****	*****	*****	*****	*****	*****	-	-	-	-	-
Black or African American	2019	635	234	174	221	*****	0	*****	*****	-	-	-	-	-
Native Hawaiian or Other Pacific Islander	2019	*****	*****	*****	0	0	0	0	0	-	-	-	-	-
White	2019	3,045	1,073	896	1,041	*****	*****	*****	*****	-	-	-	-	-
Unknown	2019	261	87	76	98	0	0	0	0	-	-	-	-	-

[1]Counts of new users over time are reported in year month of valid index date.

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 3a. Summary of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019

Switch:	ACE Inhibitors to Sacubitril/Valsartan		ACE Inhibitors to Sacubitril/Valsartan	
Switch Pattern:	**ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors**		**ACE Inhibitors to Sacubitril/Valsartan to ARBs**	
Number of Patients	6,622		6,622	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	6,628	100.0%	6,628	100.0%
0-30	1,182	17.8%	1,182	17.8%
0-60	2,301	34.7%	2,301	34.7%
0-90	3,011	45.4%	3,011	45.4%
0-180	4,217	63.6%	4,217	63.6%
0-365	5,353	80.8%	5,353	80.8%
366+	1,275	19.2%	1,275	19.2%
Switch:	**ARBs to Sacubitril/Valsartan**		**ARBs to Sacubitril/Valsartan**	
Switch Pattern:	**ARBs to Sacubitril/Valsartan to ARBs**		**ARBs to Sacubitril/Valsartan to ACE Inhibitors**	
Number of Patients	3,361		3,361	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	3,363	100.0%	3,363	100.0%
0-30	636	18.9%	636	18.9%
0-60	1,208	35.9%	1,208	35.9%
0-90	1,584	47.1%	1,584	47.1%
0-180	2,205	65.6%	2,205	65.6%
0-365	2,814	83.7%	2,814	83.7%
366+	549	16.3%	549	16.3%
Switch:	**Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors**		**Sacubitril/Valsartan without Same-Day ARBs to ARBs**	
Switch Pattern:	**Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors**		**Sacubitril/Valsartan without Same-Day ARBs to ARBs**	
Number of Patients	594		779	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	595	100.0%	779	100.0%
0-30	229	38.5%	259	33.2%
0-60	359	60.3%	426	54.7%
0-90	426	71.6%	521	66.9%
0-180	524	88.1%	640	82.2%
0-365	566	95.1%	739	94.9%
366+	29	4.9%	40	5.1%

Table 3a. Summary of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019

Switch:	Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors		Sacubitril/Valsartan with Prior ARB Use to ARBs	
Switch Pattern:	**Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors**		**Sacubitril/Valsartan with Prior ARB Use to ARBs**	
Number of Patients	2,398		2,361	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	2,401	100.0%	2,367	100.0%
0-30	552	23.0%	520	22.0%
0-60	1,069	44.5%	1,056	44.6%
0-90	1,431	59.6%	1,372	58.0%
0-180	1,908	79.5%	1,897	80.1%
0-365	2,264	94.3%	2,235	94.4%
366+	137	5.7%	132	5.6%

Table 3b. Summary of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Sex

Switch:	ACE Inhibitors to Sacubitril/Valsartan		ACE Inhibitors to Sacubitril/Valsartan	
Switch Pattern:	ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors		ACE Inhibitors to Sacubitril/Valsartan to ARBs	
Number of Patients	6,622		6,622	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	6,628	100.0%	6,628	100.0%
Male	4,374	66.0%	4,374	66.0%
0-30	1,182	100.0%	1,182	100.0%
Male	739	62.5%	739	62.5%
0-60	2,301	100.0%	2,301	100.0%
Male	1,466	63.7%	1,466	63.7%
0-90	3,011	100.0%	3,011	100.0%
Male	1,922	63.8%	1,922	63.8%
0-180	4,217	100.0%	4,217	100.0%
Male	2,693	63.9%	2,693	63.9%
0-365	5,353	100.0%	5,353	100.0%
Male	3,479	65.0%	3,479	65.0%
366+	1,275	100.0%	1,275	100.0%
Male	895	70.2%	895	70.2%
Switch:	**ARBs to Sacubitril/Valsartan**		**ARBs to Sacubitril/Valsartan**	
Switch Pattern:	**ARBs to Sacubitril/Valsartan to ARBs**		**ARBs to Sacubitril/Valsartan to ACE**	
Number of Patients	3,361		3,361	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	3,363	100.0%	3,363	100.0%
Male	2,034	60.5%	2,034	60.5%
0-30	636	100.0%	636	100.0%
Male	386	60.7%	386	60.7%
0-60	1,208	100.0%	1,208	100.0%
Male	762	63.1%	762	63.1%
0-90	1,584	100.0%	1,584	100.0%
Male	990	62.5%	990	62.5%
0-180	2,205	100.0%	2,205	100.0%
Male	1,365	61.9%	1,365	61.9%
0-365	2,814	100.0%	2,814	100.0%
Male	1,695	60.2%	1,695	60.2%
366+	549	100.0%	549	100.0%
Male	339	61.7%	339	61.7%

Table 3b. Summary of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Sex

Switch:	Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors		Sacubitril/Valsartan without Same-Day ARBs to ARBs	
Switch Pattern:	**Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors**		**Sacubitril/Valsartan without Same-Day ARBs to ARBs**	
Number of Patients	594		779	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	595	100.0%	779	100.0%
Male	389	65.4%	457	58.7%
0-30	229	100.0%	259	100.0%
Male	142	62.0%	148	57.1%
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
0-60	359	100.0%	426	100.0%
Male	233	64.9%	249	58.5%
0-90	426	100.0%	521	100.0%
Male	280	65.7%	304	58.3%
0-180	524	100.0%	640	100.0%
Male	346	66.0%	379	59.2%
0-365	566	100.0%	739	100.0%
Male	*****	*****	436	59.0%
366+	29	100.0%	40	100.0%
Male	*****	*****	21	52.5%
Switch:	**Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors**		**Sacubitril/Valsartan with Prior ARB Use to ARBs**	
Switch Pattern:	**Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors**		**Sacubitril/Valsartan with Prior ARB Use to ARBs**	
Number of Patients	2,398		2,361	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	2,401	100.0%	2,367	100.0%
Male	1,667	69.4%	1,400	59.1%
0-30	552	100.0%	520	100.0%
Male	385	69.7%	282	54.2%
0-60	1,069	100.0%	1,056	100.0%
Male	729	68.2%	603	57.1%
0-90	1,431	100.0%	1,372	100.0%
Male	967	67.6%	793	57.8%
0-180	1,908	100.0%	1,897	100.0%
Male	1,310	68.7%	1,113	58.7%
0-365	2,264	100.0%	2,235	100.0%
Male	1,562	69.0%	1,319	59.0%
366+	137	100.0%	132	100.0%
Male	105	76.6%	81	61.4%

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 3c. Summary of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Age Group

Switch:	ACE Inhibitors to Sacubitril/Valsartan		ACE Inhibitors to Sacubitril/Valsartan	
Switch Pattern:	ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors		ACE Inhibitors to Sacubitril/Valsartan to ARBs	
Number of Patients	6,622		6,622	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	6,628	100.0%	6,628	100.0%
18-44 (years)	409	6.2%	409	6.2%
45-54 (years)	623	9.4%	623	9.4%
55-64 (years)	1,060	16.0%	1,060	16.0%
65+ (years)	4,536	68.4%	4,536	68.4%
0-30	1,182	100.0%	1,182	100.0%
18-44 (years)	88	7.4%	88	7.4%
45-54 (years)	128	10.8%	128	10.8%
55-64 (years)	198	16.8%	198	16.8%
65+ (years)	768	65.0%	768	65.0%
0-60	2,301	100.0%	2,301	100.0%
18-44 (years)	166	7.2%	166	7.2%
45-54 (years)	251	10.9%	251	10.9%
55-64 (years)	392	17.0%	392	17.0%
65+ (years)	1,492	64.8%	1,492	64.8%
0-90	3,011	100.0%	3,011	100.0%
18-44 (years)	217	7.2%	217	7.2%
45-54 (years)	315	10.5%	315	10.5%
55-64 (years)	508	16.9%	508	16.9%
65+ (years)	1,971	65.5%	1,971	65.5%
0-180	4,217	100.0%	4,217	100.0%
18-44 (years)	294	7.0%	294	7.0%
45-54 (years)	424	10.1%	424	10.1%
55-64 (years)	702	16.6%	702	16.6%
65+ (years)	2,797	66.3%	2,797	66.3%
0-365	5,353	100.0%	5,353	100.0%
18-44 (years)	359	6.7%	359	6.7%
45-54 (years)	529	9.9%	529	9.9%
55-64 (years)	891	16.6%	891	16.6%
65+ (years)	3,574	66.8%	3,574	66.8%
366+	1,275	100.0%	1,275	100.0%
18-44 (years)	50	3.9%	50	3.9%
45-54 (years)	94	7.4%	94	7.4%
55-64 (years)	169	13.3%	169	13.3%
65+ (years)	962	75.5%	962	75.5%

Table 3c. Summary of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Age Group

Switch:	ARBs to Sacubitril/Valsartan		ARBs to Sacubitril/Valsartan	
Switch Pattern:	ARBs to Sacubitril/Valsartan to ARBs		ARBs to Sacubitril/Valsartan to ACE Inhibitors	
Number of Patients	3,361		3,361	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	3,363	100.0%	3,363	100.0%
18-44 (years)	142	4.2%	142	4.2%
45-54 (years)	229	6.8%	229	6.8%
55-64 (years)	465	13.8%	465	13.8%
65+ (years)	2,527	75.1%	2,527	75.1%
0-30	636	100.0%	636	100.0%
18-44 (years)	38	6.0%	38	6.0%
45-54 (years)	49	7.7%	49	7.7%
55-64 (years)	94	14.8%	94	14.8%
65+ (years)	455	71.5%	455	71.5%
0-60	1,208	100.0%	1,208	100.0%
18-44 (years)	75	6.2%	75	6.2%
45-54 (years)	99	8.2%	99	8.2%
55-64 (years)	169	14.0%	169	14.0%
65+ (years)	865	71.6%	865	71.6%
0-90	1,584	100.0%	1,584	100.0%
18-44 (years)	91	5.7%	91	5.7%
45-54 (years)	122	7.7%	122	7.7%
55-64 (years)	221	14.0%	221	14.0%
65+ (years)	1,150	72.6%	1,150	72.6%
0-180	2,205	100.0%	2,205	100.0%
18-44 (years)	112	5.1%	112	5.1%
45-54 (years)	167	7.6%	167	7.6%
55-64 (years)	323	14.6%	323	14.6%
65+ (years)	1,603	72.7%	1,603	72.7%
0-365	2,814	100.0%	2,814	100.0%
18-44 (years)	131	4.7%	131	4.7%
45-54 (years)	205	7.3%	205	7.3%
55-64 (years)	*****	*****	*****	*****
65+ (years)	2,073	73.7%	2,073	73.7%
366+	549	100.0%	549	100.0%
18-44 (years)	11	2.0%	11	2.0%
45-54 (years)	24	4.4%	24	4.4%
55-64 (years)	60	10.9%	60	10.9%
65+ (years)	454	82.7%	454	82.7%

Table 3c. Summary of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Age Group

Switch:	Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors		Sacubitril/Valsartan without Same-Day ARBs to ARBs	
Switch Pattern:	**Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors**		**Sacubitril/Valsartan without Same-Day ARBs to ARBs**	
Number of Patients	594		779	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	595	100.0%	779	100.0%
18-44 (years)	28	4.7%	21	2.7%
45-54 (years)	36	6.1%	48	6.2%
55-64 (years)	86	14.5%	83	10.7%
65+ (years)	445	74.8%	627	80.5%
0-30	229	100.0%	259	100.0%
18-44 (years)	16	7.0%	*****	*****
45-54 (years)	15	6.6%	*****	*****
55-64 (years)	37	16.2%	28	10.8%
65+ (years)	161	70.3%	206	79.5%
0-60	359	100.0%	426	100.0%
18-44 (years)	22	6.1%	12	2.8%
45-54 (years)	24	6.7%	30	7.0%
55-64 (years)	57	15.9%	47	11.0%
65+ (years)	256	71.3%	337	79.1%
0-90	*****	*****	*****	*****
18-44 (years)	23	5.4%	15	2.9%
45-54 (years)	30	7.0%	34	6.5%
55-64 (years)	66	15.5%	58	11.1%
65+ (years)	307	72.1%	414	79.5%
0-180	524	100.0%	640	100.0%
18-44 (years)	27	5.2%	17	2.7%
45-54 (years)	*****	*****	*****	*****
55-64 (years)	76	14.5%	74	11.6%
65+ (years)	385	73.5%	509	79.5%
0-365	566	100.0%	739	100.0%
18-44 (years)	*****	*****	21	2.8%
45-54 (years)	36	6.4%	*****	*****
55-64 (years)	*****	*****	*****	*****
65+ (years)	419	74.0%	593	80.2%
366+	29	100.0%	40	100.0%
18-44 (years)	*****	*****	0	0.0%
45-54 (years)	0	0.0%	*****	*****
55-64 (years)	*****	*****	*****	*****
65+ (years)	26	89.7%	*****	*****

Table 3c. Summary of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Age Group

Switch:	Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors		Sacubitril/Valsartan with Prior ARB Use to ARBs	
Switch Pattern:	**Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors**		**Sacubitril/Valsartan with Prior ARB Use to ARBs**	
Number of Patients	2,398		2,361	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	2,401	100.0%	2,367	100.0%
18-44 (years)	103	4.3%	60	2.5%
45-54 (years)	183	7.6%	139	5.9%
55-64 (years)	438	18.2%	294	12.4%
65+ (years)	1,677	69.8%	1,874	79.2%
0-30	552	100.0%	520	100.0%
18-44 (years)	25	4.5%	23	4.4%
45-54 (years)	57	10.3%	35	6.7%
55-64 (years)	109	19.7%	75	14.4%
65+ (years)	361	65.4%	387	74.4%
0-60	1,069	100.0%	1,056	100.0%
18-44 (years)	56	5.2%	36	3.4%
45-54 (years)	99	9.3%	66	6.3%
55-64 (years)	210	19.6%	141	13.4%
65+ (years)	704	65.9%	813	77.0%
0-90	1,431	100.0%	1,372	100.0%
18-44 (years)	66	4.6%	43	3.1%
45-54 (years)	123	8.6%	88	6.4%
55-64 (years)	276	19.3%	182	13.3%
65+ (years)	966	67.5%	1,059	77.2%
0-180	1,908	100.0%	1,897	100.0%
18-44 (years)	89	4.7%	50	2.6%
45-54 (years)	154	8.1%	118	6.2%
55-64 (years)	350	18.3%	242	12.8%
65+ (years)	1,315	68.9%	1,487	78.4%
0-365	2,264	100.0%	2,235	100.0%
18-44 (years)	*****	*****	*****	*****
45-54 (years)	*****	*****	*****	*****
55-64 (years)	406	17.9%	282	12.6%
65+ (years)	1,588	70.1%	1,767	79.1%
366+	137	100.0%	132	100.0%
18-44 (years)	*****	*****	*****	*****
45-54 (years)	*****	*****	*****	*****
55-64 (years)	32	23.4%	12	9.1%
65+ (years)	89	65.0%	107	81.1%

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 3d. Summary of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

Switch:	ACE Inhibitors to Sacubitril/Valsartan		ACE Inhibitors to Sacubitril/Valsartan	
Switch Pattern:	ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors		ACE Inhibitors to Sacubitril/Valsartan to ARBs	
Number of Patients	6,622		6,622	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	6,628	100.0%	6,628	100.0%
American Indian or Alaska Native	16	0.2%	16	0.2%
Asian	96	1.4%	96	1.4%
Black or African American	700	10.6%	700	10.6%
Native Hawaiian or Other Pacific Islander	11	0.2%	11	0.2%
White	4,521	68.2%	4,521	68.2%
Unknown	1,284	19.4%	1,284	19.4%
0-30	1,182	100.0%	1,182	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	146	12.4%	146	12.4%
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	768	65.0%	768	65.0%
Unknown	244	20.6%	244	20.6%
0-60	2,301	100.0%	2,301	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	264	11.5%	264	11.5%
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	1,479	64.3%	1,479	64.3%
Unknown	508	22.1%	508	22.1%
0-90	3,011	100.0%	3,011	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	51	1.7%	51	1.7%
Black or African American	356	11.8%	356	11.8%
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	1,936	64.3%	1,936	64.3%
Unknown	657	21.8%	657	21.8%

Table 3d. Summary of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

Days from Index	Episodes	Percent	Episodes	Percent
0-180	4,217	100.0%	4,217	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	69	1.6%	69	1.6%
Black or African American	486	11.5%	486	11.5%
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	2,747	65.1%	2,747	65.1%
Unknown	900	21.3%	900	21.3%
0-365	5,353	100.0%	5,353	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	590	11.0%	590	11.0%
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	3,541	66.1%	3,541	66.1%
Unknown	1,119	20.9%	1,119	20.9%
366+	1,275	100.0%	1,275	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	110	8.6%	110	8.6%
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	980	76.9%	980	76.9%
Unknown	165	12.9%	165	12.9%
Switch:	**ARBs to Sacubitril/Valsartan**		**ARBs to Sacubitril/Valsartan**	
Switch Pattern:	**ARBs to Sacubitril/Valsartan to ARBs**		**ARBs to Sacubitril/Valsartan to ACE Inhibitors**	
Number of Patients	3,361		3,361	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	3,363	100.0%	3,363	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	82	2.4%	82	2.4%
Black or African American	461	13.7%	461	13.7%
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	2,217	65.9%	2,217	65.9%
Unknown	588	17.5%	588	17.5%

Table 3d. Summary of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

Days from Index	Episodes	Percent	Episodes	Percent
0-30	636	100.0%	636	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	91	14.3%	91	14.3%
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%
White	389	61.2%	389	61.2%
Unknown	135	21.2%	135	21.2%
0-60	1,208	100.0%	1,208	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	174	14.4%	174	14.4%
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	749	62.0%	749	62.0%
Unknown	246	20.4%	246	20.4%
0-90	1,584	100.0%	1,584	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	239	15.1%	239	15.1%
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	987	62.3%	987	62.3%
Unknown	311	19.6%	311	19.6%
0-180	2,205	100.0%	2,205	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	331	15.0%	331	15.0%
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	1,384	62.8%	1,384	62.8%
Unknown	429	19.5%	429	19.5%

Table 3d. Summary of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

Days from Index	Episodes	Percent	Episodes	Percent
0-365	2,814	100.0%	2,814	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	63	2.2%	63	2.2%
Black or African American	408	14.5%	408	14.5%
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	1,808	64.3%	1,808	64.3%
Unknown	521	18.5%	521	18.5%
366+	549	100.0%	549	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	53	9.7%	53	9.7%
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	409	74.5%	409	74.5%
Unknown	67	12.2%	67	12.2%

Switch:	Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors		Sacubitril/Valsartan without Same-Day ARBs to ARBs	
Switch Pattern:	**Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors**		**Sacubitril/Valsartan without Same-Day ARBs to ARBs**	
Number of Patients	594		779	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	595	100.0%	779	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	62	10.4%	84	10.8%
Native Hawaiian or Other Pacific Islander	*****	*****	0	0.0%
White	428	71.9%	569	73.0%
Unknown	92	15.5%	108	13.9%
0-30	229	100.0%	259	100.0%
American Indian or Alaska Native	*****	*****	0	0.0%
Asian	*****	*****	*****	*****
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%
White	165	72.1%	181	69.9%
Unknown	38	16.6%	45	17.4%

Table 3d. Summary of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

Days from Index	Episodes	Percent	Episodes	Percent
0-60	359	100.0%	426	100.0%
American Indian or Alaska Native	*****	*****	0	0.0%
Asian	*****	*****	*****	*****
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%
White	263	73.3%	303	71.1%
Unknown	52	14.5%	71	16.7%
0-90	426	100.0%	521	100.0%
American Indian or Alaska Native	*****	*****	0	0.0%
Asian	*****	*****	*****	*****
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%
White	311	73.0%	375	72.0%
Unknown	62	14.6%	81	15.5%
0-180	524	100.0%	640	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	57	10.9%	74	11.6%
Native Hawaiian or Other Pacific Islander	*****	*****	0	0.0%
White	373	71.2%	460	71.9%
Unknown	81	15.5%	94	14.7%
0-365	566	100.0%	739	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	*****	*****	81	11.0%
Native Hawaiian or Other Pacific Islander	*****	*****	0	0.0%
White	401	70.8%	539	72.9%
Unknown	*****	*****	*****	*****

Table 3d. Summary of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

Days from Index	Episodes	Percent	Episodes	Percent
366+	29	100.0%	40	100.0%
American Indian or Alaska Native	0	0.0%	0	0.0%
Asian	0	0.0%	*****	*****
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%
White	*****	*****	30	75.0%
Unknown	*****	*****	*****	*****
Switch:	**Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors**		**Sacubitril/Valsartan with Prior ARB Use to ARBs**	
Switch Pattern:	**Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors**		**Sacubitril/Valsartan with Prior ARB Use to ARBs**	
Number of Patients	2,398		2,361	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	2,401	100.0%	2,367	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	30	1.2%	69	2.9%
Black or African American	376	15.7%	355	15.0%
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	1,599	66.6%	1,581	66.8%
Unknown	377	15.7%	350	14.8%
0-30	552	100.0%	520	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	119	21.6%	116	22.3%
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%
White	325	58.9%	318	61.2%
Unknown	*****	*****	75	14.4%
0-60	1,069	100.0%	1,056	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	218	20.4%	187	17.7%
Native Hawaiian or Other Pacific Islander	0	0.0%	*****	*****
White	655	61.3%	683	64.7%
Unknown	172	16.1%	156	14.8%

Table 3d. Summary of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

Days from Index	Episodes	Percent	Episodes	Percent
0-90	1,431	100.0%	1,372	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	18	1.3%	*****	*****
Black or African American	272	19.0%	244	17.8%
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	901	63.0%	889	64.8%
Unknown	226	15.8%	197	14.4%
0-180	1,908	100.0%	1,897	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	24	1.3%	52	2.7%
Black or African American	331	17.3%	305	16.1%
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	1,228	64.4%	1,260	66.4%
Unknown	309	16.2%	272	14.3%
0-365	2,264	100.0%	2,235	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	1,504	66.4%	1,492	66.8%
Unknown	351	15.5%	325	14.5%
366+	137	100.0%	132	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****
White	95	69.3%	89	67.4%
Unknown	26	19.0%	25	18.9%

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 4a. Summary of Time to Second Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019

Switch:	Sacubitril/Valsartan to ACE Inhibitors		Sacubitril/Valsartan to ARBs	
Switch Pattern:	ACE Inhibitors to Sacubitril/Valsartan to ACE		ACE Inhibitors to Sacubitril/Valsartan to	
Number of Patients	250		162	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	250	100.0%	162	100.0%
0-30	35	14.0%	52	32.1%
0-60	105	42.0%	73	45.1%
0-90	140	56.0%	97	59.9%
0-180	192	76.8%	126	77.8%
0-365	235	94.0%	149	92.0%
366+	15	6.0%	13	8.0%
Switch:	**Sacubitril/Valsartan to ARBs**		**Sacubitril/Valsartan to ACE Inhibitors**	
Switch Pattern:	**ARBs to Sacubitril/Valsartan to ARBs**		**ARBs to Sacubitril/Valsartan to ACE**	
Number of Patients	167		30	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	167	100.0%	30	100.0%
0-30	28	16.8%	*****	*****
0-60	71	42.5%	14	46.7%
0-90	98	58.7%	19	63.3%
0-180	142	85.0%	27	90.0%
0-365	*****	*****	*****	*****
366+	*****	*****	*****	*****

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 4b. Summary of Time to Second Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Sex

Switch:	Sacubitril/Valsartan to ACE Inhibitors		Sacubitril/Valsartan to ARBs	
Switch Pattern:	**ACE Inhibitors to Sacubitril/Valsartan to ACE**		**ACE Inhibitors to Sacubitril/Valsartan to**	
Number of Patients	250		162	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	250	100.00%	162	100.0%
Male	175	70.0%	101	62.3%
0-30	35	100.0%	52	100.0%
Male	*****	*****	33	63.5%
0-60	105	100.0%	73	100.0%
Male	76	72.4%	45	61.6%
0-90	140	100.0%	97	100.0%
Male	92	65.7%	59	60.8%
0-180	192	100.0%	126	100.0%
Male	133	69.3%	78	61.9%
0-365	235	100.0%	149	100.0%
Male	164	69.8%	*****	*****
366+	15	100.0%	13	100.0%
Male	11	73.3%	*****	*****
Switch:	**Sacubitril/Valsartan to ARBs**		**Sacubitril/Valsartan to ACE Inhibitors**	
Switch Pattern:	**ARBs to Sacubitril/Valsartan to ARBs**		**ARBs to Sacubitril/Valsartan to ACE**	
Number of Patients	167		30	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	167	100.0%	30	100.0%
Male	106	63.5%	19	63.3%
0-30	28	100.0%	*****	*****
Male	15	53.6%	*****	*****
0-60	71	100.0%	14	100.0%
Male	44	62.0%	*****	*****
0-90	98	100.0%	19	100.0%
Male	64	65.3%	*****	*****
0-180	142	100.0%	27	100.0%
Male	90	63.4%	16	59.3%
0-365	*****	*****	*****	*****
Male	*****	*****	*****	*****
366+	*****	*****	*****	*****
Male	*****	*****	*****	*****

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 4c. Summary of Time to Second Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Age Group

Switch:	Sacubitril/Valsartan to ACE Inhibitors		Sacubitril/Valsartan to ARBs	
Switch Pattern:	ACE Inhibitors to Sacubitril/Valsartan to ACE		ACE Inhibitors to Sacubitril/Valsartan to	
Number of Patients	250		162	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	250	100.0%	162	100.0%
18-44 (years)	23	9.2%	12	7.4%
45-54 (years)	21	8.4%	11	6.8%
55-64 (years)	50	20.0%	25	15.4%
65+ (years)	156	62.4%	114	70.4%
0-30	35	100.0%	52	100.0%
18-44 (years)	*****	*****	*****	*****
45-54 (years)	*****	*****	*****	*****
55-64 (years)	*****	*****	*****	*****
65+ (years)	18	51.4%	36	69.2%
0-60	105	100.0%	73	100.0%
18-44 (years)	11	10.5%	*****	*****
45-54 (years)	12	11.4%	*****	*****
55-64 (years)	24	22.9%	*****	*****
65+ (years)	58	55.2%	52	71.2%
0-90	140	100.0%	97	100.0%
18-44 (years)	13	9.3%	*****	*****
45-54 (years)	14	10.0%	*****	*****
55-64 (years)	32	22.9%	15	15.5%
65+ (years)	81	57.9%	70	72.2%
0-180	192	100.0%	126	100.0%
18-44 (years)	18	9.4%	*****	*****
45-54 (years)	18	9.4%	*****	*****
55-64 (years)	40	20.8%	20	15.9%
65+ (years)	116	60.4%	89	70.6%
0-365	235	100.0%	149	100.0%
18-44 (years)	*****	*****	*****	*****
45-54 (years)	*****	*****	11	7.4%
55-64 (years)	*****	*****	25	16.8%
65+ (years)	*****	*****	*****	*****
366+	15	100.0%	13	100.0%
18-44 (years)	*****	*****	*****	*****
45-54 (years)	*****	*****	0	0.0%
55-64 (years)	*****	*****	0	0.0%
65+ (years)	*****	*****	*****	*****

Table 4c. Summary of Time to Second Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Age Group

Switch:	Sacubitril/Valsartan to ARBs		Sacubitril/Valsartan to ACE Inhibitors	
Switch Pattern:	**ARBs to Sacubitril/Valsartan to ARBs**		**ARBs to Sacubitril/Valsartan to ACE**	
Number of Patients	167		30	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	167	100.0%	30	100.0%
18-44 (years)	*****	*****	*****	*****
45-54 (years)	*****	*****	*****	*****
55-64 (years)	27	16.2%	*****	*****
65+ (years)	122	73.1%	17	56.7%
0-30	28	100.0%	*****	*****
18-44 (years)	*****	*****	0	0.0%
45-54 (years)	*****	*****	0	0.0%
55-64 (years)	*****	*****	*****	*****
65+ (years)	*****	*****	*****	*****
0-60	71	100.0%	14	100.0%
18-44 (years)	*****	*****	0	0.0%
45-54 (years)	*****	*****	*****	*****
55-64 (years)	*****	*****	*****	*****
65+ (years)	50	70.4%	*****	*****
0-90	98	100.0%	19	100.0%
18-44 (years)	*****	*****	0	0.0%
45-54 (years)	*****	*****	*****	*****
55-64 (years)	18	18.4%	*****	*****
65+ (years)	67	68.4%	*****	*****
0-180	142	100.0%	27	100.0%
18-44 (years)	*****	*****	*****	*****
45-54 (years)	*****	*****	*****	*****
55-64 (years)	23	16.2%	*****	*****
65+ (years)	103	72.5%	16	59.3%
0-365	*****	*****	*****	*****
18-44 (years)	*****	*****	*****	*****
45-54 (years)	*****	*****	*****	*****
55-64 (years)	27	16.9%	*****	*****
65+ (years)	*****	*****	*****	*****
366+	*****	*****	*****	*****
18-44 (years)	*****	*****	0	0.0%
45-54 (years)	*****	*****	0	0.0%
55-64 (years)	0	0.0%	0	0.0%
65+ (years)	*****	*****	*****	*****

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 4d. Summary of Time to Second Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

Switch:	Sacubitril/Valsartan to ACE Inhibitors		Sacubitril/Valsartan to ARBs	
Switch Pattern:	**ACE Inhibitors to Sacubitril/Valsartan to ACE**		**ACE Inhibitors to Sacubitril/Valsartan to**	
Number of Patients	250		162	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	250	100.0%	162	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	*****	*****
White	150	60.0%	99	61.1%
Unknown	61	24.4%	40	24.7%
0-30	35	100.0%	52	100.0%
American Indian or Alaska Native	0	0.0%	*****	*****
Asian	*****	*****	*****	*****
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%
White	16	45.7%	27	51.9%
Unknown	*****	*****	13	25.0%
0-60	105	100.0%	73	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	*****	*****
White	58	55.2%	39	53.4%
Unknown	25	23.8%	19	26.0%
0-90	140	100.0%	97	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	*****	*****
White	80	57.1%	56	57.7%
Unknown	33	23.6%	23	23.7%

Table 4d. Summary of Time to Second Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

Days from Index	Episodes	Percent	Episodes	Percent
0-180	192	100.0%	126	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	*****	*****
White	112	58.3%	77	61.1%
Unknown	48	25.0%	29	23.0%
0-365	235	100.0%	149	100.0%
American Indian or Alaska Native	*****	*****	*****	*****
Asian	*****	*****	*****	*****
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	*****	*****
White	*****	*****	*****	*****
Unknown	*****	*****	*****	*****
366+	15	100.0%	13	100.0%
American Indian or Alaska Native	0	0.0%	0	0.0%
Asian	0	0.0%	0	0.0%
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%
White	*****	*****	*****	*****
Unknown	*****	*****	*****	*****
Switch:	**Sacubitril/Valsartan to ARBs**		**Sacubitril/Valsartan to ACE Inhibitors**	
Switch Pattern:	**ARBs to Sacubitril/Valsartan to ARBs**		**ARBs to Sacubitril/Valsartan to ACE**	
Number of Patients	167		30	
Days from Index	**Episodes**	**Percent**	**Episodes**	**Percent**
Overall	167	100.0%	30	100.0%
American Indian or Alaska Native	0	0.0%	0	0.0%
Asian	*****	*****	0	0.0%
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%
White	109	65.3%	19	63.3%
Unknown	30	18.0%	*****	*****

Table 4d. Summary of Time to Second Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

Days from Index	Episodes	Percent	Episodes	Percent
0-30	28	100.0%	*****	*****
American Indian or Alaska Native	0	0.0%	0	0.0%
Asian	*****	*****	0	0.0%
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%
White	16	57.1%	*****	*****
Unknown	*****	*****	0	0.0%
0-60	71	100.0%	14	100.0%
American Indian or Alaska Native	0	0.0%	0	0.0%
Asian	*****	*****	0	0.0%
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%
White	43	60.6%	*****	*****
Unknown	15	21.1%	*****	*****
0-90	98	100.0%	19	100.0%
American Indian or Alaska Native	0	0.0%	0	0.0%
Asian	*****	*****	0	0.0%
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%
White	59	60.2%	*****	*****
Unknown	20	20.4%	*****	*****
0-180	142	100.0%	27	100.0%
American Indian or Alaska Native	0	0.0%	0	0.0%
Asian	*****	*****	0	0.0%
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%
White	89	62.7%	*****	*****
Unknown	27	19.0%	*****	*****
0-365	160	100.0%	29	100.0%
American Indian or Alaska Native	0	0.0%	0	0.0%
Asian	*****	*****	0	0.0%
Black or African American	*****	*****	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%
White	*****	*****	*****	*****
Unknown	30	18.8%	*****	*****

Table 4d. Summary of Time to Second Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

Days from Index	Episodes	Percent	Episodes	Percent
366+	*****	*****	*****	*****
American Indian or Alaska Native	0	0.0%	0	0.0%
Asian	*****	*****	0	0.0%
Black or African American	*****	*****	0	0.0%
Native Hawaiian or Other Pacific Islander	0	0.0%	0	0.0%
White	*****	*****	*****	*****
Unknown	0	0.0%	0	0.0%

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 5a. Descriptive Statistics of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019

