

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@sentinelssystem.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 report, we examined utilization patterns of certain biological products (Avastin, Epogen, Inflectra, Mvasi, Neupogen, Remicade, Renflexis, Retacrit, Zarxio, and Zirabev).

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

Data Source: We executed this request on IBM® MarketScan® Commercial Claims and Encounters Database and Medicare Supplemental Database, which included 153 million members, on June 10, 2022. The study period included data from October 1, 2015 to June 30, 2021. 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@sentinelssystem.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.sentinelssystem.org/projects/QB/repos/querybuilder/browse>).

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Table 1a: Baseline table (Avastin)		
Characteristic¹	N/Mean	%/Std Dev²
Number of unique patients	66,475	
Demographics		
Mean Age (years)	62.3	15.0
Age: 00-17	259	0.4%
Age: 18-24	341	0.5%
Age: 25-40	3,947	5.9%
Age: 41-64	39,366	59.2%
Age: 65+	22,562	33.9%
Sex (Female)	34,155	51.4%
Sex (Male)	32,320	48.6%
Year (2015)	4,125	6.2%
Year (2016)	16,060	24.2%
Year (2017)	12,486	18.8%
Year (2018)	10,722	16.1%
Year (2019)	9,906	14.9%
Year (2020)	8,802	13.2%
Year (2021)	4,374	6.6%
Recorded history of:		
Prior combined comorbidity score ³	2.4	3.1
Acquired Hypothyroidism	8,037	12.1%
Acute Myocardial Infarction	816	1.2%
Alzheimer's Disease	325	0.5%
Alzheimer's Disease, Related Disorders, or Senile Dementia	1,251	1.9%
Anemia	13,144	19.8%
Asthma	3,112	4.7%
Atrial Fibrillation	4,615	6.9%
Benign Prostatic Hyperplasia	3,240	4.9%
Breast Cancer	1,715	2.6%
Cataracts	26,244	39.5%
Chronic Kidney Disease	22,164	33.3%
Chronic Obstructive Pulmonary Disease	5,223	7.9%
Colorectal Cancer	6,450	9.7%
Depression	6,320	9.5%
Diabetes	33,214	50.0%
Endometrial Cancer	956	1.4%
Glaucoma	9,783	14.7%
Heart Failure	5,052	7.6%
Hip / Pelvic Fracture	284	0.4%
Hyperlipidemia	30,647	46.1%
Hypertension	40,279	60.6%
Ischemic Heart Disease	9,936	14.9%
Lung Cancer	2,271	3.4%
Osteoporosis	1,861	2.8%
Prostate Cancer	1,185	1.8%
Rheumatoid Arthritis / Osteoarthritis	10,588	15.9%

Table 1a: Baseline table (Avastin)		
Characteristic¹	N/Mean	%/Std Dev²
Stroke / Transient Ischemic Attack	2,855	4.3%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	14.4	14.3
Mean number of emergency room encounters (ED)	0.4	1.0
Mean number of inpatient hospital encounters (IP)	0.2	0.6
Mean number of non-acute institutional encounters (IS)	0.0	0.0
Mean number of other ambulatory encounters (OA)	3.5	7.4
Mean number of filled prescriptions	17.5	14.7
Mean number of generics	7.8	5.3
Mean number of unique drug classes	7.2	4.7

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 1b: Baseline table (Epogen)		
Characteristic¹	N/Mean	%/Std Dev²
Number of unique patients	19,623	
Demographics		
Mean Age (years)	65.2	16.1
Age: 00-17	184	0.9%
Age: 18-24	183	0.9%
Age: 25-40	941	4.8%
Age: 41-64	8,855	45.1%
Age: 65+	9,460	48.2%
Sex (Female)	9,080	46.3%
Sex (Male)	10,543	53.7%
Year (2015)	1,744	8.9%
Year (2016)	6,100	31.1%
Year (2017)	4,099	20.9%
Year (2018)	3,087	15.7%
Year (2019)	2,230	11.4%
Year (2020)	1,732	8.8%
Year (2021)	631	3.2%
Recorded history of:		
Prior combined comorbidity score ³	6.0	3.1
Acquired Hypothyroidism	3,375	17.2%
Acute Myocardial Infarction	1,208	6.2%
Alzheimer's Disease	195	1.0%
Alzheimer's Disease, Related Disorders, or Senile Dementia	987	5.0%
Anemia	19,131	97.5%
Asthma	1,386	7.1%
Atrial Fibrillation	3,689	18.8%
Benign Prostatic Hyperplasia	1,686	8.6%
Breast Cancer	847	4.3%
Cataracts	3,121	15.9%
Chronic Kidney Disease	16,886	86.1%
Chronic Obstructive Pulmonary Disease	3,720	19.0%
Colorectal Cancer	615	3.1%
Depression	2,537	12.9%
Diabetes	10,323	52.6%
Endometrial Cancer	161	0.8%
Glaucoma	1,825	9.3%
Heart Failure	6,559	33.4%
Hip / Pelvic Fracture	246	1.3%
Hyperlipidemia	10,929	55.7%
Hypertension	16,811	85.7%
Ischemic Heart Disease	6,999	35.7%
Lung Cancer	916	4.7%
Osteoporosis	787	4.0%
Prostate Cancer	935	4.8%
Rheumatoid Arthritis / Osteoarthritis	4,732	24.1%

Table 1b: Baseline table (Epogen)		
Characteristic¹	N/Mean	%/Std Dev²
Stroke / Transient Ischemic Attack	1,488	7.6%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	31.2	31.5
Mean number of emergency room encounters (ED)	0.9	1.7
Mean number of inpatient hospital encounters (IP)	0.8	1.1
Mean number of non-acute institutional encounters (IS)	0.0	0.0
Mean number of other ambulatory encounters (OA)	9.1	14.2
Mean number of filled prescriptions	24.6	17.6
Mean number of generics	11.1	6.2
Mean number of unique drug classes	10.3	5.5

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 (Inflectra)		
Characteristic¹	N/Mean	%/Std Dev²
Number of unique patients	3,461	
Demographics		
Mean Age (years)	43.2	17.9
Age: 00-17	283	8.2%
Age: 18-24	461	13.3%
Age: 25-40	832	24.0%
Age: 41-64	1,547	44.7%
Age: 65+	338	9.8%
Sex (Female)	1,850	53.5%
Sex (Male)	1,611	46.5%
Year (2015)	-	-
Year (2016)	-	-
Year (2017)	7	0.2%
Year (2018)	593	17.1%
Year (2019)	919	26.6%
Year (2020)	789	22.8%
Year (2021)	1,153	33.3%
Recorded history of:		
Prior combined comorbidity score ³	0.9	1.7
Acquired Hypothyroidism	214	6.2%
Acute Myocardial Infarction	9	0.3%
Alzheimer's Disease	1	0.0%
Alzheimer's Disease, Related Disorders, or Senile Dementia	9	0.3%
Anemia	660	19.1%
Asthma	218	6.3%
Atrial Fibrillation	72	2.1%
Benign Prostatic Hyperplasia	70	2.0%
Breast Cancer	28	0.8%
Cataracts	203	5.9%
Chronic Kidney Disease	275	7.9%
Chronic Obstructive Pulmonary Disease	130	3.8%
Colorectal Cancer	14	0.4%
Depression	454	13.1%
Diabetes	376	10.9%
Endometrial Cancer	5	0.1%
Glaucoma	127	3.7%
Heart Failure	42	1.2%
Hip / Pelvic Fracture	5	0.1%
Hyperlipidemia	607	17.5%
Hypertension	816	23.6%
Ischemic Heart Disease	119	3.4%
Lung Cancer	13	0.4%
Osteoporosis	101	2.9%
Prostate Cancer	17	0.5%
Rheumatoid Arthritis / Osteoarthritis	1,017	29.4%

Table 1c: Baseline table (Inflectra)		
Characteristic¹	N/Mean	%/Std Dev²
Stroke / Transient Ischemic Attack	33	1.0%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	11.6	8.0
Mean number of emergency room encounters (ED)	0.3	0.9
Mean number of inpatient hospital encounters (IP)	0.2	0.6
Mean number of non-acute institutional encounters (IS)	0.0	0.0
Mean number of other ambulatory encounters (OA)	3.6	6.0
Mean number of filled prescriptions	13.0	13.1
Mean number of generics	6.1	5.1
Mean number of unique drug classes	5.8	4.7

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 (Mvasi)		
Characteristic¹	N/Mean	%/Std Dev²
Number of unique patients	2,626	
Demographics		
Mean Age (years)	57.1	11.5
Age: 00-17	10	0.4%
Age: 18-24	9	0.3%
Age: 25-40	171	6.5%
Age: 41-64	1,981	75.4%
Age: 65+	455	17.3%
Sex (Female)	1,513	57.6%
Sex (Male)	1,113	42.4%
Year (2015)	-	-
Year (2016)	-	-
Year (2017)	-	-
Year (2018)	-	-
Year (2019)	297	11.3%
Year (2020)	1,569	59.7%
Year (2021)	760	28.9%
Recorded history of:		
Prior combined comorbidity score ³	6.8	2.9
Acquired Hypothyroidism	325	12.4%
Acute Myocardial Infarction	24	0.9%
Alzheimer's Disease	5	0.2%
Alzheimer's Disease, Related Disorders, or Senile Dementia	30	1.1%
Anemia	1,084	41.3%
Asthma	172	6.5%
Atrial Fibrillation	96	3.7%
Benign Prostatic Hyperplasia	129	4.9%
Breast Cancer	132	5.0%
Cataracts	147	5.6%
Chronic Kidney Disease	523	19.9%
Chronic Obstructive Pulmonary Disease	195	7.4%
Colorectal Cancer	1,467	55.9%
Depression	413	15.7%
Diabetes	445	16.9%
Endometrial Cancer	117	4.5%
Glaucoma	103	3.9%
Heart Failure	93	3.5%
Hip / Pelvic Fracture	8	0.3%
Hyperlipidemia	768	29.2%
Hypertension	1,189	45.3%
Ischemic Heart Disease	227	8.6%
Lung Cancer	280	10.7%
Osteoporosis	55	2.1%
Prostate Cancer	45	1.7%
Rheumatoid Arthritis / Osteoarthritis	357	13.6%

Table 1d: Baseline table (Mvasi)		
Characteristic¹	N/Mean	%/Std Dev²
Stroke / Transient Ischemic Attack	131	5.0%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	23.6	12.3
Mean number of emergency room encounters (ED)	0.5	1.0
Mean number of inpatient hospital encounters (IP)	0.5	0.8
Mean number of non-acute institutional encounters (IS)	0.0	0.0
Mean number of other ambulatory encounters (OA)	8.0	10.2
Mean number of filled prescriptions	17.8	13.5
Mean number of generics	8.9	5.2
Mean number of unique drug classes	8.2	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 1e: Baseline table (Neupogen)		
Characteristic¹	N/Mean	%/Std Dev²
Number of unique patients	14,083	
Demographics		
Mean Age (years)	55.6	16.8
Age: 00-17	645	4.6%
Age: 18-24	296	2.1%
Age: 25-40	1,198	8.5%
Age: 41-64	8,598	61.1%
Age: 65+	3,346	23.8%
Sex (Female)	8,195	58.2%
Sex (Male)	5,888	41.8%
Year (2015)	1,664	11.8%
Year (2016)	5,133	36.4%
Year (2017)	2,916	20.7%
Year (2018)	1,869	13.3%
Year (2019)	1,357	9.6%
Year (2020)	904	6.4%
Year (2021)	240	1.7%
Recorded history of:		
Prior combined comorbidity score ³	5.6	3.4
Acquired Hypothyroidism	1,875	13.3%
Acute Myocardial Infarction	195	1.4%
Alzheimer's Disease	23	0.2%
Alzheimer's Disease, Related Disorders, or Senile Dementia	158	1.1%
Anemia	7,686	54.6%
Asthma	1,074	7.6%
Atrial Fibrillation	940	6.7%
Benign Prostatic Hyperplasia	792	5.6%
Breast Cancer	2,843	20.2%
Cataracts	1,145	8.1%
Chronic Kidney Disease	3,787	26.9%
Chronic Obstructive Pulmonary Disease	1,741	12.4%
Colorectal Cancer	1,390	9.9%
Depression	1,984	14.1%
Diabetes	2,641	18.8%
Endometrial Cancer	438	3.1%
Glaucoma	588	4.2%
Heart Failure	993	7.1%
Hip / Pelvic Fracture	110	0.8%
Hyperlipidemia	4,724	33.5%
Hypertension	6,914	49.1%
Ischemic Heart Disease	1,771	12.6%
Lung Cancer	1,329	9.4%
Osteoporosis	539	3.8%
Prostate Cancer	491	3.5%
Rheumatoid Arthritis / Osteoarthritis	2,596	18.4%

Table 1e: Baseline table (Neupogen)		
Characteristic¹	N/Mean	%/Std Dev²
Stroke / Transient Ischemic Attack	406	2.9%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	29.4	15.7
Mean number of emergency room encounters (ED)	0.7	1.6
Mean number of inpatient hospital encounters (IP)	0.9	1.4
Mean number of non-acute institutional encounters (IS)	0.0	0.0
Mean number of other ambulatory encounters (OA)	7.5	11.2
Mean number of filled prescriptions	22.6	16.1
Mean number of generics	11.4	6.2
Mean number of unique drug classes	10.4	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 1f: Baseline table (Remicade)		
Characteristic¹	N/Mean	%/Std Dev²
Number of unique patients	20,672	
Demographics		
Mean Age (years)	40.7	17.6
Age: 00-17	2,749	13.3%
Age: 18-24	2,322	11.2%
Age: 25-40	5,019	24.3%
Age: 41-64	9,299	45.0%
Age: 65+	1,283	6.2%
Sex (Female)	11,757	56.9%
Sex (Male)	8,915	43.1%
Year (2015)	1,115	5.4%
Year (2016)	4,762	23.0%
Year (2017)	3,765	18.2%
Year (2018)	3,709	17.9%
Year (2019)	3,097	15.0%
Year (2020)	2,989	14.5%
Year (2021)	1,235	6.0%
Recorded history of:		
Prior combined comorbidity score ³	1.1	1.7
Acquired Hypothyroidism	1,551	7.5%
Acute Myocardial Infarction	71	0.3%
Alzheimer's Disease	8	0.0%
Alzheimer's Disease, Related Disorders, or Senile Dementia	56	0.3%
Anemia	5,286	25.6%
Asthma	1,617	7.8%
Atrial Fibrillation	343	1.7%
Benign Prostatic Hyperplasia	295	1.4%
Breast Cancer	137	0.7%
Cataracts	901	4.4%
Chronic Kidney Disease	1,606	7.8%
Chronic Obstructive Pulmonary Disease	825	4.0%
Colorectal Cancer	84	0.4%
Depression	2,651	12.8%
Diabetes	1,945	9.4%
Endometrial Cancer	17	0.1%
Glaucoma	608	2.9%
Heart Failure	235	1.1%
Hip / Pelvic Fracture	27	0.1%
Hyperlipidemia	3,441	16.6%
Hypertension	4,723	22.8%
Ischemic Heart Disease	720	3.5%
Lung Cancer	67	0.3%
Osteoporosis	631	3.1%
Prostate Cancer	71	0.3%
Rheumatoid Arthritis / Osteoarthritis	6,756	32.7%

Table 1f: Baseline table (Remicade)

Characteristic ¹	N/Mean	%/Std Dev ²
Stroke / Transient Ischemic Attack	203	1.0%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	12.2	9.1
Mean number of emergency room encounters (ED)	0.5	1.1
Mean number of inpatient hospital encounters (IP)	0.3	0.7
Mean number of non-acute institutional encounters (IS)	0.0	0.0
Mean number of other ambulatory encounters (OA)	3.3	6.1
Mean number of filled prescriptions	17.3	15.2
Mean number of generics	7.8	5.6
Mean number of unique drug classes	7.3	5.0

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 1g: Baseline table (Renflexis)

Characteristic ¹	N/Mean	%/Std Dev ²
Number of unique patients	1,068	
Demographics		
Mean Age (years)	48.7	19.0
Age: 00-17	58	5.4%
Age: 18-24	100	9.4%
Age: 25-40	205	19.2%
Age: 41-64	483	45.2%
Age: 65+	222	20.8%
Sex (Female)	580	54.3%
Sex (Male)	488	45.7%
		0.0%
Year (2015)	-	-
Year (2016)	-	-
Year (2017)	-	-
Year (2018)	174	16.3%
Year (2019)	324	30.3%
Year (2020)	390	36.5%
Year (2021)	180	16.9%
Recorded history of:		
Prior combined comorbidity score ³	1.1	1.9
Acquired Hypothyroidism	99	9.3%
Acute Myocardial Infarction	7	0.7%
Alzheimer's Disease	2	0.2%
Alzheimer's Disease, Related Disorders, or Senile Dementia	6	0.6%
Anemia	221	20.7%
Asthma	76	7.1%
Atrial Fibrillation	30	2.8%
Benign Prostatic Hyperplasia	32	3.0%
Breast Cancer	10	0.9%
Cataracts	78	7.3%
Chronic Kidney Disease	111	10.4%
Chronic Obstructive Pulmonary Disease	60	5.6%
Colorectal Cancer	3	0.3%
Depression	169	15.8%
Diabetes	143	13.4%
Endometrial Cancer	0	0.0%
Glaucoma	53	5.0%
Heart Failure	26	2.4%
Hip / Pelvic Fracture	0	0.0%
Hyperlipidemia	256	24.0%
Hypertension	332	31.1%
Ischemic Heart Disease	60	5.6%
Lung Cancer	2	0.2%
Osteoporosis	59	5.5%
Prostate Cancer	14	1.3%
Rheumatoid Arthritis / Osteoarthritis	433	40.5%

Table 1g: Baseline table (Renflexis)		
Characteristic¹	N/Mean	%/Std Dev²
Stroke / Transient Ischemic Attack	15	1.4%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	13.0	9.3
Mean number of emergency room encounters (ED)	0.4	2.0
Mean number of inpatient hospital encounters (IP)	0.2	0.6
Mean number of non-acute institutional encounters (IS)	0.0	0.0
Mean number of other ambulatory encounters (OA)	3.0	5.0
Mean number of filled prescriptions	16.8	15.6
Mean number of generics	7.4	5.8
Mean number of unique drug classes	7.0	5.3

