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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.

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

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Overview for Request: cder_mpl1r_wp102

Request ID: cder_mpl1r_wp102_nsdp_v02

Request Description: In this report, we investigated counts of cutaneous small vessel vasculitis (CSVV) diagnoses in patients without prior autoimmune disease who had prior direct-acting oral anticoagulant (DOAC) exposure or diagnosis of atrial fibrillation. We additionally evaluated counts of acute kidney injury (AKI) diagnoses among patients with prior DOAC exposure in the Sentinel Distributed Database (SDD).

Sentinel Modular Program Tool Used: Cohort Identification and Descriptive Analysis (CIDA) tool, version 6.0.0

Data Source: We included in this report data from January 1, 2010 to June 30, 2018 from 17 Data Partners contributing to the SDD. This request was distributed on December 11, 2018. See Appendix A for a list of dates of available data for each Data Partner.

Study Design: We designed this study to identify counts of the first qualifying diagnosis (index-defining event) of CSVV among patients who had no evidence of select autoimmune diseases (rheumatoid arthritis, lupus, Crohn's disease, Sjogren's syndrome, polymyositis, dermatomyositis, or cryoglobulinemia) who also had received a DOAC dispensing or a prior diagnosis of atrial fibrillation prior to their index-defining event. We also looked at counts of the first valid diagnosis of AKI among patients who were dispensed a DOAC in either the 183-days or 365-days prior to AKI diagnosis.

Events of Interest: We evaluated four events of interest in this request:

- 1) CSVV among individuals 30 years of age and older with evidence of a DOAC dispensing in the 90 days before CSVV diagnosis and no evidence of select autoimmune diseases in the 183 days before CSVV diagnosis.
- 2) CSVV among individuals 30 years of age and older who had a diagnosis of atrial fibrillation in the 183 days before CSVV diagnosis and no evidence of select autoimmune diseases in the 183 days before CSVV diagnosis.
- 3) AKI among individuals 30 years of age and older with evidence of a DOAC dispensing 183 days before AKI diagnosis.
- 4) AKI among individuals 30 years of age and older with evidence of a DOAC dispensing 365 days before AKI diagnosis.

Evidence of CSVV and AKI were defined using International Classification of Diseases, Ninth and Tenth Revisions, Clinical Modification (ICD-9-CM and ICD-10-CM) diagnosis, and dispensings of DOACs were defined using National Drug Codes (NDCs). See Appendix B for ICD-9-CM and ICD-10-CM diagnosis codes and Appendix C for generic and brand drug names used to define the events of interest.

Cohort Eligibility Criteria: We required individuals included in the CSVV cohorts to be continuously enrolled in health plans with medical and drug coverage for at least 183 days prior to their index date and 90 days after their index date, during which gaps in coverage of up to 45 days were allowed. Individuals in the AKI cohorts were required to be continuously enrolled in health plans with medical and drug coverage for at least 183 or 365 days prior to their index date. Gaps in coverage of up to 45 days were allowed. The cohorts included individuals 30 years of age and older at the time of their index event. Eligible members in the CSVV cohorts could not have evidence of rheumatoid arthritis, lupus, Crohn's disease, Sjogren's syndrome, polymyositis, dermatomyositis, or cryoglobulinemia in the 183 days prior to their index-defining event. Eligible members were required to have a DOAC dispensing or diagnosis of atrial fibrillation within a set number of days relative to the CSVV event, as defined by the "Evaluation Period Start" column within the specification in Appendix H. See Appendix E for a list of ICD-9-CM and ICD-10-CM codes used as exclusion criteria in defining index dates.

Baseline Characteristics: We assessed several baseline characteristics in this study: a recorded history of skin biopsy and prednisone or prednisolone treatment were identified among diagnoses of CSVV; a recorded history of atrial fibrillation in the 183 days prior to index was identified in diagnoses of AKI. See Appendix C for generic and brand drug names used to define the events of interest and Appendix F for ICD-9-CM, ICD-10-CM, Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Edition (CPT-4) codes used to define baseline characteristics. This request also generated separate counts for CSVV and AKI cohorts based on the specific ICD-9-CM or ICD-10-CM code used to identify the index event of interest. For the CSVV cohorts, counts were also provided of patients with both the specific ICD-9-CM or ICD-10-CM code used to identify the index event of interest AND prednisone/prednisolone treatment.

Overview for Request: cder_mpl1r_wp102

Please see Appendix G for the specifications of parameters used in the analyses for this request.

Limitations: Algorithms used to define exposures, outcomes, and inclusion criteria are imperfect; thus, it is possible that there may be misclassification. Therefore, data should be interpreted with this limitation in mind.

Notes: Please contact the Sentinel Operations Center (info@sentinelssystem.org) for questions and to provide comments/suggestions for future enhancements to this document.

The Acute Kidney Injury assessment was conducted as an exploratory evaluation for another safety issue. The findings presented are unrelated to the safety assessment of vasculitis and should be interpreted in this context.

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

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).

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

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. Baseline Characteristics for Patients with Cutaneous Small Vessel Vasculitis (CSVV) with No Prior Diagnosis of Select Autoimmune Diseases who had Evidence of Direct-acting Oral Anticoagulant (DOAC) Dispensings in the 90 Days Prior to CSVV Diagnosis

Characteristic	Number	
Number of episodes	3,659	
Number of unique patients	3,659	
Demographics	Mean	Standard Deviation
Mean age (years)	75.2	10.3
	Number	Percent
Age (years)		
30-39	33	0.9%
40-49	71	1.9%
50-59	223	6.1%
60-69	642	17.5%
70+	2,690	73.5%
Gender		
Female	1,865	51.0%
Male	1,793	49.0%
Other	1	0.0%
Year		
2010	2	0.1%
2011	109	3.0%
2012	265	7.2%
2013	467	12.8%
2014	718	19.6%
2015	945	25.8%
2016	912	24.9%
2017	240	6.6%
2018	1	0.0%
Clinical Profile During Baseline Period ¹	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	3.6	3.1
	Number	Percent
Atrial fibrillation, up to 183 days before CSVV diagnosis	2,876	78.6%
Skin biopsy, up to 14 days before or after CSVV diagnosis	704	19.2%
Prednisone and/or prednisolone treatment, up to 90 days after CSVV diagnosis	1,123	30.7%
Prednisone and/or prednisolone treatment, up to 90 days after CSVV diagnosis AND skin biopsy, up to 14 days before or after CSVV diagnosis	244	6.7%
DOAC1 dispensing, up to 90 days prior to CSVV diagnosis	6	0.2%
DOAC2 dispensing, up to 90 days prior to CSVV diagnosis	1,083	29.6%
DOAC3 dispensing, up to 90 days prior to CSVV diagnosis	1,661	45.4%
DOAC4 dispensing, up to 90 days prior to CSVV diagnosis	983	26.9%
Any DOAC dispensing, up to 10 days prior to CSVV diagnosis	3,112	85.1%
Cutaneous Small Vessel Vasculitis Coding on Day of Diagnosis ³		
Hypersensitivity angiitis, unspecified	138	3.8%
Other specified hypersensitivity angiitis	368	10.1%
Henoch-Schonlein allergic purpura	752	20.6%
Vascular disorders of skin	1,040	28.4%

Table 1a. Baseline Characteristics for Patients with Cutaneous Small Vessel Vasculitis (CSVV) with No Prior Diagnosis of Select Autoimmune Diseases who had Evidence of Direct-acting Oral Anticoagulant (DOAC) Dispensings in the 90 Days Prior to CSVV Diagnosis

Hypersensitivity angiitis	225	6.1%
Allergic purpura	378	10.3%
Vasculitis limited to the skin, unspecified	598	16.3%
Other vasculitis limited to the skin, specified NEC	265	7.2%
Hypersensitivity angiitis	0	0.0%
Hypersensitivity angiitis, unspecified AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	57	1.6%
Other specified hypersensitivity angiitis AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	175	4.8%
Henoch-Schonlein allergic purpura AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	189	5.2%
Vascular disorders of skin AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	210	5.7%
Hypersensitivity angiitis AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	94	2.6%
Prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	102	2.8%
Vasculitis limited to the skin, unspecified AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	261	7.1%
Other vasculitis limited to the skin, specified NEC AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	86	2.4%
Hypersensitivity angiitis AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	0	0.0%

Health Service Utilization Intensity	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	18	12
Mean number of emergency room encounters (ED)	0.7	1.3
Mean number of inpatient hospital encounters (IP)	0.7	1.1
Mean number of non-acute institutional encounters (IS)	0.2	0.8
Mean number of other ambulatory encounters (OA)	7.1	11
Mean number of unique drug classes	11.7	5.2
Mean number of generics	12.6	6
Mean number of filled prescriptions	32.8	23.4

¹Clinical profile defined by evaluation year relative to index date.

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure

³Counts may number to greater than the total number of unique patients due to patients with multiple valid index-defining codes on their index date

Table 1b. Baseline Characteristics for Patients with Cutaneous Small Vessel Vasculitis (CSVV) with No Prior Presence of Select Autoimmune Diseases who had evidence of Atrial Fibrillation Diagnoses in the 183 Days Prior to CSVV Diagnosis

Characteristic	Number	
Number of episodes	21,317	
Number of unique patients	21,317	
Demographics	Mean	Standard Deviation
Mean age (years)	77	10.2
	Number	Percent
Age (years)		
30-39	76	0.4%
40-49	301	1.4%
50-59	995	4.7%
60-69	3,379	15.9%
70+	16,566	77.7%
Gender		
Female	10,894	51.1%
Male	10,422	48.9%
Other	1	0.0%
Year		
2010	1,593	7.5%
2011	2,764	13.0%
2012	2,871	13.5%
2013	3,444	16.2%
2014	3,641	17.1%
2015	3,583	16.8%
2016	2,869	13.5%
2017	550	2.6%
2018	2	0.0%
Clinical Profile During Baseline Period ¹	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	4.2	3.2
	Number	Percent
Atrial fibrillation, up to 183 days before CSVV diagnosis	21,317	100.0%
Skin biopsy, up to 14 days before or after CSVV diagnosis	4,366	20.5%
	5,657	26.5%
Prednisone and/or prednisolone treatment, up to 90 days after CSVV diagnosis		
Prednisone and/or prednisolone treatment, up to 90 days after CSVV diagnosis AND skin biopsy, up to 14 days before or after CSVV diagnosis	1,484	7.0%
DOAC1 dispensing, up to 90 days prior to CSVV diagnosis	4	0.0%
DOAC2 dispensing, up to 90 days prior to CSVV diagnosis	961	4.5%
DOAC3 dispensing, up to 90 days prior to CSVV diagnosis	1,089	5.1%
DOAC4 dispensing, up to 90 days prior to CSVV diagnosis	795	3.7%
Any DOAC dispensing, up to 10 days prior to CSVV diagnosis	2,406	11.3%
Cutaneous Small Vessel Vasculitis Coding on Day of Diagnosis ³		
Hypersensitivity angiitis, unspecified	1,134	5.3%
Other specified hypersensitivity angiitis	2,861	13.4%
Henoch-Schonlein allergic purpura	5,624	26.4%
Vascular disorders of skin	7,523	35.3%
Hypersensitivity angiitis	812	3.8%

Table 1b. Baseline Characteristics for Patients with Cutaneous Small Vessel Vasculitis (CSVV) with No Prior Presence of Select Autoimmune Diseases who had evidence of Atrial Fibrillation Diagnoses in the 183 Days Prior to CSVV Diagnosis

Allergic purpura	1,204	5.6%
Vasculitis limited to the skin, unspecified	1,734	8.1%
Other vasculitis limited to the skin, specified NEC	801	3.8%
Hypersensitivity angiitis	0	0.0%

Cutaneous Small Vessel Vasculitis Coding on day of Diagnosis AND Subsequent Prednisone/Prednisolone Treatment		
	Number	Percent
Hypersensitivity angiitis, unspecified AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	372	1.7%
Other specified hypersensitivity angiitis AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	1,238	5.8%
Henoch-Schonlein allergic purpura AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	1,444	6.8%
Vascular disorders of skin AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	1,252	5.9%
Hypersensitivity angiitis AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	329	1.5%
Allergic purpura AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	279	1.3%
Vasculitis limited to the skin, unspecified AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	668	3.1%
Other vasculitis limited to the skin, specified NEC AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	278	1.3%
Hypersensitivity angiitis AND prednisone/prednisolone treatment, up to 90 days after CSVV diagnosis	0	0.0%

Health Service Utilization Intensity	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	18.9	12.3
Mean number of emergency room encounters (ED)	0.6	1.5
Mean number of inpatient hospital encounters (IP)	0.7	1.2
Mean number of non-acute institutional encounters (IS)	0.2	0.8
Mean number of other ambulatory encounters (OA)	9.3	13.7
Mean number of unique drug classes	10.6	5.1
Mean number of generics	11.3	5.8
Mean number of filled prescriptions	30.3	22.4

¹Clinical profile defined by evaluation year relative to index date.

