

Disclaimer

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

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

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

The following report contains a description of the request, request specifications, and results from the Query Builder analysis.

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

Overview

Query Builder Report: This report details the results of an analysis generated by the Sentinel Query Builder application. Query Builder enables FDA to visualize, draft, and create standardized medical product utilization queries examining dispensing patterns and cohort characteristics using a set of pre-defined parameters. This is a Type 5 (Medical Product Utilization) analysis as described in the Query Request Package (QRP) documentation.

Request Description: In this request, we examined utilization patterns of ten pediatric drug devices: Admelog (insulin lispro), Humalog KwikPen and Humalog Junior KwikPen (insulin lispro), Beconase (beclomethasone), EpiPen and EpiPen Jr. (epinephrine), epinephrine intramuscular, Evzio (naloxone), fluticasone metered, Neulasta (pegfilgrastim), Humira (adalimumab), and Norditropin (somatropin).

Sentinel Routine Querying Module: Cohort Identification and Descriptive Analysis (CIDA) module, version 9.1.0

Data Source: We executed this request on IBM® MarketScan® Commercial Claims and Encounters Database and Medicare Supplemental Database, which included 141 million members, on August 27, 2020. The study period included data from January 1, 2018 to March 31, 2019. Please see Appendix A for data availability dates.

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

Notes: Please contact the Sentinel Operations Center (info@sentinelsystem.org) for questions and to provide comments/suggestions for future enhancements to this document. For more information on Sentinel Query Builder, please refer to the documentation (<https://dev.sentinelsystem.org/projects/QB/repos/querybuilder/browse>).

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Table 1a: Baseline table (Humira (adalimumab))

Characteristic ¹	N/Mean	%/Std Dev ²
Number of unique patients	17,509	
Demographics		
Mean Age (years)	44.2	14.8
Age: 00-01	3	0.0%
Age: 02-04	23	0.1%
Age: 05-09	118	0.7%
Age: 10-14	304	1.7%
Age: 15-18	609	3.5%
Age: 19-21	613	3.5%
Age: 22-44	6,584	37.6%
Age: 45-64	8,689	49.6%
Age: 65-74	431	2.5%
Age: 75+	135	0.8%
Sex (Female)	10,431	59.6%
Sex (Male)	7,078	40.4%
Year (2018)	13,858	79.1%
Year (2019)	3,651	20.9%
Recorded history of:		
Prior combined comorbidity score ³	0.5	1.2
Acquired Hypothyroidism	1,569	9.0%
Acute Myocardial Infarction	56	0.3%
Alzheimer's Disease	2	0.0%
Alzheimer's Disease, Related Disorders, or Senile Dementia	25	0.1%
Anemia	2,128	12.2%
Asthma	1,070	6.1%
Atrial Fibrillation	215	1.2%
Benign Prostatic Hyperplasia	270	1.5%
Breast Cancer	99	0.6%
Cataracts	741	4.2%
Chronic Kidney Disease	1,120	6.4%
Chronic Obstructive Pulmonary Disease	679	3.9%
Colorectal Cancer	40	0.2%
Depression	2,105	12.0%
Diabetes	1,825	10.4%
Endometrial Cancer	10	0.1%
Glaucoma	533	3.0%
Heart Failure	141	0.8%
Hip / Pelvic Fracture	16	0.1%
Hyperlipidemia	3,479	19.9%
Hypertension	4,345	24.8%
Ischemic Heart Disease	549	3.1%
Lung Cancer	13	0.1%
Osteoporosis	394	2.3%
Prostate Cancer	58	0.3%
Rheumatoid Arthritis / Osteoarthritis	7,690	43.9%
Stroke / Transient Ischemic Attack	118	0.7%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	10.0	8.9
Mean number of emergency room encounters (ED)	0.3	0.8
Mean number of inpatient hospital encounters (IP)	0.1	0.4
Mean number of non-acute institutional encounters (IS)	0.0	0.0

Table 1a: Baseline table (Humira (adalimumab))

Characteristic ¹	N/Mean	%/Std Dev ²
Mean number of other ambulatory encounters (OA)	2.1	3.8
Mean number of filled prescriptions	14.4	13.0
Mean number of generics	6.5	4.8
Mean number of unique drug classes	6.1	4.4

¹All metrics based on total number of unique patients
²Value represents standard deviation where no % follows the value
³The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051).

Table 1b: Baseline table (Beconase (beclomethasone))

Characteristic ¹	N/Mean	%/Std Dev ²
Number of unique patients	199	
Demographics		
Mean Age (years)	59.0	15.6
Age: 00-01	-	-
Age: 02-04	-	-
Age: 05-09	1	0.5%
Age: 10-14	4	2.0%
Age: 15-18	2	1.0%
Age: 19-21	-	-
Age: 22-44	22	11.1%
Age: 45-64	99	49.7%
Age: 65-74	48	24.1%
Age: 75+	23	11.6%
Sex (Female)	101	50.8%
Sex (Male)	98	49.2%
Year (2018)	167	83.9%
Year (2019)	32	16.1%
Recorded history of:		
Prior combined comorbidity score ³	0.6	1.7
Acquired Hypothyroidism	17	8.5%
Acute Myocardial Infarction	2	1.0%
Alzheimer's Disease	0	0.0%
Alzheimer's Disease, Related Disorders, or Senile Dementia	1	0.5%
Anemia	12	6.0%
Asthma	28	14.1%
Atrial Fibrillation	8	4.0%
Benign Prostatic Hyperplasia	7	3.5%
Breast Cancer	6	3.0%
Cataracts	23	11.6%
Chronic Kidney Disease	19	9.5%
Chronic Obstructive Pulmonary Disease	14	7.0%
Colorectal Cancer	2	1.0%
Depression	21	10.6%
Diabetes	30	15.1%
Endometrial Cancer	0	0.0%
Glaucoma	10	5.0%
Heart Failure	5	2.5%
Hip / Pelvic Fracture	1	0.5%
Hyperlipidemia	68	34.2%
Hypertension	73	36.7%
Ischemic Heart Disease	18	9.0%
Lung Cancer	1	0.5%
Osteoporosis	8	4.0%
Prostate Cancer	7	3.5%
Rheumatoid Arthritis / Osteoarthritis	29	14.6%
Stroke / Transient Ischemic Attack	5	2.5%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	9.7	11.0
Mean number of emergency room encounters (ED)	0.3	0.7
Mean number of inpatient hospital encounters (IP)	0.1	0.3
Mean number of non-acute institutional encounters (IS)	0.0	0.0

Table 1b: Baseline table (Beconase (beclomethasone))

Characteristic ¹	N/Mean	%/Std Dev ²
Mean number of other ambulatory encounters (OA)	1.5	3.2
Mean number of filled prescriptions	14.2	14.2
Mean number of generics	6.2	5.0
Mean number of unique drug classes	5.9	4.6

¹All metrics based on total number of unique patients
²Value represents standard deviation where no % follows the value
³The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051).

Table 1c: Baseline table (EpiPen and EpiPenJr (epinephrine))

Characteristic ¹	N/Mean	%/Std Dev ²
Number of unique patients	39,846	
Demographics		
Mean Age (years)	26.1	20.8
Age: 00-01	899	2.3%
Age: 02-04	2,978	7.5%
Age: 05-09	7,159	18.0%
Age: 10-14	6,959	17.5%
Age: 15-18	3,884	9.7%
Age: 19-21	1,579	4.0%
Age: 22-44	6,485	16.3%
Age: 45-64	8,527	21.4%
Age: 65-74	1,015	2.5%
Age: 75+	361	0.9%
Sex (Female)	20,805	52.2%
Sex (Male)	19,041	47.8%
Year (2018)	38,116	95.7%
Year (2019)	1,730	4.3%
Recorded history of:		
Prior combined comorbidity score ³	0.4	0.9
Acquired Hypothyroidism	1,908	4.8%
Acute Myocardial Infarction	38	0.1%
Alzheimer's Disease	10	0.0%
Alzheimer's Disease, Related Disorders, or Senile Dementia	41	0.1%
Anemia	1,313	3.3%
Asthma	7,769	19.5%
Atrial Fibrillation	223	0.6%
Benign Prostatic Hyperplasia	316	0.8%
Breast Cancer	263	0.7%
Cataracts	920	2.3%
Chronic Kidney Disease	1,066	2.7%
Chronic Obstructive Pulmonary Disease	949	2.4%
Colorectal Cancer	50	0.1%
Depression	2,483	6.2%
Diabetes	1,745	4.4%
Endometrial Cancer	26	0.1%
Glaucoma	718	1.8%
Heart Failure	136	0.3%
Hip / Pelvic Fracture	19	0.0%
Hyperlipidemia	4,114	10.3%
Hypertension	4,189	10.5%
Ischemic Heart Disease	586	1.5%
Lung Cancer	24	0.1%
Osteoporosis	309	0.8%
Prostate Cancer	87	0.2%
Rheumatoid Arthritis / Osteoarthritis	2,192	5.5%
Stroke / Transient Ischemic Attack	137	0.3%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	7.0	8.9
Mean number of emergency room encounters (ED)	0.2	0.7
Mean number of inpatient hospital encounters (IP)	0.0	0.2
Mean number of non-acute institutional encounters (IS)	0.0	0.0

Table 1c: Baseline table (EpiPen and EpiPenJr (epinephrine))

Characteristic ¹	N/Mean	%/Std Dev ²
Mean number of other ambulatory encounters (OA)	1.1	4.8
Mean number of filled prescriptions	6.7	9.7
Mean number of generics	3.5	4.0
Mean number of unique drug classes	3.3	3.7

¹All metrics based on total number of unique patients

²Value represents standard deviation where no % follows the value

³The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051).

Table 1d: Baseline table (Epinephrine Intramuscular)

Characteristic ¹	N/Mean	%/Std Dev ²
Number of unique patients	140,611	
Demographics		
Mean Age (years)	28.4	21.2
Age: 00-01	4,337	3.1%
Age: 02-04	9,386	6.7%
Age: 05-09	20,454	14.5%
Age: 10-14	21,312	15.2%
Age: 15-18	12,560	8.9%
Age: 19-21	5,541	3.9%
Age: 22-44	27,219	19.4%
Age: 45-64	34,785	24.7%
Age: 65-74	3,727	2.7%
Age: 75+	1,290	0.9%
Sex (Female)	76,089	54.1%
Sex (Male)	64,522	45.9%
Year (2018)	121,381	86.3%
Year (2019)	19,230	13.7%
Recorded history of:		
Prior combined comorbidity score ³	0.4	0.9
Acquired Hypothyroidism	7,348	5.2%
Acute Myocardial Infarction	136	0.1%
Alzheimer's Disease	39	0.0%
Alzheimer's Disease, Related Disorders, or Senile Dementia	159	0.1%
Anemia	4,802	3.4%
Asthma	26,517	18.9%
Atrial Fibrillation	895	0.6%
Benign Prostatic Hyperplasia	1,244	0.9%
Breast Cancer	1,041	0.7%
Cataracts	3,418	2.4%
Chronic Kidney Disease	3,793	2.7%
Chronic Obstructive Pulmonary Disease	3,551	2.5%
Colorectal Cancer	191	0.1%
Depression	9,822	7.0%
Diabetes	6,667	4.7%
Endometrial Cancer	105	0.1%
Glaucoma	2,474	1.8%
Heart Failure	545	0.4%
Hip / Pelvic Fracture	68	0.0%
Hyperlipidemia	15,807	11.2%
Hypertension	16,820	12.0%
Ischemic Heart Disease	2,149	1.5%
Lung Cancer	95	0.1%
Osteoporosis	1,164	0.8%
Prostate Cancer	302	0.2%
Rheumatoid Arthritis / Osteoarthritis	8,693	6.2%
Stroke / Transient Ischemic Attack	541	0.4%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	7.3	8.9
Mean number of emergency room encounters (ED)	0.2	0.8
Mean number of inpatient hospital encounters (IP)	0.0	0.2
Mean number of non-acute institutional encounters (IS)	0.0	0.0

Table 1d: Baseline table (Epinephrine Intramuscular)

Characteristic ¹	N/Mean	%/Std Dev ²
Mean number of other ambulatory encounters (OA)	1.1	4.6
Mean number of filled prescriptions	7.1	10.1
Mean number of generics	3.6	4.1
Mean number of unique drug classes	3.4	3.7

¹All metrics based on total number of unique patients

²Value represents standard deviation where no % follows the value

³The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051).