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 1h: Baseline table (Retacrit)		
Characteristic¹	N/Mean	%/Std Dev²
Number of unique patients	3,846	
Demographics		
Mean Age (years)	65.9	16.3
Age: 00-17	34	0.9%
Age: 18-24	42	1.1%
Age: 25-40	173	4.5%
Age: 41-64	1,727	44.9%
Age: 65+	1,870	48.6%
Sex (Female)	1,887	49.1%
Sex (Male)	1,959	50.9%
Year (2015)	-	-
Year (2016)	-	-
Year (2017)	-	-
Year (2018)	11	0.3%
Year (2019)	1,043	27.1%
Year (2020)	1,858	48.3%
Year (2021)	934	24.3%
Recorded history of:		
Prior combined comorbidity score ³	6.0	3.3
Acquired Hypothyroidism	743	19.3%
Acute Myocardial Infarction	228	5.9%
Alzheimer's Disease	40	1.0%
Alzheimer's Disease, Related Disorders, or Senile Dementia	202	5.3%
Anemia	3,694	96.0%
Asthma	251	6.5%
Atrial Fibrillation	719	18.7%
Benign Prostatic Hyperplasia	340	8.8%
Breast Cancer	196	5.1%
Cataracts	595	15.5%
Chronic Kidney Disease	3,216	83.6%
Chronic Obstructive Pulmonary Disease	643	16.7%
Colorectal Cancer	156	4.1%
Depression	584	15.2%
Diabetes	1,961	51.0%
Endometrial Cancer	38	1.0%
Glaucoma	323	8.4%
Heart Failure	1,197	31.1%
Hip / Pelvic Fracture	45	1.2%
Hyperlipidemia	2,219	57.7%
Hypertension	3,272	85.1%
Ischemic Heart Disease	1,295	33.7%
Lung Cancer	210	5.5%
Osteoporosis	163	4.2%
Prostate Cancer	218	5.7%
Rheumatoid Arthritis / Osteoarthritis	942	24.5%

Table 1h: Baseline table (Retacrit)		
Characteristic¹	N/Mean	%/Std Dev²
Stroke / Transient Ischemic Attack	312	8.1%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	30.6	28.3
Mean number of emergency room encounters (ED)	1.0	1.9
Mean number of inpatient hospital encounters (IP)	0.8	1.1
Mean number of non-acute institutional encounters (IS)	0.0	0.0
Mean number of other ambulatory encounters (OA)	11.2	16.2
Mean number of filled prescriptions	23.7	17.7
Mean number of generics	10.9	6.2
Mean number of unique drug classes	10.1	5.6

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 1i: Baseline table (Zarxio)		
Characteristic¹	N/Mean	%/Std Dev²
Number of unique patients	13,510	
Demographics		
Mean Age (years)	55.8	13.9
Age: 00-17	191	1.4%
Age: 18-24	257	1.9%
Age: 25-40	1,315	9.7%
Age: 41-64	9,260	68.5%
Age: 65+	2,487	18.4%
Sex (Female)	8,106	60.0%
Sex (Male)	5,404	40.0%
Year (2015)	53	0.4%
Year (2016)	1,421	10.5%
Year (2017)	2,292	17.0%
Year (2018)	2,719	20.1%
Year (2019)	2,876	21.3%
Year (2020)	2,841	21.0%
Year (2021)	1,308	9.7%
Recorded history of:		
Prior combined comorbidity score ³	5.7	3.4
Acquired Hypothyroidism	1,789	13.2%
Acute Myocardial Infarction	175	1.3%
Alzheimer's Disease	14	0.1%
Alzheimer's Disease, Related Disorders, or Senile Dementia	128	0.9%
Anemia	7,156	53.0%
Asthma	1,043	7.7%
Atrial Fibrillation	813	6.0%
Benign Prostatic Hyperplasia	651	4.8%
Breast Cancer	3,273	24.2%
Cataracts	905	6.7%
Chronic Kidney Disease	3,509	26.0%
Chronic Obstructive Pulmonary Disease	1,440	10.7%
Colorectal Cancer	1,349	10.0%
Depression	2,004	14.8%
Diabetes	2,492	18.4%
Endometrial Cancer	421	3.1%
Glaucoma	508	3.8%
Heart Failure	814	6.0%
Hip / Pelvic Fracture	115	0.9%
Hyperlipidemia	4,452	33.0%
Hypertension	6,338	46.9%
Ischemic Heart Disease	1,526	11.3%
Lung Cancer	1,194	8.8%
Osteoporosis	480	3.6%
Prostate Cancer	425	3.1%
Rheumatoid Arthritis / Osteoarthritis	2,410	17.8%

Table 1i: Baseline table (Zarxio)		
Characteristic¹	N/Mean	%/Std Dev²
Stroke / Transient Ischemic Attack	384	2.8%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	29.4	15.8
Mean number of emergency room encounters (ED)	0.7	1.4
Mean number of inpatient hospital encounters (IP)	0.9	1.3
Mean number of non-acute institutional encounters (IS)	0.0	0.0
Mean number of other ambulatory encounters (OA)	7.6	9.9
Mean number of filled prescriptions	22.1	15.5
Mean number of generics	11.4	6.0
Mean number of unique drug classes	10.4	5.2

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 (Zirabev)		
Characteristic¹	N/Mean	%/Std Dev²
Number of unique patients	578	
Demographics		
Mean Age (years)	58.4	13.1
Age: 00-17	8	1.4%
Age: 18-24	4	0.7%
Age: 25-40	30	5.2%
Age: 41-64	393	68.0%
Age: 65+	143	24.7%
Sex (Female)	327	56.6%
Sex (Male)	251	43.4%
Year (2015)	-	-
Year (2016)	-	-
Year (2017)	-	-
Year (2018)	-	-
Year (2019)	-	-
Year (2020)	199	34.4%
Year (2021)	379	65.6%
Recorded history of:		
Prior combined comorbidity score ³	6.7	3.1
Acquired Hypothyroidism	80	13.8%
Acute Myocardial Infarction	3	0.5%
Alzheimer's Disease	1	0.2%
Alzheimer's Disease, Related Disorders, or Senile Dementia	3	0.5%
Anemia	227	39.3%
Asthma	34	5.9%
Atrial Fibrillation	18	3.1%
Benign Prostatic Hyperplasia	24	4.2%
Breast Cancer	27	4.7%
Cataracts	34	5.9%
Chronic Kidney Disease	123	21.3%
Chronic Obstructive Pulmonary Disease	50	8.7%
Colorectal Cancer	292	50.5%
Depression	88	15.2%
Diabetes	118	20.4%
Endometrial Cancer	23	4.0%
Glaucoma	25	4.3%
Heart Failure	28	4.8%
Hip / Pelvic Fracture	1	0.2%
Hyperlipidemia	175	30.3%
Hypertension	277	47.9%
Ischemic Heart Disease	60	10.4%
Lung Cancer	56	9.7%
Osteoporosis	9	1.6%
Prostate Cancer	13	2.2%
Rheumatoid Arthritis / Osteoarthritis	86	14.9%

Table 1j: Baseline table (Zirabev)		
Characteristic¹	N/Mean	%/Std Dev²
Stroke / Transient Ischemic Attack	31	5.4%
Health Service Utilization Intensity:		
Mean number of ambulatory encounters (AV)	24.8	13.2
Mean number of emergency room encounters (ED)	0.6	1.3
Mean number of inpatient hospital encounters (IP)	0.6	0.9
Mean number of non-acute institutional encounters (IS)	0.0	0.0
Mean number of other ambulatory encounters (OA)	8.8	10.3
Mean number of filled prescriptions	17.8	13.9
Mean number of generics	8.5	5.4
Mean number of unique drug classes	8.0	4.8

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: Distribution of cumulative exposure duration, by length categories, in days												
Exposures	Total Patients		1-30		31-90		91-365		366-730		731+	
	N	%	N	%	N	%	N	%	N	%	N	%
Avastin	66,475	100.0	65,562	98.6	818	1.2	81	0.1	12	0.0	2	0.0
Epogen	19,623	100.0	15,808	80.6	2,261	11.5	1,444	7.4	105	0.5	5	0.0
Inflectra	3,461	100.0	3,322	96.0	50	1.4	63	1.8	25	0.7	1	0.0
Mvasi	2,626	100.0	2,608	99.3	17	0.6	1	0.0	0	0.0	0	0.0
Neupogen	14,083	100.0	12,495	88.7	1,141	8.1	415	2.9	25	0.2	7	0.0
Remicade	20,672	100.0	18,083	87.5	1,169	5.7	866	4.2	378	1.8	176	0.9
Renflexis	1,068	100.0	1,014	94.9	17	1.6	34	3.2	3	0.3	0	0.0
Retacrit	3,846	100.0	3,264	84.9	349	9.1	212	5.5	20	0.5	1	0.0
Zarxio	13,510	100.0	11,677	86.4	1,377	10.2	407	3.0	37	0.3	12	0.1
Zirabev	578	100.0	578	100.0	0	0.0	0	0.0	0	0.0	0	0.0



Table 2b: Distribution of cumulative exposure duration, by length categories, in days, by sex												
Exposures	Total Patients		1-30		31-90		91-365		366-730		731+	
	N	%	N	%	N	%	N	%	N	%	N	%
Avastin	66,475	100.0	65,562	100.0	818	100.0	81	100.0	12	100.0	2	100.0
Female	34,155	51.4	33,669	51.4	431	52.7	45	55.6	8	66.7	2	100.0
Male	32,320	48.6	31,893	48.6	387	47.3	36	44.4	4	33.3	0	0.0
Epogen	19,623	100.0	15,808	100.0	2,261	100.0	1,444	100.0	105	100.0	5	100.0
Female	9,080	46.3	7,503	47.5	923	40.8	607	42.0	44	41.9	3	60.0
Male	10,543	53.7	8,305	52.5	1,338	59.2	837	58.0	61	58.1	2	40.0
Inflectra	3,461	100.0	3,322	100.0	50	100.0	63	100.0	25	100.0	1	100.0
Female	1,850	53.5	1,780	53.6	22	44.0	35	55.6	12	48.0	1	100.0
Male	1,611	46.5	1,542	46.4	28	56.0	28	44.4	13	52.0	0	0.0
Mvasi	2,626	100.0	2,608	100.0	17	100.0	1	100.0	0	0.0	0	0.0
Female	1,513	57.6	1,503	57.6	9	52.9	1	100.0	0	0.0	0	0.0
Male	1,113	42.4	1,105	42.4	8	47.1	0	0.0	0	0.0	0	0.0
Neupogen	14,083	100.0	12,495	100.0	1,141	100.0	415	100.0	25	100.0	7	100.0
Female	8,195	58.2	7,178	57.4	712	62.4	284	68.4	15	60.0	6	85.7
Male	5,888	41.8	5,317	42.6	429	37.6	131	31.6	10	40.0	1	14.3
Remicade	20,672	100.0	18,083	100.0	1,169	100.0	866	100.0	378	100.0	176	100.0
Female	11,757	56.9	10,297	56.9	661	56.5	495	57.2	215	56.9	89	50.6
Male	8,915	43.1	7,786	43.1	508	43.5	371	42.8	163	43.1	87	49.4
Renflexis	1,068	100.0	1,014	100.0	17	100.0	34	100.0	3	100.0	0	0.0
Female	580	54.3	546	53.8	11	64.7	21	61.8	2	66.7	0	0.0
Male	488	45.7	468	46.2	6	35.3	13	38.2	1	33.3	0	0.0
Retacrit	3,846	100.0	3,264	100.0	349	100.0	212	100.0	20	100.0	1	100.0
Female	1,887	49.1	1,612	49.4	178	51.0	87	41.0	10	50.0	0	0.0
Male	1,959	50.9	1,652	50.6	171	49.0	125	59.0	10	50.0	1	100.0
Zarxio	13,510	100.0	11,677	100.0	1,377	100.0	407	100.0	37	100.0	12	100.0
Female	8,106	60.0	6,887	59.0	890	64.6	296	72.7	26	70.3	7	58.3
Male	5,404	40.0	4,790	41.0	487	35.4	111	27.3	11	29.7	5	41.7
Zirabev	578	100.0	578	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Female	327	56.6	327	56.6	0	0.0	0	0.0	0	0.0	0	0.0
Male	251	43.4	251	43.4	0	0.0	0	0.0	0	0.0	0	0.0



Table 2c: Distribution of cumulative exposure duration, by length categories, in days, by age group (years)												
Exposures	Total Patients		1-30		31-90		91-365		366-730		731+	
	N	%	N	%	N	%	N	%	N	%	N	%
Avastin	66,475	100.0	65,562	100.0	818	100.0	81	100.0	12	100.0	2	100.0
00-17 (years)	259	0.4	249	0.4	10	1.2	0	0.0	0	0.0	0	0.0
18-24	341	0.5	338	0.5	3	0.4	0	0.0	0	0.0	0	0.0
25-40	3,947	5.9	3,887	5.9	57	7.0	2	2.5	1	8.3	0	0.0
41-64	39,366	59.2	38,756	59.1	539	65.9	59	72.8	10	83.3	2	100.0
65+	22,562	33.9	22,332	34.1	209	25.6	20	24.7	1	8.3	0	0.0
Epogen	19,623	100.0	15,808	100.0	2,261	100.0	1,444	100.0	105	100.0	5	100.0
00-17	184	0.9	106	0.7	36	1.6	38	2.6	3	2.9	1	20.0
18-24	183	0.9	141	0.9	21	0.9	19	1.3	2	1.9	0	0.0
25-40	941	4.8	738	4.7	124	5.5	73	5.1	6	5.7	0	0.0
41-64	8,855	45.1	7,204	45.6	1,001	44.3	600	41.6	50	47.6	0	0.0
65+	9,460	48.2	7,619	48.2	1,079	47.7	714	49.4	44	41.9	4	80.0
Inflectra	3,461	100.0	3,322	100.0	50	100.0	63	100.0	25	100.0	1	100.0
00-17	283	8.2	271	8.2	7	14.0	3	4.8	2	8.0	0	0.0
18-24	461	13.3	448	13.5	3	6.0	10	15.9	0	0.0	0	0.0
25-40	832	24.0	808	24.3	11	22.0	8	12.7	5	20.0	0	0.0
41-64	1,547	44.7	1,464	44.1	26	52.0	39	61.9	17	68.0	1	100.0
65+	338	9.8	331	10.0	3	6.0	3	4.8	1	4.0	0	0.0
Mvasi	2,626	100.0	2,608	100.0	17	100.0	1	100.0	0	0.0	0	0.0
00-17	10	0.4	10	0.4	0	0.0	0	0.0	0	0.0	0	0.0
18-24	9	0.3	9	0.3	0	0.0	0	0.0	0	0.0	0	0.0
25-40	171	6.5	170	6.5	1	5.9	0	0.0	0	0.0	0	0.0
41-64	1,981	75.4	1,969	75.5	12	70.6	0	0.0	0	0.0	0	0.0
65+	455	17.3	450	17.3	4	23.5	1	100.0	0	0.0	0	0.0
Neupogen	14,083	100.0	12,495	100.0	1,141	100.0	415	100.0	25	100.0	7	100.0
00-17	645	4.6	424	3.4	139	12.2	71	17.1	9	36.0	2	28.6
18-24	296	2.1	245	2.0	38	3.3	10	2.4	2	8.0	1	14.3
25-40	1,198	8.5	1,048	8.4	110	9.6	39	9.4	1	4.0	0	0.0
41-64	8,598	61.1	7,706	61.7	644	56.4	238	57.3	9	36.0	1	14.3
65+	3,346	23.8	3,072	24.6	210	18.4	57	13.7	4	16.0	3	42.9
Remicade	20,672	100.0	18,083	100.0	1,169	100.0	866	100.0	378	100.0	176	100.0
00-17	2,749	13.3	2,311	12.8	257	22.0	99	11.4	55	14.6	27	15.3
18-24	2,322	11.2	2,052	11.3	111	9.5	110	12.7	34	9.0	15	8.5
25-40	5,019	24.3	4,426	24.5	256	21.9	216	24.9	80	21.2	41	23.3
41-64	9,299	45.0	8,093	44.8	512	43.8	410	47.3	196	51.9	88	50.0
65+	1,283	6.2	1,201	6.6	33	2.8	31	3.6	13	3.4	5	2.8
Renflexis	1,068	100.0	1,014	100.0	17	100.0	34	100.0	3	100.0	0	0.0



Table 2c: Distribution of cumulative exposure duration, by length categories, in days, by age group (years)													
Exposures	Total Patients		1-30		31-90		91-365		366-730		731+		
	N	%	N	%	N	%	N	%	N	%	N	%	
00-17	58	5.4	56	5.5	1	5.9	1	2.9	0	0.0	0	0.0	
18-24	100	9.4	92	9.1	2	11.8	6	17.6	0	0.0	0	0.0	
25-40	205	19.2	195	19.2	3	17.6	6	17.6	1	33.3	0	0.0	
41-64	483	45.2	452	44.6	8	47.1	21	61.8	2	66.7	0	0.0	
65+	222	20.8	219	21.6	3	17.6	0	0.0	0	0.0	0	0.0	
Retacrit	3,846	100.0	3,264	100.0	349	100.0	212	100.0	20	100.0	1	100.0	
00-17	34	0.9	12	0.4	9	2.6	11	5.2	2	10.0	0	0.0	
18-24	42	1.1	27	0.8	9	2.6	6	2.8	0	0.0	0	0.0	
25-40	173	4.5	141	4.3	24	6.9	8	3.8	0	0.0	0	0.0	
41-64	1,727	44.9	1,422	43.6	164	47.0	125	59.0	15	75.0	1	100.0	
65+	1,870	48.6	1,662	50.9	143	41.0	62	29.2	3	15.0	0	0.0	
Zarxio	13,510	100.0	11,677	100.0	1,377	100.0	407	100.0	37	100.0	12	100.0	
00-17	191	1.4	138	1.2	32	2.3	20	4.9	1	2.7	0	0.0	
18-24	257	1.9	212	1.8	32	2.3	11	2.7	1	2.7	1	8.3	
25-40	1,315	9.7	1,084	9.3	170	12.3	55	13.5	4	10.8	2	16.7	
41-64	9,260	68.5	7,987	68.4	957	69.5	280	68.8	27	73.0	9	75.0	
65+	2,487	18.4	2,256	19.3	186	13.5	41	10.1	4	10.8	0	0.0	
Zirabev	578	100.0	578	100.0	0	0.0	0	0.0	0	0.0	0	0.0	
00-17	8	1.4	8	1.4	0	0.0	0	0.0	0	0.0	0	0.0	
18-24	4	0.7	4	0.7	0	0.0	0	0.0	0	0.0	0	0.0	
25-40	30	5.2	30	5.2	0	0.0	0	0.0	0	0.0	0	0.0	
41-64	393	68.0	393	68.0	0	0.0	0	0.0	0	0.0	0	0.0	
65+	143	24.7	143	24.7	0	0.0	0	0.0	0	0.0	0	0.0	

Table 3a: Descriptive statistics of cumulative exposure duration, all episodes, in days

Exposures	Total Patients	Mean	STD	Min	Q1	Median	Q3	Max
Avastin	66,475	5.95	12.93	1	2	3	7	1,092
Epogen	19,623	27.26	61.13	1	2	6	22	1,646
Inflectra	3,461	14.17	52.37	1	2	4	10	889
Mvasi	2,626	7.05	8.09	1	3	5	9	288
Neupogen	14,083	16.15	44.93	1	2	4	13	1,499
Remicade	20,672	36.95	127.15	1	4	7	16	1,880
Renflexis	1,068	14.71	45.78	1	2	5	10	599
Retacrit	3,846	22.78	54.64	1	2	5	17	752
Zarxio	13,510	18.41	48.95	1	2	6	16	1,148
Zirabev	578	4.79	4.02	1	2	4	6	22