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure

³Counts may number to greater than the total number of unique patients due to patients with multiple valid index-defining codes on their index date

Table 1c. Baseline Characteristics of Acute Kidney Injury (AKI) Patients who had Evidence of Direct-acting Oral Anticoagulant (DOAC) Dispensings in the 183 Days Prior to AKI Diagnosis

Characteristic ¹	Number	
Number of episodes	235,495	
Number of unique patients	235,495	
Demographics	Mean	Standard Deviation
Mean age (years)	77.1	10.4
	Number	Percent
Age (years)		
30-39	980	0.4%
40-49	3,329	1.4%
50-59	11,736	5.0%
60-69	38,207	16.2%
70+	181,243	77.0%
Gender		
Female	119,213	50.6%
Male	116,272	49.4%
Other	10	0.0%
Year		
2010	86	0.0%
2011	6,315	2.7%
2012	13,073	5.6%
2013	23,352	9.9%
2014	41,243	17.5%
2015	57,443	24.4%
2016	74,736	31.7%
2017	17,421	7.4%
2018	1,826	0.8%
Clinical Profile During Baseline Period ¹	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	6.7	3
	Number	Percent
Atrial Fibrillation, up to 183 days before AKI diagnosis	197,919	84.0%
DOAC1 dispensing, up to 183 days prior to AKI diagnosis	343	0.1%
DOAC2 dispensing, up to 183 days prior to AKI diagnosis	57,638	24.5%
DOAC3 dispensing, up to 183 days prior to AKI diagnosis	110,692	47.0%
DOAC4 dispensing, up to 183 days prior to AKI diagnosis	72,853	30.9%
Acute Kidney Injury Coding on the Day of Diagnosis ³		
Acute kidney failure with lesion of tubular necrosis	9,905	4.2%
Acute kidney failure with lesion of renal cortical necrosis	32	0.0%
Acute kidney failure with lesion of renal medullary (papillary) necrosis	6	0.0%
Acute kidney failure with other specified pathological lesion in kidney	67	0.0%
Acute kidney failure, unspecified	115,329	49.0%
Acute kidney failure with tubular necrosis	9,110	3.9%
Acute kidney failure with acute cortical necrosis	56	0.0%
Acute kidney failure with medullary necrosis	12	0.0%
Other acute kidney failure	558	0.2%
Acute kidney failure, unspecified	101,824	43.2%

Table 1c. Baseline Characteristics of Acute Kidney Injury (AKI) Patients who had Evidence of Direct-acting Oral Anticoagulant (DOAC) Dispensings in the 183 Days Prior to AKI Diagnosis

Health Service Utilization Intensity	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	16.7	11.4
Mean number of emergency room encounters (ED)	0.9	1.6
Mean number of inpatient hospital encounters (IP)	1.7	1.1
Mean number of non-acute institutional encounters (IS)	0.3	0.9
Mean number of other ambulatory encounters (OA)	9.4	11.6
Mean number of unique drug classes	12.6	5.1
Mean number of generics	13.6	5.8
Mean number of filled prescriptions	38.6	26.1

¹Clinical profile defined by evaluation year relative to index date.

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure

³Counts may number to greater than the total number of unique patients due to patients with multiple valid index-defining codes on their index date

Table 1d. Baseline Characteristics of Acute Kidney Injury (AKI) Patients who had Evidence of Direct-acting Oral Anticoagulant (DOAC) Dispensings in the 365 Days Prior to AKI Diagnosis

Characteristic	Number	
Number of episodes	217,152	
Number of unique patients	217,152	
Demographics	Mean	Standard Deviation
Mean age (years)	77.4	10.3
	Number	Percent
Age (years)		
30-39	869	0.4%
40-49	2,907	1.3%
50-59	10,118	4.7%
60-69	33,109	15.2%
70+	170,149	78.4%
Gender		
Female	110,755	51.0%
Male	106,389	49.0%
Other	8	0.0%
Year		
2010	10	0.0%
2011	5,415	2.5%
2012	12,182	5.6%
2013	20,768	9.6%
2014	38,076	17.5%
2015	53,922	24.8%
2016	69,363	31.9%
2017	15,715	7.2%
2018	1,701	0.8%
Clinical Profile During Baseline Period ¹	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score ²	7.2	3.1
	Number	Percent
Atrial fibrillation, up to 365 days before AKI diagnosis	184,242	84.8%
DOAC1 dispensing, up to 365 days prior to AKI diagnosis	325	0.1%
DOAC2 dispensing, up to 365 days prior to AKI diagnosis	56,515	26.0%
DOAC3 dispensing, up to 365 days prior to AKI diagnosis	105,556	48.6%
DOAC4 dispensing, up to 365 days prior to AKI diagnosis	63,811	29.4%
Acute Kidney Injury Coding on the day of Diagnosis ³		
Acute kidney failure with lesion of tubular necrosis	9,157	4.2%
Acute kidney failure with lesion of renal cortical necrosis	26	0.0%
Acute kidney failure with lesion of renal medullary (papillary) necrosis	7	0.0%
Acute kidney failure with other specified pathological lesion in kidney	56	0.0%
Acute kidney failure, unspecified	106,347	49.0%
Acute kidney failure with tubular necrosis	8,552	3.9%
Acute kidney failure with acute cortical necrosis	45	0.0%
Acute kidney failure with medullary necrosis	12	0.0%
Other acute kidney failure	509	0.2%
Acute kidney failure, unspecified	93,768	43.2%

Table 1d. Baseline Characteristics of Acute Kidney Injury (AKI) Patients who had Evidence of Direct-acting Oral Anticoagulant (DOAC) Dispensings in the 365 Days Prior to AKI Diagnosis

Health Service Utilization Intensity	Mean	Standard Deviation
Mean number of ambulatory encounters (AV)	29.8	19.4
Mean number of emergency room encounters (ED)	1.4	2.4
Mean number of inpatient hospital encounters (IP)	2.1	1.5
Mean number of non-acute institutional encounters (IS)	0.4	1.3
Mean number of other ambulatory encounters (OA)	14.9	18.1
Mean number of unique drug classes	15	5.9
Mean number of generics	16.7	7.1
Mean number of filled prescriptions	71.6	48.3

¹Clinical profile defined by evaluation year relative to index date.

²The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure

³Counts may number to greater than the total number of unique patients due to patients with multiple valid index-defining codes on their index date

Table 2. Summary of Cutaneous Small Vessel Vasculitis (CSVV) or Acute Kidney Injury (AKI) in Patients with Prior Direct-acting Oral Anticoagulant (DOAC) Exposure and No Prior Autoimmune Disease in the Sentinel Distributed Database Between January 1, 2010 and June 30, 2018, Overall

	Number of Patients	Eligible Members ¹	Member-Years ¹	Patients with Events / 1,000 Eligible Members
CSVV Patients with Prior DOAC Dispensings and No Prior Presence of Select Autoimmune Diseases	3,659	2,357,119	2,629,854.6	1.55
CSVV Patients with Prior Atrial Fibrillation Diagnoses and No Prior Presence of Select Autoimmune Diseases	21,317	8,405,461	14,502,784.7	2.54
AKI Patients with DOAC dispensings in the 183 days prior to index event	235,495	2,656,215	3,131,532.9	88.66
AKI Patients with DOAC dispensings in the 365 days prior to index event	217,152	2,452,350	3,202,591.5	88.55

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

Table 3. Summary of Cutaneous Small Vessel Vasculitis (CSVV) or Acute Kidney Injury (AKI) in Patients with Prior Direct-acting Oral Anticoagulant (DOAC) Exposure and No Prior Autoimmune Disease in the Sentinel Distributed Database Between January 1, 2010 and June 30, 2018, by Year

Year	Number of Patients	Eligible Members ¹	Member-Years ¹	Patients with Events / 1,000 Eligible Members
CSVV Patients with Prior DOAC Dispensings and No Prior Presence of Select Autoimmune Diseases				
2010	2	10,250	666.0	0.20
2011	109	165,895	72,191.2	0.66
2012	265	326,581	169,662.1	0.81
2013	467	578,056	294,316.4	0.81
2014	718	871,883	493,675.0	0.82
2015	945	1,136,499	680,811.7	0.83
2016	912	1,346,646	716,225.6	0.68
2017	240	392,997	200,742.4	0.61
2018	1	9,912	1,564.1	0.10
CSVV Patients with Prior Atrial Fibrillation Diagnoses and No Prior Presence of Select Autoimmune Diseases				
2010	1,593	2,418,045	1,051,961.8	0.66
2011	2,764	2,881,219	1,811,391.0	0.96
2012	2,871	3,112,468	1,951,941.5	0.92
2013	3,444	3,464,761	2,168,012.1	0.99
2014	3,641	3,658,338	2,368,000.6	1.00
2015	3,583	3,821,064	2,505,246.7	0.94
2016	2,869	3,826,141	2,136,311.2	0.75
2017	550	925,210	503,558.4	0.59
2018	2	36,272	6,361.4	0.06
AKI Patients with DOAC Dispensings in the 183 Days Prior to Index Event				
2010	86	10,684	691.1	8.05
2011	6,315	171,895	78,876.3	36.74
2012	13,073	350,380	195,104.3	37.31
2013	23,352	626,128	332,323.7	37.30
2014	41,243	934,048	544,871.8	44.16
2015	57,443	1,207,069	735,030.9	47.59
2016	74,736	1,517,514	954,823.9	49.25
2017	17,421	455,930	265,548.8	38.21
2018	1,826	169,296	24,262.2	10.79
AKI Patients with DOAC Dispensings in the 365 days Prior to Index Event				
2010	10	3,429	227.9	2.92
2011	5,415	149,046	73,256.3	36.33
2012	12,182	340,152	199,446.5	35.81
2013	20,768	543,539	330,678.0	38.21
2014	38,076	878,528	563,260.5	43.34
2015	53,922	1,150,591	764,313.2	46.86
2016	69,363	1,507,182	977,598.7	46.02
2017	15,715	418,639	268,436.0	37.54
2018	1,701	173,988	25,374.2	9.78

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

Table 4. Summary of Cutaneous Small Vessel Vasculitis (CSVV) or Acute Kidney Injury (AKI) in Patients with Prior Direct-acting Oral Anticoagulant (DOAC) Exposure and No Prior Autoimmune Disease in the Sentinel Distributed Database Between January 1, 2010 and June 30, 2018, by Sex

Sex	Number of Patients	Eligible Members ¹	Member-Years ¹	Patients with Events / 1,000 Eligible Members
CSVV Patients with Prior DOAC Dispensings and No Prior Presence of Select Autoimmune Diseases				
Female	1,865	1,193,644	1,293,313.3	1.56
Male	1,793	1,163,411	1,336,443.0	1.54
Other	1	64	98.2	15.63
CSVV Patients with Prior Atrial Fibrillation Diagnoses and No Prior Presence of Select Autoimmune Diseases				
Female	10,894	4,263,944	7,314,769.0	2.55
Male	10,422	4,141,335	7,187,661.4	2.52
Other	1	182	354.3	5.49
AKI Patients with DOAC Dispensings in the 183 Days Prior to Index Event				
Female	119,213	1,363,273	1,573,509.6	87.45
Male	116,272	1,292,873	1,557,917.8	89.93
Other	10	69	105.4	144.93
AKI Patients with DOAC Dispensings in the 365 Days Prior to Index Event				
Female	110,755	1,268,815	1,635,664.2	87.29
Male	106,389	1,183,475	1,566,817.4	89.90
Other	8	60	109.9	133.33