Table 1e: Baseline table (Fluticasone Metered Inhalation)

Characteristic ¹	N/Mean	%/Std Dev ²
Number of unique patients	120,555	
Demographics		
Mean Age (years)	30.0	22.6
Age: 00-01	2,877	2.4%
Age: 02-04	10,831	9.0%
Age: 05-09	18,466	15.3%
Age: 10-14	14,784	12.3%
Age: 15-18	8,327	6.9%
Age: 19-21	4,123	3.4%
Age: 22-44	22,671	18.8%
Age: 45-64	31,957	26.5%
Age: 65-74	3,984	3.3%
Age: 75+	2,535	2.1%
Sex (Female)	64,083	53.2%
Sex (Male)	56,472	46.8%
Year (2018)	96,967	80.4%
Year (2019)	23,588	19.6%
Recorded history of:		
Prior combined comorbidity score ³	0.7	1.1
Acquired Hypothyroidism	5,849	4.9%
Acute Myocardial Infarction	243	0.2%
Alzheimer's Disease	66	0.1%
Alzheimer's Disease, Related Disorders, or Senile Dementia	245	0.2%
Anemia	4,114	3.4%
Asthma	47,034	39.0%
Atrial Fibrillation	1,453	1.2%
Benign Prostatic Hyperplasia	1,116	0.9%
Breast Cancer	928	0.8%
Cataracts	3,317	2.8%
Chronic Kidney Disease	4,133	3.4%
Chronic Obstructive Pulmonary Disease	8,004	6.6%
Colorectal Cancer	147	0.1%
Depression	8,793	7.3%
Diabetes	6,608	5.5%
Endometrial Cancer	96	0.1%
Glaucoma	2,272	1.9%
Heart Failure	1,162	1.0%
Hip / Pelvic Fracture	79	0.1%
Hyperlipidemia	13,230	11.0%
Hypertension	15,712	13.0%
Ischemic Heart Disease	2,559	2.1%
Lung Cancer	247	0.2%
Osteoporosis	981	0.8%
Prostate Cancer	372	0.3%
Rheumatoid Arthritis / Osteoarthritis	7,393	6.1%
Stroke / Transient Ischemic Attack	591	0.5%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	6.6	8.2
Mean number of emergency room encounters (ED)	0.3	0.8
Mean number of inpatient hospital encounters (IP)	0.1	0.3
Mean number of non-acute institutional encounters (IS)	0.0	0.0

Table 1e: Baseline table (Fluticasone Metered Inhalation)

Characteristic ¹	N/Mean	%/Std Dev ²
Mean number of other ambulatory encounters (OA)	1.1	5.4
Mean number of filled prescriptions	7.8	9.7
Mean number of generics	4.1	3.9
Mean number of unique drug classes	3.8	3.6

¹All metrics based on total number of unique patients

²Value represents standard deviation where no % follows the value

³The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051).

Table 1f: Baseline table (Admelog (insulin lispro))

Characteristic ¹	N/Mean	%/Std Dev ²
Number of unique patients	347	
Demographics		
Mean Age	51.4	19.0
Age: 00-01	-	-
Age: 02-04	-	-
Age: 05-09	6	1.7%
Age: 10-14	13	3.7%
Age: 15-18	13	3.7%
Age: 19-21	8	2.3%
Age: 22-44	69	19.9%
Age: 45-64	148	42.7%
Age: 65-74	63	18.2%
Age: 75+	27	7.8%
Sex (Female)	160	46.1%
Sex (Male)	187	53.9%
Year (2018)	132	38.0%
Year (2019)	215	62.0%
Recorded history of:		
Prior combined comorbidity score ³	1.6	2.0
Acquired Hypothyroidism	65	18.7%
Acute Myocardial Infarction	4	1.2%
Alzheimer's Disease	1	0.3%
Alzheimer's Disease, Related Disorders, or Senile Dementia	4	1.2%
Anemia	38	11.0%
Asthma	23	6.6%
Atrial Fibrillation	14	4.0%
Benign Prostatic Hyperplasia	11	3.2%
Breast Cancer	5	1.4%
Cataracts	68	19.6%
Chronic Kidney Disease	224	64.6%
Chronic Obstructive Pulmonary Disease	12	3.5%
Colorectal Cancer	2	0.6%
Depression	61	17.6%
Diabetes	329	94.8%
Endometrial Cancer	1	0.3%
Glaucoma	26	7.5%
Heart Failure	19	5.5%
Hip / Pelvic Fracture	1	0.3%
Hyperlipidemia	152	43.8%
Hypertension	159	45.8%
Ischemic Heart Disease	36	10.4%
Lung Cancer	1	0.3%
Osteoporosis	4	1.2%
Prostate Cancer	1	0.3%
Rheumatoid Arthritis / Osteoarthritis	41	11.8%
Stroke / Transient Ischemic Attack	6	1.7%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	9.4	10.1
Mean number of emergency room encounters (ED)	0.3	1.2
Mean number of inpatient hospital encounters (IP)	0.2	0.6
Mean number of non-acute institutional encounters (IS)	0.0	0.1

Table 1f: Baseline table (Admelog (insulin lispro))

Characteristic ¹	N/Mean	%/Std Dev ²
Mean number of other ambulatory encounters (OA)	4.2	7.1
Mean number of filled prescriptions	15.7	19.0
Mean number of generics	7.2	4.5
Mean number of unique drug classes	6.3	4.1

¹All metrics based on total number of unique patients

²Value represents standard deviation where no % follows the value

³The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051).

Table 1g: Baseline table (Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro))

Characteristic ¹	N/Mean	%/Std Dev ²
Number of unique patients	3,693	
Demographics		
Mean Age (years)	43.4	20.1
Age: 00-01	11	0.3%
Age: 02-04	72	1.9%
Age: 05-09	270	7.3%
Age: 10-14	250	6.8%
Age: 15-18	117	3.2%
Age: 19-21	74	2.0%
Age: 22-44	732	19.8%
Age: 45-64	1,953	52.9%
Age: 65-74	141	3.8%
Age: 75+	73	2.0%
Sex (Female)	1,660	44.9%
Sex (Male)	2,033	55.1%
Year (2018)	2,932	79.4%
Year (2019)	761	20.6%
Recorded history of:		
Prior combined comorbidity score ³	1.6	2.0
Acquired Hypothyroidism	461	12.5%
Acute Myocardial Infarction	65	1.8%
Alzheimer's Disease	2	0.1%
Alzheimer's Disease, Related Disorders, or Senile Dementia	23	0.6%
Anemia	362	9.8%
Asthma	248	6.7%
Atrial Fibrillation	96	2.6%
Benign Prostatic Hyperplasia	78	2.1%
Breast Cancer	38	1.0%
Cataracts	304	8.2%
Chronic Kidney Disease	2,489	67.4%
Chronic Obstructive Pulmonary Disease	182	4.9%
Colorectal Cancer	6	0.2%
Depression	372	10.1%
Diabetes	3,496	94.7%
Endometrial Cancer	12	0.3%
Glaucoma	162	4.4%
Heart Failure	220	6.0%
Hip / Pelvic Fracture	5	0.1%
Hyperlipidemia	1,811	49.0%
Hypertension	1,825	49.4%
Ischemic Heart Disease	409	11.1%
Lung Cancer	17	0.5%
Osteoporosis	26	0.7%
Prostate Cancer	21	0.6%
Rheumatoid Arthritis / Osteoarthritis	409	11.1%
Stroke / Transient Ischemic Attack	73	2.0%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	9.2	11.1
Mean number of emergency room encounters (ED)	0.4	1.4
Mean number of inpatient hospital encounters (IP)	0.3	0.6
Mean number of non-acute institutional encounters (IS)	0.0	0.1

Table 1g: Baseline table (Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro))

Characteristic ¹	N/Mean	%/Std Dev ²
Mean number of other ambulatory encounters (OA)	2.7	5.9
Mean number of filled prescriptions	16.4	15.4
Mean number of generics	7.4	5.5
Mean number of unique drug classes	6.5	4.9

¹All metrics based on total number of unique patients

²Value represents standard deviation where no % follows the value

³The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051).

Table 1h: Baseline table (Evzio (naloxone))

Characteristic ¹	N/Mean	%/Std Dev ²
Number of unique patients	819	
Demographics		
Mean Age (years)	51.0	11.5
Age: 00-01	-	-
Age: 02-04	-	-
Age: 05-09	-	-
Age: 10-14	-	-
Age: 15-18	1	0.1%
Age: 19-21	12	1.5%
Age: 22-44	199	24.3%
Age: 45-64	573	70.0%
Age: 65-74	24	2.9%
Age: 75+	10	1.2%
Sex (Female)	482	58.9%
Sex (Male)	337	41.1%
Year (2018)	674	82.3%
Year (2019)	145	17.7%
Recorded history of:		
Prior combined comorbidity score ³	0.8	1.7
Acquired Hypothyroidism	113	13.8%
Acute Myocardial Infarction	4	0.5%
Alzheimer's Disease	0	0.0%
Alzheimer's Disease, Related Disorders, or Senile Dementia	3	0.4%
Anemia	76	9.3%
Asthma	64	7.8%
Atrial Fibrillation	18	2.2%
Benign Prostatic Hyperplasia	24	2.9%
Breast Cancer	12	1.5%
Cataracts	44	5.4%
Chronic Kidney Disease	97	11.8%
Chronic Obstructive Pulmonary Disease	76	9.3%
Colorectal Cancer	2	0.2%
Depression	213	26.0%
Diabetes	135	16.5%
Endometrial Cancer	2	0.2%
Glaucoma	25	3.1%
Heart Failure	26	3.2%
Hip / Pelvic Fracture	1	0.1%
Hyperlipidemia	244	29.8%
Hypertension	343	41.9%
Ischemic Heart Disease	56	6.8%
Lung Cancer	3	0.4%
Osteoporosis	25	3.1%
Prostate Cancer	3	0.4%
Rheumatoid Arthritis / Osteoarthritis	428	52.3%
Stroke / Transient Ischemic Attack	15	1.8%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	13.7	12.1
Mean number of emergency room encounters (ED)	0.5	1.6
Mean number of inpatient hospital encounters (IP)	0.2	0.6
Mean number of non-acute institutional encounters (IS)	0.0	0.2

Table 1h: Baseline table (Evzio (naloxone))

Characteristic ¹	N/Mean	%/Std Dev ²
Mean number of other ambulatory encounters (OA)	3.5	7.4
Mean number of filled prescriptions	28.9	20.0
Mean number of generics	9.9	6.0
Mean number of unique drug classes	8.8	5.4

¹All metrics based on total number of unique patients

²Value represents standard deviation where no % follows the value

³The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051).

Table 1i: Baseline table (Neulasta (pegfilgrastim))

Characteristic ¹	N/Mean	%/Std Dev ²
Number of unique patients	1,096	
Demographics		
Mean Age (years)	49.5	17.8
Age: 00-01	8	0.7%
Age: 02-04	15	1.4%
Age: 05-09	26	2.4%
Age: 10-14	33	3.0%
Age: 15-18	43	3.9%
Age: 19-21	15	1.4%
Age: 22-44	169	15.4%
Age: 45-64	687	62.7%
Age: 65-74	70	6.4%
Age: 75+	30	2.7%
Sex (Female)	702	64.1%
Sex (Male)	394	35.9%
Year (2018)	879	80.2%
Year (2019)	217	19.8%
Recorded history of:		
Prior combined comorbidity score ³	5.5	3.4
Acquired Hypothyroidism	138	12.6%
Acute Myocardial Infarction	4	0.4%
Alzheimer's Disease	1	0.1%
Alzheimer's Disease, Related Disorders, or Senile Dementia	9	0.8%
Anemia	399	36.4%
Asthma	91	8.3%
Atrial Fibrillation	43	3.9%
Benign Prostatic Hyperplasia	37	3.4%
Breast Cancer	356	32.5%
Cataracts	53	4.8%
Chronic Kidney Disease	199	18.2%
Chronic Obstructive Pulmonary Disease	96	8.8%
Colorectal Cancer	114	10.4%
Depression	135	12.3%
Diabetes	163	14.9%
Endometrial Cancer	48	4.4%
Glaucoma	35	3.2%
Heart Failure	29	2.6%
Hip / Pelvic Fracture	4	0.4%
Hyperlipidemia	320	29.2%
Hypertension	417	38.0%
Ischemic Heart Disease	78	7.1%
Lung Cancer	87	7.9%
Osteoporosis	23	2.1%
Prostate Cancer	34	3.1%
Rheumatoid Arthritis / Osteoarthritis	144	13.1%
Stroke / Transient Ischemic Attack	30	2.7%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	21.7	14.1
Mean number of emergency room encounters (ED)	0.6	1.1
Mean number of inpatient hospital encounters (IP)	0.9	1.6
Mean number of non-acute institutional encounters (IS)	0.0	0.1

Table 1i: Baseline table (Neulasta (pegfilgrastim))

Characteristic ¹	N/Mean	%/Std Dev ²
Mean number of other ambulatory encounters (OA)	5.5	8.1
Mean number of filled prescriptions	15.3	11.8
Mean number of generics	8.8	4.9
Mean number of unique drug classes	8.1	4.3

¹All metrics based on total number of unique patients
²Value represents standard deviation where no % follows the value
³The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051).