Table 3b: Descriptive statistics of cumulative exposure duration, all episodes, in days, by sex									
Exposures	Total Patients	Mean	STD	Min	Q1	Median	Q3	Max	
Avastin	66,475	5.95	12.93	1	2	3	7	1,092	
Female	34,155	6.18	14.45	1	2	3	7	1,092	
Male	32,320	5.70	11.09	1	2	3	7	696	
Epogen	19,623	27.26	61.13	1	2	6	22	1,646	
Female	9,080	25.30	59.86	1	2	6	19	1,182	
Male	10,543	28.95	62.16	1	2	7	25	1,646	
Inflectra	3,461	14.17	52.37	1	2	4	10	889	
Female	1,850	14.25	53.51	1	2	4	10	889	
Male	1,611	14.07	51.06	1	2	4	10	678	
Mvasi	2,626	7.05	8.09	1	3	5	9	288	
Female	1,513	6.84	9.31	1	3	5	9	288	
Male	1,113	7.34	6.04	1	3	6	10	46	
Neupogen	14,083	16.15	44.93	1	2	4	13	1,499	
Female	8,195	17.53	48.56	1	2	4	14	1,499	
Male	5,888	14.22	39.25	1	2	4	11	1,202	
Remicade	20,672	36.95	127.15	1	4	7	16	1,880	
Female	11,757	35.95	123.43	1	4	7	16	1,880	
Male	8,915	38.27	131.89	1	4	8	17	1,832	
Renflexis	1,068	14.71	45.78	1	2	5	10	599	
Female	580	16.43	52.09	1	2	5	10	599	
Male	488	12.66	36.84	1	3	5	10	480	
Retacrit	3,846	22.78	54.64	1	2	5	17	752	
Female	1,887	21.51	52.84	1	2	5	15	612	
Male	1,959	24.00	56.30	1	2	5	18	752	
Zarxio	13,510	18.41	48.95	1	2	6	16	1,148	
Female	8,106	20.16	51.54	1	2	6	19	1,075	
Male	5,404	15.79	44.64	1	2	5	14	1,148	
Zirabev	578	4.79	4.02	1	2	4	6	22	
Female	327	4.37	3.48	1	2	3	6	20	
Male	251	5.33	4.59	1	2	4	7	22	

Table 3c: Descriptive statistics of cumulative exposure duration, all episodes, in days, by age group (years)								
Exposures	Total Patients	Mean	STD	Min	Q1	Median	Q3	Max
Avastin	66,475	5.95	12.93	1	2	3	7	1,092
00-17 (years)	259	6.84	9.09	1	1	3	8	63
18-24	341	4.68	5.69	1	1	2	6	41
25-40	3,947	5.48	11.82	1	1	3	6	438
41-64	39,366	6.19	14.82	1	2	3	7	1,092
65+	22,562	5.61	9.14	1	2	3	7	616
Epogen	19,623	27.26	61.13	1	2	6	22	1,646
00-17	184	63.86	118.98	1	3	20	84	1,117
18-24	183	33.92	74.05	1	1	4	26	455
25-40	941	27.39	60.00	1	2	6	24	659
41-64	8,855	25.73	57.08	1	2	6	20	664
65+	9,460	27.84	62.73	1	2	7	22	1,646
Inflectra	3,461	14.17	52.37	1	2	4	10	889
00-17	283	12.06	42.61	1	2	4	10	560
18-24	461	10.85	27.98	1	3	5	10	311
25-40	832	11.62	46.50	1	2	4	9	630
41-64	1,547	18.12	64.55	1	2	5	11	889
65+	338	8.64	31.50	1	2	4	7	490
Mvasi	2,626	7.05	8.09	1	3	5	9	288
00-17	10	7.50	5.74	1	4	6	10	18
18-24	9	6.44	3.94	1	4	6	8	12
25-40	171	6.95	5.88	1	3	6	9	41
41-64	1,981	7.09	5.93	1	3	5	10	46
65+	455	6.91	14.54	1	2	5	8	288
Neupogen	14,083	16.15	44.93	1	2	4	13	1,499
00-17	645	48.45	103.26	1	3	14	52	1,202
18-24	296	24.99	78.60	1	2	5	19	1,020
25-40	1,198	15.82	32.21	1	2	5	15	555
41-64	8,598	14.63	36.45	1	2	4	11	1,162
65+	3,346	13.16	43.50	1	2	4	11	1,499
Remicade	20,672	36.95	127.15	1	4	7	16	1,880
00-17	2,749	40.26	129.13	1	5	10	22	1,578
18-24	2,322	33.54	112.08	1	4	8	16	1,773
25-40	5,019	35.11	124.18	1	4	7	15	1,790
41-64	9,299	39.85	135.19	1	3	7	16	1,832
65+	1,283	22.26	94.59	1	3	6	13	1,880
Renflexis	1,068	14.71	45.78	1	2	5	10	599
00-17	58	9.81	14.15	1	3	7	11	99

Table 3c: Descriptive statistics of cumulative exposure duration, all episodes, in days, by age group (years)									
Exposures	Total Patients	Mean	STD	Min	Q1	Median	Q3	Max	
18-24	100	17.41	45.09	1	2	5	10	264	
25-40	205	14.85	51.15	1	2	5	10	599	
41-64	483	18.17	55.03	1	2	5	11	480	
65+	222	7.09	6.38	1	3	5	10	42	
Retacrit	3,846	22.78	54.64	1	2	5	17	752	
00-17	34	109.32	130.79	1	8	64	157	550	
18-24	42	40.19	67.32	1	1	4	56	330	
25-40	173	22.58	43.40	1	1	4	28	364	
41-64	1,727	27.56	64.90	1	1	5	21	752	
65+	1,870	16.42	38.37	1	2	5	14	612	
Zarxio	13,510	18.41	48.95	1	2	6	16	1,148	
00-17	191	34.18	66.04	1	2	10	42	690	
18-24	257	28.00	87.24	1	3	9	25	1,148	
25-40	1,315	21.48	50.56	1	3	7	21	810	
41-64	9,260	18.83	50.15	1	2	6	17	1,075	
65+	2,487	13.04	33.46	1	2	4	12	639	
Zirabev	578	4.79	4.02	1	2	4	6	22	
00-17	8	4.38	2.39	2	2	4	7	8	
18-24	4	2.75	2.36	1	1	2	5	6	
25-40	30	4.43	3.83	1	1	3	8	16	
41-64	393	4.83	4.12	1	2	4	6	22	
65+	143	4.82	3.93	1	2	4	6	22	



Table 4a: Distribution of first exposure episode duration, by length categories, in days												
Exposures	Total Episodes		1-30		31-90		91-365		366-730		731+	
	N	%	N	%	N	%	N	%	N	%	N	%
Avastin	66,475	100.0	66,423	99.9	29	0.0	22	0.0	0	0.0	1	0.0
Epogen	19,623	100.0	19,449	99.1	132	0.7	40	0.2	2	0.0	0	0.0
Inflectra	3,461	100.0	3,409	98.5	38	1.1	12	0.3	1	0.0	1	0.0
Mvasi	2,626	100.0	2,626	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Neupogen	14,083	100.0	13,643	96.9	367	2.6	71	0.5	2	0.0	0	0.0
Remicade	20,672	100.0	19,769	95.6	568	2.7	289	1.4	35	0.2	11	0.1
Renflexis	1,068	100.0	1,045	97.8	18	1.7	5	0.5	0	0.0	0	0.0
Retacrit	3,846	100.0	3,643	94.7	151	3.9	48	1.2	4	0.1	0	0.0
Zarxio	13,510	100.0	13,050	96.6	355	2.6	103	0.8	1	0.0	1	0.0
Zirabev	578	100.0	578	100.0	0	0.0	0	0.0	0	0.0	0	0.0

Table 4b: Distribution of first exposure episode duration, by length categories, in days, by sex												
Exposures	Total Episodes		1-30		31-90		91-365		366-730		731+	
	N	%	N	%	N	%	N	%	N	%	N	%
Avastin	66,475	100.0	66,423	100.0	29	100.0	22	100.0	0	0.0	1	100.0
Female	34,155	51.4	34,123	51.4	18	62.1	13	59.1	0	0.0	1	100.0
Male	32,320	48.6	32,300	48.6	11	37.9	9	40.9	0	0.0	0	0.0
Epogen	19,623	100.0	19,449	100.0	132	100.0	40	100.0	2	100.0	0	0.0
Female	9,080	46.3	8,992	46.2	71	53.8	17	42.5	0	0.0	0	0.0
Male	10,543	53.7	10,457	53.8	61	46.2	23	57.5	2	100.0	0	0.0
Inflectra	3,461	100.0	3,409	100.0	38	100.0	12	100.0	1	100.0	1	100.0
Female	1,850	53.5	1,826	53.6	18	47.4	5	41.7	0	0.0	1	100.0
Male	1,611	46.5	1,583	46.4	20	52.6	7	58.3	1	100.0	0	0.0
Mvasi	2,626	100.0	2,626	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Female	1,513	57.6	1,513	57.6	0	0.0	0	0.0	0	0.0	0	0.0
Male	1,113	42.4	1,113	42.4	0	0.0	0	0.0	0	0.0	0	0.0
Neupogen	14,083	100.0	13,643	100.0	367	100.0	71	100.0	2	100.0	0	0.0
Female	8,195	58.2	7,894	57.9	252	68.7	47	66.2	2	100.0	0	0.0
Male	5,888	41.8	5,749	42.1	115	31.3	24	33.8	0	0.0	0	0.0
Remicade	20,672	100.0	19,769	100.0	568	100.0	289	100.0	35	100.0	11	100.0
Female	11,757	56.9	11,232	56.8	325	57.2	173	59.9	23	65.7	4	36.4
Male	8,915	43.1	8,537	43.2	243	42.8	116	40.1	12	34.3	7	63.6
Renflexis	1,068	100.0	1,045	100.0	18	100.0	5	100.0	0	0.0	0	0.0
Female	580	54.3	564	54.0	13	72.2	3	60.0	0	0.0	0	0.0
Male	488	45.7	481	46.0	5	27.8	2	40.0	0	0.0	0	0.0
Retacrit	3,846	100.0	3,643	100.0	151	100.0	48	100.0	4	100.0	0	0.0
Female	1,887	49.1	1,799	49.4	76	50.3	11	22.9	1	25.0	0	0.0
Male	1,959	50.9	1,844	50.6	75	49.7	37	77.1	3	75.0	0	0.0
Zarxio	13,510	100.0	13,050	100.0	355	100.0	103	100.0	1	100.0	1	100.0
Female	8,106	60.0	7,799	59.8	230	64.8	76	73.8	1	100.0	0	0.0
Male	5,404	40.0	5,251	40.2	125	35.2	27	26.2	0	0.0	1	100.0
Zirabev	578	100.0	578	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Female	327	56.6	327	56.6	0	0.0	0	0.0	0	0.0	0	0.0
Male	251	43.4	251	43.4	0	0.0	0	0.0	0	0.0	0	0.0

Table 4c: Distribution of first exposure episode duration, by length categories, in days, by age group (years)												
Exposures	Total Episodes		1-30		31-90		91-365		366-730		731+	
	N	%	N	%	N	%	N	%	N	%	N	%
Avastin	66,475	100.0	66,423	100.0	29	100.0	22	100.0	0	0.0	1	100.0
00-17 (years)	259	0.4	259	0.4	0	0.0	0	0.0	0	0.0	0	0.0
18-24	341	0.5	341	0.5	0	0.0	0	0.0	0	0.0	0	0.0
25-40	3,947	5.9	3,945	5.9	1	3.4	1	4.5	0	0.0	0	0.0
41-64	39,366	59.2	39,329	59.2	21	72.4	15	68.2	0	0.0	1	100.0
65+	22,562	33.9	22,549	33.9	7	24.1	6	27.3	0	0.0	0	0.0
Epogen	19,623	100.0	19,449	100.0	132	100.0	40	100.0	2	100.0	0	0.0
00-17	184	0.9	161	0.8	19	14.4	4	10.0	0	0.0	0	0.0
18-24	183	0.9	178	0.9	4	3.0	1	2.5	0	0.0	0	0.0
25-40	941	4.8	934	4.8	7	5.3	0	0.0	0	0.0	0	0.0
41-64	8,855	45.1	8,804	45.3	37	28.0	13	32.5	1	50.0	0	0.0
65+	9,460	48.2	9,372	48.2	65	49.2	22	55.0	1	50.0	0	0.0
Inflectra	3,461	100.0	3,409	100.0	38	100.0	12	100.0	1	100.0	1	100.0
00-17	283	8.2	280	8.2	3	7.9	0	0.0	0	0.0	0	0.0
18-24	461	13.3	459	13.5	1	2.6	1	8.3	0	0.0	0	0.0
25-40	832	24.0	823	24.1	7	18.4	1	8.3	1	100.0	0	0.0
41-64	1,547	44.7	1,512	44.4	25	65.8	9	75.0	0	0.0	1	100.0
65+	338	9.8	335	9.8	2	5.3	1	8.3	0	0.0	0	0.0
Mvasi	2,626	100.0	2,626	100.0	0	0.0	0	0.0	0	0.0	0	0.0
00-17	10	0.4	10	0.4	0	0.0	0	0.0	0	0.0	0	0.0
18-24	9	0.3	9	0.3	0	0.0	0	0.0	0	0.0	0	0.0
25-40	171	6.5	171	6.5	0	0.0	0	0.0	0	0.0	0	0.0
41-64	1,981	75.4	1,981	75.4	0	0.0	0	0.0	0	0.0	0	0.0
65+	455	17.3	455	17.3	0	0.0	0	0.0	0	0.0	0	0.0
Neupogen	14,083	100.0	13,643	100.0	367	100.0	71	100.0	2	100.0	0	0.0
00-17	645	4.6	576	4.2	55	15.0	14	19.7	0	0.0	0	0.0
18-24	296	2.1	280	2.1	12	3.3	4	5.6	0	0.0	0	0.0
25-40	1,198	8.5	1,161	8.5	31	8.4	6	8.5	0	0.0	0	0.0
41-64	8,598	61.1	8,345	61.2	208	56.7	43	60.6	2	100.0	0	0.0
65+	3,346	23.8	3,281	24.0	61	16.6	4	5.6	0	0.0	0	0.0
Remicade	20,672	100.0	19,769	100.0	568	100.0	289	100.0	35	100.0	11	100.0
00-17	2,749	13.3	2,663	13.5	49	8.6	31	10.7	5	14.3	1	9.1
18-24	2,322	11.2	2,224	11.2	69	12.1	23	8.0	4	11.4	2	18.2
25-40	5,019	24.3	4,802	24.3	136	23.9	75	26.0	5	14.3	1	9.1
41-64	9,299	45.0	8,832	44.7	287	50.5	153	52.9	20	57.1	7	63.6
65+	1,283	6.2	1,248	6.3	27	4.8	7	2.4	1	2.9	0	0.0
Renflexis	1,068	100.0	1,045	100.0	18	100.0	5	100.0	0	0.0	0	0.0



Table 4c: Distribution of first exposure episode duration, by length categories, in days, by age group (years)													
Exposures	Total Episodes		1-30		31-90		91-365		366-730		731+		
	N	%	N	%	N	%	N	%	N	%	N	%	
00-17	58	5.4	57	5.5	1	5.6	0	0.0	0	0.0	0	0.0	
18-24	100	9.4	97	9.3	3	16.7	0	0.0	0	0.0	0	0.0	
25-40	205	19.2	199	19.0	5	27.8	1	20.0	0	0.0	0	0.0	
41-64	483	45.2	470	45.0	9	50.0	4	80.0	0	0.0	0	0.0	
65+	222	20.8	222	21.2	0	0.0	0	0.0	0	0.0	0	0.0	
Retacrit	3,846	100.0	3,643	100.0	151	100.0	48	100.0	4	100.0	0	0.0	
00-17	34	0.9	24	0.7	4	2.6	6	12.5	0	0.0	0	0.0	
18-24	42	1.1	36	1.0	3	2.0	3	6.3	0	0.0	0	0.0	
25-40	173	4.5	159	4.4	12	7.9	2	4.2	0	0.0	0	0.0	
41-64	1,727	44.9	1,611	44.2	87	57.6	26	54.2	3	75.0	0	0.0	
65+	1,870	48.6	1,813	49.8	45	29.8	11	22.9	1	25.0	0	0.0	
Zarxio	13,510	100.0	13,050	100.0	355	100.0	103	100.0	1	100.0	1	100.0	
00-17	191	1.4	173	1.3	14	3.9	4	3.9	0	0.0	0	0.0	
18-24	257	1.9	248	1.9	7	2.0	2	1.9	0	0.0	0	0.0	
25-40	1,315	9.7	1,252	9.6	49	13.8	14	13.6	0	0.0	0	0.0	
41-64	9,260	68.5	8,930	68.4	257	72.4	71	68.9	1	100.0	1	100.0	
65+	2,487	18.4	2,447	18.8	28	7.9	12	11.7	0	0.0	0	0.0	
Zirabev	578	100.0	578	100.0	0	0.0	0	0.0	0	0.0	0	0.0	
00-17	8	1.4	8	1.4	0	0.0	0	0.0	0	0.0	0	0.0	
18-24	4	0.7	4	0.7	0	0.0	0	0.0	0	0.0	0	0.0	
25-40	30	5.2	30	5.2	0	0.0	0	0.0	0	0.0	0	0.0	
41-64	393	68.0	393	68.0	0	0.0	0	0.0	0	0.0	0	0.0	
65+	143	24.7	143	24.7	0	0.0	0	0.0	0	0.0	0	0.0	

Table 5a: Descriptive statistics of first exposure episode duration, in days								
Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
Avastin	66,475	1.13	5.54	1	1	1	1	1,092
Epogen	19,623	2.14	11.07	1	1	1	1	588
Inflectra	3,461	2.90	21.22	1	1	1	1	889
Mvasi	2,626	1.02	0.66	1	1	1	1	28
Neupogen	14,083	6.39	16.82	1	1	2	4	677
Remicade	20,672	6.47	39.03	1	1	1	1	1,568
Renflexis	1,068	3.09	11.72	1	1	1	1	168
Retacrit	3,846	7.92	27.22	1	1	1	1	612
Zarxio	13,510	6.82	18.08	1	1	2	5	840
Zirabev	578	1.00	0.00	1	1	1	1	1