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

Table 5. Summary of Cutaneous Small Vessel Vasculitis (CSVV) or Acute Kidney Injury (AKI) in Patients with Prior Direct-acting Oral Anticoagulant (DOAC) Exposure and No Prior Autoimmune Disease in the Sentinel Distributed Database Between January 1, 2010 and June 30, 2018, by Age Group

Age Group (years)	Number of Patients	Eligible Members ¹	Member-Years ¹	Patients with Events / 1,000 Eligible Members
CSVV Patients with Prior DOAC Dispensings and No Prior Presence of Select Autoimmune Diseases				
30-39	33	33,802	20,835.6	0.98
40-49	71	87,501	60,081.2	0.81
50-59	223	228,159	172,852.1	0.98
60-69	642	617,516	528,517.1	1.04
70+	2,690	1,531,377	1,847,568.5	1.76
CSVV Patients with Prior Atrial Fibrillation Diagnoses and No Prior Presence of Select Autoimmune Diseases				
30-39	76	81,974	60,137.0	0.93
40-49	301	229,072	200,697.3	1.31
50-59	995	654,604	688,883.9	1.52
60-69	3,379	1,982,140	2,368,294.4	1.70
70+	16,566	6,185,608	11,184,772.1	2.68
AKI Patients with DOAC Dispensings in the 183 Days Prior to Index Event				
30-39	980	41,619	30,302.3	23.55
40-49	3,329	104,431	82,146.0	31.88
50-59	11,736	266,923	224,396.2	43.97
60-69	38,207	709,550	654,604.2	53.85
70+	181,243	1,705,527	2,140,084.2	106.27
AKI Patients with DOAC Dispensings in the 365 Days Prior to Index Event				
30-39	869	36,466	32,012.1	23.83
40-49	2,907	92,847	86,988.3	31.31
50-59	10,118	238,459	235,304.5	42.43
60-69	33,109	640,004	650,541.8	51.73
70+	170,149	1,619,192	2,197,744.7	105.08

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

Appendix A. Dates of Available Data for Each Data Partner as of Request Distribution Date (December 11, 2018)

DP ID	Start Date ¹	End Date ¹
DP01	06/01/2007	01/31/2018
DP02	01/01/2000	10/31/2017
DP03	01/01/2000	06/30/2018
DP04	01/01/2008	03/31/2018
DP05	01/01/2006	12/31/2017
DP06	01/01/2000	12/31/2016
DP07	01/01/2008	09/30/2017
DP08	01/01/2010	12/31/2016
DP09	01/01/2005	12/17/2017
DP10	01/01/2000	03/31/2016
DP11	01/01/2000	05/31/2015
DP12	01/01/2000	03/31/2018
DP13	01/01/2000	12/31/2017
DP14	01/01/2000	06/30/2017
DP15	01/01/2004	05/31/2018
DP16	01/01/2000	03/31/2018
DP17	01/01/2012	06/30/2017

¹The 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 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 Exposures in this Request

Code	Description	Code Type
Cutaneous Small Vessel Vasculitis		
287.0	Allergic purpura	ICD-9-CM
446.2	Hypersensitivity angiitis	ICD-9-CM
446.29	Other specified hypersensitivity angiitis	ICD-9-CM
446.20	Unspecified hypersensitivity angiitis	ICD-9-CM
709.1	Vascular disorder of skin	ICD-9-CM
D69.0	Allergic purpura	ICD-10-CM
L95.8	Other vasculitis limited to the skin	ICD-10-CM
L95.9	Vasculitis limited to the skin, unspecified	ICD-10-CM
M31.0	Hypersensitivity angiitis	ICD-10-CM
Acute Kidney Injury		
584.5	Acute kidney failure with lesion of tubular necrosis	ICD-9-CM
584.6	Acute kidney failure with lesion of renal cortical necrosis	ICD-9-CM
584.7	Acute kidney failure with lesion of renal medullary (papillary) necrosis	ICD-9-CM
584.8	Acute kidney failure with other specified pathological lesion in kidney	ICD-9-CM
584.9	Acute kidney failure unspecified	ICD-9-CM
584	Acute kidney failure	ICD-9-CM
N17.0	Acute kidney failure with tubular necrosis	ICD-10-CM
N17.1	Acute kidney failure with acute cortical necrosis	ICD-10-CM
N17.2	Acute kidney failure with medullary necrosis	ICD-10-CM
N17.8	Other acute kidney failure	ICD-10-CM
N17.9	Acute kidney failure, unspecified	ICD-10-CM

Appendix C. List of Generic and Brand Drug Names Used to Define Inclusion Criteria for Index-Defining Events

Generic Name	Brand Name
APIXABAN	Eliquis
DABIGATRAN ETEXILATE MESYLATE	Pradaxa
EDOXABAN TOSYLATE	Savaysa
PREDNISONE	Deltasone
PREDNISONE	prednisone
PREDNISONE	prednisone (bulk)
PREDNISONE	Prednisone Intensol
PREDNISONE	Rayos
PREDNISONE	Sterapred
PREDNISONE	Sterapred DS
PREDNISONE MICRONIZED	prednisone micronized (bulk)
RIVAROXABAN	Xarelto

Appendix D. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion Criteria for Index-Defining Events

Code	Description	Code Type
Atrial Fibrillation		
427.31	Atrial fibrillation	ICD-9-CM
427.32	Atrial flutter	ICD-9-CM
I48.0	Paroxysmal atrial fibrillation	ICD-10-CM
I48.1	Persistent atrial fibrillation	ICD-10-CM
I48.2	Chronic atrial fibrillation	ICD-10-CM
I48.3	Typical atrial flutter	ICD-10-CM
I48.4	Atypical atrial flutter	ICD-10-CM
I48.91	Unspecified atrial fibrillation	ICD-10-CM
I48.92	Unspecified atrial flutter	ICD-10-CM

Appendix E. 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 Exclusion Criteria for Index-Defining Events

Code	Description	Code Type
Select Autoimmune Disease Codes		
714.0	Rheumatoid arthritis	ICD-9-CM
714	Rheumatoid arthritis and other inflammatory polyarthropathies	ICD-9-CM
M05.8	Other rheumatoid arthritis with rheumatoid factor	ICD-10-CM
M06.872	Other specified rheumatoid arthritis, left ankle and foot	ICD-10-CM
M06.89	Other specified rheumatoid arthritis, multiple sites	ICD-10-CM
M06.871	Other specified rheumatoid arthritis, right ankle and foot	ICD-10-CM
M06.879	Other specified rheumatoid arthritis, unspecified ankle and foot	ICD-10-CM
M06.87	Other specified rheumatoid arthritis, ankle and foot	ICD-10-CM
M06.812	Other specified rheumatoid arthritis, left shoulder	ICD-10-CM
M06.811	Other specified rheumatoid arthritis, right shoulder	ICD-10-CM
M06.819	Other specified rheumatoid arthritis, unspecified shoulder	ICD-10-CM
M05.872	Other rheumatoid arthritis with rheumatoid factor of left ankle and foot	ICD-10-CM
M05.871	Other rheumatoid arthritis with rheumatoid factor of right ankle and foot	ICD-10-CM
M05.839	Other rheumatoid arthritis with rheumatoid factor of unspecified wrist	ICD-10-CM
M05.879	Other rheumatoid arthritis with rheumatoid factor of unspecified ankle and foot	ICD-10-CM
M05.819	Other rheumatoid arthritis with rheumatoid factor of unspecified shoulder	ICD-10-CM
M05.829	Other rheumatoid arthritis with rheumatoid factor of unspecified elbow	ICD-10-CM
M05.87	Other rheumatoid arthritis with rheumatoid factor of ankle and foot	ICD-10-CM
M05.82	Other rheumatoid arthritis with rheumatoid factor of elbow	ICD-10-CM
M05.84	Other rheumatoid arthritis with rheumatoid factor of hand	ICD-10-CM
M05.85	Other rheumatoid arthritis with rheumatoid factor of hip	ICD-10-CM
M05.86	Other rheumatoid arthritis with rheumatoid factor of knee	ICD-10-CM
M05.822	Other rheumatoid arthritis with rheumatoid factor of left elbow	ICD-10-CM
M05.842	Other rheumatoid arthritis with rheumatoid factor of left hand	ICD-10-CM
M05.852	Other rheumatoid arthritis with rheumatoid factor of left hip	ICD-10-CM
M05.862	Other rheumatoid arthritis with rheumatoid factor of left knee	ICD-10-CM
M05.812	Other rheumatoid arthritis with rheumatoid factor of left shoulder	ICD-10-CM
M05.832	Other rheumatoid arthritis with rheumatoid factor of left wrist	ICD-10-CM
M05.89	Other rheumatoid arthritis with rheumatoid factor of multiple sites	ICD-10-CM
M05.821	Other rheumatoid arthritis with rheumatoid factor of right elbow	ICD-10-CM
M05.841	Other rheumatoid arthritis with rheumatoid factor of right hand	ICD-10-CM
M05.851	Other rheumatoid arthritis with rheumatoid factor of right hip	ICD-10-CM
M05.861	Other rheumatoid arthritis with rheumatoid factor of right knee	ICD-10-CM
M05.811	Other rheumatoid arthritis with rheumatoid factor of right shoulder	ICD-10-CM
M05.831	Other rheumatoid arthritis with rheumatoid factor of right wrist	ICD-10-CM
M05.81	Other rheumatoid arthritis with rheumatoid factor of shoulder	ICD-10-CM
M05.849	Other rheumatoid arthritis with rheumatoid factor of unspecified hand	ICD-10-CM
M05.859	Other rheumatoid arthritis with rheumatoid factor of unspecified hip	ICD-10-CM
M05.869	Other rheumatoid arthritis with rheumatoid factor of unspecified knee	ICD-10-CM
M05.80	Other rheumatoid arthritis with rheumatoid factor of unspecified site	ICD-10-CM
M05.83	Other rheumatoid arthritis with rheumatoid factor of wrist	ICD-10-CM
M06	Other rheumatoid arthritis	ICD-10-CM
M06.80	Other specified rheumatoid arthritis, unspecified site	ICD-10-CM

Appendix E. 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 Exclusion Criteria for Index-Defining Events