Table 1j: Baseline table (Norditropin (somatropin))

Characteristic ¹	N/Mean	%/Std Dev ²
Number of unique patients	927	
Demographics		
Mean Age (years)	15.1	11.0
Age: 00-01	12	1.3%
Age: 02-04	37	4.0%
Age: 05-09	158	17.0%
Age: 10-14	481	51.9%
Age: 15-18	145	15.6%
Age: 19-21	10	1.1%
Age: 22-44	40	4.3%
Age: 45-64	43	4.6%
Age: 65-74	1	0.1%
Age: 75+	-	-
Sex (Female)	290	31.3%
Sex (Male)	637	68.7%
Year (2018)	645	69.6%
Year (2019)	282	30.4%
Recorded history of:		
Prior combined comorbidity score ³	0.3	0.8
Acquired Hypothyroidism	101	10.9%
Acute Myocardial Infarction	0	0.0%
Alzheimer's Disease	0	0.0%
Alzheimer's Disease, Related Disorders, or Senile Dementia	4	0.4%
Anemia	26	2.8%
Asthma	68	7.3%
Atrial Fibrillation	4	0.4%
Benign Prostatic Hyperplasia	2	0.2%
Breast Cancer	1	0.1%
Cataracts	8	0.9%
Chronic Kidney Disease	30	3.2%
Chronic Obstructive Pulmonary Disease	9	1.0%
Colorectal Cancer	0	0.0%
Depression	40	4.3%
Diabetes	19	2.0%
Endometrial Cancer	0	0.0%
Glaucoma	3	0.3%
Heart Failure	1	0.1%
Hip / Pelvic Fracture	1	0.1%
Hyperlipidemia	37	4.0%
Hypertension	36	3.9%
Ischemic Heart Disease	4	0.4%
Lung Cancer	0	0.0%
Osteoporosis	6	0.6%
Prostate Cancer	0	0.0%
Rheumatoid Arthritis / Osteoarthritis	10	1.1%
Stroke / Transient Ischemic Attack	3	0.3%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	8.6	11.0
Mean number of emergency room encounters (ED)	0.1	0.5
Mean number of inpatient hospital encounters (IP)	0.0	0.2
Mean number of non-acute institutional encounters (IS)	0.0	0.0

Table 1j: Baseline table (Norditropin (somatropin))

Characteristic ¹	N/Mean	%/Std Dev ²
Mean number of other ambulatory encounters (OA)	1.9	7.4
Mean number of filled prescriptions	6.8	8.9
Mean number of generics	2.8	3.2
Mean number of unique drug classes	2.7	3.0

¹All metrics based on total number of unique patients

²Value represents standard deviation where no % follows the value

³The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051).

Table 2a: Descriptive statistics of cumulative exposure duration, all episodes, in days

Exposures	Total Patients	Mean	STD	Min	Q1	Median	Q3	Max
Humira (adalimumab)	17,509	170.08	114.59	1	75	147	247	454
Beconase (beclomethasone)	199	101.51	70.17	4	60	75	120	388
EpiPen and EpiPenJr (epinephrine)	39,846	43.25	21.33	1	32	32	60	417
Epinephrine Intramuscular	140,611	43.56	23.67	1	32	32	60	417
Fluticasone Metered Inhalation	120,555	96.21	72.13	1	60	60	120	455
Admelog (insulin lispro)	347	78.68	52.29	3	42	63	108	259
Humalog Kwikpen and Humalog	3,693	142.01	102.04	1	60	120	206	453
Junior Kwikpen (insulin lispro)								
Evzio (naloxone)	819	51.14	21.27	2	31	60	60	180
Neulasta (pegfilgrastim)	1,096	93.00	56.34	2	51	86	124	376
Norditropin (somatropin)	927	176.02	124.65	1	66	156	271	454

Table 2b: Descriptive statistics of cumulative exposure duration, all episodes, in days, by sex

Exposures	Total Patients	Mean	STD	Min	Q1	Median	Q3	Max
Humira (adalimumab)	17,509	170.08	114.59	1	75	147	247	454
Female	10,431	166.19	111.96	1	74	144	238	454
Male	7,078	175.80	118.12	1	76	152	258	454
Other	0	-	-	-	-	-	-	-
Beconase (beclomethasone)	199	101.51	70.17	4	60	75	120	388
Female	101	101.64	73.45	4	60	75	120	388
Male	98	101.38	67.00	5	60	77	120	322
Other	0	-	-	-	-	-	-	-
EpiPen and EpiPenJr (epinephrine)	39,846	43.25	21.33	1	32	32	60	417
Female	20,805	42.65	20.39	1	32	32	60	338
Male	19,041	43.90	22.28	1	32	32	60	417
Other	0	-	-	-	-	-	-	-
Epinephrine Intramuscular	140,611	43.56	23.67	1	32	32	60	417
Female	76,089	42.64	22.68	1	32	32	60	338
Male	64,522	44.64	24.74	1	32	32	60	417
Other	0	-	-	-	-	-	-	-
Fluticasone Metered Inhalation	120,555	96.21	72.13	1	60	60	120	455
Female	64,083	93.99	70.59	1	60	60	120	454
Male	56,472	98.73	73.76	1	60	60	120	455
Other	0	-	-	-	-	-	-	-
Admelog (insulin lispro)	347	78.68	52.29	3	42	63	108	259
Female	160	79.99	53.30	3	42	63	107	252
Male	187	77.57	51.53	5	42	66	111	259
Other	0	-	-	-	-	-	-	-
Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro)	3,693	142.01	102.04	1	60	120	206	453
Female	1,660	140.77	99.36	1	60	120	201	453
Male	2,033	143.02	104.19	2	60	119	208	451
Other	0	-	-	-	-	-	-	-
Evzio (naloxone)	819	51.14	21.27	2	31	60	60	180
Female	482	50.96	20.49	3	31	60	60	180
Male	337	51.39	22.37	2	31	60	60	180
Other	0	-	-	-	-	-	-	-
Neulasta (pegfilgrastim)	1,096	93.00	56.34	2	51	86	124	376
Female	702	93.54	54.56	2	51	86	122	366
Male	394	92.04	59.45	3	51	76	125	376
Other	0	-	-	-	-	-	-	-
Norditropin (somatropin)	927	176.02	124.65	1	66	156	271	454
Female	290	175.22	128.05	4	67	138	280	454

Table 2b: Descriptive statistics of cumulative exposure duration, all episodes, in days, by sex

Exposures	Total Patients	Mean	STD	Min	Q1	Median	Q3	Max
Male	637	176.38	123.18	1	66	166	269	454
Other	0	-	-	-	-	-	-	-

Table 2c: Descriptive statistics of cumulative exposure duration, all episodes, in days, by age group (years)								
Exposures	Total Patients	Mean	STD	Min	Q1	Median	Q3	Max
Humira (adalimumab)	17,509	170.08	114.59	1	75	147	247	454
00-01	3	55.67	35.10	32	32	39	96	96
02-04	23	178.70	111.83	16	67	187	278	348
05-09	118	171.14	116.27	5	75	150	244	447
10-14	304	177.27	120.97	3	68	164	254	453
15-18	609	172.11	116.62	2	80	150	248	454
19-21	613	170.46	115.63	2	73	150	250	454
22-44	6,584	168.84	114.18	1	70	148	243	454
45-64	8,689	171.79	114.78	1	80	147	250	454
65-74	431	152.55	109.83	2	60	119	223	444
75+	135	149.30	101.66	1	66	129	217	453
Beconase (beclomethasone)	199	101.51	70.17	4	60	75	120	388
00-01	0	-	-	-	-	-	-	-
02-04	0	-	-	-	-	-	-	-
05-09	1	115.00	-	115	115	115	115	115
10-14	4	60.00	0.00	60	60	60	60	60
15-18	2	137.50	116.67	55	55	138	220	220
19-21	0	-	-	-	-	-	-	-
22-44	22	73.68	43.60	9	55	60	90	187
45-64	99	101.60	75.86	5	60	60	120	388
65-74	48	113.46	66.78	18	60	98	168	322
75+	23	106.35	71.89	4	60	90	148	262
EpiPen and EpiPenJr (epinephrine)	39,846	43.25	21.33	1	32	32	60	417
00-01	899	42.47	20.23	1	32	32	60	180
02-04	2,978	45.83	22.99	1	32	33	60	210
05-09	7,159	46.38	24.09	1	32	34	60	256
10-14	6,959	44.48	22.01	1	32	32	60	218
15-18	3,884	42.82	21.10	1	32	32	60	340
19-21	1,579	40.87	18.13	1	32	32	55	184
22-44	6,485	40.17	17.73	1	32	32	58	236
45-64	8,527	41.56	19.78	1	32	32	60	417
65-74	1,015	43.71	24.83	1	32	32	60	377
75+	361	46.75	23.95	4	32	32	60	231
Epinephrine Intramuscular	140,611	43.56	23.67	1	32	32	60	417
00-01	4,337	45.47	24.09	1	32	32	60	231
02-04	9,386	47.98	26.94	1	32	34	60	313
05-09	20,454	48.87	28.03	1	32	34	60	330
10-14	21,312	46.19	25.43	1	32	32	60	284

Table 2c: Descriptive statistics of cumulative exposure duration, all episodes, in days, by age group (years)								
Exposures	Total Patients	Mean	STD	Min	Q1	Median	Q3	Max
15-18	12,560	43.83	23.92	1	32	32	60	340
19-21	5,541	41.84	22.04	1	32	32	60	240
22-44	27,219	39.06	18.47	1	32	32	45	237
45-64	34,785	41.17	21.34	1	32	32	60	417
65-74	3,727	42.49	23.40	1	32	32	60	377
75+	1,290	44.05	25.48	1	32	32	60	295
Fluticasone Metered Inhalation	120,555	96.21	72.13	1	60	60	120	455
00-01	2,877	118.50	90.36	1	60	90	157	447
02-04	10,831	112.50	84.02	1	60	84	149	454
05-09	18,466	102.73	74.87	1	60	60	120	452
10-14	14,784	94.08	67.59	1	60	60	120	452
15-18	8,327	89.48	62.56	1	60	60	120	433
19-21	4,123	84.52	58.96	1	60	60	98	438
22-44	22,671	83.92	62.02	1	60	60	95	455
45-64	31,957	96.25	73.19	1	60	60	120	454
65-74	3,984	101.13	76.52	1	60	62	120	450
75+	2,535	109.03	83.32	2	60	74	136	444
Admelog (insulin lispro)	347	78.68	52.29	3	42	63	108	259
00-01	0	-	-	-	-	-	-	-
02-04	0	-	-	-	-	-	-	-
05-09	6	103.33	82.53	39	60	65	132	259
10-14	13	96.85	42.12	19	60	90	133	167
15-18	13	77.15	65.09	3	43	56	87	230
19-21	8	84.00	56.50	21	39	63	146	158
22-44	69	76.41	55.82	6	35	60	108	252
45-64	148	80.96	53.91	5	41	65	113	249
65-74	63	74.29	44.43	8	42	69	92	199
75+	27	67.22	40.26	11	42	58	86	189
Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro)	3,693	142.01	102.04	1	60	120	206	453
00-01	11	140.91	96.02	9	60	137	231	279
02-04	72	131.54	96.61	13	60	100	190	388
05-09	270	148.13	102.03	4	67	120	211	423
10-14	250	127.58	92.44	4	60	107	182	419
15-18	117	139.39	104.01	3	60	111	204	425
19-21	74	146.15	101.06	3	66	118	210	423
22-44	732	134.43	100.79	1	60	112	186	453
45-64	1,953	148.69	104.49	2	60	120	214	453
65-74	141	112.21	85.66	3	49	88	157	410