Table 5b: Descriptive statistics of first exposure episode duration, in days, by sex									
Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max	
Avastin	66,475	1.13	5.54	1	1	1	1	1,092	
Female	34,155	1.15	6.90	1	1	1	1	1,092	
Male	32,320	1.10	3.57	1	1	1	1	336	
Epogen	19,623	2.14	11.07	1	1	1	1	588	
Female	9,080	2.22	10.60	1	1	1	1	323	
Male	10,543	2.06	11.46	1	1	1	1	588	
Inflectra	3,461	2.90	21.22	1	1	1	1	889	
Female	1,850	2.79	23.16	1	1	1	1	889	
Male	1,611	3.02	18.75	1	1	1	1	574	
Mvasi	2,626	1.02	0.66	1	1	1	1	28	
Female	1,513	1.01	0.51	1	1	1	1	21	
Male	1,113	1.02	0.81	1	1	1	1	28	
Neupogen	14,083	6.39	16.82	1	1	2	4	677	
Female	8,195	6.69	18.33	1	1	2	4	677	
Male	5,888	5.98	14.43	1	1	2	5	338	
Remicade	20,672	6.47	39.03	1	1	1	1	1,568	
Female	11,757	6.61	37.04	1	1	1	1	1,525	
Male	8,915	6.28	41.51	1	1	1	1	1,568	
Renflexis	1,068	3.09	11.72	1	1	1	1	168	
Female	580	3.44	12.80	1	1	1	1	168	
Male	488	2.68	10.28	1	1	1	1	112	
Retacrit	3,846	7.92	27.22	1	1	1	1	612	
Female	1,887	6.70	23.52	1	1	1	1	612	
Male	1,959	9.09	30.32	1	1	1	1	528	
Zarxio	13,510	6.82	18.08	1	1	2	5	840	
Female	8,106	7.04	17.92	1	1	2	5	448	
Male	5,404	6.49	18.31	1	1	2	5	840	
Zirabev	578	1.00	0.00	1	1	1	1	1	
Female	327	1.00	0.00	1	1	1	1	1	
Male	251	1.00	0.00	1	1	1	1	1	

Table 5c: Descriptive statistics of first exposure episode duration, in days, by age group (years)									
Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max	
Avastin	66,475	1.13	5.54	1	1	1	1	1,092	
00-17 (years)	259	1.10	1.68	1	1	1	1	28	
18-24	341	1.08	1.46	1	1	1	1	28	
25-40	3,947	1.11	4.44	1	1	1	1	270	
41-64	39,366	1.15	6.64	1	1	1	1	1,092	
65+	22,562	1.09	3.15	1	1	1	1	294	
Epogen	19,623	2.14	11.07	1	1	1	1	588	
00-17	184	14.16	27.41	1	1	1	21	168	
18-24	183	3.57	16.65	1	1	1	1	196	
25-40	941	1.83	6.39	1	1	1	1	90	
41-64	8,855	1.80	8.90	1	1	1	1	379	
65+	9,460	2.22	12.38	1	1	1	1	588	
Inflectra	3,461	2.90	21.22	1	1	1	1	889	
00-17	283	1.63	5.08	1	1	1	1	56	
18-24	461	1.65	6.43	1	1	1	1	98	
25-40	832	2.56	20.82	1	1	1	1	574	
41-64	1,547	3.92	27.31	1	1	1	1	889	
65+	338	1.85	6.79	1	1	1	1	98	
Mvasi	2,626	1.02	0.66	1	1	1	1	28	
00-17	10	1.00	0.00	1	1	1	1	1	
18-24	9	1.00	0.00	1	1	1	1	1	
25-40	171	1.00	0.00	1	1	1	1	1	
41-64	1,981	1.01	0.61	1	1	1	1	28	
65+	455	1.04	0.94	1	1	1	1	21	
Neupogen	14,083	6.39	16.82	1	1	2	4	677	
00-17	645	16.16	29.33	1	1	7	21	338	
18-24	296	8.65	18.42	1	1	2	9	147	
25-40	1,198	6.58	13.38	1	1	2	5	115	
41-64	8,598	6.20	17.32	1	1	2	4	677	
65+	3,346	4.74	11.76	1	1	2	3	346	
Remicade	20,672	6.47	39.03	1	1	1	1	1,568	
00-17	2,749	5.19	31.43	1	1	1	1	744	
18-24	2,322	6.40	46.77	1	1	1	1	1,568	
25-40	5,019	5.85	29.45	1	1	1	1	770	
41-64	9,299	7.58	45.02	1	1	1	1	1,525	
65+	1,283	3.71	19.02	1	1	1	1	467	
Renflexis	1,068	3.09	11.72	1	1	1	1	168	
00-17	58	2.17	6.39	1	1	1	1	42	

Table 5c: Descriptive statistics of first exposure episode duration, in days, by age group (years)									
Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max	
18-24	100	4.25	13.25	1	1	1	1	84	
25-40	205	3.36	12.39	1	1	1	1	140	
41-64	483	3.75	13.91	1	1	1	1	168	
65+	222	1.13	1.95	1	1	1	1	30	
Retacrit	3,846	7.92	27.22	1	1	1	1	612	
00-17	34	43.74	61.97	1	1	28	60	294	
18-24	42	18.17	39.80	1	1	1	21	168	
25-40	173	10.58	24.88	1	1	1	1	206	
41-64	1,727	9.89	30.62	1	1	1	1	528	
65+	1,870	4.98	21.47	1	1	1	1	612	
Zarxio	13,510	6.82	18.08	1	1	2	5	840	
00-17	191	14.57	24.05	1	1	5	21	210	
18-24	257	9.30	17.78	1	1	3	10	196	
25-40	1,315	8.09	16.69	1	1	3	7	168	
41-64	9,260	7.03	19.40	1	1	2	5	840	
65+	2,487	4.50	11.81	1	1	2	3	168	
Zirabev	578	1.00	0.00	1	1	1	1	1	
00-17	8	1.00	0.00	1	1	1	1	1	
18-24	4	1.00	0.00	1	1	1	1	1	
25-40	30	1.00	0.00	1	1	1	1	1	
41-64	393	1.00	0.00	1	1	1	1	1	
65+	143	1.00	0.00	1	1	1	1	1	



Table 6a: Distribution of second and subsequent exposure episode duration, by length categories, in days												
Exposures	Total Episodes		1-30		31-90		91-365		366-730		731+	
	N	%	N	%	N	%	N	%	N	%	N	%
Avastin	302,580	100.0	302,459	100.0	88	0.0	29	0.0	3	0.0	1	0.0
Epogen	458,315	100.0	458,083	99.9	174	0.0	55	0.0	2	0.0	1	0.0
Inflectra	18,309	100.0	18,161	99.2	105	0.6	41	0.2	2	0.0	0	0.0
Mvasi	15,509	100.0	15,506	100.0	2	0.0	1	0.0	0	0.0	0	0.0
Neupogen	30,537	100.0	29,918	98.0	510	1.7	105	0.3	3	0.0	1	0.0
Remicade	173,207	100.0	169,902	98.1	2,153	1.2	993	0.6	135	0.1	24	0.0
Renflexis	5,777	100.0	5,740	99.4	24	0.4	13	0.2	0	0.0	0	0.0
Retacrit	28,480	100.0	28,284	99.3	149	0.5	45	0.2	2	0.0	0	0.0
Zarxio	36,401	100.0	35,812	98.4	463	1.3	113	0.3	12	0.0	1	0.0
Zirabev	2,188	100.0	2,188	100.0	0	0.0	0	0.0	0	0.0	0	0.0



Table 6b: Distribution of second and subsequent exposure episode duration, by length categories, in days, by sex												
Exposures	Total Episodes		1-30		31-90		91-365		366-730		731+	
	N	%	N	%	N	%	N	%	N	%	N	%
Avastin	302,580	100.0	302,459	100.0	88	100.0	29	100.0	3	100.0	1	100.0
Female	160,959	53.2	160,889	53.2	50	56.8	16	55.2	3	100.0	1	100.0
Male	141,621	46.8	141,570	46.8	38	43.2	13	44.8	0	0.0	0	0.0
Epogen	458,315	100.0	458,083	100.0	174	100.0	55	100.0	2	100.0	1	100.0
Female	191,152	41.7	191,023	41.7	96	55.2	32	58.2	1	50.0	0	0.0
Male	267,163	58.3	267,060	58.3	78	44.8	23	41.8	1	50.0	1	100.0
Inflectra	18,309	100.0	18,161	100.0	105	100.0	41	100.0	2	100.0	0	0.0
Female	9,854	53.8	9,785	53.9	49	46.7	18	43.9	2	100.0	0	0.0
Male	8,455	46.2	8,376	46.1	56	53.3	23	56.1	0	0.0	0	0.0
Mvasi	15,509	100.0	15,506	100.0	2	100.0	1	100.0	0	0.0	0	0.0
Female	8,518	54.9	8,515	54.9	2	100.0	1	100.0	0	0.0	0	0.0
Male	6,991	45.1	6,991	45.1	0	0.0	0	0.0	0	0.0	0	0.0
Neupogen	30,537	100.0	29,918	100.0	510	100.0	105	100.0	3	100.0	1	100.0
Female	18,553	60.8	18,133	60.6	344	67.5	74	70.5	1	33.3	1	100.0
Male	11,984	39.2	11,785	39.4	166	32.5	31	29.5	2	66.7	0	0.0
Remicade	173,207	100.0	169,902	100.0	2,153	100.0	993	100.0	135	100.0	24	100.0
Female	96,669	55.8	94,850	55.8	1,209	56.2	534	53.8	66	48.9	10	41.7
Male	76,538	44.2	75,052	44.2	944	43.8	459	46.2	69	51.1	14	58.3
Renflexis	5,777	100.0	5,740	100.0	24	100.0	13	100.0	0	0.0	0	0.0
Female	3,039	52.6	3,008	52.4	21	87.5	10	76.9	0	0.0	0	0.0
Male	2,738	47.4	2,732	47.6	3	12.5	3	23.1	0	0.0	0	0.0
Retacrit	28,480	100.0	28,284	100.0	149	100.0	45	100.0	2	100.0	0	0.0
Female	13,695	48.1	13,594	48.1	81	54.4	19	42.2	1	50.0	0	0.0
Male	14,785	51.9	14,690	51.9	68	45.6	26	57.8	1	50.0	0	0.0
Zarxio	36,401	100.0	35,812	100.0	463	100.0	113	100.0	12	100.0	1	100.0
Female	23,750	65.2	23,316	65.1	336	72.6	89	78.8	8	66.7	1	100.0
Male	12,651	34.8	12,496	34.9	127	27.4	24	21.2	4	33.3	0	0.0
Zirabev	2,188	100.0	2,188	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Female	1,101	50.3	1,101	50.3	0	0.0	0	0.0	0	0.0	0	0.0
Male	1,087	49.7	1,087	49.7	0	0.0	0	0.0	0	0.0	0	0.0



Table 6c: Distribution of second and subsequent exposure episode duration, by length categories, in days, by age group (years)												
Exposures	Total Episodes		1-30		31-90		91-365		366-730		731+	
	N	%	N	%	N	%	N	%	N	%	N	%
Avastin	302,580	100.0	302,459	100.0	88	100.0	29	100.0	3	100.0	1	100.0
00-17 (years)	1,454	0.5	1,454	0.5	0	0.0	0	0.0	0	0.0	0	0.0
18-24	1,227	0.4	1,227	0.4	0	0.0	0	0.0	0	0.0	0	0.0
25-40	16,332	5.4	16,324	5.4	8	9.1	0	0.0	0	0.0	0	0.0
41-64	184,706	61.0	184,618	61.0	61	69.3	23	79.3	3	100.0	1	100.0
65+	98,861	32.7	98,836	32.7	19	21.6	6	20.7	0	0.0	0	0.0
Epogen	458,315	100.0	458,083	100.0	174	100.0	55	100.0	2	100.0	1	100.0
00-17	3,443	0.8	3,401	0.7	28	16.1	13	23.6	1	50.0	0	0.0
18-24	5,087	1.1	5,082	1.1	4	2.3	1	1.8	0	0.0	0	0.0
25-40	23,031	5.0	23,027	5.0	3	1.7	1	1.8	0	0.0	0	0.0
41-64	202,958	44.3	202,900	44.3	49	28.2	9	16.4	0	0.0	0	0.0
65+	223,796	48.8	223,673	48.8	90	51.7	31	56.4	1	50.0	1	100.0
Inflectra	18,309	100.0	18,161	100.0	105	100.0	41	100.0	2	100.0	0	0.0
00-17	1,655	9.0	1,644	9.1	9	8.6	2	4.9	0	0.0	0	0.0
18-24	2,548	13.9	2,540	14.0	4	3.8	4	9.8	0	0.0	0	0.0
25-40	4,224	23.1	4,195	23.1	23	21.9	6	14.6	0	0.0	0	0.0
41-64	8,500	46.4	8,406	46.3	66	62.9	27	65.9	1	50.0	0	0.0
65+	1,382	7.5	1,376	7.6	3	2.9	2	4.9	1	50.0	0	0.0
Mvasi	15,509	100.0	15,506	100.0	2	100.0	1	100.0	0	0.0	0	0.0
00-17	65	0.4	65	0.4	0	0.0	0	0.0	0	0.0	0	0.0
18-24	49	0.3	49	0.3	0	0.0	0	0.0	0	0.0	0	0.0
25-40	1,017	6.6	1,017	6.6	0	0.0	0	0.0	0	0.0	0	0.0
41-64	12,002	77.4	12,002	77.4	0	0.0	0	0.0	0	0.0	0	0.0
65+	2,376	15.3	2,373	15.3	2	100.0	1	100.0	0	0.0	0	0.0
Neupogen	30,537	100.0	29,918	100.0	510	100.0	105	100.0	3	100.0	1	100.0
00-17	1,590	5.2	1,491	5.0	73	14.3	22	21.0	3	100.0	1	100.0
18-24	495	1.6	463	1.5	24	4.7	8	7.6	0	0.0	0	0.0
25-40	2,363	7.7	2,320	7.8	38	7.5	5	4.8	0	0.0	0	0.0
41-64	17,151	56.2	16,802	56.2	299	58.6	50	47.6	0	0.0	0	0.0
65+	8,938	29.3	8,842	29.6	76	14.9	20	19.0	0	0.0	0	0.0
Remicade	173,207	100.0	169,902	100.0	2,153	100.0	993	100.0	135	100.0	24	100.0
00-17	31,529	18.2	31,121	18.3	253	11.8	126	12.7	25	18.5	4	16.7
18-24	19,296	11.1	18,945	11.2	237	11.0	101	10.2	11	8.1	2	8.3
25-40	39,691	22.9	38,904	22.9	522	24.2	222	22.4	35	25.9	8	33.3
41-64	74,016	42.7	72,368	42.6	1,063	49.4	518	52.2	58	43.0	9	37.5
65+	8,675	5.0	8,564	5.0	78	3.6	26	2.6	6	4.4	1	4.2
Renflexis	5,777	100.0	5,740	100.0	24	100.0	13	100.0	0	0.0	0	0.0



Table 6c: Distribution of second and subsequent exposure episode duration, by length categories, in days, by age group (years)													
Exposures	Total Episodes		1-30		31-90		91-365		366-730		731+		
	N	%	N	%	N	%	N	%	N	%	N	%	
00-17	369	6.4	369	6.4	0	0.0	0	0.0	0	0.0	0	0.0	
18-24	455	7.9	453	7.9	1	4.2	1	7.7	0	0.0	0	0.0	
25-40	1,057	18.3	1,046	18.2	10	41.7	1	7.7	0	0.0	0	0.0	
41-64	2,572	44.5	2,548	44.4	13	54.2	11	84.6	0	0.0	0	0.0	
65+	1,324	22.9	1,324	23.1	0	0.0	0	0.0	0	0.0	0	0.0	
Retacrit	28,480	100.0	28,284	100.0	149	100.0	45	100.0	2	100.0	0	0.0	
00-17	335	1.2	327	1.2	6	4.0	1	2.2	1	50.0	0	0.0	
18-24	503	1.8	500	1.8	2	1.3	1	2.2	0	0.0	0	0.0	
25-40	1,206	4.2	1,200	4.2	4	2.7	2	4.4	0	0.0	0	0.0	
41-64	13,142	46.1	13,026	46.1	84	56.4	31	68.9	1	50.0	0	0.0	
65+	13,294	46.7	13,231	46.8	53	35.6	10	22.2	0	0.0	0	0.0	
Zarxio	36,401	100.0	35,812	100.0	463	100.0	113	100.0	12	100.0	1	100.0	
00-17	265	0.7	244	0.7	20	4.3	1	0.9	0	0.0	0	0.0	
18-24	654	1.8	634	1.8	15	3.2	5	4.4	0	0.0	0	0.0	
25-40	2,974	8.2	2,902	8.1	59	12.7	12	10.6	1	8.3	0	0.0	
41-64	23,881	65.6	23,449	65.5	335	72.4	87	77.0	9	75.0	1	100.0	
65+	8,627	23.7	8,583	24.0	34	7.3	8	7.1	2	16.7	0	0.0	
Zirabev	2,188	100.0	2,188	100.0	0	0.0	0	0.0	0	0.0	0	0.0	
00-17	27	1.2	27	1.2	0	0.0	0	0.0	0	0.0	0	0.0	
18-24	7	0.3	7	0.3	0	0.0	0	0.0	0	0.0	0	0.0	
25-40	103	4.7	103	4.7	0	0.0	0	0.0	0	0.0	0	0.0	
41-64	1,505	68.8	1,505	68.8	0	0.0	0	0.0	0	0.0	0	0.0	
65+	546	25.0	546	25.0	0	0.0	0	0.0	0	0.0	0	0.0	

Table 7a: Descriptive statistics of second and subsequent exposure episode duration, in days								
Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
Avastin	302,580	1.06	3.06	1	1	1	1	736
Epogen	458,315	1.08	3.33	1	1	1	1	1,506
Inflectra	18,309	2.13	11.71	1	1	1	1	576
Mvasi	15,509	1.02	1.16	1	1	1	1	112
Neupogen	30,537	4.50	14.95	1	1	1	3	889
Remicade	173,207	3.64	23.55	1	1	1	1	1,414
Renflexis	5,777	2.15	9.22	1	1	1	1	251
Retacrit	28,480	2.01	9.85	1	1	1	1	633
Zarxio	36,401	4.30	15.52	1	1	1	3	830
Zirabev	2,188	1.00	0.00	1	1	1	1	1

