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

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

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

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Overview for Request: cder_mpl1p_wp239

Request ID: cder_mpl1r_wp239_mkscnr_v01

Date Run: January 17, 2023

Request Description: In this report, we compare the frequency of diagnosis codes for colectomy, colostomy, and ileostomy to examine trends in code usage surrounding the October, 2015 transition from International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) to International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) codes. We determined mappings by performing comprehensive code list searches in both the ICD-9 and ICD-10 eras and leveraging the Centers for Medicare and Medicaid Services (CMS) General Equivalence Mappings (GEMs). We used forward-backward mapping as part of this comprehensive approach.¹

Sentinel Routine Querying Module: Cohort Identification and Descriptive Analysis (CIDA) module, version 12.0.0.

Data Source: We ran this request against a 100% sample from the Merative™ MarketScan® Research Databases which includes ~155 million members. We included data from October 1, 2010 to December 31, 2021 in this report. This report includes several distinct time periods: 1) October 1, 2013 to September 30, 2014; 2) October 1, 2014 to September 30, 2015; 3) October 1, 2015 to September 30, 2016; 4) October 1, 2016 to September 30, 2017; 5) October 1, 2010 to December 31, 2021. See Appendix A for the dates of available data used in this report.

<u>Study Design:</u> We examined the incidence and prevalence of colectomy, colostomy, and ileostomy across the ICD-9-CM era (October 2010-September 2015) and ICD-10-CM and ICD-10-PCS (October 2015-now) in data.

For conditions that could also be defined by non-ICD codes (e.g., Current Procedural Terminology, Fourth Edition (CPT-4) or Healthcare Common Procedure Coding System (HCPCS)), we included these additional codes in our outcome definitions in both the ICD-9 and ICD-10 eras.

See Appendices B and C for specific codes used to define colectomy, colostomy, and ileostomy in this request.

Cohort Eligibility Criteria:

Incident Cohorts: We identified codes for colectomy, colostomy, and ileostomy and set this as our index date. For the one-year time periods, we defined index events using only the relevant terminologies available for use during that window. For example, in the October 2014 to September 2015 window we defined index using ICD-9-CM, HCPCS, and CPT-4 codes only. In the October 2015 to September 2016 window we defined index using ICD-10-CM, ICD-10-PCS, HCPCS, and CPT-4 codes only. For the October 2010 to December 2021 time period, we created separate cohorts for ICD-9 era codes and ICD-10 era codes but looked for these across the full study period. We required cohort members be continuously enrolled in plans with at least medical coverage for the 183 days prior to index, during which gaps in coverage up to 45 days were allowed and considered continuous enrollment. We defined incidence as no prior evidence of any outcome-defining code (including ICD-9, ICD-10, CPT-4, HCPCS terminologies) in the 183 days prior to index. Cohort re-entry was allowed. See Appendix C for specific codes used to define incidence criteria in this request.

Prevalent Cohorts: We identified codes for colectomy, colostomy, and ileostomy and set this as our index date. We created separate cohorts for ICD-9 era codes and ICD-10 era codes but looked for these across the full study period. We did not require any pre-index enrollment requirements for these cohorts. Cohort re-entry was allowed. We assessed prevalence only in the October 2010 to December 2021 time period.

<u>Limitations:</u> Algorithms used to define outcomes are imperfect; thus, it is possible that there may be misclassification. Therefore, data should be interpreted with this limitation in mind.

Please refer to Appendix D for detailed specifications of parameters used in the analyses for this request.

¹Fung, K. W., et al. (2016). "Preparing for the ICD-10-CM Transition: Automated Methods for Translating ICD Codes in Clinical Phenotype Definitions." EGEMS (Wash DC) 4(1): 1211.

cder mpl1r wp239 Page 1 of 40



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

cder_mpl1r_wp239 Page 2 of 40



Table of Contents

- Glossary (CIDA) List of Terms to Define the Cohort Identification and Descriptive Analysis (CIDA) Found in this Report
 - <u>Table 1</u> Summary of Colectomy, Colostomy, or Ileostomy in the Merative[™] MarketScan[®] Research Databases from October 1, 2010 to December 31, 2021
 - <u>Table 2</u> Summary of Colectomy, Colostomy, or Ileostomy in the Merative[™] MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month
 - <u>Figure 1</u> Incidence of Colectomy, Colostomy, or Ileostomy (183 Days Washout) per 10,000 Eligible Members from October 2010 to December 2021 by Code Type
 - Figure 2 Prevalence of Colectomy, Colostomy, or Ileostomy (0 Days Washout) per 10,000 Eligible Members from October 2010 to December 2021 by Code Type
 - Appendix A Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (January 17, 2023)
 - Appendix B
 List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Colectomy, Colostomy, or Ileostomy in this Request
 - Appendix C
 List of Current Procedural Terminology, Fourth Edition (CPT-4), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS)
 Codes Used to Define Colectomy, Colostomy, or Ileostomy Incidence Criteria in this Request

Appendix D Specifications of the Study Design and Parameters Used in this Request

cder mpl1r wp239 Page 3 of 40



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

cder mpl1r wp239 Page 4 of 40



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

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

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

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

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

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

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

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

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

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

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

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

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

*all terms may not be used in this report

cder mpl1r wp239 Page 5 of 40



Table 1. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021

			Number of Eligible	Number of Exposed
	Number of Patients	Number of Episodes	Members ¹	Members per 10,000 Eligible Members
Colectomy, Colostomy, and	Number of Patients	Nulliber of Episodes	Wieilibers	Eligible Mellibers
Ileostomy ICD-9-CM from				
2013 to 2014	41.884	42,452	49,379,678	8.48
Colectomy, Colostomy, and	12,001	12, 132	13,373,070	0.40
Ileostomy ICD-9-CM from				
2014 to 2015	30,543	30,923	45,291,994	6.74
Colectomy, Colostomy, and		55,5 = 5	,,	
Ileostomy ICD-10-CM from				
2015 to 2016	37,417	38,430	29,534,116	12.67
Colectomy, Colostomy, and	,	•	, ,	
lleostomy ICD-10-CM from				
2016 to 2017	22,417	22,717	29,841,833	7.51
Colectomy, Colostomy, and				
Ileostomy ICD-9-CM				
Incidence	295,937	318,196	128,733,874	22.99
Colectomy, Colostomy, and				
lleostomy ICD-10-CM				
Incidence	269,659	286,449	128,733,874	20.95
Colectomy, Colostomy, and				
lleostomy ICD-9-CM				
Prevalence	376,565	1,698,014	149,022,924	25.27
Colectomy, Colostomy, and				
Ileostomy ICD-10-CM				
Prevalence	326,111	1,341,576	149,022,924	21.88

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

cder_mpl1r_wp239 Page 6 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

				Number of Exposed Members
	Number of Patients	Number of Episodes	Number of Eligible Members ¹	per 10,000 Eligible Members
	Cole	ctomy, Colostomy, or I	leostomy ICD-9-CM Incidence	
2010				
October	4,420	4,420	43,729,819	1.01
November	4,496	4,496	43,209,637	1.04
December	4,594	4,594	44,059,315	1.04
2011				
January	4,231	4,231	38,225,156	1.11
February	3,673	3,673	37,660,984	0.98
March	4,248	4,248	37,826,390	1.12
April	3,877	3,877	37,931,681	1.02
May	4,028	4,028	37,901,630	1.06
June	4,102	4,102	37,886,703	1.08
July	4,698	4,698	47,484,663	0.99
August	5,359	5,359	47,815,101	1.12
September	5,359	5,359	47,069,524	1.14
October	5,127	5,127	47,472,659	1.08
November	4,980	4,980	46,948,634	1.06
December	4,970	4,970	47,937,289	1.04
2012				
January	5,018	5,018	43,117,196	1.16
February	4,324	4,324	42,569,160	1.02
March	4,424	4,424	42,551,088	1.04
April	4,137	4,137	42,417,359	0.98
May	4,288	4,288	42,408,535	1.01
June	4,287	4,287	42,365,924	1.01
July	4,805	4,805	47,590,404	1.01
August	5,000	5,000	47,910,899	1.04
September	4,373	4,373	47,205,273	0.93
October	4,948	4,948	47,614,566	1.04
November	5,159	5,159	47,104,026	1.10
December	4,526	4,526	48,017,305	0.94
2013				
January	3,598	3,598	33,273,401	1.08
February	3,172	3,172	32,922,265	0.96
March	3,433	3,433	33,095,604	1.04
April	3,623	3,623	33,171,662	1.09

cder_mpl1r_wp239 Page 7 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

				Number of Exposed Members
	Number of Patients	Number of Episodes	Number of Eligible Members ¹	per 10,000 Eligible Members
May	3,485	3,485	33,181,362	1.05
June	3,348	3,348	33,058,992	1.01
July	3,880	3,880	37,843,916	1.03
August	3,758	3,758	38,140,187	0.99
September	3,778	3,778	37,507,701	1.01
October	4,154	4,154	37,771,090	1.10
November	3,399	3,399	37,230,708	0.91
December	3,740	3,740	37,723,235	0.99
2014				
January	3,680	3,680	33,046,041	1.11
February	3,102	3,102	32,634,554	0.95
March	3,322	3,322	32,845,642	1.01
April	3,276	3,276	32,816,066	1.00
May	3,190	3,190	32,617,921	0.98
June	3,312	3,312	32,725,464	1.01
July	3,905	3,905	39,099,840	1.00
August	3,675	3,675	39,419,380	0.93
September	3,697	3,697	38,801,350	0.95
October	3,939	3,939	39,318,101	1.00
November	3,449	3,449	38,781,376	0.89
December	3,794	3,794	39,617,707	0.96
2015				
January	2,250	2,250	22,136,667	1.02
February	2,017	2,017	21,871,730	0.92
March	2,099	2,099	21,907,002	0.96
April	2,161	2,161	21,902,431	0.99
May	2,054	2,054	21,879,054	0.94
June	2,219	2,219	21,815,155	1.02
July	2,340	2,340	24,106,258	0.97
August	2,287	2,287	24,316,297	0.94
September	2,312	2,312	23,940,607	0.97
October	1,623	1,623	24,110,076	0.67
November	1,502	1,502	23,819,997	0.63
December	1,697	1,697	24,206,191	0.70
2016				
January	1,466	1,466	21,749,937	0.67