						Percentile (days)									
Switch	Switch Pattern	Switch Episodes	Mean (days)	Standard Deviation (days)	Minimum (days)	1st	5th	10th	25th	50th	75th	90th	95th	99th	Maximum (days)
ACE Inhibitors to Sacubitril/Valsartan	ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors	6,628	207.43	243.61	1	4	11	19	40	106	285	558	742	1,090	1527
ACE Inhibitors to Sacubitril/Valsartan	ACE Inhibitors to Sacubitril/Valsartan to ARBs	6,628	207.43	243.61	1	4	11	19	40	106	285	558	742	1,090	1527
ARBs to Sacubitril/Valsartan	ARBs to Sacubitril/Valsartan to ARBs	3,363	194.59	233.52	1	3	10	18	40	100	264	516	713	1,095	1517
ARBs to Sacubitril/Valsartan	ARBs to Sacubitril/Valsartan to ACE Inhibitors	3,363	194.59	233.52	1	3	10	18	40	100	264	516	713	1,095	1517
Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors	Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors	595	86.69	123.95	1	2	7	11	20	42	99	213	358	673	1151
Sacubitril/Valsartan without Same-Day ARBs to ARBs	Sacubitril/Valsartan without Same-Day ARBs to ARBs	779	103.31	137.95	1	1	6	9	23	50	134	266	372	657	1264

Table 5a. Descriptive Statistics of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019

						Percentile (days)									
Switch	Switch Pattern	Switch Episodes	Mean (days)	Standard Deviation (days)	Minimum (days)	1st	5th	10th	25th	50th	75th	90th	95th	99th	Maximum (days)
Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors	Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors	2,401	116.72	133.46	1	3	10	16	33	71	147	276	386	651	1057
Sacubitril/Valsartan with Prior ARB Use to ARBs	Sacubitril/Valsartan with Prior ARB Use to ARBs	2,367	115.86	128.52	1	2	10	17	34	71	152	272	378	607	1085

Table 5b. Descriptive Statistics of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Sex

							Percentile (days)									
Switch	Switch Pattern	Sex	Switch Episodes	Mean (days)	Standard Deviation (days)	Minimum (days)	1st	5th	10th	25th	50th	75th	90th	95th	99th	Maximum (days)
ACE Inhibitors to Sacubitril/ Valsartan	ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors	Female	*****	190.74	233.08	1	4	11	18	38	95.5	243	515	721	1,052	1458
		Male	4,374	216.03	248.46	1	4	12	20	41	114	304	577	748	1,105	1527
ACE Inhibitors to Sacubitril/ Valsartan	ACE Inhibitors to Sacubitril/Valsartan to ARBs	Female	*****	190.74	233.08	1	4	11	18	38	95.5	243	515	721	1,052	1458
		Male	4,374	216.03	248.46	1	4	12	20	41	114	304	577	748	1,105	1527
ARBs to Sacubitril/ Valsartan	ARBs to Sacubitril/Valsartan to ARBs	Female	*****	194.83	222.97	1	3	11	18	41	112	271	489	673	1,016	1439
		Male	2,034	194.43	240.22	1	3	9	17	39	93.5	260	532	732	1,101	1517
ARBs to Sacubitril/ Valsartan	ARBs to Sacubitril/Valsartan to ACE Inhibitors	Female	*****	194.83	222.97	1	3	11	18	41	112	271	489	673	1,016	1439
		Male	2,034	194.43	240.22	1	3	9	17	39	93.5	260	532	732	1,101	1517
Sacubitril/ Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors	Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors	Female	*****	87.05	124.74	1	2	7	9	16	38	99	221	334	626	809
		Male	389	86.51	123.69	1	2	6	12	21	43	97	201	358	673	1151
Sacubitril/ Valsartan without Same-Day ARBs to ARBs	Sacubitril/Valsartan without Same-Day ARBs to ARBs	Female	*****	108.39	151.41	1	2	6	8	22	49.5	130	297	380	691	1264
		Male	457	99.72	127.66	1	1	6	11	25	50	134	241	356	616	1016

Table 5b. Descriptive Statistics of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Sex

							Percentile (days)									
Switch	Switch Pattern	Sex	Switch Episodes	Mean (days)	Standard Deviation (days)	Minimum (days)	1st	5th	10th	25th	50th	75th	90th	95th	99th	Maximum (days)
Sacubitril/ Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors	Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors	Female	*****	109.87	131.71	1	4	11	16	32	66	131	250	349	668	931
		Male	1,667	119.74	134.16	1	2	10	16	33	72	155	287	403	648	1057
Sacubitril/ Valsartan with Prior ARB Use to ARBs	Sacubitril/Valsartan with Prior ARB Use to ARBs	Female	*****	111.64	127.67	1	2	10	15	31	67	146	257	373	566	1085
		Male	1,400	118.78	129.08	1	3	10	18	35	75	155	282	388	622	1020

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 5c. Descriptive Statistics of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Age Group

							Percentile (days)									
Switch	Switch Pattern	Age Group (years)	Switch Episodes	Mean (days)	Standard Deviation (days)	Minimum (days)	1st	5th	10th	25th	50th	75th	90th	95th	99th	Maximum (days)
ACE Inhibitors to Sacubitril/ Valsartan	ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors	18-44	409	162.95	210.85	1	3	12	17	35	85	202	416	609	1,045	1343
		45-54	623	174.64	211.28	1	3	8	16	35	87	230	482	637	970	1092
		55-64	1,060	191.03	230.67	1	4	12	20	38	99	247	500	718	1,052	1333
		65+	4,536	219.78	252.26	1	4	12	19	42	115	312	593	758	1,111	1527
ACE Inhibitors to Sacubitril/ Valsartan	ACE Inhibitors to Sacubitril/Valsartan to ARBs	18-44	409	162.95	210.85	1	3	12	17	35	85	202	416	609	1,045	1343
		45-54	623	174.64	211.28	1	3	8	16	35	87	230	482	637	970	1092
		55-64	1,060	191.03	230.67	1	4	12	20	38	99	247	500	718	1,052	1333
		65+	4,536	219.78	252.26	1	4	12	19	42	115	312	593	758	1,111	1527
ARBs to Sacubitril/ Valsartan	ARBs to Sacubitril/Valsartan to ARBs	18-44	142	127.10	176.95	1	1	8	14	29	54.5	146	338	422	974	1113
		45-54	229	161.12	214.03	1	3	10	19	35	82	202	390	574	1,124	1294
		55-64	465	164.85	191.42	1	3	9	16	37	95	211	419	554	866	1111
		65+	2,527	206.88	243.51	1	3	10	18	42	107	281	540	736	1,105	1517
ARBs to Sacubitril/ Valsartan	ARBs to Sacubitril/Valsartan to ACE Inhibitors	18-44	142	127.10	176.95	1	1	8	14	29	54.5	146	338	422	974	1113
		45-54	229	161.12	214.03	1	3	10	19	35	82	202	390	574	1,124	1294
		55-64	465	164.85	191.42	1	3	9	16	37	95	211	419	554	866	1111
		65+	2,527	206.88	243.51	1	3	10	18	42	107	281	540	736	1,105	1517
Sacubitril/ Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors	Sacubitril/Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors	18-44	28	55.71	85.00	2	2	3	4	13	27.5	56	141	179	421	421
		45-54	36	52.56	44.85	4	4	7	11	20	39	70	146	160	170	170
		55-64	86	77.95	116.65	1	1	4	10	22	34.5	76	221	277	770	770
		65+	445	93.09	130.92	1	3	7	11	21	44	103	228	383	673	1151
Sacubitril/ Valsartan without Same-Day ARBs to ARBs	Sacubitril/Valsartan without Same-Day ARBs to ARBs	18-44	21	82.48	91.06	1	1	3	3	25	39	99	232	266	283	283
		45-54	48	102.00	143.43	5	5	8	12	24	47	107	283	372	727	727
		55-64	83	93.22	159.10	1	1	5	7	20	47	117	182	237	1,264	1264
		65+	627	105.44	135.99	1	2	6	9	23	52	137	283	375	656	1016

Table 5c. Descriptive Statistics of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Age Group

							Percentile (days)									
Switch	Switch Pattern	Age Group (years)	Switch Episodes	Mean (days)	Standard Deviation (days)	Minimum (days)	1st	5th	10th	25th	50th	75th	90th	95th	99th	Maximum (days)
Sacubitril/ Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors	Sacubitril/Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors	18-44	103	97.14	114.26	1	2	4	11	32	57	123	224	384	501	593
		45-54	183	102.91	132.16	2	3	7	12	26	55	124	260	395	667	668
		55-64	438	117.61	144.71	1	3	9	14	31	64.5	142	302	446	663	931
		65+	1,677	119.20	131.55	1	3	12	18	35	75	151	277	376	657	1057
Sacubitril/ Valsartan with Prior ARB Use to ARBs	Sacubitril/Valsartan with Prior ARB Use to ARBs	18-44	60	107.92	154.80	5	5	8	13	23	39.5	115	375	479	692	692
		45-54	139	99.49	108.15	1	2	12	16	30	71	130	214	366	453	736
		55-64	294	107.30	126.07	1	2	6	12	30	67	145	247	354	615	1020
		65+	1,874	118.67	129.32	1	2	10	18	35	74	156	279	383	607	1085

Table 5d. Descriptive Statistics of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

							Percentile (days)									
Switch	Switch Pattern	Race	Switch Episodes	Mean (days)	Standard Deviation (days)	Minimum (days)	1st	5th	10th	25th	50th	75th	90th	95th	99th	Maximum (days)
ACE Inhibitors to Sacubitril/ Valsartan	ACE Inhibitors to Sacubitril/ Valsartan to ACE Inhibitors	American Indian or Alaska Native	16	214.00	275.94	12	12	12	13	52	105	265	536	1,094	1,094	1094
		Asian	96	167.47	210.32	3	3	6	14	34	87.5	207	482	644	1,039	1039
		Black or African American	700	178.81	220.90	1	4	9	17	37	88.5	216	499	658	1,003	1211
		Native Hawaiian or Other Pacific Islander	11	275.64	228.52	18	18	18	29	90	196	535	609	647	647	647
		White	4,521	223.66	255.00	1	4	12	19	42	119	320	606	772	1,114	1527
		Unknown	1,284	168.20	207.89	1	3	12	20	37	87	212	423	614	1,015	1410
ACE Inhibitors to Sacubitril/ Valsartan	ACE Inhibitors to Sacubitril/ Valsartan to ARBs	American Indian or Alaska Native	16	214.00	275.94	12	12	12	13	52	105	265	536	1,094	1,094	1094
		Asian	96	167.47	210.32	3	3	6	14	34	87.5	207	482	644	1,039	1039
		Black or African American	700	178.81	220.90	1	4	9	17	37	88.5	216	499	658	1,003	1211
		Native Hawaiian or Other Pacific Islander	11	275.64	228.52	18	18	18	29	90	196	535	609	647	647	647
		White	4,521	223.66	255.00	1	4	12	19	42	119	320	606	772	1,114	1527
		Unknown	1,284	168.20	207.89	1	3	12	20	37	87	212	423	614	1,015	1410
ARBs to Sacubitril/ Valsartan	ARBs to Sacubitril/ Valsartan to ARBs	American Indian or Alaska Native	*****	158.00	191.88	7	7	7	18	24	96	233	286	682	682	682
		Asian	82	218.41	262.39	5	5	13	20	34	107	309	672	791	1,105	1105
		Black or African American	461	162.94	199.50	1	2	9	16	37	86	213	405	589	983	1111
		Native Hawaiian or Other Pacific Islander	*****	150.33	162.89	37	37	37	37	37	77	337	337	337	337	337
		White	2,217	208.58	241.57	1	3	11	19	43	111.0	289	537	735	1,101	1517
		Unknown	588	164.27	219.09	1	3	8	15	34	82	199	421	661	1,124	1423

Table 5d. Descriptive Statistics of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

							Percentile (days)									
Switch	Switch Pattern	Race	Switch Episodes	Mean (days)	Standard Deviation (days)	Minimum (days)	1st	5th	10th	25th	50th	75th	90th	95th	99th	Maximum (days)
ARBs to Sacubitril/ Valsartan	ARBs to Sacubitril/ Valsartan to ACE Inhibitors	American Indian or Alaska Native	*****	158.00	191.88	7	7	7	18	24	96	233	286	682	682	682
		Asian	82	218.41	262.39	5	5	13	20	34	107	309	672	791	1,105	1105
		Black or African American	461	162.94	199.50	1	2	9	16	37	86	213	405	589	983	1111
		Native Hawaiian or Other Pacific Islander	*****	150.33	162.89	37	37	37	37	37	77	337	337	337	337	337
		White	2,217	208.58	241.57	1	3	11	19	43	111.0	289	537	735	1,101	1517
		Unknown	588	164.27	219.09	1	3	8	15	34	82	199	421	661	1,124	1423
Sacubitril/ Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors	Sacubitril/ Valsartan without Same-Day ACE Inhibitors to ACE Inhibitors	American Indian or Alaska Native	*****	92	106	17	17	17	17	17	92	167	167	167	167	167
		Asian	*****	48.60	28.70	9	9	9	9	23	60	65	82	95	95	95
		Black or African American	62	71.10	77.86	2	2	11	12	23	38	103	136	221	427	427
		Native Hawaiian or Other Pacific Islander	*****	170.00	-	170	170	170	170	170	170	170	170	170	170	170
		White	428	91.43	136.93	1	3	7	11	20	41	96	228	400	692	1151
		Unknown	92	78.28	86.38	1	1	3	8	17	45	104	189	276	421	421
Sacubitril/ Valsartan without Same-Day ARBs to ARBs	Sacubitril/ Valsartan without Same-Day ARBs to ARBs	American Indian or Alaska Native	*****	164	40	136	136	136	136	136	164	192	192	192	192	192
		Asian	*****	170.63	159.53	6	6	6	27	64	107.5	248	476	519	519	519
		Black or African American	84	90.61	138.47	1	1	6	7	18	46	101	204	297	838	838
		Native Hawaiian or Other Pacific Islander	0	-	-	-	-	-	-	-	-	-	-	-	-	-
		White	569	107.28	142.01	1	2	6	10	26	52	138	279	378	657	1264
		Unknown	108	81.16	106.78	1	1	3	6	17	36	92	237	346	376	576

Table 5d. Descriptive Statistics of Time to First Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

							Percentile (days)									
Switch	Switch Pattern	Race	Switch Episodes	Mean (days)	Standard Deviation (days)	Minimum (days)	1st	5th	10th	25th	50th	75th	90th	95th	99th	Maximum (days)
Sacubitril/ Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors	Sacubitril/ Valsartan with Prior ACE Inhibitor Use to ACE Inhibitors	American Indian or Alaska Native	*****	103.88	132	12	12	12	14	40	57	87	325	524	524	524
		Asian	30	106.63	103.23	14	14	18	23	38	72	150	237	361	441	441
		Black or African American	376	87.87	118.04	1	1	7	12	27	48	98	215	293	623	877
		Native Hawaiian or Other Pacific Islander	*****	82.00	19.80	68	68	68	68	68	82	96	96	96	96	96
		White	1,599	124.70	137.01	1	3	12	19	35	76	162	293	403	669	1057
		Unknown	377	113.21	131.61	1	2	7	13	30	68	141	274	424	609	992
Sacubitril/ Valsartan with Prior ARB Use to ARBs	Sacubitril/ Valsartan with Prior ARB Use to ARBs	American Indian or Alaska Native	*****	121	132	10	10	10	10	31	62	202	373	373	373	373
		Asian	69	126.12	130.11	6	6	15	28	37	85	169	245	270	736	736
		Black or African American	355	91.28	105.74	1	1	7	13	26	55.0	110	230	296	482	776
		Native Hawaiian or Other Pacific Islander	*****	205.50	174.86	58	58	58	58	83	156.5	329	451	451	451	451
		White	1,581	118.74	130.71	1	3	10	18	35	75	155	279	382	607	1085
		Unknown	350	124.62	136.18	1	2	11	17	35	72	165	314	399	631	837

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 6a. Descriptive Statistics of Time to Second Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019

						Percentile (days)									
Switch	Switch Pattern	Switch Episodes	Mean (days)	Standard Deviation (days)	Minimum (days)	1st	5th	10th	25th	50th	75th	90th	95th	99th	Maximum (days)
Sacubitril/Valsartan to ACE Inhibitors	ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors	250	123.72	131.50	9	10	19	28	39	75	169	266	408	651	931
Sacubitril/Valsartan to ARBs	ACE Inhibitors to Sacubitril/Valsartan to ARBs	162	119.48	139.62	0	0	0	7	24	72	162	310	412	613	717
Sacubitril/Valsartan to ARBs	ARBs to Sacubitril/Valsartan to ARBs	167	108.81	113.21	3	11	19	26	37	79.0	122	243	347	551	700
Sacubitril/Valsartan to ACE Inhibitors	ARBs to Sacubitril/Valsartan to ACE Inhibitors	30	98.40	106.24	7	7	7	19	39	65	130	203	232	554	554

Table 6b. Descriptive Statistics of Time to Second Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Sex

							Percentile (days)									
Switch	Switch Pattern	Sex	Switch Episodes	Mean (days)	Standard Deviation (days)	Minimum (days)	1st	5th	10th	25th	50th	75th	90th	95th	99th	Maximum (days)
Sacubitril/ Valsartan to ACE Inhibitors	ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors	Female	*****	119.11	143.66	10	10	19	29	40	72	144	250	425	931	931
		Male	175	125.69	126.31	9	10	19	26	37	77	177	281	408	651	790
Sacubitril/ Valsartan to ARBs	ACE Inhibitors to Sacubitril/Valsartan to ARBs	Female	*****	107.34	118	0	0	7	13	28	67	125	276	310	613	613
		Male	101	126.81	151.13	0	0	0	4	22	77	165	363	448	610	717
Sacubitril/ Valsartan to ARBs	ARBs to Sacubitril/ Valsartan to ARBs	Female	*****	108.10	112.25	20	20	21	26	36	84.0	113	243	334	551	551
		Male	106	109.22	114.29	3	11	14	28	40	77.5	126	232	347	543	700
Sacubitril/ Valsartan to ACE Inhibitors	ARBs to Sacubitril/ Valsartan to ACE Inhibitors	Female	*****	77.27	62.83	7	7	7	17	26	45	145	168	176	176	176
		Male	19	110.63	124.74	7	7	7	21	41	67	130	232	554	554	554

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 6c. Descriptive Statistics of Time to Second Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Age Group

							Percentile (days)									
Switch	Switch Pattern	Age Group (years)	Switch Episodes	Mean (days)	Standard Deviation (days)	Minimum (days)	1st	5th	10th	25th	50th	75th	90th	95th	99th	Maximum (days)
Sacubitril/ Valsartan to ACE Inhibitors	ACE Inhibitors to Sacubitril/Valsartan to ACE Inhibitors	18-44	23	116.09	104.27	10	10	13	30	51	66	169	224	288	445	445
		45-54	21	95.05	139.90	12	12	18	18	26	37.0	105	196	202	651	651
		55-64	50	116.54	152.70	13	13	19	30	36	62.0	145	240	425	931	931
		65+	156	131.00	127.07	9	10	21	30	43	86	182	298	408	584	790
Sacubitril/ Valsartan to ARBs	ACE Inhibitors to Sacubitril/Valsartan to ARBs	18-44	12	103.67	110	7	7	7	19	21	80	149	196	386	386	386
		45-54	11	135.55	123.45	3	3	3	43	48	78	283	329	349	349	349
		55-64	25	93.64	87	2	2	7	8	23	81	140	236	261	276	276
		65+	114	125.26	152.97	0	0	0	6	24	66	162	366	521	613	717
Sacubitril/ Valsartan to ARBs	ARBs to Sacubitril/Valsartan to ARBs	18-44	*****	106.43	167.73	28	28	28	28	31	46	76	485	485	485	485
		45-54	*****	87.64	50.53	28	28	28	30	51	78	111	163	187	187	187
		55-64	27	87.26	73.00	11	11	12	14	30	74	138	204	248	266	266
		65+	122	115.62	121.00	3	12	20	28	40	83	126	256	362	551	700
Sacubitril/ Valsartan to ACE Inhibitors	ARBs to Sacubitril/ Valsartan to ACE Inhibitors	18-44	*****	115.00		115	115	115	115	115	115	115	115	115	115	115
		45-54	*****	105.86	67.14	45	45	45	45	54	87	163	229	229	229	229
		55-64	*****	106.00	89.81	7	7	7	7	35	111	145	232	232	232	232
		65+	17	92.12	129.03	7	7	7	17	35	42	77	176	554	554	554

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 6d. Descriptive Statistics of Time to Second Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

							Percentile (days)									
Switch	Switch Pattern	Race	Switch Episodes	Mean (days)	Standard Deviation (days)	Minimum (days)	1st	5th	10th	25th	50th	75th	90th	95th	99th	Maximum (days)
Sacubitril/ Valsartan to ACE Inhibitors	ACE Inhibitors to Sacubitril/ Valsartan to ACE Inhibitors	American Indian or Alaska Native	*****	134	120	49	49	49	49	49	134	219	219	219	219	219
		Asian	*****	39.00	14	21	21	21	21	26	47	50	51	51	51	51
		Black or African	*****	102.47	103.01	18	18	21	30	36	60.0	118	238	345	445	445
		Native Hawaiian or Other Pacific Islander	0	-	-	-	-	-	-	-	-	-	-	-	-	-
		White	150	134.23	146.61	9	14	21	30	41	81	181	293	462	790	931
		Unknown	61	115.61	107.06	10	10	13	18	36	73	162	227	376	448	448
Sacubitril/ Valsartan to ARBs	ACE Inhibitors to Sacubitril/ Valsartan to ARBs	American Indian or Alaska Native	*****	21	-	21	21	21	21	21	21	21	21	21	21	21
		Asian	*****	49	42	19	19	19	19	19	49	78	78	78	78	78
		Black or African	*****	94	142	0	0	0	0	4	30	93	329	521	521	521
		Native Hawaiian or Other Pacific Islander	*****	48	18	35	35	35	35	35	48	60	60	60	60	60
		White	99	127.69	147	0	0	0	8	28	77	162	366	448	717	717
		Unknown	40	120.25	126.42	0	0	2	7	22	71	200	299	368	531	531
Sacubitril/ Valsartan to ARBs	ARBs to Sacubitril/ Valsartan to ARBs	American Indian or Alaska Native	0	-	-	-	-	-	-	-	-	-	-	-	-	-
		Asian	*****	161.00	194	23	23	23	23	83	94	122	551	551	551	551
		Black or African	*****	79.59	99.12	11	11	19	21	30	49	91	116	173	485	485
		Native Hawaiian or Other Pacific Islander	0	-	-	-	-	-	-	-	-	-	-	-	-	-
		White	109	118.37	118.93	3	12	20	28	39	84	155	256	362	543	700
		Unknown	30	85.07	70.39	12	12	14	25	37	61	105	179	266	301	301

Table 6d. Descriptive Statistics of Time to Second Switch for New Users of Angiotensin-Converting Enzyme (ACE) Inhibitors, Angiotensin II Receptor Blockers (ARBs), and Sacubitril/Valsartan in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019, by Race

							Percentile (days)									
Switch	Switch Pattern	Race	Switch Episodes	Mean (days)	Standard Deviation (days)	Minimum (days)	1st	5th	10th	25th	50th	75th	90th	95th	99th	Maximum (days)
Sacubitril/ Valsartan to ACE Inhibitors	ARBs to Sacubitril/ Valsartan to ACE Inhibitors	American Indian or Alaska Native	0	-	-	-	-	-	-	-	-	-	-	-	-	-
		Asian	0	-	-	-	-	-	-	-	-	-	-	-	-	-
		Black or African	*****	40.00	19.22	17	17	17	17	26	40.0	54	63	63	63	63
		Native Hawaiian or Other Pacific Islander	0	-	-	-	-	-	-	-	-	-	-	-	-	-
		White	19	111.89	124.00	7	7	7	7	39	77	145	232	554	554	554
		Unknown	*****	95.14	73.35	35	35	35	35	41	57	163	229	229	229	229

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Appendix A. Dates of Available Data for Each Data Partner (DP) in the Sentinel Distributed Database (SDD) between January 1, 2015 to July 31, 2019 as of Request Distribution Date (December 6, 2019)

DP ID	Start Date[1]	End Date[1]
DP01	01/01/2000	02/28/2019
DP02	01/01/2000	01/31/2019
DP03	01/01/2004	03/31/2019
DP04	01/01/2008	03/31/2019
DP05	01/01/2006	12/31/2018
DP06	01/01/2000	12/31/2017
DP07	01/01/2010	03/31/2019
DP08	01/01/2000	07/31/2019
DP09	06/01/2007	01/31/2019
DP10	01/01/2000	04/30/2018
DP11	01/01/2005	07/31/2018
DP12	01/01/2000	04/30/2019
DP13	01/01/2000	06/30/2018
DP14	01/01/2008	12/31/2018
DP15	01/01/2000	03/31/2019
DP16	01/01/2012	06/30/2017

[1]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 Generic and Brand Names of Medical Products Used to Define Exposures and Inclusion/Exclusion Criteria in this Request

Generic Name	Brand Name
Angiotensin-Converting Enzyme (ACE) Inhibitors	
Lisinopril	Prinivil
Ramipril	Ramipril
Perindopril erbumine	Perindopril Erbumine
Quinapril HCl/hydrochlorothiazide	Accuretic
Quinapril HCl	Accupril
Trandolapril	Mavik
Trandolapril/verapamil HCl	Tarka
Amlodipine besylate/benazepril HCl	Lotrel
Moexipril HCl	Univasc
Moexipril HCl/hydrochlorothiazide	Uniretic
Moexipril HCl	Moexipril
Enalapril maleate	Enalapril Maleate
Enalapril maleate/hydrochlorothiazide	Enalapril-Hydrochlorothiazide
Benazepril HCl	Benazepril
Moexipril HCl/hydrochlorothiazide	Moexipril-Hydrochlorothiazide
Fosinopril sodium	Fosinopril
Trandolapril	Trandolapril
Amlodipine besylate/benazepril HCl	Amlodipine-Benazepril
Captopril	Captopril
Lisinopril/hydrochlorothiazide	Lisinopril-Hydrochlorothiazide
Lisinopril	Lisinopril
Benazepril HCl/hydrochlorothiazide	Benazepril-Hydrochlorothiazide
Fosinopril sodium/hydrochlorothiazide	Fosinopril-Hydrochlorothiazide
Enalapril maleate	Vasotec
Enalapril maleate/hydrochlorothiazide	Vaseretic
Lisinopril	Zestril
Lisinopril/hydrochlorothiazide	Zestoretic
Captopril/hydrochlorothiazide	Captopril-Hydrochlorothiazide
Quinapril HCl/hydrochlorothiazide	Quinapril-Hydrochlorothiazide
Benazepril HCl	Lotensin
Benazepril HCl/hydrochlorothiazide	Lotensin Hct
Quinapril HCl	Quinapril
Ramipril	Altace
Enalapril maleate	Epaned
Lisinopril	Qbrelis

Appendix B. List of Generic and Brand Names of Medical Products Used to Define Exposures and Inclusion/Exclusion Criteria in this Request

Generic Name	Brand Name
Trandolapril/verapamil HCl	Trandolapril-Verapamil
Perindopril erbumine	Aceon
Perindopril arginine/amlodipine besylate	Prestalia
Angiotensin II Receptor Blockers (ARBs)	
Losartan potassium/hydrochlorothiazide	Hyzaar
Losartan potassium	Cozaar
Nebivolol HCl/valsartan	Byvalson
Irbesartan	Avapro
Irbesartan/hydrochlorothiazide	Avalide
Losartan potassium	Losartan
Losartan potassium/hydrochlorothiazide	Losartan-Hydrochlorothiazide
Irbesartan	Irbesartan
Irbesartan/hydrochlorothiazide	Irbesartan-Hydrochlorothiazide
Telmisartan	Telmisartan
Telmisartan/hydrochlorothiazide	Telmisartan-Hydrochlorothiazid
Eprosartan mesylate/hydrochlorothiazide	Teveten Hct
Eprosartan mesylate	Teveten
Valsartan/hydrochlorothiazide	Diovan Hct
Valsartan	Diovan
Amlodipine besylate/valsartan	Exforge
Amlodipine besylate/valsartan/hydrochlorothiazide	Exforge Hct
Olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide	Olmesartan-Amlodipin-Hcthiazid
Amlodipine besylate/olmesartan medoxomil	Amlodipine-Olmesartan
Amlodipine besylate/valsartan/hydrochlorothiazide	Amlodipine-Valsartan-Hcthiazid
Valsartan	Valsartan
Olmesartan medoxomil	Olmesartan
Olmesartan medoxomil/hydrochlorothiazide	Olmesartan-Hydrochlorothiazide
Amlodipine besylate/valsartan	Amlodipine-Valsartan
Candesartan cilexetil	Atacand
Candesartan cilexetil/hydrochlorothiazide	Atacand Hct
Telmisartan/amlodipine besylate	Telmisartan-Amlodipine
Candesartan cilexetil/hydrochlorothiazide	Candesartan-Hydrochlorothiazid
Valsartan/hydrochlorothiazide	Valsartan-Hydrochlorothiazide
Eprosartan mesylate	Eprosartan
Telmisartan	Micardis
Telmisartan/hydrochlorothiazide	Micardis Hct
Telmisartan/amlodipine besylate	Twynsta
Candesartan cilexetil	Candesartan
Olmesartan medoxomil	Benicar

Appendix B. List of Generic and Brand Names of Medical Products Used to Define Exposures and Inclusion/Exclusion Criteria in this Request

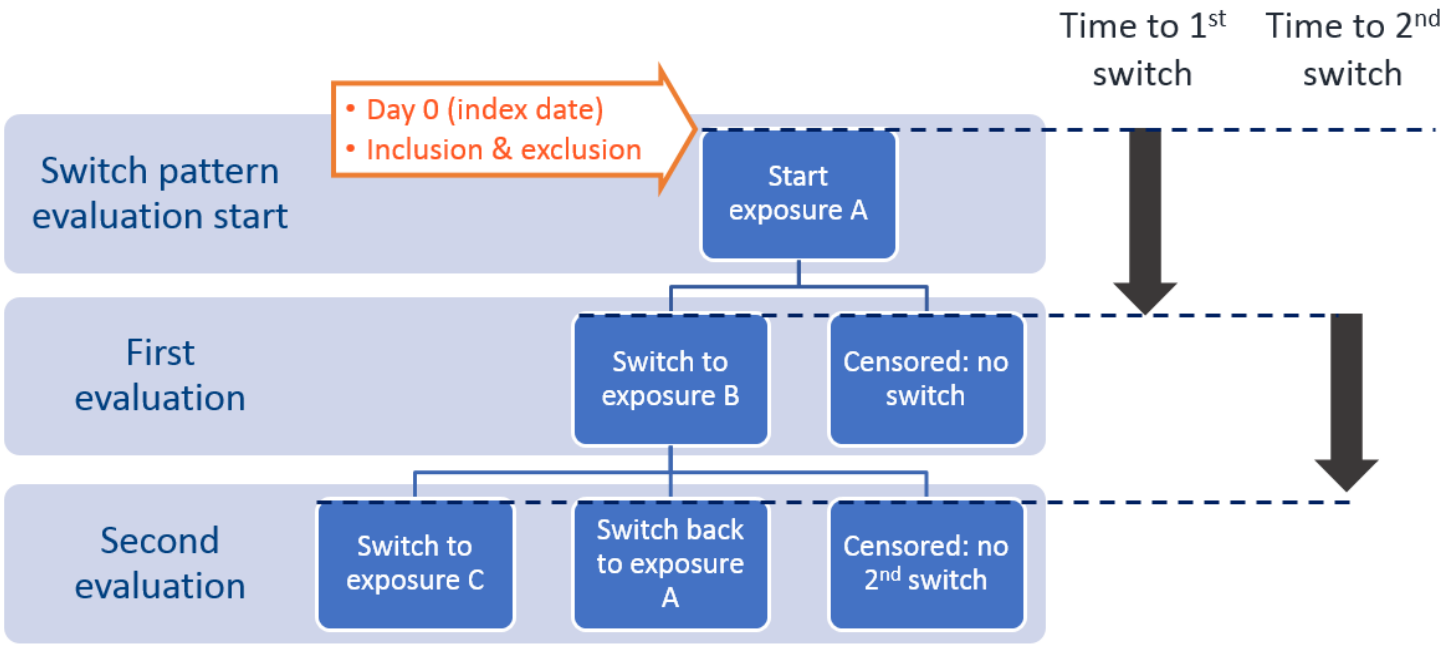
Generic Name	Brand Name
Olmesartan medoxomil/hydrochlorothiazide	Benicar Hct
Amlodipine besylate/olmesartan medoxomil	Azor
Azilsartan medoxomil	Edarbi
Azilsartan medoxomil/chlorthalidone	Edarbyclor
Olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide	Tribenzor
Sacubitril/Valsartan	
Sacubitril/valsartan	Entresto

Appendix C. 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) Diagnosis Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Type	Code Category
402.01	Malignant hypertensive heart disease with heart failure	ICD-9-CM	Diagnosis
402.11	Benign hypertensive heart disease with heart failure	ICD-9-CM	Diagnosis
402.91	Hypertensive heart disease, unspecified, with heart failure	ICD-9-CM	Diagnosis
404.01	Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	ICD-9-CM	Diagnosis
404.03	Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease	ICD-9-CM	Diagnosis
404.11	Hypertensive heart and chronic kidney disease, benign, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	ICD-9-CM	Diagnosis
404.13	Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease	ICD-9-CM	Diagnosis
404.91	Hypertensive heart and chronic kidney disease, unspecified, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	ICD-9-CM	Diagnosis
404.93	Hypertensive heart and chronic kidney disease, unspecified, with heart failure and chronic kidney disease stage V or end stage renal disease	ICD-9-CM	Diagnosis
428	Heart failure	ICD-9-CM	Diagnosis
428.0	Congestive heart failure, unspecified	ICD-9-CM	Diagnosis
428.1	Left heart failure	ICD-9-CM	Diagnosis
428.2	Systolic heart failure	ICD-9-CM	Diagnosis
428.20	Unspecified systolic heart failure	ICD-9-CM	Diagnosis
428.21	Acute systolic heart failure	ICD-9-CM	Diagnosis
428.22	Chronic systolic heart failure	ICD-9-CM	Diagnosis
428.23	Acute on chronic systolic heart failure	ICD-9-CM	Diagnosis
428.3	Diastolic heart failure	ICD-9-CM	Diagnosis
428.30	Unspecified diastolic heart failure	ICD-9-CM	Diagnosis
428.31	Acute diastolic heart failure	ICD-9-CM	Diagnosis
428.32	Chronic diastolic heart failure	ICD-9-CM	Diagnosis
428.33	Acute on chronic diastolic heart failure	ICD-9-CM	Diagnosis
428.4	Combined systolic and diastolic heart failure	ICD-9-CM	Diagnosis
428.40	Unspecified combined systolic and diastolic heart failure	ICD-9-CM	Diagnosis
428.41	Acute combined systolic and diastolic heart failure	ICD-9-CM	Diagnosis
428.42	Chronic combined systolic and diastolic heart failure	ICD-9-CM	Diagnosis
428.43	Acute on chronic combined systolic and diastolic heart failure	ICD-9-CM	Diagnosis
428.9	Unspecified heart failure	ICD-9-CM	Diagnosis
I11.0	Hypertensive heart disease with heart failure	ICD-10-CM	Diagnosis
I13.0	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	ICD-10-CM	Diagnosis
I13.2	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease	ICD-10-CM	Diagnosis
I50	Heart failure	ICD-10-CM	Diagnosis
I50.1	Left ventricular failure, unspecified	ICD-10-CM	Diagnosis