Code	Description	Code Type
M06.8	Other specified rheumatoid arthritis	ICD-10-CM
M06.82	Other specified rheumatoid arthritis, elbow	ICD-10-CM
M06.84	Other specified rheumatoid arthritis, hand	ICD-10-CM
M06.85	Other specified rheumatoid arthritis, hip	ICD-10-CM
M06.86	Other specified rheumatoid arthritis, knee	ICD-10-CM
M06.822	Other specified rheumatoid arthritis, left elbow	ICD-10-CM
M06.842	Other specified rheumatoid arthritis, left hand	ICD-10-CM
M06.852	Other specified rheumatoid arthritis, left hip	ICD-10-CM
M06.862	Other specified rheumatoid arthritis, left knee	ICD-10-CM
M06.832	Other specified rheumatoid arthritis, left wrist	ICD-10-CM
M06.821	Other specified rheumatoid arthritis, right elbow	ICD-10-CM
M06.841	Other specified rheumatoid arthritis, right hand	ICD-10-CM
M06.851	Other specified rheumatoid arthritis, right hip	ICD-10-CM
M06.861	Other specified rheumatoid arthritis, right knee	ICD-10-CM
M06.831	Other specified rheumatoid arthritis, right wrist	ICD-10-CM
M06.81	Other specified rheumatoid arthritis, shoulder	ICD-10-CM
M06.859	Other specified rheumatoid arthritis, unspecified hip	ICD-10-CM
M06.829	Other specified rheumatoid arthritis, unspecified elbow	ICD-10-CM
M06.849	Other specified rheumatoid arthritis, unspecified hand	ICD-10-CM
M06.869	Other specified rheumatoid arthritis, unspecified knee	ICD-10-CM
M06.839	Other specified rheumatoid arthritis, unspecified wrist	ICD-10-CM
M06.88	Other specified rheumatoid arthritis, vertebrae	ICD-10-CM
M06.83	Other specified rheumatoid arthritis, wrist	ICD-10-CM
M05.67	Rheumatoid arthritis of ankle and foot with involvement of other organs and systems	ICD-10-CM
M05.62	Rheumatoid arthritis of elbow with involvement of other organs and systems	ICD-10-CM
M05.64	Rheumatoid arthritis of hand with involvement of other organs and systems	ICD-10-CM
M05.65	Rheumatoid arthritis of hip with involvement of other organs and systems	ICD-10-CM
M05.66	Rheumatoid arthritis of knee with involvement of other organs and systems	ICD-10-CM
M05.672	Rheumatoid arthritis of left ankle and foot with involvement of other organs and systems	ICD-10-CM
M05.622	Rheumatoid arthritis of left elbow with involvement of other organs and systems	ICD-10-CM
M05.642	Rheumatoid arthritis of left hand with involvement of other organs and systems	ICD-10-CM
M05.652	Rheumatoid arthritis of left hip with involvement of other organs and systems	ICD-10-CM
M05.662	Rheumatoid arthritis of left knee with involvement of other organs and systems	ICD-10-CM
M05.612	Rheumatoid arthritis of left shoulder with involvement of other organs and systems	ICD-10-CM
M05.632	Rheumatoid arthritis of left wrist with involvement of other organs and systems	ICD-10-CM
M05.69	Rheumatoid arthritis of multiple sites with involvement of other organs and systems	ICD-10-CM
M05.671	Rheumatoid arthritis of right ankle and foot with involvement of other organs and systems	ICD-10-CM
M05.621	Rheumatoid arthritis of right elbow with involvement of other organs and systems	ICD-10-CM
M05.641	Rheumatoid arthritis of right hand with involvement of other organs and systems	ICD-10-CM
M05.651	Rheumatoid arthritis of right hip with involvement of other organs and systems	ICD-10-CM
M05.661	Rheumatoid arthritis of right knee with involvement of other organs and systems	ICD-10-CM
M05.611	Rheumatoid arthritis of right shoulder with involvement of other organs and systems	ICD-10-CM
M05.631	Rheumatoid arthritis of right wrist with involvement of other organs and systems	ICD-10-CM
M05.61	Rheumatoid arthritis of shoulder with involvement of other organs and systems	ICD-10-CM

Appendix E. 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 Exclusion Criteria for Index-Defining Events

Code	Description	Code Type
M05.679	Rheumatoid arthritis of unspecified ankle and foot with involvement of other organs and systems	ICD-10-CM
M05.629	Rheumatoid arthritis of unspecified elbow with involvement of other organs and systems	ICD-10-CM
M05.649	Rheumatoid arthritis of unspecified hand with involvement of other organs and systems	ICD-10-CM
M05.659	Rheumatoid arthritis of unspecified hip with involvement of other organs and systems	ICD-10-CM
M05.669	Rheumatoid arthritis of unspecified knee with involvement of other organs and systems	ICD-10-CM
M05.619	Rheumatoid arthritis of unspecified shoulder with involvement of other organs and systems	ICD-10-CM
M05.60	Rheumatoid arthritis of unspecified site with involvement of other organs and systems	ICD-10-CM
M05.639	Rheumatoid arthritis of unspecified wrist with involvement of other organs and systems	ICD-10-CM
M05.772	Rheumatoid arthritis with rheumatoid factor of left ankle and foot without organ or systems involvement	ICD-10-CM
M05.771	Rheumatoid arthritis with rheumatoid factor of right ankle and foot without organ or systems involvement	ICD-10-CM
M05.779	Rheumatoid arthritis with rheumatoid factor of unspecified ankle and foot without organ or systems involvement	ICD-10-CM
M05.72	Rheumatoid arthritis with rheumatoid factor of elbow without organ or systems involvement	ICD-10-CM
M05.74	Rheumatoid arthritis with rheumatoid factor of hand without organ or systems involvement	ICD-10-CM
M05.75	Rheumatoid arthritis with rheumatoid factor of hip without organ or systems involvement	ICD-10-CM
M05.7	Rheumatoid arthritis with rheumatoid factor without organ or systems involvement	ICD-10-CM
M05.77	Rheumatoid arthritis with rheumatoid factor of ankle and foot without organ or systems involvement	ICD-10-CM
M05.76	Rheumatoid arthritis with rheumatoid factor of knee without organ or systems involvement	ICD-10-CM
M05.722	Rheumatoid arthritis with rheumatoid factor of left elbow without organ or systems involvement	ICD-10-CM
M05.742	Rheumatoid arthritis with rheumatoid factor of left hand without organ or systems involvement	ICD-10-CM
M05.752	Rheumatoid arthritis with rheumatoid factor of left hip without organ or systems involvement	ICD-10-CM
M05.762	Rheumatoid arthritis with rheumatoid factor of left knee without organ or systems involvement	ICD-10-CM
M05.712	Rheumatoid arthritis with rheumatoid factor of left shoulder without organ or systems involvement	ICD-10-CM
M05.732	Rheumatoid arthritis with rheumatoid factor of left wrist without organ or systems involvement	ICD-10-CM
M05.79	Rheumatoid arthritis with rheumatoid factor of multiple sites without organ or systems involvement	ICD-10-CM
M05.721	Rheumatoid arthritis with rheumatoid factor of right elbow without organ or systems involvement	ICD-10-CM
M05.741	Rheumatoid arthritis with rheumatoid factor of right hand without organ or systems involvement	ICD-10-CM
M05.751	Rheumatoid arthritis with rheumatoid factor of right hip without organ or systems involvement	ICD-10-CM
M05.761	Rheumatoid arthritis with rheumatoid factor of right knee without organ or systems involvement	ICD-10-CM
M05.711	Rheumatoid arthritis with rheumatoid factor of right shoulder without organ or systems involvement	ICD-10-CM
M05.731	Rheumatoid arthritis with rheumatoid factor of right wrist without organ or systems involvement	ICD-10-CM
M05.71	Rheumatoid arthritis with rheumatoid factor of shoulder without organ or systems involvement	ICD-10-CM
M05.729	Rheumatoid arthritis with rheumatoid factor of unspecified elbow without organ or systems involvement	ICD-10-CM
M05.749	Rheumatoid arthritis with rheumatoid factor of unspecified hand without organ or systems involvement	ICD-10-CM

Appendix E. 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 Exclusion Criteria for Index-Defining Events

Code	Description	Code Type
M05.759	Rheumatoid arthritis with rheumatoid factor of unspecified hip without organ or systems involvement	ICD-10-CM
M05.769	Rheumatoid arthritis with rheumatoid factor of unspecified knee without organ or systems involvement	ICD-10-CM
M05.719	Rheumatoid arthritis with rheumatoid factor of unspecified shoulder without organ or systems involvement	ICD-10-CM
M05.70	Rheumatoid arthritis with rheumatoid factor of unspecified site without organ or systems involvement	ICD-10-CM
M05.739	Rheumatoid arthritis with rheumatoid factor of unspecified wrist without organ or systems involvement	ICD-10-CM
M05.73	Rheumatoid arthritis with rheumatoid factor of wrist without organ or systems involvement	ICD-10-CM
M05.9	Rheumatoid arthritis with rheumatoid factor, unspecified	ICD-10-CM
M06.07	Rheumatoid arthritis without rheumatoid factor, ankle and foot	ICD-10-CM
M06.02	Rheumatoid arthritis without rheumatoid factor, elbow	ICD-10-CM
M06.04	Rheumatoid arthritis without rheumatoid factor, hand	ICD-10-CM
M06.05	Rheumatoid arthritis without rheumatoid factor, hip	ICD-10-CM
M06.06	Rheumatoid arthritis without rheumatoid factor, knee	ICD-10-CM
M06.072	Rheumatoid arthritis without rheumatoid factor, left ankle and foot	ICD-10-CM
M06.022	Rheumatoid arthritis without rheumatoid factor, left elbow	ICD-10-CM
M06.042	Rheumatoid arthritis without rheumatoid factor, left hand	ICD-10-CM
M06.052	Rheumatoid arthritis without rheumatoid factor, left hip	ICD-10-CM
M06.062	Rheumatoid arthritis without rheumatoid factor, left knee	ICD-10-CM
M06.012	Rheumatoid arthritis without rheumatoid factor, left shoulder	ICD-10-CM
M06.032	Rheumatoid arthritis without rheumatoid factor, left wrist	ICD-10-CM
M06.09	Rheumatoid arthritis without rheumatoid factor, multiple sites	ICD-10-CM
M06.071	Rheumatoid arthritis without rheumatoid factor, right ankle and foot	ICD-10-CM
M06.021	Rheumatoid arthritis without rheumatoid factor, right elbow	ICD-10-CM
M06.041	Rheumatoid arthritis without rheumatoid factor, right hand	ICD-10-CM
M06.051	Rheumatoid arthritis without rheumatoid factor, right hip	ICD-10-CM
M06.061	Rheumatoid arthritis without rheumatoid factor, right knee	ICD-10-CM
M06.011	Rheumatoid arthritis without rheumatoid factor, right shoulder	ICD-10-CM
M06.031	Rheumatoid arthritis without rheumatoid factor, right wrist	ICD-10-CM
M06.01	Rheumatoid arthritis without rheumatoid factor, shoulder	ICD-10-CM
M06.079	Rheumatoid arthritis without rheumatoid factor, unspecified ankle and foot	ICD-10-CM
M06.019	Rheumatoid arthritis without rheumatoid factor, unspecified shoulder	ICD-10-CM
M06.029	Rheumatoid arthritis without rheumatoid factor, unspecified elbow	ICD-10-CM
M06.049	Rheumatoid arthritis without rheumatoid factor, unspecified hand	ICD-10-CM
M06.059	Rheumatoid arthritis without rheumatoid factor, unspecified hip	ICD-10-CM
M06.069	Rheumatoid arthritis without rheumatoid factor, unspecified knee	ICD-10-CM
M06.00	Rheumatoid arthritis without rheumatoid factor, unspecified site	ICD-10-CM
M06.039	Rheumatoid arthritis without rheumatoid factor, unspecified wrist	ICD-10-CM
M06.08	Rheumatoid arthritis without rheumatoid factor, vertebrae	ICD-10-CM
M06.03	Rheumatoid arthritis without rheumatoid factor, wrist	ICD-10-CM
M05.63	Rheumatoid arthritis of wrist with involvement of other organs and systems	ICD-10-CM

Appendix E. 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 Exclusion Criteria for Index-Defining Events