cder_mpl1r_wp239 Page 8 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

	·			Number of Exposed Members
	Number of Patients	Number of Episodes	Number of Eligible Members ¹	per 10,000 Eligible Members
February	1,466	1,466	21,498,822	0.68
March	1,533	1,533	21,561,370	0.71
April	1,457	1,457	21,582,849	0.68
May	1,511	1,511	21,550,020	0.70
June	1,418	1,418	21,502,314	0.66
July	1,443	1,443	24,046,654	0.60
August	1,632	1,632	24,230,636	0.67
September	1,521	1,521	23,860,169	0.64
October	1,529	1,529	23,990,870	0.64
November	1,584	1,584	23,659,115	0.67
December	1,633	1,633	23,999,312	0.68
2017				
January	1,268	1,268	19,183,260	0.66
February	1,199	1,199	18,954,598	0.63
March	1,278	1,278	19,001,827	0.67
April	1,138	1,138	18,992,072	0.60
May	1,209	1,209	18,956,984	0.64
June	1,214	1,214	18,891,351	0.64
July	1,294	1,294	22,269,022	0.58
August	1,417	1,417	22,434,419	0.63
September	1,285	1,285	22,099,380	0.58
October	1,435	1,435	22,266,891	0.64
November	1,456	1,456	21,814,410	0.67
December	1,353	1,353	22,087,349	0.61
2018				
January	1,100	1,100	17,951,776	0.61
February	936	936	17,746,204	0.53
March	1,091	1,091	17,780,933	0.61
April	986	986	17,767,369	0.55
May	1,066	1,066	17,751,057	0.60
June	1,002	1,002	17,682,352	0.57
July	1,205	1,205	22,051,183	0.55
August	1,269	1,269	22,237,307	0.57
September	1,207	1,207	21,864,719	0.55
October	1,382	1,382	22,040,183	0.63
November	1,342	1,342	21,728,916	0.62

cder_mpl1r_wp239 Page 9 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

				Number of Exposed Members
	Number of Patients	Number of Episodes	Number of Eligible Members ¹	per 10,000 Eligible Members
December	1,333	1,333	22,092,292	0.60
2019				
January	1,106	1,106	18,689,320	0.59
February	1,013	1,013	18,452,956	0.55
March	1,047	1,047	18,522,632	0.57
April	1,139	1,139	18,436,475	0.62
May	1,069	1,069	18,419,177	0.58
June	1,016	1,016	18,336,341	0.55
July	1,196	1,196	20,047,109	0.60
August	1,156	1,156	20,230,669	0.57
September	1,108	1,108	19,866,417	0.56
October	1,264	1,264	20,088,817	0.63
November	1,137	1,137	19,797,863	0.57
December	1,232	1,232	20,142,569	0.61
2020				
January	1,013	1,013	16,823,937	0.60
February	887	887	16,621,899	0.53
March	849	849	16,695,975	0.51
April	574	574	16,738,632	0.34
May	719	719	16,745,514	0.43
June	888	888	16,714,805	0.53
July	1,128	1,128	19,760,963	0.57
August	1,123	1,123	19,943,066	0.56
September	1,146	1,146	19,617,238	0.58
October	1,210	1,210	19,701,621	0.61
November	1,115	1,115	19,437,245	0.57
December	1,206	1,206	19,660,897	0.61
2021				
January	858	858	16,459,538	0.52
February	865	865	16,266,376	0.53
March	974	974	16,276,817	0.60
April	863	863	16,252,178	0.53
May	889	889	16,216,335	0.55
June	976	976	16,129,297	0.61
July	1,030	1,030	17,810,680	0.58
August	1,014	1,014	17,904,703	0.57

cder_mpl1r_wp239 Page 10 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

	Number of Patients	Number of Enicodes	Number of Eligible Members ¹	Number of Exposed Members per 10,000 Eligible Members
September	922	922	17,546,239	0.53
October	1,011	1,011	17,706,560	0.57
November	1,011		17,408,777	0.60
	•	1,048		
December	1,026	1,026	17,673,734	0.58
2010	Colec	tomy, colostomy, or in	eostomy ICD-10-CM Incidence	
	2.105	3,185	42 720 910	0.72
October	3,185	•	43,729,819	0.73
November	3,260	3,260	43,209,637	0.75
December	3,342	3,342	44,059,315	0.76
2011	2.224	2.224	22.225.456	0.70
January 	2,894	2,894	38,225,156	0.76
February	2,600	2,600	37,660,984	0.69
March	3,024	3,024	37,826,390	0.80
April	2,790	2,790	37,931,681	0.74
May	2,883	2,883	37,901,630	0.76
June	2,889	2,889	37,886,703	0.76
July	3,283	3,283	47,484,663	0.69
August	3,653	3,653	47,815,101	0.76
September	3,529	3,529	47,069,524	0.75
October	3,465	3,465	47,472,659	0.73
November	3,522	3,522	46,948,634	0.75
December	3,485	3,485	47,937,289	0.73
2012				
January	3,261	3,261	43,117,196	0.76
February	3,163	3,163	42,569,160	0.74
March	3,215	3,215	42,551,088	0.76
April	3,003	3,003	42,417,359	0.71
May	3,086	3,086	42,408,535	0.73
June	3,040	3,040	42,365,924	0.72
July	3,374	3,374	47,590,404	0.71
August	3,513	3,513	47,910,899	0.73
September	3,105	3,105	47,205,273	0.66
October	3,584	3,584	47,614,566	0.75
November	3,257	3,257	47,104,026	0.69
December	3,222	3,222	48,017,305	0.67
2013	•	•	. ,	

cder_mpl1r_wp239 Page 11 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

				Number of Exposed Members
	Number of Patients	Number of Episodes	Number of Eligible Members ¹	per 10,000 Eligible Members
January	2,496	2,496	33,273,401	0.75
February	2,269	2,269	32,922,265	0.69
March	2,331	2,331	33,095,604	0.70
April	2,380	2,380	33,171,662	0.72
May	2,431	2,431	33,181,362	0.73
June	2,355	2,355	33,058,992	0.71
July	2,693	2,693	37,843,916	0.71
August	2,659	2,659	38,140,187	0.70
September	2,645	2,645	37,507,701	0.71
October	2,948	2,948	37,771,090	0.78
November	2,450	2,450	37,230,708	0.66
December	2,631	2,631	37,723,235	0.70
2014				
January	2,464	2,464	33,046,041	0.75
February	2,149	2,149	32,634,554	0.66
March	2,285	2,285	32,845,642	0.70
April	2,262	2,262	32,816,066	0.69
May	2,218	2,218	32,617,921	0.68
June	2,324	2,324	32,725,464	0.71
July	2,712	2,712	39,099,840	0.69
August	2,550	2,550	39,419,380	0.65
September	2,621	2,621	38,801,350	0.68
October	2,814	2,814	39,318,101	0.72
November	2,437	2,437	38,781,376	0.63
December	2,646	2,646	39,617,707	0.67
2015				
January	1,565	1,565	22,136,667	0.71
February	1,444	1,444	21,871,730	0.66
March	1,442	1,442	21,907,002	0.66
April	1,532	1,532	21,902,431	0.70
May	1,422	1,422	21,879,054	0.65
June	1,534	1,534	21,815,155	0.70
July	1,611	1,611	24,106,258	0.67
August	1,611	1,611	24,316,297	0.66
September	1,641	1,641	23,940,607	0.69
October	2,344	2,344	24,110,076	0.97

cder_mpl1r_wp239 Page 12 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

	. 31, 2021, by Tear and			Number of Exposed Members
	Number of Patients	Number of Episodes	Number of Eligible Members ¹	per 10,000 Eligible Members
November	2,182	2,182	23,819,997	0.92
December	2,488	2,488	24,206,191	1.03
2016				
January	2,067	2,067	21,749,937	0.95
February	2,064	2,064	21,498,822	0.96
March	2,158	2,158	21,561,370	1.00
April	2,082	2,082	21,582,849	0.96
May	2,134	2,134	21,550,020	0.99
June	2,058	2,058	21,502,314	0.96
July	2,129	2,129	24,046,654	0.89
August	2,285	2,285	24,230,636	0.94
September	2,153	2,153	23,860,169	0.90
October	2,208	2,208	23,990,870	0.92
November	2,261	2,261	23,659,115	0.96
December	2,308	2,308	23,999,312	0.96
2017				
January	1,761	1,761	19,183,260	0.92
February	1,651	1,651	18,954,598	0.87
March	1,782	1,782	19,001,827	0.94
April	1,577	1,577	18,992,072	0.83
May	1,712	1,712	18,956,984	0.90
June	1,757	1,757	18,891,351	0.93
July	1,869	1,869	22,269,022	0.84
August	2,019	2,019	22,434,419	0.90
September	1,812	1,812	22,099,380	0.82
October	2,027	2,027	22,266,891	0.91
November	2,017	2,017	21,814,410	0.92
December	1,869	1,869	22,087,349	0.85
2018				
January	1,497	1,497	17,951,776	0.83
February	1,288	1,288	17,746,204	0.73
March	1,452	1,452	17,780,933	0.82
April	1,387	1,387	17,767,369	0.78
May	1,453	1,453	17,751,057	0.82
June	1,413	1,413	17,682,352	0.80
July	1,709	1,709	22,051,183	0.78

cder_mpl1r_wp239 Page 13 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

				Number of Exposed Members
	Number of Patients	Number of Episodes	Number of Eligible Members ¹	per 10,000 Eligible Members
August	1,815	1,815	22,237,307	0.82
September	1,778	1,778	21,864,719	0.81
October	2,051	2,051	22,040,183	0.93
November	1,929	1,929	21,728,916	0.89
December	1,881	1,881	22,092,292	0.85
2019				
January	1,529	1,529	18,689,320	0.82
February	1,356	1,356	18,452,956	0.73
March	1,427	1,427	18,522,632	0.77
April	1,527	1,527	18,436,475	0.83
May	1,476	1,476	18,419,177	0.80
June	1,427	1,427	18,336,341	0.78
July	1,647	1,647	20,047,109	0.82
August	1,622	1,622	20,230,669	0.80
September	1,585	1,585	19,866,417	0.80
October	1,767	1,767	20,088,817	0.88
November	1,556	1,556	19,797,863	0.79
December	1,754	1,754	20,142,569	0.87
2020				
January	1,410	1,410	16,823,937	0.84
February	1,235	1,235	16,621,899	0.74
March	1,201	1,201	16,695,975	0.72
April	834	834	16,738,632	0.50
May	993	993	16,745,514	0.59
June	1,251	1,251	16,714,805	0.75
July	1,616	1,616	19,760,963	0.82
August	1,620	1,620	19,943,066	0.81
September	1,620	1,620	19,617,238	0.83
October	1,707	1,707	19,701,621	0.87
November	1,593	1,593	19,437,245	0.82
December	1,701	1,701	19,660,897	0.87
2021				
January	1,246	1,246	16,459,538	0.76
February	1,199	1,199	16,266,376	0.74
March	1,380	1,380	16,276,817	0.85
April	1,253	1,253	16,252,178	0.77