Table 2c: Descriptive statistics of cumulative exposure duration, all episodes, in days, by age group (years)									
Exposures	Total Patients	Mean	STD	Min	Q1	Median	Q3	Max	
75+	73	133.92	95.74	12	60	110	201	396	
Evzio (nalozone)	819	51.14	21.27	2	31	60	60	180	
00-01	0	-	-	-	-	-	-	-	
02-04	0	-	-	-	-	-	-	-	
05-09	0	-	-	-	-	-	-	-	
10-14	0	-	-	-	-	-	-	-	
15-18	1	4.00	-	4	4	4	4	4	
19-21	12	57.33	8.02	32	59	60	60	60	
22-44	199	52.75	24.47	3	31	60	60	180	
45-64	573	50.65	20.42	2	31	60	60	180	
65-74	24	51.58	14.66	8	45	60	60	60	
75+	10	43.20	19.13	7	31	46	60	60	
Neulasta (pegfilgrastim)	1,096	93.00	56.34	2	51	86	124	376	
00-01	8	111.38	98.07	10	61	90	122	335	
02-04	15	105.27	58.77	14	56	101	144	198	
05-09	26	104.58	82.70	12	51	83	126	361	
10-14	33	100.00	67.06	14	44	82	153	244	
15-18	43	114.79	74.06	14	54	96	149	322	
19-21	15	96.40	73.99	5	43	75	156	215	
22-44	169	97.28	58.54	2	58	86	135	365	
45-64	687	89.78	51.29	3	51	86	120	376	
65-74	70	87.46	57.94	3	49	78	116	326	
75+	30	93.77	53.60	4	53	85	137	216	
Norditropin (somatropin)	927	176.02	124.65	1	66	156	271	454	
00-01	12	174.25	127.95	8	54	177	285	371	
02-04	37	181.68	112.78	12	77	180	252	404	
05-09	158	190.20	125.44	3	76	180	301	448	
10-14	481	180.77	125.62	1	67	162	273	454	
15-18	145	158.01	126.17	5	58	112	264	445	
19-21	10	211.00	132.98	66	101	206	237	447	
22-44	40	138.78	108.86	11	55	98	239	367	
45-64	43	147.63	112.70	4	55	116	230	391	
65-74	1	431.00	-	431	431	431	431	431	
75+	0	-	-	-	-	-	-	-	

Table 3a: Descriptive statistics of first exposure episode duration, in days

Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
Humira (adalimumab)	17,509	158.24	111.51	1	60	132	227	454
Beconase (beclomethasone)	199	82.99	55.55	4	60	60	104	388
EpiPen and EpiPenJr (epinephrine)	39,846	39.95	16.46	1	32	32	47	377
Epinephrine Intramuscular	140,611	38.93	16.93	1	32	32	45	377
Fluticasone Metered Inhalation	120,555	78.18	55.08	1	60	60	90	455
Admelog (insulin lispro)	347	75.01	49.53	3	42	61	103	259
Humalog Kwikpen and Humalog Junior Kwikpen (insuli lispro)	3,693	113.16	88.82	1	59	84	139	453
Evzio (naloxone)	819	49.45	17.83	2	31	60	60	180
Neulasta (pegfilgrastim)	1,096	86.10	49.78	2	51	79	114	376
Norditropin (somatropin)	927	163.64	121.25	1	60	124	249	454

Table 3b: Descriptive statistics of first exposure episode duration, in days, by sex								
Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
Humira (adalimumab)	17,509	158.24	111.51	1	60	132	227	454
Female	10,431	154.34	108.46	1	60	127	218	454
Male	7,078	164.00	115.62	1	60	140	241	454
Other	0	-	-	-	-	-	-	-
Beconase (beclomethasone)	199	82.99	55.55	4	60	60	104	388
Female	101	83.34	62.69	4	60	60	110	388
Male	98	82.64	47.40	5	60	60	98	284
Other	0	-	-	-	-	-	-	-
EpiPen and EpiPenJr (epinephrine)	39,846	39.95	16.46	1	32	32	47	377
Female	20,805	39.82	16.30	1	32	32	49	300
Male	19,041	40.09	16.62	1	32	32	46	377
Other	0	-	-	-	-	-	-	-
Epinephrine Intramuscular	140,611	38.93	16.93	1	32	32	45	377
Female	76,089	38.67	16.69	1	32	32	44	330
Male	64,522	39.24	17.20	1	32	32	45	377
Other	0	-	-	-	-	-	-	-
Fluticasone Metered Inhalation	120,555	78.18	55.08	1	60	60	90	455
Female	64,083	77.05	53.85	1	60	60	90	454
Male	56,472	79.45	56.42	1	60	60	90	455
Other	0	-	-	-	-	-	-	-
Admelog (insulin lispro)	347	75.01	49.53	3	42	61	103	259
Female	160	75.82	50.79	3	41	61	102	252
Male	187	74.33	48.55	5	42	61	104	259
Other	0	-	-	-	-	-	-	-
Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro)	3,693	113.16	88.82	1	59	84	139	453
Female	1,660	111.64	86.25	1	59	86	136	453
Male	2,033	114.41	90.87	1	59	84	144	451
Other	0	-	-	-	-	-	-	-
Evzio (naloxone)	819	49.45	17.83	2	31	60	60	180
Female	482	49.29	16.73	3	31	60	60	120
Male	337	49.68	19.32	2	31	60	60	180
Other	0	-	-	-	-	-	-	-
Neulasta (pegfilgrastim)	1,096	86.10	49.78	2	51	79	114	376
Female	702	87.25	48.08	2	51	86	114	366
Male	394	84.06	52.66	3	49	72	115	376
Other	0	-	-	-	-	-	-	-
Norditropin (somatropin)	927	163.64	121.25	1	60	124	249	454
Female	290	158.58	122.81	4	60	114	238	454

Table 3b: Descriptive statistics of first exposure episode duration, in days, by sex

Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
Male	637	165.94	120.57	1	60	138	255	454
Other	0	-	-	-	-	-	-	-

Table 3c: Descriptive statistics of first exposure episode duration, in days, by age group (years)

Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
Humira (adalimumab)	17,509	158.24	111.51	1	60	132	227	454
00-01	3	55.67	35.10	32	32	39	96	96
02-04	23	168.52	106.23	16	67	185	257	348
05-09	118	166.01	114.18	5	69	147	237	447
10-14	304	165.29	119.19	3	58	146	237	453
15-18	609	160.07	113.04	2	60	132	233	454
19-21	613	157.56	112.92	2	59	131	229	454
22-44	6,584	155.46	110.40	1	58	131	222	454
45-64	8,689	161.00	112.20	1	63	136	231	454
65-74	431	142.32	106.43	2	58	114	198	444
75+	135	140.58	95.45	1	65	114	198	453
Beconase (beclomethasone)	199	82.99	55.55	4	60	60	104	388
00-01	0	-	-	-	-	-	-	-
02-04	0	-	-	-	-	-	-	-
05-09	1	60.00	-	60	60	60	60	60
10-14	4	60.00	0.00	60	60	60	60	60
15-18	2	137.50	116.67	55	55	138	220	220
19-21	0	-	-	-	-	-	-	-
22-44	22	70.95	42.43	9	55	60	90	187
45-64	99	84.35	64.62	5	60	60	109	388
65-74	48	83.50	39.38	18	60	75	105	210
75+	23	87.87	54.35	4	60	75	120	234
EpiPen and EpiPenJr (epinephrine)	39,846	39.95	16.46	1	32	32	47	377
00-01	899	38.32	13.68	1	32	32	40	120
02-04	2,978	39.47	14.91	1	32	32	45	210
05-09	7,159	40.39	16.57	1	32	32	45	231
10-14	6,959	40.33	16.52	1	32	32	47	210
15-18	3,884	39.93	16.27	1	32	32	48	210
19-21	1,579	39.14	15.09	1	32	32	43	157
22-44	6,485	38.84	15.35	1	31	32	45	236
45-64	8,527	40.11	16.87	1	32	32	59	240
65-74	1,015	42.29	22.93	1	31	32	60	377
75+	361	45.62	22.96	4	32	32	60	231
Epinephrine Intramuscular	140,611	38.93	16.93	1	32	32	45	377
00-01	4,337	39.68	16.55	1	32	32	55	207
02-04	9,386	39.34	16.49	1	32	32	45	254
05-09	20,454	40.20	18.06	1	32	32	45	330
10-14	21,312	39.68	17.16	1	32	32	45	217

Table 3c: Descriptive statistics of first exposure episode duration, in days, by age group (years)

Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
15-18	12,560	39.06	16.86	1	32	32	45	225
19-21	5,541	38.40	16.10	1	32	32	41	204
22-44	27,219	37.13	15.07	1	32	32	36	236
45-64	34,785	38.82	17.37	1	32	32	45	321
65-74	3,727	39.57	18.41	1	32	32	45	377
75+	1,290	41.08	20.04	1	32	32	60	231
Fluticasone Metered Inhalation	120,555	78.18	55.08	1	60	60	90	455
00-01	2,877	92.39	71.74	1	60	60	109	447
02-04	10,831	85.65	64.38	1	60	60	95	454
05-09	18,466	79.77	55.67	1	60	60	90	452
10-14	14,784	75.51	50.62	1	60	60	90	452
15-18	8,327	73.70	46.18	1	60	60	77	430
19-21	4,123	72.61	44.89	1	60	60	74	433
22-44	22,671	70.54	45.59	1	60	60	60	455
45-64	31,957	80.24	57.97	1	60	60	90	454
65-74	3,984	84.55	61.76	1	60	60	96	448
75+	2,535	90.15	67.74	2	60	60	116	444
Admelog (insulin lispro)	347	75.01	49.53	3	42	61	103	259
00-01	0	-	-	-	-	-	-	-
02-04	0	-	-	-	-	-	-	-
05-09	6	103.33	82.53	39	60	65	132	259
10-14	13	80.85	30.34	19	60	87	90	133
15-18	13	77.15	65.09	3	43	56	87	230
19-21	8	84.00	56.50	21	39	63	146	158
22-44	69	71.43	54.17	6	35	59	86	252
45-64	148	76.55	49.61	5	41	62	105	249
65-74	63	73.19	43.61	8	42	67	92	199
75+	27	67.22	40.26	11	42	58	86	189
Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro)	3,693	113.16	88.82	1	59	84	139	453
00-01	11	93.64	90.10	9	60	60	90	279
02-04	72	95.57	68.04	13	60	60	114	320
05-09	270	101.23	73.77	4	60	71	120	406
10-14	250	96.51	74.27	4	58	61	120	419
15-18	117	112.63	93.30	3	56	70	122	425
19-21	74	108.81	77.65	3	60	90	123	355
22-44	732	110.08	88.42	1	58	81	133	453
45-64	1,953	120.41	93.85	2	60	94	152	453
65-74	141	96.86	72.30	3	46	77	120	325

Table 3c: Descriptive statistics of first exposure episode duration, in days, by age group (years)

Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
75+	73	108.51	83.73	12	54	73	159	395
Evzio (naloxone)	819	49.45	17.83	2	31	60	60	180
00-01	0	-	-	-	-	-	-	-
02-04	0	-	-	-	-	-	-	-
05-09	0	-	-	-	-	-	-	-
10-14	0	-	-	-	-	-	-	-
15-18	1	4.00	-	4	4	4	4	4
19-21	12	57.33	8.02	32	59	60	60	60
22-44	199	50.16	20.65	3	31	60	60	180
45-64	573	49.14	16.89	2	31	60	60	120
65-74	24	51.58	14.66	8	45	60	60	60
75+	10	43.20	19.13	7	31	46	60	60
Neulasta (pegfilgrastim)	1,096	86.10	49.78	2	51	79	114	376
00-01	8	111.38	98.07	10	61	90	122	335
02-04	15	92.53	55.29	14	52	79	133	198
05-09	26	82.73	68.44	12	48	58	107	361
10-14	33	94.39	60.74	14	44	82	141	242
15-18	43	95.35	54.03	14	51	93	125	257
19-21	15	83.80	58.93	5	43	75	120	208
22-44	169	89.78	48.87	2	51	86	121	248
45-64	687	84.98	48.07	3	51	81	114	376
65-74	70	78.51	42.68	3	49	73	109	212
75+	30	80.57	47.20	4	51	71	114	170
Norditropin (somatropin)	927	163.64	121.25	1	60	124	249	454
00-01	12	161.58	128.23	8	50	129	285	343
02-04	37	169.08	116.09	12	59	178	252	404
05-09	158	171.13	120.58	3	66	136	257	448
10-14	481	171.80	123.90	1	65	151	260	454
15-18	145	143.69	118.09	5	57	91	220	445
19-21	10	184.60	114.35	66	101	157	230	447
22-44	40	116.53	96.77	11	55	77	162	367
45-64	43	140.65	111.18	4	55	91	216	391
65-74	1	431.00	-	431	431	431	431	431
75+	0	-	-	-	-	-	-	-