Table 7b: Descriptive statistics of second and subsequent exposure episode duration, in days, by sex									
Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max	
Avastin	302,580	1.06	3.06	1	1	1	1	736	
Female	160,959	1.07	3.66	1	1	1	1	736	
Male	141,621	1.05	2.20	1	1	1	1	336	
Epogen	458,315	1.08	3.33	1	1	1	1	1,506	
Female	191,152	1.10	2.80	1	1	1	1	414	
Male	267,163	1.06	3.66	1	1	1	1	1,506	
Inflectra	18,309	2.13	11.71	1	1	1	1	576	
Female	9,854	2.15	12.21	1	1	1	1	576	
Male	8,455	2.10	11.09	1	1	1	1	336	
Mvasi	15,509	1.02	1.16	1	1	1	1	112	
Female	8,518	1.03	1.54	1	1	1	1	112	
Male	6,991	1.01	0.27	1	1	1	1	14	
Neupogen	30,537	4.50	14.95	1	1	1	3	889	
Female	18,553	4.79	16.19	1	1	1	3	889	
Male	11,984	4.05	12.77	1	1	1	2	510	
Remicade	173,207	3.64	23.55	1	1	1	1	1,414	
Female	96,669	3.57	22.31	1	1	1	1	1,414	
Male	76,538	3.73	25.02	1	1	1	1	1,382	
Renflexis	5,777	2.15	9.22	1	1	1	1	251	
Female	3,039	2.48	11.09	1	1	1	1	251	
Male	2,738	1.78	6.54	1	1	1	1	198	
Retacrit	28,480	2.01	9.85	1	1	1	1	633	
Female	13,695	2.04	9.23	1	1	1	1	422	
Male	14,785	1.98	10.39	1	1	1	1	633	
Zarxio	36,401	4.30	15.52	1	1	1	3	830	
Female	23,750	4.48	16.30	1	1	1	3	830	
Male	12,651	3.97	13.95	1	1	1	3	540	
Zirabev	2,188	1.00	0.00	1	1	1	1	1	
Female	1,101	1.00	0.00	1	1	1	1	1	
Male	1,087	1.00	0.00	1	1	1	1	1	

Table 7c: Descriptive statistics of second and subsequent exposure episode duration, in days, by age group (years)								
Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
Avastin	302,580	1.06	3.06	1	1	1	1	736
00-17 (years)	1,454	1.02	0.61	1	1	1	1	21
18-24	1,227	1.00	0.03	1	1	1	1	2
25-40	16,332	1.06	1.58	1	1	1	1	84
41-64	184,706	1.07	3.76	1	1	1	1	736
65+	98,861	1.03	1.35	1	1	1	1	140
Epogen	458,315	1.08	3.33	1	1	1	1	1,506
00-17	3,443	2.66	13.92	1	1	1	1	414
18-24	5,087	1.09	2.73	1	1	1	1	140
25-40	23,031	1.04	1.90	1	1	1	1	258
41-64	202,958	1.04	1.42	1	1	1	1	168
65+	223,796	1.08	4.16	1	1	1	1	1,506
Inflectra	18,309	2.13	11.71	1	1	1	1	576
00-17	1,655	1.78	10.53	1	1	1	1	364
18-24	2,548	1.66	8.61	1	1	1	1	308
25-40	4,224	1.79	7.43	1	1	1	1	238
41-64	8,500	2.58	14.08	1	1	1	1	576
65+	1,382	1.66	12.48	1	1	1	1	392
Mvasi	15,509	1.02	1.16	1	1	1	1	112
00-17	65	1.00	0.00	1	1	1	1	1
18-24	49	1.00	0.00	1	1	1	1	1
25-40	1,017	1.00	0.00	1	1	1	1	1
41-64	12,002	1.00	0.21	1	1	1	1	14
65+	2,376	1.12	2.92	1	1	1	1	112
Neupogen	30,537	4.50	14.95	1	1	1	3	889
00-17	1,590	13.10	37.70	1	1	1	14	889
18-24	495	9.77	25.65	1	1	1	6	330
25-40	2,363	4.69	10.90	1	1	1	3	140
41-64	17,151	4.22	12.22	1	1	1	3	308
65+	8,938	3.15	11.81	1	1	1	2	338
Remicade	173,207	3.64	23.55	1	1	1	1	1,414
00-17	31,529	3.06	22.95	1	1	1	1	1,382
18-24	19,296	3.27	21.43	1	1	1	1	1,053
25-40	39,691	3.70	24.21	1	1	1	1	1,288
41-64	74,016	4.05	24.37	1	1	1	1	1,414
65+	8,675	2.74	19.52	1	1	1	1	842
Renflexis	5,777	2.15	9.22	1	1	1	1	251
00-17	369	1.20	2.17	1	1	1	1	30



Table 7c: Descriptive statistics of second and subsequent exposure episode duration, in days, by age group (years)								
Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
18-24	455	2.89	8.55	1	1	1	1	112
25-40	1,057	2.23	9.88	1	1	1	1	251
41-64	2,572	2.71	11.67	1	1	1	1	224
65+	1,324	1.00	0.00	1	1	1	1	1
Retacrit	28,480	2.01	9.85	1	1	1	1	633
00-17	335	6.66	27.59	1	1	1	1	422
18-24	503	1.84	9.55	1	1	1	1	196
25-40	1,206	1.72	8.23	1	1	1	1	224
41-64	13,142	2.32	11.56	1	1	1	1	633
65+	13,294	1.61	6.79	1	1	1	1	360
Zarxio	36,401	4.30	15.52	1	1	1	3	830
00-17	265	14.14	18.36	1	1	10	21	140
18-24	654	7.35	21.57	1	1	2	4	300
25-40	2,974	5.92	17.17	1	1	2	4	510
41-64	23,881	4.58	16.47	1	1	1	3	830
65+	8,627	2.46	10.50	1	1	1	2	527
Zirabev	2,188	1.00	0.00	1	1	1	1	1
00-17	27	1.00	0.00	1	1	1	1	1
18-24	7	1.00	0.00	1	1	1	1	1
25-40	103	1.00	0.00	1	1	1	1	1
41-64	1,505	1.00	0.00	1	1	1	1	1
65+	546	1.00	0.00	1	1	1	1	1



Table 8a: Distribution of all episode durations, by length categories, in days												
Exposures	Total Episodes		1-30		31-90		91-365		366-730		731+	
	N	%	N	%	N	%	N	%	N	%	N	%
Avastin	369,055	100.0	368,882	100.0	117	0.0	51	0.0	3	0.0	2	0.0
Epogen	477,938	100.0	477,532	99.9	306	0.1	95	0.0	4	0.0	1	0.0
Inflectra	21,770	100.0	21,570	99.1	143	0.7	53	0.2	3	0.0	1	0.0
Mvasi	18,135	100.0	18,132	100.0	2	0.0	1	0.0	0	0.0	0	0.0
Neupogen	44,620	100.0	43,561	97.6	877	2.0	176	0.4	5	0.0	1	0.0
Remicade	193,879	100.0	189,671	97.8	2,721	1.4	1,282	0.7	170	0.1	35	0.0
Renflexis	6,845	100.0	6,785	99.1	42	0.6	18	0.3	0	0.0	0	0.0
Retacrit	32,326	100.0	31,927	98.8	300	0.9	93	0.3	6	0.0	0	0.0
Zarxio	49,911	100.0	48,862	97.9	818	1.6	216	0.4	13	0.0	2	0.0
Zirabev	2,766	100.0	2,766	100.0	0	0.0	0	0.0	0	0.0	0	0.0



Table 8b: Distribution of all episode durations, by length categories, in days, by sex												
Exposures	Total Episodes		1-30		31-90		91-365		366-730		731+	
	N	%	N	%	N	%	N	%	N	%	N	%
Avastin	369,055	100.0	368,882	100.0	117	100.0	51	100.0	3	100.0	2	100.0
Female	195,114	52.9	195,012	52.9	68	58.1	29	56.9	3	100.0	2	100.0
Male	173,941	47.1	173,870	47.1	49	41.9	22	43.1	0	0.0	0	0.0
Epogen	477,938	100.0	477,532	100.0	306	100.0	95	100.0	4	100.0	1	100.0
Female	200,232	41.9	200,015	41.9	167	54.6	49	51.6	1	25.0	0	0.0
Male	277,706	58.1	277,517	58.1	139	45.4	46	48.4	3	75.0	1	100.0
Inflectra	21,770	100.0	21,570	100.0	143	100.0	53	100.0	3	100.0	1	100.0
Female	11,704	53.8	11,611	53.8	67	46.9	23	43.4	2	66.7	1	100.0
Male	10,066	46.2	9,959	46.2	76	53.1	30	56.6	1	33.3	0	0.0
Mvasi	18,135	100.0	18,132	100.0	2	100.0	1	100.0	0	0.0	0	0.0
Female	10,031	55.3	10,028	55.3	2	100.0	1	100.0	0	0.0	0	0.0
Male	8,104	44.7	8,104	44.7	0	0.0	0	0.0	0	0.0	0	0.0
Neupogen	44,620	100.0	43,561	100.0	877	100.0	176	100.0	5	100.0	1	100.0
Female	26,748	59.9	26,027	59.7	596	68.0	121	68.8	3	60.0	1	100.0
Male	17,872	40.1	17,534	40.3	281	32.0	55	31.3	2	40.0	0	0.0
Remicade	193,879	100.0	189,671	100.0	2,721	100.0	1,282	100.0	170	100.0	35	100.0
Female	108,426	55.9	106,082	55.9	1,534	56.4	707	55.1	89	52.4	14	40.0
Male	85,453	44.1	83,589	44.1	1,187	43.6	575	44.9	81	47.6	21	60.0
Renflexis	6,845	100.0	6,785	100.0	42	100.0	18	100.0	0	0.0	0	0.0
Female	3,619	52.9	3,572	52.6	34	81.0	13	72.2	0	0.0	0	0.0
Male	3,226	47.1	3,213	47.4	8	19.0	5	27.8	0	0.0	0	0.0
Retacrit	32,326	100.0	31,927	100.0	300	100.0	93	100.0	6	100.0	0	0.0
Female	15,582	48.2	15,393	48.2	157	52.3	30	32.3	2	33.3	0	0.0
Male	16,744	51.8	16,534	51.8	143	47.7	63	67.7	4	66.7	0	0.0
Zarxio	49,911	100.0	48,862	100.0	818	100.0	216	100.0	13	100.0	2	100.0
Female	31,856	63.8	31,115	63.7	566	69.2	165	76.4	9	69.2	1	50.0
Male	18,055	36.2	17,747	36.3	252	30.8	51	23.6	4	30.8	1	50.0
Zirabev	2,766	100.0	2,766	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Female	1,428	51.6	1,428	51.6	0	0.0	0	0.0	0	0.0	0	0.0
Male	1,338	48.4	1,338	48.4	0	0.0	0	0.0	0	0.0	0	0.0

Table 8c: Distribution of all episode durations, by length categories, in days, by age group (years)												
Exposures	Total Episodes		1-30		31-90		91-365		366-730		731+	
	N	%	N	%	N	%	N	%	N	%	N	%
Avastin	369,055	100.0	368,882	100.0	117	100.0	51	100.0	3	100.0	2	100.0
00-17 (years)	1,713	0.5	1,713	0.5	0	0.0	0	0.0	0	0.0	0	0.0
18-24	1,568	0.4	1,568	0.4	0	0.0	0	0.0	0	0.0	0	0.0
25-40	20,279	5.5	20,269	5.5	9	7.7	1	2.0	0	0.0	0	0.0
41-64	224,072	60.7	223,947	60.7	82	70.1	38	74.5	3	100.0	2	100.0
65+	121,423	32.9	121,385	32.9	26	22.2	12	23.5	0	0.0	0	0.0
Epogen	477,938	100.0	477,532	100.0	306	100.0	95	100.0	4	100.0	1	100.0
00-17	3,627	0.8	3,562	0.7	47	15.4	17	17.9	1	25.0	0	0.0
18-24	5,270	1.1	5,260	1.1	8	2.6	2	2.1	0	0.0	0	0.0
25-40	23,972	5.0	23,961	5.0	10	3.3	1	1.1	0	0.0	0	0.0
41-64	211,813	44.3	211,704	44.3	86	28.1	22	23.2	1	25.0	0	0.0
65+	233,256	48.8	233,045	48.8	155	50.7	53	55.8	2	50.0	1	100.0
Inflectra	21,770	100.0	21,570	100.0	143	100.0	53	100.0	3	100.0	1	100.0
00-17	1,938	8.9	1,924	8.9	12	8.4	2	3.8	0	0.0	0	0.0
18-24	3,009	13.8	2,999	13.9	5	3.5	5	9.4	0	0.0	0	0.0
25-40	5,056	23.2	5,018	23.3	30	21.0	7	13.2	1	33.3	0	0.0
41-64	10,047	46.2	9,918	46.0	91	63.6	36	67.9	1	33.3	1	100.0
65+	1,720	7.9	1,711	7.9	5	3.5	3	5.7	1	33.3	0	0.0
Mvasi	18,135	100.0	18,132	100.0	2	100.0	1	100.0	0	0.0	0	0.0
00-17	75	0.4	75	0.4	0	0.0	0	0.0	0	0.0	0	0.0
18-24	58	0.3	58	0.3	0	0.0	0	0.0	0	0.0	0	0.0
25-40	1,188	6.6	1,188	6.6	0	0.0	0	0.0	0	0.0	0	0.0
41-64	13,983	77.1	13,983	77.1	0	0.0	0	0.0	0	0.0	0	0.0
65+	2,831	15.6	2,828	15.6	2	100.0	1	100.0	0	0.0	0	0.0
Neupogen	44,620	100.0	43,561	100.0	877	100.0	176	100.0	5	100.0	1	100.0
00-17	2,235	5.0	2,067	4.7	128	14.6	36	20.5	3	60.0	1	100.0
18-24	791	1.8	743	1.7	36	4.1	12	6.8	0	0.0	0	0.0
25-40	3,561	8.0	3,481	8.0	69	7.9	11	6.3	0	0.0	0	0.0
41-64	25,749	57.7	25,147	57.7	507	57.8	93	52.8	2	40.0	0	0.0
65+	12,284	27.5	12,123	27.8	137	15.6	24	13.6	0	0.0	0	0.0
Remicade	193,879	100.0	189,671	100.0	2,721	100.0	1,282	100.0	170	100.0	35	100.0
00-17	34,278	17.7	33,784	17.8	302	11.1	157	12.2	30	17.6	5	14.3
18-24	21,618	11.2	21,169	11.2	306	11.2	124	9.7	15	8.8	4	11.4
25-40	44,710	23.1	43,706	23.0	658	24.2	297	23.2	40	23.5	9	25.7
41-64	83,315	43.0	81,200	42.8	1,350	49.6	671	52.3	78	45.9	16	45.7
65+	9,958	5.1	9,812	5.2	105	3.9	33	2.6	7	4.1	1	2.9
Renflexis	6,845	100.0	6,785	100.0	42	100.0	18	100.0	0	0.0	0	0.0



Table 8c: Distribution of all episode durations, by length categories, in days, by age group (years)													
Exposures	Total Episodes		1-30		31-90		91-365		366-730		731+		
	N	%	N	%	N	%	N	%	N	%	N	%	
00-17	427	6.2	426	6.3	1	2.4	0	0.0	0	0.0	0	0.0	
18-24	555	8.1	550	8.1	4	9.5	1	5.6	0	0.0	0	0.0	
25-40	1,262	18.4	1,245	18.3	15	35.7	2	11.1	0	0.0	0	0.0	
41-64	3,055	44.6	3,018	44.5	22	52.4	15	83.3	0	0.0	0	0.0	
65+	1,546	22.6	1,546	22.8	0	0.0	0	0.0	0	0.0	0	0.0	
Retacrit	32,326	100.0	31,927	100.0	300	100.0	93	100.0	6	100.0	0	0.0	
00-17	369	1.1	351	1.1	10	3.3	7	7.5	1	16.7	0	0.0	
18-24	545	1.7	536	1.7	5	1.7	4	4.3	0	0.0	0	0.0	
25-40	1,379	4.3	1,359	4.3	16	5.3	4	4.3	0	0.0	0	0.0	
41-64	14,869	46.0	14,637	45.8	171	57.0	57	61.3	4	66.7	0	0.0	
65+	15,164	46.9	15,044	47.1	98	32.7	21	22.6	1	16.7	0	0.0	
Zarxio	49,911	100.0	48,862	100.0	818	100.0	216	100.0	13	100.0	2	100.0	
00-17	456	0.9	417	0.9	34	4.2	5	2.3	0	0.0	0	0.0	
18-24	911	1.8	882	1.8	22	2.7	7	3.2	0	0.0	0	0.0	
25-40	4,289	8.6	4,154	8.5	108	13.2	26	12.0	1	7.7	0	0.0	
41-64	33,141	66.4	32,379	66.3	592	72.4	158	73.1	10	76.9	2	100.0	
65+	11,114	22.3	11,030	22.6	62	7.6	20	9.3	2	15.4	0	0.0	
Zirabev	2,766	100.0	2,766	100.0	0	0.0	0	0.0	0	0.0	0	0.0	
00-17	35	1.3	35	1.3	0	0.0	0	0.0	0	0.0	0	0.0	
18-24	11	0.4	11	0.4	0	0.0	0	0.0	0	0.0	0	0.0	
25-40	133	4.8	133	4.8	0	0.0	0	0.0	0	0.0	0	0.0	
41-64	1,898	68.6	1,898	68.6	0	0.0	0	0.0	0	0.0	0	0.0	
65+	689	24.9	689	24.9	0	0.0	0	0.0	0	0.0	0	0.0	

Table 9a: Descriptive statistics of all exposure episode durations, in days

Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max
Avastin	369,055	1.07	3.64	1	1	1	1	1,092
Epogen	477,938	1.12	3.96	1	1	1	1	1,506
Inflectra	21,770	2.25	13.67	1	1	1	1	889
Mvasi	18,135	1.02	1.10	1	1	1	1	112
Neupogen	44,620	5.10	15.59	1	1	1	3	889
Remicade	193,879	3.94	25.66	1	1	1	1	1,568
Renflexis	6,845	2.29	9.66	1	1	1	1	251
Retacrit	32,326	2.71	13.31	1	1	1	1	633
Zarxio	49,911	4.98	16.29	1	1	2	3	840
Zirabev	2,766	1.00	0.00	1	1	1	1	1

Table 9b: Descriptive statistics of all exposure episode durations, in days, by sex									
Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max	
Avastin	369,055	1.07	3.64	1	1	1	1	1,092	
Female	195,114	1.08	4.40	1	1	1	1	1,092	
Male	173,941	1.06	2.51	1	1	1	1	336	
Epogen	477,938	1.12	3.96	1	1	1	1	1,506	
Female	200,232	1.15	3.56	1	1	1	1	414	
Male	277,706	1.10	4.23	1	1	1	1	1,506	
Inflectra	21,770	2.25	13.67	1	1	1	1	889	
Female	11,704	2.25	14.50	1	1	1	1	889	
Male	10,066	2.25	12.64	1	1	1	1	574	
Mvasi	18,135	1.02	1.10	1	1	1	1	112	
Female	10,031	1.03	1.43	1	1	1	1	112	
Male	8,104	1.01	0.39	1	1	1	1	28	
Neupogen	44,620	5.10	15.59	1	1	1	3	889	
Female	26,748	5.37	16.90	1	1	1	3	889	
Male	17,872	4.68	13.37	1	1	1	3	510	
Remicade	193,879	3.94	25.66	1	1	1	1	1,568	
Female	108,426	3.90	24.36	1	1	1	1	1,525	
Male	85,453	3.99	27.22	1	1	1	1	1,568	
Renflexis	6,845	2.29	9.66	1	1	1	1	251	
Female	3,619	2.63	11.38	1	1	1	1	251	
Male	3,226	1.92	7.24	1	1	1	1	198	
Retacrit	32,326	2.71	13.31	1	1	1	1	633	
Female	15,582	2.60	12.00	1	1	1	1	612	
Male	16,744	2.81	14.42	1	1	1	1	633	
Zarxio	49,911	4.98	16.29	1	1	2	3	840	
Female	31,856	5.13	16.76	1	1	2	3	830	
Male	18,055	4.73	15.43	1	1	1	3	840	
Zirabev	2,766	1.00	0.00	1	1	1	1	1	
Female	1,428	1.00	0.00	1	1	1	1	1	
Male	1,338	1.00	0.00	1	1	1	1	1	