cder_mpl1r_wp239 Page 14 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

	Number of Patients	Number of Episodes	Number of Eligible Members ¹	Number of Exposed Members per 10,000 Eligible Members
May	1,249	1,249	16,216,335	0.77
June	1,345	1,345	16,129,297	0.83
July	1,496	1,496	17,810,680	0.84
August	1,474	1,474	17,904,703	0.82
September	1,345	1,345	17,546,239	0.77
October	1,453	1,453	17,706,560	0.82
November	1,477	1,477	17,408,777	0.85
December	1,452	1,452	17,673,734	0.82
			eostomy ICD-9-CM Prevalence	
2010			·	
October	19,966	27,128	47,783,732	4.18
November	20,402	27,849	47,714,965	4.28
December	22,067	30,560	47,760,109	4.62
2011				
January	20,715	28,122	52,274,120	3.96
February	20,229	27,323	52,038,076	3.89
March	23,024	32,313	51,957,287	4.43
April	21,633	29,677	51,860,782	4.17
May	22,138	30,569	51,769,930	4.28
June	23,272	32,323	51,756,451	4.50
July	21,722	30,215	51,804,123	4.19
August	23,634	33,257	51,756,708	4.57
September	23,071	32,070	51,699,947	4.46
October	23,009	32,042	51,652,144	4.45
November	23,256	32,478	51,621,813	4.51
December	24,706	34,360	51,691,308	4.78
2012				
January	20,948	29,260	52,576,934	3.98
February	20,820	28,987	52,397,697	3.97
March	21,711	30,543	52,177,387	4.16
April	21,228	29,628	51,958,063	4.09
May	21,746	30,730	51,927,518	4.19
June	21,765	30,809	51,845,618	4.20
July	21,831	30,970	51,815,509	4.21
August	22,282	32,100	51,942,235	4.29
September	20,892	29,406	52,013,540	4.02

cder_mpl1r_wp239 Page 15 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

				Number of Exposed Members
	Number of Patients	Number of Episodes	Number of Eligible Members ¹	per 10,000 Eligible Members
October	22,814	32,572	52,041,223	4.38
November	22,309	31,463	52,036,409	4.29
December	23,022	33,093	52,143,790	4.42
2013				
January	16,510	22,824	41,330,662	3.99
February	15,948	21,821	41,267,747	3.86
March	17,283	24,069	41,223,201	4.19
April	17,745	24,853	41,169,578	4.31
May	17,898	25,135	41,107,177	4.35
June	17,417	24,102	41,036,151	4.24
July	17,649	24,825	40,989,887	4.31
August	17,603	24,529	40,976,506	4.30
September	17,610	24,471	41,041,550	4.29
October	18,447	26,115	41,017,147	4.50
November	16,826	23,432	41,146,809	4.09
December	18,744	27,358	41,022,577	4.57
2014				
January	17,151	24,954	43,473,954	3.95
February	16,273	23,177	43,277,665	3.76
March	17,824	26,326	43,280,753	4.12
April	18,191	26,694	43,218,379	4.21
May	17,667	25,479	43,004,996	4.11
June	18,391	27,340	42,964,110	4.28
July	18,624	28,111	43,114,303	4.32
August	18,170	26,675	43,028,459	4.22
September	18,403	27,148	43,006,724	4.28
October	18,888	27,972	42,978,610	4.39
November	17,030	24,626	42,927,741	3.97
December	19,102	28,359	42,855,039	4.46
2015				
January	10,241	15,204	26,489,481	3.87
February	10,111	14,731	26,451,586	3.82
March	11,159	16,835	26,381,863	4.23
April	10,904	16,361	26,312,168	4.14
May	10,778	16,165	26,259,467	4.10
June	11,486	17,304	26,200,289	4.38

cder_mpl1r_wp239 Page 16 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

				Number of Exposed Members
	Number of Patients	Number of Episodes	Number of Eligible Members ¹	per 10,000 Eligible Members
July	11,249	17,075	26,155,278	4.30
August	10,889	16,150	26,077,047	4.18
September	11,179	16,550	26,022,688	4.30
October	1,900	1,918	26,017,688	0.73
November	1,733	1,743	25,965,811	0.67
December	1,949	1,972	25,926,759	0.75
2016				
January	1,837	1,862	26,171,554	0.70
February	1,813	1,835	26,153,287	0.69
March	1,945	1,958	26,148,283	0.74
April	1,813	1,840	26,106,323	0.69
May	1,878	1,903	26,053,425	0.72
June	1,799	1,824	26,012,490	0.69
July	1,666	1,688	25,987,259	0.64
August	1,865	1,900	25,915,857	0.72
September	1,772	1,792	25,860,540	0.69
October	1,739	1,751	25,753,179	0.68
November	1,778	1,792	25,666,896	0.69
December	1,884	1,914	25,603,634	0.74
2017				
January	1,657	1,678	24,253,479	0.68
February	1,549	1,571	24,209,651	0.64
March	1,681	1,691	24,184,192	0.70
April	1,526	1,544	24,121,539	0.63
May	1,592	1,616	24,077,422	0.66
June	1,575	1,602	24,025,177	0.66
July	1,461	1,473	23,948,148	0.61
August	1,639	1,651	23,901,232	0.69
September	1,460	1,479	23,861,833	0.61
October	1,637	1,656	23,830,784	0.69
November	1,650	1,669	23,610,075	0.70
December	1,515	1,537	23,562,154	0.64
2018				
January	1,589	1,611	24,301,121	0.65
February	1,410	1,425	24,278,968	0.58
March	1,571	1,584	24,232,276	0.65

cder_mpl1r_wp239 Page 17 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

				Number of Exposed Members
	Number of Patients	Number of Episodes	Number of Eligible Members ¹	per 10,000 Eligible Members
April	1,396	1,414	24,185,445	0.58
May	1,490	1,505	24,113,466	0.62
June	1,458	1,472	24,057,211	0.61
July	1,407	1,419	24,006,160	0.59
August	1,474	1,487	23,997,638	0.61
September	1,413	1,431	23,972,867	0.59
October	1,599	1,613	23,920,988	0.67
November	1,525	1,534	23,871,095	0.64
December	1,542	1,558	23,802,676	0.65
2019				
January	1,402	1,423	22,188,245	0.63
February	1,284	1,295	22,171,940	0.58
March	1,332	1,344	22,140,668	0.60
April	1,390	1,411	22,036,744	0.63
May	1,348	1,365	22,002,830	0.61
June	1,296	1,313	21,951,062	0.59
July	1,404	1,425	21,892,323	0.64
August	1,337	1,349	21,865,062	0.61
September	1,278	1,293	21,824,448	0.59
October	1,449	1,464	21,811,664	0.66
November	1,324	1,342	21,762,917	0.61
December	1,446	1,462	21,731,070	0.67
2020				
January	1,416	1,433	21,597,091	0.66
February	1,282	1,299	21,553,960	0.59
March	1,259	1,268	21,530,147	0.58
April	811	823	21,487,224	0.38
May	1,069	1,078	21,424,880	0.50
June	1,329	1,346	21,388,355	0.62
July	1,298	1,316	21,236,324	0.61
August	1,305	1,326	21,180,862	0.62
September	1,337	1,357	21,097,793	0.63
October	1,396	1,409	21,002,571	0.66
November	1,301	1,314	20,952,934	0.62
December	1,403	1,424	20,915,869	0.67
2021				

cder_mpl1r_wp239 Page 18 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

				Number of Exposed Member
	Number of Patients		Number of Eligible Members ¹	per 10,000 Eligible Members
January	1,176	1,186	19,598,561	0.60
February	1,135	1,147	19,570,182	0.58
March	1,313	1,334	19,535,326	0.67
April	1,181	1,197	19,519,760	0.61
May	1,216	1,223	19,569,498	0.62
June	1,295	1,308	19,536,298	0.66
July	1,193	1,211	19,471,442	0.61
August	1,185	1,195	19,448,365	0.61
September	1,092	1,108	19,411,991	0.56
October	1,181	1,204	19,339,254	0.61
November	1,250	1,267	19,299,376	0.65
December	1,200	1,226	19,262,996	0.62
	Colect	omy, Colostomy, or Ile	ostomy ICD-10-CM Prevalence	
010				
October	3,697	3,730	47,783,732	0.77
November	3,724	3,762	47,714,965	0.78
December	3,784	3,829	47,760,109	0.79
011				
January	4,124	4,167	52,274,120	0.79
February	3,696	3,740	52,038,076	0.71
March	4,301	4,360	51,957,287	0.83
April	3,977	4,021	51,860,782	0.77
May	4,023	4,074	51,769,930	0.78
June	4,164	4,214	51,756,451	0.80
July	3,788	3,825	51,804,123	0.73
August	4,157	4,209	51,756,708	0.80
September	4,067	4,118	51,699,947	0.79
October	3,988	4,040	51,652,144	0.77
November	4,054	4,110	51,621,813	0.79
December	4,057	4,103	51,691,308	0.78
012			•	
January	4,124	4,179	52,576,934	0.78
February	4,025	4,066	52,397,697	0.77
March	4,066	4,116	52,177,387	0.78
April	3,795	3,848	51,958,063	0.73
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cder_mpl1r_wp239 Page 19 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

				Number of Exposed Members
	Number of Patients	Number of Episodes	Number of Eligible Members ¹	per 10,000 Eligible Members
June	3,841	3,893	51,845,618	0.74
July	3,866	3,912	51,815,509	0.75
August	4,045	4,098	51,942,235	0.78
September	3,595	3,641	52,013,540	0.69
October	4,140	4,175	52,041,223	0.80
November	3,753	3,795	52,036,409	0.72
December	3,720	3,769	52,143,790	0.71
2013				
January	3,252	3,296	41,330,662	0.79
February	2,947	2,985	41,267,747	0.71
March	3,059	3,098	41,223,201	0.74
April	3,080	3,117	41,169,578	0.75
May	3,103	3,132	41,107,177	0.75
June	3,013	3,046	41,036,151	0.73
July	3,095	3,132	40,989,887	0.76
August	3,055	3,100	40,976,506	0.75
September	3,053	3,092	41,041,550	0.74
October	3,347	3,387	41,017,147	0.82
November	2,851	2,890	41,146,809	0.69
December	3,010	3,046	41,022,577	0.73
2014				
January	3,384	3,435	43,473,954	0.78
February	2,902	2,936	43,277,665	0.67
March	3,071	3,114	43,280,753	0.71
April	3,152	3,196	43,218,379	0.73
May	2,982	3,019	43,004,996	0.69
June	3,198	3,245	42,964,110	0.74
July	3,182	3,226	43,114,303	0.74
August	2,968	3,006	43,028,459	0.69
September	3,075	3,111	43,006,724	0.72
October	3,217	3,256	42,978,610	0.75
November	2,802	2,846	42,927,741	0.65
December	3,058	3,106	42,855,039	0.71
2015				
January	1,931	1,951	26,489,481	0.73
February	1,799	1,817	26,451,586	0.68