Appendix C. 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) Diagnosis Codes Used to Define Inclusion Criteria in this Request

Code	Description	Code Type	Code Category
I50.2	Systolic (congestive) heart failure	ICD-10-CM	Diagnosis
I50.20	Unspecified systolic (congestive) heart failure	ICD-10-CM	Diagnosis
I50.21	Acute systolic (congestive) heart failure	ICD-10-CM	Diagnosis
I50.22	Chronic systolic (congestive) heart failure	ICD-10-CM	Diagnosis
I50.23	Acute on chronic systolic (congestive) heart failure	ICD-10-CM	Diagnosis
I50.3	Diastolic (congestive) heart failure	ICD-10-CM	Diagnosis
I50.30	Unspecified diastolic (congestive) heart failure	ICD-10-CM	Diagnosis
I50.31	Acute diastolic (congestive) heart failure	ICD-10-CM	Diagnosis
I50.32	Chronic diastolic (congestive) heart failure	ICD-10-CM	Diagnosis
I50.33	Acute on chronic diastolic (congestive) heart failure	ICD-10-CM	Diagnosis
I50.4	Combined systolic (congestive) and diastolic (congestive) heart failure	ICD-10-CM	Diagnosis
I50.40	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure	ICD-10-CM	Diagnosis
I50.41	Acute combined systolic (congestive) and diastolic (congestive) heart failure	ICD-10-CM	Diagnosis
I50.42	Chronic combined systolic (congestive) and diastolic (congestive) heart failure	ICD-10-CM	Diagnosis
I50.43	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure	ICD-10-CM	Diagnosis
I50.810	Right heart failure, unspecified	ICD-10-CM	Diagnosis
I50.811	Acute right heart failure	ICD-10-CM	Diagnosis
I50.812	Chronic right heart failure	ICD-10-CM	Diagnosis
I50.813	Acute on chronic right heart failure	ICD-10-CM	Diagnosis
I50.814	Right heart failure due to left heart failure	ICD-10-CM	Diagnosis
I50.82	Biventricular heart failure	ICD-10-CM	Diagnosis
I50.83	High output heart failure	ICD-10-CM	Diagnosis
I50.84	End stage heart failure	ICD-10-CM	Diagnosis
I50.89	Other heart failure	ICD-10-CM	Diagnosis
I50.9	Heart failure, unspecified	ICD-10-CM	Diagnosis


Time to 1st switch
Time to 2nd switch
• Day 0 (index date)
• Inclusion & exclusion
Switch pattern evaluation start
Start exposure A
First evaluation
Switch to exposure B
Censored: no switch
Second evaluation
Switch to exposure C
Switch back to exposure A
Censored: no 2nd switch

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Angiotensin-Converting Enzyme (ACE) Inhibitors	
Lisinopril	Prinivil
Ramipril	Ramipril
Perindopril erbumine	Perindopril Erbumine
Quinapril HCl/hydrochlorothiazide	Accuretic
Quinapril HCl	Accupril
Trandolapril	Mavik
Trandolapril/verapamil HCl	Tarka
Amlodipine besylate/benazepril HCl	Lotrel
Moexipril HCl	Univasc
Moexipril HCl/hydrochlorothiazide	Uniretic
Moexipril HCl	Moexipril
Enalapril maleate	Enalapril Maleate
Enalapril maleate/hydrochlorothiazide	Enalapril-Hydrochlorothiazide
Benazepril HCl	Benazepril
Moexipril HCl/hydrochlorothiazide	Moexipril-Hydrochlorothiazide
Fosinopril sodium	Fosinopril
Trandolapril	Trandolapril
Amlodipine besylate/benazepril HCl	Amlodipine-Benazepril
Captopril	Captopril
Lisinopril/hydrochlorothiazide	Lisinopril-Hydrochlorothiazide
Lisinopril	Lisinopril
Benazepril HCl/hydrochlorothiazide	Benazepril-Hydrochlorothiazide
Fosinopril sodium/hydrochlorothiazide	Fosinopril-Hydrochlorothiazide
Enalapril maleate	Vasotec
Enalapril maleate/hydrochlorothiazide	Vaseretic
Lisinopril	Zestril
Lisinopril/hydrochlorothiazide	Zestoretic
Captopril/hydrochlorothiazide	Captopril-Hydrochlorothiazide
Quinapril HCl/hydrochlorothiazide	Quinapril-Hydrochlorothiazide
Benazepril HCl	Lotensin
Benazepril HCl/hydrochlorothiazide	Lotensin HCT
Quinapril HCl	Quinapril
Ramipril	Altace
Enalapril maleate	Epaned
Lisinopril	Qbrelis
Trandolapril/verapamil HCl	Trandolapril-Verapamil
Perindopril erbumine	Aceon
Perindopril arginine/amlodipine besylate	Prestalia
Angiotensin II Receptor Blockers (ARBs)	
Losartan potassium/hydrochlorothiazide	Hyzaar
Losartan potassium	Cozaar
Nebivolol HCl/valsartan	Byvalson
Irbesartan	Avapro

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Irbesartan/hydrochlorothiazide	Avalide
Losartan potassium	Losartan
Losartan potassium/hydrochlorothiazide	Losartan-Hydrochlorothiazide
Irbesartan	Irbesartan
Irbesartan/hydrochlorothiazide	Irbesartan-Hydrochlorothiazide
Telmisartan	Telmisartan
Telmisartan/hydrochlorothiazide	Telmisartan-Hydrochlorothiazid
Eprosartan mesylate/hydrochlorothiazide	Teveten HCT
Eprosartan mesylate	Teveten
Valsartan/hydrochlorothiazide	Diovan HCT
Valsartan	Diovan
Amlodipine besylate/valsartan	Exforge
Amlodipine besylate/valsartan/hydrochlorothiazide	Exforge HCT
Olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide	Olmesartan-Amlodipin-Hcthiazid
Amlodipine besylate/olmesartan medoxomil	Amlodipine-Olmesartan
Amlodipine besylate/valsartan/hydrochlorothiazide	Amlodipine-Valsartan-Hcthiazid
Valsartan	Valsartan
Olmesartan medoxomil	Olmesartan
Olmesartan medoxomil/hydrochlorothiazide	Olmesartan-Hydrochlorothiazide
Amlodipine besylate/valsartan	Amlodipine-Valsartan
Candesartan cilexetil	Atacand
Candesartan cilexetil/hydrochlorothiazide	Atacand HCT
Telmisartan/amlodipine besylate	Telmisartan-Amlodipine
Candesartan cilexetil/hydrochlorothiazide	Candesartan-Hydrochlorothiazid
Valsartan/hydrochlorothiazide	Valsartan-Hydrochlorothiazide
Eprosartan mesylate	Eprosartan
Telmisartan	Micardis
Telmisartan/hydrochlorothiazide	Micardis HCT
Telmisartan/amlodipine besylate	Twynsta
Candesartan cilexetil	Candesartan
Olmesartan medoxomil	Benicar
Olmesartan medoxomil/hydrochlorothiazide	Benicar HCT
Amlodipine besylate/olmesartan medoxomil	Azor
Azilsartan medoxomil	Edarbi
Azilsartan medoxomil/chlorthalidone	Edarbyclor
Olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide	Tribenzor
Sacubitril/Valsartan	
Sacubitril/valsartan	Entresto
Nonsteroidal Anti-Inflammatory Drugs (NSAIDs)	
Naproxen	Naprosyn
Naproxen sodium	Anaprox
Naproxen sodium	Anaprox DS
Naproxen	Ec-Naprosyn
Oxaprozin	Daypro

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Diclofenac sodium/misoprostol	Arthrotec 50
Diclofenac sodium/misoprostol	Arthrotec 75
Celecoxib	Celebrex
Ibuprofen	Children's Motrin
Ibuprofen	Motrin IB
Meloxicam	Meloxicam
Piroxicam	Feldene
Hydrocodone/ibuprofen	Vicoprofen
Diclofenac potassium	Cataflam
Diclofenac sodium	Voltaren-XR
Naproxen	Naproxen
Ketorolac tromethamine	Ketorolac
Naproxen sodium	Naproxen Sodium
Flurbiprofen	Flurbiprofen
Piroxicam	Piroxicam
Etodolac	Etodolac
Oxaprozin	Oxaprozin
Diclofenac potassium	Diclofenac Potassium
Nabumetone	Nabumetone
Diclofenac sodium	Diclofenac Sodium
Tolmetin sodium	Tolmetin
Ketoprofen	Ketoprofen
Indomethacin	Indomethacin
Hydrocodone/ibuprofen	Hydrocodone-Ibuprofen
Celecoxib	Celecoxib
Ibuprofen/diphenhydramine citrate	Ibuprofen PM
Ibuprofen	Infant's Ibuprofen
Ibuprofen	Ibuprofen
Ibuprofen	Children's Ibuprofen
Naproxen sodium	All Day Pain Relief
Ibuprofen	Ibuprofen Jr Strength
Sumatriptan succinate/naproxen sodium	Treximet
Ibuprofen/oxycodone HCl	Ibuprofen-Oxycodone
Naproxen sodium/pseudoephedrine HCl	Aleve Cold And Sinus
Naproxen sodium/pseudoephedrine HCl	Aleve Sinus And Headache
Ibuprofen/pseudoephedrine HCl	Wal-Profen Cold-Sinus
Ibuprofen	Wal-Profen
Naproxen sodium	Wal-Proxen
Naproxen sodium/pseudoephedrine HCl	All Day Pain Relief Sinus,Cold
Ibuprofen/pseudoephedrine HCl	Wal-Profen D Cold And Sinus
Ibuprofen/diphenhydramine HCl	Ibuprofen PM
Sulindac	Sulindac
Fenoprofen calcium	Fenoprofen
Meclofenamate sodium	Meclofenamate
Ibuprofen	Infant's Motrin

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Ibuprofen/diphenhydramine citrate	Motrin PM
Naproxen sodium	All Day Relief
Ibuprofen/phenylephrine HCl	Congestion Relief (Ibuprof-PE)
Ibuprofen	Advil
Ibuprofen/diphenhydramine citrate	Advil PM
Ibuprofen/diphenhydramine HCl	Advil Pm Liqui-Gels
Ibuprofen	Advil Migraine
Ibuprofen	Advil Liqui-Gel
Ibuprofen	Children's Advil
Ibuprofen/pseudoephedrine HCl	Advil Cold And Sinus
Chlorpheniramine maleate/pseudoephedrine HCl/ibuprofen	Advil Allergy Sinus
Ibuprofen	Infant's Advil
Ibuprofen/phenylephrine HCl	Advil Congestion Relief
Chlorpheniramine maleate/phenylephrine HCl/ibuprofen	Advil Allergy-Congestion Rlf
Mefenamic acid	Mefenamic Acid
Diclofenac sodium/misoprostol	Diclofenac-Misoprostol
Meloxicam	Mobic
Ibuprofen	Ibu-200
Ibuprofen	Ibuprofen IB
Ibuprofen/pseudoephedrine HCl	Ibuprofen Cold-Sinus(With PSE)
Naproxen sodium/pseudoephedrine HCl	Sinus And Cold-D
Ibuprofen	Children's Ibu-Drops
Naproxen sodium	Midol (Naproxen)
Diclofenac potassium	Zipsor
Diclofenac potassium	Cambia
Naproxen sodium	Naprelan CR
Ibuprofen/pseudoephedrine HCl	Cold And Sinus Pain Relief
Hydrocodone/ibuprofen	Reprexain
Naproxen sodium	Aleve
Naproxen sodium/pseudoephedrine HCl	Aleve-D Sinus And Headache
Naproxen sodium/pseudoephedrine HCl	Aleve-D Sinus And Cold
Naproxen sodium/diphenhydramine HCl	Aleve PM
Naproxen sodium	Flanax (Naproxen)
Ibuprofen	Child Ibuprofen
Ibuprofen	Infants Ibu-Drops
Ibuprofen	Ibu-Drops
Ibuprofen/diphenhydramine HCl	Ibuprofen-Diphenhydramine HCl
Ibuprofen/pseudoephedrine HCl	Ibuprofen Cold
Ibuprofen	Children's Profen Ib
Ibuprofen	Infants Profenib
Fenoprofen calcium	Nalfon
Indomethacin	Indocin
Indomethacin, submicronized	Tivorbex
Diclofenac submicronized	Zorvolex
Meloxicam, submicronized	Vivlodex

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Ibuprofen	I-Prin
Naproxen sodium	Mediproxen
Ibuprofen	Addaprin
Ibuprofen	Medi-Profen
Ibuprofen	Infant's Medi-Profen
Ibuprofen	Children's Medi-Profen
Ibuprofen/diphenhydramine citrate	Ibuprofen-Diphenhydramine Cit
Ibuprofen/pseudoephedrine HCl	Cold-Sinus Relief
Hydrocodone/ibuprofen	Ibudone
Hydrocodone/ibuprofen	Xylon 10
Flurbiprofen	Ansaid
Fenoprofen calcium	Fenortho
Ibuprofen	Ibu
Mefenamic acid	Ponstel
Ibuprofen	Provil
Fenoprofen calcium	Profeno
Etodolac	Lodine
Naproxen	Ec-Naproxen
Meloxicam	Qmiiz ODT
Ibuprofen/famotidine	Duexis
Naproxen/esomeprazole magnesium	Vimovo
Sirolimus	
Sirolimus	Rapamune
Sirolimus	Sirolimus
Everolimus	
Everolimus	Zortress
Everolimus	Afinitor
Everolimus	Afinitor Disperz
Aliskiren	
Aliskiren hemifumarate	Tekturna
Aliskiren hemifumarate/hydrochlorothiazide	Tekturna HCT
Aliskiren hemifumarate/amlodipine besylate	Tekamlo
Aliskiren hemifumarate/amlodipine/hydrochlorothiazide	Amturnide
Aliskiren hemifumarate	Aliskiren
Beta Blockers	
Carvedilol phosphate	Coreg CR
Carvedilol	Coreg
Propranolol HCl	Propranolol
Carvedilol	Carvedilol
Metoprolol tartrate	Metoprolol Tartrate
Atenolol	Atenolol
Sotalol HCl	Sotalol
Nadolol	Nadolol
Bisoprolol fumarate	Bisoprolol Fumarate
Nadolol/bendroflumethiazide	Nadolol-Bendroflumethiazide

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Labetalol HCl	Labetalol
Propranolol HCl	Innopran XL
Bisoprolol fumarate/hydrochlorothiazide	Bisoprolol-Hydrochlorothiazide
Metoprolol succinate	Toprol XL
Sotalol HCl	Sorine
Atenolol	Tenormin
Atenolol/chlorthalidone	Tenoretic 50
Atenolol/chlorthalidone	Tenoretic 100
Metoprolol succinate/hydrochlorothiazide	Dutoprol
Pindolol	Pindolol
Timolol maleate	Timolol Maleate
Propranolol HCl/hydrochlorothiazide	Propranolol-Hydrochlorothiazid
Metoprolol tartrate/hydrochlorothiazide	Metoprolol Ta-Hydrochlorothiaz
Acebutolol HCl	Acebutolol
Atenolol/chlorthalidone	Atenolol-Chlorthalidone
Metoprolol succinate	Metoprolol Succinate
Sotalol HCl	Sotalol AF
Nebivolol HCl	Bystolic
Betaxolol HCl	Betaxolol
Metoprolol succinate	Kapspargo Sprinkle
Propranolol HCl	Inderal LA
Sotalol HCl	Sotylize
Nadolol	Corgard
Metoprolol tartrate	Lopressor
Metoprolol tartrate/hydrochlorothiazide	Lopressor HCT
Sotalol HCl	Betapace
Sotalol HCl	Betapace AF
Bisoprolol fumarate/hydrochlorothiazide	Ziac
Bisoprolol fumarate	Zebeta
Carvedilol phosphate	Carvedilol Phosphate
Penbutolol sulfate	Levatol
Nadolol/bendroflumethiazide	Corzide
Propranolol HCl	Inderal XL
Propranolol HCl	Hemangeol
Labetalol HCl	Trandate
Acebutolol HCl	Sectral
Metoprolol succinate/hydrochlorothiazide	Metoprolol Su-Hydrochlorothiaz
Allergy Treatments	
Triamcinolone acetonide	Kenalog
Triamcinolone acetonide	Kenalog-80
Montelukast sodium	Singulair
Methylprednisolone sodium succinate/PF	Solu-Medrol (Pf)
Hydrocortisone sodium succinate/PF	Solu-Cortef (Pf)
Hydrocortisone	Cortef

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Methylprednisolone	Medrol
Methylprednisolone	Medrol (Pak)
Methylprednisolone acetate	Depo-Medrol
Methylprednisolone sodium succinate	Solu-Medrol
Hydrocortisone sod succinate	Solu-Cortef
Alcaftadine	Lastacaft
Nedocromil sodium	Alocril
Epinastine HCl	Elestat
Levocetirizine dihydrochloride	Xyzal
Epinephrine	Auvi-Q
Dupilumab	Dupixent
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Dimetapp Dm Cold-Cough (PE)
Brompheniramine maleate/phenylephrine HCl	Dimetapp Cold-Allergy (PE)
Chlorpheniramine maleate/dextromethorphan HBr	Dimetapp Long-Acting (Cpm-DM)
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Children's Dimetapp Cold-Flu
Phenylephrine HCl/diphenhydramine HCl	Dimetapp Cold-Congestion
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Children Dimetapp M-S Cold-Flu
Chlorpheniramine maleate/dextromethorphan HBr	Robitussin Long-Acting
Guaifenesin/dextromethorphan HBr	Chld Robitussin Cough-Chest Dm
Guaifenesin/dextromethorphan HBr/phenylephrine	Robitussin Cough And Cold CF
Dextromethorphan HBr/doxylamine succinate	Robitussin Nighttime Cough Dm
Guaifenesin/dextromethorphan HBr	Robitussin Cough-Chest Cong Dm
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Robitussin Cold-Flu Day
Dextromethorphan HBr/acetaminophen/doxylamine	Robitussin Cold-Flu Night
Guaifenesin/dextromethorphan HBr/phenylephrine	Robitussin M-S Cold Cf Max
Guaifenesin/dextromethorphan HBr/phenylephrine	Adult Robitussin M-S Cold
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Adult Robitussin Night M-S Cld
Guaifenesin/dextromethorphan HBr	Adult Robitussin Peak Cold Dm
Guaifenesin/dextromethorphan HBr	Adt Robitussin Peak Cld Dm Max
Guaifenesin/dextromethorphan HBr/phenylephrine	Adult Robitussin Peak Cold M-S
Azelastine HCl	Astelin
Azelastine HCl	Astepro
Azelastine HCl/fluticasone propionate	Dymista
Dyphylline	Lufyllin
Hydrocortisone acetate/pramoxine HCl	Epifoam
Azelastine HCl	Optivar
Flunisolide	Aerospan
Clemastine fumarate	Tavist-1
Phenylephrine HCl/diphenhydramine HCl	Triaminic Cold And Coughnt(PE)
Dextromethorphan HBr/phenylephrine HCl	Triaminic Cold And Cough (PE)
Dextromethorphan HBr/acetaminophen/chlorpheniramine maleate	Child's Tylenol Pluscough,Rnos
Cetirizine HCl	Zyrtec
Prednisone	Prednisone
Montelukast sodium	Montelukast

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Azelastine HCl	Azelastine
Dexamethasone	Dexamethasone Intensol
Dexamethasone	Dexamethasone
Fluticasone propionate	Fluticasone Propionate
Prednisone	Prednisone Intensol
Olopatadine HCl	Patanol
Olopatadine HCl	Pataday
Emedastine difumarate	Emadine
Olopatadine HCl	Patanase
Ketotifen fumarate	Zaditor
Lodoxamide tromethamine	Alomide
Olopatadine HCl	Pazeo
Loratadine	Loratadine
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Theraflu Nighttime Powerpod
Loratadine	Allergy Relief (Loratadine)
Chlorpheniramine maleate/phenylephrine HCl	Triaminic Cold- Allergy PE
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Theraflu Multi-Symptom Cold
Pheniramine maleate/phenylephrine HCl/acetaminophen	Theraflu Flu-Sore Throat
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Theraflu Night Severe Cold-Cgh
Acetaminophen/dextromethorphan HBr	Child Triaminic Cough-Sore Thr
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Child Triaminic Ms Fever-Cold
Brompheniramine maleate/phenylephrine HCl	Child Triaminic Cold-Allergy
Guaifenesin/dextromethorphan HBr	Child Triaminic Cough-Congest
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Theraflu Expressmax Cold Day
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Theraflu Expressmax Cold Night
Indacaterol maleate	Arcapta Neohaler
Glycopyrrolate	Seebri Neohaler
Indacaterol maleate/glycopyrrolate	Utibron Neohaler
Chlorpheniramine maleate	Chlor-Trimeton
Betamethasone acetate/betamethasone sodium phosphate	Celestone Soluspan
Albuterol sulfate	Proventil HFA
Desloratadine	Clarinex
Mometasone furoate	Nasonex
Desloratadine/pseudoephedrine sulfate	Clarinex-D 24 HOUR
Desloratadine/pseudoephedrine sulfate	Clarinex-D 12 HOUR
Mometasone furoate	Asmanex Twisthaler
Formoterol fumarate	Foradil Aerolizer
Chlorpheniramine maleate/dextromethorphan HBr	Coricidin HBP Cough And Cold
Mometasone furoate	Asmanex HFA
Mometasone furoate/formoterol fumarate	Dulera
Clemastine fumarate	Clemastine
Albuterol sulfate	Albuterol Sulfate
Cromolyn sodium	Cromolyn
Triamcinolone acetonide	Triamcinolone Acetonide

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Cyproheptadine HCl	Cyproheptadine
Fluticasone propionate/salmeterol xinafoate	Fluticasone Propion-Salmeterol
Levalbuterol HCl	Levalbuterol HCl
Epinephrine	Epinephrine
Prednisolone	Prednisolone
Cetirizine HCl	Cetirizine
Ipratropium bromide/albuterol sulfate	Ipratropium-Albuterol
Budesonide	Budesonide
Olopatadine HCl	Olopatadine
Levocetirizine dihydrochloride	Levocetirizine
Hydrocodone polistirex/chlorpheniramine polistirex	Tussicaps
Dexamethasone	Dexpak 10 Day
Dexamethasone	Dexpak 13 Day
Dexamethasone	Dexpak 6 Day
Brompheniramine maleate/pseudoephedrine HCl	Lodrane D
Loratadine/pseudoephedrine sulfate	Allergy And Congestion Relief
Chlorpheniramine maleate	Allergy Relief(Chlorpheniramn)
Diphenhydramine HCl	Sleep Time
Dextromethorphan HBr/acetaminophen/doxylamine	Nighttime Cold-Flu
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Flu-Severe Cold-Cough Daytime
Loratadine/pseudoephedrine sulfate	Allerclear D-24hr
Cetirizine HCl/pseudoephedrine HCl	All Day Allergy-D
Cetirizine HCl	Child's All Day Allergy(Cetir)
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Cold Head Congestion Sever Day
Phenylephrine HCl/acetaminophen	Sinus Congestion And Pain
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Multi-Symptom Cold (PE)
Dextromethorphan HBr/acetaminophen/doxylamine	Nighttime Cold-Flu Relief
Guaifenesin/dextromethorphan HBr	Tussin DM
Guaifenesin/dextromethorphan HBr	Tussin DM Cough And Chest
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Cold Multi-Symptom
Diphenhydramine HCl	Children's Allergy (Diphenhyd)
Guaifenesin/dextromethorphan HBr	Child Mucus Relief Cough
Fexofenadine HCl	Aller-Ease
Diphenhydramine HCl	Sleep Aid (Diphenhydramine)
Triamcinolone acetonide	Nasal Allergy
Diphenhydramine HCl	Allergy Relief(Diphenhydramin)
Phenylephrine HCl/acetaminophen/chlorpheniramine	Allergy Multi-Symptom
Guaifenesin/dextromethorphan HBr/phenylephrine	Tussin CF (PE-DM-Guaif)
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Severe Cold And Flu (PE)
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Daytime Cold-Flu
Guaifenesin/dextromethorphan HBr	Tussin Dm Max
Guaifenesin/dextromethorphan HBr/phenylephrine	Child's Mucus Relief M-S Cold
Brompheniramine maleate/phenylephrine HCl	Children's Cold-Allergy (PE)
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Children's Cold And Cough (PE)

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Daytime Cold-Flu Relief (PE)
Guaifenesin/pseudoephedrine HCl	Mucus D
Cetirizine HCl	All Day Allergy (Cetirizine)
Hydrocortisone	Hydrocortisone
Terbutaline sulfate	Terbutaline
Fludrocortisone acetate	Fludrocortisone
Diphenhydramine HCl	Diphenhydramine HCl
Guaifenesin/dextromethorphan HBr	Dextromethorphan-Guaifenesin
Prednisolone sodium phosphate	Prednisolone Sodium Phosphate
Codeine phosphate/guaifenesin	Codeine-Guaifenesin
Theophylline anhydrous	Theophylline
Hydrocodone bitartrate/homatropine methylbromide	Hydrocodone-Homatropine
Fluticasone propionate	Flonase Allergy Relief
Fluticasone propionate	Children's Flonase Allergy Rlf
Fluticasone furoate	Flonase Sensimist
Fluticasone furoate	Children's Flonase Sensimist
Cortisone acetate	Cortisone
Ephedrine sulfate	Ephedrine Sulfate
Beclomethasone dipropionate	Beconase AQ
Fluticasone propionate	Flonase
Salmeterol xinafoate	Serevent Diskus
Fluticasone propionate	Flovent Diskus
Albuterol sulfate	Ventolin HFA
Fluticasone propionate/salmeterol xinafoate	Advair Diskus
Fluticasone propionate/salmeterol xinafoate	Advair HFA
Fluticasone propionate	Flovent HFA
Fluticasone furoate	Veramyst
Fluticasone furoate/vilanterol trifenatate	Breo Ellipta
Umeclidinium bromide/vilanterol trifenatate	Anoro Ellipta
Umeclidinium bromide	Incruse Ellipta
Fluticasone furoate	Arnuity Ellipta
Mepolizumab	Nucala
Fluticasone furoate/umeclidinium bromide/vilanterol trifenat	Trelegy Ellipta
Hydrocodone bitartrate/pseudoephedrine HCl/guaifenesin	Hycofenix
Guaifenesin/hydrocodone bitartrate	Flowtuss
Hydrocortisone/aloe vera	Hydrocortisone-Aloe Vera
Fexofenadine HCl	Fexofenadine
Ketotifen fumarate	Ketotifen Fumarate
Budesonide/formoterol fumarate	Symbicort
Budesonide	Pulmicort Flexhaler
Budesonide	Rhinocort Aqua
Budesonide	Pulmicort
Guaifenesin/pseudoephedrine HCl	Congestac
Ephedrine sulfate/guaifenesin	Bronkaid Dual Action

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Hydrocortisone/skin cleanser combination no.25	Aqua Glycolic Hc
Theophylline in dextrose 5 % in water	Theophylline In Dextrose 5 %
Fluticasone propionate	Clarispray
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Alka-Seltzer Plus Sin-Allg-Cgh
Dextromethorphan/pseudoephedrine/acetaminophen/chlorpheniram	Alka-Seltzer Plus-D Sinus-Cold
Naproxen sodium/pseudoephedrine HCl	Aleve Cold And Sinus
Naproxen sodium/pseudoephedrine HCl	Aleve Sinus And Headache
Roflumilast	Daliresp
Zafirlukast	Accolate
Aclidinium bromide	Tudorza Pressair
Benralizumab	Fasenra
Glycopyrrolate/formoterol fumarate	Bevespi Aerosphere
Hydrocortisone/skin cleanser combination no.35	Dermasorb Hc Complete Kit
Triamcinolone acetonide/emollient combination no.86	Dermasorb Ta Complete Kit
Chlorpheniramine maleate/dextromethorphan HBr	Chld Robitussin Night Cough Dm
Loratadine/pseudoephedrine sulfate	Wal-Itin D 12 Hour
Fluticasone propionate	24 Hour Allergy Relief
Diphenhydramine HCl	Wal-Som (Diphenhydramine)
Dextromethorphan HBr/doxylamine succinate	Daytime-Nighttime Cough
Dextromethorphan HBr/acetaminophen/doxylamine	Cold-Flu Relief
Fexofenadine HCl	Children's Wal-Fex
Diphenhydramine HCl	Wal-Sleep Z
Ibuprofen/pseudoephedrine HCl	Wal-Profen Cold-Sinus
Loratadine	Wal-Itin
Cetirizine HCl	Children's Wal-Zyr
Diphenhydramine HCl	Children's Wal-Dryl Allergy
Diphenhydramine HCl	Wal-Dryl Allergy
Chlorpheniramine maleate/pseudoephedrine HCl	Wal-Phed
Guaifenesin/pseudoephedrine HCl	Mucus Relief D (Pseudoephed)
Guaifenesin/phenylephrine HCl/acetaminophen	Mucus Rlf Severe Sinus Congest
Loratadine/pseudoephedrine sulfate	Wal-Itin D
Cetirizine HCl/pseudoephedrine HCl	Wal-Zyr D
Triprolidine HCl/pseudoephedrine HCl	Wal-Act D Cold And Allergy
Pheniramine maleate/phenylephrine HCl/acetaminophen	Wal-Flu Night Time
Diphenhydramine HCl	Sleep II
Dextromethorphan HBr/acetaminophen/doxylamine	Cough-Sore Throat Night
Chlorpheniramine maleate	Wal-Finate
Cetirizine HCl	Wal-Zyr (Cetirizine)
Diphenhydramine HCl	Child Allergy Relief (Diphen)
Guaifenesin/dextromethorphan HBr	Mucus Relief Dm Max
Guaifenesin/dextromethorphan HBr/phenylephrine	Mucus Relief Congestion-Cough
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Cold Multi-Symptom Nighttime
Pseudoephedrine HCl/acetaminophen/chlorpheniramine	Allergy Sinus-D
Guaifenesin/dextromethorphan HBr	Wal-Tussin Dm

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Diphenhydramine HCl	Nighttime Sleep Aid (Diphen)
Chlorpheniramine maleate/pseudoephedrine HCl	Wal-Finate-D
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Mucus Relief Severe Cold
Guaifenesin/phenylephrine HCl/acetaminophen	Wal-Phed PE Triple Relief
Naproxen sodium/pseudoephedrine HCl	All Day Pain Relief Sinus,Cold
Guaifenesin/dextromethorphan HBr	Cough-Chest Congestion Dm
Guaifenesin/dextromethorphan HBr	Children's Cough
Diphenhydramine HCl/phenylephrine HCl/dextromethorphan HBr	Child Cold-Cough Day-Night
Ibuprofen/pseudoephedrine HCl	Wal-Profen D Cold And Sinus
Fexofenadine HCl	Wal-Fex Allergy
Fexofenadine HCl/pseudoephedrine HCl	Wal-Fex D 12 Hour
Dextromethorphan HBr/acetaminophen/chlorpheniramine maleate	Flu HBP
Chlorpheniramine maleate/phenylephrine HCl	Wal-Phed PE Sinus And Allergy
Phenylephrine HCl/diphenhydramine HCl	Wal-Dryl-D Allergy And Sinus
Phenylephrine HCl/acetaminophen	Wal-Phed PE Sinus Headache
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Severe Cold Multi-Symptom
Guaifenesin/dextromethorphan HBr/phenylephrine	Wal-Tussin Cough And Cold CF
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Wal-Phed PE Severe Cold
Guaifenesin/phenylephrine HCl/acetaminophen	Sinus Congestion-Pain(Guaif)
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Head Congestion Day-Night
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Cold Multi-Symptom Day/Night
Guaifenesin/dextromethorphan HBr	Mucus Relief Dm
Guaifenesin/phenylephrine HCl	Mucus Relief PE
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Wal-Dryl Severe Allergy-Sinus
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Wal-Phed PE Nighttime Cold
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Wal-Phed PE Cold-Cough
Phenylephrine HCl/acetaminophen/doxylamine succinate	Sinus Daytime-Nightime
Fexofenadine HCl/pseudoephedrine HCl	Wal-Fex D 24 Hour
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Daytime-Nighttime Cold-Flu
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Cold Multi-Symptom (Chlorphen)
Pheniramine maleate/phenylephrine HCl/acetaminophen	Wal-Flu Cold And Sore Throat
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Wal-Flu Severe Cold And Cough
Ketotifen fumarate	Wal-Zyr (Ketotifen)
Guaifenesin/phenylephrine HCl/acetaminophen	Mucus Relief Sinuspressur-Pain
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Cold And Flu Severe
Dextromethorphan HBr/doxylamine succinate	Nighttime Cough
Acetaminophen/dextromethorphan HBr	Daytime Cold And Cough
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Cold And Flu Relief(Diphen-PE)
Chlorpheniramine maleate/dextromethorphan HBr	Children's Cough-Cold Relief
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Severe Cold And Flu Nighttime
Guaifenesin/dextromethorphan HBr	Adult Wal-Tussin Dm Max
Triamcinolone acetonide	24 Hour Nasal Allergy
Chlorpheniramine maleate/phenylephrine bitartrate/aspirin	Cold Relief Plus
Brompheniramine maleate/phenylephrine HCl	Child Wal-Tap Cold-Allergy

