

[PL] Earliest event of Crohns disease

Cohort Definition Id: 10616

Link to Editable Definition: <https://epi.jnj.com/atlas/#!/cohortdefinition/10616>

Cohort Definition Description

source: 5802; hashTag: #ASSURE, #Indication, #ASSURE-Indication; submitter: Joel Swerdel, Anna Sheehan logic: Earliest occurrence of Crohns disease indexed on diagnosis date, for the first time in history; cohort exit is the end of continuous observation;

Clinical Description

Crohn's disease (CD) is an idiopathic inflammatory bowel disease that can affect any portion of the intestinal tract with focal, asymmetric, transmural, and granulomatous inflammation[1-3]. Crohn's disease is characterized by chronic inflammation that may extend through all layers of the intestinal wall, involving the mesentery and regional lymph nodes. Intestinal involvement is discontinuous; "skip areas" of apparently normal tissue separate severely involved segments. Reported incidence varies geographically, ranging from 0-20.02 cases per 100,000 py in North America and 0.3-12.7 cases per 100,000 in Europe. Reported prevalence is highest in Europe (322 cases per 100,000 persons in Germany) and North America (319 cases per 100,000 persons in Canada) [4]. Risk factors include smoking, diet, and genetic factors.

Evaluation Summary

We developed a prevalent cohort definition for Crohns disease (CD) using a concept set of two concepts which incorporated all those found from the literature review and from the analysis of PHOEBE and orphan concepts in cohort diagnostics. The algorithm retrieves subjects from all 11 databases tested. We developed a more specific cohort requiring a second diagnosis code for CD in the time period 31-365 days after index. This cohort improves the specificity of the algorithm albeit at the expense of sensitivity as determined by PheValuator. The 31-365 day period was determined to improve specificity compared to a 1-30 day or 1-60 day post-index second code requirement. The significant loss in sensitivity, however, precludes its use in ASSURE.

Human Readable Algorithm

Cohort Entry Events

People enter the cohort when observing any of the following:

1. condition occurrence of 'Crohns disease' for the first time in the person's history.

Limit cohort entry events to the earliest event per person.

Cohort Exit

The person exits the cohort at the end of continuous observation.

Cohort Eras

Remaining events will be combined into cohort eras if they are within 0 days of each other.

Concept Sets

Crohns disease

Concept Set Logic

conceptId	conceptName	vocabularyId	includeDescendants	isExcluded	includeMapped
46269889	Complication due to Crohn's disease	SNOMED	TRUE	FALSE	FALSE
201606	Crohn's disease	SNOMED	TRUE	FALSE	FALSE
4340812	Perianal Crohn's disease	SNOMED	TRUE	FALSE	FALSE

Included Concepts

conceptId	conceptName	vocabularyId
46269888	Abscess of intestine co-occurrent and due to Crohn's disease	SNOMED
46274073	Abscess of intestine co-occurrent and due to Crohn's disease of large intestine	SNOMED
46269878	Abscess of intestine co-occurrent and due to Crohn's disease of small and large intestine	SNOMED
46269883	Abscess of intestine co-occurrent and due to Crohn's disease of small intestine	SNOMED
36716986	Arthritis co-occurrent and due to Crohn's disease	SNOMED
37162889	Colorectal Crohn disease	SNOMED
46269889	Complication due to Crohn's disease	SNOMED
46269874	Complication due to Crohn's disease of large intestine	SNOMED
46269879	Complication due to Crohn's disease of small and large intestines	SNOMED
46269884	Complication due to Crohn's disease of small intestine	SNOMED
36715915	Crohn disease of anal canal	SNOMED
37116446	Crohn disease of appendix	SNOMED
37172426	Crohn disease of colon in remission	SNOMED
37170088	Crohn disease of rectum in remission	SNOMED
37172546	Crohn disease of small intestine and large intestine in remission	SNOMED
37170274	Crohn disease of small intestine in remission	SNOMED
42537666	Crohn disease of upper gastrointestinal tract	SNOMED
201606	Crohn's disease	SNOMED
4142544	Crohn's disease in remission	SNOMED
4177488	Crohn's disease of colon	SNOMED
4210469	Crohn's disease of duodenum	SNOMED
4340114	Crohn's disease of esophagus	SNOMED
36716695	Crohn's disease of gastrointestinal anastomosis	SNOMED
4122617	Crohn's disease of gingivae	SNOMED
4244235	Crohn's disease of ileum	SNOMED
4246693	Crohn's disease of intestine	SNOMED
4239382	Crohn's disease of jejunum	SNOMED
194684	Crohn's disease of large bowel	SNOMED
4055884	Crohn's disease of oral soft tissues	SNOMED
37162884	Crohn's disease of parastomal skin	SNOMED
4299294	Crohn's disease of penis	SNOMED
4323289	Crohn's disease of pyloric antrum	SNOMED
4266370	Crohn's disease of pylorus	SNOMED
4242392	Crohn's disease of rectum	SNOMED
4292361	Crohn's disease of scrotum	SNOMED
4290835	Crohn's disease of skin	SNOMED
195575	Crohn's disease of small and large intestines	SNOMED
195585	Crohn's disease of small intestine	SNOMED
36686095	Crohn's disease of small intestine with stenosis	SNOMED
4342643	Crohn's disease of stomach	SNOMED
4055020	Crohn's disease of terminal ileum	SNOMED
4297643	Crohn's disease of vulva	SNOMED

conceptId	conceptName	vocabularyId
4131542	Crohn's stricture of colon	SNOMED
37162851	Duodenal ulcer due to Crohn disease	SNOMED
1340297	Exacerbation of Crohn's disease	OMOP
		Extension
4212991	Exacerbation of Crohn's disease of large intestine	SNOMED
4212992	Exacerbation of Crohn's disease of small intestine	SNOMED
37111373	Extraintestinal Crohn's	SNOMED
46269880	Fistula of intestine due to Crohn's disease of small and large intestine	SNOMED
46269875	Fistula of large intestine due to Crohn's disease	SNOMED
46269885	Fistula of small intestine due to Crohn's disease	SNOMED
37162871	Gastric ulcer due to Crohn disease	SNOMED
37162865	Gastrointestinal anastomotic ulcer due to Crohn disease	SNOMED
4264850	Gastrointestinal Crohn's disease	SNOMED
37162890	Ileocecal Crohn disease	SNOMED
46269890	Intestinal obstruction due to Crohn's disease	SNOMED
46269876	Intestinal obstruction due to Crohn's disease of large intestine	SNOMED
46269881	Intestinal obstruction due to Crohn's disease of small and large intestine	SNOMED
46269886	Intestinal obstruction due to Crohn's disease of small intestine	SNOMED
4253620	Iritis with Crohn's disease	SNOMED
4115377	Juvenile arthritis in Crohn disease	SNOMED
4297644	Metastatic Crohn's disease of skin	SNOMED
4340812	Perianal Crohn's disease	SNOMED
37116713	Perianal fistula due to Crohn's disease	SNOMED
46269891	Rectal hemorrhage due to Crohn's disease	SNOMED
46269877	Rectal hemorrhage due to Crohn's disease of large intestine	SNOMED
46269882	Rectal hemorrhage due to Crohn's disease of small and large intestines	SNOMED
46269887	Rectal hemorrhage due to Crohn's disease of small intestine	SNOMED