cder_mpl1r_wp239 Page 20 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

				Number of Exposed Members
	Number of Patients	Number of Episodes	Number of Eligible Members ¹	per 10,000 Eligible Members
March	1,821	1,839	26,381,863	0.69
April	1,919	1,947	26,312,168	0.73
May	1,772	1,795	26,259,467	0.67
June	1,932	1,960	26,200,289	0.74
July	1,856	1,876	26,155,278	0.71
August	1,855	1,912	26,077,047	0.71
September	1,993	2,269	26,022,688	0.77
October	11,279	17,114	26,017,688	4.34
November	10,798	16,267	25,965,811	4.16
December	12,350	19,072	25,926,759	4.76
2016				
January	9,564	14,145	26,171,554	3.65
February	10,241	15,264	26,153,287	3.92
March	10,912	16,780	26,148,283	4.17
April	10,751	16,399	26,106,323	4.12
May	10,704	16,699	26,053,425	4.11
June	11,266	17,582	26,012,490	4.33
July	10,587	16,391	25,987,259	4.07
August	11,259	17,744	25,915,857	4.34
September	10,987	16,732	25,860,540	4.25
October	10,845	16,468	25,753,179	4.21
November	10,909	16,533	25,666,896	4.25
December	11,697	17,855	25,603,634	4.57
2017				
January	8,643	13,036	24,253,479	3.56
February	8,502	12,700	24,209,651	3.51
March	9,617	14,863	24,184,192	3.98
April	8,921	13,542	24,121,539	3.70
May	9,566	14,957	24,077,422	3.97
June	9,667	15,194	24,025,177	4.02
July	9,152	14,514	23,948,148	3.82
August	9,811	15,604	23,901,232	4.10
September	9,267	14,594	23,861,833	3.88
October	9,744	15,506	23,830,784	4.09
November	9,555	14,534	23,610,075	4.05
December	9,790	15,551	23,562,154	4.15

cder_mpl1r_wp239 Page 21 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

				Number of Exposed Members
	Number of Patients	Number of Episodes	Number of Eligible Members ¹	per 10,000 Eligible Members
2018				
January	8,129	14,014	24,301,121	3.35
February	7,848	13,020	24,278,968	3.23
March	8,707	15,149	24,232,276	3.59
April	8,127	13,756	24,185,445	3.36
May	8,497	14,255	24,113,466	3.52
June	8,362	13,638	24,057,211	3.48
July	8,273	13,827	24,006,160	3.45
August	8,529	14,672	23,997,638	3.55
September	8,357	13,832	23,972,867	3.49
October	9,226	15,688	23,920,988	3.86
November	8,943	14,610	23,871,095	3.75
December	9,200	15,787	23,802,676	3.87
2019				
January	7,505	12,733	22,188,245	3.38
February	7,075	11,930	22,171,940	3.19
March	7,703	13,519	22,140,668	3.48
April	7,895	13,741	22,036,744	3.58
May	7,895	13,674	22,002,830	3.59
June	7,726	13,225	21,951,062	3.52
July	8,173	14,488	21,892,323	3.73
August	8,008	13,971	21,865,062	3.66
September	8,048	13,900	21,824,448	3.69
October	8,495	15,465	21,811,664	3.89
November	7,835	14,063	21,762,917	3.60
December	8,787	16,248	21,731,070	4.04
2020				
January	8,344	15,411	21,597,091	3.86
February	7,981	14,679	21,553,960	3.70
March	8,956	16,905	21,530,147	4.16
April	7,522	14,288	21,487,224	3.50
May	7,659	14,298	21,424,880	3.57
June	8,686	16,350	21,388,355	4.06
July	8,574	16,519	21,236,324	4.04
August	8,303	15,218	21,180,862	3.92
September	8,502	15,917	21,097,793	4.03

cder_mpl1r_wp239 Page 22 of 40



Table 2. Summary of Colectomy, Colostomy, or Ileostomy in the Merative™ MarketScan® Research Databases from October 1, 2010 to December 31, 2021, by Year and Month

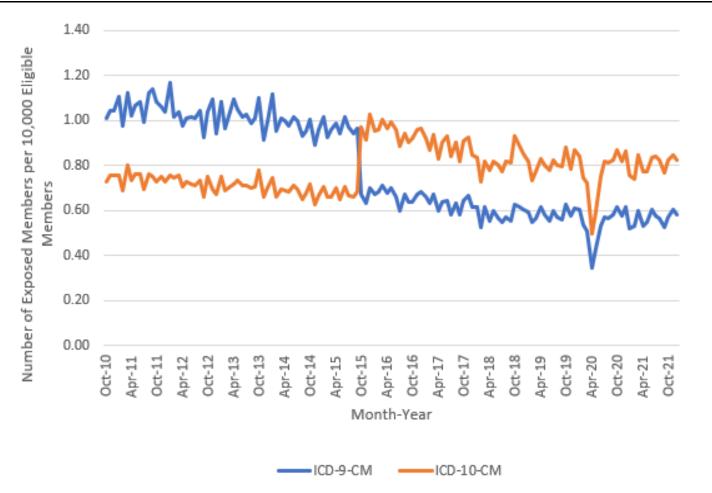
				Number of Exposed Members
	Number of Patients	Number of Episodes	Number of Eligible Members ¹	per 10,000 Eligible Members
October	8,594	16,635	21,002,571	4.09
November	8,107	15,293	20,952,934	3.87
December	9,089	17,869	20,915,869	4.35
2021				
January	7,283	14,142	19,598,561	3.72
February	7,134	13,147	19,570,182	3.65
March	8,212	16,390	19,535,326	4.20
April	7,750	15,228	19,519,760	3.97
May	7,713	14,994	19,569,498	3.94
June	8,198	16,100	19,536,298	4.20
July	7,879	15,690	19,471,442	4.05
August	7,968	15,653	19,448,365	4.10
September	7,815	15,428	19,411,991	4.03
October	7,960	16,502	19,339,254	4.12
November	8,160	16,704	19,299,376	4.23
December	8,283	17,444	19,262,996	4.30

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

cder_mpl1r_wp239 Page 23 of 40



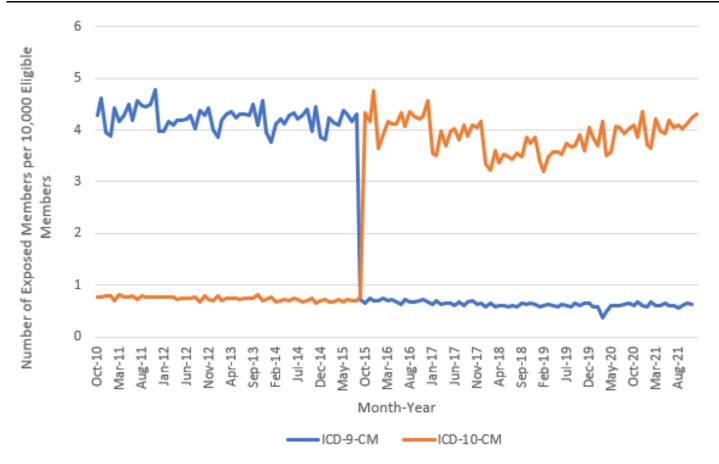
Figure 1. Incidence of Colectomy, Colostomy, or Ileostomy (183 Days Washout) per 10,000 Eligible Members from October 2010 to December 2021 by Code Type



cder_mpl1r_wp239 Page 24 of 40



Figure 2. Prevalence of Colectomy, Colostomy, or Ileostomy (0 Days Washout) per 10,000 Eligible Members from October 2010 to December 2021 by Code Type



cder_mpl1r_wp239 Page 25 of 40



Appendix A. Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (January 17, 2023)

Masked DP ID ¹	DP Start Date	DP End Date ²
DP01	01/01/2010	12/31/2021

¹Participating Data Partner(s) include(s) Merative™ MarketScan® Research Databases.

cder_mpl1r_wp239 Page 26 of 40

²End Date represents the earliest of: (1) query end date, or (2) last day of the most recent month for which all of a Data Partner's data tables (enrollment, dispensing, etc.) have at least 80% of the record count relative to the prior month.



Code	Description	Code Category	Code Type
	Colectomy, Colostomy, or Ileostomy	,	7,
0DTE0ZZ	Resection of Large Intestine, Open Approach	Procedure	ICD-10-PCS
ODTE4ZZ	Resection of Large Intestine, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODTE7ZZ	Resection of Large Intestine, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTE8ZZ	Resection of Large Intestine, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DTF0ZZ	Resection of Right Large Intestine, Open Approach	Procedure	ICD-10-PCS
ODTF4ZZ	Resection of Right Large Intestine, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODTF7ZZ	Resection of Right Large Intestine, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTF8ZZ	Resection of Right Large Intestine, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DTG0ZZ	Resection of Left Large Intestine, Open Approach	Procedure	ICD-10-PCS
0DTG4ZZ	Resection of Left Large Intestine, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DTG7ZZ	Resection of Left Large Intestine, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DTG8ZZ	Resection of Left Large Intestine, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
	Resection of Left Large Intestine, Via Natural or Artificial Opening With Percutaneous		
0DTGFZZ	Endoscopic Assistance	Procedure	ICD-10-PCS
0DTH0ZZ	Resection of Cecum, Open Approach	Procedure	ICD-10-PCS
0DTH7ZZ	Resection of Cecum, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTH8ZZ	Resection of Cecum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
ODTK0ZZ	Resection of Ascending Colon, Open Approach	Procedure	ICD-10-PCS
0DTK7ZZ	Resection of Ascending Colon, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTK8ZZ	Resection of Ascending Colon, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DTL0ZZ	Resection of Transverse Colon, Open Approach	Procedure	ICD-10-PCS
0DTL7ZZ	Resection of Transverse Colon, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTL8ZZ	Resection of Transverse Colon, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
	Resection of Transverse Colon, Via Natural or Artificial Opening With Percutaneous		
0DTLFZZ	Endoscopic Assistance	Procedure	ICD-10-PCS
	Resection of Descending Colon, Open Approach	Procedure	ICD-10-PCS
	Resection of Descending Colon, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DTM8ZZ	Resection of Descending Colon, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
	Resection of Descending Colon, Via Natural or Artificial Opening With Percutaneous		
	Endoscopic Assistance	Procedure	ICD-10-PCS
	Resection of Sigmoid Colon, Open Approach	Procedure	ICD-10-PCS
ODTN7ZZ	Resection of Sigmoid Colon, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTN8ZZ	Resection of Sigmoid Colon, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
ODTNEZZ	Resection of Sigmoid Colon, Via Natural or Artificial Opening With Percutaneous	Dunandana	ICD 40 DCC
ODTNFZZ ODTPOZZ	Endoscopic Assistance	Procedure	ICD-10-PCS
ODTP0ZZ ODTP4ZZ	Resection of Rectum, Open Approach Resection of Rectum, Percutaneous Endoscopic Approach	Procedure Procedure	ICD-10-PCS
17.31	Laparoscopic multiple segmental resection of large intestine	Procedure	ICD-10-PCS ICD-9-CM
17.31	Laparoscopic multiple segmental resection of large intestine Laparoscopic right hemicolectomy	Procedure	ICD-9-CIVI
17.35	Laparoscopic left hemicolectomy	Procedure	ICD-9-CM
17.39	Other laparoscopic partial excision of large intestine	Procedure	ICD-9-CM
44136	Intestinal allotransplantation; from living donor	Procedure	CPT-4
44140	Colectomy, partial; with anastomosis	Procedure	CPT-4
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cder_mpl1r_wp239 Page 27 of 40