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG	Wal-Phed PE Day-Night
Ketotifen fumarate	Eye Itch Relief
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Wal-Tap DM
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Cold And Flu Relief Plus (D/N)
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Wal-Flu Severe Cold-Cough
Dextromethorphan/phenylephrine/acetaminophen/diphenhydramine	Wal-Flu Day-Night Cold-Cough
Doxylamine/phenylephrine/dextromethorphan/acetaminophen/GG	Severe Cold And Flu(Day/Night)
Hydrocortisone/aloe vera	Hydrocortisone Plus
Guaifenesin/phenylephrine HCl/acetaminophen	Mucus Relief Cold And Sinus
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Mucus Relief Cold-Flu-Sore Thr
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Children's Cold-Cough-Sore
Diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG	Children's M-S Cold Day-Night
Guaifenesin/phenylephrine HCl/acetaminophen	Severe Sinus
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Wal-Phed PE Pressure+Pain+Cold
Diphenhydramine HCl	Nighttime Allergy Relief
Guaifenesin/dextromethorphan HBr/phenylephrine	Child Multi-Symptom Cold/Cough
Chlorpheniramine maleate/dextromethorphan HBr	Scot-Tussin Dm
Guaifenesin/dextromethorphan HBr	Scot-Tussin Senior
Desloratadine	Desloratadine
Ipratropium bromide	Ipratropium Bromide
Fluticasone propionate/salmeterol xinafoate	Wixela Inhub
Fluticasone propionate, micronized	Fluticasone Prop, Micro (Bulk)
Promethazine HCl	Promethazine (Bulk)
Tranilast	Tranilast (Bulk)
Budesonide, micronized	Budesonide, Micronized (Bulk)
Dexamethasone sodium phosphate	Dexamethasone Sod Phos (Bulk)
Prednisone micronized	Prednisone Micronized (Bulk)
Hydrocortisone sod succinate	A-Hydrocort
Aminophylline	Aminophylline
Phenylephrine HCl/diphenhydramine HCl	Child Benadryl Plus Congestion
Cetirizine HCl/pseudoephedrine HCl	Zyrtec-D
Cetirizine HCl	Children's Zyrtec Allergy
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Tylenol Cold Multi-Symptom Day
Guaifenesin/phenylephrine HCl/acetaminophen	Tylenol Cold Head Congest Sevr
Guaifenesin/phenylephrine HCl/acetaminophen	Tylenol Sinus Congestion Pain
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Tylenol Cold Max Night
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Tylenol Cold And Flu Severe
Phenylephrine HCl/acetaminophen	Tylenol Sinus Congestion Pain
Diphenhydramine HCl	Benadryl Allergy
Dextromethorphan HBr/phenylephrine HCl	Children's Sudafed PE Cough
Phenylephrine HCl/acetaminophen	Sudafed PE Pressure+Pain
Chlorpheniram/phenyleph/dextromethorphn/acetaminophen/guaifn	Tylenol Cold-Flu Severe Day-Nt
Diphenhydramine HCl	Children's Benadryl Allergy
Guaifenesin/phenylephrine HCl/acetaminophen	Sudafed PE Pressure+Pain+Mucus

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Sudafed PE Pressure+Pain+Cough
Budesonide	Rhinocort Allergy
Diphenhydramine HCl	Simply Sleep
Theophylline anhydrous	Theochron
Hydrocodone bitartrate/homatropine methylbromide	Hydromet
Promethazine HCl/codeine	Promethazine-Codeine
Dexchlorpheniramine maleate/phenylephrine HCl	Rymed (Dexchlorpheniramine-PE)
Chlorpheniramine maleate	Ed-Chlortan
Chlorpheniramine maleate	Ed-Chlorped
Chlorpheniramine maleate/phenylephrine HCl	Ed Chlorped D
Chlorpheniramine maleate	Ed Chlorped Jr
Chlorpheniramine maleate/phenylephrine HCl	Ed A-Hist
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Ed A-Hist Dm
Brompheniramine maleate/phenylephrine HCl	Rynex PE
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Rynex DM
Brompheniramine maleate/pseudoephedrine HCl	Rynex PSE
Guaifenesin/phenylephrine HCl	Ed Bron Gp
Triprolidine HCl/pseudoephedrine HCl	Ed A-Hist Pse
Guaifenesin/phenylephrine HCl	Mucaphed
Racepinephrine HCl	Asthmanefrin Refill
Racepinephrine HCl	Asthmanefrin Starter Kit
Racepinephrine HCl	Racepinephrine
Racepinephrine HCl	S2 Racepinephrine
Hydrocortisone acetate/pramoxine HCl/emollient base	Pramosone E
Hydrocortisone acetate/pramoxine HCl	Pramosone
Betamethasone acetate/betamethasone sodium phosphate	Betamethasone Acet,Sod Phos
Epinephrine HCl/PF	Epinephrine HCl (PF)
Carbinoxamine maleate	Palgic
Chlorpheniramine maleate	Aller-Chlor
Diphenhydramine HCl	Diphenhist
Guaifenesin/dextromethorphan HBr	Cough Syrup Dm
Guaifenesin/dextromethorphan HBr	Cough Suppressant-Expectorant
Ibuprofen/phenylephrine HCl	Congestion Relief (Ibuprof-PE)
Hydrocortisone/aloe vera	Hydroskin With Aloe
Guaifenesin/dextromethorphan HBr	Mucus DM
Guaifenesin/dextromethorphan HBr	Mucus Dm Max Er
Chlorpheniramine maleate/pseudoephedrine/dextromethorphan	Kidkare Cough/Cold
Ibuprofen/pseudoephedrine HCl	Advil Cold And Sinus
Chlorpheniramine maleate/pseudoephedrine HCl/ibuprofen	Advil Allergy Sinus
Ibuprofen/phenylephrine HCl	Advil Congestion Relief
Chlorpheniramine maleate/phenylephrine HCl/ibuprofen	Advil Allergy-Congestion Rlf
Phenylephrine HCl/acetaminophen/chlorpheniramine	Dristan Cold
Loratadine	Alavert
Loratadine/pseudoephedrine sulfate	Alavert D-12 Allergy-Sinus
Guaifenesin/ephedrine HCl	Primatene Asthma

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Hydrocodone bitart/chlorpheniramine maleate/pseudoephedrine	Hydrocodone-Cpm-Pseudoephed
Brompheniramine maleate/pseudoephedrine HCl/dextromethorphan	Brompheniramine-Pseudoeph-DM
Methylprednisolone	Methylprednisolone
Promethazine HCl	Phenadoz
Levalbuterol tartrate	Levalbuterol Tartrate
Promethazine HCl	Promethazine
Ipratropium bromide/albuterol sulfate	Combivent Respimat
Tiotropium bromide	Spiriva With Handihaler
Ipratropium bromide	Atrovent HFA
Tiotropium bromide	Spiriva Respimat
Tiotropium bromide/olodaterol HCl	Stiolto Respimat
Olodaterol HCl	Striverdi Respimat
Diphenhydramine HCl	Q-Dryl
Pyrilamine maleate/phenylephrine HCl/dextromethorphan HBr	Codituss DM
Brompheniramine maleate/pseudoephedrine HCl	Q-Tapp
Brompheniramine maleate/pseudoephedrine HCl/dextromethorphan	Q-Tapp Dm
Guaifenesin/dextromethorphan HBr	Q-Tussin Dm
Diphenhydramine HCl	Quenalin
Codeine phosphate/guaifenesin	Cheratussin AC
Pseudoephedrine HCl/codeine phosphate/guaifenesin	Cheratussin DAC
Codeine phosphate/guaifenesin	Iophen C-NR
Guaifenesin/dextromethorphan HBr	Iophen DM-NR
Pseudoephedrine HCl/codeine/chlorpheniramine	Phenylhistine DH
Promethazine HCl/dextromethorphan HBr	Promethazine-DM
Phenylephrine HCl/promethazine HCl	Promethazine VC
Promethazine/phenylephrine HCl/codeine	Promethazine Vc-Codeine
Dexamethasone sodium phosphate	Dexamethasone Sodium Phosphate
Promethazine HCl	Phenergan
Codeine phosphate/guaifenesin	Mar-Cof Cg
Brompheniramine maleate/pseudoephedrine HCl/codeine phosphat	Mar-Cof Bp
Methylprednisolone acetate	Methylprednisolone Acetate
Promethazine HCl	Promethegan
Triamcinolone hexacetonide	Aristospan Intralesional
Triamcinolone hexacetonide	Aristospan Intra-Articular
Epinephrine	Symjepi
Mometasone furoate	Mometasone
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Rompe Pecho Max Multi Symptoms
Chlorpheniramine maleate	Allergy (Chlorpheniramine)
Guaifenesin/dextromethorphan HBr	Robafen DM
Guaifenesin/dextromethorphan HBr	Robafen Dm Cough-Chest Congest
Triprolidine HCl/pseudoephedrine HCl	Aprodine
Diphenhydramine HCl	Banophen Allergy
Diphenhydramine HCl	Banophen
Diphenhydramine HCl	Sleep-Tabs

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Chlorpheniramine maleate/pseudoephedrine/dextromethorphan	Pedia Relief Cough-Cold
Chlorpheniramine maleate/pseudoephedrine HCl	Sudogest Cold And Allergy
Chlorpheniramine maleate/pseudoephedrine HCl	Sudogest Sinus And Allergy
Loratadine	Non-Drowsy Allergy
Dextromethorphan HBr/acetaminophen/doxylamine	Nite Time Cold-Flu Relief
Dextromethorphan HBr/acetaminophen/doxylamine	All-Nite Cold-Flu
Brompheniramine maleate/phenylephrine HCl	Dimaphen (PE)
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Dimaphen DM
Phenylephrine HCl/acetaminophen	Mapap Sinus Max Strength (PE)
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Mapap Cold Formula
Guaifenesin/phenylephrine HCl	Mucus Relief Sinus
Chlorpheniramine maleate/dextromethorphan HBr	Cough And Cold (Chlorphen-DM)
Loratadine/pseudoephedrine sulfate	Loratadine-D
Guaifenesin/dextromethorphan HBr	Robafen Dm Cough
Guaifenesin/dextromethorphan HBr/phenylephrine	Robafen CF (Phenylephrine)
Codeine phosphate/guaifenesin	Robafen AC
Zafirlukast	Zafirlukast
Phenylephrine HCl/acetaminophen	Acetaminophen Congestion-Pain
Cetirizine HCl	Children's Cetirizine
Guaifenesin/dextromethorphan HBr	Mucus Relief Dm Cough
Hydrocortisone/colloidal oatmeal/aloe/vitamin E	Aveeno Anti-Itch (Hydrocortsn)
Ketotifen fumarate	Children's Alaway
Zileuton	Zyflo
Zileuton	Zyflo CR
Chlorpheniramine maleate	Chlorpheniramine Maleate
Halobetasol propionate/ammonium lactate	Ultravate PAC
Halobetasol propionate/lactic acid	Ultravate X
Guaifenesin/dextromethorphan HBr	Chest Congestion Relief Dm
Epinephrine	Bronchial Mist Refill
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Decongestant Cough
Dextromethorphan/pseudoephrine HCl/acetaminophen/doxylamine	Night Time Cold Medicine
Dextromethorphan/pseudoephrine HCl/acetaminophen/doxylamine	Night Time Cold-Flu Relief
Triprolidine HCl/pseudoephedrine HCl	Nasal Decongestant-Antihist
Triprolidine HCl/pseudoephedrine HCl	Cold And Allergy(Triprolidine)
Chlorpheniramine maleate	Allergy 4-Hour
Chlorpheniramine maleate/dextromethorphan HBr	Cough And Runny Nose
Diphenhydramine HCl	Valu-Dryl
Diphenhydramine HCl	Valu-Dryl Allergy
Pseudoephedrine HCl/acetaminophen/diphenhydramine	Non-Aspirin Allergy Sinus Pm
Pseudoephedrine HCl/acetaminophen/diphenhydramine	Non-Aspirin Flu
Guaifenesin/phenylephrine HCl	Chest Congestion Relief PE
Dextromethorphan HBr/pseudoephedrine HCl/acetaminophen	Non-Aspirin Flu
Diphenhydramine HCl	Sleepgels
Brompheniramine maleate/phenylephrine HCl	Cold And Allergy (Bromphen-PE)

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Cold And Cough DM
Diphenhydramine HCl	Antihistamine
Phenylephrine HCl/acetaminophen	Sinus Maximum Strength
Guaifenesin/acetaminophen	Chest Congestion
Guaifenesin/dextromethorphan HBr	Mucus Relief Cough
Diphenhydramine HCl	Antihist
Dextromethorphan HBr/phenylephrine HCl	Cold And Cough (PE-Dm)
Dextromethorphan HBr/pseudoephedrine HCl/acetaminophen	Daytime Cold And Flu Relief
Dextromethorphan/pseudoephrine HCl/acetaminophen/doxylamine	Nite Time
Dexbrompheniramine maleate/pseudoephedrine sulfate	12 Hour Relief
Loratadine/pseudoephedrine sulfate	Lorata-Dine D
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Childrens Plus Multi-Symp Cold
Chlorpheniramine maleate/pseudoephedrine/dextromethorphan	Pedia Relief
Guaifenesin/pseudoephedrine HCl	Tussin PE
Diphenhydramine HCl	Valu-Dryl Child's Allergy
Pseudoephedrine HCl/acetaminophen/diphenhydramine	Valu-Dryl Allergy-Sinus-Head
Dextromethorphan HBr/pseudoephedrine HCl/acetaminophen	Infants' Non-Aspirin Cold
Pseudoephedrine/dextromethorphan/guaifenesin/acetaminophen	Daytime Cold And Flu Relief
Dextromethorphan/pseudoephrine HCl/acetaminophen/doxylamine	Night Time Cold-Flu
Triprolidine HCl/pseudoephedrine HCl	Nasal Decongest-Antihistamine
Clemastine fumarate	Allergy Relief (Clemastine)
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Flu Relief Therapy Nighttime
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Tussin CF
Ibuprofen/pseudoephedrine HCl	Ibuprofen Cold-Sinus(With PSE)
Dextromethorphan HBr/pseudoephedrine HCl	Expectorant Max Strength
Dextromethorphan/pseudoephedrine/acetaminophen/chlorpheniram	Flu Severe Cold-Congestion
Dextromethorphan HBr/doxylamine succinate	Nite Time Cough
Ibuprofen/pseudoephedrine HCl	Cold-Sinus Relief
Chlorpheniramine maleate/phenylephrine HCl	Sinus-Allergy (Phenylephrine)
Dextromethorphan HBr/pseudoephedrine HCl	Pedia Relief Infant
Pseudoephedrine HCl/acetaminophen	Non-Aspirin Sinus Non-Drowsy
Pseudoephedrine HCl/acetaminophen/chlorpheniramine	Non-Aspirin Allergy Sinus
Pseudoephedrine/dextromethorphan/guaifenesin/acetaminophen	Cough And Cold
Pseudoephedrine HCl/acetaminophen	Sinus Maximum Strength
Pseudoephedrine HCl/acetaminophen	Max Str Non-Drowsy Sinus
Dextromethorphan HBr/acetaminophen/doxylamine	Nite Time Cold-Flu
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Day Time PE
Naproxen sodium/pseudoephedrine HCl	Sinus And Cold-D
Diphenhydramine HCl	Z-Sleep
Dextromethorphan/pseudoephedrine/acetaminophen/chlorpheniram	Non-Aspirin Cold
Clemastine fumarate	Dailyhist-1
Epinephrine	Bronchial Mist
Fluticasone propionate	Allergy Relief (Fluticasone)
Pseudoephedrine/dextromethorphan/guaifenesin/acetaminophen	Day Time Liquid Cold

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Guaifenesin/dextromethorphan HBr	Tussin Dm Clear
Chlorpheniramine maleate/pseudoephedrine HCl	Sinus And Allergy(Pseudoephed)
Cromolyn sodium	Nasal Allergy Symptom Control
Pseudoephedrine HCl/acetaminophen/chlorpheniramine	Pain Reliever Allergy Sinus
Pseudoephedrine HCl/acetaminophen	Sinus Headache
Pseudoephedrine HCl/acetaminophen	Pain Reliever Sinus
Loratadine	Children's Allergy Relief(Lor)
Chlorpheniramine maleate/pseudoephedrine HCl	Triacting Orange
Dextromethorphan HBr/pseudoephedrine HCl/acetaminophen	Suphedrine Severe Cold Max Str
Chlorpheniramine maleate/pseudoephedrine/dextromethorphan	Triacting M-Sym Cold/Cough
Pseudoephedrine HCl/acetaminophen/chlorpheniramine	Non-Aspirin Child's Cold
Guaifenesin/pseudoephedrine HCl	Triacting Expectorant
Brompheniramine maleate/pseudoephedrine HCl	Valu-Tapp
Brompheniramine maleate/pseudoephedrine HCl/dextromethorphan	Valu-Tapp Dm
Chlorpheniramine maleate/phenylephrine HCl	Cold And Allergy PE
Chlorpheniramine maleate/phenylephrine HCl	Sinus And Allergy PE
Diphenhydramine HCl/hydrocortisone	Hc Derma-Pax
Guaifenesin/dextromethorphan HBr	Refenesen DM
Guaifenesin/dextromethorphan HBr	Double-Tussin Dm
Guaifenesin/phenylephrine HCl	Refenesen PE
Guaifenesin/dextromethorphan HBr	Broncotron-S
Dexchlorpheniramine maleate/pseudoephedrine/chlophedianol	Panatuss PED
Guaifenesin/dextromethorphan HBr/phenylephrine	Broncotron PED
Dexchlorpheniramine maleate/pseudoephedrine/chlophedianol	Panatuss Ped Drops
Diphenhydramine HCl	Sleeping
Guaifenesin/dextromethorphan HBr	Expectorant DM
Guaifenesin/pseudoephedrine HCl	Congest-Eze
Guaifenesin/dextromethorphan HBr	Ultra DM Free And Clear
Phenylephrine HCl/acetaminophen/chlorpheniramine	Sinutrol PE
Guaifenesin/dextromethorphan HBr	G-Fenesin Dm
Guaifenesin/phenylephrine HCl	Congest-Eze PE
Loratadine/pseudoephedrine sulfate	Allergy Relief,Nasal Decongest
Diphenhydramine HCl	Ormir
Loratadine	Children's Claritin
Loratadine/pseudoephedrine sulfate	Claritin-D 24 Hour
Loratadine	Claritin Reditabs
Guaifenesin/dextromethorphan HBr	Coricidin HBP
Loratadine	Claritin
Loratadine/pseudoephedrine sulfate	Claritin-D 12 Hour
Loratadine	Claritin Liqui-Gel
Dextromethorphan HBr/acetaminophen/doxylamine	Coricidin Hbp Cold-Multi Sympt
Guaifenesin/phenylephrine HCl	Despec
Guaifenesin/dextromethorphan HBr/phenylephrine	Despec-DM (Phenyleph-DM-Guaif)
Guaifenesin/dextromethorphan HBr/phenylephrine	Despec DM-G

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Guaifenesin/pseudoephedrine HCl	Despec-Tab
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Despec-DM (Pseudoeph-DM-Guaif)
Guaifenesin/dextromethorphan HBr/phenylephrine	Despec Eda Cough-Cold Drops
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Fast Mucus Relief Severe Cold
Fexofenadine HCl/pseudoephedrine HCl	Allergy-Congest Relief-D(Fexo)
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Cold-Flu Relief, Day/Night
Guaifenesin/dextromethorphan HBr	Mucus And Cough Relief
Loratadine/pseudoephedrine sulfate	Allergy-Congestion Relief-D
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Cold-Flu Relief
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Cold Relief M/S Day/Night
Guaifenesin/dextromethorphan HBr	Tussin Dm Cough
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Cold Head Congestion Daytime
Cetirizine HCl	All Day Allergy Relief(Cetir)
Cetirizine HCl	Allergy Relief (Cetirizine)
Guaifenesin/dextromethorphan HBr/phenylephrine	Cough And Cold
Cetirizine HCl/pseudoephedrine HCl	Allergy-Congest Relief-D (Cet)
Fexofenadine HCl	Allergy Relief (Fexofenadine)
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Daytime-Nighttime
Cetirizine HCl	Child Allergy Relf(Cetirizine)
Diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG	Daytime-Cold Nighttime-Cld-Flu
Guaifenesin/dextromethorphan HBr/phenylephrine	Fast Mucus Rlf Congest-Cough
Guaifenesin/dextromethorphan HBr	Adult Cough Formula Dm Max
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Multi-Symptom Cold (PE-Cpm)
Hydrocortisone/aloe vera/vitamin E acetate/vitamins A and D	Anti-Itch (HC) With Aloe-Vit E
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Flu-Severe Cold-Cough Night
Diphenhydramine HCl	Allergy Medicine
Diphenhydramine HCl	Allergy Medication
Chlorpheniramine maleate/phenylephrine HCl	Acta-Tabs PE
Phenylephrine HCl/acetaminophen	Suphedrine PE Sinus Headache
Chlorpheniramine maleate/phenylephrine HCl	Suphedrine PE Cold And Allergy
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Multi-Symptom Cold Daytime
Dextromethorphan HBr/acetaminophen/chlorpheniramine maleate	Maximum Strength Flu
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Mucus Relief Plus
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Mucus Relief Sev Congest-Cold
Doxylamine/phenylephrine/dextromethorphan/acetaminophen/GG	Day-Cold Night-Cold-Flu(Doxyl)
Dextromethorphan HBr/doxylamine succinate	Tussin Nighttime Cough Dm
Diphenhydramine HCl/phenylephrine/acetaminophen/guaifenesin	Sinus Relief Max Str Day-Night
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Allergy M-S Nighttime
Phenylephrine HCl/acetaminophen/chlorpheniramine	Sinus Congest-Pain Day-Night
Diphenhydramine HCl	Diphedryl Allergy
Diphenhydramine HCl	Sleep Tablet (Diphenhydramine)
Guaifenesin/dextromethorphan HBr	Tussin Cough-Chest Congestion
Guaifenesin/dextromethorphan HBr	Antitussive DM
Loratadine/pseudoephedrine sulfate	Lorata-D

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Diphenhydramine HCl	Diphedryl
Dextromethorphan/phenylephrine/acetaminophen/diphenhydramine	Flu Formula Daytime-Nighttime
Phenylephrine HCl/diphenhydramine HCl	Allergy And Sinus Relief
Diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG	Suphedrine PE Day-Night
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Head Congestion Cold Relief
Diphenhydramine HCl	Complete Allergy
Diphenhydramine HCl	Complete Allergy Medicine
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Head Congestion Cold Relief
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Severe Cold PE
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Cold-Cough Sinus Relief PE
Diphenhydramine HCl	Allergy (Diphenhydramine)
Cetirizine HCl/pseudoephedrine HCl	Cetiri-D
Diphenhydramine HCl	Nightime Sleep
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Children's Flu Relief
Dextromethorphan HBr/acetaminophen/chlorpheniramine maleate	Child Plus Cough And Runnynose
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Multi-Symptom Cold Night Time
Guaifenesin/dextromethorphan HBr/phenylephrine	Cough And Cold Mucus Relief CF
Fexofenadine HCl/pseudoephedrine HCl	Allergy Relief-D(Fexofenadine)
Phenylephrine HCl/acetaminophen	Sinus Formula Daytime
Guaifenesin/dextromethorphan HBr	Cough Formula Dm
Guaifenesin/dextromethorphan HBr	Wal-Tussin Dm Clear
Brompheniramine maleate/phenylephrine HCl	Wal-Tap
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Wal-Flu Night Severe Cold
Dextromethorphan/pseudoephrine HCl/acetaminophen/doxylamine	Nite Time-D Cold-Flu Relief
Guaifenesin/ephedrine HCl	Bronchial Asthma Relief
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Children's Plus Flu
Phenylephrine HCl/acetaminophen/chlorpheniramine	Childrens Plus Cold
Guaifenesin/dextromethorphan HBr	Neo-Tuss
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Neotuss Plus
Guaifenesin/dextromethorphan HBr/phenylephrine	Neotuss-D (Improved Formula)
Diphenhydramine HCl	Benadryl
Codeine phosphate/guaifenesin	M-Clear Wc
Brompheniramine maleate/pseudoephedrine HCl/codeine phosphat	M-End Wc
Dexbrompheniramine maleate/pseudoephedrine HCl/codeine phos	M-End Max D
Brompheniramine maleate/phenylephrine HCl/codeine phosphate	M-End PE
Dexbrompheniramine maleate/pseudoephedrine HCl/chlophedianol	Chlo Tuss
Chlophedianol HCl/guaifenesin	Chlo Tuss Ex
Chlorpheniramine maleate/pseudoephedrine/dextromethorphan	M-End Dm
Dexbromphen-pseudoephedrine-dextromethorphan	M-End Dmx
Dexbrompheniramine maleate/chlophedianol HCl	Chlo Hist
Carbinoxamine maleate	Karbinal ER
Loratadine/pseudoephedrine sulfate	Allergy Relief D-24hr
Loratadine/pseudoephedrine sulfate	Allergy Relief-D (Loratadine)
Guaifenesin/phenylephrine HCl	Tl-Dmx

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Trigofen DM
Lidocaine HCl/hydrocortisone acetate	Lidocaine HCl-Hydrocortison Ac
Dextromethorphan HBr/phenylephrine HCl	Pediacare Multi-Symptom Cold
Cromolyn sodium	Nasalcrom
Hydrocortisone acetate/aloe vera	Nucort
Dexamethasone	Hidex
Phenylephrine HCl/pyrilamine maleate	Vazotab (Pyrilamine)
Chlorpheniramine maleate/dextromethorphan HBr	Cough And Cold BP
Dextromethorphan HBr/acetaminophen/chlorpheniramine maleate	Flu BP
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Allergy And Cold PE
Guaifenesin/dextromethorphan HBr	Cough Control Dm Max
Guaifenesin/dextromethorphan HBr	Cough Control Dm
Guaifenesin/dextromethorphan HBr	Tab Tussin Dm
Chlorpheniramine maleate/phenylephrine HCl	Allerfed Cold And Allergy
Diphenhydramine HCl	Sleep
Guaifenesin/dextromethorphan HBr/phenylephrine	Cough Control Cf (PE)
Dexbrompheniramine maleate	Pediavent
Carbinoxamine maleate	Ryvent
Brompheniramine maleate/pseudoephedrine HCl/chlophedianol	Atuss DA
Dexchlorpheniramine maleate	Ryclora
Levocetirizine dihydrochloride	Levocetirizine (Bulk)
Chlorpheniramine maleate	Pharbechlor
Diphenhydramine HCl	Pharbedryl
Pseudoephedrine HCl/chlophedianol HCl	Rondec-D
Chlorpheniramine maleate/phenylephrine HCl	Dallergy (Chlorpheniramine-PE)
Chlorcyclizine HCl/phenylephrine HCl	Dallergy (Chlorcyclizine-PE)
Dexbrompheniramine maleate/phenylephrine HCl	Dallergy (Dexbrompheniramn-PE)
Phenylephrine HCl/chlophedianol HCl/guaifenesin	Donatussin Pediatric
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Donatussin
Guaifenesin/pseudoephedrine HCl	Respaire-30
Prednisolone	Millipred
Prednisolone	Millipred DP
Prednisolone sodium phosphate	Millipred
Brompheniramine maleate/pseudoephedrine HCl/dextromethorphan	Neo DM
Chlorpheniramine maleate/phenylephrine bitartrate/aspirin	Alka-Seltzer Plus Cold (PE)
Chlorpheniramine mal/phenylephrine/d-methorphan Hb/aspirin	Alka-Seltzer Plus C/C(PE,Dm)
Doxylamine succinate/phenylephrine/dextromethorphan HBr/ASA	Alka-Seltzer Plus Night (Asa)
Doxylamine succinate/phenylephrine/dextromethorphan HBr/ASA	Alka-Seltzer Plus Day-Night
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Alka-Seltzer Plus Night
Guaifenesin/dextromethorphan HBr	Alka-Seltzer Plus Mucus-Conges
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Alka-Seltzer Plus Day
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Alka-Seltzer Plus Cold/Coughfm
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Alka-Seltzer Plus Flu
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Alka-Seltzer Plus Sinus-Cough

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Diphenhydramine HCl	Alka-Seltzer Plus Allergy
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Alka-Seltzer Plus D-N (Acetam)
Dextromethorphan/pseudoephrine HCl/acetaminophen/doxylamine	Alka-Seltzer Plus Cold+Flu
Pseudoephedrine HCl/codeine phosphate/guaifenesin	Guaifenesin DAC
Codeine phosphate/guaifenesin	Guaifenesin AC
Epinephrine	Primatene Mist
Levalbuterol HCl	Xopenex Concentrate
Levalbuterol HCl	Xopenex
Hydrocodone polistirex/chlorpheniramine polistirex	Hydrocodone-Chlorpheniramine
Theophylline anhydrous	Elixophyllin
Cetirizine HCl	24hour Allergy
Ibuprofen/pseudoephedrine HCl	Cold And Sinus Pain Relief
Cetirizine HCl/pseudoephedrine HCl	Allergy Relief-D (Cetirizine)
Chlorpheniramine maleate/phenylephrine HCl	Centergy
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Centergy DM
Brompheniramine maleate/pseudoephedrine HCl/codeine phosphat	Rydex
Triprolidine HCl/pseudoephedrine HCl/chlophedianol HCl	Trymine CD
Triprolidine HCl/pseudoephedrine HCl	Trymine D
Codeine phosphate/guaifenesin	Trymine CG
Pyrilamine maleate/chlophedianol HCl	Ninjacof
Pyrilamine maleate/chlophedianol HCl/acetaminophen	Ninjacof-A
Pyrilamine maleate/pseudoephedrine HCl/chlophedianol HCl	Ninjacof-D
Codeine phosphate/guaifenesin	Ninjacof-XG
Guaifenesin/dextromethorphan HBr	Cheracol D
Guaifenesin/dextromethorphan HBr	Creo-Terpin (DM-Guaifenesin)
Phenylephrine HCl/acetaminophen	Pyrroxate Cold And Congestion
Prednisolone sodium phosphate	Veripred 20
Dextromethorphan HBr/acetaminophen/doxylamine	Vicks Nyquil Cold/Flu Liquicap
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Vicks Nature Fusion
Diphenhydramine HCl	Zzzquil
Guaifenesin/dextromethorphan HBr	Vicks Nature Fusion Cough-Cong
Dextromethorphan HBr/acetaminophen/doxylamine	Vicks Nature Fusion Cold-Flu
Dextromethorphan HBr/acetaminophen/doxylamine	Vicks Nyquil Nighttime Relief
Dextromethorphan HBr/doxylamine succinate	Vicks Nyquil Cough
Chlorpheniramine maleate/dextromethorphan HBr	Vicks Children's Nyquil Cold-C
Dextromethorphan HBr/acetaminophen/chlorpheniramine maleate	Vicks Nyquil Cold/Flu (Cpm)
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Vicks Dayquil Cold-Flu Relief
Guaifenesin/dextromethorphan HBr	Vicks Dayquil Mucus Control Dm
Phenylephrine HCl/acetaminophen	Vicks Dayquil Sinex
Phenylephrine HCl/acetaminophen/doxylamine succinate	Vicks Nyquil Sinex
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Vicks Dayquil-Nyquil
Phenylephrine HCl/acetaminophen/doxylamine succinate	Vicks Dayquil-Nyquil Sinex
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Vicks Dayquil-Nyquil Cold-Flu
Doxylamine/phenylephrine/dextromethorphan/acetaminophen/GG	Vicks Dayquil-Nyquil Severe
Phenylephrine HCl/acetaminophen	Vicks Qlearquil Daytime Sinus

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Phenylephrine HCl/acetaminophen/doxylamine succinate	Vicks Qlearquil Nightime Sinus
Phenylephrine HCl/acetaminophen	Vicks Sinex Daytime
Phenylephrine HCl/acetaminophen/doxylamine succinate	Vicks Sinex Nighttime
Dextromethorphan/pseudoephrine HCl/acetaminophen/doxylamine	Nyquil D
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Vicks Dayquil Severe Cold-Flu
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Vicks Nyquil Severe Cold-Flu
Loratadine	Vicks Qlearquil Allergy
Diphenhydramine HCl	Vicks Qlearquil Nighttime Rlf
Flunisolide	Flunisolide
Ketotifen fumarate	Alaway
Bepotastine besilate	Bepreve
Hydrocortisone/emollient combination no.45	Pediaderm HC
Triamcinolone acetonide/emollient combination no.45	Pediaderm TA
Epinephrine	Episnap
Epinephrine	Epinephrinesnap-V
Guaifenesin/dextromethorphan HBr	Chest Congestion-Cough Relief
Dextromethorphan HBr/acetaminophen/doxylamine	Night Time (Doxy-DM-Acetam)
Phenylephrine HCl/diphenhydramine HCl	Childs Triacting Cold-Cough
Phenylephrine HCl/acetaminophen/chlorpheniramine	Pain Relief Allergy Sinus
Clemastine fumarate	Dayhist Allergy
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Cold Head Congestion Nighttime
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Cold And Cough Elixir
Guaifenesin/phenylephrine HCl	Chest-Sinus Congestion Relief
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Cold Head Congestion Day/Nite
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Brompheniramin-Phenylephrin-DM
Guaifenesin/dyphylline	Difil-G 400
Methylprednisolone sodium succinate	Methylprednisolone Sodium Succ
Naproxen sodium/pseudoephedrine HCl	Aleve-D Sinus And Headache
Naproxen sodium/pseudoephedrine HCl	Aleve-D Sinus And Cold
Triprolidine HCl/phenylephrine HCl/codeine phosphate	Histex-AC
Brompheniramine maleate/phenylephrine HCl	Brohist D
Guaifenesin/dextromethorphan HBr/phenylephrine	Endacon
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Ap-Hist Dm
Triprolidine HCl	Histex PD
Triprolidine HCl	Histex (Triprolidine)
Phenylephrine HCl/triprolidine HCl	Histex PE
Triprolidine HCl/phenylephrine HCl/dextromethorphan HBr	Histex DM
Triprolidine HCl	Histex PDX
Brompheniramine maleate/phenylephrine HCl	Ru-Hist D
Guaifenesin/phenylephrine HCl	Duravent PE
Guaifenesin/dextromethorphan HBr/phenylephrine	Duravent DM
Pyrilamine maleate/dextromethorphan HBr	Capron DM
Pyrilamine maleate/dextromethorphan HBr	Capron DMT
Chlorpheniramine maleate/phenylephrine HCl/codeine phosphate	Capcof