Table 9c: Descriptive statistics of all exposure episode durations, in days, by age group (years)									
Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max	
Avastin	369,055	1.07	3.64	1	1	1	1	1,092	
00-17 (years)	1,713	1.03	0.86	1	1	1	1	28	
18-24	1,568	1.02	0.68	1	1	1	1	28	
25-40	20,279	1.07	2.42	1	1	1	1	270	
41-64	224,072	1.09	4.41	1	1	1	1	1,092	
65+	121,423	1.04	1.82	1	1	1	1	294	
Epogen	477,938	1.12	3.96	1	1	1	1	1,506	
00-17	3,627	3.24	15.11	1	1	1	1	414	
18-24	5,270	1.18	4.12	1	1	1	1	196	
25-40	23,972	1.08	2.26	1	1	1	1	258	
41-64	211,813	1.08	2.30	1	1	1	1	379	
65+	233,256	1.13	4.78	1	1	1	1	1,506	
Inflectra	21,770	2.25	13.67	1	1	1	1	889	
00-17	1,938	1.76	9.92	1	1	1	1	364	
18-24	3,009	1.66	8.31	1	1	1	1	308	
25-40	5,056	1.91	10.84	1	1	1	1	574	
41-64	10,047	2.79	16.81	1	1	1	1	889	
65+	1,720	1.70	11.58	1	1	1	1	392	
Mvasi	18,135	1.02	1.10	1	1	1	1	112	
00-17	75	1.00	0.00	1	1	1	1	1	
18-24	58	1.00	0.00	1	1	1	1	1	
25-40	1,188	1.00	0.00	1	1	1	1	1	
41-64	13,983	1.00	0.30	1	1	1	1	28	
65+	2,831	1.11	2.70	1	1	1	1	112	
Neupogen	44,620	5.10	15.59	1	1	1	3	889	
00-17	2,235	13.98	35.51	1	1	1	14	889	
18-24	791	9.35	23.20	1	1	2	7	330	
25-40	3,561	5.32	11.83	1	1	1	3	140	
41-64	25,749	4.88	14.16	1	1	1	3	677	
65+	12,284	3.59	11.82	1	1	1	2	346	
Remicade	193,879	3.94	25.66	1	1	1	1	1,568	
00-17	34,278	3.23	23.75	1	1	1	1	1,382	
18-24	21,618	3.60	25.41	1	1	1	1	1,568	
25-40	44,710	3.94	24.86	1	1	1	1	1,288	
41-64	83,315	4.45	27.48	1	1	1	1	1,525	
65+	9,958	2.87	19.45	1	1	1	1	842	
Renflexis	6,845	2.29	9.66	1	1	1	1	251	
00-17	427	1.33	3.11	1	1	1	1	42	



Table 9c: Descriptive statistics of all exposure episode durations, in days, by age group (years)									
Exposures	Total Episodes	Mean	STD	Min	Q1	Median	Q3	Max	
18-24	555	3.14	9.57	1	1	1	1	112	
25-40	1,262	2.41	10.33	1	1	1	1	251	
41-64	3,055	2.87	12.05	1	1	1	1	224	
65+	1,546	1.02	0.74	1	1	1	1	30	
Retacrit	32,326	2.71	13.31	1	1	1	1	633	
00-17	369	10.07	33.92	1	1	1	1	422	
18-24	545	3.10	14.92	1	1	1	1	196	
25-40	1,379	2.83	12.04	1	1	1	1	224	
41-64	14,869	3.20	15.26	1	1	1	1	633	
65+	15,164	2.02	9.92	1	1	1	1	612	
Zarxio	49,911	4.98	16.29	1	1	2	3	840	
00-17	456	14.32	20.91	1	1	10	21	210	
18-24	911	7.90	20.58	1	1	2	5	300	
25-40	4,289	6.58	17.05	1	1	2	5	510	
41-64	33,141	5.26	17.38	1	1	2	3	840	
65+	11,114	2.92	10.84	1	1	1	2	527	
Zirabev	2,766	1.00	0.00	1	1	1	1	1	
00-17	35	1.00	0.00	1	1	1	1	1	
18-24	11	1.00	0.00	1	1	1	1	1	
25-40	133	1.00	0.00	1	1	1	1	1	
41-64	1,898	1.00	0.00	1	1	1	1	1	
65+	689	1.00	0.00	1	1	1	1	1	



Table 10a: Distribution of days supplied per dispensing, by length categories										
Exposures	Total Dispensings		1-30		31-60		61-90		91+	
	N	%	N	%	N	%	N	%	N	%
Avastin	370,333	100.0	370,199	100.0	127	0.0	7	0.0	0	0.0
Epogen	482,539	100.0	482,343	100.0	97	0.0	92	0.0	7	0.0
Inflectra	22,204	100.0	21,906	98.7	286	1.3	12	0.1	0	0.0
Mvasi	18,145	100.0	18,145	100.0	0	0.0	0	0.0	0	0.0
Neupogen	73,086	100.0	72,846	99.7	158	0.2	78	0.1	4	0.0
Remicade	203,124	100.0	195,161	96.1	7,790	3.8	153	0.1	20	0.0
Renflexis	6,942	100.0	6,866	98.9	74	1.1	2	0.0	0	0.0
Retacrit	33,571	100.0	33,450	99.6	61	0.2	57	0.2	3	0.0
Zarxio	84,990	100.0	84,828	99.8	72	0.1	88	0.1	2	0.0
Zirabev	2,766	100.0	2,766	100.0	0	0.0	0	0.0	0	0.0



Table 10b: Distribution of days supplied per dispensing, by length categories, by sex											
Exposures	Total Dispensings		1-30		31-60		61-90		91+		
	N	%	N	%	N	%	N	%	N	%	
Avastin	370,333	100.0	370,199	100.0	127	100.0	7	100.0	0	0.0	
Female	195,784	52.9	195,680	52.9	99	78.0	5	71.4	0	0.0	
Male	174,549	47.1	174,519	47.1	28	22.0	2	28.6	0	0.0	
Epogen	482,539	100.0	482,343	100.0	97	100.0	92	100.0	7	100.0	
Female	202,278	41.9	202,170	41.9	57	58.8	47	51.1	4	57.1	
Male	280,261	58.1	280,173	58.1	40	41.2	45	48.9	3	42.9	
Inflectra	22,204	100.0	21,906	100.0	286	100.0	12	100.0	0	0.0	
Female	11,939	53.8	11,781	53.8	152	53.1	6	50.0	0	0.0	
Male	10,265	46.2	10,125	46.2	134	46.9	6	50.0	0	0.0	
Mvasi	18,145	100.0	18,145	100.0	0	0.0	0	0.0	0	0.0	
Female	10,038	55.3	10,038	55.3	0	0.0	0	0.0	0	0.0	
Male	8,107	44.7	8,107	44.7	0	0.0	0	0.0	0	0.0	
Neupogen	73,086	100.0	72,846	100.0	158	100.0	78	100.0	4	100.0	
Female	43,997	60.2	43,841	60.2	103	65.2	53	67.9	0	0.0	
Male	29,089	39.8	29,005	39.8	55	34.8	25	32.1	4	100.0	
Remicade	203,124	100.0	195,161	100.0	7,790	100.0	153	100.0	20	100.0	
Female	113,495	55.9	109,152	55.9	4,263	54.7	71	46.4	9	45.0	
Male	89,629	44.1	86,009	44.1	3,527	45.3	82	53.6	11	55.0	
Renflexis	6,942	100.0	6,866	100.0	74	100.0	2	100.0	0	0.0	
Female	3,686	53.1	3,624	52.8	60	81.1	2	100.0	0	0.0	
Male	3,256	46.9	3,242	47.2	14	18.9	0	0.0	0	0.0	
Retacrit	33,571	100.0	33,450	100.0	61	100.0	57	100.0	3	100.0	
Female	16,133	48.1	16,066	48.0	36	59.0	30	52.6	1	33.3	
Male	17,438	51.9	17,384	52.0	25	41.0	27	47.4	2	66.7	
Zarxio	84,990	100.0	84,828	100.0	72	100.0	88	100.0	2	100.0	
Female	53,552	63.0	53,442	63.0	45	62.5	64	72.7	1	50.0	
Male	31,438	37.0	31,386	37.0	27	37.5	24	27.3	1	50.0	
Zirabev	2,766	100.0	2,766	100.0	0	0.0	0	0.0	0	0.0	
Female	1,428	51.6	1,428	51.6	0	0.0	0	0.0	0	0.0	
Male	1,338	48.4	1,338	48.4	0	0.0	0	0.0	0	0.0	

Table 10c: Distribution of days supplied per dispensing, by length categories, by age group (years)										
Exposures	Total Dispensings		1-30		31-60		61-90		91+	
	N	%	N	%	N	%	N	%	N	%
Avastin	370,333	100.0	370,199	100.0	127	100.0	7	100.0	0	0.0
00-17 (years)	1,713	0.5	1,713	0.5	0	0.0	0	0.0	0	0.0
18-24	1,570	0.4	1,570	0.4	0	0.0	0	0.0	0	0.0
25-40	20,348	5.5	20,343	5.5	0	0.0	5	71.4	0	0.0
41-64	225,078	60.8	224,960	60.8	118	92.9	0	0.0	0	0.0
65+	121,624	32.8	121,613	32.9	9	7.1	2	28.6	0	0.0
Epogen	482,539	100.0	482,343	100.0	97	100.0	92	100.0	7	100.0
00-17	3,823	0.8	3,787	0.8	19	19.6	17	18.5	0	0.0
18-24	5,335	1.1	5,335	1.1	0	0.0	0	0.0	0	0.0
25-40	24,264	5.0	24,263	5.0	0	0.0	1	1.1	0	0.0
41-64	213,992	44.3	213,954	44.4	17	17.5	21	22.8	0	0.0
65+	235,125	48.7	235,004	48.7	61	62.9	53	57.6	7	100.0
Inflectra	22,204	100.0	21,906	100.0	286	100.0	12	100.0	0	0.0
00-17	1,959	8.8	1,940	8.9	19	6.6	0	0.0	0	0.0
18-24	3,042	13.7	3,027	13.8	14	4.9	1	8.3	0	0.0
25-40	5,116	23.0	5,061	23.1	55	19.2	0	0.0	0	0.0
41-64	10,346	46.6	10,155	46.4	180	62.9	11	91.7	0	0.0
65+	1,741	7.8	1,723	7.9	18	6.3	0	0.0	0	0.0
Mvasi	18,145	100.0	18,145	100.0	0	0.0	0	0.0	0	0.0
00-17	75	0.4	75	0.4	0	0.0	0	0.0	0	0.0
18-24	58	0.3	58	0.3	0	0.0	0	0.0	0	0.0
25-40	1,188	6.5	1,188	6.5	0	0.0	0	0.0	0	0.0
41-64	13,987	77.1	13,987	77.1	0	0.0	0	0.0	0	0.0
65+	2,837	15.6	2,837	15.6	0	0.0	0	0.0	0	0.0
Neupogen	73,086	100.0	72,846	100.0	158	100.0	78	100.0	4	100.0
00-17	3,249	4.4	3,192	4.4	34	21.5	22	28.2	1	25.0
18-24	1,273	1.7	1,267	1.7	3	1.9	3	3.8	0	0.0
25-40	5,877	8.0	5,861	8.0	13	8.2	3	3.8	0	0.0
41-64	42,946	58.8	42,830	58.8	82	51.9	32	41.0	2	50.0
65+	19,741	27.0	19,696	27.0	26	16.5	18	23.1	1	25.0
Remicade	203,124	100.0	195,161	100.0	7,790	100.0	153	100.0	20	100.0
00-17	35,820	17.6	34,844	17.9	961	12.3	15	9.8	0	0.0
18-24	22,515	11.1	21,703	11.1	795	10.2	16	10.5	1	5.0
25-40	46,731	23.0	44,831	23.0	1,844	23.7	46	30.1	10	50.0
41-64	87,852	43.3	83,833	43.0	3,941	50.6	70	45.8	8	40.0
65+	10,206	5.0	9,950	5.1	249	3.2	6	3.9	1	5.0
Renflexis	6,942	100.0	6,866	100.0	74	100.0	2	100.0	0	0.0



Table 10c: Distribution of days supplied per dispensing, by length categories, by age group (years)											
Exposures	Total Dispensings		1-30		31-60		61-90		91+		
	N	%	N	%	N	%	N	%	N	%	
00-17	429	6.2	428	6.2	1	1.4	0	0.0	0	0.0	
18-24	567	8.2	560	8.2	7	9.5	0	0.0	0	0.0	
25-40	1,287	18.5	1,268	18.5	19	25.7	0	0.0	0	0.0	
41-64	3,113	44.8	3,064	44.6	47	63.5	2	100.0	0	0.0	
65+	1,546	22.3	1,546	22.5	0	0.0	0	0.0	0	0.0	
Retacrit	33,571	100.0	33,450	100.0	61	100.0	57	100.0	3	100.0	
00-17	420	1.3	405	1.2	14	23.0	0	0.0	1	33.3	
18-24	572	1.7	570	1.7	0	0.0	2	3.5	0	0.0	
25-40	1,438	4.3	1,433	4.3	4	6.6	1	1.8	0	0.0	
41-64	15,499	46.2	15,450	46.2	18	29.5	29	50.9	2	66.7	
65+	15,642	46.6	15,592	46.6	25	41.0	25	43.9	0	0.0	
Zarxio	84,990	100.0	84,828	100.0	72	100.0	88	100.0	2	100.0	
00-17	661	0.8	658	0.8	3	4.2	0	0.0	0	0.0	
18-24	1,625	1.9	1,624	1.9	1	1.4	0	0.0	0	0.0	
25-40	7,629	9.0	7,606	9.0	8	11.1	14	15.9	1	50.0	
41-64	57,086	67.2	56,980	67.2	53	73.6	52	59.1	1	50.0	
65+	17,989	21.2	17,960	21.2	7	9.7	22	25.0	0	0.0	
Zirabev	2,766	100.0	2,766	100.0	0	0.0	0	0.0	0	0.0	
00-17	35	1.3	35	1.3	0	0.0	0	0.0	0	0.0	
18-24	11	0.4	11	0.4	0	0.0	0	0.0	0	0.0	
25-40	133	4.8	133	4.8	0	0.0	0	0.0	0	0.0	
41-64	1,898	68.6	1,898	68.6	0	0.0	0	0.0	0	0.0	
65+	689	24.9	689	24.9	0	0.0	0	0.0	0	0.0	

Table 11a: Descriptive statistics of days supplied per dispensing								
Exposures	Total Dispensings	Mean	STD	Min	Q1	Median	Q3	Max
Avastin	370,333	1.07	1.46	1	1	1	1	90
Epogen	482,539	1.11	1.99	1	1	1	1	168
Inflectra	22,204	2.21	6.79	1	1	1	1	84
Mvasi	18,145	1.02	0.72	1	1	1	1	28
Neupogen	73,086	3.12	6.98	1	1	1	1	270
Remicade	203,124	3.77	10.70	1	1	1	1	280
Renflexis	6,942	2.27	6.70	1	1	1	1	84
Retacrit	33,571	2.61	7.09	1	1	1	1	168
Zarxio	84,990	2.94	6.54	1	1	1	1	110
Zirabev	2,766	1.00	0.00	1	1	1	1	1

Table 11b: Descriptive statistics of days supplied per dispensing, by sex									
Exposures	Total Dispensings	Mean	STD	Min	Q1	Median	Q3	Max	
Avastin	370,333	1.07	1.46	1	1	1	1	90	
Female	195,784	1.08	1.60	1	1	1	1	90	
Male	174,549	1.06	1.29	1	1	1	1	84	
Epogen	482,539	1.11	1.99	1	1	1	1	168	
Female	202,278	1.14	2.18	1	1	1	1	105	
Male	280,261	1.09	1.84	1	1	1	1	168	
Inflectra	22,204	2.21	6.79	1	1	1	1	84	
Female	11,939	2.21	6.78	1	1	1	1	84	
Male	10,265	2.21	6.80	1	1	1	1	70	
Mvasi	18,145	1.02	0.72	1	1	1	1	28	
Female	10,038	1.03	0.90	1	1	1	1	28	
Male	8,107	1.01	0.39	1	1	1	1	28	
Neupogen	73,086	3.12	6.98	1	1	1	1	270	
Female	43,997	3.28	7.16	1	1	1	1	90	
Male	29,089	2.89	6.69	1	1	1	1	270	
Remicade	203,124	3.77	10.70	1	1	1	1	280	
Female	113,495	3.74	10.61	1	1	1	1	280	
Male	89,629	3.82	10.82	1	1	1	1	168	
Renflexis	6,942	2.27	6.70	1	1	1	1	84	
Female	3,686	2.59	7.71	1	1	1	1	84	
Male	3,256	1.90	5.30	1	1	1	1	56	
Retacrit	33,571	2.61	7.09	1	1	1	1	168	
Female	16,133	2.52	6.95	1	1	1	1	93	
Male	17,438	2.70	7.21	1	1	1	1	168	
Zarxio	84,990	2.94	6.54	1	1	1	1	110	
Female	53,552	3.06	6.77	1	1	1	1	105	
Male	31,438	2.72	6.13	1	1	1	1	110	
Zirabev	2,766	1.00	0.00	1	1	1	1	1	
Female	1,428	1.00	0.00	1	1	1	1	1	
Male	1,338	1.00	0.00	1	1	1	1	1	