Code	Description	Code Category	Code Type
44141	Colectomy, partial; with skin level cecostomy or colostomy	Procedure	CPT-4
	Colectomy, partial; with end colostomy and closure of distal segment (Hartmann type		
44143	procedure)	Procedure	CPT-4
44144	mucofistula	Procedure	CPT-4
44145	Colectomy, partial; with coloproctostomy (low pelvic anastomosis)	Procedure	CPT-4
44146	Colectomy, partial; with coloproctostomy (low pelvic anastomosis), with colostomy	Procedure	CPT-4
44147	Colectomy, partial; abdominal and transanal approach	Procedure	CPT-4
44150	Colectomy, total, abdominal, without proctectomy; with ileostomy or ileoproctostomy	Procedure	CPT-4
44151	Colectomy, total, abdominal, without proctectomy; with continent ileostomy	Procedure	CPT-4
44155	Colectomy, total, abdominal, with proctectomy; with ileostomy	Procedure	CPT-4
44156	Colectomy, total, abdominal, with proctectomy; with continent ileostomy	Procedure	CPT-4
	Colectomy, total, abdominal, with proctectomy; with ileoanal anastomosis, includes loop		
44157	ileostomy, and rectal mucosectomy, when performed	Procedure	CPT-4
	Colectomy, total, abdominal, with proctectomy; with ileoanal anastomosis, creation of		
44158	ileal reservoir (S or J), includes loop ileostomy, and rectal mucosectomy, when performed		CPT-4
44160	Colectomy, partial, with removal of terminal ileum with ileocolostomy	Procedure	CPT-4
44186	Laparoscopy, surgical; jejunostomy (e.g., for decompression or feeding)	Procedure	CPT-4
44187	Laparoscopy, surgical; ileostomy or jejunostomy, non-tube	Procedure	CPT-4
44188	Laparoscopy, surgical, colostomy or skin level cecostomy	Procedure	CPT-4
44204	Laparoscopy, surgical; colectomy, partial, with anastomosis	Procedure	CPT-4
44205	Laparoscopy, surgical; colectomy, partial, with removal of terminal ileum with	Drocoduro	CPT-4
44205	ileocolostomy Laparoscopy, surgical; colectomy, partial, with end colostomy and closure of distal	Procedure	CP1-4
44206	segment (Hartmann type procedure)	Procedure	CPT-4
44200	Laparoscopy, surgical; colectomy, partial, with anastomosis, with coloproctostomy (low	Troccaure	CITT
44207	pelvic anastomosis)	Procedure	CPT-4
	Laparoscopy, surgical; colectomy, partial, with anastomosis, with coloproctostomy (low		-
44208	pelvic anastomosis) with colostomy	Procedure	CPT-4
	Laparoscopy, surgical; colectomy, total, abdominal, without proctectomy, with ileostomy		
44210	or ileoproctostomy	Procedure	CPT-4
	Laparoscopy, surgical; colectomy, total, abdominal, with proctectomy, with ileoanal		
	anastomosis, creation of ileal reservoir (S or J), with loop ileostomy, includes rectal		
44211	mucosectomy, when performed	Procedure	CPT-4
44212	Laparoscopy, surgical; colectomy, total, abdominal, with proctectomy, with ileostomy	Procedure	CPT-4
44310	lleostomy or jejunostomy, non-tube	Procedure	CPT-4
44312	Revision of ileostomy; simple (release of superficial scar) (separate procedure)	Procedure	CPT-4
44314	Revision of ileostomy; complicated (reconstruction in-depth) (separate procedure)	Procedure	CPT-4
44316	Continent ileostomy (Kock procedure) (separate procedure)	Procedure	CPT-4
44320	Colostomy or skin level cecostomy;	Procedure	CPT-4
	Colostomy or skin level cecostomy; with multiple biopsies (e.g., for congenital		
44322	megacolon) (separate procedure)	Procedure	CPT-4
44340	Revision of colostomy; simple (release of superficial scar) (separate procedure)	Procedure	CPT-4

cder_mpl1r_wp239 Page 28 of 40



Code	Description	Code Category	Code Type
44345	Revision of colostomy; complicated (reconstruction in-depth) (separate procedure)	Procedure	CPT-4
44346	Revision of colostomy; with repair of paracolostomy hernia (separate procedure)	Procedure	CPT-4
44540		Troccaure	CITT
44605	Suture of large intestine (colorrhaphy) for perforated ulcer, diverticulum, wound, injury	Dungandung	CDT 4
44605	or rupture (single or multiple perforations); with colostomy	Procedure	CPT-4
45.73	Open and other right hemicolectomy	Procedure	ICD-9-CM
45.75 45.81	Open and other left hemicolectomy	Procedure Procedure	ICD-9-CM
45.81	Laparoscopic total intra-abdominal colectomy		ICD-9-CM ICD-9-CM
45.82	Open total intra-abdominal colectomy	Procedure	ICD-9-CIVI
45.83	Other and unspecified total intra-abdominal colectomy	Procedure	
45110	Proctectomy; complete, combined abdominoperineal, with colostomy	Procedure	CPT-4
	Proctectomy, complete (for congenital megacolon), abdominal and perineal approach;		
45121	with subtotal or total colectomy, with multiple biopsies	Procedure	CPT-4
45136	Excision of ileoanal reservoir with ileostomy	Procedure	CPT-4
	Laparoscopy, surgical; proctectomy, complete, combined abdominoperineal, with		
45395	colostomy	Procedure	CPT-4
45563	Exploration, repair, and presacral drainage for rectal injury; with colostomy	Procedure	CPT-4
45805	Closure of rectovesical fistula; with colostomy	Procedure	CPT-4
45825	Closure of rectourethral fistula; with colostomy	Procedure	CPT-4
46.1	Colostomy, not otherwise specified	Procedure	ICD-9-CM
46.11	Temporary colostomy	Procedure	ICD-9-CM
46.13	Permanent colostomy	Procedure	ICD-9-CM
46.14	Delayed opening of colostomy	Procedure	ICD-9-CM
46.2	Ileostomy	Procedure	ICD-9-CM
46.21	Temporary ileostomy	Procedure	ICD-9-CM
46.22	Continent ileostomy	Procedure	ICD-9-CM
46.23	Other permanent ileostomy	Procedure	ICD-9-CM
46.24	Delayed opening of ileostomy	Procedure	ICD-9-CM
48.62	Anterior resection of rectum with synchronous colostomy	Procedure	ICD-9-CM
	Ureterosigmoidostomy, with creation of sigmoid bladder and establishment of		
50810	abdominal or perineal colostomy, including intestine anastomosis	Procedure	CPT-4
56.51	Formation of cutaneous uretero-ileostomy	Procedure	ICD-9-CM
569.6	Unspecified complication of colostomy or enterostomy	Diagnosis	ICD-9-CM
569.61	Infection of colostomy or enterostomy	Diagnosis	ICD-9-CM
569.62	Mechanical complication of colostomy and enterostomy	Diagnosis	ICD-9-CM
569.69	Other complication of colostomy or enterostomy	Diagnosis	ICD-9-CM
57307	Closure of rectovaginal fistula; abdominal approach, with concomitant colostomy	Procedure	CPT-4
	Documentation of postsurgical anatomy (e.g., right hemicolectomy, ileocecal resection,		
G9613	etc.)	Procedure	HCPCS
K94.0	Colostomy complications	Diagnosis	ICD-10-CM
K94.00	Colostomy complication, unspecified	Diagnosis	ICD-10-CM
K94.01	Colostomy hemorrhage	Diagnosis	ICD-10-CM
K94.02	Colostomy infection	Diagnosis	ICD-10-CM
K94.03	Colostomy malfunction	Diagnosis	ICD-10-CM
K94.09	Other complications of colostomy	Diagnosis	ICD-10-CM

cder_mpl1r_wp239 Page 29 of 40



		Code Category	•
Code	Description Enterectomy complication, unspecified	Code Category	Code Type
K94.10	Enterostomy complication, unspecified	Diagnosis	ICD-10-CM
K94.11	Enterostomy hemorrhage	Diagnosis	ICD-10-CM
K94.12	Enterostomy infection	Diagnosis	ICD-10-CM
K94.13	Enterostomy malfunction	Diagnosis	ICD-10-CM
K94.19	Other complications of enterostomy	Diagnosis	ICD-10-CM
V44.2	Ileostomy status	Diagnosis	ICD-9-CM
V44.3	Colostomy status	Diagnosis	ICD-9-CM
V55.2	Attention to ileostomy	Diagnosis	ICD-9-CM
V55.3	Attention to colostomy	Diagnosis	ICD-9-CM
Z43.2	Encounter for attention to ileostomy	Diagnosis	ICD-10-CM
Z43.3	Encounter for attention to colostomy	Diagnosis	ICD-10-CM
Z93.2	Ileostomy status	Diagnosis	ICD-10-CM
Z93.3	Colostomy status	Diagnosis	ICD-10-CM
	Colectomy, Colostomy, or Ileostomy: ICD-9-CM		
17.31	Laparoscopic multiple segmental resection of large intestine	Procedure	ICD-9-CM
17.33	Laparoscopic right hemicolectomy	Procedure	ICD-9-CM
17.35	Laparoscopic left hemicolectomy	Procedure	ICD-9-CM
17.39	Other laparoscopic partial excision of large intestine	Procedure	ICD-9-CM
44136	Intestinal allotransplantation; from living donor	Procedure	CPT-4
44140	Colectomy, partial; with anastomosis	Procedure	CPT-4
44141	Colectomy, partial; with skin level cecostomy or colostomy	Procedure	CPT-4
	Colectomy, partial; with end colostomy and closure of distal segment (Hartmann type		
44143	procedure)	Procedure	CPT-4
	Colectomy, partial; with resection, with colostomy or ileostomy and creation of		
44144	mucofistula	Procedure	CPT-4
44145	Colectomy, partial; with coloproctostomy (low pelvic anastomosis)	Procedure	CPT-4
44146	Colectomy, partial; with coloproctostomy (low pelvic anastomosis), with colostomy	Procedure	CPT-4
44147	Colectomy, partial; abdominal and transanal approach	Procedure	CPT-4
44150	Colectomy, total, abdominal, without proctectomy; with ileostomy or ileoproctostomy	Procedure	CPT-4
44151	Colectomy, total, abdominal, without proctectomy; with continent ileostomy	Procedure	CPT-4
44155	Colectomy, total, abdominal, with proctectomy; with ileostomy	Procedure	CPT-4
44156	Colectomy, total, abdominal, with proctectomy; with continent ileostomy	Procedure	CPT-4
	Colectomy, total, abdominal, with proctectomy; with ileoanal anastomosis, includes loop		
44157	ileostomy, and rectal mucosectomy, when performed	Procedure	CPT-4
44137	neostorny, and rectal indeosectorny, when performed	riocedule	CF 1-4
	Colectomy, total, abdominal, with proctectomy; with ileoanal anastomosis, creation of		
44158	ileal reservoir (S or J), includes loop ileostomy, and rectal mucosectomy, when performed	Procedure	CPT-4
44160	Colectomy, partial, with removal of terminal ileum with ileocolostomy	Procedure	CPT-4
44186	Laparoscopy, surgical; jejunostomy (e.g., for decompression or feeding)	Procedure	CPT-4
44187	Laparoscopy, surgical; ileostomy or jejunostomy, non-tube	Procedure	CPT-4
44188	Laparoscopy, surgical, colostomy or skin level cecostomy	Procedure	CPT-4
44204	Laparoscopy, surgical; colectomy, partial, with anastomosis	Procedure	CPT-4
	Laparoscopy, surgical; colectomy, partial, with removal of terminal ileum with		
44205	ileocolostomy	Procedure	CPT-4