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Guaifenesin/dextromethorphan HBr/phenylephrine	Aquanaz
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Capmist DM
Guaifenesin/phenylephrine HCl/acetaminophen	Sinus Relief Pressure And Pain
Phenylephrine HCl/diphenhydramine HCl	Children Night Time Cold-Cough
Doxylamine/phenylephrine/dextromethorphan/acetaminophen/GG	Day-Nite Severe Cold-Flu
Diphenhydramine HCl	Ez Nite Sleep
Guaifenesin/phenylephrine HCl/acetaminophen	Flu Relief Therapy Cold-Chest
Diphenhydramine HCl	Sleep Aid Max Str (Diphenhydr)
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Severe Sinus Congest Alrgy-Cgh
Fluticasone propionate	Childrens 24 Hr Allergy Relief
Diphenhydramine HCl	Allergy
Phenylephrine HCl/acetaminophen/chlorpheniramine	Allergy Relief(Chlorphen-Acet)
Guaifenesin/dextromethorphan HBr	Mucus Relief Er Dm-Max
Ketotifen fumarate	Itchy Eye Drops
Dextromethorphan HBr/acetaminophen/doxylamine	Nite-Time Cold-Flu
Guaifenesin/phenylephrine HCl/acetaminophen	Sinus Relief Severe Congestion
Hydrocodone polistirex/chlorpheniramine polistirex	Tussionex Pennkinetic Er
Guaifenesin/pseudoephedrine HCl	Mucinex D
Diphenhydramine HCl	Rest Simply Nighttime Sleep
Dextromethorphan HBr/acetaminophen/doxylamine	Night Time Cold
Dextromethorphan HBr/acetaminophen/doxylamine	Night Time
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Allergy Sinus Headache (PE)
Phenylephrine HCl/acetaminophen	Sinus Pain Relief
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Daytime
Cetirizine HCl	Children's Allergy(Cetirizine)
Hydrocortisone/aloe vera	Anti-Itch(Hydrocortisone)-Aloe
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Cough And Severe Cold
Codeine phosphate/guaifenesin	Relcof C
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Relcof DM
Guaifenesin/dextromethorphan HBr/phenylephrine	Relhist DMX
Guaifenesin/phenylephrine HCl	Relcof IR
Brompheniramine maleate/phenylephrine HCl	Relhist BP
Pheniramine maleate/phenylephrine HCl/acetaminophen	Flu And Sore Throat
Guaifenesin/dextromethorphan HBr/phenylephrine	Tussin CF MAX
Guaifenesin/dextromethorphan HBr/phenylephrine	Tussin Cf Cough-Cold
Acetaminophen/dextromethorphan HBr	Pain Relief Cold And Cough
Phenylephrine HCl/acetaminophen/chlorpheniramine	Sinus Congestion-Pain(Chlorph)
Diphenhydramine HCl	Restfully Sleep
Clemastine fumarate	Allerhist-1
Dextromethorphan HBr/pseudoephedrine HCl/acetaminophen	Day-Time
Phenylephrine HCl/acetaminophen	Pain Relief Sinus PE
Guaifenesin/dextromethorphan HBr	Intense Cough Reliever
Ketotifen fumarate	Allergy Eye (Ketotifen)
Cetirizine HCl/pseudoephedrine HCl	Allergy D-12
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Pain Relief Cold

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Children's Cold And Cough DM
Aminophylline	Aminophylline (Bulk)
Betamethasone acetate, micronized	Betamethasone Acet,Micro(Bulk)
Fluticasone propionate	Fluticasone Propionate (Bulk)
Formoterol fumarate	Formoterol Fumarate (Bulk)
Loratadine	Loratadine (Bulk)
Prednisolone	Prelone
Triamcinolone acetonide	Triamcinolone Acetonide (Bulk)
Prednisolone, micronized	Prednisolone, Micro (Bulk)
Prednisolone acetate, micronized	Prednisolone Ac, Micro (Bulk)
Dexamethasone, micronized	Dexamethasone,Micronized(Bulk)
Cyproheptadine HCl	Cyproheptadine (Bulk)
Dexamethasone acetate, micronized	Dexamethasone Ac, Micro (Bulk)
Mometasone furoate	Mometasone Furoate (Bulk)
Loratadine, micronized	Loratadine, Micronized (Bulk)
Guaifenesin/dextromethorphan HBr	Tussin Cough Dm
Brompheniramine maleate/pseudoephedrine HCl	Childrens Cold-Alrgy (P-Ephed)
Pseudoephedrine/dextromethorphan/guaifenesin/acetaminophen	Cold And Cough (PE-Dm-Gg-Acet)
Guaifenesin/pseudoephedrine HCl	Non-Drying Sinus
Dextromethorphan/pseudoephrine HCl/acetaminophen/doxylamine	Night Time
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Tussin Cold-Congestion
Guaifenesin/pseudoephedrine HCl	Tussin Cold Severe Congestion
Phenylephrine HCl/acetaminophen	Non-Aspirin Sinus
Pseudoephedrine HCl/acetaminophen	Daytime Sinus Relief
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Intense Cold And Flu
Phenylephrine HCl/acetaminophen/dexbrompheniramine maleate	Complete Sinus Relief
Chlorpheniramine maleate/phenylephrine HCl	Cold And Allergy
Phenylephrine HCl/triprolidine HCl	Sinus Nighttime
Dextromethorphan HBr/acetaminophen/doxylamine	Night Time Cold-Flu Relief
Dextromethorphan HBr/acetaminophen/doxylamine	Night Time Cold-Flu
Guaifenesin/phenylephrine HCl	Mucus Relief D (Phenylephrine)
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Non-Aspirin Severe Congest M-S
Phenylephrine HCl/acetaminophen	Daytime Sinus
Phenylephrine HCl/acetaminophen/doxylamine succinate	Nighttime Sinus
Guaifenesin/phenylephrine HCl	Tussin PE
Dextromethorphan HBr/acetaminophen/doxylamine	Night Time Cough-Sore Throat
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Flu Relief Therapy Daytime
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Childs Plus Cold And Allergy
Guaifenesin/pseudoephedrine HCl	Chest Congestion Relief D
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Allergy-Sinus
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Allergy Relief-Sinus Headache
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Severe Cold (Diphen-PE-Acetam)
Diphenhydramine HCl	Children's Complete Allergy
Phenylephrine HCl/acetaminophen	Pressure And Pain
Dextromethorphan HBr/acetaminophen/doxylamine	Night Time Cold And Flu Relief

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Phenylephrine HCl/diphenhydramine HCl	Nighttime Cough-Cold
Guaifenesin/dextromethorphan HBr/phenylephrine	Severe Congestion And Coughmax
Guaifenesin/dextromethorphan HBr	Dm Max
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Flu And Sore Throat Relief
Diphenhydramine HCl	Nyt-Time Sleep
Phenylephrine HCl/acetaminophen	Daytime Sinus-Congestion
Phenylephrine HCl/acetaminophen/doxylamine succinate	Nighttime Sinus-Congestion
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Pressure-Pain-Cold
Guaifenesin/phenylephrine HCl/acetaminophen	Cold Head Congest(Gg-PE-Acetm)
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Nite Time Cold-Flu Relief (PE)
Diphenhydramine HCl	Children's Allergy Medicine
Dextromethorphan HBr/acetaminophen/chlorpheniramine maleate	Coricidin HBP
Chlorpheniramine/dextromethorphan/acetaminophen/guaifenesin	Coricidin Hbp Day-Night
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Night Time Cold
Ibuprofen/pseudoephedrine HCl	Ibuprofen Cold
Pseudoephedrine/dextromethorphan/guaifenesin/acetaminophen	Day-Time
Dextromethorphan/phenylephrine/acetaminophen/chlorpheniramin	Daytime And Nighttime Cold
Dextromethorphan HBr/pseudoephedrine HCl/acetaminophen	Pain Reliever Flu
Chlorpheniramine maleate/dextromethorphan HBr	Cough-Cold Relief Hbp
Phenylephrine HCl/acetaminophen	Sinus Headache PE
Guaifenesin/phenylephrine HCl/acetaminophen	Pressure-Pain PE Plus Mucus
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Pressure-Pain PE Plus Cold
Diphenhydramine HCl	Unisom Sleepgels
Diphenhydramine HCl	Unisom Sleepmelts
Hydrocortisone/aloe vera	Cortizone-10 With Aloe
Diphenhydramine HCl	Unisom (Diphenhydramine)
Fexofenadine HCl	Allegra Allergy
Fexofenadine HCl	Children's Allegra Allergy
Fexofenadine HCl/pseudoephedrine HCl	Allegra-D 12 Hour
Fexofenadine HCl/pseudoephedrine HCl	Allegra-D 24 Hour
Triamcinolone acetonide	Nasacort
Triamcinolone acetonide	Children's Nasacort
Dextromethorphan HBr/doxylamine succinate	Nitetime Cough
Phenylephrine HCl/acetaminophen/chlorpheniramine	Allergy Sinus PE
Dextromethorphan HBr/acetaminophen/doxylamine	Nitetime Multi-Symptom
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Children's Dibromm Dm Cold-Cou
Brompheniramine maleate/phenylephrine HCl	Children's Dibromm Cold-Allerg
Phenylephrine HCl/acetaminophen	Sinus Relief (Non-Drowsy)
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Severe Cold
Epinephrine	Adrenalin
Diphenhydramine HCl	Nytol
Phenylephrine HCl/pyrilamine maleate	Pyrilamine-Phenylephrine
Triprolidine HCl/pseudoephedrine HCl	Entre-Hist Pse
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Entre-Cough

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Dexamethasone	Taperdex
Dexamethasone	Zodex
Guaifenesin/dextromethorphan HBr	Ultra Tuss Safe
Epinastine HCl	Epinastine
Deflazacort	Emflaza
Diphenhydramine HCl	Dicopanol
Guaifenesin/dextromethorphan HBr	Mucosa DM
Chlorpheniramine maleate	Chlorhist
Diphenhydramine HCl	Aler-Tab
Diphenhydramine HCl	Aler-Cap
Chlorpheniramine maleate/codeine phosphate	Zodryl AC 25
Chlorpheniramine maleate/codeine phosphate	Zodryl AC 30
Chlorpheniramine maleate/codeine phosphate	Zodryl AC 35
Chlorpheniramine maleate/codeine phosphate	Zodryl AC 40
Chlorpheniramine maleate/codeine phosphate	Zodryl AC 50
Chlorpheniramine maleate/codeine phosphate	Zodryl AC 60
Chlorpheniramine maleate/codeine phosphate	Zodryl AC 80
Chlorpheniramine maleate/pseudoephedrine HCl/codeine	Zodryl DAC 25
Chlorpheniramine maleate/pseudoephedrine HCl/codeine	Zodryl DAC 30
Chlorpheniramine maleate/pseudoephedrine HCl/codeine	Zodryl DAC 35
Chlorpheniramine maleate/pseudoephedrine HCl/codeine	Zodryl DAC 40
Chlorpheniramine maleate/pseudoephedrine HCl/codeine	Zodryl DAC 50
Chlorpheniramine maleate/pseudoephedrine HCl/codeine	Zodryl DAC 60
Chlorpheniramine maleate/pseudoephedrine HCl/codeine	Zodryl DAC 80
Pseudoephedrine HCl/codeine phosphate/guaifenesin	Zodryl DEC 25
Pseudoephedrine HCl/codeine phosphate/guaifenesin	Zodryl DEC 30
Pseudoephedrine HCl/codeine phosphate/guaifenesin	Zodryl DEC 35
Pseudoephedrine HCl/codeine phosphate/guaifenesin	Zodryl DEC 40
Pseudoephedrine HCl/codeine phosphate/guaifenesin	Zodryl DEC 50
Pseudoephedrine HCl/codeine phosphate/guaifenesin	Zodryl DEC 60
Pseudoephedrine HCl/codeine phosphate/guaifenesin	Zodryl DEC 80
Fluocinolone acetonide/emollient combination no.65	Synalar Cream Kit
Fluocinolone acetonide/emollient combination no.65	Synalar Ointment Kit
Fluocinolone acetonide/skin cleanser comb no.28	Synalar TS
Clobetasol propionate/skin cleanser combination no.28	Clodan Kit
Fluticasone propionate/emollient combination no.65	Beser Kit
Phenylephrine HCl/pyrilamine maleate	Pyril D
Carbinoxamine maleate	Carbinoxamine Maleate
Brompheniramine maleate/pseudoephedrine HCl/dextromethorphan	Bio-Dtuss Dmx
Guaifenesin/dextromethorphan HBr/phenylephrine	Biogil
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Bionel
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Bionel Pediatric
Guaifenesin/dextromethorphan HBr/phenylephrine	Biocotron-D
Guaifenesin/dextromethorphan HBr	Biocotron

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Dextromethorphan HBr/phenylephrine HCl/dexbrompheniramine	Bionatuss DXP
Guaifenesin/dextromethorphan HBr	Biospec DMX
Guaifenesin/dextromethorphan HBr/phenylephrine	Biobron SF
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Bio-B Kids
Guaifenesin/dextromethorphan HBr/phenylephrine	Biodesp DM
Guaifenesin/dextromethorphan HBr/phenylephrine	Bio T Pres
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Bio T Pres-B
Guaifenesin/dextromethorphan HBr/phenylephrine	Bio T Pres Pediatric
Guaifenesin/dextromethorphan HBr/phenylephrine	Bio-S-Pres Dx
Guaifenesin/dextromethorphan HBr/phenylephrine	Biogtuss NF
Guaifenesin/dextromethorphan HBr/phenylephrine	Biobron DX
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Bio-Rytuss
Hydrocortisone acetate/pramoxine HCl	Hydrocortisone-Pramoxine
Guaifenesin/pseudoephedrine HCl	Pseudoephedrine-Guaifenesin
Cetirizine HCl/pseudoephedrine HCl	Cetirizine-Pseudoephedrine
Dexamethasone sodium phosphate/PF	Active Injection Kit D (Pf)
Phenylephrine HCl/acetaminophen/chlorpheniramine	Contac Cold-Flu Max Strength
Phenylephrine HCl/acetaminophen	Contac Cold-Flu Day
Phenylephrine HCl/acetaminophen/chlorpheniramine	Contac Cold-Flu Day And Night
Dextromethorphan HBr/acetaminophen/doxylamine	Contac Cold-Flu Night
Guaifenesin/dextromethorphan HBr	Daytime Mucus Relief Dm
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Allergy Plus Severe Sinus Ha
Phenylephrine HCl/acetaminophen/chlorpheniramine	Effervescent Cold Relief Plus
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Cold Severe Congestion
Fexofenadine HCl/pseudoephedrine HCl	Fexofenadine-Pseudoephedrine
Aldosterone	Aldosterone (Bulk)
Hydrocortisone/mineral oil/petrolatum,white	Hydrocortisone-Min Oil-Wht Pet
Guaifenesin/phenylephrine HCl/acetaminophen	Ccp Caffeine Free
Phenylephrine HCl/acetaminophen/chlorpheniramine	Medicidin-D
Diphenhydramine HCl	Diphen
Loratadine	Loradamed
Guaifenesin/dextromethorphan HBr	Guaicon DMS
Guaifenesin/phenylephrine HCl/acetaminophen	Coldonyl
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Decorel Forte Plus
Phenylephrine HCl/acetaminophen	Sinus Pain-Pressure (PE)
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Non-Pseudo Cold Relief
Pseudoephedrine HCl/acetaminophen	Nexafed Sinus Pressure-Pain
Chlorpheniramine maleate	Chlortabs
Chlorpheniramine maleate/phenylephrine HCl	Suphedrine PE Sinus Andallergy
Phenylephrine HCl/acetaminophen/doxylamine succinate	Daytime And Nitetime Sinus
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Severe Allergy-Sinus Headache
Phenylephrine HCl/acetaminophen/chlorpheniramine	Allergy Relief Multi-Symptom
Hydrocortisone/aloe vera/vitamin E acetate/vitamins A and D	Anti-Itch Plus
Chlorpheniramine maleate/phenylephrine bitartrate/aspirin	Cold Relief

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Racepinephrine HCl	Racepinephrine (Bulk)
Triamcinolone hexacetonide	Triamcinolone Hexaceton (Bulk)
Diphenhydramine HCl	Aller-G-Time
Chlorpheniramine maleate	Allergy-Time
Epinephrine	Epipen
Epinephrine	Epipen 2-Pak
Epinephrine	Epipen Jr
Epinephrine	Epipen Jr 2-Pak
Formoterol fumarate	Perforomist
Ipratropium bromide/albuterol sulfate	Duoneb
Revefenacin	Yupelri
Guaifenesin/dextromethorphan HBr	Medi-Tussin Dm
Guaifenesin/dextromethorphan HBr	Intense Cough
Guaifenesin/dextromethorphan HBr	Medi-Tussin Dm Diabetic
Diphenhydramine HCl	Medi-Phedryl
Triamcinolone/norflurane and pentafluoropropane (HFC 245fa)	P-Care K40g
Triamcinolone acetonide	P-Care K40
Triamcinolone acetonide	P-Care K80
Triamcinolone/norflurane and pentafluoropropane (HFC 245fa)	P-Care K80g
Methylprednisolone acetate	P-Care D40
Methylprednisolone acetate/norflurane/HFC 245fa	P-Care D40g
Methylprednisolone acetate	P-Care D80
Methylprednisolone acetate/norflurane/HFC 245fa	P-Care D80g
Betamethasone acetate/betamethasone sodium phosphate	Pod-Care 100c
Betamethasone acetate and sodium phosph/norflurane/HFC 245fa	Pod-Care 100cg
Triamcinolone acetonide	Pod-Care 100k
Triamcinolone/norflurane and pentafluoropropane (HFC 245fa)	Pod-Care 100kg
Metaproterenol sulfate	Metaproterenol
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Bronkids
Guaifenesin/dextromethorphan HBr/phenylephrine	Brontuss SF
Pseudoephedrine HCl/codeine phosphate/guaifenesin	Phenylhistine
Chlorpheniramine maleate/pseudoephedrine HCl	Chlorpheniramine-Pseudoephed
Albuterol sulfate	Proair HFA
Levalbuterol tartrate	Xopenex HFA
Guaifenesin/dextromethorphan HBr	Mucinex DM
Guaifenesin/dextromethorphan HBr	Diabetic Siltussin-Dm
Beclomethasone dipropionate	Qvar
Beclomethasone dipropionate	Qvar Redihaler
Omalizumab	Xolair
Guaifenesin/dextromethorphan HBr	Guaifenesin-DM
Codeine phosphate/guaifenesin	Guaiatussin AC
Phenylephrine HCl/promethazine HCl	Promethazine-Phenylephrine
Promethazine/phenylephrine HCl/codeine	Promethazine-Phenyleph-Codeine
Hydrocortisone/aloe vera	Cortisone With Aloe

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Loratadine/pseudoephedrine sulfate	Allergy Relief D12
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Sinus PE Pressure-Pain-Cold
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Cold-Flu-Sore Throat
Guaifenesin/dextromethorphan HBr/phenylephrine	Severe Cough-Congestion
Guaifenesin/dextromethorphan HBr	Child Chest Congestion-Cough
Acetaminophen/dextromethorphan HBr	Child Cough And Sore Throat
Fexofenadine HCl	Children's Allergy Relief(Fex)
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Child Multi-Symptom Cold-Fever
Guaifenesin/phenylephrine HCl/acetaminophen	Cold And Sinus Multi-Symptom
Guaifenesin/phenylephrine HCl	Children's Stuffy Nose-Cold
Dextromethorphan HBr/phenylephrine HCl	Children's Cold-Cough Daytime
Dextromethorphan/phenylephrine/acetaminophen/diphenhydramine	Multi-Symptom Severe Cold-Nt
Guaifenesin/phenylephrine HCl/acetaminophen	Severe Congestion Relief
Guaifenesin/dextromethorphan HBr	Child Cough-Chest Congest Dm
Doxylamine succinate/dextromethorphan HBr/guaifenesin	Tussin Dm Day-Night
Levocetirizine dihydrochloride	Allergy Relief (Levocetirizin)
Phenylephrine HCl/diphenhydramine HCl	Allergy-D
Guaifenesin/phenylephrine HCl	Non-Drying Sinus
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Flu Severe Cold-Night(Diph-PE)
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Flu And Severe Cold-Daytime
Dextromethorphan HBr/acetaminophen/chlorpheniramine maleate	Children's Cough And Runnynose
Pseudoephedrine HCl/acetaminophen	Sinus Headache Degongestant
Ketotifen fumarate	Antihistamine Eye Drops
Fexofenadine HCl/pseudoephedrine HCl	Allergy Relief D
Phenylephrine HCl/diphenhydramine HCl	Cold And Cough (Diphenhydr-PE)
Codeine phosphate/guaifenesin	Virtussin AC
Theophylline anhydrous	Theo-24
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Tylenol Cold Multi-Sympt Night
Guaifenesin/phenylephrine HCl/acetaminophen	Tylenol Sinus Severe
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Tylenol Cold Max Day
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Sudafed PE Pressure+Pain+Cold
Phenylephrine HCl/diphenhydramine HCl	Child's Benadryl-D Allergy-Sin
Chlorcyclizine HCl/pseudoephedrine HCl/codeine phosphate	Poly-Tussin D
Chlorcyclizine HCl/codeine phosphate	Poly-Tussin
Phenylephrine HCl/pyrilamine maleate	Poly Hist Forte (Pyrilamine)
Guaifenesin/pseudoephedrine HCl	Poly-Vent Ir
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Poly-Vent Dm
Doxylamine succinate/phenylephrine HCl	Poly Hist Forte (Doxylamine)
Thonzylamine HCl/phenylephrine HCl/dextromethorphan HBr	Poly-Hist DM (Thonzylamine)
Thonzylamine HCl/chlophedianol HCl	Poly Hist Pd
Dexchlorpheniramine maleate/phenylephrine/dextromethorphan	Polytussin DM
Pseudoephedrine/dextromethorphan/guaifenesin/acetaminophen	Duraflu
Pseudoephedrine HCl/codeine phosphate/guaifenesin	Lortuss EX
Doxylamine succinate/pseudoephedrine HCl	Lortuss LQ

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Doxylamine succ/pseudoephedrine HCl/dextromethorphan HBr	Lortuss DM
Doxylamine succinate/phenylephrine HCl	Poly Hist Forte
Brompheniramine maleate/phenylephrine HCl/codeine phosphate	Poly-Tussin Ac
Guaifenesin/phenylephrine HCl	Deconex IR
Guaifenesin/dextromethorphan HBr/phenylephrine	Deconex DMX
Dexbrompheniramine maleate/phenylephrine HCl	Ala-Hist PE
Dexbrompheniramine maleate	Ala-Hist Ir
Dextromethorphan HBr/phenylephrine HCl/dexbrompheniramine	Alahist CF
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Ala-Hist Dm
Dextromethorphan HBr/phenylephrine HCl/dexbrompheniramine	Alahist DM
Tripelennamine HCl	Tripelennamine (Bulk)
Methylprednisolone, micronized	Methylprednisolone, Mic (Bulk)
Loratadine	Children's Loratadine
Prednisolone acetate	Flo-Pred
Hydrocortisone acetate/urea	U-Cort
Pyrilamine maleate	Pyrilamine Maleate (Bulk)
Dyphylline	Dyphylline (Bulk)
Desoxycorticosterone acetate	Desoxycorticosterone Ac (Bulk)
Brompheniramine maleate	Brompheniramine Maleate (Bulk)
Triprolidine HCl	Triprolidine HCl (Bulk)
Trimeprazine tartrate	Trimeprazine Tartrate (Bulk)
Clemizole HCl	Clemizole HCl (Bulk)
Fexofenadine HCl	Fexofenadine (Bulk)
Montelukast sodium	Montelukast (Bulk)
Formoterol fumarate dihydrate, micronized	Formoterol Fum Dihyd,Mic(Bulk)
Epinephrine	Adrenaclick
Guaifenesin/dextromethorphan HBr/phenylephrine	Supress DX
Guaifenesin/phenylephrine HCl	Supress-PE
Dextromethorphan HBr/phenylephrine HCl/dexbrompheniramine	Supress A
Guaifenesin/dextromethorphan HBr	Supress DM
Guaifenesin/dextromethorphan HBr/phenylephrine	Tussi-Pres
Guaifenesin/dextromethorphan HBr/phenylephrine	Tussi-Pres Pediatric
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Tussi Pres-B
Guaifenesin/dextromethorphan HBr/phenylephrine	Tusicof
Guaifenesin/dextromethorphan HBr	Zyncof
Guaifenesin/dextromethorphan HBr	G-Zyncof
Guaifenesin/dextromethorphan HBr	G-Tron
Dextromethorphan HBr/phenylephrine HCl/dexbrompheniramine	G-P-Tuss Dxp
Guaifenesin/dextromethorphan HBr	Pecgen DMX
Guaifenesin/dextromethorphan HBr/phenylephrine	Tusslin
Dexchlorpheniramine maleate/pseudoephed/dextromethorphan HBr	Abatuss DMX
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Pecgen PSE
Guaifenesin/dextromethorphan HBr/phenylephrine	Pres Gen
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Presgen B

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Guaifenesin/dextromethorphan HBr/phenylephrine	G-Tusicof
Guaifenesin/dextromethorphan HBr/phenylephrine	Desgen
Guaifenesin/dextromethorphan HBr/phenylephrine	Desgen DM
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Desgen DM (Pseudoephedrine)
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Gencontuss
Guaifenesin/dextromethorphan HBr/phenylephrine	Pres Gen Pediatric
Guaifenesin/dextromethorphan HBr/phenylephrine	G-Supress Dx
Guaifenesin/dextromethorphan HBr	Sorbugen NR
Dexchlorpheniramine maleate/pseudoephedrine/chlophedianol	Abanatuss PED
Guaifenesin/dextromethorphan HBr/phenylephrine	G-Tron Ped
Pseudoephedrine HCl/acrivastine	Semprex-D
Cetirizine HCl	Children's Allergy Complete
Cetirizine HCl/pseudoephedrine HCl	Allergy Complete-D
Guaifenesin/dextromethorphan HBr/phenylephrine	Adult Tussin Multi-Symp Cold
Guaifenesin/dextromethorphan HBr	Adult Tussin Dm
Guaifenesin/dextromethorphan HBr	Adult Tussin Cough Congest Dm
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Severe Cold Cough-Flu
Phenylephrine HCl/acetaminophen/chlorpheniramine	Norel AD
Hydrocodone bitartrate/homatropine methylbromide	Hydrocodone Compound
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Robafen CF
Guaifenesin/dextromethorphan HBr	Safe Tussin Dm
Dextromethorphan HBr/doxylamine succinate	Safetussin PM
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Altipres-B
Guaifenesin/dextromethorphan HBr/phenylephrine	Altipres Pediatric
Guaifenesin/dextromethorphan HBr/phenylephrine	Altipres
Triamcinolone acetonide	Readysharp Triamcinolone
Methylprednisolone acetate	Readysharp Methylprednisolone
Dexamethasone sodium phosphate	Readysharp Dexamethasone
Betamethasone acetate/betamethasone sodium phosphate	Readysharp Betamethasone
Guaifenesin/dextromethorphan HBr	Ri-Tussin Dm
Triprolidine HCl/pseudoephedrine HCl	Ritifed
Guaifenesin/dextromethorphan HBr/phenylephrine	Dometuss-DMX
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Dometuss G
Chlorpheniramine maleate/phenylephrine HCl	Child Dometuss-Da
Triamcinolone acetonide	Nasacort AQ
Hydrocortisone acetate/pramoxine HCl	Analpram-HC
Chlorpheniramine maleate/pseudoephedrine/dextromethorphan	Pediatric Cough And Cold
Brompheniramine maleate/pseudoephedrine HCl	Brotapp
Guaifenesin/dextromethorphan HBr	Siltussin DM DAS
Diphenhydramine HCl	Siladryl SA
Brompheniramine maleate/pseudoephedrine HCl/dextromethorphan	Brotapp DM
Guaifenesin/dextromethorphan HBr	Diabetic Siltussin-Dm Max Str
Diphenhydramine HCl	Silphen Cough
Guaifenesin/dextromethorphan HBr	Siltussin-DM

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Tusnel New Formula
Guaifenesin/dextromethorphan HBr	Tusnel Diabetic
Guaifenesin/dextromethorphan HBr/phenylephrine	Tusnel DM
Pseudoephedrine HCl/codeine phosphate/guaifenesin	Tusnel C
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Tusnel Pediatric
Guaifenesin/pseudoephedrine HCl	Tusnel Pediatric
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Tusnel DM Pediatric(Pseudoeph)
Guaifenesin/dextromethorphan HBr/phenylephrine	Tusnel DM Pediatric(Phenyleph)
Dexbrompheniramine maleate/pseudoephedrine HCl	Conex
Ciclesonide	Alvesco
Ciclesonide	Omnaris
Guaifenesin/dextromethorphan HBr	Children's Mucinex Cough
Guaifenesin/phenylephrine HCl	Entex LQ
Brompheniramine maleate/pseudoephedrine HCl/dextromethorphan	Bromfed DM
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Rycontuss
Guaifenesin/dextromethorphan HBr	Geri-Tussin Dm
Diphenhydramine HCl	Geri-Dryl
Guaifenesin/dextromethorphan HBr	Guaiasorb DM
Codeine phosphate/guaifenesin	G Tussin Ac
Dexchlorpheniramine maleate/pseudoephed/dextromethorphan HBr	Deltuss DMX (Dexchlorphen)
Dexchlorpheniramine maleate/pseudoephedrine HCl	Deltuss DP
Guaifenesin/dextromethorphan HBr	Trispec Dmx
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Trispec Pse
Diphenhydramine HCl	Naramin
Chlorcyclizine HCl	Ahist (Chlorcyclizine)
Dexchlorpheniramine maleate/phenylephrine HCl	Stahist (Dexchlorpheniramine)
Chlorcyclizine HCl/pseudoephedrine HCl	Stahist AD
Chlorpheniramine maleate/codeine phosphate	Z-Tuss Ac
Dexamethasone	Decadron
Guaifenesin/dextromethorphan HBr/phenylephrine	Giltuss Pediatric
Guaifenesin/dextromethorphan HBr/phenylephrine	Giltuss
Guaifenesin/dextromethorphan HBr/phenylephrine	Exactuss
Chlorpheniramine maleate/phenylephrine HCl/chlophedianol HCl	Carbaphen CH
Chlorpheniramine maleate/phenylephrine HCl/chlophedianol HCl	Carbaphen Ped Ch
Guaifenesin/dextromethorphan HBr/phenylephrine	Giltuss Cough-Cold
Guaifenesin/phenylephrine HCl	Gilphex TR
Guaifenesin/dextromethorphan HBr/phenylephrine	Giltuss TR
Chlorpheniramine maleate/phenylephrine HCl	Phenabid
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Phenabid DM
Chlorpheniramine maleate/phenylephrine HCl	Phenagil
Chlorpheniramine maleate/phenylephrine HCl/chlophedianol HCl	Phenagil CH
Guaifenesin/dextromethorphan HBr/phenylephrine	Exactuss TR
Guaifenesin/phenylephrine HCl	Exaphex TR
Chlorpheniramine maleate/phenylephrine HCl/chlophedianol HCl	Exaphen CH

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Chlorpheniramine maleate/phenylephrine HCl	Exaphen
Guaifenesin/pseudoephedrine HCl	Maxifed
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Maxichlor PEH DM
Brompheniramine maleate/phenylephrine HCl	Brovex PEB
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Brovex PEB DM
Chlorpheniramine maleate/phenylephrine HCl/codeine phosphate	Maxi-Tuss Cd
Chlorpheniramine maleate/dextromethorphan HBr	Maxi-Tuss DM(Chlorpheniramine)
Guaifenesin/dextromethorphan HBr	Allfen DM
Guaifenesin/phenylephrine HCl	Maxiphen
Guaifenesin/dextromethorphan HBr/phenylephrine	Maxiphen DM
Pseudoephedrine HCl/codeine phosphate/acetaminophen/guaifen	Maxiflu CD
Pseudoephedrine HCl/codeine phosphate/acetaminophen/guaifen	Maxiflu CDX
Phenylephrine HCl/codeine phosphate/acetaminophen/guaifen	Phenflu CD
Phenylephrine HCl/codeine phosphate/acetaminophen/guaifen	Phenflu CDX
Chlorpheniramine maleate/codeine phosphate/acetaminophen	Cotabflu
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	M-Hist Dm
Triprolidine HCl	M-Hist Pd
Guaifenesin/dextromethorphan HBr/phenylephrine	Vanatab DM
Pyrilamine maleate/chlophedianol HCl	Dayclear Allergy Relief
Thonzylamine HCl/phenylephrine HCl/chlophedianol HCl	Vanacof APE
Pyrilamine maleate/chlophedianol HCl	Vanacof AC
Pyrilamine maleate/chlophedianol HCl	Vanatab AC
Pyrilamine maleate/chlophedianol HCl	Vanacof-8
Chlorpheniramine maleate	Chlorphen SR
Pseudoephedrine HCl/chlophedianol HCl/guaifenesin	Vanatab DX
Triprolidine HCl	Vanaclear PD
Triprolidine HCl	Vanahist PD
Guaifenesin/dextromethorphan HBr/phenylephrine	Vanacof DM
Chlophedianol HCl/guaifenesin	Vanacof G
Chlorcyclizine HCl/pseudoephedrine HCl	Nasopen
Phenylephrine HCl/chlophedianol HCl/guaifenesin	Vanacof GPE
Diphenhydramine HCl	Vanamine PD
Thonzylamine HCl/phenylephrine HCl	Nasopen PE
Pseudoephedrine HCl/chlophedianol HCl/guaifenesin	Vanacof DX
Dexchlorpheniramine maleate/pseudoephedrine/chlophedianol	Vanacof
Triamcinolone acetonide/dimethicone/silicone, adhesive	Dermacinrx Silapak
Triamcinolone acetonide/lidocaine/prilocaine	Dermacinrx Cinlone-I CPI
Fluticasone propionate/sodium chloride/sodium bicarbonate	Ticanase
Triamcinolone acetonide/dimethicone	Ellzia Pak
Prednisolone sodium phosphate	Orapred ODT
Beclomethasone dipropionate	Qnasl
Albuterol sulfate	Proair Respiclick
Reslizumab	Cinqair
Fluticasone propionate	Armonair Respiclick