Code	Description	Code Type
M06.9	Rheumatoid arthritis, unspecified	ICD-10-CM
M05.6	Rheumatoid arthritis with involvement of other organs and systems	ICD-10-CM
M05	Rheumatoid arthritis with rheumatoid factor	ICD-10-CM
M06.0	Rheumatoid arthritis without rheumatoid factor	ICD-10-CM
M05.372	Rheumatoid heart disease with rheumatoid arthritis of left ankle and foot	ICD-10-CM
M05.329	Rheumatoid heart disease with rheumatoid arthritis of unspecified elbow	ICD-10-CM
M05.349	Rheumatoid heart disease with rheumatoid arthritis of unspecified hand	ICD-10-CM
M05.369	Rheumatoid heart disease with rheumatoid arthritis of unspecified knee	ICD-10-CM
M05.30	Rheumatoid heart disease with rheumatoid arthritis of unspecified site	ICD-10-CM
M05.339	Rheumatoid heart disease with rheumatoid arthritis of unspecified wrist	ICD-10-CM
M05.371	Rheumatoid heart disease with rheumatoid arthritis of right ankle and foot	ICD-10-CM
M05.379	Rheumatoid heart disease with rheumatoid arthritis of unspecified ankle and foot	ICD-10-CM
M05.319	Rheumatoid heart disease with rheumatoid arthritis of unspecified shoulder	ICD-10-CM
M05.3	Rheumatoid heart disease with rheumatoid arthritis	ICD-10-CM
M05.37	Rheumatoid heart disease with rheumatoid arthritis of ankle and foot	ICD-10-CM
M05.32	Rheumatoid heart disease with rheumatoid arthritis of elbow	ICD-10-CM
M05.34	Rheumatoid heart disease with rheumatoid arthritis of hand	ICD-10-CM
M05.35	Rheumatoid heart disease with rheumatoid arthritis of hip	ICD-10-CM
M05.36	Rheumatoid heart disease with rheumatoid arthritis of knee	ICD-10-CM
M05.322	Rheumatoid heart disease with rheumatoid arthritis of left elbow	ICD-10-CM
M05.342	Rheumatoid heart disease with rheumatoid arthritis of left hand	ICD-10-CM
M05.352	Rheumatoid heart disease with rheumatoid arthritis of left hip	ICD-10-CM
M05.362	Rheumatoid heart disease with rheumatoid arthritis of left knee	ICD-10-CM
M05.312	Rheumatoid heart disease with rheumatoid arthritis of left shoulder	ICD-10-CM
M05.332	Rheumatoid heart disease with rheumatoid arthritis of left wrist	ICD-10-CM
M05.39	Rheumatoid heart disease with rheumatoid arthritis of multiple sites	ICD-10-CM
M05.321	Rheumatoid heart disease with rheumatoid arthritis of right elbow	ICD-10-CM
M05.341	Rheumatoid heart disease with rheumatoid arthritis of right hand	ICD-10-CM
M05.351	Rheumatoid heart disease with rheumatoid arthritis of right hip	ICD-10-CM
M05.361	Rheumatoid heart disease with rheumatoid arthritis of right knee	ICD-10-CM
M05.311	Rheumatoid heart disease with rheumatoid arthritis of right shoulder	ICD-10-CM
M05.331	Rheumatoid heart disease with rheumatoid arthritis of right wrist	ICD-10-CM
M05.31	Rheumatoid heart disease with rheumatoid arthritis of shoulder	ICD-10-CM
M05.359	Rheumatoid heart disease with rheumatoid arthritis of unspecified hip	ICD-10-CM
M05.33	Rheumatoid heart disease with rheumatoid arthritis of wrist	ICD-10-CM
M05.172	Rheumatoid lung disease with rheumatoid arthritis of left ankle and foot	ICD-10-CM
M05.171	Rheumatoid lung disease with rheumatoid arthritis of right ankle and foot	ICD-10-CM
M05.129	Rheumatoid lung disease with rheumatoid arthritis of unspecified elbow	ICD-10-CM
M05.139	Rheumatoid lung disease with rheumatoid arthritis of unspecified wrist	ICD-10-CM
M05.179	Rheumatoid lung disease with rheumatoid arthritis of unspecified ankle and foot	ICD-10-CM
M05.119	Rheumatoid lung disease with rheumatoid arthritis of unspecified shoulder	ICD-10-CM
M05.1	Rheumatoid lung disease with rheumatoid arthritis	ICD-10-CM
M05.17	Rheumatoid lung disease with rheumatoid arthritis of ankle and foot	ICD-10-CM
M05.12	Rheumatoid lung disease with rheumatoid arthritis of elbow	ICD-10-CM

Appendix E. 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 Exclusion Criteria for Index-Defining Events

Code	Description	Code Type
M05.14	Rheumatoid lung disease with rheumatoid arthritis of hand	ICD-10-CM
M05.15	Rheumatoid lung disease with rheumatoid arthritis of hip	ICD-10-CM
M05.16	Rheumatoid lung disease with rheumatoid arthritis of knee	ICD-10-CM
M05.122	Rheumatoid lung disease with rheumatoid arthritis of left elbow	ICD-10-CM
M05.142	Rheumatoid lung disease with rheumatoid arthritis of left hand	ICD-10-CM
M05.152	Rheumatoid lung disease with rheumatoid arthritis of left hip	ICD-10-CM
M05.162	Rheumatoid lung disease with rheumatoid arthritis of left knee	ICD-10-CM
M05.112	Rheumatoid lung disease with rheumatoid arthritis of left shoulder	ICD-10-CM
M05.132	Rheumatoid lung disease with rheumatoid arthritis of left wrist	ICD-10-CM
M05.19	Rheumatoid lung disease with rheumatoid arthritis of multiple sites	ICD-10-CM
M05.121	Rheumatoid lung disease with rheumatoid arthritis of right elbow	ICD-10-CM
M05.141	Rheumatoid lung disease with rheumatoid arthritis of right hand	ICD-10-CM
M05.151	Rheumatoid lung disease with rheumatoid arthritis of right hip	ICD-10-CM
M05.161	Rheumatoid lung disease with rheumatoid arthritis of right knee	ICD-10-CM
M05.111	Rheumatoid lung disease with rheumatoid arthritis of right shoulder	ICD-10-CM
M05.131	Rheumatoid lung disease with rheumatoid arthritis of right wrist	ICD-10-CM
M05.11	Rheumatoid lung disease with rheumatoid arthritis of shoulder	ICD-10-CM
M05.149	Rheumatoid lung disease with rheumatoid arthritis of unspecified hand	ICD-10-CM
M05.159	Rheumatoid lung disease with rheumatoid arthritis of unspecified hip	ICD-10-CM
M05.169	Rheumatoid lung disease with rheumatoid arthritis of unspecified knee	ICD-10-CM
M05.10	Rheumatoid lung disease with rheumatoid arthritis of unspecified site	ICD-10-CM
M05.13	Rheumatoid lung disease with rheumatoid arthritis of wrist	ICD-10-CM
M05.479	Rheumatoid myopathy with rheumatoid arthritis of unspecified ankle and foot	ICD-10-CM
M05.47	Rheumatoid myopathy with rheumatoid arthritis of ankle and foot	ICD-10-CM
M05.42	Rheumatoid myopathy with rheumatoid arthritis of elbow	ICD-10-CM
M05.44	Rheumatoid myopathy with rheumatoid arthritis of hand	ICD-10-CM
M05.45	Rheumatoid myopathy with rheumatoid arthritis of hip	ICD-10-CM
M05.46	Rheumatoid myopathy with rheumatoid arthritis of knee	ICD-10-CM
M05.472	Rheumatoid myopathy with rheumatoid arthritis of left ankle and foot	ICD-10-CM
M05.422	Rheumatoid myopathy with rheumatoid arthritis of left elbow	ICD-10-CM
M05.442	Rheumatoid myopathy with rheumatoid arthritis of left hand	ICD-10-CM
M05.452	Rheumatoid myopathy with rheumatoid arthritis of left hip	ICD-10-CM
M05.462	Rheumatoid myopathy with rheumatoid arthritis of left knee	ICD-10-CM
M05.412	Rheumatoid myopathy with rheumatoid arthritis of left shoulder	ICD-10-CM
M05.432	Rheumatoid myopathy with rheumatoid arthritis of left wrist	ICD-10-CM
M05.49	Rheumatoid myopathy with rheumatoid arthritis of multiple sites	ICD-10-CM
M05.471	Rheumatoid myopathy with rheumatoid arthritis of right ankle and foot	ICD-10-CM
M05.421	Rheumatoid myopathy with rheumatoid arthritis of right elbow	ICD-10-CM
M05.441	Rheumatoid myopathy with rheumatoid arthritis of right hand	ICD-10-CM
M05.451	Rheumatoid myopathy with rheumatoid arthritis of right hip	ICD-10-CM
M05.461	Rheumatoid myopathy with rheumatoid arthritis of right knee	ICD-10-CM
M05.411	Rheumatoid myopathy with rheumatoid arthritis of right shoulder	ICD-10-CM
M05.431	Rheumatoid myopathy with rheumatoid arthritis of right wrist	ICD-10-CM
M05.41	Rheumatoid myopathy with rheumatoid arthritis of shoulder	ICD-10-CM

Appendix E. 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 Exclusion Criteria for Index-Defining Events

Code	Description	Code Type
M05.429	Rheumatoid myopathy with rheumatoid arthritis of unspecified elbow	ICD-10-CM
M05.449	Rheumatoid myopathy with rheumatoid arthritis of unspecified hand	ICD-10-CM
M05.459	Rheumatoid myopathy with rheumatoid arthritis of unspecified hip	ICD-10-CM
M05.469	Rheumatoid myopathy with rheumatoid arthritis of unspecified knee	ICD-10-CM
M05.419	Rheumatoid myopathy with rheumatoid arthritis of unspecified shoulder	ICD-10-CM
M05.40	Rheumatoid myopathy with rheumatoid arthritis of unspecified site	ICD-10-CM
M05.439	Rheumatoid myopathy with rheumatoid arthritis of unspecified wrist	ICD-10-CM
M05.43	Rheumatoid myopathy with rheumatoid arthritis of wrist	ICD-10-CM
M05.4	Rheumatoid myopathy with rheumatoid arthritis	ICD-10-CM
M05.549	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified hand	ICD-10-CM
M05.559	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified hip	ICD-10-CM
M05.569	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified knee	ICD-10-CM
M05.50	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified site	ICD-10-CM
M05.572	Rheumatoid polyneuropathy with rheumatoid arthritis of left ankle and foot	ICD-10-CM
M05.571	Rheumatoid polyneuropathy with rheumatoid arthritis of right ankle and foot	ICD-10-CM
M05.579	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified ankle and foot	ICD-10-CM
M05.529	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified elbow	ICD-10-CM
M05.519	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified shoulder	ICD-10-CM
M05.539	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified wrist	ICD-10-CM
M05.5	Rheumatoid polyneuropathy with rheumatoid arthritis	ICD-10-CM
M05.57	Rheumatoid polyneuropathy with rheumatoid arthritis of ankle and foot	ICD-10-CM
M05.52	Rheumatoid polyneuropathy with rheumatoid arthritis of elbow	ICD-10-CM
M05.54	Rheumatoid polyneuropathy with rheumatoid arthritis of hand	ICD-10-CM
M05.55	Rheumatoid polyneuropathy with rheumatoid arthritis of hip	ICD-10-CM
M05.56	Rheumatoid polyneuropathy with rheumatoid arthritis of knee	ICD-10-CM
M05.522	Rheumatoid polyneuropathy with rheumatoid arthritis of left elbow	ICD-10-CM
M05.542	Rheumatoid polyneuropathy with rheumatoid arthritis of left hand	ICD-10-CM
M05.552	Rheumatoid polyneuropathy with rheumatoid arthritis of left hip	ICD-10-CM
M05.562	Rheumatoid polyneuropathy with rheumatoid arthritis of left knee	ICD-10-CM
M05.512	Rheumatoid polyneuropathy with rheumatoid arthritis of left shoulder	ICD-10-CM
M05.532	Rheumatoid polyneuropathy with rheumatoid arthritis of left wrist	ICD-10-CM
M05.59	Rheumatoid polyneuropathy with rheumatoid arthritis of multiple sites	ICD-10-CM
M05.521	Rheumatoid polyneuropathy with rheumatoid arthritis of right elbow	ICD-10-CM
M05.541	Rheumatoid polyneuropathy with rheumatoid arthritis of right hand	ICD-10-CM
M05.551	Rheumatoid polyneuropathy with rheumatoid arthritis of right hip	ICD-10-CM
M05.561	Rheumatoid polyneuropathy with rheumatoid arthritis of right knee	ICD-10-CM
M05.511	Rheumatoid polyneuropathy with rheumatoid arthritis of right shoulder	ICD-10-CM
M05.531	Rheumatoid polyneuropathy with rheumatoid arthritis of right wrist	ICD-10-CM
M05.51	Rheumatoid polyneuropathy with rheumatoid arthritis of shoulder	ICD-10-CM
M05.53	Rheumatoid polyneuropathy with rheumatoid arthritis of wrist	ICD-10-CM
M05.219	Rheumatoid vasculitis with rheumatoid arthritis of unspecified shoulder	ICD-10-CM
M05.279	Rheumatoid vasculitis with rheumatoid arthritis of unspecified ankle and foot	ICD-10-CM
M05.27	Rheumatoid vasculitis with rheumatoid arthritis of ankle and foot	ICD-10-CM
M05.22	Rheumatoid vasculitis with rheumatoid arthritis of elbow	ICD-10-CM