Table 11c: Descriptive statistics of days supplied per dispensing, by age group (years)									
Exposures	Total Dispensings	Mean	STD	Min	Q1	Median	Q3	Max	
Avastin	370,333	1.07	1.46	1	1	1	1	90	
00-17 (years)	1,713	1.03	0.86	1	1	1	1	28	
18-24	1,570	1.02	0.68	1	1	1	1	28	
25-40	20,348	1.06	1.71	1	1	1	1	90	
41-64	225,078	1.08	1.62	1	1	1	1	60	
65+	121,624	1.04	1.08	1	1	1	1	84	
Epogen	482,539	1.11	1.99	1	1	1	1	168	
00-17	3,823	3.08	8.40	1	1	1	1	90	
18-24	5,335	1.16	2.09	1	1	1	1	30	
25-40	24,264	1.06	1.35	1	1	1	1	84	
41-64	213,992	1.06	1.49	1	1	1	1	90	
65+	235,125	1.12	2.15	1	1	1	1	168	
Inflectra	22,204	2.21	6.79	1	1	1	1	84	
00-17	1,959	1.75	5.38	1	1	1	1	56	
18-24	3,042	1.65	5.05	1	1	1	1	84	
25-40	5,116	1.89	5.61	1	1	1	1	56	
41-64	10,346	2.72	8.05	1	1	1	1	84	
65+	1,741	1.68	5.56	1	1	1	1	56	
Mvasi	18,145	1.02	0.72	1	1	1	1	28	
00-17	75	1.00	0.00	1	1	1	1	1	
18-24	58	1.00	0.00	1	1	1	1	1	
25-40	1,188	1.00	0.00	1	1	1	1	1	
41-64	13,987	1.00	0.30	1	1	1	1	28	
65+	2,837	1.11	1.69	1	1	1	1	28	
Neupogen	73,086	3.12	6.98	1	1	1	1	270	
00-17	3,249	9.65	13.21	1	1	1	20	270	
18-24	1,273	5.81	9.93	1	1	1	3	84	
25-40	5,877	3.24	6.84	1	1	1	1	90	
41-64	42,946	2.94	6.55	1	1	1	1	126	
65+	19,741	2.24	5.45	1	1	1	1	120	
Remicade	203,124	3.77	10.70	1	1	1	1	280	
00-17	35,820	3.10	9.06	1	1	1	1	90	
18-24	22,515	3.47	10.29	1	1	1	1	224	
25-40	46,731	3.78	10.83	1	1	1	1	168	
41-64	87,852	4.23	11.50	1	1	1	1	280	
65+	10,206	2.80	8.80	1	1	1	1	224	
Renflexis	6,942	2.27	6.70	1	1	1	1	84	
00-17	429	1.33	3.10	1	1	1	1	42	

Table 11c: Descriptive statistics of days supplied per dispensing, by age group (years)									
Exposures	Total Dispensings	Mean	STD	Min	Q1	Median	Q3	Max	
18-24	567	3.08	8.01	1	1	1	1	56	
25-40	1,287	2.37	6.77	1	1	1	1	56	
41-64	3,113	2.82	8.15	1	1	1	1	84	
65+	1,546	1.02	0.74	1	1	1	1	30	
Retacrit	33,571	2.61	7.09	1	1	1	1	168	
00-17	420	8.85	15.06	1	1	1	14	135	
18-24	572	2.95	8.00	1	1	1	1	84	
25-40	1,438	2.72	6.84	1	1	1	1	70	
41-64	15,499	3.08	7.90	1	1	1	1	168	
65+	15,642	1.97	5.62	1	1	1	1	90	
Zarxio	84,990	2.94	6.54	1	1	1	1	110	
00-17	661	9.89	10.03	1	1	7	15	40	
18-24	1,625	4.44	8.33	1	1	1	1	56	
25-40	7,629	3.71	7.85	1	1	1	1	110	
41-64	57,086	3.07	6.66	1	1	1	1	105	
65+	17,989	1.81	4.65	1	1	1	1	84	
Zirabev	2,766	1.00	0.00	1	1	1	1	1	
00-17	35	1.00	0.00	1	1	1	1	1	
18-24	11	1.00	0.00	1	1	1	1	1	
25-40	133	1.00	0.00	1	1	1	1	1	
41-64	1,898	1.00	0.00	1	1	1	1	1	
65+	689	1.00	0.00	1	1	1	1	1	

Table 12a: Descriptive statistics of the length of the first gap between treatment episodes, in days								
Exposures	Total Gaps	Mean	STD	Min	Q1	Median	Q3	Max
Avastin	50,701	60.84	125.68	1	20	31	42	1,900
Epogen	15,636	31.56	96.40	1	4	8	26	1,793
Inflectra	2,953	40.23	40.26	1	13	41	55	692
Mvasi	2,308	20.81	19.65	1	13	19	20	400
Neupogen	7,060	37.34	100.32	1	4	12	27	1,534
Remicade	18,991	26.82	44.90	1	13	13	27	1,456
Renflexis	906	38.03	45.28	1	13	34	55	783
Retacrit	2,630	25.56	49.58	1	6	13	27	651
Zarxio	7,584	31.72	86.97	1	4	11	24	1,393
Zirabev	477	18.78	8.00	10	13	19	20	71

Table 12b: Descriptive statistics of the length of the first gap between treatment episodes, in days, by sex								
Exposures	Total Gaps	Mean	STD	Min	Q1	Median	Q3	Max
Avastin	50,701	60.84	125.68	1	20	31	42	1,900
Female	26,333	59.62	124.03	1	20	31	41	1,900
Male	24,368	62.15	127.43	1	20	32	43	1,763
Epogen	15,636	31.56	96.40	1	4	8	26	1,793
Female	7,126	34.70	101.57	1	6	10	27	1,539
Male	8,510	28.94	91.76	1	2	7	23	1,793
Inflectra	2,953	40.23	40.26	1	13	41	55	692
Female	1,582	37.62	32.21	1	13	35	55	593
Male	1,371	43.24	47.74	1	14	41	55	692
Mvasi	2,308	20.81	19.65	1	13	19	20	400
Female	1,312	21.66	19.52	6	13	20	20	400
Male	996	19.69	19.78	1	13	13	20	345
Neupogen	7,060	37.34	100.32	1	4	12	27	1,534
Female	4,290	36.67	100.97	1	4	12	26	1,377
Male	2,770	38.36	99.30	1	3	12	27	1,534
Remicade	18,991	26.82	44.90	1	13	13	27	1,456
Female	10,789	26.44	45.67	1	13	13	27	1,351
Male	8,202	27.33	43.86	1	13	13	27	1,456
Renflexis	906	38.03	45.28	1	13	34	55	783
Female	485	37.76	55.17	1	13	27	55	783
Male	421	38.34	30.17	1	13	41	55	391
Retacrit	2,630	25.56	49.58	1	6	13	27	651
Female	1,314	24.47	41.82	1	6	13	27	417
Male	1,316	26.65	56.27	1	6	13	27	651
Zarxio	7,584	31.72	86.97	1	4	11	24	1,393
Female	4,804	29.92	83.90	1	4	11	22	1,261
Male	2,780	34.83	91.96	1	4	12	27	1,393
Zirabev	477	18.78	8.00	10	13	19	20	71
Female	266	19.26	7.35	10	13	20	20	50
Male	211	18.17	8.73	10	13	13	20	71

Table 12c: Descriptive statistics of the length of the first gap between treatment episodes, in days, by age group (years)								
Exposures	Total Gaps	Mean	STD	Min	Q1	Median	Q3	Max
Avastin	50,701	60.84	125.68	1	20	31	42	1,900
00-17 (years)	193	43.51	66.65	6	13	20	43	498
18-24	245	59.72	122.54	2	20	29	41	1,189
25-40	2,880	63.01	131.24	1	19	28	42	1,895
41-64	30,317	60.41	127.81	1	20	29	41	1,763
65+	17,066	61.44	121.38	1	27	34	45	1,900
Epogen	15,636	31.56	96.40	1	4	8	26	1,793
00-17	135	35.19	94.27	1	2	6	24	754
18-24	128	24.84	68.53	1	2	6	24	628
25-40	714	36.63	114.76	1	2	8	27	1,206
41-64	6,942	32.47	97.71	1	4	8	27	1,622
65+	7,717	30.33	93.74	1	5	7	24	1,793
Inflectra	2,953	40.23	40.26	1	13	41	55	692
00-17	247	35.33	43.34	6	13	27	49	427
18-24	400	43.80	49.63	2	16	41	55	610
25-40	697	38.71	26.88	3	13	41	55	304
41-64	1,317	40.47	41.88	1	13	41	55	692
65+	292	42.00	42.11	5	13	41	55	455
Mvasi	2,308	20.81	19.65	1	13	19	20	400
00-17	9	19.89	11.36	11	13	13	24	46
18-24	8	16.63	4.90	12	13	15	20	26
25-40	156	22.38	16.71	7	13	20	26	132
41-64	1,752	20.72	20.84	1	13	16	20	400
65+	383	20.66	14.93	6	13	20	20	133
Neupogen	7,060	37.34	100.32	1	4	12	27	1,534
00-17	377	37.84	88.49	1	5	10	32	823
18-24	147	37.29	88.01	1	6	14	27	863
25-40	611	33.48	92.38	1	4	11	25	1,070
41-64	4,208	37.42	101.28	1	4	12	27	1,534
65+	1,717	38.41	104.08	1	4	12	25	1,393
Remicade	18,991	26.82	44.90	1	13	13	27	1,456
00-17	2,593	26.27	47.07	1	13	14	27	1,456
18-24	2,152	29.47	42.21	1	13	14	34	962
25-40	4,618	25.97	40.47	1	13	13	27	852
41-64	8,494	25.95	44.44	1	13	13	26	1,351
65+	1,134	33.03	61.60	1	13	14	41	1,272
Renflexis	906	38.03	45.28	1	13	34	55	783
00-17	54	33.28	18.33	4	14	28	55	62



Table 12c: Descriptive statistics of the length of the first gap between treatment episodes, in days, by age group (years)								
Exposures	Total Gaps	Mean	STD	Min	Q1	Median	Q3	Max
18-24	80	37.61	32.69	4	13	37	55	245
25-40	168	32.14	20.68	3	13	27	55	91
41-64	407	38.79	50.27	1	13	29	55	783
65+	197	42.94	57.30	11	13	41	55	774
Retacrit	2,630	25.56	49.58	1	6	13	27	651
00-17	20	38.05	85.35	1	2	10	37	384
18-24	21	52.48	118.95	1	2	10	30	486
25-40	92	22.61	49.24	1	4	6	23	358
41-64	1,117	27.48	58.57	1	6	13	27	651
65+	1,380	23.61	37.74	1	6	13	27	411
Zarxio	7,584	31.72	86.97	1	4	11	24	1,393
00-17	90	43.42	112.64	1	6	14	29	824
18-24	152	28.27	80.28	1	3	11	25	881
25-40	753	29.99	80.20	1	4	11	25	870
41-64	5,223	32.19	87.19	1	4	11	24	1,261
65+	1,366	30.48	88.55	1	3	9	23	1,393
Zirabev	477	18.78	8.00	10	13	19	20	71
00-17	8	13.63	0.92	13	13	13	15	15
18-24	2	16.50	4.95	13	13	17	20	20
25-40	22	18.82	6.97	11	13	20	20	41
41-64	327	18.34	7.79	10	13	14	20	71
65+	118	20.36	8.79	12	13	20	20	63



Table 13a: Descriptive statistics of the length of second and subsequent gaps between treatment episodes, in days

Exposures	Total Gaps	Mean	STD	Min	Q1	Median	Q3	Max
Avastin	251,879	49.46	86.12	1	18	29	48	1,931
Epogen	442,679	8.78	36.21	1	1	2	6	1,658
Inflectra	15,356	48.71	29.33	1	40	48	55	1,015
Mvasi	13,201	20.73	21.59	1	13	13	20	440
Neupogen	23,477	21.33	64.88	1	4	6	17	1,685
Remicade	154,216	49.15	41.48	1	34	48	55	1,585
Renflexis	4,871	48.32	20.32	1	40	50	55	369
Retacrit	25,850	11.65	22.82	1	2	6	13	669
Zarxio	28,817	18.76	56.60	1	4	6	15	1,630
Zirabev	1,711	18.16	11.86	2	13	13	20	263

Table 13b: Descriptive statistics of the length of second and subsequent gaps between treatment episodes, in days, by sex								
Exposures	Total Gaps	Mean	STD	Min	Q1	Median	Q3	Max
Avastin	251,879	49.46	86.12	1	18	29	48	1,931
Female	134,626	48.83	85.17	1	20	29	48	1,875
Male	117,253	50.19	87.19	1	14	30	48	1,931
Epogen	442,679	8.78	36.21	1	1	2	6	1,658
Female	184,026	9.83	39.55	1	1	2	6	1,617
Male	258,653	8.04	33.61	1	1	2	6	1,658
Inflectra	15,356	48.71	29.33	1	40	48	55	1,015
Female	8,272	47.79	27.42	1	37	48	55	954
Male	7,084	49.78	31.39	1	41	53	55	1,015
Mvasi	13,201	20.73	21.59	1	13	13	20	440
Female	7,206	21.22	21.12	1	13	19	20	434
Male	5,995	20.14	22.13	1	13	13	20	440
Neupogen	23,477	21.33	64.88	1	4	6	17	1,685
Female	14,263	21.27	66.76	1	4	6	16	1,685
Male	9,214	21.43	61.85	1	4	7	17	1,120
Remicade	154,216	49.15	41.48	1	34	48	55	1,585
Female	85,880	48.54	42.47	1	34	46	55	1,585
Male	68,336	49.91	40.19	1	39	52	55	1,486
Renflexis	4,871	48.32	20.32	1	40	50	55	369
Female	2,554	46.81	19.98	1	34	46	55	299
Male	2,317	49.99	20.57	1	41	55	55	369
Retacrit	25,850	11.65	22.82	1	2	6	13	669
Female	12,381	12.28	23.97	1	2	6	13	602
Male	13,469	11.08	21.69	1	2	6	13	669
Zarxio	28,817	18.76	56.60	1	4	6	15	1,630
Female	18,946	18.32	52.53	1	4	6	15	1,182
Male	9,871	19.61	63.69	1	3	7	16	1,630
Zirabev	1,711	18.16	11.86	2	13	13	20	263
Female	835	18.73	12.49	6	13	17	20	263
Male	876	17.62	11.20	2	13	13	20	181

Table 13c: Descriptive statistics of the length of second and subsequent gaps between treatment episodes, in days, by age group (years)								
Exposures	Total Gaps	Mean	STD	Min	Q1	Median	Q3	Max
Avastin	251,879	49.46	86.12	1	18	29	48	1,931
00-17 (years)	1,261	26.39	45.04	2	13	13	20	839
18-24	982	41.77	60.21	2	13	27	41	797
25-40	13,452	46.68	85.24	1	13	27	41	1,771
41-64	154,389	45.65	81.96	1	13	27	41	1,931
65+	81,795	57.57	93.74	1	27	39	57	1,854
Epogen	442,679	8.78	36.21	1	1	2	6	1,658
00-17	3,308	7.48	39.67	1	1	2	2	1,121
18-24	4,959	6.59	29.33	1	1	2	3	1,111
25-40	22,317	7.93	31.74	1	1	2	6	1,478
41-64	196,016	8.56	32.60	1	1	2	6	1,617
65+	216,079	9.14	39.67	1	1	2	6	1,658
Inflectra	15,356	48.71	29.33	1	40	48	55	1,015
00-17	1,408	43.48	18.49	1	27	41	55	306
18-24	2,148	49.69	31.19	1	38	52	55	671
25-40	3,527	49.15	32.50	1	41	51	55	954
41-64	7,183	48.67	27.03	1	41	48	55	539
65+	1,090	52.30	38.54	1	41	55	55	1,015
Mvasi	13,201	20.73	21.59	1	13	13	20	440
00-17	56	15.46	7.72	12	13	13	13	54
18-24	41	20.24	12.71	11	13	13	21	76
25-40	861	21.95	20.86	1	13	15	20	272
41-64	10,250	20.84	22.42	1	13	13	20	440
65+	1,993	19.81	17.53	1	13	13	20	321
Neupogen	23,477	21.33	64.88	1	4	6	17	1,685
00-17	1,213	25.94	63.14	1	5	9	22	854
18-24	348	25.25	55.80	1	4	9	20	444
25-40	1,752	19.20	62.96	1	3	6	14	1,164
41-64	12,943	22.04	66.10	1	4	6	17	1,456
65+	7,221	19.61	63.75	1	4	6	16	1,685
Remicade	154,216	49.15	41.48	1	34	48	55	1,585
00-17	28,936	45.85	35.60	1	31	44	55	1,486
18-24	17,144	50.75	41.98	1	37	53	55	1,398
25-40	35,073	49.90	42.76	1	36	51	55	1,585
41-64	65,522	49.05	38.87	1	35	48	55	1,458
65+	7,541	55.58	67.80	1	41	55	55	1,384
Renflexis	4,871	48.32	20.32	1	40	50	55	369
00-17	315	46.61	18.93	14	31	48	55	188



Table 13c: Descriptive statistics of the length of second and subsequent gaps between treatment episodes, in days, by age group (years)								
Exposures	Total Gaps	Mean	STD	Min	Q1	Median	Q3	Max
18-24	375	50.22	23.48	9	39	54	55	193
25-40	889	49.62	18.02	1	41	55	55	280
41-64	2,165	47.83	21.72	1	39	48	55	369
65+	1,127	48.08	18.34	13	41	48	55	209
Retacrit	25,850	11.65	22.82	1	2	6	13	669
00-17	315	6.17	25.23	1	1	2	2	357
18-24	482	4.06	12.17	1	1	1	2	134
25-40	1,114	7.80	19.07	1	1	2	6	377
41-64	12,025	10.21	23.24	1	1	4	11	602
65+	11,914	13.92	22.72	1	6	6	14	669
Zarxio	28,817	18.76	56.60	1	4	6	15	1,630
00-17	175	16.78	29.26	1	3	8	17	208
18-24	502	15.60	35.12	1	3	6	14	507
25-40	2,221	19.61	50.00	1	4	8	17	810
41-64	18,658	19.89	60.96	1	4	7	16	1,630
65+	7,261	15.88	47.78	1	4	6	13	1,099
Zirabev	1,711	18.16	11.86	2	13	13	20	263
00-17	19	16.79	11.96	13	13	13	13	64
18-24	5	20.00	8.57	13	13	20	20	34
25-40	81	19.36	8.99	12	13	20	20	62
41-64	1,178	17.69	10.45	2	13	13	20	181
65+	428	19.27	15.43	11	13	20	20	263

Table 14a: Descriptive statistics of the length of all gaps between treatment episodes, in days								
Exposures	Total Gaps	Mean	STD	Min	Q1	Median	Q3	Max
Avastin	302,580	51.37	94.01	1	20	30	48	1,931
Epogen	458,315	9.56	40.01	1	1	2	6	1,793
Inflectra	18,309	47.34	31.51	1	34	48	55	1,015
Mvasi	15,509	20.74	21.31	1	13	14	20	440
Neupogen	30,537	25.03	74.88	1	4	7	19	1,685
Remicade	173,207	46.70	42.44	1	28	44	55	1,585
Renflexis	5,777	46.71	26.14	1	34	48	55	783
Retacrit	28,480	12.94	26.75	1	2	6	13	669
Zarxio	36,401	21.46	64.34	1	4	7	17	1,630
Zirabev	2,188	18.29	11.13	2	13	13	20	263