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Fluticasone propionate/salmeterol xinafoate	Airduo Respiclick
Prednisolone sodium phosphate	Orapred
Hydrocortisone acetate/aloe vera	Hydrocortisone Acet-Aloe Vera
Guaifenesin/dextromethorphan HBr	Diabetic Tussin Dm
Dextromethorphan HBr/acetaminophen/diphenhydramine HCl	Diabetic Tussin Night Time
Pseudoephedrine HCl/chlorpheniramine maleate/bellad alk	Respa-AR
Chlorpheniramine maleate/codeine phosphate	Codar AR
Chlorpheniramine maleate/pseudoephedrine HCl/codeine	Tricode AR
Pseudoephedrine HCl/codeine phosphate/guaifenesin	Tricode GF
Pseudoephedrine HCl/codeine phosphate	Codar D
Codeine phosphate/guaifenesin	Codar GF
Triamcinolone acetonide	Arze-Ject-A
Dexamethasone sodium phosphate in 0.9 % sodium chloride	Dexamethasone In 0.9 % Sod Chl
Hydrocodone bitartrate/homatropine methylbromide	Tussigon
Guaifenesin/dextromethorphan HBr	Diabetic Tussin Max St
Guaifenesin/phenylephrine HCl	Fenesin PE IR
Guaifenesin/dextromethorphan HBr	Fenesin DM IR
Levalbuterol HCl	Levalbuterol HCl (Bulk)
Triamcinolone hexacetonide, micronized	Triamcin Hexacet, Micro (Bulk)
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Actinel
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Actinel Pediatric
Dexbrompheniramine maleate/pseudoephedrine HCl	Acticon (Dexbromph-Pse)
Guaifenesin/dextromethorphan HBr/phenylephrine	Actidom DMX
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Balamine DM (Chlor-PE)
Dexamethasone sodium phosphate/PF	Dexamethasone Sodium Phos (PF)
Glycopyrrolate/nebulizer and accessories	Lonhala Magnair Starter
Glycopyrrolate/nebulizer accessories	Lonhala Magnair Refill
Ciclesonide	Zetonna
Arformoterol tartrate	Brovana
Loratadine/pseudoephedrine sulfate	Loratadine-Pseudoephedrine
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Nasohist DM
Chlorpheniramine maleate/phenylephrine HCl	Nasohist
Chlorcyclizine hydrochloride/chlophedianol hydrochloride	Biclora
Chlorcyclizine HCl/pseudoephedrine HCl/chlophedianol HCl	Biclora-D
Carbinoxamine maleate	Arbinoxa
Pseudoephedrine HCl/hydrocodone bitartrate	Rezira
Hydrocodone bitart/chlorpheniramine maleate/pseudoephedrine	Zutripro
Hydrocodone bitartrate/chlorpheniramine maleate	Vituz
Guaifenesin/dextromethorphan HBr/phenylephrine	Children's Mucinex Multi-Symp
Guaifenesin/dextromethorphan HBr/phenylephrine	Mucinex Fast-Max Congest-Cough
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Mucinex Cold,Flu,Sore Throat
Guaifenesin/phenylephrine HCl/acetaminophen	Mucinex Cold And Sinus
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Children's Mucinex Cold-Fever
Guaifenesin/dextromethorphan HBr	Mucinex Fast-Max Dm Max

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Mucinex Fast-Max Severe Cold
Guaifenesin/pseudoephedrine HCl	Mucinex D Maximum Strength
Guaifenesin/phenylephrine HCl/acetaminophen	Mucinex Fast-Max Cold-Sinus
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Mucinex Fast-Max Cold-Flu-Thrt
Guaifenesin/phenylephrine HCl/acetaminophen	Mucinex Sinus-Max Pressur-Pain
Guaifenesin/phenylephrine HCl/acetaminophen	Mucinex Sinus-Max Sev Congestn
Diphenhydramine HCl/phenylephrine/acetaminophen/guaifenesin	Mucinex Sinus-Max D-N (Diphen)
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Delsym Cough-Cold Nighttime
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Child Delsym Cough+Cold
Guaifenesin/dextromethorphan HBr	Delsym Cough-Chest Congest Dm
Guaifenesin/dextromethorphan HBr	Child Delsym Cough+Chest Dm
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Delsym Cough-Cold Daytime
Diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG	Mucinex Fast-Max Day-Nite Cold
Guaifenesin/dextromethorphan HBr	Mucinex Cough Mini-Melts
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Mucinex Sinus-Max Nite Congest
Guaifenesin/phenylephrine HCl	Child Mucinex Stuffy Nose-Cold
Guaifenesin/dextromethorphan HBr/phenylephrine	Child Mucinex Congestion-Cough
Diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG	Child Mucinex M-S Cold Day-Nte
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Mucinex Fast-Max Nite Cold-Flu
Diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG	Mucinex Fst-Mx Dy-Nt Cold(Dph)
Diphenhydramine/phenylephrin/dextromethorph/acetaminophen/GG	Mucinex Fast-Max Day-Nite Cong
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Mucinex Fast-Max Congest-Head
Dextromethorphan HBr/phenylephrine/acetaminophen/doxylamine	Mucinex Fast-Max Nite (Doxyl)
Doxylamine/phenylephrine/dextromethorphan/acetaminophen/GG	Mucinex Fast-Max Day-Nt(Doxyl)
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Mucinex Fast-Maxsev Cold-Sinus
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Children's Mucinex Night Time
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Mucinex Sinus-Max Pressure-Cgh
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Mucinex Sinus-Max Sev Cong(Dm)
Doxylamine/phenylephrine/dextromethorphan/acetaminophen/GG	Mucinex Sinus-Max Dy-Nt (Dxyl)
Fexofenadine HCl	Mucinex Allergy
Guaifenesin/phenylephrine HCl	Child Mucinex Stuffy Nose-Chst
Fluticasone propionate	Aller-Flo
Loratadine/pseudoephedrine sulfate	Allerclear D-12hr
Cetirizine HCl/pseudoephedrine HCl	Aller-Tec D
Cetirizine HCl	Aller-Tec
Fexofenadine HCl	Aller-Fex
Loratadine	Allerclear
Chlorpheniram/phenyleph/dextromethorphn/acetaminophen/guaifn	Cold-Flu M-Symptom Day-Night
Cetirizine HCl	Children's Aller-Tec
Guaifenesin/phenylephrine HCl	Rescon-GG
Dexchlorpheniramine maleate/pseudoephedrine HCl	Rescon
Chlorpheniramine maleate/pseudoephedrine/dextromethorphan	Rescon-DM
Pseudoephedrine HCl/chlophedianol HCl/guaifenesin	Certuss-D
Guaifenesin/phenylephrine HCl	Liquibid PD-R
Guaifenesin/phenylephrine HCl	Liquibid D-R

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Brompheniramine maleate/phenylephrine HCl/chlophedianol HCl	Trexbrom
Guaifenesin/phenylephrine HCl	J-Max
Brompheniramine maleate	J-Tan Pd
Brompheniramine maleate/pseudoephedrine HCl	J-Tan D Pd
Zileuton	Zileuton
Triprolidine HCl/pseudoephedrine HCl	Pediatex TD
Phenylephrine HCl/diphenhydramine HCl	Aldex-CT
Phenylephrine HCl/pyrilamine maleate	Aldex D
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Z-Cof 12 Dm
Diphenhydramine HCl	Total Allergy Medicine
Codeine phosphate/guaifenesin	Pro-Clear Caps
Pyrilamine maleate/phenylephrine HCl/chlophedianol HCl	Pro-Chlo
Codeine phosphate/pyrilamine maleate	Pro-Clear Ac
Dexchlorpheniramine maleate/phenylephrine HCl/codeine	Pro-Red AC (W/ Dexchlorphenir)
Diphenhydramine HCl in 0.9 % sodium chloride	Diphenhydramine In 0.9 % Nacl
Guaifenesin/dextromethorphan HBr/phenylephrine	Phenylephrine-DM-Guaifenesin
Dexchlorpheniramine maleate/pseudoephedrine/chlophedianol	Dexchlorphen-PSE-Chlophedianol
Chlophedianol HCl/guaifenesin	Chlophedianol-Guaifenesin
Phenylephrine HCl/chlophedianol HCl/guaifenesin	Phenylephrine-Chlophedianol-GG
Phenylephrine HCl/diphenhydramine HCl	Diphenhydramine-Phenylephrine
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Chlorpheniramine-Phenyleph-DM
Guaifenesin/pseudoephedrine HCl	Ambi 60PSE-400GFN
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Ambi 40PSE-400GFN-20DM
Chlorpheniramine maleate/pseudoephedrine HCl	Ambi 60pse-4cpm
Chlorpheniramine maleate/pseudoephedrine/dextromethorphan	Ambi 60pse-4cpm-20dm
Chlorpheniramine maleate/phenylephrine HCl	Ambi 10peh-4cpm
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Ambi 10peh-4cpm-20dm
Chlorpheniramine maleate/dextromethorphan HBr	Ambi 20dm-4cpm
Codeine phosphate/guaifenesin	Ambitussin AC
Guaifenesin/pseudoephedrine HCl	Entex T
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Entex PAC
Brompheniramine maleate/phenylephrine HCl	Vazobid-PD
Hydrocortisone acetate/pramoxine HCl/aloe polysaccharide	Novacort (With Aloe)
Chlorpheniramine maleate/pseudoephedrine HCl	Lohist - D
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Lohist-DM
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Endacof - DM
Chlorpheniramine maleate/codeine phosphate	Endacof-C
Guaifenesin/dextromethorphan HBr/pseudoephedrine HCl	Exefen DMX
Guaifenesin/pseudoephedrine HCl	Exefen-IR
Chlorpheniramine maleate/phenylephrine HCl	Nohist-LQ
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Nohist-DM
Brompheniramine maleate/phenylephrine HCl	Lohist-PEB
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Lohist PEB DM
Diphenhydramine HCl	Children's Diphenhydramine

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Guaifenesin/dextromethorphan HBr/potassium citrate	Sorbutuss
Mometasone furoate/ammonium lactate	Momexin
Halobetasol propionate/ammonium lactate	Halonate
Halobetasol propionate/ammonium lactate	Halonate Pac
Albuterol sulfate	Vospire ER
Prednisolone sodium phosphate	Pediapred
Dexchlorpheniramine maleate	Dexchlorpheniramine Maleate
Guaifenesin/hydrocodone bitartrate	Hydrocodone-Guaifenesin
Guaifenesin/hydrocodone bitartrate	Obredon
Triamcinolone acetonide	Pro-C-Dure 5
Triamcinolone acetonide	Pro-C-Dure 6
Betamethasone acetate/betamethasone sodium phosphate	Beta-1
Triamcinolone acetonide/dimethicone/silicone, adhesive	Dermasilkrx SDS
Triamcinolone acetonide/dimethicone/silicone, adhesive	Dermawerx SDS
Triprolidine HCl	Triprolidine HCl
Dexbrompheniramine maleate/phenylephrine HCl	Dexbrompheniramine-Phenyleph
Doxylamine succinate/phenylephrine HCl	Doxylamine-Phenylephrine
Codeine polistirex/chlorpheniramine polistirex	Tuzistra XR
Pseudoephedrine HCl/codeine phosphate/guaifenesin	Virtussin DAC
Fluticasone propionate/sodium chloride/sodium bicarbonate	Ticaspray
Triamcinolone acetonide/dimethicone/silicone, adhesive	Tri-Sila
Azelastine/fluticasone/sodium chloride/sodium bicarbonate	Ticalast
Hydrocortisone acetate/pramoxine HCl	Novacort
Prednisone	Deltasone
Dexamethasone sodium phosphate/PF	Mas Care-Pak (Pf)
Triamcinolone acetonide/dimethicone/silicone, adhesive	Whytederm Tdpak
Triamcinolone acetonide/dimethicone/silicone, adhesive	Whytederm Trilasil Pak
Triamcinolone acetonide/dimethicone/silicone, adhesive	Sure Result Tac Pak
Phenylephrine HCl/diphenhydramine HCl	Child Allergy Plus Congestion
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Day Multi-Symp Flu-Severe Cold
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Daytime Cold
Clemastine fumarate	Allerhist (Clemastine)
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Tussin Cf Max Severe M-S Cold
Levocetirizine dihydrochloride	24hr Allergy Relief
Clemastine fumarate	Dayhist
Promethazine HCl in 0.9 % sodium chloride	Promethazine In 0.9 % Nacl
Phenylephrine HCl/dextromethorphan HBr/acetaminophen/guaifen	Herbiomed Severe Cold-Flu M-S
Dextromethorphan/phenylephrine/acetaminophen/diphenhydramine	Herbiomed Deep Cold-Flu Night
Dextromethorphan HBr/phenylephrine HCl/acetaminophen	Herbiomed Body Aches-Sinus M-S
Diphenhydramine HCl/phenylephrine HCl/acetaminophen	Herbiomed Allergy Cold-Sinus
Brompheniramine maleate/phenylephrine HCl	Glenmax PEB
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Glenmax Peb Dm Forte
Phenylephrine HCl/pyrilamine maleate	Glen PE
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Glenmax PEB DM

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Doxylamine succ/pseudoephedrine HCl/dextromethorphan HBr	Glentuss
Codeine phosphate/guaifenesin	Coditussin AC
Pseudoephedrine HCl/codeine phosphate/guaifenesin	Coditussin DAC
Fluocinolone acetonide/urea/silicone, adhesive	Noxipak
Fluocinolone acetonide/skin cleanser no.10/silicone, tape	Xilapak
Dexamethasone	Dxevo
Triamcinolone acetonide	Zilretta
Triamcinolone acetonide/dimethicone/silicone, adhesive	Nutriarx
Dexamethasone	Zonacort
Fluticasone propionate	Xhance
Betamethasone sodium phosph in sterile water for injection	Betamethasone Sod Phosph-Water
Chlorpheniramine maleate/codeine phosphate	Tuxarin ER
Methylprednisolone acetate in sterile water for injection	Methylprednisolone Acet-Water
Betamethasone acetate and sodium phos in sterile water/PF	Betameth Ac,Sod Phos(PF)-Water
Betamethasone acetate/betamethasone sodium phosphate/water	Betamethasone Ace,Sod Phos-Wtr
Dexamethasone acetate and sodium phosphate in sterile water	Dexamethasone Ac, Sod Ph-Water
Methylprednisolone acetate/bupivacaine HCl in sterile water	Methylprednisol Ac-Bupivac-Wat
Methylprednisolone acetate in sodium chloride,iso-osmotic/PF	Methylpred Ac(PF)-Nacl,Iso-Osm
Triamcinolone diacetate in 0.9 % sodium chloride	Triamcinolone Diacet-0.9% Nacl
Triamcinolone diacetate in 0.9 % sodium chloride/PF	Triamcinolone Dia(PF)-0.9%Nacl
Dexamethasone acetate in sodium chloride, iso-osmotic	Dexamethasone Ace-Nacl,Iso-Osm
Triamcinolone acetonide/bupivacaine/in 0.9% sodium chloride	Triamcinol Ace-Bupiv-0.9% Nacl
Triamcinolone acetonide in 0.9 % sodium chloride	Triamcinolone Aceton-0.9% Nacl
Triamcinolone acetonide/0.9% sodium chloride/PF	Triamcinol Ac (PF) In 0.9%Nacl
Dexamethasone	Locort
Triamcinolone acetonide/lidocaine HCl	Lidocilone I
Dexamethasone sodium phosphate/lidocaine HCl	Lidocidex-I
Dexamethasone sodium phosphate	Dexonto
Hydrocortisone acetate/pramoxine HCl	Mezparox-HC
Epinephrine	Epinephrinesnap-EMS
Methylprednisolone	Methylpred DP
Diphenhydramine HCl	Compoz
Guaifenesin/dextromethorphan HBr/phenylephrine	Nivanex DMX
Brompheniramine maleate/phenylephrine HCl/dextromethorphan	Niva-Hist Dm
Triamcinolone acetonide/dimethicone/silicone, adhesive	Sanadermrx
Prednisone	Rayos
Triamcinolone/norflurane and pentafluoropropane (HFC 245fa)	Triloan SUIK
Triamcinolone/norflurane and pentafluoropropane (HFC 245fa)	Triloan II SUIK
Betamethasone acetate and sodium phosph/norflurane/HFC 245fa	Betaloan SUIK
Methylprednisolone acetate/norflurane/HFC 245fa	Medroloan SUIK
Methylprednisolone acetate/norflurane/HFC 245fa	Medroloan II SUIK
Dexamethasone/PF/norflurane/pentafluoropropane (HFC 245fa)	Dmt Suik
Methylprednisolone acetate/bupivacaine HCl	Physicians Ez Use M-Pred
Triamcinolone acetonide/lidocaine HCl	Ez Use Joint-Tunnel-Trigger

Appendix E. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Epinephrine	Epy
Epinephrine	Adyphren
Epinephrine	Adyphren II
Epinephrine	Adyphren Amp
Epinephrine	Adyphren Amp Ii
Dexamethasone sodium phosphate/PF	Doubledex (PF)
Chlorpheniramine maleate/phenylephrine HCl	Virdec
Chlorpheniramine maleate/phenylephrine HCl/dextromethorphan	Virdec DM

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
	Angioedema		
995.1	Angioedema	ICD-9-CM	Diagnosis
T783XXA	Angioedema	ICD-10-CM	Diagnosis
	Diabetes		
250	Diabetes mellitus	ICD-9-CM	Diagnosis
250.0	Diabetes mellitus without mention of complication	ICD-9-CM	Diagnosis
250.00	Diabetes mellitus without mention of complication, type II or unspecified type, not stated as uncontrolled	ICD-9-CM	Diagnosis
250.01	Diabetes mellitus without mention of complication, type I [juvenile type], not stated as uncontrolled	ICD-9-CM	Diagnosis
250.02	Diabetes mellitus without mention of complication, type II or unspecified type, uncontrolled	ICD-9-CM	Diagnosis
250.03	Diabetes mellitus without mention of complication, type I [juvenile type], uncontrolled	ICD-9-CM	Diagnosis
250.1	Diabetes with ketoacidosis	ICD-9-CM	Diagnosis
250.10	Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled	ICD-9-CM	Diagnosis
250.11	Diabetes with ketoacidosis, type I [juvenile type], not stated as uncontrolled	ICD-9-CM	Diagnosis
250.12	Diabetes with ketoacidosis, type II or unspecified type, uncontrolled	ICD-9-CM	Diagnosis
250.13	Diabetes with ketoacidosis, type I [juvenile type], uncontrolled	ICD-9-CM	Diagnosis
250.2	Diabetes with hyperosmolarity	ICD-9-CM	Diagnosis
250.20	Diabetes with hyperosmolarity, type II or unspecified type, not stated as uncontrolled	ICD-9-CM	Diagnosis
250.21	Diabetes with hyperosmolarity, type I [juvenile type], not stated as uncontrolled	ICD-9-CM	Diagnosis
250.22	Diabetes with hyperosmolarity, type II or unspecified type, uncontrolled	ICD-9-CM	Diagnosis
250.23	Diabetes with hyperosmolarity, type I [juvenile type], uncontrolled	ICD-9-CM	Diagnosis
250.3	Diabetes with other coma	ICD-9-CM	Diagnosis
250.30	Diabetes with other coma, type II or unspecified type, not stated as uncontrolled	ICD-9-CM	Diagnosis
250.31	Diabetes with other coma, type I [juvenile type], not stated as uncontrolled	ICD-9-CM	Diagnosis
250.32	Diabetes with other coma, type II or unspecified type, uncontrolled	ICD-9-CM	Diagnosis
250.33	Diabetes with other coma, type I [juvenile type], uncontrolled	ICD-9-CM	Diagnosis
250.4	Diabetes with renal manifestations	ICD-9-CM	Diagnosis
250.40	Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled	ICD-9-CM	Diagnosis
250.41	Diabetes with renal manifestations, type I [juvenile type], not stated as uncontrolled	ICD-9-CM	Diagnosis
250.42	Diabetes with renal manifestations, type II or unspecified type, uncontrolled	ICD-9-CM	Diagnosis
250.43	Diabetes with renal manifestations, type I [juvenile type], uncontrolled	ICD-9-CM	Diagnosis
250.5	Diabetes with ophthalmic manifestations	ICD-9-CM	Diagnosis
250.50	Diabetes with ophthalmic manifestations, type II or unspecified type, not stated as uncontrolled	ICD-9-CM	Diagnosis
250.51	Diabetes with ophthalmic manifestations, type I [juvenile type], not stated as uncontrolled	ICD-9-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
250.52	Diabetes with ophthalmic manifestations, type II or unspecified type, uncontrolled	ICD-9-CM	Diagnosis
250.53	Diabetes with ophthalmic manifestations, type I [juvenile type], uncontrolled	ICD-9-CM	Diagnosis
250.6	Diabetes with neurological manifestations	ICD-9-CM	Diagnosis
250.60	Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled	ICD-9-CM	Diagnosis
250.61	Diabetes with neurological manifestations, type I [juvenile type], not stated as uncontrolled	ICD-9-CM	Diagnosis
250.62	Diabetes with neurological manifestations, type II or unspecified type, uncontrolled	ICD-9-CM	Diagnosis
250.63	Diabetes with neurological manifestations, type I [juvenile type], uncontrolled	ICD-9-CM	Diagnosis
250.7	Diabetes with peripheral circulatory disorders	ICD-9-CM	Diagnosis
250.70	Diabetes with peripheral circulatory disorders, type II or unspecified type, not stated as uncontrolled	ICD-9-CM	Diagnosis
250.71	Diabetes with peripheral circulatory disorders, type I [juvenile type], not stated as uncontrolled	ICD-9-CM	Diagnosis
250.72	Diabetes with peripheral circulatory disorders, type II or unspecified type, uncontrolled	ICD-9-CM	Diagnosis
250.73	Diabetes with peripheral circulatory disorders, type I [juvenile type], uncontrolled	ICD-9-CM	Diagnosis
250.8	Diabetes with other specified manifestations	ICD-9-CM	Diagnosis
250.80	Diabetes with other specified manifestations, type II or unspecified type, not stated as uncontrolled	ICD-9-CM	Diagnosis
250.81	Diabetes with other specified manifestations, type I [juvenile type], not stated as uncontrolled	ICD-9-CM	Diagnosis
250.82	Diabetes with other specified manifestations, type II or unspecified type, uncontrolled	ICD-9-CM	Diagnosis
250.83	Diabetes with other specified manifestations, type I [juvenile type], uncontrolled	ICD-9-CM	Diagnosis
250.9	Diabetes with unspecified complication	ICD-9-CM	Diagnosis
250.90	Diabetes with unspecified complication, type II or unspecified type, not stated as uncontrolled	ICD-9-CM	Diagnosis
250.91	Diabetes with unspecified complication, type I [juvenile type], not stated as uncontrolled	ICD-9-CM	Diagnosis
250.92	Diabetes with unspecified complication, type II or unspecified type, uncontrolled	ICD-9-CM	Diagnosis
250.93	Diabetes with unspecified complication, type I [juvenile type], uncontrolled	ICD-9-CM	Diagnosis
E10.10	Type 1 diabetes mellitus with ketoacidosis without coma	ICD-10-CM	Diagnosis
E10.11	Type 1 diabetes mellitus with ketoacidosis with coma	ICD-10-CM	Diagnosis
E10.21	Type 1 diabetes mellitus with diabetic nephropathy	ICD-10-CM	Diagnosis
E10.22	Type 1 diabetes mellitus with diabetic chronic kidney disease	ICD-10-CM	Diagnosis
E10.29	Type 1 diabetes mellitus with other diabetic kidney complication	ICD-10-CM	Diagnosis
E10.311	Type 1 diabetes mellitus with unspecified diabetic retinopathy with macular edema	ICD-10-CM	Diagnosis
E10.319	Type 1 diabetes mellitus with unspecified diabetic retinopathy without macular edema	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
E10.3211	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	ICD-10-CM	Diagnosis
E10.3212	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	ICD-10-CM	Diagnosis
E10.3213	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	ICD-10-CM	Diagnosis
E10.3219	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	ICD-10-CM	Diagnosis
E10.3291	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	ICD-10-CM	Diagnosis
E10.3292	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	ICD-10-CM	Diagnosis
E10.3293	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	ICD-10-CM	Diagnosis
E10.3299	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	ICD-10-CM	Diagnosis
E10.3311	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	ICD-10-CM	Diagnosis
E10.3312	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	ICD-10-CM	Diagnosis
E10.3313	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	ICD-10-CM	Diagnosis
E10.3319	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	ICD-10-CM	Diagnosis
E10.3391	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	ICD-10-CM	Diagnosis
E10.3392	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	ICD-10-CM	Diagnosis
E10.3393	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	ICD-10-CM	Diagnosis
E10.3399	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	ICD-10-CM	Diagnosis
E10.3411	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	ICD-10-CM	Diagnosis
E10.3412	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	ICD-10-CM	Diagnosis
E10.3413	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	ICD-10-CM	Diagnosis
E10.3419	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
E10.3491	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	ICD-10-CM	Diagnosis
E10.3492	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	ICD-10-CM	Diagnosis
E10.3493	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	ICD-10-CM	Diagnosis
E10.3499	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	ICD-10-CM	Diagnosis
E10.3511	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	ICD-10-CM	Diagnosis
E10.3512	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	ICD-10-CM	Diagnosis
E10.3513	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	ICD-10-CM	Diagnosis
E10.3519	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	ICD-10-CM	Diagnosis
E10.3521	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	ICD-10-CM	Diagnosis
E10.3522	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	ICD-10-CM	Diagnosis
E10.3523	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	ICD-10-CM	Diagnosis
E10.3529	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	ICD-10-CM	Diagnosis
E10.3531	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	ICD-10-CM	Diagnosis
E10.3532	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	ICD-10-CM	Diagnosis
E10.3533	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	ICD-10-CM	Diagnosis
E10.3539	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	ICD-10-CM	Diagnosis
E10.3541	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	ICD-10-CM	Diagnosis
E10.3542	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	ICD-10-CM	Diagnosis
E10.3543	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	ICD-10-CM	Diagnosis
E10.3549	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
E10.3551	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, right eye	ICD-10-CM	Diagnosis
E10.3552	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, left eye	ICD-10-CM	Diagnosis
E10.3553	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	ICD-10-CM	Diagnosis
E10.3559	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	ICD-10-CM	Diagnosis
E10.3591	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	ICD-10-CM	Diagnosis
E10.3592	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	ICD-10-CM	Diagnosis
E10.3593	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	ICD-10-CM	Diagnosis
E10.3599	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	ICD-10-CM	Diagnosis
E10.36	Type 1 diabetes mellitus with diabetic cataract	ICD-10-CM	Diagnosis
E10.37X1	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	ICD-10-CM	Diagnosis
E10.37X2	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	ICD-10-CM	Diagnosis
E10.37X3	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	ICD-10-CM	Diagnosis
E10.37X9	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	ICD-10-CM	Diagnosis
E10.39	Type 1 diabetes mellitus with other diabetic ophthalmic complication	ICD-10-CM	Diagnosis
E10.40	Type 1 diabetes mellitus with diabetic neuropathy, unspecified	ICD-10-CM	Diagnosis
E10.41	Type 1 diabetes mellitus with diabetic mononeuropathy	ICD-10-CM	Diagnosis
E10.42	Type 1 diabetes mellitus with diabetic polyneuropathy	ICD-10-CM	Diagnosis
E10.43	Type 1 diabetes mellitus with diabetic autonomic (poly)neuropathy	ICD-10-CM	Diagnosis
E10.44	Type 1 diabetes mellitus with diabetic amyotrophy	ICD-10-CM	Diagnosis
E10.49	Type 1 diabetes mellitus with other diabetic neurological complication	ICD-10-CM	Diagnosis
E10.51	Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene	ICD-10-CM	Diagnosis
E10.52	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene	ICD-10-CM	Diagnosis
E10.59	Type 1 diabetes mellitus with other circulatory complications	ICD-10-CM	Diagnosis
E10.610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy	ICD-10-CM	Diagnosis
E10.618	Type 1 diabetes mellitus with other diabetic arthropathy	ICD-10-CM	Diagnosis
E10.620	Type 1 diabetes mellitus with diabetic dermatitis	ICD-10-CM	Diagnosis
E10.621	Type 1 diabetes mellitus with foot ulcer	ICD-10-CM	Diagnosis
E10.622	Type 1 diabetes mellitus with other skin ulcer	ICD-10-CM	Diagnosis
E10.628	Type 1 diabetes mellitus with other skin complications	ICD-10-CM	Diagnosis
E10.630	Type 1 diabetes mellitus with periodontal disease	ICD-10-CM	Diagnosis
E10.638	Type 1 diabetes mellitus with other oral complications	ICD-10-CM	Diagnosis
E10.641	Type 1 diabetes mellitus with hypoglycemia with coma	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
E10.649	Type 1 diabetes mellitus with hypoglycemia without coma	ICD-10-CM	Diagnosis
E10.65	Type 1 diabetes mellitus with hyperglycemia	ICD-10-CM	Diagnosis
E10.69	Type 1 diabetes mellitus with other specified complication	ICD-10-CM	Diagnosis
E10.8	Type 1 diabetes mellitus with unspecified complications	ICD-10-CM	Diagnosis
E10.9	Type 1 diabetes mellitus without complications	ICD-10-CM	Diagnosis
E11.00	Type 2 diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	ICD-10-CM	Diagnosis
E11.01	Type 2 diabetes mellitus with hyperosmolarity with coma	ICD-10-CM	Diagnosis
E11.21	Type 2 diabetes mellitus with diabetic nephropathy	ICD-10-CM	Diagnosis
E11.22	Type 2 diabetes mellitus with diabetic chronic kidney disease	ICD-10-CM	Diagnosis
E11.29	Type 2 diabetes mellitus with other diabetic kidney complication	ICD-10-CM	Diagnosis
E11.311	Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema	ICD-10-CM	Diagnosis
E11.319	Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema	ICD-10-CM	Diagnosis
E11.3211	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	ICD-10-CM	Diagnosis
E11.3212	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	ICD-10-CM	Diagnosis
E11.3213	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	ICD-10-CM	Diagnosis
E11.3219	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	ICD-10-CM	Diagnosis
E11.3291	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	ICD-10-CM	Diagnosis
E11.3292	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	ICD-10-CM	Diagnosis
E11.3293	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	ICD-10-CM	Diagnosis
E11.3299	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	ICD-10-CM	Diagnosis
E11.3311	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	ICD-10-CM	Diagnosis
E11.3312	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	ICD-10-CM	Diagnosis
E11.3313	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	ICD-10-CM	Diagnosis
E11.3319	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	ICD-10-CM	Diagnosis
E11.3391	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
E11.3392	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	ICD-10-CM	Diagnosis
E11.3393	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	ICD-10-CM	Diagnosis
E11.3399	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	ICD-10-CM	Diagnosis
E11.3411	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	ICD-10-CM	Diagnosis
E11.3412	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	ICD-10-CM	Diagnosis
E11.3413	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	ICD-10-CM	Diagnosis
E11.3419	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	ICD-10-CM	Diagnosis
E11.3491	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	ICD-10-CM	Diagnosis
E11.3492	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	ICD-10-CM	Diagnosis
E11.3493	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	ICD-10-CM	Diagnosis
E11.3499	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	ICD-10-CM	Diagnosis
E11.3511	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	ICD-10-CM	Diagnosis
E11.3512	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	ICD-10-CM	Diagnosis
E11.3513	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	ICD-10-CM	Diagnosis
E11.3519	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	ICD-10-CM	Diagnosis
E11.3521	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	ICD-10-CM	Diagnosis
E11.3522	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	ICD-10-CM	Diagnosis
E11.3523	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	ICD-10-CM	Diagnosis
E11.3529	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	ICD-10-CM	Diagnosis
E11.3531	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
E11.3532	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	ICD-10-CM	Diagnosis
E11.3533	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	ICD-10-CM	Diagnosis
E11.3539	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	ICD-10-CM	Diagnosis
E11.3541	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	ICD-10-CM	Diagnosis
E11.3542	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	ICD-10-CM	Diagnosis
E11.3543	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	ICD-10-CM	Diagnosis
E11.3549	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	ICD-10-CM	Diagnosis
E11.3551	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, right eye	ICD-10-CM	Diagnosis
E11.3552	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, left eye	ICD-10-CM	Diagnosis
E11.3553	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	ICD-10-CM	Diagnosis
E11.3559	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	ICD-10-CM	Diagnosis
E11.3591	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	ICD-10-CM	Diagnosis
E11.3592	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	ICD-10-CM	Diagnosis
E11.3593	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	ICD-10-CM	Diagnosis
E11.3599	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	ICD-10-CM	Diagnosis
E11.36	Type 2 diabetes mellitus with diabetic cataract	ICD-10-CM	Diagnosis
E11.37X1	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	ICD-10-CM	Diagnosis
E11.37X2	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	ICD-10-CM	Diagnosis
E11.37X3	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	ICD-10-CM	Diagnosis
E11.37X9	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	ICD-10-CM	Diagnosis
E11.39	Type 2 diabetes mellitus with other diabetic ophthalmic complication	ICD-10-CM	Diagnosis
E11.40	Type 2 diabetes mellitus with diabetic neuropathy, unspecified	ICD-10-CM	Diagnosis
E11.41	Type 2 diabetes mellitus with diabetic mononeuropathy	ICD-10-CM	Diagnosis
E11.42	Type 2 diabetes mellitus with diabetic polyneuropathy	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
E11.43	Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy	ICD-10-CM	Diagnosis
E11.44	Type 2 diabetes mellitus with diabetic amyotrophy	ICD-10-CM	Diagnosis
E11.49	Type 2 diabetes mellitus with other diabetic neurological complication	ICD-10-CM	Diagnosis
E11.51	Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene	ICD-10-CM	Diagnosis
E11.52	Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene	ICD-10-CM	Diagnosis
E11.59	Type 2 diabetes mellitus with other circulatory complications	ICD-10-CM	Diagnosis
E11.610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy	ICD-10-CM	Diagnosis
E11.618	Type 2 diabetes mellitus with other diabetic arthropathy	ICD-10-CM	Diagnosis
E11.620	Type 2 diabetes mellitus with diabetic dermatitis	ICD-10-CM	Diagnosis
E11.621	Type 2 diabetes mellitus with foot ulcer	ICD-10-CM	Diagnosis
E11.622	Type 2 diabetes mellitus with other skin ulcer	ICD-10-CM	Diagnosis
E11.628	Type 2 diabetes mellitus with other skin complications	ICD-10-CM	Diagnosis
E11.630	Type 2 diabetes mellitus with periodontal disease	ICD-10-CM	Diagnosis
E11.638	Type 2 diabetes mellitus with other oral complications	ICD-10-CM	Diagnosis
E11.641	Type 2 diabetes mellitus with hypoglycemia with coma	ICD-10-CM	Diagnosis
E11.649	Type 2 diabetes mellitus with hypoglycemia without coma	ICD-10-CM	Diagnosis
E11.65	Type 2 diabetes mellitus with hyperglycemia	ICD-10-CM	Diagnosis
E11.69	Type 2 diabetes mellitus with other specified complication	ICD-10-CM	Diagnosis
E11.8	Type 2 diabetes mellitus with unspecified complications	ICD-10-CM	Diagnosis
E11.9	Type 2 diabetes mellitus without complications	ICD-10-CM	Diagnosis
E13.00	Other specified diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	ICD-10-CM	Diagnosis
E13.01	Other specified diabetes mellitus with hyperosmolarity with coma	ICD-10-CM	Diagnosis
E13.10	Other specified diabetes mellitus with ketoacidosis without coma	ICD-10-CM	Diagnosis
E13.11	Other specified diabetes mellitus with ketoacidosis with coma	ICD-10-CM	Diagnosis
E13.21	Other specified diabetes mellitus with diabetic nephropathy	ICD-10-CM	Diagnosis
E13.22	Other specified diabetes mellitus with diabetic chronic kidney disease	ICD-10-CM	Diagnosis
E13.29	Other specified diabetes mellitus with other diabetic kidney complication	ICD-10-CM	Diagnosis
E13.311	Other specified diabetes mellitus with unspecified diabetic retinopathy with macular edema	ICD-10-CM	Diagnosis
E13.319	Other specified diabetes mellitus with unspecified diabetic retinopathy without macular edema	ICD-10-CM	Diagnosis
E13.3211	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	ICD-10-CM	Diagnosis
E13.3212	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	ICD-10-CM	Diagnosis
E13.3213	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	ICD-10-CM	Diagnosis
E13.3219	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
E13.3291	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	ICD-10-CM	Diagnosis
E13.3292	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	ICD-10-CM	Diagnosis
E13.3293	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	ICD-10-CM	Diagnosis
E13.3299	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	ICD-10-CM	Diagnosis
E13.3311	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	ICD-10-CM	Diagnosis
E13.3312	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	ICD-10-CM	Diagnosis
E13.3313	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	ICD-10-CM	Diagnosis
E13.3319	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	ICD-10-CM	Diagnosis
E13.3391	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	ICD-10-CM	Diagnosis
E13.3392	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	ICD-10-CM	Diagnosis
E13.3393	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	ICD-10-CM	Diagnosis
E13.3399	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	ICD-10-CM	Diagnosis
E13.3411	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	ICD-10-CM	Diagnosis
E13.3412	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	ICD-10-CM	Diagnosis
E13.3413	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	ICD-10-CM	Diagnosis
E13.3419	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	ICD-10-CM	Diagnosis
E13.3491	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	ICD-10-CM	Diagnosis
E13.3492	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	ICD-10-CM	Diagnosis
E13.3493	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	ICD-10-CM	Diagnosis
E13.3499	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
E13.3511	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	ICD-10-CM	Diagnosis
E13.3512	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	ICD-10-CM	Diagnosis
E13.3513	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	ICD-10-CM	Diagnosis
E13.3519	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	ICD-10-CM	Diagnosis
E13.3521	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	ICD-10-CM	Diagnosis
E13.3522	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	ICD-10-CM	Diagnosis
E13.3523	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	ICD-10-CM	Diagnosis
E13.3529	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	ICD-10-CM	Diagnosis
E13.3531	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	ICD-10-CM	Diagnosis
E13.3532	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	ICD-10-CM	Diagnosis
E13.3533	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	ICD-10-CM	Diagnosis
E13.3539	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	ICD-10-CM	Diagnosis
E13.3541	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	ICD-10-CM	Diagnosis
E13.3542	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	ICD-10-CM	Diagnosis
E13.3543	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	ICD-10-CM	Diagnosis
E13.3549	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	ICD-10-CM	Diagnosis
E13.3551	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, right eye	ICD-10-CM	Diagnosis
E13.3552	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, left eye	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
E13.3553	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	ICD-10-CM	Diagnosis
E13.3559	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	ICD-10-CM	Diagnosis
E13.3591	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	ICD-10-CM	Diagnosis
E13.3592	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	ICD-10-CM	Diagnosis
E13.3593	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	ICD-10-CM	Diagnosis
E13.3599	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	ICD-10-CM	Diagnosis
E13.36	Other specified diabetes mellitus with diabetic cataract	ICD-10-CM	Diagnosis
E13.37X1	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	ICD-10-CM	Diagnosis
E13.37X2	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	ICD-10-CM	Diagnosis
E13.37X3	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	ICD-10-CM	Diagnosis
E13.37X9	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	ICD-10-CM	Diagnosis
E13.39	Other specified diabetes mellitus with other diabetic ophthalmic complication	ICD-10-CM	Diagnosis
E13.40	Other specified diabetes mellitus with diabetic neuropathy, unspecified	ICD-10-CM	Diagnosis
E13.41	Other specified diabetes mellitus with diabetic mononeuropathy	ICD-10-CM	Diagnosis
E13.42	Other specified diabetes mellitus with diabetic polyneuropathy	ICD-10-CM	Diagnosis
E13.43	Other specified diabetes mellitus with diabetic autonomic (poly)neuropathy	ICD-10-CM	Diagnosis
E13.44	Other specified diabetes mellitus with diabetic amyotrophy	ICD-10-CM	Diagnosis
E13.49	Other specified diabetes mellitus with other diabetic neurological complication	ICD-10-CM	Diagnosis
E13.51	Other specified diabetes mellitus with diabetic peripheral angiopathy without gangrene	ICD-10-CM	Diagnosis
E13.52	Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene	ICD-10-CM	Diagnosis
E13.59	Other specified diabetes mellitus with other circulatory complications	ICD-10-CM	Diagnosis
E13.610	Other specified diabetes mellitus with diabetic neuropathic arthropathy	ICD-10-CM	Diagnosis
E13.618	Other specified diabetes mellitus with other diabetic arthropathy	ICD-10-CM	Diagnosis
E13.620	Other specified diabetes mellitus with diabetic dermatitis	ICD-10-CM	Diagnosis
E13.621	Other specified diabetes mellitus with foot ulcer	ICD-10-CM	Diagnosis
E13.622	Other specified diabetes mellitus with other skin ulcer	ICD-10-CM	Diagnosis
E13.628	Other specified diabetes mellitus with other skin complications	ICD-10-CM	Diagnosis
E13.630	Other specified diabetes mellitus with periodontal disease	ICD-10-CM	Diagnosis
E13.638	Other specified diabetes mellitus with other oral complications	ICD-10-CM	Diagnosis
E13.641	Other specified diabetes mellitus with hypoglycemia with coma	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
E13.649	Other specified diabetes mellitus with hypoglycemia without coma	ICD-10-CM	Diagnosis
E13.65	Other specified diabetes mellitus with hyperglycemia	ICD-10-CM	Diagnosis
E13.69	Other specified diabetes mellitus with other specified complication	ICD-10-CM	Diagnosis
E13.8	Other specified diabetes mellitus with unspecified complications	ICD-10-CM	Diagnosis
E13.9	Other specified diabetes mellitus without complications	ICD-10-CM	Diagnosis
A5500	For diabetics only, fitting (including follow-up), custom preparation and supply of off-the-shelf depth-inlay shoe manufactured to accommodate multidensity insert(s), per shoe	HCPCS	Procedure
A5501	For diabetics only, fitting (including follow-up), custom preparation and supply of shoe molded from cast(s) of patient's foot (custom molded shoe), per shoe	HCPCS	Procedure
A5503	For diabetics only, modification (including fitting) of off-the-shelf depth-inlay shoe or custom molded shoe with roller or rigid rocker bottom, per shoe	HCPCS	Procedure
A5504	For diabetics only, modification (including fitting) of off-the-shelf depth-inlay shoe or custom molded shoe with wedge(s), per shoe	HCPCS	Procedure
A5505	For diabetics only, modification (including fitting) of off-the-shelf depth-inlay shoe or custom molded shoe with metatarsal bar, per shoe	HCPCS	Procedure
A5506	For diabetics only, modification (including fitting) of off-the-shelf depth-inlay shoe or custom molded shoe with off-set heel(s), per shoe	HCPCS	Procedure
A5507	For diabetics only, not otherwise specified modification (including fitting) of off-the-shelf depth-inlay shoe or custom molded shoe, per shoe	HCPCS	Procedure
A5508	For diabetics only, deluxe feature of off-the-shelf depth-inlay shoe or custom molded shoe, per shoe	HCPCS	Procedure
A5510	For diabetics only, direct formed, compression molded to patient's foot without external heat source, multiple-density insert(s) prefabricated, per shoe	HCPCS	Procedure
A5512	For diabetics only, multiple density insert, direct formed, molded to foot after external heat source of 230 degrees Fahrenheit or higher, total contact with patient's foot, including arch, base layer minimum of 1/4 inch material of shore a 35 durometer or 3/16 inch material of shore a 40 durometer (or higher), prefabricated, each	HCPCS	Procedure
A5513	For diabetics only, multiple density insert, custom molded from model of patient's foot, total contact with patient's foot, including arch, base layer minimum of 3/16 inch material of shore a 35 durometer or higher), includes arch filler and other shaping material, custom fabricated, each	HCPCS	Procedure
G0108	Diabetes outpatient self-management training services, individual, per 30 minutes	HCPCS	Procedure
G0109	Diabetes outpatient self-management training services, group session (2 or more), per 30 minutes	HCPCS	Procedure