cder_mpl1r_wp239 Page 30 of 40



Code	Description	Code Category	Code Type
	Laparoscopy, surgical; colectomy, partial, with end colostomy and closure of distal		
44206	segment (Hartmann type procedure)	Procedure	CPT-4
	Laparoscopy, surgical; colectomy, partial, with anastomosis, with coloproctostomy (low		
44207	pelvic anastomosis)	Procedure	CPT-4
	Laparoscopy, surgical; colectomy, partial, with anastomosis, with coloproctostomy (low		
44208	pelvic anastomosis) with colostomy	Procedure	CPT-4
	Laparoscopy, surgical; colectomy, total, abdominal, without proctectomy, with ileostomy		
44210	or ileoproctostomy	Procedure	CPT-4
	Laparoscopy, surgical; colectomy, total, abdominal, with proctectomy, with ileoanal anastomosis, creation of ileal reservoir (S or J), with loop ileostomy, includes rectal		
44211	mucosectomy, when performed	Procedure	CPT-4
44212	Laparoscopy, surgical; colectomy, total, abdominal, with proctectomy, with ileostomy	Procedure	CPT-4
44310	Ileostomy or jejunostomy, non-tube	Procedure	CPT-4
44312	Revision of ileostomy; simple (release of superficial scar) (separate procedure)	Procedure	CPT-4
44314	Revision of ileostomy; complicated (reconstruction in-depth) (separate procedure)	Procedure	CPT-4
44316	Continent ileostomy (Kock procedure) (separate procedure)	Procedure	CPT-4
44320	Colostomy or skin level cecostomy;	Procedure	CPT-4
	Colostomy or skin level cecostomy; with multiple biopsies (e.g., for congenital		
44322	megacolon) (separate procedure)	Procedure	CPT-4
44340	Revision of colostomy; simple (release of superficial scar) (separate procedure)	Procedure	CPT-4
44345	Revision of colostomy; complicated (reconstruction in-depth) (separate procedure)	Procedure	CPT-4
44346	Revision of colostomy; with repair of paracolostomy hernia (separate procedure)	Procedure	CPT-4
	Suture of large intestine (colorrhaphy) for perforated ulcer, diverticulum, wound, injury		
44605	or rupture (single or multiple perforations); with colostomy	Procedure	CPT-4
45.73	Open and other right hemicolectomy	Procedure	ICD-9-CM
45.75	Open and other left hemicolectomy	Procedure	ICD-9-CM
45.81	Laparoscopic total intra-abdominal colectomy	Procedure	ICD-9-CM
45.82	Open total intra-abdominal colectomy	Procedure	ICD-9-CM
45.83	Other and unspecified total intra-abdominal colectomy	Procedure	ICD-9-CM
45110	Proctectomy; complete, combined abdominoperineal, with colostomy	Procedure	CPT-4
	Proctectomy, complete (for congenital megacolon), abdominal and perineal approach;		
45121	with subtotal or total colectomy, with multiple biopsies	Procedure	CPT-4
45136	Excision of ileoanal reservoir with ileostomy	Procedure	CPT-4
	Laparoscopy, surgical; proctectomy, complete, combined abdominoperineal, with		
45395	colostomy	Procedure	CPT-4
45563	Exploration, repair, and presacral drainage for rectal injury; with colostomy	Procedure	CPT-4
45805	Closure of rectovesical fistula; with colostomy	Procedure	CPT-4
45825	Closure of rectourethral fistula; with colostomy	Procedure	CPT-4
46.1	Colostomy, not otherwise specified	Procedure	ICD-9-CM
46.11	Temporary colostomy	Procedure	ICD-9-CM
46.13	Permanent colostomy	Procedure	ICD-9-CM
46.14	Delayed opening of colostomy	Procedure	ICD-9-CM
46.2	lleostomy	Procedure	ICD-9-CM

cder_mpl1r_wp239 Page 31 of 40



		-	-
Code	Description	Code Category	Code Type
46.21	Temporary ileostomy	Procedure	ICD-9-CM
46.22	Continent ileostomy	Procedure	ICD-9-CM
46.23	Other permanent ileostomy	Procedure	ICD-9-CM
46.24	Delayed opening of ileostomy	Procedure	ICD-9-CM
48.62	Anterior resection of rectum with synchronous colostomy	Procedure	ICD-9-CM
	Ureterosigmoidostomy, with creation of sigmoid bladder and establishment of		
50810	abdominal or perineal colostomy, including intestine anastomosis	Procedure	CPT-4
56.51	Formation of cutaneous uretero-ileostomy	Procedure	ICD-9-CM
569.6	Unspecified complication of colostomy or enterostomy	Diagnosis	ICD-9-CM
569.61	Infection of colostomy or enterostomy	Diagnosis	ICD-9-CM
569.62	Mechanical complication of colostomy and enterostomy	Diagnosis	ICD-9-CM
569.69	Other complication of colostomy or enterostomy	Diagnosis	ICD-9-CM
57307	Closure of rectovaginal fistula; abdominal approach, with concomitant colostomy	Procedure	CPT-4
	Documentation of postsurgical anatomy (e.g., right hemicolectomy, ileocecal resection,		
G9613	etc.)	Procedure	HCPCS
V44.2	Ileostomy status	Diagnosis	ICD-9-CM
V44.3	Colostomy status	Diagnosis	ICD-9-CM
V55.2	Attention to ileostomy	Diagnosis	ICD-9-CM
V55.3	Attention to colostomy	Diagnosis	ICD-9-CM
	Colectomy, Colostomy, or Ileostomy: ICD-10-PCS		
ODTE0ZZ	Resection of Large Intestine, Open Approach	Procedure	ICD-10-PCS
ODTE4ZZ	Resection of Large Intestine, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODTE7ZZ	Resection of Large Intestine, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTE8ZZ	Resection of Large Intestine, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DTF0ZZ	Resection of Right Large Intestine, Open Approach	Procedure	ICD-10-PCS
0DTF4ZZ	Resection of Right Large Intestine, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODTF7ZZ	Resection of Right Large Intestine, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTF8ZZ	Resection of Right Large Intestine, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DTG0ZZ	Resection of Left Large Intestine, Open Approach	Procedure	ICD-10-PCS
0DTG4ZZ	Resection of Left Large Intestine, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DTG7ZZ	Resection of Left Large Intestine, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DTG8ZZ	Resection of Left Large Intestine, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
	Resection of Left Large Intestine, Via Natural or Artificial Opening With Percutaneous		
0DTGFZZ	Endoscopic Assistance	Procedure	ICD-10-PCS
0DTH0ZZ	Resection of Cecum, Open Approach	Procedure	ICD-10-PCS
0DTH7ZZ	Resection of Cecum, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTH8ZZ	Resection of Cecum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DTK0ZZ	Resection of Ascending Colon, Open Approach	Procedure	ICD-10-PCS
ODTK7ZZ	Resection of Ascending Colon, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTK8ZZ	Resection of Ascending Colon, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
ODTLOZZ	Resection of Transverse Colon, Open Approach	Procedure	ICD-10-PCS
ODTL7ZZ	Resection of Transverse Colon, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTL722	Resection of Transverse Colon, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
JUILOLL	nesection of fransverse colon, via watural of Artificial Opening Endoscopic	Trocedure	1CD-10-LC2