Table 4a: Descriptive statistics of all exposure episode durations, in days

Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
Humira (adalimumab)	19,878	149.81	109.61	1	58	118	214	454
Beconase (beclomethasone)	254	79.53	52.47	4	60	60	98	388
EpiPen and EpiPenJr (epinephrine)	43,373	39.73	16.42	1	32	32	45	377
Epinephrine Intramuscular	158,770	38.57	16.96	1	32	32	44	377
Fluticasone Metered Inhalation	152,477	76.07	53.27	1	60	60	90	455
Admelog (insulin lispro)	371	73.59	48.70	3	41	60	94	259
Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro)	5,016	104.55	83.24	1	55	74	122	453
Evzio (naloxone)	845	49.56	17.88	2	31	60	60	180
Neulasta (pegfilgrastim)	1,215	83.89	49.08	2	51	74	114	376
Norditropin (somatropin)	1,055	154.66	118.52	1	60	114	233	454

Table 4b: Descriptive statistics of all exposure episode durations, in days, by sex

Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
Humira (adalimumab)	19,878	149.81	109.61	1	58	118	214	454
Female	11,857	146.20	106.64	1	58	116	205	454
Male	8,021	155.13	113.66	1	58	125	227	454
Other	0	-	-	-	-	-	-	-
Beconase (beclomethasone)	254	79.53	52.47	4	60	60	98	388
Female	130	78.97	57.70	4	55	60	90	388
Male	124	80.12	46.59	5	60	60	98	284
Other	0	-	-	-	-	-	-	-
EpiPen and EpiPenJr (epinephrine)	43,373	39.73	16.42	1	32	32	45	377
Female	22,404	39.61	16.27	1	32	32	45	300
Male	20,969	39.86	16.58	1	32	32	45	377
Other	0	-	-	-	-	-	-	-
Epinephrine Intramuscular	158,770	38.57	16.96	1	32	32	44	377
Female	84,586	38.35	16.75	1	32	32	43	330
Male	74,184	38.83	17.18	1	32	32	45	377
Other	0	-	-	-	-	-	-	-
Fluticasone Metered Inhalation	152,477	76.07	53.27	1	60	60	90	455
Female	79,897	75.38	52.33	1	60	60	90	454
Male	72,580	76.82	54.27	1	60	60	90	455
Other	0	-	-	-	-	-	-	-
Admelog (insulin lispro)	371	73.59	48.70	3	41	60	94	259
Female	172	74.41	50.04	3	41	60	91	252
Male	199	72.89	47.63	5	41	60	99	259
Other	0	-	-	-	-	-	-	-
Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro)	5,016	104.55	83.24	1	55	74	122	453
Female	2,270	102.94	80.64	1	55	75	120	453
Male	2,746	105.88	85.32	1	55	74	127	451
Other	0	-	-	-	-	-	-	-
Evzio (naloxone)	845	49.56	17.88	2	31	60	60	180
Female	497	49.42	16.95	3	31	60	60	120
Male	348	49.77	19.14	2	31	60	60	180
Other	0	-	-	-	-	-	-	-
Neulasta (pegfilgrastim)	1,215	83.89	49.08	2	51	74	114	376
Female	769	85.39	47.45	2	51	81	114	366
Male	446	81.30	51.71	3	45	68	114	376
Other	0	-	-	-	-	-	-	-
Norditropin (somatropin)	1,055	154.66	118.52	1	60	114	233	454
Female	343	148.15	118.97	4	59	105	217	454

Table 4b: Descriptive statistics of all exposure episode durations, in days, by sex

Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
Male	712	157.80	118.25	1	60	119	242	454
Other	0	-	-	-	-	-	-	-

Table 4c: Descriptive statistics of all exposure episode durations, in days, by age group (years)

Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
Humira (adalimumab)	19,878	149.81	109.61	1	58	118	214	454
00-01	3	55.67	35.10	32	32	39	96	96
02-04	24	171.25	104.75	16	71	186	257	348
05-09	125	161.56	114.26	5	67	144	234	447
10-14	336	160.38	117.66	3	58	140	229	453
15-18	698	150.16	111.01	2	58	119	217	454
19-21	708	147.58	109.86	2	58	114	213	454
22-44	7,614	146.00	108.17	1	58	115	206	454
45-64	9,745	153.17	110.62	1	58	122	222	454
65-74	475	138.42	104.27	1	58	114	188	444
75+	150	134.37	93.78	1	58	114	198	453
Beconase (beclomethasone)	254	79.53	52.47	4	60	60	98	388
00-01	0	-	-	-	-	-	-	-
02-04	0	-	-	-	-	-	-	-
05-09	2	57.50	3.54	55	55	58	60	60
10-14	4	60.00	0.00	60	60	60	60	60
15-18	2	137.50	116.67	55	55	138	220	220
19-21	0	-	-	-	-	-	-	-
22-44	23	70.48	41.52	9	55	60	90	187
45-64	126	79.83	59.98	5	60	60	90	388
65-74	68	80.09	40.55	5	60	60	98	210
75+	29	84.34	51.13	4	60	70	120	234
EpiPen and EpiPenJr (epinephrine)	43,373	39.73	16.42	1	32	32	45	377
00-01	1,000	38.18	13.62	1	32	32	40	120
02-04	3,497	39.03	14.65	1	32	32	43	210
05-09	8,282	40.09	16.45	1	32	32	45	231
10-14	7,747	39.96	16.35	1	32	32	45	210
15-18	4,188	39.71	16.38	1	32	32	45	210
19-21	1,655	38.99	15.10	1	32	32	42	157
22-44	6,727	38.72	15.45	1	31	32	45	236
45-64	8,854	40.02	17.05	1	32	32	58	240
65-74	1,050	42.26	22.73	1	31	32	60	377
75+	373	45.24	22.85	2	32	32	60	231
Epinephrine Intramuscular	158,770	38.57	16.96	1	32	32	44	377
00-01	5,040	39.13	16.55	1	31	32	52	207
02-04	11,676	38.57	16.37	1	32	32	44	254
05-09	25,349	39.43	17.80	1	32	32	45	330
10-14	25,171	39.11	16.99	1	32	32	45	217

Table 4c: Descriptive statistics of all exposure episode durations, in days, by age group (years)								
Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
15-18	14,219	38.71	17.00	1	32	32	45	225
19-21	6,056	38.28	16.26	1	32	32	40	204
22-44	28,765	36.96	15.23	1	32	32	35	236
45-64	37,088	38.61	17.52	1	32	32	45	321
65-74	4,019	39.40	18.53	1	32	32	46	377
75+	1,387	40.97	20.44	1	32	32	60	231
Fluticasone Metered Inhalation	152,477	76.07	53.27	1	60	60	90	455
00-01	3,887	87.71	67.66	1	60	60	104	447
02-04	14,977	81.36	60.81	1	60	60	91	454
05-09	24,791	76.52	53.22	1	60	60	90	452
10-14	18,967	73.33	48.91	1	60	60	81	452
15-18	10,324	72.17	45.23	1	60	60	73	430
19-21	4,874	71.50	43.95	1	60	60	72	433
22-44	27,269	69.77	44.98	1	60	60	61	455
45-64	39,240	78.39	56.07	1	60	60	90	454
65-74	4,956	81.29	60.19	1	60	60	92	448
75+	3,192	86.59	65.57	1	60	60	108	444
Admelog (insulin lispro)	371	73.59	48.70	3	41	60	94	259
00-01	0	-	-	-	-	-	-	-
02-04	0	-	-	-	-	-	-	-
05-09	6	103.33	82.53	39	60	65	132	259
10-14	17	74.06	30.88	19	59	79	88	133
15-18	13	77.15	65.09	3	43	56	87	230
19-21	8	84.00	56.50	21	39	63	146	158
22-44	75	70.29	52.28	6	35	60	81	252
45-64	160	74.89	48.96	5	40	61	105	249
65-74	65	72.00	43.45	8	42	67	91	199
75+	27	67.22	40.26	11	42	58	86	189
Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro)	5,016	104.55	83.24	1	55	74	122	453
00-01	18	86.11	79.05	9	29	60	118	279
02-04	101	93.77	65.40	1	60	60	117	320
05-09	422	94.78	68.68	1	60	63	120	406
10-14	350	91.13	71.40	1	55	60	120	419
15-18	158	103.22	86.00	3	54	61	120	425
19-21	109	99.22	75.00	2	55	72	120	355
22-44	958	102.72	83.50	1	54	70	120	453
45-64	2,620	110.84	87.79	2	56	84	134	453
65-74	181	87.41	70.06	3	31	63	120	325

Table 4c: Descriptive statistics of all exposure episode durations, in days, by age group (years)

Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
75+	99	98.75	81.44	11	40	60	133	395
Evzio (naloxone)	845	49.56	17.88	2	31	60	60	180
00-01	0	-	-	-	-	-	-	-
02-04	0	-	-	-	-	-	-	-
05-09	0	-	-	-	-	-	-	-
10-14	0	-	-	-	-	-	-	-
15-18	1	4.00	-	4	4	4	4	4
19-21	12	57.33	8.02	32	59	60	60	60
22-44	209	50.23	20.76	3	31	60	60	180
45-64	589	49.27	16.89	2	31	60	60	120
65-74	24	51.58	14.66	8	45	60	60	60
75+	10	43.20	19.13	7	31	46	60	60
Neulasta (pegfilgrastim)	1,215	83.89	49.08	2	51	74	114	376
00-01	8	111.38	98.07	10	61	90	122	335
02-04	19	83.11	52.27	14	45	72	133	198
05-09	37	73.49	60.25	10	48	51	90	361
10-14	36	91.67	59.84	14	43	79	138	242
15-18	54	91.41	52.42	11	51	93	117	257
19-21	17	85.06	55.24	5	51	94	114	208
22-44	188	87.45	48.99	2	51	80	120	248
45-64	740	83.35	47.54	3	51	75	114	376
65-74	80	76.53	42.94	3	44	72	106	212
75+	36	78.14	44.46	4	51	67	111	170
Norditropin (somatropin)	1,055	154.66	118.52	1	60	114	233	454
00-01	14	149.36	123.43	8	39	106	249	343
02-04	42	160.05	112.87	11	59	150	245	404
05-09	190	158.17	117.13	3	60	115	235	448
10-14	538	161.62	122.12	1	60	122	242	454
15-18	163	140.56	116.52	5	56	90	214	445
19-21	12	175.83	105.93	66	102	143	229	447
22-44	49	113.29	90.67	11	56	86	145	367
45-64	46	138.00	107.95	4	60	98	206	391
65-74	1	431.00	-	431	431	431	431	431
75+	0	-	-	-	-	-	-	-

Table 5a: Descriptive statistics of days supplied per dispensing

Exposures	Total Dispensings	Mean	STD	Min	Q1	Median	Q3	Max
Humira (adalimumab)	87,180	29.74	13.74	1	28	28	28	168
Beconase (beclomethasone)	337	40.31	24.53	1	30	30	45	100
EpiPen and EpiPenJr (epinephrine)	46,101	9.57	14.02	1	2	2	15	365
Epinephrine Intramuscular	168,631	9.43	13.86	1	2	2	14	365
Fluticasone Metered Inhalation	227,140	34.16	18.26	1	30	30	30	266
Admelog (insulin lispro)	589	40.02	24.63	1	25	30	56	90
Humalog Kwikpen and Humalog	10,183	40.39	26.27	1	25	30	50	240
Junior Kwikpen (insulin lispro)								
Evzio (Naloxone)	866	21.93	12.73	1	4	30	30	60
Neulasta (pegfilgrastim)	3,345	19.90	8.09	1	14	21	22	84
Norditropin (somatropin)	4,346	32.37	18.39	1	25	29	30	180

Table 5b: Descriptive statistics of days supplied per dispensing, by sex

Exposures	Total Dispensings	Mean	STD	Min	Q1	Median	Q3	Max
Humira (adalimumab)	87,180	29.74	13.74	1	28	28	28	168
Female	50,309	29.77	13.79	1	28	28	28	168
Male	36,871	29.69	13.69	1	28	28	28	112
Other	0	-	-	-	-	-	-	-
Beconase (beclomethasone)	337	40.31	24.53	1	30	30	45	100
Female	167	40.61	25.43	1	30	30	45	90
Male	170	40.02	23.69	5	30	30	45	100
Other	0	-	-	-	-	-	-	-
EpiPen and EpiPenJr (epinephrine)	46,101	9.57	14.02	1	2	2	15	365
Female	23,631	9.64	13.99	1	2	2	15	221
Male	22,470	9.50	14.05	1	2	2	15	365
Other	0	-	-	-	-	-	-	-
Epinephrine Intramuscular	168,631	9.43	13.86	1	2	2	14	365
Female	89,042	9.42	13.86	1	2	2	14	221
Male	79,589	9.45	13.86	1	2	2	14	365
Other	0	-	-	-	-	-	-	-
Fluticasone Metered Inhalation	227,140	34.16	18.26	1	30	30	30	266
Female	117,284	34.27	18.43	1	30	30	30	266
Male	109,856	34.04	18.08	1	30	30	30	236
Other	0	-	-	-	-	-	-	-
Admelog (insulin lispro)	589	40.02	24.63	1	25	30	56	90
Female	272	39.14	24.87	1	25	30	55	90
Male	317	40.77	24.45	1	25	30	57	90
Other	0	-	-	-	-	-	-	-
Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro)	10,183	40.39	26.27	1	25	30	50	240
Female	4,457	40.49	25.99	1	26	30	50	174
Male	5,726	40.32	26.49	1	25	30	53	240
Other	0	-	-	-	-	-	-	-
Evzio (naloxone)	866	21.93	12.73	1	4	30	30	60
Female	506	21.78	12.63	1	4	30	30	60
Male	360	22.13	12.88	1	5	30	30	60
Other	0	-	-	-	-	-	-	-
Neulasta (pegfilgrastim)	3,345	19.90	8.09	1	14	21	22	84
Female	2,165	19.93	8.36	1	14	21	22	84
Male	1,180	19.83	7.56	1	14	21	24	84
Other	0	-	-	-	-	-	-	-
Norditropin (somatropin)	4,346	32.37	18.39	1	25	29	30	180
Female	1,338	32.05	18.61	1	25	28	30	90