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
G0245	Initial physician evaluation and management of a diabetic patient with diabetic sensory neuropathy resulting in a loss of protective sensation (LOPS) which must include: (1) the diagnosis of LOPS, (2) a patient history, (3) a physical examination that consists of at least the following elements: (a) visual inspection of the forefoot, hindfoot, and toe web spaces, (b) evaluation of a protective sensation, (c) evaluation of foot structure and biomechanics, (d) evaluation of vascular status and skin integrity, and (e) evaluation and recommendation of footwear, and (4) patient	HCPCS	Procedure
G0246	Follow-up physician evaluation and management of a diabetic patient with diabetic sensory neuropathy resulting in a loss of protective sensation (LOPS) to include at least the following: (1) a patient history, (2) a physical examination that includes: (a) visual inspection of the forefoot, hindfoot, and toe web spaces, (b) evaluation of protective sensation, (c) evaluation of foot structure and biomechanics, (d) evaluation of vascular status and skin integrity, and (e) evaluation and recommendation of footwear, and (3) patient education	HCPCS	Procedure
G0247	Routine foot care by a physician of a diabetic patient with diabetic sensory neuropathy resulting in a loss of protective sensation (LOPS) to include the local care of superficial wounds (i.e., superficial to muscle and fascia) and at least the following, if present: (1) local care of superficial wounds, (2) debridement of corns and calluses, and (3) trimming and debridement of nails	HCPCS	Procedure
G8015	Diabetic patient with most recent hemoglobin A1c level (within the last 6 months) documented as greater than 9%	HCPCS	Procedure
G8016	Diabetic patient with most recent hemoglobin A1c level (within the last 6 months) documented as less than or equal to 9%	HCPCS	Procedure
G8017	Clinician documented that diabetic patient was not eligible candidate for hemoglobin A1c measure	HCPCS	Procedure
G8018	Clinician has not provided care for the diabetic patient for the required time for hemoglobin A1c measure (6 months)	HCPCS	Procedure
G8019	Diabetic patient with most recent low-density lipoprotein (within the last 12 months) documented as greater than or equal to 100 mg/dl	HCPCS	Procedure
G8020	Diabetic patient with most recent low-density lipoprotein (within the last 12 months) documented as less than 100 mg/dl	HCPCS	Procedure
G8021	Clinician documented that diabetic patient was not eligible candidate for low-density lipoprotein measure	HCPCS	Procedure
G8022	Clinician has not provided care for the diabetic patient for the required time for low-density lipoprotein measure (12 months)	HCPCS	Procedure
G8023	Diabetic patient with most recent blood pressure (within the last 6 months) documented as equal to or greater than 140 systolic or equal to or greater than 80 mm Hg diastolic	HCPCS	Procedure
G8024	Diabetic patient with most recent blood pressure (within the last 6 months) documented as less than 140 systolic and less than 80 diastolic	HCPCS	Procedure
G8025	Clinician documented that the diabetic patient was not eligible candidate for blood pressure measure	HCPCS	Procedure

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
G8026	Clinician has not provided care for the diabetic patient for the required time for blood pressure measure (within the last 6 months)	HCPCS	Procedure
G8332	Clinician has not provided care for the diabetic retinopathy patient for the required time for macular edema and retinopathy measurement	HCPCS	Procedure
G8333	Patient documented to have had findings of macular or fundus exam communicated to the physician managing the diabetes care	HCPCS	Procedure
G8334	Documentation of findings of macular or fundus exam not communicated to the physician managing the patient's ongoing diabetes care	HCPCS	Procedure
G8335	Clinician documentation that patient was not an eligible candidate for the findings of their macular or fundus exam being communicated to the physician managing their diabetes care during the reporting year	HCPCS	Procedure
G8336	Clinician has not provided care for the diabetic retinopathy patient for the required time for physician communication measurement	HCPCS	Procedure
G8385	Diabetic patients with no documentation of hemoglobin A1c level (within the last 12 months)	HCPCS	Procedure
G8386	Diabetic patients with no documentation of low-density lipoprotein (within the last 12 months)	HCPCS	Procedure
G8390	Diabetic patients with no documentation of blood pressure measurement (within the last 12 months)	HCPCS	Procedure
	Allergy (serious or ambulatory)		
472.0	Chronic rhinitis	ICD-9-CM	Diagnosis
477.0	Allergic rhinitis due to pollen	ICD-9-CM	Diagnosis
477.1	Allergic rhinitis, due to food	ICD-9-CM	Diagnosis
477.2	Allergic rhinitis due to animal (cat) (dog) hair and dander	ICD-9-CM	Diagnosis
477.8	Allergic rhinitis due to other allergen	ICD-9-CM	Diagnosis
477.9	Allergic rhinitis, cause unspecified	ICD-9-CM	Diagnosis
478.8	Upper respiratory tract hypersensitivity reaction, site unspecified	ICD-9-CM	Diagnosis
558.3	Gastroenteritis and colitis, allergic	ICD-9-CM	Diagnosis
691.0	Diaper or napkin rash	ICD-9-CM	Diagnosis
691.8	Other atopic dermatitis and related conditions	ICD-9-CM	Diagnosis
692.0	Contact dermatitis and other eczema due to detergents	ICD-9-CM	Diagnosis
692.1	Contact dermatitis and other eczema due to oils and greases	ICD-9-CM	Diagnosis
692.2	Contact dermatitis and other eczema due to solvents	ICD-9-CM	Diagnosis
692.3	Contact dermatitis and other eczema due to drugs and medicines in contact with skin	ICD-9-CM	Diagnosis
692.4	Contact dermatitis and other eczema due to other chemical products	ICD-9-CM	Diagnosis
692.5	Contact dermatitis and other eczema due to food in contact with skin	ICD-9-CM	Diagnosis
692.6	Contact dermatitis and other eczema due to plants (except food)	ICD-9-CM	Diagnosis
692.70	Unspecified dermatitis due to sun	ICD-9-CM	Diagnosis
692.71	Contact dermatitis and other eczema due to sunburn	ICD-9-CM	Diagnosis
692.72	Acute dermatitis due to solar radiation	ICD-9-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
692.73	Actinic reticuloid and actinic granuloma	ICD-9-CM	Diagnosis
692.74	Other chronic dermatitis due to solar radiation	ICD-9-CM	Diagnosis
692.75	Disseminated superficial actinic porokeratosis (DSAP)	ICD-9-CM	Diagnosis
692.76	Sunburn of second degree	ICD-9-CM	Diagnosis
692.77	Sunburn of third degree	ICD-9-CM	Diagnosis
692.79	Other dermatitis due to solar radiation	ICD-9-CM	Diagnosis
692.81	Dermatitis due to cosmetics	ICD-9-CM	Diagnosis
692.82	Dermatitis due to other radiation	ICD-9-CM	Diagnosis
692.83	Dermatitis due to metals	ICD-9-CM	Diagnosis
692.84	Contact dermatitis and other eczema due to animal (cat) (dog) dander	ICD-9-CM	Diagnosis
692.89	Contact dermatitis and other eczema due to other specified agent	ICD-9-CM	Diagnosis
692.9	Contact dermatitis and other eczema, due to unspecified cause	ICD-9-CM	Diagnosis
693.0	Dermatitis due to drugs and medicines taken internally	ICD-9-CM	Diagnosis
693.1	Dermatitis due to food taken internally	ICD-9-CM	Diagnosis
693.8	Dermatitis due to other specified substances taken internally	ICD-9-CM	Diagnosis
693.9	Dermatitis due to unspecified substance taken internally	ICD-9-CM	Diagnosis
708.0	Allergic urticaria	ICD-9-CM	Diagnosis
708.1	Idiopathic urticaria	ICD-9-CM	Diagnosis
708.2	Urticaria due to cold and heat	ICD-9-CM	Diagnosis
708.3	Dermatographic urticaria	ICD-9-CM	Diagnosis
708.4	Vibratory urticaria	ICD-9-CM	Diagnosis
708.5	Cholinergic urticaria	ICD-9-CM	Diagnosis
708.8	Other specified urticaria	ICD-9-CM	Diagnosis
708.9	Unspecified urticaria	ICD-9-CM	Diagnosis
995.0	Other anaphylactic reaction	ICD-9-CM	Diagnosis
995.27	Other drug allergy	ICD-9-CM	Diagnosis
995.3	Allergy, unspecified not elsewhere classified	ICD-9-CM	Diagnosis
995.7	Other adverse food reactions, not elsewhere classified	ICD-9-CM	Diagnosis
J30.0	Vasomotor rhinitis	ICD-10-CM	Diagnosis
J30.1	Allergic rhinitis due to pollen	ICD-10-CM	Diagnosis
J30.2	Other seasonal allergic rhinitis	ICD-10-CM	Diagnosis
J30.5	Allergic rhinitis due to food	ICD-10-CM	Diagnosis
J30.81	Allergic rhinitis due to animal (cat) (dog) hair and dander	ICD-10-CM	Diagnosis
J30.89	Other allergic rhinitis	ICD-10-CM	Diagnosis
J30.9	Allergic rhinitis, unspecified	ICD-10-CM	Diagnosis
J31.0	Chronic rhinitis	ICD-10-CM	Diagnosis
J39.3	Upper respiratory tract hypersensitivity reaction, site unspecified	ICD-10-CM	Diagnosis
K52.21	Food protein-induced enterocolitis syndrome	ICD-10-CM	Diagnosis
K52.22	Food protein-induced enteropathy	ICD-10-CM	Diagnosis
K52.29	Other allergic and dietetic gastroenteritis and colitis	ICD-10-CM	Diagnosis
L20.0	Besnier's prurigo	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
L20.81	Atopic neurodermatitis	ICD-10-CM	Diagnosis
L20.82	Flexural eczema	ICD-10-CM	Diagnosis
L20.84	Intrinsic (allergic) eczema	ICD-10-CM	Diagnosis
L20.89	Other atopic dermatitis	ICD-10-CM	Diagnosis
L20.9	Atopic dermatitis, unspecified	ICD-10-CM	Diagnosis
L22	Diaper dermatitis	ICD-10-CM	Diagnosis
L23.0	Allergic contact dermatitis due to metals	ICD-10-CM	Diagnosis
L23.1	Allergic contact dermatitis due to adhesives	ICD-10-CM	Diagnosis
L23.2	Allergic contact dermatitis due to cosmetics	ICD-10-CM	Diagnosis
L23.3	Allergic contact dermatitis due to drugs in contact with skin	ICD-10-CM	Diagnosis
L23.4	Allergic contact dermatitis due to dyes	ICD-10-CM	Diagnosis
L23.5	Allergic contact dermatitis due to other chemical products	ICD-10-CM	Diagnosis
L23.6	Allergic contact dermatitis due to food in contact with the skin	ICD-10-CM	Diagnosis
L23.7	Allergic contact dermatitis due to plants, except food	ICD-10-CM	Diagnosis
L23.81	Allergic contact dermatitis due to animal (cat) (dog) dander	ICD-10-CM	Diagnosis
L23.89	Allergic contact dermatitis due to other agents	ICD-10-CM	Diagnosis
L23.9	Allergic contact dermatitis, unspecified cause	ICD-10-CM	Diagnosis
L24.0	Irritant contact dermatitis due to detergents	ICD-10-CM	Diagnosis
L24.1	Irritant contact dermatitis due to oils and greases	ICD-10-CM	Diagnosis
L24.2	Irritant contact dermatitis due to solvents	ICD-10-CM	Diagnosis
L24.3	Irritant contact dermatitis due to cosmetics	ICD-10-CM	Diagnosis
L24.4	Irritant contact dermatitis due to drugs in contact with skin	ICD-10-CM	Diagnosis
L24.5	Irritant contact dermatitis due to other chemical products	ICD-10-CM	Diagnosis
L24.6	Irritant contact dermatitis due to food in contact with skin	ICD-10-CM	Diagnosis
L24.7	Irritant contact dermatitis due to plants, except food	ICD-10-CM	Diagnosis
L24.81	Irritant contact dermatitis due to metals	ICD-10-CM	Diagnosis
L24.89	Irritant contact dermatitis due to other agents	ICD-10-CM	Diagnosis
L24.9	Irritant contact dermatitis, unspecified cause	ICD-10-CM	Diagnosis
L25.0	Unspecified contact dermatitis due to cosmetics	ICD-10-CM	Diagnosis
L25.1	Unspecified contact dermatitis due to drugs in contact with skin	ICD-10-CM	Diagnosis
L25.2	Unspecified contact dermatitis due to dyes	ICD-10-CM	Diagnosis
L25.3	Unspecified contact dermatitis due to other chemical products	ICD-10-CM	Diagnosis
L25.4	Unspecified contact dermatitis due to food in contact with skin	ICD-10-CM	Diagnosis
L25.5	Unspecified contact dermatitis due to plants, except food	ICD-10-CM	Diagnosis
L25.8	Unspecified contact dermatitis due to other agents	ICD-10-CM	Diagnosis
L25.9	Unspecified contact dermatitis, unspecified cause	ICD-10-CM	Diagnosis
L27.0	Generalized skin eruption due to drugs and medicaments taken internally	ICD-10-CM	Diagnosis
L27.1	Localized skin eruption due to drugs and medicaments taken internally	ICD-10-CM	Diagnosis
L27.2	Dermatitis due to ingested food	ICD-10-CM	Diagnosis
L27.8	Dermatitis due to other substances taken internally	ICD-10-CM	Diagnosis
L27.9	Dermatitis due to unspecified substance taken internally	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
L50.0	Allergic urticaria	ICD-10-CM	Diagnosis
L50.1	Idiopathic urticaria	ICD-10-CM	Diagnosis
L50.2	Urticaria due to cold and heat	ICD-10-CM	Diagnosis
L50.3	Dermatographic urticaria	ICD-10-CM	Diagnosis
L50.4	Vibratory urticaria	ICD-10-CM	Diagnosis
L50.5	Cholinergic urticaria	ICD-10-CM	Diagnosis
L50.6	Contact urticaria	ICD-10-CM	Diagnosis
L50.8	Other urticaria	ICD-10-CM	Diagnosis
L50.9	Urticaria, unspecified	ICD-10-CM	Diagnosis
L55.0	Sunburn of first degree	ICD-10-CM	Diagnosis
L55.1	Sunburn of second degree	ICD-10-CM	Diagnosis
L55.2	Sunburn of third degree	ICD-10-CM	Diagnosis
L55.9	Sunburn, unspecified	ICD-10-CM	Diagnosis
L56.0	Drug phototoxic response	ICD-10-CM	Diagnosis
L56.1	Drug photoallergic response	ICD-10-CM	Diagnosis
L56.2	Photocontact dermatitis [berloque dermatitis]	ICD-10-CM	Diagnosis
L56.3	Solar urticaria	ICD-10-CM	Diagnosis
L56.4	Polymorphous light eruption	ICD-10-CM	Diagnosis
L56.5	Disseminated superficial actinic porokeratosis (DSAP)	ICD-10-CM	Diagnosis
L56.8	Other specified acute skin changes due to ultraviolet radiation	ICD-10-CM	Diagnosis
L56.9	Acute skin change due to ultraviolet radiation, unspecified	ICD-10-CM	Diagnosis
L57.1	Actinic reticuloid	ICD-10-CM	Diagnosis
L57.5	Actinic granuloma	ICD-10-CM	Diagnosis
L57.8	Other skin changes due to chronic exposure to nonionizing radiation	ICD-10-CM	Diagnosis
L57.9	Skin changes due to chronic exposure to nonionizing radiation, unspecified	ICD-10-CM	Diagnosis
L58.0	Acute radiodermatitis	ICD-10-CM	Diagnosis
L58.1	Chronic radiodermatitis	ICD-10-CM	Diagnosis
L58.9	Radiodermatitis, unspecified	ICD-10-CM	Diagnosis
T78.0	Anaphylactic reaction due to food	ICD-10-CM	Diagnosis
T78.00	Anaphylactic reaction due to unspecified food	ICD-10-CM	Diagnosis
T78.00XA	Anaphylactic reaction due to unspecified food, initial encounter	ICD-10-CM	Diagnosis
T78.00XD	Anaphylactic reaction due to unspecified food, subsequent encounter	ICD-10-CM	Diagnosis
T78.00XS	Anaphylactic reaction due to unspecified food, sequela	ICD-10-CM	Diagnosis
T78.01	Anaphylactic reaction due to peanuts	ICD-10-CM	Diagnosis
T78.01XA	Anaphylactic reaction due to peanuts, initial encounter	ICD-10-CM	Diagnosis
T78.01XD	Anaphylactic reaction due to peanuts, subsequent encounter	ICD-10-CM	Diagnosis
T78.01XS	Anaphylactic reaction due to peanuts, sequela	ICD-10-CM	Diagnosis
T78.02	Anaphylactic reaction due to shellfish (crustaceans)	ICD-10-CM	Diagnosis
T78.02XA	Anaphylactic reaction due to shellfish (crustaceans), initial encounter	ICD-10-CM	Diagnosis
T78.02XD	Anaphylactic reaction due to shellfish (crustaceans), subsequent encounter	ICD-10-CM	Diagnosis
T78.02XS	Anaphylactic reaction due to shellfish (crustaceans), sequela	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
T78.03	Anaphylactic reaction due to other fish	ICD-10-CM	Diagnosis
T78.03XA	Anaphylactic reaction due to other fish, initial encounter	ICD-10-CM	Diagnosis
T78.03XD	Anaphylactic reaction due to other fish, subsequent encounter	ICD-10-CM	Diagnosis
T78.03XS	Anaphylactic reaction due to other fish, sequela	ICD-10-CM	Diagnosis
T78.04	Anaphylactic reaction due to fruits and vegetables	ICD-10-CM	Diagnosis
T78.04XA	Anaphylactic reaction due to fruits and vegetables, initial encounter	ICD-10-CM	Diagnosis
T78.04XD	Anaphylactic reaction due to fruits and vegetables, subsequent encounter	ICD-10-CM	Diagnosis
T78.04XS	Anaphylactic reaction due to fruits and vegetables, sequela	ICD-10-CM	Diagnosis
T78.05	Anaphylactic reaction due to tree nuts and seeds	ICD-10-CM	Diagnosis
T78.05XA	Anaphylactic reaction due to tree nuts and seeds, initial encounter	ICD-10-CM	Diagnosis
T78.05XD	Anaphylactic reaction due to tree nuts and seeds, subsequent encounter	ICD-10-CM	Diagnosis
T78.05XS	Anaphylactic reaction due to tree nuts and seeds, sequela	ICD-10-CM	Diagnosis
T78.06	Anaphylactic reaction due to food additives	ICD-10-CM	Diagnosis
T78.06XA	Anaphylactic reaction due to food additives, initial encounter	ICD-10-CM	Diagnosis
T78.06XD	Anaphylactic reaction due to food additives, subsequent encounter	ICD-10-CM	Diagnosis
T78.06XS	Anaphylactic reaction due to food additives, sequela	ICD-10-CM	Diagnosis
T78.07	Anaphylactic reaction due to milk and dairy products	ICD-10-CM	Diagnosis
T78.07XA	Anaphylactic reaction due to milk and dairy products, initial encounter	ICD-10-CM	Diagnosis
T78.07XD	Anaphylactic reaction due to milk and dairy products, subsequent encounter	ICD-10-CM	Diagnosis
T78.07XS	Anaphylactic reaction due to milk and dairy products, sequela	ICD-10-CM	Diagnosis
T78.08	Anaphylactic reaction due to eggs	ICD-10-CM	Diagnosis
T78.08XA	Anaphylactic reaction due to eggs, initial encounter	ICD-10-CM	Diagnosis
T78.08XD	Anaphylactic reaction due to eggs, subsequent encounter	ICD-10-CM	Diagnosis
T78.08XS	Anaphylactic reaction due to eggs, sequela	ICD-10-CM	Diagnosis
T78.09	Anaphylactic reaction due to other food products	ICD-10-CM	Diagnosis
T78.09XA	Anaphylactic reaction due to other food products, initial encounter	ICD-10-CM	Diagnosis
T78.09XD	Anaphylactic reaction due to other food products, subsequent encounter	ICD-10-CM	Diagnosis
T78.09XS	Anaphylactic reaction due to other food products, sequela	ICD-10-CM	Diagnosis
T78.2	Anaphylactic shock, unspecified	ICD-10-CM	Diagnosis
T78.2XXA	Anaphylactic shock, unspecified, initial encounter	ICD-10-CM	Diagnosis
T78.2XXD	Anaphylactic shock, unspecified, subsequent encounter	ICD-10-CM	Diagnosis
T78.2XXS	Anaphylactic shock, unspecified, sequela	ICD-10-CM	Diagnosis
T78.40	Allergy, unspecified	ICD-10-CM	Diagnosis
T78.40XA	Allergy, unspecified, initial encounter	ICD-10-CM	Diagnosis
T78.40XD	Allergy, unspecified, subsequent encounter	ICD-10-CM	Diagnosis
T78.40XS	Allergy, unspecified, sequela	ICD-10-CM	Diagnosis
T78.49XA	Other allergy, initial encounter	ICD-10-CM	Diagnosis
T80.5	Anaphylactic reaction due to serum	ICD-10-CM	Diagnosis
T80.51	Anaphylactic reaction due to administration of blood and blood products	ICD-10-CM	Diagnosis
T80.51XA	Anaphylactic reaction due to administration of blood and blood products, initial encounter	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
T80.51XD	Anaphylactic reaction due to administration of blood and blood products, subsequent encounter	ICD-10-CM	Diagnosis
T80.51XS	Anaphylactic reaction due to administration of blood and blood products, sequela	ICD-10-CM	Diagnosis
T80.52	Anaphylactic reaction due to vaccination	ICD-10-CM	Diagnosis
T80.52XA	Anaphylactic reaction due to vaccination, initial encounter	ICD-10-CM	Diagnosis
T80.52XD	Anaphylactic reaction due to vaccination, subsequent encounter	ICD-10-CM	Diagnosis
T80.52XS	Anaphylactic reaction due to vaccination, sequela	ICD-10-CM	Diagnosis
T80.59	Anaphylactic reaction due to other serum	ICD-10-CM	Diagnosis
T80.59XA	Anaphylactic reaction due to other serum, initial encounter	ICD-10-CM	Diagnosis
T80.59XD	Anaphylactic reaction due to other serum, subsequent encounter	ICD-10-CM	Diagnosis
T80.59XS	Anaphylactic reaction due to other serum, sequela	ICD-10-CM	Diagnosis
T88.6	Anaphylactic reaction due to adverse effect of correct drug or medicament properly administered	ICD-10-CM	Diagnosis
T88.6XXA	Anaphylactic reaction due to adverse effect of correct drug or medicament properly administered, initial encounter	ICD-10-CM	Diagnosis
T88.6XXD	Anaphylactic reaction due to adverse effect of correct drug or medicament properly administered, subsequent encounter	ICD-10-CM	Diagnosis
T88.6XXS	Anaphylactic reaction due to adverse effect of correct drug or medicament properly administered, sequela	ICD-10-CM	Diagnosis
V07.1	Need for desensitization to allergens	ICD-9-CM	Diagnosis
V13.81	Personal history of anaphylaxis	ICD-9-CM	Diagnosis
V14.0	Personal history of allergy to penicillin	ICD-9-CM	Diagnosis
V14.1	Personal history of allergy to other antibiotic agent	ICD-9-CM	Diagnosis
V14.2	Personal history of allergy to sulfonamides	ICD-9-CM	Diagnosis
V14.3	Personal history of allergy to other anti-infective agent	ICD-9-CM	Diagnosis
V14.4	Personal history of allergy to anesthetic agent	ICD-9-CM	Diagnosis
V14.5	Personal history of allergy to narcotic agent	ICD-9-CM	Diagnosis
V14.6	Personal history of allergy to analgesic agent	ICD-9-CM	Diagnosis
V14.7	Personal history of allergy to serum or vaccine	ICD-9-CM	Diagnosis
V14.8	Personal history of allergy to other specified medicinal agents	ICD-9-CM	Diagnosis
V14.9	Personal history of allergy to unspecified medicinal agent	ICD-9-CM	Diagnosis
V15.09	Personal history of other allergy, other than to medicinal agents	ICD-9-CM	Diagnosis
V72.7	Diagnostic skin and sensitization tests	ICD-9-CM	Diagnosis
Z51.6	Encounter for desensitization to allergens	ICD-10-CM	Diagnosis
Z87.892	Personal history of anaphylaxis	ICD-10-CM	Diagnosis
Z88.0	Allergy status to penicillin	ICD-10-CM	Diagnosis
Z88.1	Allergy status to other antibiotic agents status	ICD-10-CM	Diagnosis
Z88.2	Allergy status to sulfonamides status	ICD-10-CM	Diagnosis
Z88.3	Allergy status to other anti-infective agents status	ICD-10-CM	Diagnosis
Z88.4	Allergy status to anesthetic agent status	ICD-10-CM	Diagnosis
Z88.5	Allergy status to narcotic agent status	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
Z88.6	Allergy status to analgesic agent status	ICD-10-CM	Diagnosis
Z88.7	Allergy status to serum and vaccine status	ICD-10-CM	Diagnosis
Z88.8	Allergy status to other drugs, medicaments and biological substances status	ICD-10-CM	Diagnosis
Z88.9	Allergy status to unspecified drugs, medicaments and biological substances status	ICD-10-CM	Diagnosis
Z91.0	Allergy status, other than to drugs and biological substances	ICD-10-CM	Diagnosis
Z91.01	Food allergy status	ICD-10-CM	Diagnosis
Z91.010	Allergy to peanuts	ICD-10-CM	Diagnosis
Z91.011	Allergy to milk products	ICD-10-CM	Diagnosis
Z91.012	Allergy to eggs	ICD-10-CM	Diagnosis
Z91.013	Allergy to seafood	ICD-10-CM	Diagnosis
Z91.018	Allergy to other foods	ICD-10-CM	Diagnosis
Z91.02	Food additives allergy status	ICD-10-CM	Diagnosis
Z91.03	Insect allergy status	ICD-10-CM	Diagnosis
Z91.030	Bee allergy status	ICD-10-CM	Diagnosis
Z91.038	Other insect allergy status	ICD-10-CM	Diagnosis
Z91.04	Nonmedicinal substance allergy status	ICD-10-CM	Diagnosis
Z91.040	Latex allergy status	ICD-10-CM	Diagnosis
Z91.041	Radiographic dye allergy status	ICD-10-CM	Diagnosis
Z91.048	Other nonmedicinal substance allergy status	ICD-10-CM	Diagnosis
Z91.09	Other allergy status, other than to drugs and biological substances	ICD-10-CM	Diagnosis
	Ischemic heart disease		
411	Other acute and subacute forms of ischemic heart disease	ICD-9-CM	Diagnosis
411.0	Postmyocardial infarction syndrome	ICD-9-CM	Diagnosis
411.1	Intermediate coronary syndrome	ICD-9-CM	Diagnosis
411.8	Other acute and subacute forms of ischemic heart disease	ICD-9-CM	Diagnosis
411.81	Acute coronary occlusion without myocardial infarction	ICD-9-CM	Diagnosis
411.89	Other acute and subacute form of ischemic heart disease	ICD-9-CM	Diagnosis
413	Angina pectoris	ICD-9-CM	Diagnosis
413.0	Angina decubitus	ICD-9-CM	Diagnosis
413.1	Prinzmetal angina	ICD-9-CM	Diagnosis
413.9	Other and unspecified angina pectoris	ICD-9-CM	Diagnosis
414	Other forms of chronic ischemic heart disease	ICD-9-CM	Diagnosis
414.0	Coronary atherosclerosis	ICD-9-CM	Diagnosis
414.00	Coronary atherosclerosis of unspecified type of vessel, native or graft	ICD-9-CM	Diagnosis
414.01	Coronary atherosclerosis of native coronary artery	ICD-9-CM	Diagnosis
414.02	Coronary atherosclerosis of autologous vein bypass graft	ICD-9-CM	Diagnosis
414.03	Coronary atherosclerosis of nonautologous biological bypass graft	ICD-9-CM	Diagnosis
414.04	Coronary atherosclerosis of artery bypass graft	ICD-9-CM	Diagnosis
414.05	Coronary atherosclerosis of unspecified type of bypass graft	ICD-9-CM	Diagnosis
414.06	Coronary atherosclerosis, of native coronary artery of transplanted heart	ICD-9-CM	Diagnosis
414.07	Coronary atherosclerosis, of bypass graft (artery) (vein) of transplanted heart	ICD-9-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
414.1	Aneurysm and dissection of heart	ICD-9-CM	Diagnosis
414.10	Aneurysm of heart	ICD-9-CM	Diagnosis
414.11	Aneurysm of coronary vessels	ICD-9-CM	Diagnosis
414.12	Dissection of coronary artery	ICD-9-CM	Diagnosis
414.19	Other aneurysm of heart	ICD-9-CM	Diagnosis
414.2	Chronic total occlusion of coronary artery	ICD-9-CM	Diagnosis
414.3	Coronary atherosclerosis due to lipid rich plaque	ICD-9-CM	Diagnosis
414.4	Coronary atherosclerosis due to calcified coronary lesion	ICD-9-CM	Diagnosis
414.8	Other specified forms of chronic ischemic heart disease	ICD-9-CM	Diagnosis
414.9	Unspecified chronic ischemic heart disease	ICD-9-CM	Diagnosis
429.2	Unspecified cardiovascular disease	ICD-9-CM	Diagnosis
429.5	Rupture of chordae tendineae	ICD-9-CM	Diagnosis
429.6	Rupture of papillary muscle	ICD-9-CM	Diagnosis
429.7	Certain sequelae of myocardial infarction, not elsewhere classified	ICD-9-CM	Diagnosis
429.71	Acquired cardiac septal defect	ICD-9-CM	Diagnosis
429.79	Other certain sequelae of myocardial infarction, not elsewhere classified	ICD-9-CM	Diagnosis
429.9	Unspecified heart disease	ICD-9-CM	Diagnosis
I20.0	Unstable angina	ICD-10-CM	Diagnosis
I20.1	Angina pectoris with documented spasm	ICD-10-CM	Diagnosis
I20.8	Other forms of angina pectoris	ICD-10-CM	Diagnosis
I20.9	Angina pectoris, unspecified	ICD-10-CM	Diagnosis
I23.0	Hemopericardium as current complication following acute myocardial infarction	ICD-10-CM	Diagnosis
I23.1	Atrial septal defect as current complication following acute myocardial infarction	ICD-10-CM	Diagnosis
I23.2	Ventricular septal defect as current complication following acute myocardial infarction	ICD-10-CM	Diagnosis
I23.3	Rupture of cardiac wall without hemopericardium as current complication following acute myocardial infarction	ICD-10-CM	Diagnosis
I23.4	Rupture of chordae tendineae as current complication following acute myocardial infarction	ICD-10-CM	Diagnosis
I23.5	Rupture of papillary muscle as current complication following acute myocardial infarction	ICD-10-CM	Diagnosis
I23.6	Thrombosis of atrium, auricular appendage, and ventricle as current complications following acute myocardial infarction	ICD-10-CM	Diagnosis
I23.7	Postinfarction angina	ICD-10-CM	Diagnosis
I23.8	Other current complications following acute myocardial infarction	ICD-10-CM	Diagnosis
I24.0	Acute coronary thrombosis not resulting in myocardial infarction	ICD-10-CM	Diagnosis
I24.1	Dressler's syndrome	ICD-10-CM	Diagnosis
I24.8	Other forms of acute ischemic heart disease	ICD-10-CM	Diagnosis
I24.9	Acute ischemic heart disease, unspecified	ICD-10-CM	Diagnosis
I25.10	Atherosclerotic heart disease of native coronary artery without angina pectoris	ICD-10-CM	Diagnosis
I25.110	Atherosclerotic heart disease of native coronary artery with unstable angina pectoris	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
I25.111	Atherosclerotic heart disease of native coronary artery with angina pectoris with documented spasm	ICD-10-CM	Diagnosis
I25.118	Atherosclerotic heart disease of native coronary artery with other forms of angina pectoris	ICD-10-CM	Diagnosis
I25.119	Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris	ICD-10-CM	Diagnosis
I25.3	Aneurysm of heart	ICD-10-CM	Diagnosis
I25.41	Coronary artery aneurysm	ICD-10-CM	Diagnosis
I25.42	Coronary artery dissection	ICD-10-CM	Diagnosis
I25.5	Ischemic cardiomyopathy	ICD-10-CM	Diagnosis
I25.6	Silent myocardial ischemia	ICD-10-CM	Diagnosis
I25.700	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable angina pectoris	ICD-10-CM	Diagnosis
I25.701	Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris with documented spasm	ICD-10-CM	Diagnosis
I25.708	Atherosclerosis of coronary artery bypass graft(s), unspecified, with other forms of angina pectoris	ICD-10-CM	Diagnosis
I25.709	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unspecified angina pectoris	ICD-10-CM	Diagnosis
I25.710	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris	ICD-10-CM	Diagnosis
I25.711	Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented spasm	ICD-10-CM	Diagnosis
I25.718	Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris	ICD-10-CM	Diagnosis
I25.719	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unspecified angina pectoris	ICD-10-CM	Diagnosis
I25.720	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris	ICD-10-CM	Diagnosis
I25.721	Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with documented spasm	ICD-10-CM	Diagnosis
I25.728	Atherosclerosis of autologous artery coronary artery bypass graft(s) with other forms of angina pectoris	ICD-10-CM	Diagnosis
I25.729	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unspecified angina pectoris	ICD-10-CM	Diagnosis
I25.730	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectoris	ICD-10-CM	Diagnosis
I25.731	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris with documented spasm	ICD-10-CM	Diagnosis
I25.738	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with other forms of angina pectoris	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
I25.739	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unspecified angina pectoris	ICD-10-CM	Diagnosis
I25.750	Atherosclerosis of native coronary artery of transplanted heart with unstable angina	ICD-10-CM	Diagnosis
I25.751	Atherosclerosis of native coronary artery of transplanted heart with angina pectoris with documented spasm	ICD-10-CM	Diagnosis
I25.758	Atherosclerosis of native coronary artery of transplanted heart with other forms of angina pectoris	ICD-10-CM	Diagnosis
I25.759	Atherosclerosis of native coronary artery of transplanted heart with unspecified angina pectoris	ICD-10-CM	Diagnosis
I25.760	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina	ICD-10-CM	Diagnosis
I25.761	Atherosclerosis of bypass graft of coronary artery of transplanted heart with angina pectoris with documented spasm	ICD-10-CM	Diagnosis
I25.768	Atherosclerosis of bypass graft of coronary artery of transplanted heart with other forms of angina pectoris	ICD-10-CM	Diagnosis
I25.769	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unspecified angina pectoris	ICD-10-CM	Diagnosis
I25.790	Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris	ICD-10-CM	Diagnosis
I25.791	Atherosclerosis of other coronary artery bypass graft(s) with angina pectoris with documented spasm	ICD-10-CM	Diagnosis
I25.798	Atherosclerosis of other coronary artery bypass graft(s) with other forms of angina pectoris	ICD-10-CM	Diagnosis
I25.799	Atherosclerosis of other coronary artery bypass graft(s) with unspecified angina pectoris	ICD-10-CM	Diagnosis
I25.810	Atherosclerosis of coronary artery bypass graft(s) without angina pectoris	ICD-10-CM	Diagnosis
I25.811	Atherosclerosis of native coronary artery of transplanted heart without angina pectoris	ICD-10-CM	Diagnosis
I25.812	Atherosclerosis of bypass graft of coronary artery of transplanted heart without angina pectoris	ICD-10-CM	Diagnosis
I25.82	Chronic total occlusion of coronary artery	ICD-10-CM	Diagnosis
I25.83	Coronary atherosclerosis due to lipid rich plaque	ICD-10-CM	Diagnosis
I25.84	Coronary atherosclerosis due to calcified coronary lesion	ICD-10-CM	Diagnosis
I25.89	Other forms of chronic ischemic heart disease	ICD-10-CM	Diagnosis
I25.9	Chronic ischemic heart disease, unspecified	ICD-10-CM	Diagnosis
I51.0	Cardiac septal defect, acquired	ICD-10-CM	Diagnosis
I51.1	Rupture of chordae tendineae, not elsewhere classified	ICD-10-CM	Diagnosis
I51.2	Rupture of papillary muscle, not elsewhere classified	ICD-10-CM	Diagnosis
I51.9	Heart disease, unspecified	ICD-10-CM	Diagnosis
I52	Other heart disorders in diseases classified elsewhere	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
G8033	Prior myocardial infarction, coronary artery disease patient documented to be on beta-blocker therapy	HCPCS	Procedure
G8034	Prior myocardial infarction, coronary artery disease patient not documented to be on beta-blocker therapy	HCPCS	Procedure
G8035	Clinician documented that prior myocardial infarction, coronary artery disease patient was not eligible candidate for beta-blocker therapy measure	HCPCS	Procedure
G8036	Coronary artery disease patient documented to be on antiplatelet therapy	HCPCS	Procedure
G8037	Coronary artery disease patient not documented to be on antiplatelet therapy	HCPCS	Procedure
G8038	Clinician documented that coronary artery disease patient was not eligible candidate for antiplatelet therapy measure	HCPCS	Procedure
G8039	Coronary artery disease patient with low-density lipoprotein documented to be greater than 100 mg/dl	HCPCS	Procedure
G8040	Coronary artery disease patient with low-density lipoprotein documented to be less than or equal to 100 mg/dl	HCPCS	Procedure
G8041	Clinician documented that coronary artery disease patient was not eligible candidate for low-density lipoprotein measure	HCPCS	Procedure
	Renal disorders		
584	Acute kidney failure	ICD-9-CM	Diagnosis
584.5	Acute kidney failure with lesion of tubular necrosis	ICD-9-CM	Diagnosis
584.6	Acute kidney failure with lesion of renal cortical necrosis	ICD-9-CM	Diagnosis
584.7	Acute kidney failure with lesion of medullary [papillary] necrosis	ICD-9-CM	Diagnosis
584.8	Acute kidney failure with other specified pathological lesion in kidney	ICD-9-CM	Diagnosis
584.9	Acute kidney failure, unspecified	ICD-9-CM	Diagnosis
585	Chronic kidney disease (CKD)	ICD-9-CM	Diagnosis
585.1	Chronic kidney disease, Stage I	ICD-9-CM	Diagnosis
585.2	Chronic kidney disease, Stage II (mild)	ICD-9-CM	Diagnosis
585.3	Chronic kidney disease, Stage III (moderate)	ICD-9-CM	Diagnosis
585.4	Chronic kidney disease, Stage IV (severe)	ICD-9-CM	Diagnosis
585.5	Chronic kidney disease, Stage V	ICD-9-CM	Diagnosis
585.6	End stage renal disease	ICD-9-CM	Diagnosis
585.9	Chronic kidney disease, unspecified	ICD-9-CM	Diagnosis
586	Unspecified renal failure	ICD-9-CM	Diagnosis
587	Unspecified renal sclerosis	ICD-9-CM	Diagnosis
N17.0	Acute kidney failure with tubular necrosis	ICD-10-CM	Diagnosis
N17.1	Acute kidney failure with acute cortical necrosis	ICD-10-CM	Diagnosis
N17.2	Acute kidney failure with medullary necrosis	ICD-10-CM	Diagnosis
N17.8	Other acute kidney failure	ICD-10-CM	Diagnosis
N17.9	Acute kidney failure, unspecified	ICD-10-CM	Diagnosis
N18.1	Chronic kidney disease, stage 1	ICD-10-CM	Diagnosis
N18.2	Chronic kidney disease, stage 2 (mild)	ICD-10-CM	Diagnosis
N18.3	Chronic kidney disease, stage 3 (moderate)	ICD-10-CM	Diagnosis