cder_mpl1r_wp239 Page 32 of 40



	riocedural coding system (icb-10-rcs) codes osed to beline colectomy, colostomy, or i	•	
Code	Description	Code Category	Code Type
	Resection of Transverse Colon, Via Natural or Artificial Opening With Percutaneous		
0DTLFZZ	Endoscopic Assistance	Procedure	ICD-10-PCS
0DTM0ZZ	Resection of Descending Colon, Open Approach	Procedure	ICD-10-PCS
0DTM7ZZ	Resection of Descending Colon, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DTM8ZZ	Resection of Descending Colon, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
	Resection of Descending Colon, Via Natural or Artificial Opening With Percutaneous		
0DTMFZZ	Endoscopic Assistance	Procedure	ICD-10-PCS
0DTN0ZZ	Resection of Sigmoid Colon, Open Approach	Procedure	ICD-10-PCS
ODTN7ZZ	Resection of Sigmoid Colon, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTN8ZZ	Resection of Sigmoid Colon, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
	Resection of Sigmoid Colon, Via Natural or Artificial Opening With Percutaneous		
0DTNFZZ	Endoscopic Assistance	Procedure	ICD-10-PCS
0DTP0ZZ	Resection of Rectum, Open Approach	Procedure	ICD-10-PCS
ODTP4ZZ	Resection of Rectum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
44136	Intestinal allotransplantation; from living donor	Procedure	CPT-4
44140	Colectomy, partial; with anastomosis	Procedure	CPT-4
44141	Colectomy, partial; with skin level cecostomy or colostomy	Procedure	CPT-4
	Colectomy, partial; with end colostomy and closure of distal segment (Hartmann type		
44143	procedure)	Procedure	CPT-4
	Colectomy, partial; with resection, with colostomy or ileostomy and creation of		
44144	mucofistula	Procedure	CPT-4
44145	Colectomy, partial; with coloproctostomy (low pelvic anastomosis)	Procedure	CPT-4
44146	Colectomy, partial; with coloproctostomy (low pelvic anastomosis), with colostomy	Procedure	CPT-4
44147	Colectomy, partial; abdominal and transanal approach	Procedure	CPT-4
44150	Colectomy, total, abdominal, without proctectomy; with ileostomy or ileoproctostomy	Procedure	CPT-4
44151	Colectomy, total, abdominal, without proctectomy; with continent ileostomy	Procedure	CPT-4
44155	Colectomy, total, abdominal, with proctectomy; with ileostomy	Procedure	CPT-4
44156	Colectomy, total, abdominal, with proctectomy; with continent ileostomy	Procedure	CPT-4
	Colectomy, total, abdominal, with proctectomy; with ileoanal anastomosis, includes loop		
44157	ileostomy, and rectal mucosectomy, when performed	Procedure	CPT-4
	Colectomy, total, abdominal, with proctectomy; with ileoanal anastomosis, creation of		
44158	ileal reservoir (S or J), includes loop ileostomy, and rectal mucosectomy, when performed	Procedure	CPT-4
44160	Colectomy, partial, with removal of terminal ileum with ileocolostomy	Procedure	CPT-4
44186	Laparoscopy, surgical; jejunostomy (e.g., for decompression or feeding)	Procedure	CPT-4
44187	Laparoscopy, surgical; ileostomy or jejunostomy, non-tube	Procedure	CPT-4
44188	Laparoscopy, surgical, colostomy or skin level cecostomy	Procedure	CPT-4
44204	Laparoscopy, surgical; colectomy, partial, with anastomosis	Procedure	CPT-4
	Laparoscopy, surgical; colectomy, partial, with removal of terminal ileum with		
44205	ileocolostomy	Procedure	CPT-4
	Laparoscopy, surgical; colectomy, partial, with end colostomy and closure of distal		
44206	segment (Hartmann type procedure)	Procedure	CPT-4
	Laparoscopy, surgical; colectomy, partial, with anastomosis, with coloproctostomy (low		
44207	pelvic anastomosis)	Procedure	CPT-4

cder_mpl1r_wp239 Page 33 of 40



Code	Description	Code Category	Code Type
Code	Laparoscopy, surgical; colectomy, partial, with anastomosis, with coloproctostomy (low	code category	coue Type
44208	pelvic anastomosis) with colostomy	Procedure	CPT-4
44200	Laparoscopy, surgical; colectomy, total, abdominal, without proctectomy, with ileostomy		CI I-4
44210	or ileoproctostomy	Procedure	CPT-4
44210		Troccaure	CITT
	Laparoscopy, surgical; colectomy, total, abdominal, with proctectomy, with ileoanal		
	anastomosis, creation of ileal reservoir (S or J), with loop ileostomy, includes rectal		
44211	mucosectomy, when performed	Procedure	CPT-4
44212	Laparoscopy, surgical; colectomy, total, abdominal, with proctectomy, with ileostomy	Procedure	CPT-4
44310	Ileostomy or jejunostomy, non-tube	Procedure	CPT-4
44312	Revision of ileostomy; simple (release of superficial scar) (separate procedure)	Procedure	CPT-4
44314	Revision of ileostomy; complicated (reconstruction in-depth) (separate procedure)	Procedure	CPT-4
44316	Continent ileostomy (Kock procedure) (separate procedure)	Procedure	CPT-4
44320	Colostomy or skin level cecostomy;	Procedure	CPT-4
	Colostomy or skin level cecostomy; with multiple biopsies (e.g., for congenital		
44322	megacolon) (separate procedure)	Procedure	CPT-4
44340	Revision of colostomy; simple (release of superficial scar) (separate procedure)	Procedure	CPT-4
44345	Revision of colostomy; complicated (reconstruction in-depth) (separate procedure)	Procedure	CPT-4
44346	Revision of colostomy; with repair of paracolostomy hernia (separate procedure)	Procedure	CPT-4
	Suture of large intestine (colorrhaphy) for perforated ulcer, diverticulum, wound, injury		
44605	or rupture (single or multiple perforations); with colostomy	Procedure	CPT-4
45110	Proctectomy; complete, combined abdominoperineal, with colostomy	Procedure	CPT-4
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45121	Proctectomy, complete (for congenital megacolon), abdominal and perineal approach; with subtotal or total colectomy, with multiple biopsies	Procedure	CPT-4
45121	Excision of ileoanal reservoir with ileostomy	Procedure	CPT-4 CPT-4
43130	Laparoscopy, surgical; proctectomy, complete, combined abdominoperineal, with	riocedure	CF 1-4
45395	colostomy	Procedure	CPT-4
45563	Exploration, repair, and presacral drainage for rectal injury; with colostomy	Procedure	CPT-4
45805	Closure of rectovesical fistula; with colostomy	Procedure	CPT-4
45825	Closure of rectovesical ristula; with colostomy	Procedure	CPT-4
43023	•	Troccaure	CITT
50810	Ureterosigmoidostomy, with creation of sigmoid bladder and establishment of	Dragodura	CDT 4
	abdominal or perineal colostomy, including intestine anastomosis	Procedure	CPT-4
57307	Closure of rectovaginal fistula; abdominal approach, with concomitant colostomy	Procedure	CPT-4
C0C12	Documentation of postsurgical anatomy (e.g., right hemicolectomy, ileocecal resection,	Due so dune	HCDCC
G9613	etc.)	Procedure	HCPCS
K94.0 K94.00	Colostomy complications	Diagnosis	ICD-10-CM ICD-10-CM
K94.00	Colostomy complication, unspecified Colostomy hemorrhage	Diagnosis Diagnosis	ICD-10-CM
K94.01	Colostomy infection	Diagnosis	ICD-10-CM
K94.02	Colostomy malfunction	Diagnosis	ICD-10-CM
K94.09	Other complications of colostomy	Diagnosis	ICD-10-CW
K94.10	Enterostomy complication, unspecified	Diagnosis	ICD-10-CM
K94.11	Enterostomy hemorrhage	Diagnosis	ICD-10-CM
K94.12	Enterostomy infection	Diagnosis	ICD-10-CM
		-100110313	.02 10 0141

cder_mpl1r_wp239 Page 34 of 40



Code	Description	Code Category	Code Type
K94.13	Enterostomy malfunction	Diagnosis	ICD-10-CM
K94.19	Other complications of enterostomy	Diagnosis	ICD-10-CM
Z43.2	Encounter for attention to ileostomy	Diagnosis	ICD-10-CM
Z43.3	Encounter for attention to colostomy	Diagnosis	ICD-10-CM
Z93.2	lleostomy status	Diagnosis	ICD-10-CM
Z93.3	Colostomy status	Diagnosis	ICD-10-CM

cder_mpl1r_wp239 Page 35 of 40



Code	Description	Code Category	Code Type
ODTE0ZZ	Resection of Large Intestine, Open Approach	Procedure	ICD-10-PCS
ODTE4ZZ	Resection of Large Intestine, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODTE7ZZ	Resection of Large Intestine, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTE8ZZ	Resection of Large Intestine, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DTF0ZZ	Resection of Right Large Intestine, Open Approach	Procedure	ICD-10-PCS
0DTF4ZZ	Resection of Right Large Intestine, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODTF7ZZ	Resection of Right Large Intestine, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTF8ZZ	Resection of Right Large Intestine, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DTG0ZZ	Resection of Left Large Intestine, Open Approach	Procedure	ICD-10-PCS
0DTG4ZZ	Resection of Left Large Intestine, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DTG7ZZ	Resection of Left Large Intestine, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DTG8ZZ	Resection of Left Large Intestine, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
	Resection of Left Large Intestine, Via Natural or Artificial Opening With Percutaneous		
	Endoscopic Assistance	Procedure	ICD-10-PCS
0DTH0ZZ		Procedure	ICD-10-PCS
	Resection of Cecum, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
	Resection of Cecum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
	Resection of Ascending Colon, Open Approach	Procedure	ICD-10-PCS
	Resection of Ascending Colon, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
	Resection of Ascending Colon, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
	Resection of Transverse Colon, Open Approach	Procedure	ICD-10-PCS
	Resection of Transverse Colon, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DTL8ZZ	Resection of Transverse Colon, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
	Resection of Transverse Colon, Via Natural or Artificial Opening With Percutaneous		
	Endoscopic Assistance	Procedure	ICD-10-PCS
0DTM0ZZ	Resection of Descending Colon, Open Approach	Procedure	ICD-10-PCS
0DTM7ZZ	Resection of Descending Colon, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DTM8ZZ	Resection of Descending Colon, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
	Resection of Descending Colon, Via Natural or Artificial Opening With Percutaneous		
0DTMFZZ	Endoscopic Assistance	Procedure	ICD-10-PCS
0DTN0ZZ	Resection of Sigmoid Colon, Open Approach	Procedure	ICD-10-PCS
0DTN7ZZ	Resection of Sigmoid Colon, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTN8ZZ	Resection of Sigmoid Colon, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
	Resection of Sigmoid Colon, Via Natural or Artificial Opening With Percutaneous		
0DTNFZZ	Endoscopic Assistance	Procedure	ICD-10-PCS
0DTP0ZZ	Resection of Rectum, Open Approach	Procedure	ICD-10-PCS
ODTP4ZZ	Resection of Rectum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
17.31	Laparoscopic multiple segmental resection of large intestine	Procedure	ICD-9-CM
17.33	Laparoscopic right hemicolectomy	Procedure	ICD-9-CM
17.35	Laparoscopic left hemicolectomy	Procedure	ICD-9-CM
17.39	Other laparoscopic partial excision of large intestine	Procedure	ICD-9-CM
44136	Intestinal allotransplantation; from living donor	Procedure	CPT-4
44140	Colectomy, partial; with anastomosis	Procedure	CPT-4
44141	Colectomy, partial; with skin level cecostomy or colostomy	Procedure	CPT-4