Table 5b: Descriptive statistics of days supplied per dispensing, by sex

Exposures	Total Dispensings	Mean	STD	Min	Q1	Median	Q3	Max
Male	3,008	32.51	18.29	1	26	29	30	180
Other	0	-	-	-	-	-	-	-

Table 5c: Descriptive statistics of days supplied per dispensing, by age group (years)

Exposures	Total Dispensings	Mean	STD	Min	Q1	Median	Q3	Max
Humira (adalimumab)	87,180	29.74	13.74	1	28	28	28	168
00-01	7	23.29	8.06	11	12	28	28	28
02-04	125	30.06	12.28	6	28	28	28	84
05-09	658	28.13	10.45	1	28	28	28	84
10-14	1,781	27.62	9.63	2	28	28	28	84
15-18	3,187	29.18	13.24	1	28	28	28	140
19-21	3,091	29.07	12.48	1	28	28	28	84
22-44	32,656	29.28	13.00	1	28	28	28	112
45-64	43,446	30.07	14.20	1	28	28	28	168
65-74	1,761	32.85	18.29	1	28	28	28	112
75+	468	37.66	22.29	1	28	28	32	90
Beconase (beclometasone)	337	40.31	24.53	1	30	30	45	100
00-01	0	-	-	-	-	-	-	-
02-04	0	-	-	-	-	-	-	-
05-09	2	27.50	3.54	25	25	28	30	30
10-14	4	30.00	0.00	30	30	30	30	30
15-18	8	27.25	6.02	13	28	30	30	30
19-21	0	-	-	-	-	-	-	-
22-44	35	28.09	5.05	9	30	30	30	30
45-64	170	39.14	24.30	5	30	30	35	90
65-74	79	47.80	27.73	5	30	30	89	100
75+	39	45.62	27.24	1	30	30	68	90
EpiPen and EpiPenJr (epinephrine)	46,101	9.57	14.02	1	2	2	15	365
00-01	1,088	7.81	11.59	1	2	2	5	90
02-04	3,885	8.07	11.99	1	2	2	6	90
05-09	9,261	8.92	13.22	1	2	2	10	90
10-14	8,360	9.39	13.84	1	2	2	14	90
15-18	4,423	9.62	13.75	1	2	2	15	90
19-21	1,728	8.95	12.85	1	2	2	10	90
22-44	6,871	9.64	13.78	1	2	2	15	221
45-64	9,034	10.65	15.05	1	2	2	30	90
65-74	1,068	12.91	20.63	1	2	2	30	365
75+	383	15.58	20.09	1	2	2	30	90
Epinephrine Intramuscular	168,631	9.43	13.86	1	2	2	14	365
00-01	5,521	9.98	12.91	1	2	2	25	91
02-04	13,028	8.76	12.58	1	2	2	10	90
05-09	28,418	9.17	13.25	1	2	2	12	134
10-14	27,204	9.35	13.69	1	2	2	13	120

Table 5c: Descriptive statistics of days supplied per dispensing, by age group (years)

Exposures	Total Dispensings	Mean	STD	Min	Q1	Median	Q3	Max
15-18	15,064	9.52	13.78	1	2	2	15	97
19-21	6,304	9.18	13.65	1	2	2	11	90
22-44	29,510	8.64	12.86	1	2	2	10	221
45-64	38,044	10.19	15.14	1	2	2	15	120
65-74	4,107	10.97	16.74	1	2	2	26	365
75+	1,431	12.25	18.27	1	2	2	30	195
Fluticasone Metered Inhalation	227,140	34.16	18.26	1	30	30	30	266
00-01	7,679	31.88	14.94	1	30	30	30	120
02-04	25,926	32.44	16.14	1	30	30	30	180
05-09	38,241	32.93	16.54	1	30	30	30	236
10-14	26,827	33.62	17.31	1	30	30	30	180
15-18	14,310	33.32	16.62	1	30	30	30	180
19-21	6,494	34.04	17.63	1	30	30	30	221
22-44	36,575	33.38	17.05	1	30	30	30	180
45-64	58,396	36.12	20.24	1	30	30	30	266
65-74	7,645	37.29	23.89	1	30	30	30	180
75+	5,047	39.33	25.43	1	30	30	45	231
Admelog (insulin lispro)	589	40.02	24.63	1	25	30	56	90
00-01	0	-	-	-	-	-	-	-
02-04	0	-	-	-	-	-	-	-
05-09	19	25.89	14.41	1	22	22	30	75
10-14	32	29.78	18.61	1	25	29	30	90
15-18	31	26.74	7.50	3	25	30	30	43
19-21	16	33.94	10.78	21	30	30	39	69
22-44	110	40.99	24.47	1	25	33	60	90
45-64	243	42.91	25.09	1	26	30	62	90
65-74	102	41.58	27.60	3	19	32	62	90
75+	36	43.81	28.47	2	19	38	71	90
Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro)	10,183	40.39	26.27	1	25	30	50	240
00-01	30	41.27	27.69	9	27	30	49	90
02-04	159	44.66	26.39	1	30	30	70	90
05-09	720	41.68	25.77	1	30	30	51	100
10-14	667	36.09	21.54	1	28	30	30	90
15-18	321	38.80	25.02	3	24	30	47	90
19-21	194	43.72	28.63	2	25	30	76	96
22-44	2,069	36.94	24.49	1	24	30	35	120
45-64	5,574	41.61	26.63	1	26	30	60	174
65-74	297	40.85	29.77	1	24	30	62	133

Table 5c: Descriptive statistics of days supplied per dispensing, by age group (years)

Exposures	Total Dispensings	Mean	STD	Min	Q1	Median	Q3	Max
75+	152	49.13	39.05	1	22	40	79	240
Evzio (naloxone)	866	21.93	12.73	1	4	30	30	60
00-01	0	-	-	-	-	-	-	-
02-04	0	-	-	-	-	-	-	-
05-09	0	-	-	-	-	-	-	-
10-14	0	-	-	-	-	-	-	-
15-18	1	4.00	-	4	4	4	4	4
19-21	13	27.54	7.13	4	28	30	30	30
22-44	221	22.20	12.98	1	7	30	30	60
45-64	597	21.73	12.72	1	4	30	30	60
65-74	24	24.71	10.56	1	29	30	30	30
75+	10	15.60	15.18	1	1	16	30	30
Neulasta (pegfilgrastim)	3,345	19.90	8.09	1	14	21	22	84
00-01	30	17.80	5.35	5	14	21	21	21
02-04	57	18.96	4.23	3	14	21	21	28
05-09	78	19.97	8.18	1	14	21	28	35
10-14	104	20.60	6.65	1	21	21	21	30
15-18	158	20.16	9.73	1	18	21	28	61
19-21	54	16.81	8.47	1	14	21	21	30
22-44	550	19.39	7.02	1	14	21	21	42
45-64	2,027	20.21	8.22	1	14	21	28	84
65-74	193	20.26	9.42	1	14	21	28	84
75+	94	17.05	7.83	1	14	21	21	30
Norditropin (somatropin)	4,346	32.37	18.39	1	25	29	30	180
00-01	69	26.33	5.99	3	24	28	30	37
02-04	216	27.61	11.66	1	24	28	30	86
05-09	784	33.26	20.08	1	25	29	30	180
10-14	2,305	32.68	18.22	1	26	29	30	90
15-18	614	31.45	17.07	1	26	29	30	114
19-21	60	28.28	12.12	2	25	28	30	87
22-44	136	33.26	23.03	1	24	25	30	90
45-64	147	37.88	23.84	3	25	28	33	90
65-74	15	26.07	1.67	24	25	25	28	28
75+	0	-	-	-	-	-	-	-

Table 6a: Descriptive statistics of the length of all gaps between treatment episodes, in days

Exposures	Total Gaps	Mean	STD	Min	Q1	Median	Q3	Max
Humira (adalimumab)	19,878	33.69	71.37	0	0	0	24	394
Beconase (beclomethasone)	254	98.97	109.16	0	0	54	176	370
EpiPen and EpiPenJr (epinephrine)	43,373	197.66	106.75	0	129	202	268	423
Epinephrine Intramuscular	158,770	159.67	116.49	0	55	159	247	423
Fluticasone Metered Inhalation	152,477	87.34	105.61	0	0	43	140	417
Admelog (insulin lispro)	371	10.52	30.45	0	0	0	0	203
Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro)	5,016	43.66	74.34	0	0	4	54	386
Evzio (naloxone)	845	163.02	125.93	0	41	153	279	422
Neulasta (pegfilgrastim)	1,215	96.01	107.70	0	0	56	168	407
Norditropin (somatropin)	1,055	21.66	53.36	0	0	0	16	362

Table 6b: Descriptive statistics of the length of all gaps between treatment episodes, in days, by sex

Exposures	Total Gaps	Mean	STD	Min	Q1	Median	Q3	Max
Humira (adalimumab)	19,878	33.69	71.37	0	0	0	24	394
Female	11,857	36.82	74.24	0	0	0	32	394
Male	8,021	29.06	66.64	0	0	0	16	392
Other	0	-	-	-	-	-	-	-
Beconase (beclomethasone)	254	98.97	109.16	0	0	54	176	370
Female	130	96.68	106.81	0	0	55	176	370
Male	124	101.38	111.95	0	0	50	187	365
Other	0	-	-	-	-	-	-	-
EpiPen and EpiPenJr (epinephrine)	43,373	197.66	106.75	0	129	202	268	423
Female	22,404	202.12	108.22	0	134	205	278	423
Male	20,969	192.89	104.95	0	125	197	259	423
Other	0	-	-	-	-	-	-	-
Epinephrine Intramuscular	158,770	159.67	116.49	0	55	159	247	423
Female	84,586	162.29	118.47	0	55	160	254	423
Male	74,184	156.68	114.12	0	54	156	239	423
Other	0	-	-	-	-	-	-	-
Fluticasone Metered Inhalation	152,477	87.34	105.61	0	0	43	140	417
Female	79,897	89.86	107.30	0	0	45	145	409
Male	72,580	84.57	103.64	0	0	41	135	417
Other	0	-	-	-	-	-	-	-
Admelog (insulin lispro)	371	10.52	30.45	0	0	0	0	203
Female	172	14.62	35.28	0	0	0	4	203
Male	199	6.98	25.12	0	0	0	0	155
Other	0	-	-	-	-	-	-	-
Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro)	5,016	43.66	74.34	0	0	4	54	386
Female	2,270	45.87	75.22	0	0	7	59	385
Male	2,746	41.83	73.56	0	0	2	50	386
Other	0	-	-	-	-	-	-	-
Evzio (naloxone)	845	163.02	125.93	0	41	153	279	422
Female	497	164.79	124.67	0	48	159	279	422
Male	348	160.47	127.85	0	34	139	275	414
Other	0	-	-	-	-	-	-	-
Neulasta (pegfilgrastim)	1,215	96.01	107.70	0	0	56	168	407
Female	769	99.30	109.01	0	0	58	172	394
Male	446	90.35	105.29	0	0	49	161	407
Other	0	-	-	-	-	-	-	-
Norditropin (somatropin)	1,055	21.66	53.36	0	0	0	16	362
Female	343	23.01	54.72	0	0	0	20	337

Table 6b: Descriptive statistics of the length of all gaps between treatment episodes, in days, by sex

Exposures	Total Gaps	Mean	STD	Min	Q1	Median	Q3	Max
Male	712	21.00	52.72	0	0	0	15	362
Other	0	-	-	-	-	-	-	-