Appendix F. 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) Diagnosis Codes and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Type	Code Category
N18.4	Chronic kidney disease, stage 4 (severe)	ICD-10-CM	Diagnosis
N18.5	Chronic kidney disease, stage 5	ICD-10-CM	Diagnosis
N18.6	End stage renal disease	ICD-10-CM	Diagnosis
N18.9	Chronic kidney disease, unspecified	ICD-10-CM	Diagnosis
N19	Unspecified kidney failure	ICD-10-CM	Diagnosis
N26.1	Atrophy of kidney (terminal)	ICD-10-CM	Diagnosis
N26.9	Renal sclerosis, unspecified	ICD-10-CM	Diagnosis

Appendix G. Specifications Defining Switching Groups and Inclusion/Exclusion Criteria for this Request

This request used the Cohort Identification and Descriptive Analysis (CIDA) module, version 8.1.1, with ad hoc programming, to examine switching patterns of sacubitril/valsartan, angiotensin-converting enzyme (ACE) inhibitors, and angiotensin II receptor blockers (ARBs) among patients with a heart failure diagnosis in the Sentinel Distributed Database (SDD).

Index Start Date[1]: January 1, 2015
Index End Date: Earliest of follow-up end date or data completeness date
Follow-up End Date: September 30, 2019
Coverage Requirement: Medical & Drug Coverage
Pre-index Enrollment Requirement: 183 days
Post-index Enrollment Requirement: 0 days
Enrollment Gap: 45 days
Age Groups: 18-44, 45-54, 55-64, 65+ years
Stratifications: Age group, Race, Sex
Restrictions: None
Envelope Macro: Reclassify encounters during inpatient stay as inpatient
Freeze Data: Yes

Switching Groups							Inclusion/Exclusion Criteria						
Scenario	Exposure Group	Cohort Definition	Washout Period (days)	Episode Gap and Type (days)	Incidence Groups	Censoring Criteria	Inclusion/ Exclusion Group	Criteria	Care Setting	Evaluation Period Start (days)	Evaluation Period End (days)	Exclude Evidence of a Dispensing Date or Days Supply if Evaluation Period includes Dispensings	Minimum Number of Instances the Criteria Should be Found in Evaluation Period
1	ACE inhibitor	02: Cohort includes all valid exposure episodes during the query period	0	14	ACE inhibitor	Death, Data Partner end date, query end date, disenrollment, or product discontinuation	Heart failure	Inclusion		-183	0		
							Sacubitril/ valsartan	Exclusion	Any care setting	-183	0	Days supply	1
							ACE inhibitor, ARB	Exclusion		-183	1		

Appendix G. Specifications Defining Switching Groups and Inclusion/Exclusion Criteria for this Request

	Switching Groups						Inclusion/Exclusion Criteria						
Scenario	Exposure Group	Cohort Definition	Washout Period (days)	Episode Gap and Type (days)	Incidence Groups	Censoring Criteria	Inclusion/ Exclusion Group	Criteria	Care Setting	Evaluation Period Start (days)	Evaluation Period End (days)	Exclude Evidence of a Dispensing Date or Days Supply if Evaluation Period includes Dispensings	Minimum Number of Instances the Criteria should be found in Evaluation Period
2	ACE inhibitor	02: Cohort includes all valid exposure episodes during the query period	0	14	ACE inhibitor	Death, Data Partner end date, query end date, disenrollment, or product discontinuation	Heart failure	Inclusion	Any care setting	-183	0	Days supply	1
							Sacubitril/ valsartan	Exclusion		-183	0		
							ACE inhibitor, ARB	Exclusion		-183	1		
3	ARB	02: Cohort includes all valid exposure episodes during the query period	0	14	ARB	Death, Data Partner end date, query end date, disenrollment, or product discontinuation	Heart failure	Inclusion	Any care setting	-183	0	Days supply	1
							Sacubitril/ valsartan	Exclusion		-183	0		
							ARB, ACE inhibitor	Exclusion		-183	1		
4	ARB	02: Cohort includes all valid exposure episodes during the query period	0	14	ARB	Death, Data Partner end date, query end date, disenrollment, or product discontinuation	Heart failure	Inclusion	Any care setting	-183	0	Days supply	1
							Sacubitril/ valsartan	Exclusion		-183	0		
							ARB, ACE inhibitor	Exclusion		-183	1		

Appendix G. Specifications Defining Switching Groups and Inclusion/Exclusion Criteria for this Request

	Switching Groups						Inclusion/Exclusion Criteria						
Scenario	Exposure Group	Cohort Definition	Washout Period (days)	Episode Gap and Type (days)	Incidence Groups	Censoring Criteria	Inclusion/ Exclusion Group	Criteria	Care Setting	Evaluation Period Start (days)	Evaluation Period End (days)	Exclude Evidence of a Dispensing Date or Days Supply if Evaluation Period includes Dispensings	Minimum Number of Instances the Criteria should be found in Evaluation Period
5	Sacubitril/ valsartan	02: Cohort includes all valid exposure episodes during the query period	0	14	Sacubitril/ valsartan	Death, Data Partner end date, query end date, disenrollment, or product discontinuation	Heart failure	Inclusion	Any care setting	-183	0	Days supply	1
							ACE inhibitor	Exclusion		-183	0		
							Sacubitril/ valsartan, ARB	Exclusion		-183	1		
6	Sacubitril/ valsartan	02: Cohort includes all valid exposure episodes during the query period	0	14	Sacubitril/ valsartan	Death, Data Partner end date, query end date, disenrollment, or product discontinuation	Heart failure	Inclusion	Any care setting	-183	0	Days supply	1
							ARB	Exclusion		-183	0		
							Sacubitril/ valsartan, ACE inhibitor	Exclusion		-183	1		
7	Sacubitril/ valsartan	02: Cohort includes all valid exposure episodes during the query period	0	14	Sacubitril/ valsartan	Death, Data Partner end date, query end date, disenrollment, or product discontinuation	Heart failure	Inclusion	Any care setting	-183	0	Days supply	1
							Sacubitril/ valsartan	Exclusion		-183	-1	Days supply	
							ACE inhibitor	Exclusion		0	0	Dispensing date	
							ACE inhibitor	Inclusion		-183	-1	Days supply	

Appendix G. Specifications Defining Switching Groups and Inclusion/Exclusion Criteria for this Request

	Switching Groups						Inclusion/Exclusion Criteria						
Scenario	Exposure Group	Cohort Definition	Washout Period (days)	Episode Gap and Type (days)	Incidence Groups	Censoring Criteria	Inclusion/ Exclusion Group	Criteria	Care Setting	Evaluation Period Start (days)	Evaluation Period End (days)	Exclude Evidence of a Dispensing Date or Days Supply if Evaluation Period includes Dispensings	Minimum Number of Instances the Criteria should be found in Evaluation Period
8	Sacubitril/ valsartan	02: Cohort includes all valid exposure episodes during the query period	0	14	Sacubitril/ valsartan	Death, Data Partner end date, query end date, disenrollment, or product discontinuation	Heart failure	Inclusion	Any care setting	-183	0	Days supply	1
							Sacubitril/ valsartan	Exclusion		-183	-1	Days supply	
							ARB	Exclusion		0	0	Dispensing date	
							ARB	Inclusion		-183	-1	Days supply	

[1]Index start date identifies the date on which patients may begin contribute eligible index exposures. Data prior to the index start date may be used to determine enrollment, washout, and other cohort inclusion criteria.

International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and Healthcare Common Procedure Coding System (HCPCS) codes are provided by Optum360.

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

Appendix H. Specifications Defining Treatment Pathways and Inclusion/Exclusion Criteria for this Request

This request used the Cohort Identification and Descriptive Analysis (CIDA) module, version 8.1.1, with ad hoc programming, to examine switching patterns of sacubitril/valsartan, angiotensin-converting enzyme (ACE) inhibitors, and angiotensin II receptor blockers (ARBs) among patients with a heart failure diagnosis in the Sentinel Distributed Database (SDD).

Index Start Date[1]: January 1, 2015
Index End Date: Earliest of follow-up end date or data completeness date
Follow-up End Date: September 30, 2019
Coverage Requirement: Medical & Drug Coverage
Pre-index Enrollment Requirement: 183 days
Post-index Enrollment Requirement: 0 days
Enrollment Gap: 45 days
Age Groups: 18-44, 45-54, 55-64, 65+ years
Stratifications: Age group, Race, Sex
Restrictions: None
Envelope Macro: Reclassify encounters during inpatient stay as inpatient
Freeze Data: Yes

Treatment Pathways										Inclusion/Exclusion Criteria						
Scenario	Switch Evaluation Step Value	Switch Groups	Pre-Index Enrollment Criteria in Switch Episodes	Post-Index Enrollment Criteria in Switch Episodes	Switch Cohort Definition	Switch Pattern Cohort Inclusion Date	Gap Tolerance (Days)	Overlap Tolerance and Type	Switch Gap Inclusion Indicator	Inclusion/ Exclusion Group	Criteria	Care Setting	Evaluation Period Start (days)	Evaluation Period End (days)	Exclude Evidence of a Dispensing Date or Days Supply if Evaluation Period includes Dispensings	Minimum Number of Instances the Criteria Should be Found in Evaluation Period
1	0	ACE inhibitor	183 days	None	02: All switch pattern episodes during the query period	None (use product dispensing date)	0	100%	Y: Yes, gaps between episodes will be counted as part of the overall switch pattern duration	Heart failure	Inclusion	Any care setting	-183	0	Days supply	1
	1	Sacubitril/ valsartan					14			Sacubitril/ valsartan	Exclusion		-183	0		
	2	ACE inhibitor					14			ACE inhibitor, ARB	Exclusion		-183	1		
2	0	ACE inhibitor	183 days	None	02: All switch pattern episodes during the query period	None (use product dispensing date)	0	100%	Y: Yes, gaps between episodes will be counted as part of the overall switch pattern duration	Heart failure	Inclusion	Any care setting	-183	0	Days supply	1
	1	Sacubitril/ valsartan					14			Sacubitril/ valsartan	Exclusion		-183	0		
	2	ARB					14			ACE inhibitor, ARB	Exclusion		-183	1		

Appendix H. Specifications Defining Treatment Pathways and Inclusion/Exclusion Criteria for this Request

	Treatment Pathways									Inclusion/Exclusion Criteria						
Scenario	Switch Evaluation Step Value	Switch Groups	Pre-Index Enrollment Criteria in Switch Episodes	Post-Index Enrollment Criteria in Switch Episodes	Switch Cohort Definition	Switch Pattern Cohort Inclusion Date	Gap Tolerance (Days)	Overlap Tolerance and Type	Switch Gap Inclusion Indicator	Inclusion/ Exclusion Group	Criteria	Care Setting	Evaluation Period Start (days)	Evaluation Period End (days)	Exclude Evidence of a Dispensing Date or Days Supply if Evaluation Period includes Dispensings	Minimum Number of Instances the Criteria should be found in Evaluation Period
3	0	ARB	183 days	None	02: All switch pattern episodes during the query period	None (use product dispensing date)	0	100%	Y: Yes, gaps between episodes will be counted as part of the overall switch pattern duration	Heart failure	Inclusion	Any care setting	-183	0	Days supply	1
	1	Sacubitril/ valsartan					14			Sacubitril/ valsartan	Exclusion		-183	0		
	2	ARB					14			ARB, ACE inhibitor	Exclusion		-183	1		
4	0	ARB	183 days	None	02: All switch pattern episodes during the query period	None (use product dispensing date)	0	100%	Y: Yes, gaps between episodes will be counted as part of the overall switch pattern duration	Heart failure	Inclusion	Any care setting	-183	0	Days supply	1
	1	Sacubitril/ valsartan					14			Sacubitril/ valsartan	Exclusion		-183	0		
	2	ACE inhibitor					14			ARB, ACE inhibitor	Exclusion		-183	1		
5	0	Sacubitril/ valsartan	183 days	None	02: All switch pattern episodes during the query period	None (use product dispensing date)	0	100%	Y: Yes, gaps between episodes will be counted as part of the overall switch pattern duration	Heart failure	Inclusion	Any care setting	-183	0	Days supply	1
	1	ACE inhibitor					14			ACE inhibitor	Exclusion		-183	0		
										Sacubitril/ valsartan, ARB	Exclusion		-183	1		

Appendix H. Specifications Defining Treatment Pathways and Inclusion/Exclusion Criteria for this Request

	Treatment Pathways									Inclusion/Exclusion Criteria						
Scenario	Switch Evaluation Step Value	Switch Groups	Pre-Index Enrollment Criteria in Switch Episodes	Post-Index Enrollment Criteria in Switch Episodes	Switch Cohort Definition	Switch Pattern Cohort Inclusion Date	Gap Tolerance (Days)	Overlap Tolerance and Type	Switch Gap Inclusion Indicator	Inclusion/ Exclusion Group	Criteria	Care Setting	Evaluation Period Start (days)	Evaluation Period End (days)	Exclude Evidence of a Dispensing Date or Days Supply if Evaluation Period includes Dispensings	Minimum Number of Instances the Criteria should be found in Evaluation Period
6	0	Sacubitril/ valsartan	183 days	None	02: All switch pattern episodes during the query period	None (use product dispensing date)	0	100%	Y: Yes, gaps between episodes will be counted as part of the overall switch pattern duration	Heart failure	Inclusion	Any care setting	-183	0	Days supply	1
										ARB	Exclusion		-183	0		
	1	ARB					14			Sacubitril/ valsartan, ACE inhibitor	Exclusion		-183	1		
7	0	Sacubitril/ valsartan	183 days	None	02: All switch pattern episodes during the query period	None (use product dispensing date)	0	100%	Y: Yes, gaps between episodes will be counted as part of the overall switch pattern duration	Heart failure	Inclusion	Any care setting	-183	0	Days supply	1
										Sacubitril/ valsartan	Exclusion		-183	-1	Days supply	
										ACE inhibitor	Exclusion		0	0	Dispensing date	
	1	ACE inhibitor					14			ACE inhibitor	Inclusion		-183	-1	Days supply	
8	0	Sacubitril/ valsartan	183 days	None	02: All switch pattern episodes during the query period	None (use product dispensing date)	0	100%	Y: Yes, gaps between episodes will be counted as part of the overall switch pattern duration	Heart failure	Inclusion	Any care setting	-183	0	Days supply	1
										Sacubitril/ valsartan	Exclusion		-183	-1	Days supply	
										ARB	Exclusion		0	0	Dispensing date	
	1	ARB					14			ARB	Inclusion		-183	-1	Days supply	

[1]Index start date identifies the date on which patients may begin contribute eligible index exposures. Data prior to the index start date may be used to determine enrollment, washout, and other cohort inclusion criteria.

International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and Healthcare Common Procedure Coding System (HCPCS) codes are provided by Optum360.

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

Appendix I. Specifications for Baseline Characteristics in this Request

Baseline Characteristics

Characteristic	Care Setting	Principal Diagnosis Position	Evaluation Period Start (days)	Evaluation Period End (days)	Exclude Evidence of Days Supply if Covariate Includes Dispensings	Minimum Number of Instances the Covariate Should be Found in Evaluation Period	Forced Supply to Attach to Dispensings
Ambulatory allergy or allergy treatments	Ambulatory visit (allergy) Any care setting (treatment) AND No diagnosis code in the inpatient hospital stay or emergency department settings	N/A	-183	0	Evaluation period should search for evidence of days supply	1	N/A
Serious allergy	Inpatient hospital stay; Emergency department encounter	Only applicable for Inpatient and Institutional stays: Any	-183	0	N/A	1	N/A
Renal disorders	Any care setting	Only applicable for Inpatient and Institutional stays: Any	-183	0	N/A	1	N/A
Diabetes	Any care setting	Only applicable for Inpatient and Institutional stays: Any	-183	0	N/A	1	N/A
Ischemic heart disease	Any care setting	Only applicable for Inpatient and Institutional stays: Any	-183	0	N/A	1	N/A
Nonsteroidal anti-inflammatory drugs (NSAIDs)	Any care setting	Only applicable for Inpatient and Institutional stays: Any	-183	0	Evaluation period should search for evidence of days supply	1	N/A
Sirolimus	Any care setting	Only applicable for Inpatient and Institutional stays: Any	-183	0	Evaluation period should search for evidence of days supply	1	N/A
Everolimus	Any care setting	Only applicable for Inpatient and Institutional stays: Any	-183	0	Evaluation period should search for evidence of days supply	1	N/A
ACE inhibitors	Any care setting	Only applicable for Inpatient and Institutional stays: Any	-183	0	Evaluation period should search for evidence of days supply	1	N/A

Appendix I. Specifications for Baseline Characteristics in this Request

Baseline Characteristics

Characteristic	Care Setting	Principal Diagnosis Position	Evaluation Period Start (days)	Evaluation Period End (days)	Exclude Evidence of Days Supply if Covariate Includes Dispensings	Minimum Number of Instances the Covariate Should be Found in Evaluation Period	Forced Supply to Attach to Dispensings
Beta blockers	Any care setting	Only applicable for Inpatient and Institutional stays: Any	-183	0	Evaluation period should search for evidence of days supply	1	N/A
Sacubitril/ valsartan	Any care setting	Only applicable for Inpatient and Institutional stays: Any	-183	0	Evaluation period should search for evidence of days supply	1	N/A
ARBs (not including sacubitril/ valsartan)	Any care setting	Only applicable for Inpatient and Institutional stays: Any	-183	0	Evaluation period should search for evidence of days supply	1	N/A
Aliskiren	Any care setting	Only applicable for Inpatient and Institutional stays: Any	-183	0	Evaluation period should search for evidence of days supply	1	N/A
Angioedema	*Inpatient hospital stay; *Emergency department encounter; * Ambulatory visit	Only applicable for Inpatient and Institutional stays: Any	-183	0	Evaluation period should search for evidence of days supply	1	N/A
Comorbidity score	N/A	N/A	-183	0	N/A	N/A	N/A
Medical utilization	*Inpatient hospital stay; *Non-acute institutional stay; *Emergency department encounter; *Ambulatory visit; *Other ambulatory visit;	N/A	-183	0	N/A	N/A	N/A