

**Supplementary 1.** ICD 10th code of colorectal cancer

ICD code	Diagnosis
C180	Cecal cancer Malignant neoplasm of cecum Malignant neoplasm of ileocecal valve
C181	Appendix cancer Appendiceal cancer Appendiceal adenocarcinoma Appendiceal carcinoid, malignant Other malignant neoplasm of appendix Malignant neoplasm of appendix Adenocarcinoma of appendix
C182	Ascending colon cancer Colon cancer, ascending Malignant neoplasm of colon, ascending
C183	Hepatic flexure cancer Colon cancer, hepatic flexure Malignant neoplasm of colon, hepatic flexure
C184	Transverse colon cancer Colon cancer, transverse Malignant neoplasm of colon, transverse
C185	Colon cancer, splenic flexure Splenic flexure cancer
C186	Descending colon cancer Colon cancer, descending Primary malignant neoplasm of descending colon Malignant neoplasm of colon, descending
C187	Sigmoid colon cancer Colon cancer, sigmoid Malignant neoplasm of sigmoid colon Adenocarcinoma of colon, sigmoid
C19	Rectosigmoid colon cancer Colon cancer, rectosigmoid Adenocarcinoma of sigmoid colon Malignant neoplasm of rectosigmoid junction
C20	Rectal cancer Adenocarcinoma of rectum Malignant tumor of rectum Malignant neoplasm of rectum
C210	Anal cancer Anal Cancer, other type Squamous cell carcinoma of anus
C211	Anal canal cancer
C218	Malignant neoplasm of rectum, anus and anal canal, overlapping lesion

ICD, International Classification of Disease.

**Supplementary 2.** ICD 10th code of inflammatory bowel disease and tuberculosis colitis

ICD code	diagnosis
K519	Ulcerative colitis
K518	Other ulcerative colitis
K515	Proctocolitis
K515	Left sided ulcerative colitis
K514	Inflammatory polyp
K513	Ulcerative rectosigmoiditis
K513	Ulcerative colitis with left colitis
K513	Ulcerative proctocolitis
K512	Ulcerative proctitis
K512	Ulcerative colitis with proctitis
K510	Ulcerative colitis with pancolitis
K510	Ulcerative pancolitis
K510	Ulcerative ileocolitis
K509	Crohn's disease
K509	Crohn's disease unspecified
K509	Crohn's disease moderate
K509	Crohn's disease mild
K509	Crohn's disease severe
K508	Crohn's disease of both small and large intestine
K508	Crohn's disease with intestinal obstruction
K508	Crohn's disease with intestinal obstruction unspecified
K508	Crohn's disease with intestinal obstruction moderate
K508	Crohn's disease with enteroenteric fistula
K508	Crohn's disease with enterovesical fistula
K508	Crohn's disease with enterovesical fistula unspecified
K508	Crohn's disease with enterocutaneous fistula
K508	Crohn's disease with enterocutaneous fistula severe
K508	Crohn's disease with enterocutaneous fistula unspecified
K508	Crohn's disease with enterocutaneous fistula moderate
K508	Crohn's disease without fistula or obstruction
K508	Crohn's disease with intestinal obstruction severe
K508	Crohn's disease of both small and large intestine moderate
K508	Crohn's disease of both small and large intestine unspecified
K508	Crohn's disease with intestinal obstruction mild
K508	Crohn's disease with enterocutaneous fistula mild
K501	Crohn's disease of large intestine
K501	Crohn's disease of large intestine mild
K501	Crohn's disease of large intestine severe
A1831	Tuberculous colitis
A1831	Tuberculosis enteritis
A1831	Gastrointestinal tuberculosis
A1831	Intestinal tuberculosis
A1831	Tuberculous enteritis

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**Supplementary 3.** Hospital procedure orders of pathologic examination

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Registered pathologic order

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Endoscopic biopsy (colonoscopy) 1~3 pieces of tissue  
Endoscopic biopsy (colonoscopy) 10~12 pieces of tissue  
Endoscopic biopsy (colonoscopy) 4~6 pieces of tissue  
Endoscopic biopsy (colonoscopy) 7~9 pieces of tissue  
Endoscopic biopsy (colonoscopy) 10~12 pieces of tissue  
Endoscopic polypectomy (colonoscopy)  $\leq 6$  pieces of tissue  
Endoscopic polypectomy (colonoscopy)  $\geq 7$  pieces of tissue  
Histopathologic mapping (endoscopic mucosal resection), (colonoscopy)  
Frozen section, 1~2 pieces of tissue  
Frozen section, 3~6 pieces of tissue  
Frozen section, 7~10 pieces of tissue  
Surgery of malignant tumor /  $\leq 20$  slides  
Surgery of malignant tumor /  $\geq 20$  slides  
Reading slides from other hospitals (surgery of malignant tumor)  
Reading slides from other hospitals (endoscopic biopsy)

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