Table 6c: Descriptive statistics of the length of all gaps between treatment episodes, in days, by age group (years)								
Exposures	Total Gaps	Mean	STD	Min	Q1	Median	Q3	Max
Humira (adalimumab)	19,878	33.69	71.37	0	0	0	24	394
00-01	3	0.00	0.00	0	0	0	0	0
02-04	24	0.58	2.86	0	0	0	0	14
05-09	125	17.04	53.44	0	0	0	0	308
10-14	336	20.90	57.51	0	0	0	0	361
15-18	698	26.02	65.90	0	0	0	8	392
19-21	708	32.57	69.47	0	0	0	26	388
22-44	7,614	33.44	70.62	0	0	0	25	394
45-64	9,745	34.88	72.65	0	0	0	26	392
65-74	475	39.25	77.81	0	0	0	42	379
75+	150	41.06	76.74	0	0	0	39	294
Beconase (beclomethasone)	254	98.97	109.16	0	0	54	176	370
00-01	0	-	-	-	-	-	-	-
02-04	0	-	-	-	-	-	-	-
05-09	2	23.50	12.02	15	15	24	32	32
10-14	4	195.50	111.09	72	106	195	286	320
15-18	2	40.00	56.57	0	0	40	80	80
19-21	0	-	-	-	-	-	-	-
22-44	23	118.74	111.59	0	0	104	208	366
45-64	126	101.87	109.97	0	0	55	175	366
65-74	68	86.82	109.72	0	0	30	191	370
75+	29	95.14	104.52	0	0	73	133	365
EpiPen and EpiPenJr (epinephrine)	43,373	197.66	106.75	0	129	202	268	423
00-01	1,000	186.15	121.41	0	79	186	284	423
02-04	3,497	174.33	114.31	0	81	174	246	422
05-09	8,282	175.16	101.42	0	97	183	227	422
10-14	7,747	191.03	99.55	0	138	196	246	422
15-18	4,188	198.37	98.38	0	154	203	254	422
19-21	1,655	212.23	101.19	0	170	211	271	422
22-44	6,727	211.90	112.36	0	142	223	294	423
45-64	8,854	217.94	106.78	0	162	226	293	423
65-74	1,050	213.87	107.89	0	155	225	293	422
75+	373	227.50	101.38	0	181	241	289	422
Epinephrine Intramuscular	158,770	159.67	116.49	0	55	159	247	423
00-01	5,040	140.58	119.17	0	29	119	228	423
02-04	11,676	143.85	115.32	0	40	130	223	423
05-09	25,349	144.51	107.35	0	50	143	211	422
10-14	25,171	155.24	108.33	0	61	160	227	422

Table 6c: Descriptive statistics of the length of all gaps between treatment episodes, in days, by age group (years)								
Exposures	Total Gaps	Mean	STD	Min	Q1	Median	Q3	Max
15-18	14,219	160.77	112.21	0	62	167	238	422
19-21	6,056	167.60	117.51	0	62	174	255	422
22-44	28,765	166.36	123.61	0	51	160	268	423
45-64	37,088	171.85	121.14	0	62	173	269	423
65-74	4,019	170.79	117.75	0	64	175	266	422
75+	1,387	176.95	116.57	0	74	191	267	422
Fluticasone Metered Inhalation	152,477	87.34	105.61	0	0	43	140	417
00-01	3,887	58.69	88.60	0	0	15	80	392
02-04	14,977	62.73	88.70	0	0	22	91	412
05-09	24,791	77.55	96.76	0	0	38	120	401
10-14	18,967	92.85	104.27	0	0	55	151	417
15-18	10,324	97.59	106.96	0	1	59	159	408
19-21	4,874	106.30	112.21	0	5	67	176	393
22-44	27,269	95.14	110.57	0	0	50	158	410
45-64	39,240	93.14	111.70	0	0	44	155	409
65-74	4,956	84.24	105.00	0	0	37	139	395
75+	3,192	85.92	105.93	0	0	39	141	394
Admelog (insulin lispro)	371	10.52	30.45	0	0	0	0	203
00-01	0	-	-	-	-	-	-	-
02-04	0	-	-	-	-	-	-	-
05-09	6	46.50	73.43	0	0	0	117	162
10-14	17	7.12	13.45	0	0	0	7	38
15-18	13	17.15	41.04	0	0	0	0	143
19-21	8	2.88	8.13	0	0	0	0	23
22-44	75	12.03	26.35	0	0	0	4	122
45-64	160	11.44	34.78	0	0	0	0	203
65-74	65	3.98	16.33	0	0	0	0	113
75+	27	9.85	27.62	0	0	0	0	120
Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro)	5,016	43.66	74.34	0	0	4	54	386
00-01	18	51.89	77.57	0	0	6	87	217
02-04	101	36.98	59.33	0	0	11	60	380
05-09	422	34.45	61.33	0	0	8	39	378
10-14	350	42.16	77.05	0	0	3	46	386
15-18	158	57.47	91.79	0	0	6	77	370
19-21	109	37.97	69.43	0	0	3	46	272
22-44	958	42.78	72.11	0	0	4	55	364
45-64	2,620	44.83	76.42	0	0	4	56	385
65-74	181	44.28	69.19	0	0	3	60	277

Table 6c: Descriptive statistics of the length of all gaps between treatment episodes, in days, by age group (years)								
Exposures	Total Gaps	Mean	STD	Min	Q1	Median	Q3	Max
75+	99	54.02	73.86	0	0	20	79	317
Evzio (naloxone)	845	163.02	125.93	0	41	153	279	422
00-01	0	-	-	-	-	-	-	-
02-04	0	-	-	-	-	-	-	-
05-09	0	-	-	-	-	-	-	-
10-14	0	-	-	-	-	-	-	-
15-18	1	0.00	-	0	0	0	0	0
19-21	12	190.08	132.36	0	63	235	300	352
22-44	209	162.39	126.10	0	33	151	279	393
45-64	589	163.08	126.48	0	42	153	279	422
65-74	24	164.00	116.03	0	79	169	239	398
75+	10	154.00	121.56	0	71	100	278	343
Neulasta (pegfilgrastim)	1,215	96.01	107.70	0	0	56	168	407
00-01	8	56.25	96.89	0	0	0	90	270
02-04	19	68.95	98.86	0	0	6	135	290
05-09	37	54.86	91.02	0	0	11	72	373
10-14	36	85.00	100.53	0	0	34	158	358
15-18	54	79.98	105.16	0	0	29	145	353
19-21	17	89.18	116.19	0	0	38	154	372
22-44	188	99.56	105.28	0	1	68	165	364
45-64	740	101.76	109.73	0	0	64	176	407
65-74	80	80.64	104.25	0	0	30	126	359
75+	36	97.33	107.28	0	9	53	171	358
Norditropin (somatropin)	1,055	21.66	53.36	0	0	0	16	362
00-01	14	5.57	13.21	0	0	0	0	39
02-04	42	12.86	44.32	0	0	0	0	243
05-09	190	17.38	51.65	0	0	0	4	359
10-14	538	18.25	43.46	0	0	0	17	337
15-18	163	36.29	75.38	0	0	0	38	362
19-21	12	18.58	55.91	0	0	0	3	195
22-44	49	46.84	77.10	0	0	0	66	257
45-64	46	14.70	40.64	0	0	0	0	192
65-74	1	0.00	-	0	0	0	0	0
75+	0	-	-	-	-	-	-	-

Table 7: Counts of reason for censoring, all episodes and first episode

	Total		Disenrollment		Evidence of death		Episode end	
	N	%	N	%	N	%	N	%
Exposures								
Humira (adalimumab)	19,878	100.0	12,952	65.2	0	0.0	6,939	34.9
Beconase (beclomethasone)	254	100.0	66	26.0	0	0.0	190	74.8
EpiPen and EpiPenJe (epinephrine)	43,373	100.0	2,315	5.3	0	0.0	41,096	94.8
Epinephrine Intramuscular	158,770	100.0	16,548	10.4	0	0.0	142,616	89.8
Fluticasone Metered Inhalation	152,477	100.0	44,402	29.1	0	0.0	108,516	71.2
Admelog (insulin lispro)	371	100.0	296	79.8	0	0.0	76	20.5
Humalog Kwikpen and Humalog	5,016	100.0	2,339	46.6	0	0.0	2,685	53.5
Junior Kwikpen (insulin lispro)								
Evzio (naloxone)	845	100.0	107	12.7	0	0.0	739	87.5
Neulasta (pegfilgrastim)	1,215	100.0	343	28.2	0	0.0	874	71.9
Norditropin (somatropin)	1,055	100.0	718	68.1	0	0.0	338	32.0
Patients' First Episode								
Humira (adalimumab)	17,509	100.0	11,428	65.3	0	0.0	6,092	34.8
Beconase (beclomethasone)	199	100.0	44	22.1	0	0.0	157	78.9
EpiPen and EpiPenJe (epinephrine)	39,846	100.0	1,854	4.7	0	0.0	38,022	95.4
Epinephrine Intramuscular	140,611	100.0	12,417	8.8	0	0.0	128,501	91.4
Fluticasone Metered Inhalation	120,555	100.0	30,485	25.3	0	0.0	90,407	75.0
Admelog (insulin lispro)	347	100.0	276	79.5	0	0.0	72	20.7
Humalog Kwikpen and Humalog	3,693	100.0	1,630	44.1	0	0.0	2,067	56.0
Junior Kwikpen (insulin lispro)								
Evzio (naloxone)	819	100.0	103	12.6	0	0.0	717	87.5
Neulasta (pegfilgrastim)	1,096	100.0	299	27.3	0	0.0	799	72.9
Norditropin (somatropin)	927	100.0	648	69.9	0	0.0	280	30.2

Table 8: Cohort Attrition Table

	Attrition Criteria	Members
Humira (adalimumab)		
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period		30,259,417 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y during the query period		28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period		28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y during the query period		28,433,766 (94.0%)
Exclusion - Members must satisfy the age range condition within the query period		28,433,729 (94.0%)
Exclusion - Members must meet chart availability criterion within the query period		28,433,729 (94.0%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition		28,433,729 (94.0%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period		56,886 (0.2%)
Exclusion - Members must have at least one cohort episode beginning within the age range condition		56,886 (0.2%)
Exclusion - Members must have at least one episode defining index claim during the query period		30,288 (0.1%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria		30,288 (0.1%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion		17,509 (0.1%)
Exclusion - Members must have at least one cohort episode satisfying the exclusion conditions		17,509 (0.1%)
Exclusion - Members must have at least one cohort episode satisfying the inclusion conditions		17,509 (0.1%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion		17,509 (0.1%)
Beconase (beclomethasone)		
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period		30,259,417 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y during the query period		28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period		28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y during the query period		28,433,766 (94.0%)
Exclusion - Members must satisfy the age range condition within the query period		28,433,729 (94.0%)
Exclusion - Members must meet chart availability criterion within the query period		28,433,729 (94.0%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition		28,433,729 (94.0%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period		325 (0.0%)
Exclusion - Members must have at least one cohort episode beginning within the age range condition		325 (0.0%)
Exclusion - Members must have at least one episode defining index claim during the query period		234 (0.0%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria		234 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion		199 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the exclusion conditions		199 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the inclusion conditions		199 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion		199 (0.0%)
EpiPen and EpiPenJr (epinephrine)		
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period		30,259,417 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y during the query period		28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period		28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y during the query period		28,433,766 (94.0%)
Exclusion - Members must satisfy the age range condition within the query period		28,433,729 (94.0%)

Table 8: Cohort Attrition Table

Attrition Criteria	Members
Exclusion - Members must meet chart availability criterion within the query period	28,433,729 (94.0%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	28,433,729 (94.0%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	48,713 (0.2%)
Exclusion - Members must have at least one cohort episode beginning within the age range condition	48,713 (0.2%)
Exclusion - Members must have at least one episode defining index claim during the query period	46,966 (0.2%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	46,966 (0.2%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	39,846 (0.1%)
Exclusion - Members must have at least one cohort episode satisfying the exclusion conditions	39,846 (0.1%)
Exclusion - Members must have at least one cohort episode satisfying the inclusion conditions	39,846 (0.1%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	39,846 (0.1%)
Epinephrine Intramuscular	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	30,259,417 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y during the query period	28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y during the query period	28,433,766 (94.0%)
Exclusion - Members must satisfy the age range condition within the query period	28,433,729 (94.0%)
Exclusion - Members must meet chart availability criterion within the query period	28,433,729 (94.0%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	28,433,729 (94.0%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	167,035 (0.6%)
Exclusion - Members must have at least one cohort episode beginning within the age range condition	167,035 (0.6%)
Exclusion - Members must have at least one episode defining index claim during the query period	163,188 (0.5%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	163,188 (0.5%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	140,611 (0.5%)
Exclusion - Members must have at least one cohort episode satisfying the exclusion conditions	140,611 (0.5%)
Exclusion - Members must have at least one cohort episode satisfying the inclusion conditions	140,611 (0.5%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	140,611 (0.5%)
Fluticasone Metered Inhalation	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	30,259,417 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y during the query period	28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y during the query period	28,433,766 (94.0%)
Exclusion - Members must satisfy the age range condition within the query period	28,433,729 (94.0%)
Exclusion - Members must meet chart availability criterion within the query period	28,433,729 (94.0%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	28,433,729 (94.0%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	183,567 (0.6%)
Exclusion - Members must have at least one cohort episode beginning within the age range condition	183,567 (0.6%)
Exclusion - Members must have at least one episode defining index claim during the query period	152,680 (0.5%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	152,680 (0.5%)