Table 14b: 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
Avastin	302,580	51.37	94.01	1	20	30	48	1,931
Female	160,959	50.60	92.74	1	20	29	48	1,900
Male	141,621	52.25	95.44	1	15	31	48	1,931
Epogen	458,315	9.56	40.01	1	1	2	6	1,793
Female	191,152	10.76	43.73	1	1	2	6	1,617
Male	267,163	8.70	37.09	1	1	2	6	1,793
Inflectra	18,309	47.34	31.51	1	34	48	55	1,015
Female	9,854	46.16	28.49	1	31	45	55	954
Male	8,455	48.72	34.65	1	37	50	55	1,015
Mvasi	15,509	20.74	21.31	1	13	14	20	440
Female	8,518	21.29	20.88	1	13	19	20	434
Male	6,991	20.08	21.81	1	13	13	20	440
Neupogen	30,537	25.03	74.88	1	4	7	19	1,685
Female	18,553	24.83	76.32	1	4	7	19	1,685
Male	11,984	25.34	72.60	1	4	8	19	1,534
Remicade	173,207	46.70	42.44	1	28	44	55	1,585
Female	96,669	46.07	43.40	1	27	42	55	1,585
Male	76,538	47.49	41.20	1	29	48	55	1,486
Renflexis	5,777	46.71	26.14	1	34	48	55	783
Female	3,039	45.36	28.83	1	28	42	55	783
Male	2,738	48.20	22.70	1	41	54	55	391
Retacrit	28,480	12.94	26.75	1	2	6	13	669
Female	13,695	13.45	26.46	1	2	6	13	602
Male	14,785	12.47	27.01	1	2	6	13	669
Zarxio	36,401	21.46	64.34	1	4	7	17	1,630
Female	23,750	20.67	60.39	1	4	7	16	1,261
Male	12,651	22.96	71.15	1	3	8	18	1,630
Zirabev	2,188	18.29	11.13	2	13	13	20	263
Female	1,101	18.86	11.46	6	13	20	20	263
Male	1,087	17.72	10.76	2	13	13	20	181

Table 14c: 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
Avastin	302,580	51.37	94.01	1	20	30	48	1,931
00-17 (years)	1,454	28.66	48.78	2	13	13	27	839
18-24	1,227	45.35	77.07	2	14	27	41	1,189
25-40	16,332	49.56	95.18	1	13	27	41	1,895
41-64	184,706	48.07	91.24	1	13	27	41	1,931
65+	98,861	58.24	99.08	1	27	35	55	1,900
Epogen	458,315	9.56	40.01	1	1	2	6	1,793
00-17	3,443	8.56	43.44	1	1	2	2	1,121
18-24	5,087	7.05	31.05	1	1	2	4	1,111
25-40	23,031	8.82	37.53	1	1	2	6	1,478
41-64	202,958	9.38	37.04	1	1	2	6	1,622
65+	223,796	9.87	42.86	1	1	2	6	1,793
Inflectra	18,309	47.34	31.51	1	34	48	55	1,015
00-17	1,655	42.26	24.05	1	27	41	55	427
18-24	2,548	48.76	34.79	1	34	50	55	671
25-40	4,224	47.43	31.87	1	34	48	55	954
41-64	8,500	47.40	29.96	1	36	48	55	692
65+	1,382	50.13	39.53	1	40	55	55	1,015
Mvasi	15,509	20.74	21.31	1	13	14	20	440
00-17	65	16.08	8.35	11	13	13	13	54
18-24	49	19.65	11.83	11	13	14	20	76
25-40	1,017	22.02	20.27	1	13	18	21	272
41-64	12,002	20.82	22.20	1	13	14	20	440
65+	2,376	19.95	17.14	1	13	14	20	321
Neupogen	30,537	25.03	74.88	1	4	7	19	1,685
00-17	1,590	28.76	70.14	1	5	9	24	854
18-24	495	28.82	67.13	1	4	11	22	863
25-40	2,363	22.89	71.98	1	3	6	17	1,164
41-64	17,151	25.81	76.53	1	4	7	19	1,534
65+	8,938	23.22	73.60	1	4	7	18	1,685
Remicade	173,207	46.70	42.44	1	28	44	55	1,585
00-17	31,529	44.24	37.07	1	28	42	55	1,486
18-24	19,296	48.37	42.53	1	29	48	55	1,398
25-40	39,691	47.11	43.19	1	28	47	55	1,585
41-64	74,016	46.40	40.23	1	28	43	55	1,458
65+	8,675	52.63	67.44	1	32	52	55	1,384
Renflexis	5,777	46.71	26.14	1	34	48	55	783
00-17	369	44.66	19.40	4	28	48	55	188



Table 14c: 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	
18-24	455	48.01	25.75	4	29	51	55	245	
25-40	1,057	46.85	19.54	1	41	55	55	280	
41-64	2,572	46.40	28.41	1	33	46	55	783	
65+	1,324	47.31	27.86	11	35	46	55	774	
Retacrit	28,480	12.94	26.75	1	2	6	13	669	
00-17	335	8.08	32.71	1	1	2	2	384	
18-24	503	6.08	28.28	1	1	1	2	486	
25-40	1,206	8.93	23.12	1	1	2	6	377	
41-64	13,142	11.68	28.44	1	1	6	13	651	
65+	13,294	14.93	24.88	1	6	6	14	669	
Zarxio	36,401	21.46	64.34	1	4	7	17	1,630	
00-17	265	25.83	70.72	1	4	9	22	824	
18-24	654	18.54	49.65	1	3	6	16	881	
25-40	2,974	22.24	59.28	1	4	9	18	870	
41-64	23,881	22.58	67.76	1	4	8	18	1,630	
65+	8,627	18.19	56.48	1	4	6	13	1,393	
Zirabev	2,188	18.29	11.13	2	13	13	20	263	
00-17	27	15.85	10.07	13	13	13	13	64	
18-24	7	19.00	7.48	13	13	20	20	34	
25-40	103	19.24	8.57	11	13	20	20	62	
41-64	1,505	17.83	9.93	2	13	13	20	181	
65+	546	19.51	14.26	11	13	20	20	263	



Table 15: Counts of reason for censoring, all episodes and first episode										
	Total		Disenrollment		Evidence of death		DP/Query end date		Episode end	
	N	%	N	%	N	%	N	%	N	%
Exposures										
Avastin	369,055	100.0	404	0.1	0	0.0	187	0.1	369,055	100.0
Epogen	477,938	100.0	762	0.2	0	0.0	278	0.1	477,938	100.0
Inflectra	21,770	100.0	149	0.7	0	0.0	122	0.6	21,770	100.0
Mvasi	18,135	100.0	88	0.5	0	0.0	67	0.4	18,135	100.0
Neupogen	44,620	100.0	210	0.5	2	0.0	20	0.0	44,618	100.0
Remicade	193,879	100.0	1,044	0.5	0	0.0	468	0.2	193,879	100.0
Renflexis	6,845	100.0	43	0.6	0	0.0	30	0.4	6,845	100.0
Retacrit	32,326	100.0	267	0.8	0	0.0	174	0.5	32,326	100.0
Zarxio	49,911	100.0	343	0.7	0	0.0	153	0.3	49,911	100.0
Zirabev	2,766	100.0	26	0.9	0	0.0	23	0.8	2,766	100.0
Patients' First Episode										
Avastin	66,475	100.0	63	0.1	0	0.0	24	0.0	66,475	100.0
Epogen	19,623	100.0	43	0.2	0	0.0	4	0.0	19,623	100.0
Inflectra	3,461	100.0	21	0.6	0	0.0	17	0.5	3,461	100.0
Mvasi	2,626	100.0	6	0.2	0	0.0	4	0.2	2,626	100.0
Neupogen	14,083	100.0	77	0.5	0	0.0	5	0.0	14,083	100.0
Remicade	20,672	100.0	124	0.6	0	0.0	51	0.2	20,672	100.0
Renflexis	1,068	100.0	5	0.5	0	0.0	4	0.4	1,068	100.0
Retacrit	3,846	100.0	67	1.7	0	0.0	40	1.0	3,846	100.0
Zarxio	13,510	100.0	121	0.9	0	0.0	48	0.4	13,510	100.0
Zirabev	578	100.0	5	0.9	0	0.0	3	0.5	578	100.0

Table 16: Cohort Attrition Table	
Attrition Criteria	Members
Avastin	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	62,327,014 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must satisfy the age range condition within the query period	58,455,915 (93.8%)
Exclusion - Members must meet chart availability criterion within the query period	58,455,915 (93.8%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	58,455,915 (93.8%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	89,826 (0.1%)
Exclusion - Members must have at least one cohort episode index date within the age range condition	89,826 (0.1%)
Exclusion - Members must have at least one episode defining index claim during the query period	81,786 (0.1%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	81,786 (0.1%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	66,475 (0.1%)
Exclusion - Members must have at least one cohort episode satisfying all exclusion and inclusion criteria	66,475 (0.1%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	66,475 (0.1%)
Epogen	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	62,327,014 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must satisfy the age range condition within the query period	58,455,915 (93.8%)
Exclusion - Members must meet chart availability criterion within the query period	58,455,915 (93.8%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	58,455,915 (93.8%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	31,641 (0.1%)
Exclusion - Members must have at least one cohort episode index date within the age range condition	31,641 (0.1%)
Exclusion - Members must have at least one episode defining index claim during the query period	24,622 (0.0%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	24,622 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	19,623 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying all exclusion and inclusion criteria	19,623 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	19,623 (0.0%)
Inflectra	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	62,327,014 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must satisfy the age range condition within the query period	58,455,915 (93.8%)
Exclusion - Members must meet chart availability criterion within the query period	58,455,915 (93.8%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	58,455,915 (93.8%)

Table 16: Cohort Attrition Table	
Attrition Criteria	Members
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	4,341 (0.0%)
Exclusion - Members must have at least one cohort episode index date within the age range condition	4,341 (0.0%)
Exclusion - Members must have at least one episode defining index claim during the query period	4,341 (0.0%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	4,341 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	3,461 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying all exclusion and inclusion criteria	3,461 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	3,461 (0.0%)
Mvasi	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	62,327,014 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must satisfy the age range condition within the query period	58,455,915 (93.8%)
Exclusion - Members must meet chart availability criterion within the query period	58,455,915 (93.8%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	58,455,915 (93.8%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	3,172 (0.0%)
Exclusion - Members must have at least one cohort episode index date within the age range condition	3,172 (0.0%)
Exclusion - Members must have at least one episode defining index claim during the query period	3,172 (0.0%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	3,172 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	2,626 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying all exclusion and inclusion criteria	2,626 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	2,626 (0.0%)
Neupogen	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	62,327,014 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must satisfy the age range condition within the query period	58,455,915 (93.8%)
Exclusion - Members must meet chart availability criterion within the query period	58,455,915 (93.8%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	58,455,915 (93.8%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	17,134 (0.0%)
Exclusion - Members must have at least one cohort episode index date within the age range condition	17,134 (0.0%)
Exclusion - Members must have at least one episode defining index claim during the query period	15,961 (0.0%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	15,961 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	14,083 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying all exclusion and inclusion criteria	14,083 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	14,083 (0.0%)
Remicade	

Table 16: Cohort Attrition Table	
Attrition Criteria	Members
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	62,327,014 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must satisfy the age range condition within the query period	58,455,915 (93.8%)
Exclusion - Members must meet chart availability criterion within the query period	58,455,915 (93.8%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	58,455,915 (93.8%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	53,892 (0.1%)
Exclusion - Members must have at least one cohort episode index date within the age range condition	53,892 (0.1%)
Exclusion - Members must have at least one episode defining index claim during the query period	40,023 (0.1%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	40,023 (0.1%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	20,672 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying all exclusion and inclusion criteria	20,672 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	20,672 (0.0%)
Renflexis	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	62,327,014 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must satisfy the age range condition within the query period	58,455,915 (93.8%)
Exclusion - Members must meet chart availability criterion within the query period	58,455,915 (93.8%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	58,455,915 (93.8%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	1,371 (0.0%)
Exclusion - Members must have at least one cohort episode index date within the age range condition	1,371 (0.0%)
Exclusion - Members must have at least one episode defining index claim during the query period	1,371 (0.0%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	1,371 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	1,068 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying all exclusion and inclusion criteria	1,068 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	1,068 (0.0%)
Retacrit	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	62,327,014 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must satisfy the age range condition within the query period	58,455,915 (93.8%)
Exclusion - Members must meet chart availability criterion within the query period	58,455,915 (93.8%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	58,455,915 (93.8%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	4,640 (0.0%)

Table 16: Cohort Attrition Table	
Attrition Criteria	Members
Exclusion - Members must have at least one cohort episode index date within the age range condition	4,640 (0.0%)
Exclusion - Members must have at least one episode defining index claim during the query period	4,640 (0.0%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	4,640 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	3,846 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying all exclusion and inclusion criteria	3,846 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	3,846 (0.0%)
Zarxio	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	62,327,014 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must satisfy the age range condition within the query period	58,455,915 (93.8%)
Exclusion - Members must meet chart availability criterion within the query period	58,455,915 (93.8%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	58,455,915 (93.8%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	15,506 (0.0%)
Exclusion - Members must have at least one cohort episode index date within the age range condition	15,506 (0.0%)
Exclusion - Members must have at least one episode defining index claim during the query period	15,505 (0.0%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	15,505 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	13,510 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying all exclusion and inclusion criteria	13,510 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	13,510 (0.0%)
Zirabev	
Initial Member Count - Members with a non-missing birth date/sex at any enrollment episode overlapping the query period	62,327,014 (100.0%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N during the query period	58,456,004 (93.8%)
Exclusion - Members must be excluded if they only have enrollment episodes with DrugCov=Y and MedCov=N and DrugCov=N and MedCov=Y or A during the query period	58,456,004 (93.8%)
Exclusion - Members must satisfy the age range condition within the query period	58,455,915 (93.8%)
Exclusion - Members must meet chart availability criterion within the query period	58,455,915 (93.8%)
Exclusion - Members must satisfy the demographic (sex, race and hispanic) condition	58,455,915 (93.8%)
Exclusion - Members must have at least one claim with cohort-identifying codes within the query period	647 (0.0%)
Exclusion - Members must have at least one cohort episode index date within the age range condition	647 (0.0%)
Exclusion - Members must have at least one episode defining index claim during the query period	647 (0.0%)
Exclusion - Members must have at least one cohort episode incident with respect to other criteria	647 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the pre-index enrollment criterion	578 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying all exclusion and inclusion criteria	578 (0.0%)
Exclusion - Members must have at least one cohort episode satisfying the post-index enrollment criterion	578 (0.0%)



Dates of Available Data for Each Data Partner (DP) up to Request End Date (06/30/2021) as of Query Distribution Date

Data Partner (Masked)	Start Date	End Date
DP01	10/01/2015	06/30/2021

Appendix B. Specifications Used to Define Parameters in this Query

Global Values

Enrollment Criteria: **Medical and Drug Coverage**
 Enrollment Gap (Days): **45**
 Age Groups (Years): **00-17, 18-24, 25-40, 41-64, 65+**
 Reporting Output: **All tables**
 Query Period: **10/01/2015-06/30/2021**
 Baseline Characteristics Table: **Yes**
 Baseline Evaluation Window (Day): **-183,0**

#	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	Zarxio	Zarxio ^[1]	183	183	0	0	--	--	--	--	--
2	Epogen	Epogen ^[2]	183	183	0	0	--	--	--	--	--
3	Retacrit	Retacrit ^[3]	183	183	0	0	--	--	--	--	--
4	Remicade	Remicade ^[4]	183	183	0	0	--	--	--	--	--
5	Inflectra	Inflectra ^[5]	183	183	0	0	--	--	--	--	--
6	Neupogen	Neupogen ^[6]	183	183	0	0	--	--	--	--	--
7	Avastin	Avastin ^[7]	183	183	0	0	--	--	--	--	--
8	Mvasi	Mvasi ^[8]	183	183	0	0	--	--	--	--	--
9	Renflexis	Renflexis ^[9]	183	183	0	0	--	--	--	--	--
10	Zirabev	ZIRABEV ^[10]	183	183	0	0	--	--	--	--	--

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 and Appendix D
- [2] See Appendix C and Appendix D
- [3] See Appendix C and Appendix D
- [4] See Appendix C and Appendix D
- [5] See Appendix C and Appendix D
- [6] See Appendix C and Appendix D
- [7] See Appendix C and Appendix D
- [8] See Appendix C and Appendix D
- [9] See Appendix C and Appendix D
- [10] See Appendix C and Appendix D

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 Care Setting/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 Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Exposures in this Request

Code	Code Category	Code Type	Description
Avastin			
J9035	Procedure	HCPCS	Injection, bevacizumab, 10 mg
C9257	Procedure	HCPCS	Injection, bevacizumab, 0.25 mg
Epogen			
J0885	Procedure	HCPCS	Injection, epoetin alfa, (for non-ESRD use), 1000 units
Q4081	Procedure	HCPCS	Injection, epoetin alfa, 100 units (for ESRD on dialysis)
J0886	Procedure	HCPCS	Injection, epoetin alfa, 1000 units (for ESRD on dialysis)
Inflectra			
Q5103	Procedure	HCPCS	Injection, infliximab-dyyb, biosimilar, (Inflectra), 10 mg
Mvasi			
Q5107	Procedure	HCPCS	Injection, bevacizumab-awwb, biosimilar, (Mvasi), 10 mg
Neupogen			
J1442	Procedure	HCPCS	Injection, filgrastim (G-CSF), excludes biosimilars, 1 mcg
Remicade			
J1745	Procedure	HCPCS	Injection, infliximab, biosimilar, 10 mg
Q5102	Procedure	HCPCS	Injection, infliximab, excludes biosimilar, 10 mg
Renflexis			
Q5104	Procedure	HCPCS	Injection, infliximab-abda, biosimilar, (Renflexis), 10 mg
Retacrit			
Q5105	Procedure	HCPCS	Injection, epoetin alfa-epbx, biosimilar, (Retacrit) (for ESRD on dialysis), 100 units
Q5106	Procedure	HCPCS	Injection, epoetin alfa-epbx, biosimilar, (Retacrit) (for non-ESRD use), 1000 units
Zarxio			
Q5101	Procedure	HCPCS	Injection, filgrastim-sndz, biosimilar, (Zarxio), 1 mcg
Zirabev			
Q5118	Procedure	HCPCS	Injection, bevacizumab-bvzr, biosimilar, (Zirabev), 10 mg

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

Generic Name	Brand Name
	Avastin
bevacizumab	Avastin
	Epogen
epoetin alfa	Epogen
	Inflectra
infliximab-dyyb	Inflectra
	Mvasi
bevacizumab-awwb	Mvasi
	Neupogen
filgrastim	Neupogen
	Remicade
infliximab	Remicade
	Renflexis
infliximab-abda	Renflexis
	Retacrit
epoetin alfa-epbx	Retacrit
	Zarxio
filgrastim-sndz	Zarxio
	Zirabev
bevacizumab-bvzr	Zirabev