Appendix E. 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 Exclusion Criteria for Index-Defining Events

Code	Description	Code Type
M05.25	Rheumatoid vasculitis with rheumatoid arthritis of hip	ICD-10-CM
M05.26	Rheumatoid vasculitis with rheumatoid arthritis of knee	ICD-10-CM
M05.272	Rheumatoid vasculitis with rheumatoid arthritis of left ankle and foot	ICD-10-CM
M05.222	Rheumatoid vasculitis with rheumatoid arthritis of left elbow	ICD-10-CM
M05.242	Rheumatoid vasculitis with rheumatoid arthritis of left hand	ICD-10-CM
M05.252	Rheumatoid vasculitis with rheumatoid arthritis of left hip	ICD-10-CM
M05.262	Rheumatoid vasculitis with rheumatoid arthritis of left knee	ICD-10-CM
M05.212	Rheumatoid vasculitis with rheumatoid arthritis of left shoulder	ICD-10-CM
M05.232	Rheumatoid vasculitis with rheumatoid arthritis of left wrist	ICD-10-CM
M05.29	Rheumatoid vasculitis with rheumatoid arthritis of multiple sites	ICD-10-CM
M05.24	Rheumatoid vasculitis with rheumatoid arthritis of hand	ICD-10-CM
M05.271	Rheumatoid vasculitis with rheumatoid arthritis of right ankle and foot	ICD-10-CM
M05.221	Rheumatoid vasculitis with rheumatoid arthritis of right elbow	ICD-10-CM
M05.241	Rheumatoid vasculitis with rheumatoid arthritis of right hand	ICD-10-CM
M05.251	Rheumatoid vasculitis with rheumatoid arthritis of right hip	ICD-10-CM
M05.261	Rheumatoid vasculitis with rheumatoid arthritis of right knee	ICD-10-CM
M05.211	Rheumatoid vasculitis with rheumatoid arthritis of right shoulder	ICD-10-CM
M05.231	Rheumatoid vasculitis with rheumatoid arthritis of right wrist	ICD-10-CM
M05.21	Rheumatoid vasculitis with rheumatoid arthritis of shoulder	ICD-10-CM
M05.229	Rheumatoid vasculitis with rheumatoid arthritis of unspecified elbow	ICD-10-CM
M05.249	Rheumatoid vasculitis with rheumatoid arthritis of unspecified hand	ICD-10-CM
M05.259	Rheumatoid vasculitis with rheumatoid arthritis of unspecified hip	ICD-10-CM
M05.269	Rheumatoid vasculitis with rheumatoid arthritis of unspecified knee	ICD-10-CM
M05.20	Rheumatoid vasculitis with rheumatoid arthritis of unspecified site	ICD-10-CM
M05.239	Rheumatoid vasculitis with rheumatoid arthritis of unspecified wrist	ICD-10-CM
M05.23	Rheumatoid vasculitis with rheumatoid arthritis of wrist	ICD-10-CM
M05.2	Rheumatoid vasculitis with rheumatoid arthritis	ICD-10-CM
6954	Lupus erythematosus	ICD-9-CM
710.0	Systemic lupus erythematosus	ICD-9-CM
M32.0	Drug-induced systemic lupus erythematosus	ICD-10-CM
M32.10	Systemic lupus erythematosus, organ or system involvement unspecified	ICD-10-CM
M32.11	Endocarditis in systemic lupus erythematosus	ICD-10-CM
M32.12	Pericarditis in systemic lupus erythematosus	ICD-10-CM
M32.13	Lung involvement in systemic lupus erythematosus	ICD-10-CM
M32.14	Glomerular disease in systemic lupus erythematosus	ICD-10-CM
M32.15	Tubulo-interstitial nephropathy in systemic lupus erythematosus	ICD-10-CM
M32.19	Other organ or system involvement in systemic lupus erythematosus	ICD-10-CM
M32.8	Other forms of systemic lupus erythematosus	ICD-10-CM
M32.9	Systemic lupus erythematosus, unspecified	ICD-10-CM
D68.62	Lupus anticoagulant syndrome	ICD-10-CM
L93	Lupus erythematosus	ICD-10-CM
M32	Systemic lupus erythematosus (SLE)	ICD-10-CM
M32.1	Systemic lupus erythematosus with organ or system involvement	ICD-10-CM
555	Regional enteritis	ICD-9-CM

Appendix E. 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 Exclusion Criteria for Index-Defining Events

Code	Description	Code Type
555.0	Regional enteritis of small intestine	ICD-9-CM
555.1	Regional enteritis of large intestine	ICD-9-CM
555.2	Regional enteritis of small intestine with large intestine	ICD-9-CM
555.9	Regional enteritis of unspecified site	ICD-9-CM
K50	Crohn's disease [regional enteritis]	ICD-10-CM
K50.0	Crohn's disease of small intestine	ICD-10-CM
K50.00	Crohn's disease of small intestine without complications	ICD-10-CM
K50.01	Crohn's disease of small intestine with complications	ICD-10-CM
K50.011	Crohn's disease of small intestine with rectal bleeding	ICD-10-CM
K50.012	Crohn's disease of small intestine with intestinal obstruction	ICD-10-CM
K50.013	Crohn's disease of small intestine with fistula	ICD-10-CM
K50.014	Crohn's disease of small intestine with abscess	ICD-10-CM
K50.018	Crohn's disease of small intestine with other complication	ICD-10-CM
K50.019	Crohn's disease of small intestine with unspecified complications	ICD-10-CM
K50.1	Crohn's disease of large intestine	ICD-10-CM
K50.10	Crohn's disease of large intestine without complications	ICD-10-CM
K50.11	Crohn's disease of large intestine with complications	ICD-10-CM
K50.111	Crohn's disease of large intestine with rectal bleeding	ICD-10-CM
K50.112	Crohn's disease of large intestine with intestinal obstruction	ICD-10-CM
K50.113	Crohn's disease of large intestine with fistula	ICD-10-CM
K50.114	Crohn's disease of large intestine with abscess	ICD-10-CM
K50.118	Crohn's disease of large intestine with other complication	ICD-10-CM
K50.119	Crohn's disease of large intestine with unspecified complications	ICD-10-CM
K50.8	Crohn's disease of both small and large intestine	ICD-10-CM
K50.80	Crohn's disease of both small and large intestine without complications	ICD-10-CM
K50.81	Crohn's disease of both small and large intestine with complications	ICD-10-CM
K50.811	Crohn's disease of both small and large intestine with rectal bleeding	ICD-10-CM
K50.812	Crohn's disease of both small and large intestine with intestinal obstruction	ICD-10-CM
K50.813	Crohn's disease of both small and large intestine with fistula	ICD-10-CM
K50.814	Crohn's disease of both small and large intestine with abscess	ICD-10-CM
K50.818	Crohn's disease of both small and large intestine with other complication	ICD-10-CM
K50.819	Crohn's disease of both small and large intestine with unspecified complications	ICD-10-CM
K50.9	Crohn's disease, unspecified	ICD-10-CM
K50.90	Crohn's disease, unspecified, without complications	ICD-10-CM
K50.91	Crohn's disease, unspecified, with complications	ICD-10-CM
K50.911	Crohn's disease, unspecified, with rectal bleeding	ICD-10-CM
K50.912	Crohn's disease, unspecified, with intestinal obstruction	ICD-10-CM
K50.913	Crohn's disease, unspecified, with fistula	ICD-10-CM
K50.914	Crohn's disease, unspecified, with abscess	ICD-10-CM
K50.918	Crohn's disease, unspecified, with other complication	ICD-10-CM
K50.919	Crohn's disease, unspecified, with unspecified complications	ICD-10-CM
710.2	Sicca syndrome	ICD-9-CM
M35.00	Sicca syndrome, unspecified	ICD-10-CM
M35.01	Sicca syndrome with keratoconjunctivitis	ICD-10-CM

Appendix E. 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 Exclusion Criteria for Index-Defining Events

Code	Description	Code Type
M35.02	Sicca syndrome with lung involvement	ICD-10-CM
M35.03	Sicca syndrome with myopathy	ICD-10-CM
M35.04	Sicca syndrome with tubulo-interstitial nephropathy	ICD-10-CM
M35.09	Sicca syndrome with other organ involvement	ICD-10-CM
M35.0	Sicca syndrome [Sjogren]	ICD-10-CM
710.4	Polymyositis	ICD-9-CM
M33	Dermatopolymyositis	ICD-10-CM
M33.2	Polymyositis	ICD-10-CM
M33.20	Polymyositis, organ involvement unspecified	ICD-10-CM
M33.21	Polymyositis with respiratory involvement	ICD-10-CM
M33.22	Polymyositis with myopathy	ICD-10-CM
M33.29	Polymyositis with other organ involvement	ICD-10-CM
M33.9	Dermatopolymyositis, unspecified	ICD-10-CM
M33.90	Dermatopolymyositis, unspecified, organ involvement unspecified	ICD-10-CM
M33.91	Dermatopolymyositis, unspecified with respiratory involvement	ICD-10-CM
M33.92	Dermatopolymyositis, unspecified with myopathy	ICD-10-CM
M33.93	Dermatopolymyositis, unspecified without myopathy	ICD-10-CM
M33.99	Dermatopolymyositis, unspecified with other organ involvement	ICD-10-CM
M36.0	Dermatopolymyositis in neoplastic disease	ICD-10-CM
710.3	Dermatomyositis	ICD-9-CM
M33.1	Other dermatomyositis	ICD-10-CM
M33.10	Other dermatomyositis, organ involvement unspecified	ICD-10-CM
M33.11	Other dermatomyositis with respiratory involvement	ICD-10-CM
M33.12	Other dermatomyositis with myopathy	ICD-10-CM
M33.13	Other dermatomyositis without myopathy	ICD-10-CM
M33.19	Other dermatomyositis with other organ involvement	ICD-10-CM
273.2	Other paraproteinemias	ICD-9-CM
D89.1	Cryoglobulinemia	ICD-10-CM

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

Code	Description	Code Type	Code Category
Skin Biopsy			
11100	Biopsy of skin, subcutaneous tissue and/or mucous membrane (including simple closure), unless otherwise listed; single lesion	CPT-4	Procedure
11101	Biopsy of skin, subcutaneous tissue and/or mucous membrane (including simple closure), unless otherwise listed; each separate/additional lesion (List separately in addition to code for primary procedure)	CPT-4	Procedure
11300	Shaving of epidermal or dermal lesion, single lesion, trunk, arms or legs; lesion diameter 0.5 cm or less	CPT-4	Procedure
24065	Biopsy, soft tissue of upper arm or elbow area; superficial	CPT-4	Procedure
24066	Biopsy, soft tissue of upper arm or elbow area; deep (subfascial or intramuscular)	CPT-4	Procedure
25065	Biopsy, soft tissue of forearm and/or wrist; superficial	CPT-4	Procedure
25066	Biopsy, soft tissue of forearm and/or wrist; deep (subfascial or intramuscular)	CPT-4	Procedure
83.21	Open biopsy of soft tissue	ICD-9-CM	Diagnosis
83.39	Excision of lesion of other soft tissue	ICD-9-CM	Diagnosis
83.49	Other excision of soft tissue	ICD-9-CM	Diagnosis
86.11	Closed biopsy of skin and subcutaneous tissue	ICD-9-CM	Diagnosis
0HB0XZX	Excision of Scalp Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HB1XZX	Excision of Face Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HB4XZX	Excision of Neck Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HB5XZX	Excision of Chest Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HB6XZX	Excision of Back Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HB7XZX	Excision of Abdomen Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HB8XZX	Excision of Buttock Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HB9XZX	Excision of Perineum Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HBAXZX	Excision of Inguinal Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HBBXZX	Excision of Right Upper Arm Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HBCXZX	Excision of Left Upper Arm Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HBDXZX	Excision of Right Lower Arm Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HBEXZX	Excision of Left Lower Arm Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HBFXZX	Excision of Right Hand Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HBGXZX	Excision of Left Hand Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HBHXZX	Excision of Right Upper Leg Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HBJXZX	Excision of Left Upper Leg Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HBKXZX	Excision of Right Lower Leg Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HBLXZX	Excision of Left Lower Leg Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HBMXZX	Excision of Right Foot Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HBNXZX	Excision of Left Foot Skin, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HBQXZX	Excision of Finger Nail, External Approach, Diagnostic	ICD-10-PCS	Procedure
0HBRXZX	Excision of Toe Nail, External Approach, Diagnostic	ICD-10-PCS	Procedure
0JB00ZZ	Excision of Scalp Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JB03ZX	Excision of Scalp Subcutaneous Tissue and Fascia, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0JB03ZZ	Excision of Scalp Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JB10ZZ	Excision of Face Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure

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

Code	Description	Code Type	Code Category
0JB13ZX	Excision of Face Subcutaneous Tissue and Fascia, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0JB13ZZ	Excision of Face Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JB40ZZ	Excision of Right Neck Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JB43ZX	Excision of Right Neck Subcutaneous Tissue and Fascia, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0JB43ZZ	Excision of Right Neck Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JB50ZZ	Excision of Left Neck Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JB53ZX	Excision of Left Neck Subcutaneous Tissue and Fascia, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0JB53ZZ	Excision of Left Neck Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JB60ZZ	Excision of Chest Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JB63ZX	Excision of Chest Subcutaneous Tissue and Fascia, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0JB63ZZ	Excision of Chest Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JB70ZZ	Excision of Back Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JB73ZX	Excision of Back Subcutaneous Tissue and Fascia, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0JB73ZZ	Excision of Back Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JB80ZZ	Excision of Abdomen Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JB83ZX	Excision of Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0JB83ZZ	Excision of Abdomen Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JB90ZZ	Excision of Buttock Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JB93ZX	Excision of Buttock Subcutaneous Tissue and Fascia, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0JB93ZZ	Excision of Buttock Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JBB0ZZ	Excision of Perineum Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JBB3ZX	Excision of Perineum Subcutaneous Tissue and Fascia, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0JBB3ZZ	Excision of Perineum Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JBC0ZZ	Excision of Pelvic Region Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JBC3ZX	Excision of Pelvic Region Subcutaneous Tissue and Fascia, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0JBC3ZZ	Excision of Pelvic Region Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JBD0ZZ	Excision of Right Upper Arm Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JBD3ZX	Excision of Right Upper Arm Subcutaneous Tissue and Fascia, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0JBD3ZZ	Excision of Right Upper Arm Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JBF0ZZ	Excision of Left Upper Arm Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JBF3ZX	Excision of Left Upper Arm Subcutaneous Tissue and Fascia, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0JBF3ZZ	Excision of Left Upper Arm Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JBG0ZZ	Excision of Right Lower Arm Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JBG3ZX	Excision of Right Lower Arm Subcutaneous Tissue and Fascia, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0JBG3ZZ	Excision of Right Lower Arm Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JBH0ZZ	Excision of Left Lower Arm Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure

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

Code	Description	Code Type	Code Category
0JBH3ZX	Excision of Left Lower Arm Subcutaneous Tissue and Fascia, Percutaneous Approach,	ICD-10-PCS	Procedure
0JBH3ZZ	Excision of Left Lower Arm Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JBJ3ZX	Excision of Right Hand Subcutaneous Tissue and Fascia, Percutaneous Approach,	ICD-10-PCS	Procedure
	Diagnostic		
0JBK3ZX	Excision of Left Hand Subcutaneous Tissue and Fascia, Percutaneous Approach,	ICD-10-PCS	Procedure
	Diagnostic		
0JBL0ZZ	Excision of Right Upper Leg Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JBL3ZX	Excision of Right Upper Leg Subcutaneous Tissue and Fascia, Percutaneous Approach,	ICD-10-PCS	Procedure
	Diagnostic		
0JBL3ZZ	Excision of Right Upper Leg Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JBM0ZZ	Excision of Left Upper Leg Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JBM3ZX	Excision of Left Upper Leg Subcutaneous Tissue and Fascia, Percutaneous Approach,	ICD-10-PCS	Procedure
	Diagnostic		
0JBM3ZZ	Excision of Left Upper Leg Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JBN0ZZ	Excision of Right Lower Leg Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JBN3ZX	Excision of Right Lower Leg Subcutaneous Tissue and Fascia, Percutaneous Approach,	ICD-10-PCS	Procedure
	Diagnostic		
0JBN3ZZ	Excision of Right Lower Leg Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JBP0ZZ	Excision of Left Lower Leg Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JBP3ZX	Excision of Left Lower Leg Subcutaneous Tissue and Fascia, Percutaneous Approach,	ICD-10-PCS	Procedure
	Diagnostic		
0JBP3ZZ	Excision of Left Lower Leg Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JBQ0ZZ	Excision of Right Foot Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JBQ3ZX	Excision of Right Foot Subcutaneous Tissue and Fascia, Percutaneous Approach,	ICD-10-PCS	Procedure
	Diagnostic		
0JBQ3ZZ	Excision of Right Foot Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0JBR0ZZ	Excision of Left Foot Subcutaneous Tissue and Fascia, Open Approach	ICD-10-PCS	Procedure
0JBR3ZX	Excision of Left Foot Subcutaneous Tissue and Fascia, Percutaneous Approach,	ICD-10-PCS	Procedure
	Diagnostic		
0JBR3ZZ	Excision of Left Foot Subcutaneous Tissue and Fascia, Percutaneous Approach	ICD-10-PCS	Procedure
0KB00ZX	Excision of Head Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0KB10ZX	Excision of Facial Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0KB20ZX	Excision of Right Neck Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0KB30ZX	Excision of Left Neck Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0KB40ZX	Excision of Tongue, Palate, Pharynx Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0KB50ZX	Excision of Right Shoulder Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0KB60ZX	Excision of Left Shoulder Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0KB70ZX	Excision of Right Upper Arm Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0KB80ZX	Excision of Left Upper Arm Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0KB90ZX	Excision of Right Lower Arm and Wrist Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0KBB0ZX	Excision of Left Lower Arm and Wrist Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0KBC0ZX	Excision of Right Hand Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0KBD0ZX	Excision of Left Hand Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0KBF0ZX	Excision of Right Trunk Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure

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

Code	Description	Code Type	Code Category
OKBG0ZX	Excision of Left Trunk Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OKBH0ZX	Excision of Right Thorax Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OKBJ0ZX	Excision of Left Thorax Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OKBK0ZX	Excision of Right Abdomen Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OKBL0ZX	Excision of Left Abdomen Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OKBM0ZX	Excision of Perineum Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OKBN0ZX	Excision of Right Hip Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OKBP0ZX	Excision of Left Hip Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OKBQ0ZX	Excision of Right Upper Leg Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OKBR0ZX	Excision of Left Upper Leg Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OKBS0ZX	Excision of Right Lower Leg Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OKBT0ZX	Excision of Left Lower Leg Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OKBV0ZX	Excision of Right Foot Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OKBW0ZX	Excision of Left Foot Muscle, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLB00ZX	Excision of Head and Neck Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLB10ZX	Excision of Right Shoulder Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLB20ZX	Excision of Left Shoulder Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLB30ZX	Excision of Right Upper Arm Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLB40ZX	Excision of Left Upper Arm Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLB50ZX	Excision of Right Lower Arm and Wrist Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLB60ZX	Excision of Left Lower Arm and Wrist Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLB70ZX	Excision of Right Hand Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLB80ZX	Excision of Left Hand Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLB90ZX	Excision of Right Trunk Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBB0ZX	Excision of Left Trunk Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBC0ZX	Excision of Right Thorax Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBD0ZX	Excision of Left Thorax Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBF0ZX	Excision of Right Abdomen Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBG0ZX	Excision of Left Abdomen Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBH0ZX	Excision of Perineum Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBJ0ZX	Excision of Right Hip Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBK0ZX	Excision of Left Hip Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBL0ZX	Excision of Right Upper Leg Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBM0ZX	Excision of Left Upper Leg Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBN0ZX	Excision of Right Lower Leg Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBP0ZX	Excision of Left Lower Leg Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBQ0ZX	Excision of Right Knee Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBR0ZX	Excision of Left Knee Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBS0ZX	Excision of Right Ankle Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBT0ZX	Excision of Left Ankle Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBV0ZX	Excision of Right Foot Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OLBW0ZX	Excision of Left Foot Tendon, Open Approach, Diagnostic	ICD-10-PCS	Procedure
OMB00ZX	Excision of Head and Neck Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure

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

Code	Description	Code Type	Code Category
0MB10ZX	Excision of Right Shoulder Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MB20ZX	Excision of Left Shoulder Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MB30ZX	Excision of Right Elbow Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MB40ZX	Excision of Left Elbow Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MB50ZX	Excision of Right Wrist Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MB60ZX	Excision of Left Wrist Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MB70ZX	Excision of Right Hand Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MB80ZX	Excision of Left Hand Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MB90ZX	Excision of Right Upper Extremity Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBB0ZX	Excision of Left Upper Extremity Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBC0ZX	Excision of Upper Spine Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBD0ZX	Excision of Lower Spine Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBF0ZX	Excision of Sternum Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBG0ZX	Excision of Rib(s) Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBH0ZX	Excision of Right Abdomen Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBJ0ZX	Excision of Left Abdomen Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBK0ZX	Excision of Perineum Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBL0ZX	Excision of Right Hip Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBM0ZX	Excision of Left Hip Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBN0ZX	Excision of Right Knee Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBP0ZX	Excision of Left Knee Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBQ0ZX	Excision of Right Ankle Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBR0ZX	Excision of Left Ankle Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBS0ZX	Excision of Right Foot Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBT0ZX	Excision of Left Foot Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBV0ZX	Excision of Right Lower Extremity Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0MBW0ZX	Excision of Left Lower Extremity Bursa and Ligament, Open Approach, Diagnostic	ICD-10-PCS	Procedure
0WB03ZX	Excision of Head, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0WB04ZX	Excision of Head, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0WB0XZX	Excision of Head, External Approach, Diagnostic	ICD-10-PCS	Procedure
0WB23ZX	Excision of Face, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0WB24ZX	Excision of Face, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0WB2XZX	Excision of Face, External Approach, Diagnostic	ICD-10-PCS	Procedure
0WB43ZX	Excision of Upper Jaw, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0WB44ZX	Excision of Upper Jaw, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0WB4XZX	Excision of Upper Jaw, External Approach, Diagnostic	ICD-10-PCS	Procedure
0WB53ZX	Excision of Lower Jaw, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0WB54ZX	Excision of Lower Jaw, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0WB5XZX	Excision of Lower Jaw, External Approach, Diagnostic	ICD-10-PCS	Procedure
0WB63ZX	Excision of Neck, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0WB64ZX	Excision of Neck, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0WB6XZX	Excision of Neck, External Approach, Diagnostic	ICD-10-PCS	Procedure
0WBK3ZX	Excision of Upper Back, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure

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

Code	Description	Code Type	Code Category
0WBK4ZX	Excision of Upper Back, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0WBKXZX	Excision of Upper Back, External Approach, Diagnostic	ICD-10-PCS	Procedure
0WBL3ZX	Excision of Lower Back, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0WBL4ZX	Excision of Lower Back, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0WBLXZX	Excision of Lower Back, External Approach, Diagnostic	ICD-10-PCS	Procedure
0WBM3ZX	Excision of Male Perineum, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0WBM4ZX	Excision of Male Perineum, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0WBMXZX	Excision of Male Perineum, External Approach, Diagnostic	ICD-10-PCS	Procedure
0XB23ZX	Excision of Right Shoulder Region, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XB24ZX	Excision of Right Shoulder Region, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0XB33ZX	Excision of Left Shoulder Region, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XB34ZX	Excision of Left Shoulder Region, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0XB43ZX	Excision of Right Axilla, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XB44ZX	Excision of Right Axilla, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0XB53ZX	Excision of Left Axilla, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XB54ZX	Excision of Left Axilla, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0XB63ZX	Excision of Right Upper Extremity, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XB64ZX	Excision of Right Upper Extremity, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0XB73ZX	Excision of Left Upper Extremity, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XB74ZX	Excision of Left Upper Extremity, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0XB83ZX	Excision of Right Upper Arm, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XB84ZX	Excision of Right Upper Arm, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0XB93ZX	Excision of Left Upper Arm, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XB94ZX	Excision of Left Upper Arm, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0XBB3ZX	Excision of Right Elbow Region, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XBB4ZX	Excision of Right Elbow Region, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0XBC3ZX	Excision of Left Elbow Region, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XBC4ZX	Excision of Left Elbow Region, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0XBD3ZX	Excision of Right Lower Arm, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XBD4ZX	Excision of Right Lower Arm, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0XBF3ZX	Excision of Left Lower Arm, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XBF4ZX	Excision of Left Lower Arm, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0XBG3ZX	Excision of Right Wrist Region, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XBG4ZX	Excision of Right Wrist Region, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0XBH3ZX	Excision of Left Wrist Region, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XBH4ZX	Excision of Left Wrist Region, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0XBJ3ZX	Excision of Right Hand, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XBJ4ZX	Excision of Right Hand, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0XBK3ZX	Excision of Left Hand, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0XBK4ZX	Excision of Left Hand, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0YB03ZX	Excision of Right Buttock, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0YB04ZX	Excision of Right Buttock, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0YB13ZX	Excision of Left Buttock, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure

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

Code	Description	Code Type	Code Category
0YB14ZX	Excision of Left Buttock, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0YB93ZX	Excision of Right Lower Extremity, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0YB94ZX	Excision of Right Lower Extremity, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0YBB3ZX	Excision of Left Lower Extremity, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0YBB4ZX	Excision of Left Lower Extremity, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0YBC3ZX	Excision of Right Upper Leg, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0YBC4ZX	Excision of Right Upper Leg, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0YBD3ZX	Excision of Left Upper Leg, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0YBD4ZX	Excision of Left Upper Leg, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0YBF3ZX	Excision of Right Knee Region, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0YBF4ZX	Excision of Right Knee Region, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0YBG3ZX	Excision of Left Knee Region, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0YBG4ZX	Excision of Left Knee Region, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0YBH3ZX	Excision of Right Lower Leg, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0YBH4ZX	Excision of Right Lower Leg, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0YBJ3ZX	Excision of Left Lower Leg, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0YBJ4ZX	Excision of Left Lower Leg, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0YBK3ZX	Excision of Right Ankle Region, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0YBK4ZX	Excision of Right Ankle Region, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0YBL3ZX	Excision of Left Ankle Region, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0YBL4ZX	Excision of Left Ankle Region, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0YBM3ZX	Excision of Right Foot, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0YBM4ZX	Excision of Right Foot, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure
0YBN3ZX	Excision of Left Foot, Percutaneous Approach, Diagnostic	ICD-10-PCS	Procedure
0YBN4ZX	Excision of Left Foot, Percutaneous Endoscopic Approach, Diagnostic	ICD-10-PCS	Procedure

Appendix G. Specifications Defining Parameters in this Request

This request utilized the Cohort Identification and Descriptive Analysis (CIDA) tool, version 6.0.0 to estimate rates of cutaneous small vessel vasculitis (CSVV) or acute kidney injury (AKI) in patients with prior direct-acting oral anticoagulant (DOAC) exposure and no prior autoimmune disease in the Sentinel Distributed Database (SDD). We additionally estimated rates of CSVV among patients with prior atrial fibrillation diagnoses and no prior autoimmune disease.

Query period: January 1, 2010 - June 30, 2018
Coverage requirement: Medical & Drug Coverage
Enrollment gap: 45 days
Age groups: 30-39, 40-49, 50-59, 60-69, 70+ years
Stratifications: Age group, Sex, Calendar year
Envelope macro: Reclassify encounters during inpatient stay as inpatient; *No reclassification on inpatient Adate; or *No reclassification

Scenario	Exposure/Event									Inclusion/Exclusion Criteria			
	Index Exposure/Event	Pre-Index Enrollment Requirement (days)	Post-Index Enrollment Requirement (days)	Cohort Definition	Washout Period (days)	Incident with Respect to:	Care Setting	Principal Diagnosis Position	Censor Enrollment at Evidence of:	Criteria	Inclusion/Exclusion	Evaluation Window (days)	Minimum Number of Instances the Criteria Should be Found in Evaluation Period
1	Cutaneous Small Vessel Vasculitis (CSVV)	183	90	First valid index date during query period	183	CSVV	Any care setting	Any diagnosis position	Data Partner End Date; Query End Date; Death Date	1. Any NOAC dispensing	Inclusion	-90, 0	1
										2. Select Autoimmune Disorders (Rheumatoid Arthritis, Lupus, Crohn's Disease, Sjogren's Syndrome, Dermatomyositis, Polymyositis, Cryoglobulinemia)	Exclusion	-183, 0	1
2	Cutaneous Small Vessel Vasculitis (CSVV)	183	90	First valid index date during query period	183	CSVV	Any care setting	Any diagnosis position	Data Partner End Date; Query End Date; Death Date	1. Atrial Fibrillation	Inclusion	-183, 0	1
										2. Select Autoimmune Disorders (Rheumatoid Arthritis, Lupus, Crohn's Disease, Sjogren's Syndrome, Dermatomyositis, Polymyositis, Cryoglobulinemia)	Exclusion	-183, 0	1

3	Acute Kidney Injury (AKI)	183	0	First valid index date during query period	183	AKI	In-patient; Emergency Department	IP: limit to Principal; Secondary ED: any care setting	Data Partner End Date; Query End Date; Death Date	1. Any NOAC dispensing	Inclusion	-183, 0	1
4	Acute Kidney Injury (AKI)	365	0	First valid index date during query period	183	AKI	In-patient; Emergency Department	IP: limit to Principal; Secondary ED: any care setting	Data Partner End Date; Query End Date; Death Date	1. Any NOAC dispensing	Inclusion	-365, 0	1

Characteristic

Scenario	Characteristic	Care setting	Principal Diagnosis Position	Evaluation Period Start	Evaluation Period End	Number of Instances the Covariate Should be Found in Evaluation Period
1	See Appendix H	Any care setting	Only applicable for Inpatient and Institutional stays: *Any; *Principal; *Secondary; *Unknown	See Appendix H	See Appendix H	Numeric specified (Code days)
2	See Appendix H	Any care setting	Only applicable for Inpatient and Institutional stays: *Any; *Principal; *Secondary; *Unknown	See Appendix H	See Appendix H	Numeric specified (Code days)
3	See Appendix I	See Appendix I	Only applicable for Inpatient and Institutional stays: *Any; *Principal; *Secondary; *Unknown	See Appendix I	See Appendix I	Numeric specified (Code days)
4	See Appendix I	See Appendix I	Only applicable for Inpatient and Institutional stays: *Any; *Principal; *Secondary; *Unknown	See Appendix I	See Appendix I	Numeric specified (Code days)
International Classification of Diseases, Ninth and Tenth Revisions, Clinical Modification (ICD-9-CM and ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), and Current Procedural Terminology, Fourth Edition (CPT-4) codes are provided by Optum360. National Drug Codes (NDCs) are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."						

Appendix H. List of Baseline Characteristics Examined in this Request for Cutaneous Small Vessel Vasculitis (CSVV) and the Corresponding Periods in Which They Were Assessed, Relative to the Index Date

Characteristic	Evaluation Period Start (days)	Evaluation Period End (days)	Number of Instances the Covariate Should be Found in Evaluation Period
Skin biopsy	-14	14	Numeric specified (Code days)
Atrial fibrillation	-183	0	Numeric specified (Code days)
Prednisone and/or prednisolone	0	90	
DOAC1 (CSVV Cohorts)	-90	0	Numeric specified (Code days)
DOAC2 (CSVV Cohorts)	-90	0	
DOAC3 (CSVV Cohorts)	-90	0	Numeric specified (Code days)
DOAC4 (CSVV Cohorts)	-90	0	
ANY_DOAC (CSVV Cohorts)	-10	0	
Skin biopsy AND prednisone/prednisolone treatment	-14	14	
Hypersensitivity angitis, unspecified	0	0	
Other specified hypersensitivity angitis	0	0	
Henoch-Schonlein allergic purpura	0	0	
Vascular disorders of skin	0	0	
Hypersensitivity angitis	0	0	
Allergic purpura	0	0	
Vasculitis limited to the skin, unspecified	0	0	
Other vasculitis limited to the skin, specified NEC	0	0	
Hypersensitivity angitis	0	0	
Hypersensitivity angitis, unspecified AND prednisone/prednisolone treatment	0	0	
Other specified hypersensitivity angitis AND prednisone/prednisolone treatment	0	90	
Henoch-Schonlein allergic purpura AND prednisone/prednisolone treatment	0	0	
Vascular disorders of skin AND prednisone/prednisolone treatment	0	90	
Hypersensitivity angitis AND prednisone/prednisolone treatment	0	0	
Allergic purpura AND prednisone/prednisolone treatment	0	0	
Vasculitis limited to the skin, unspecified AND prednisone/prednisolone treatment	0	0	
Other vasculitis limited to the skin, specified NEC AND prednisone/prednisolone treatment	0	90	
Hypersensitivity angitis AND prednisone/prednisolone Treatment	0	0	
Charlson comorbidity index	-183	0	
Healthcare utilization	-183	0	

Appendix I. List of Baseline Characteristics Examined in this Request for Acute Kidney Injury (AKI) and the Corresponding Periods in Which They Were Assessed, Relative to the Index Date

Characteristic	Care setting	Principal diagnosis position	Evaluation period start (days)	Evaluation period end (days)
Atrial Fibrillation (AKI, 183-day Cohort)	Any	Any	-183	0
Atrial Fibrillation (AKI, 365-day Cohort)	Any	Any	-365	0
DOAC1 (AKI, 183-day Cohort)	Any	Any	-183	0
DOAC2 (AKI, 183-day Cohort)	Any	Any	-183	0
DOAC3 (AKI, 183-day Cohort)	Any	Any	-183	0
DOAC4 (AKI, 183-day Cohort)	Any	Any	-183	0
DOAC1 (AKI, 365-day Cohort)	Any	Any	-365	0
DOAC2 (AKI, 365-day Cohort)	Any	Any	-365	0
DOAC3 (AKI, 365-day Cohort)	Any	Any	-365	0
DOAC4 (AKI, 365-day Cohort)	Any	Any	-365	0
Charlson Comorbidity Index	Any	Any	-183	0
Healthcare Utilization	Any		-183	0
Acute kidney failure with lesion of tubular necrosis	In-patient; Emergency Department	IP: limit to Principal; Secondary ED: any care setting	0	0
Acute kidney failure with lesion of renal cortical necrosis	In-patient; Emergency Department	IP: limit to Principal; Secondary ED: any care setting	0	0
Acute kidney failure with lesion of renal medullary (papillary) necrosis	In-patient; Emergency Department	IP: limit to Principal; Secondary ED: any care setting	0	0
Acute kidney failure with other specified pathological lesion in kidney	In-patient; Emergency Department	IP: limit to Principal; Secondary ED: any care setting	0	0
Acute kidney failure, unspecified	In-patient; Emergency Department	IP: limit to Principal; Secondary ED: any care setting	0	0
Acute kidney failure with tubular necrosis	In-patient; Emergency Department	IP: limit to Principal; Secondary ED: any care setting	0	0
Acute kidney failure with acute cortical necrosis	In-patient; Emergency Department	IP: limit to Principal; Secondary ED: any care setting	0	0
Acute kidney failure with medullary necrosis	In-patient; Emergency Department	IP: limit to Principal; Secondary ED: any care setting	0	0
Other acute kidney failure	In-patient; Emergency Department	IP: limit to Principal; Secondary ED: any care setting	0	0
Acute kidney failure, unspecified	In-patient; Emergency Department	IP: limit to Principal; Secondary ED: any care setting	0	0