cder_mpl1r_wp239 Page 36 of 40



Request				
Code	Description	Code Category	Code Type	
	Colectomy, partial; with end colostomy and closure of distal segment (Hartmann type			
44143	procedure)	Procedure	CPT-4	
	Colectomy, partial; with resection, with colostomy or ileostomy and creation of			
44144	mucofistula	Procedure	CPT-4	
44145	Colectomy, partial; with coloproctostomy (low pelvic anastomosis)	Procedure	CPT-4	
44146	Colectomy, partial; with coloproctostomy (low pelvic anastomosis), with colostomy	Procedure	CPT-4	
44147	Colectomy, partial; abdominal and transanal approach	Procedure	CPT-4	
44150	Colectomy, total, abdominal, without proctectomy; with ileostomy or ileoproctostomy	Procedure	CPT-4	
44151	Colectomy, total, abdominal, without proctectomy; with continent ileostomy	Procedure	CPT-4	
44155	Colectomy, total, abdominal, with proctectomy; with ileostomy	Procedure	CPT-4	
44156	Colectomy, total, abdominal, with proctectomy; with continent ileostomy	Procedure	CPT-4	
	Colectomy, total, abdominal, with proctectomy; with ileoanal anastomosis, includes loop			
44157	ileostomy, and rectal mucosectomy, when performed	Procedure	CPT-4	
	Colectomy, total, abdominal, with proctectomy; with ileoanal anastomosis, creation of			
44158	ileal reservoir (S or J), includes loop ileostomy, and rectal mucosectomy, when performed	Procedure	CPT-4	
44160	Colectomy, partial, with removal of terminal ileum with ileocolostomy	Procedure	CPT-4	
44186	Laparoscopy, surgical; jejunostomy (e.g., for decompression or feeding)	Procedure	CPT-4	
44187	Laparoscopy, surgical; ileostomy or jejunostomy, non-tube	Procedure	CPT-4	
44188	Laparoscopy, surgical, colostomy or skin level cecostomy	Procedure	CPT-4	
44204	Laparoscopy, surgical; colectomy, partial, with anastomosis	Procedure	CPT-4	
	Laparoscopy, surgical; colectomy, partial, with removal of terminal ileum with			
44205	ileocolostomy	Procedure	CPT-4	
	Laparoscopy, surgical; colectomy, partial, with end colostomy and closure of distal			
44206	segment (Hartmann type procedure)	Procedure	CPT-4	
	Laparoscopy, surgical; colectomy, partial, with anastomosis, with coloproctostomy (low			
44207	pelvic anastomosis)	Procedure	CPT-4	
	Laparoscopy, surgical; colectomy, partial, with anastomosis, with coloproctostomy (low			
44208	pelvic anastomosis) with colostomy	Procedure	CPT-4	
	Laparoscopy, surgical; colectomy, total, abdominal, without proctectomy, with ileostomy			
44210	or ileoproctostomy	Procedure	CPT-4	
	Laparoscopy, surgical; colectomy, total, abdominal, with proctectomy, with ileoanal			
	anastomosis, creation of ileal reservoir (S or J), with loop ileostomy, includes rectal			
44211	mucosectomy, when performed	Procedure	CPT-4	
44212	Laparoscopy, surgical; colectomy, total, abdominal, with proctectomy, with ileostomy	Procedure	CPT-4	
44310	lleostomy or jejunostomy, non-tube	Procedure	CPT-4	
44312	Revision of ileostomy; simple (release of superficial scar) (separate procedure)	Procedure	CPT-4	
44314	Revision of ileostomy; complicated (reconstruction in-depth) (separate procedure)	Procedure	CPT-4	
44316	Continent ileostomy (Kock procedure) (separate procedure)	Procedure	CPT-4	
44320	Colostomy or skin level cecostomy;	Procedure	CPT-4	
	Colostomy or skin level cecostomy; with multiple biopsies (e.g., for congenital megacolon)			
44322	(separate procedure)	Procedure	CPT-4	
44340	Revision of colostomy; simple (release of superficial scar) (separate procedure)	Procedure	CPT-4	
44345	Revision of colostomy; complicated (reconstruction in-depth) (separate procedure)	Procedure	CPT-4	

cder_mpl1r_wp239 Page 37 of 40



Code	Description	Code Category	Code Type	
44346	Revision of colostomy; with repair of paracolostomy hernia (separate procedure)	Procedure	CPT-4	
	Suture of large intestine (colorrhaphy) for perforated ulcer, diverticulum, wound, injury			
44605	or rupture (single or multiple perforations); with colostomy	Procedure	CPT-4	
45.73	Open and other right hemicolectomy	Procedure	ICD-9-CM	
45.75	Open and other left hemicolectomy	Procedure	ICD-9-CM	
45.81	Laparoscopic total intra-abdominal colectomy	Procedure	ICD-9-CM	
45.82	Open total intra-abdominal colectomy	Procedure	ICD-9-CM	
45.83	Other and unspecified total intra-abdominal colectomy	Procedure	ICD-9-CM	
45110	Proctectomy; complete, combined abdominoperineal, with colostomy	Procedure	CPT-4	
	Proctectomy, complete (for congenital megacolon), abdominal and perineal approach;			
45121	with subtotal or total colectomy, with multiple biopsies	Procedure	CPT-4	
45136	Excision of ileoanal reservoir with ileostomy	Procedure	CPT-4	
	Laparoscopy, surgical; proctectomy, complete, combined abdominoperineal, with			
45395	colostomy	Procedure	CPT-4	
45563	Exploration, repair, and presacral drainage for rectal injury; with colostomy	Procedure	CPT-4	
45805	Closure of rectovesical fistula; with colostomy	Procedure	CPT-4	
45825	Closure of rectourethral fistula; with colostomy	Procedure	CPT-4	
46.1	Colostomy, not otherwise specified	Procedure	ICD-9-CM	
46.11	Temporary colostomy	Procedure	ICD-9-CM	
46.13	Permanent colostomy	Procedure	ICD-9-CM	
46.14	Delayed opening of colostomy	Procedure	ICD-9-CM	
46.2	Ileostomy	Procedure	ICD-9-CM	
46.21	Temporary ileostomy	Procedure	ICD-9-CM	
46.22	Continent ileostomy	Procedure	ICD-9-CM	
46.23	Other permanent ileostomy	Procedure	ICD-9-CM	
46.24	Delayed opening of ileostomy	Procedure	ICD-9-CM	
48.62	Anterior resection of rectum with synchronous colostomy	Procedure	ICD-9-CM	
	Ureterosigmoidostomy, with creation of sigmoid bladder and establishment of abdomina			
50810	or perineal colostomy, including intestine anastomosis	Procedure	CPT-4	
56.51	Formation of cutaneous uretero-ileostomy	Procedure	ICD-9-CM	
569.6	Unspecified complication of colostomy or enterostomy	Diagnosis	ICD-9-CM	
569.61	Infection of colostomy or enterostomy	Diagnosis	ICD-9-CM	
569.62	Mechanical complication of colostomy and enterostomy	Diagnosis	ICD-9-CM	
569.69 57307	Other complication of colostomy or enterostomy	Diagnosis Procedure	ICD-9-CM CPT-4	
3/30/	Closure of rectovaginal fistula; abdominal approach, with concomitant colostomy Documentation of postsurgical anatomy (e.g., right hemicolectomy, ileocecal resection,	Procedure	CP1-4	
G9613	etc.)	Procedure	HCPCS	
K94.0	Colostomy complications	Diagnosis	ICD-10-CM	
K94.00	Colostomy complications Colostomy complication, unspecified	Diagnosis	ICD-10-CM	
K94.00	Colostomy hemorrhage	Diagnosis	ICD-10-CM	
K94.01	Colostomy infection	Diagnosis	ICD-10-CM	
K94.03	Colostomy malfunction	Diagnosis	ICD-10-CM	
K94.09	Other complications of colostomy	Diagnosis	ICD-10-CM	
K94.10	Enterostomy complication, unspecified	Diagnosis	ICD-10-CM	
		2100110010	.00 10 0141	

cder_mpl1r_wp239 Page 38 of 40



Code	Description	Code Category	Code Type
K94.11	Enterostomy hemorrhage	Diagnosis	ICD-10-CM
K94.12	Enterostomy infection	Diagnosis	ICD-10-CM
K94.13	Enterostomy malfunction	Diagnosis	ICD-10-CM
K94.19	Other complications of enterostomy	Diagnosis	ICD-10-CM
V44.2	Ileostomy status	Diagnosis	ICD-9-CM
V44.3	Colostomy status	Diagnosis	ICD-9-CM
V55.2	Attention to ileostomy	Diagnosis	ICD-9-CM
V55.3	Attention to colostomy	Diagnosis	ICD-9-CM
Z43.2	Encounter for attention to ileostomy	Diagnosis	ICD-10-CM
Z43.3	Encounter for attention to colostomy	Diagnosis	ICD-10-CM
Z93.2	Ileostomy status	Diagnosis	ICD-10-CM
Z93.3	Colostomy status	Diagnosis	ICD-10-CM

cder_mpl1r_wp239 Page 39 of 40



Appendix D. Specifications of the Study Design and Parameters Used in this Request

Sentinel's Cohort Identification and Descriptive Analysis (CIDA) tool will be used to compare the frequency of diagnoses for a selection of health outcomes using ICD-9 versus ICD-10 codes

Coverage requirement: At least medical coverage

Enrollment gap: 45 Days

Enrollment Requirement: (See below)

Age groups: 0-106
Stratifications: (See below)

Exposure/Event

Scenario	Group	Event	Enrollment Requirement	Stratifications	Query Period Start	Query Period End	Monitoring File/Run#	Event Code Type	Incident Code Type	Cohort definition	Washout period	Care setting
1	CCI_9_yr1	Colectomy, Colostomy, or ileostomy	183	None	10/1/2013	9/30/2014	1	ICD-9-CM	ICD-9-CM	02	183	Any care setting
2	CCI_9_yr2	Colectomy, Colostomy, or ileostomy	183	None	10/1/2014	9/30/2015	2	ICD-9-CM	ICD-9-CM	02	183	Any care setting
3	CCI_10_yr1	Colectomy, Colostomy, or ileostomy	183	None	10/1/2015	9/30/2016	3	ICD-10-CM	ICD-10-CM	02	183	Any care setting
4	CCI_10_yr2	Colectomy, Colostomy, or ileostomy	183	None	10/1/2016	9/30/2017	4	ICD-10-CM	ICD-10-CM	02	183	Any care setting
5	CCI_9_inc	Colectomy, Colostomy, or ileostomy	183	Year*Month	10/1/2010	12/31/2022	5	ICD-9-CM	ICD-9-CM, ICD-10-CM	02	183	Any care setting
6	CCI_10_inc	Colectomy, Colostomy, or ileostomy	183	Year*Month	10/1/2010	12/31/2022	5	ICD-10-CM	ICD-9-CM, ICD-10-CM	02	183	Any care setting
7	CCI_9_prev	Colectomy, Colostomy, or ileostomy	0	Year*Month	10/1/2010	12/31/2022	5	ICD-9-CM	N/A	02	0	Any care setting
8	CCI_10_prev	Colectomy, Colostomy, or ileostomy	0	Year*Month	10/1/2010	12/31/2022	5	ICD-10-CM	N/A	02	0	Any care setting

ICD-9-CM and ICD-10-CM are provided by FDA. ICD-10-CM codes were mapped from ICD-9-CM codes and ICD-9-CM codes were mapped from ICD-10-CM.

ICD-9, ICD-10, HCPCS, and CPT codes are provided by FDA.

NDC codes are checked against First Data Bank's FDB MedKnowledge®.

cder_mpl1r_wp239