

Supplement Table I. Definitions of conditions and utilization variables.

Key variable	Code type	Specific codes
Transfusion types		
Platelet transfusion	ICD-9 procedure	99.05
Other transfusion	ICD-9 procedure	99.04, 99.06, 99.07, 99.08
Injections and infusions		
Ig injections		
Anti-D injections	ICD-9 procedure	99.11
IVIg injections	ICD-9 procedure	99.14
Electrolytes	ICD-9 procedure	99.18
Steroids	ICD-9 procedure	99.23
Chemotherapy related	ICD-9 procedure	99.25, 99.28
Operations on bone marrow and spleen		
Bone marrow diagnostics (i.e. biopsy or microscopic examination of specimen of bone marrow or spleen, etc)	ICD-9 procedure	41.3, 41.31, 41.32, 41.33, 41.38, 41.39, 41.98, 90.6
Partial splenectomy	ICD-9 procedure	41.43
Total splenectomy	ICD-9 procedure	41.5
Accessory spleen	ICD-9 procedure	41.93
Other spleen-related procedure	ICD-9 procedure	41.99
Infection diagnosis		

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Tuberculosis	CCS diagnosis	1
Septicemia (except in labor)	CCS diagnosis	2
Bacterial infection	CCS diagnosis	3
Mycoses	CCS diagnosis	4
HIV infection	CCS diagnosis	5
Hepatitis	CCS diagnosis	6
Viral infection	CCS diagnosis	7
Other infection: including parasitic	CCS diagnosis	8
Sexually transmitted infections (not HIV or hepatitis)	CCS diagnosis	9
Other CNS infection and poliomyelitis	CCS diagnosis	78
Inflammation; infection of eye (except caused by tuberculosis or sexually transmitted disease)	CCS diagnosis	90
Other upper respiratory infections	CCS diagnosis	126
Urinary tract infections	CCS diagnosis	159
Skin and subcutaneous tissue infections	CCS diagnosis	197

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Thrombosis	CCS diagnosis	116, 118
Septic shock	ICD-9 diagnosis	785.5, 785.50, 785.51, 785.52, 785.59
Bleeding events		
Traumatic intracranial hemorrhage	ICD-9 diagnosis	800.20, 800.21, 800.22, 800.23, 800.24, 800.25, 800.26, 800.29, 800.30, 800.31, 800.32, 800.33, 800.34, 800.35, 800.36, 800.39, 800.70, 800.71, 800.72, 800.73, 800.74, 800.75, 800.76, 800.79, 800.80, 800.81, 800.82, 800.83, 800.84, 800.85, 800.86, 800.89, 801.20, 801.21, 801.22, 801.23, 801.24, 801.25, 801.26, 801.29, 801.30, 801.31, 801.32, 801.33, 801.34, 801.35, 801.36, 801.39, 801.70, 801.71, 801.72, 801.73, 801.74, 801.75, 801.76, 801.79, 801.80, 801.81, 801.82, 801.83, 801.84, 801.85, 801.86, 801.89, 803.20, 803.21, 803.22, 803.23, 803.24, 803.25, 803.26, 803.29, 803.30, 803.31, 803.32, 803.33,

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803.34, 803.35, 803.36, 803.39,  
803.70, 803.71, 803.72, 803.73,  
803.74, 803.75, 803.76, 803.79,  
803.80, 803.81, 803.82, 803.83,  
803.84, 803.85, 803.86, 803.89,  
804.20, 804.21, 804.22, 804.23,  
804.24, 804.25, 804.26, 804.29,  
804.30, 804.31, 804.32, 804.33,  
804.34, 804.35, 804.36, 804.39,  
804.70, 804.71, 804.72, 804.73,  
804.74, 804.75, 804.76, 804.79,  
804.80, 804.81, 804.82, 804.83,  
804.84, 804.85, 804.86, 804.89,  
852.00, 852.01, 852.02, 852.03,  
852.04, 852.05, 852.06, 852.09,  
852.10, 852.11, 852.12, 852.13,  
852.14, 852.15, 852.16, 852.19,  
852.20, 852.21, 852.22, 852.23,  
852.24, 852.25, 852.26, 852.29,  
852.30, 852.31, 852.32, 852.33,  
852.34, 852.35, 852.36, 852.39,  
852.40, 852.41, 852.42, 852.43,  
852.44, 852.45, 852.46, 852.49,

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Nontraumatic intracranial hemorrhage	ICD-9 diagnosis	430, 431, 432.0, 432.1, 432.9
Upper gastrointestinal bleed	ICD-9 diagnosis	456.0, 456.20, 530.21, 530.82, 531.0, 531.00, 531.01, 531.20, 531.2, 531.21, 531.4, 531.40, 531.41, 531.60, 531.6, 531.61, 532.0, 532.00, 532.01, 532.2, 532.20, 532.21, 532.4, 532.40, 532.41, 532.6, 532.60, 532.61, 533.00, 533.0, 533.01, 533.20, 533.2, 533.21, 533.40, 533.4, 533.41, 533.60, 533.6, 533.61, 534.00, 534.0, 534.01, 534.2, 534.20, 534.21, 534.40, 534.4, 534.41, 534.60, 534.6, 534.61, 535.01, 535.11, 535.21, 535.31, 535.41, 535.51, 535.61, 535.71

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Lower gastrointestinal bleed	ICD-9 diagnosis	562.02, 562.03, 562.12, 562.13, 568.81, 569.3
Other gastrointestinal bleed	ICD-9 diagnosis	578.0, 578, 578.1, 578.9
Hematuria	ICD-9 diagnosis	599.70, 599.7, 599.71, 599.72
Female-specific bleeding	ICD-9 diagnosis	620.7, 621.4, 624.5, 626., 626.3, 626.5, 626.6, 626.7, 626.8, 626.9, 627.0, 629.0
Pregnancy-related bleeding	ICD-9 diagnosis	634.1, 634.10, 634.11, 634.12, 635.10, 635.1, 635.11, 635.12, 636.10, 636.1, 636.11, 636.12, 637.10, 637.1, 637.11, 637.12, 638.1, 639.1, 640, 640.80, 640.8, 640.81, 640.83, 640.90, 640.9, 640.91, 640.93, 641, 641.10, 641.1, 641.11, 641.13, 641.30, 641.3, 641.31, 641.33, 641.80, 641.8, 641.81, 641.83, 641.90, 641.9, 641.91, 641.93, 666.0, 666.00, 666, 666.02, 666.04, 666.1, 666.10, 666.12, 666.14, 666.2, 666.20, 666.22, 666.24, 762.1
Hemarthrosis bleed	ICD-9 diagnosis	719.01, 719.1, 719.11, 719.12,

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Hemoglobinuria bleed	ICD-9 diagnosis	791.2
All other bleeding events	ICD-9 diagnosis	078.6, 246.3, 287, 287.2, 287.8, 287.9, 360.43, 362.43, 362.81, 363.6, 363.61, 363.62, 363.72, 372.72, 374.81, 376.32, 377.42, 379.23, 380.31, 423.0, 459.0, 596.7, 608.82, 665.7, 665.70, 665.71, 665.72, 665.74, 767.11, 782.7, 784.7, 784.8, 786.3, 864.01, 864.11, 865.01, 865.11, 866.01, 866.11, 997.02, 998.1, 998.11, 998.12

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CCS, Clinical Classifications Software, CNS, central nervous system; HIV, human immunodeficiency virus; ICD, International Classification of Diseases; Ig, immunoglobulin; IVIg, intravenous Ig.