Table 8: Cohort Attrition Table

Attrition Criteria	Members
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	120,555 (0.4%)
Exclusion - Members must have at least one cohort episode satisfying the exclusion conditions	120,555 (0.4%)
Exclusion - Members must have at least one cohort episode satisfying the inclusion conditions	120,555 (0.4%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	120,555 (0.4%)
Admelog (insulin lispro)	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	30,259,417 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y during the query period	28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y during the query period	28,433,766 (94.0%)
Exclusion - Members must satisfy the age range condition within the query period	28,433,729 (94.0%)
Exclusion - Members must meet chart availability criterion within the query period	28,433,729 (94.0%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	28,433,729 (94.0%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	407 (0.0%)
Exclusion - Members must have at least one cohort episode beginning within the age range condition	407 (0.0%)
Exclusion - Members must have at least one episode defining index claim during the query period	407 (0.0%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	407 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	347 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the exclusion conditions	347 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the inclusion conditions	347 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	347 (0.0%)
Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro)	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	30,259,417 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y during the query period	28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y during the query period	28,433,766 (94.0%)
Exclusion - Members must satisfy the age range condition within the query period	28,433,729 (94.0%)
Exclusion - Members must meet chart availability criterion within the query period	28,433,729 (94.0%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	28,433,729 (94.0%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	7,793 (0.0%)
Exclusion - Members must have at least one cohort episode beginning within the age range condition	7,793 (0.0%)
Exclusion - Members must have at least one episode defining index claim during the query period	5,700 (0.0%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	5,700 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	3,693 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the exclusion conditions	3,693 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the inclusion conditions	3,693 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	3,693 (0.0%)
Evzio (naloxone)	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	30,259,417 (100.0%)

Table 8: Cohort Attrition Table

Attrition Criteria	Members
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y during the query period	28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y during the query period	28,433,766 (94.0%)
Exclusion - Members must satisfy the age range condition within the query period	28,433,729 (94.0%)
Exclusion - Members must meet chart availability criterion within the query period	28,433,729 (94.0%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	28,433,729 (94.0%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	975 (0.0%)
Exclusion - Members must have at least one cohort episode beginning within the age range condition	975 (0.0%)
Exclusion - Members must have at least one episode defining index claim during the query period	964 (0.0%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	964 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	819 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the exclusion conditions	819 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the inclusion conditions	819 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	819 (0.0%)
Neulasta (pegfilgrastim)	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	30,259,417 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y during the query period	28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y during the query period	28,433,766 (94.0%)
Exclusion - Members must satisfy the age range condition within the query period	28,433,729 (94.0%)
Exclusion - Members must meet chart availability criterion within the query period	28,433,729 (94.0%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	28,433,729 (94.0%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	1,492 (0.0%)
Exclusion - Members must have at least one cohort episode beginning within the age range condition	1,492 (0.0%)
Exclusion - Members must have at least one episode defining index claim during the query period	1,292 (0.0%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	1,292 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	1,096 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the exclusion conditions	1,096 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the inclusion conditions	1,096 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	1,096 (0.0%)
Norditropin (somatropin)	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	30,259,417 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y during the query period	28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	28,433,766 (94.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y during the query period	28,433,766 (94.0%)
Exclusion - Members must satisfy the age range condition within the query period	28,433,729 (94.0%)
Exclusion - Members must meet chart availability criterion within the query period	28,433,729 (94.0%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	28,433,729 (94.0%)

Table 8: Cohort Attrition Table

Attrition Criteria	Members
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	3,375 (0.0%)
Exclusion - Members must have at least one cohort episode beginning within the age range condition	3,375 (0.0%)
Exclusion - Members must have at least one episode defining index claim during the query period	1,430 (0.0%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	1,430 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	927 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the exclusion conditions	927 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the inclusion conditions	927 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	927 (0.0%)

Appendix A: Dates of Available Data for Each Data Partner (DP) up to Request End Date (03/31/2020) as of Query Distribution Date

Data Partner (Masked)	Start Date	End Date
DP01	01/01/2010	03/31/2019

Global Values

Enrollment Criteria:Medical and Drug Coverage

Enrollment Gap (Days):45

Age Groups (Years):00-01, 02-04, 05-09, 10-14, 15-18, 19-21, 22-44, 45-64, 65-74, 75+

Query Period: 01/01/2018-03/31/2019

Baseline Characteristics Table:Yes

Baseline Evaluation Window (Day): -183,-1

#	Cohort Name	Index Exposure	Pre-Index Enrollment Period (Days)	Washout Period (Days)	Treatment Episode Gap (Days)	Treatment Episode Extension (Days)	Inclusion/Exclusion Criteria	Criteria Definition	Evaluation Period Start (Day)	Evaluation Period End (Day)
1	Admelog (insulin lispro)	Insulin Lispro_Admelog ^[1]	183	183	30	30	--	--	--	--
2	Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro)	Insulin_Lispro_Humalog_Kw ^[2]	183	183	30	30	--	--	--	--
3	Beconase (beclomethasone)	Beclomethasone_Beconase ^[3]	183	183	30	30	--	--	--	--
4	EpiPen and EpiPenJr (epinephrine)	Epinephrine_EpiPen_EpiPenJr ^[4]	183	183	30	30	--	--	--	--
5	Epinephrine Intramuscular	Epinephrine Intramuscular ^[5]	183	183	30	30	--	--	--	--
6	Evzio (naloxone)	Naloxone_Evzio ^[6]	183	183	30	30	--	--	--	--
7	Fluticasone Metered	Fluticasone Metered ^[7]	183	183	30	30	--	--	--	--
8	Neulasta (pegfilgrastim)	Pegfilgrastim_Neulasta ^[8]	183	183	30	30	--	--	--	--
9	Humira (adalimumab)	Adalimumab_Humira ^[9]	183	183	30	30	--	--	--	--
10	Norditropin (somatropin)	Somatropin_Norditropin ^[10]	183	183	30	30	--	--	--	--

ICD-9, ICD-10, HCPCS AND CPT are provided by Optum360

NDCs are checked against First Data Bank's MedKnowledge.

Appendix of Generic Names and Chronic Conditions

[1] See Appendix C

[2] See Appendix C

[3] See Appendix C

[4] See Appendix C

[5] See Appendix C

[6] See Appendix C

[7] See Appendix C

[8] See Appendix C

[9] See Appendix C

[10] See Appendix C

Baseline Characteristics Table

Acquired Hypothyroidism	Chronic Kidney Disease	Hypertension
Acute Myocardial Infarction	Chronic Obstructive Pulmonary Disease	Ischemic Heart Disease
Alzheimer's Disease	Colorectal Cancer	Lung Cancer
Alzheimer's Disease, Related Disorders, or Senile Dementia	Depression	Osteoporosis
Anemia	Diabetes	Prostate Cancer
Asthma	Endometrial Cancer	Rheumatoid Arthritis / Osteoarthritis
Atrial Fibrillation	Glaucoma	Stroke / Transient Ischemic Attack
Benign Prostatic Hyperplasia	Heart Failure	
Breast Cancer	Hip / Pelvic Fracture	
Cataracts	Hyperlipidemia	

Glossary of Terms for Analyses Using Cohort Identification and Descriptive Analysis (CIDA) Module**Age Groups** - Age groups of members included in the cohort. Strata also used for reporting purposes.**Ambulatory Visit (AV)** - A care setting value including visits at outpatient clinics, same-day surgeries, urgent care visits, and other same-day ambulatory hospital encounters, but excludes emergency department encounters.**Baseline Characteristics Table** - Optional table containing general characteristics of study population, including background rates of 27 chronic conditions from the CMS Chronic Condition Warehouse (see above if table requested). Users define an evaluation period for the presence of baseline characteristics.**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.**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** - Cohort includes all valid exposure episodes during the query period. Only the first valid episode's incidence is assessed using the washout period.**Emergency Department (ED)** - A care setting value including ED encounters that become inpatient stays (in which case inpatient stays would be a separate encounter). Excludes urgent care visits.**Enrollment Criteria** - Type of coverage required during enrollment period. By default, all patients must have medical and drug coverage.**Enrollment Gap** - Allowed gap between coverage periods.**Episodes** - Treatment episodes; length of episode is determined by days supplied in one dispensing or consecutive dispensings bridged by the episode gap.**Inclusion/Exclusion** - Contains the comprehensive set of codes used to define additional cohort inclusion and/or exclusion criteria (e.g., restrict cohort to individuals with evidence of a pre-existing condition 183 days before the index date). Criteria could be defined with complex algorithms (e.g., diagnosis codes and drug codes) defined under Criteria Definition.**Inpatient Hospital Stay (IP)** - A care setting value including 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)** - A care setting value including hospice, skilled nursing facility (SNF), rehab center, nursing home, residential, overnight non-hospital dialysis and other non-hospital stays.**Other Ambulatory Visit (OA)** - A care setting value including 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.**Principal Diagnosis (PDX)** - Diagnosis or condition established to be chiefly responsible for admission of the patient to the hospital. 'P' = principal diagnosis, 'S' = secondary diagnosis, 'X' = unspecified diagnosis, '=' = blank. Along with the Care Setting values, forms the CareSetting/PDX parameter.**Query Period** - The period of time which patients can contribute index-defining exposure/events. Data prior to the start date may be used to determine enrollment, washout, and other cohort inclusion criteria.**Treatment Episode Extension** - The episode extension adds the selected number of days to the end of an episode to count as exposed time.**Treatment Episode Gap** - The maximum number of days allowed between two dispensings to consider them part of the same episode.**Washout Period** - The period before an exposure episode during which an individual cannot have evidence of incidence-defining criteria.

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

Generic Name	Brand Name
Admelog (insulin lispro)	
insulin lispro	Admelog SoloStar U-100 Insulin
insulin lispro	Admelog U-100 Insulin lispro
Humalog Kwikpen and Humalog Junior Kwikpen (insulin lispro)	
insulin lispro	Humalog Junior KwikPen U-100
insulin lispro	Humalog KwikPen Insulin
Beconase (beclomethasone)	
beclomethasone dipropionate	Beconase AQ
EpiPen and EpiPenJr (epinephrine)	
epinephrine	EpiPen Jr 2-Pak
epinephrine	EpiPen 2-Pak
Epinephrine Intramuscular	
epinephrine	Auvi-Q
epinephrine	EpiPen Jr 2-Pak
epinephrine	EpiPen 2-Pak
epinephrine	epinephrine
Evzio (naloxone)	
naloxone HCl	Evzio
Fluticasone Metered	
fluticasone propionate	Flovent Diskus
fluticasone propionate/salmeterol xinafoate	AirDuo RespiClick
fluticasone propionate/salmeterol xinafoate	fluticasone propion-salmeterol
fluticasone propionate	Flovent HFA
fluticasone propionate/salmeterol xinafoate	Advair HFA
fluticasone propionate	Flovent Diskus
fluticasone propionate/salmeterol xinafoate	fluticasone propion-salmeterol
Neulasta (pegfilgrastim)	
pegfilgrastim	Neulasta Onpro
pegfilgrastim	Neulasta
Humira (adalimumab)	
adalimumab	Humira
adalimumab	Humira Pen Psor-Uveits-Adol HS
adalimumab	Humira Pen Crohns-UC-HS Start
adalimumab	Humira Pen
adalimumab	Humira Pediatric Crohns Start
adalimumab	Humira(CF) Pedi Crohns Starter
adalimumab	Humira(CF) Pen Psor-Uv-Adol HS
adalimumab	Humira(CF)
adalimumab	Humira(CF) Pen
adalimumab	Humira(CF) Pen Crohns-UC-HS
Norditropin (somatropin)	
somatropin	Norditropin FlexPro