

SUPPLEMENTAL MATERIAL

Table S1. Definition of GI bleeding.

Japanese disease code	Disease
5789001	Gastric bleeding
5781002	Lower gastrointestinal bleeding
8832368	Acute hemorrhagic necrotizing pancreatitis
5319011	Acute hemorrhagic gastric ulcer
8831551	Hepatic bleeding
5289010	Oral bleeding
5308005	Esophageal bleeding
8834466	Gingival bleeding
5220084	Pulp bleeding
8834631	Hemorrhagic gastritis
8834632	Hemorrhagic gastric ulcer
8834637	Hemorrhagic jawbone cyst
5280051	Hemorrhagic stomatitis
8834641	Hemorrhagic duodenal ulcer
5789007	Digestive tract bleeding
8833703	Anal bleeding
5789008	Upper gastrointestinal bleeding
8836434	Tongue base submucosal hemorrhage
8837732	Intestinal bleeding
5693001	Rectal bleeding
8839763	Peritoneal bleeding
8837584	Central hemorrhagic liver necrosis
8839651	Intra-abdominal hemorrhage
5789011	Bleeding after defecation
8845131	Hemorrhagic duodenal ulcer perforation
8845130	Hemorrhagic gastric ulcer perforation
8845122	Acute hemorrhagic gastric ulcer perforation
8845123	Acute hemorrhagic duodenal ulcer
8845814	Diverticulum hemorrhage
8845742	Sigmoid diverticulum hemorrhage
8845806	Ascending colon diverticulum hemorrhage
8845749	Transverse colon diverticulum hemorrhage
8845124	Acute hemorrhagic duodenal ulcer perforation
8845800	Duodenal diverticulum hemorrhage
8845763	Descending colonic diverticulum hemorrhage
8847762	Hemorrhagic anastomotic ulcer

8847788	Multiple hemorrhagic gastric ulcer
8848141	Small intestine bleeding

Table S2. Definition of other bleeding.

Japanese disease code	Disease
7827001	Petechia in lower extremity
8830641	Throat bleeding
8830697	Intravaginal hemorrhage
7848002	Pharyngeal bleeding
6078036	Penile bleeding
3628002	Macular bleeding
8830975	Submacular hemorrhage
6245002	Vulvar bleeding
7863001	Bronchial bleeding
8832116	Multiple facial subcutaneous bleeding
6266004	Organic genital bleeding
3628025	Fundus hemorrhage
8832068	Subcutaneous bleeding in eye
8832181	Bleeding in tracheostomy site
5191010	Endotracheal bleeding
5950002	Acute hemorrhagic cystitis
8831810	Outer ear subcutaneous bleeding
8832240	Airway bleeding
6268001	Functional uterine bleeding
6260001	Functional genital hemorrhage
8832247	Hypofunction uterine bleeding
8831990	Eyelids bleeding
8833488	Lip labial bleeding
8832022	Subcutaneous bleeding around the eye
3727006	Subconjunctival hemorrhage
3604008	Intraocular bleeding
9211007	Glasses-like subcutaneous bleeding
8831968	Conjunctival hemorrhage
3644003	Iris bleeding
7848003	Laryngeal bleeding
8833510	Thyroid bleeding
8832405	Acute massive bleeding
8832664	Local bleeding
2879002	Petechia on the extremities
6268005	Uterine bleeding
3848003	Tympanic bleeding

4560002	Esophageal varices hemorrhage
7827013	Diffuse subcutaneous hemorrhage
8833946	Umbilical cord subcutaneous bleeding
8834774	Small artery hemorrhage
8834262	Uterine irregular bleeding
8834344	Optic nerve pericapsular bleeding
4590002	bleeding
2869010	Bleeding tendency
8834634	Hemorrhagic keratitis
8834635	Hemorrhagic otitis externa
8834636	Hemorrhagic external hemorrhoid
8834638	Hemorrhagic tracheitis
8834639	Hemorrhagic iritis
9584004	Hemorrhagic shock
8834640	Hemorrhagic hemorrhoid
7573086	Hemorrhagic urticarial
5789018	Hemorrhagic colitis
8834642	Hemorrhagic otitis media
7847002	Habitual nasal bleeding
8833916	Post bleeding
8834333	Optic nerve sheath hemorrhage
5789014	Hemorrhagic enteritis
8834643	Hemorrhagic internal hemorrhoid
4709003	Bleeding nasal polyp
2809005	Hemorrhagic anemia
8842024	Hemorrhagic cystitis
8834644	Hemorrhagic retinitis
8834645	Hemorrhagic follicle follicles
3659001	Hemorrhagic glaucoma
8835174	Pinnacle subcutaneous bleeding
3809001	Ear bleeding
6269004	Genital bleeding
4590003	Venous bleeding
6263005	Juvenile uterine bleeding
7848005	Vocal cord hemorrhage
8834734	Subvitreous hemorrhage
3792006	Vitreous hemorrhage
3361019	Intrathecal hemorrhage
3621012	Juvenile recurrent retinal vitreous hemorrhage
8835604	Perirenal hemorrhage
5938028	Renal hemorrhage

4789006	Upper airway bleeding
3361005	Spinal cord hemorrhage
3361013	Spinal subdural hemorrhage
4320004	Spinal epidural hemorrhage
8835227	Parenchymatous organ bleeding
8837065	Multiple subcutaneous bleeding
7827005	Subcutaneous thigh bleeding
8837085	Massive bleeding
8844477	Postoperative hemorrhagic shock
9980002	Postoperative digestive tract hemorrhagic shock
8836485	Forehead subcutaneous bleeding
8842779	Bleeding after biopsy
6117032	Papillary bleeding
4590006	Internal bleeding
9209062	Subcutaneous head bleeding
8837515	Vaginal stump bleeding
8837244	Third stage bleeding
8836580	Anterior chamber bleeding
6117024	Breast bleeding
6021002	Prostate bleeding
7847006	Septal hemorrhage
8839531	Nasal subcutaneous bleeding
3888004	Middle ear bleeding
7827007	Patchy hemorrhage
5938021	Idiopathic renal hemorrhage
5997011	Urethral bleeding
8838196	Idiopathic plaque hemorrhage
7847003	Idiopathic nasal bleeding
6269007	Illegal genital bleeding
7848006	Sudden onset pharyngeal bleeding
8839467	Nasal bleeding
7827006	Petechiae bleeding
5258013	Bleeding after tooth extraction
4590005	Arterial bleeding
8839683	Adrenal hemorrhage
3628019	Superficial retinal hemorrhage
9983022	Bleeding due to suture failure
4462004	Alveolar hemorrhage
8840624	Subretinal pigmentary subcutaneous hemorrhage
8840631	Retinal hemorrhage
3628018	Preretinal hemorrhage

7827008	Subcutaneous bleeding
8840635	Deep retinal hemorrhage
2872016	Geriatric bleeding
7827002	Lumbar subcutaneous bleeding
3628013	Subretinal hemorrhage
4489012	Capillary hemorrhage
6201004	Ovarian bleeding
5967004	Bladder bleeding
3628022	Reticular choroidal hemorrhage
8845850	Gastric varices hemorrhage
8838831	Pulmonary hemorrhage
8847483	Hemorrhagic retinal pigment epithelial detachment