

Supplemental Materials:

Table I. Elixhauser AHRQ- Web Comorbidity Definitions

Comorbidities	ICD-9-CM/ AHRQ-Web	
Congestive Heart Failure	398.91, 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.x	<ul style="list-style-type: none"> -Rheumatic heart failure (congestive)) -Malignant hypertensive heart disease with heart failure -Benign hypertensive heart disease with heart failure -Unspecified hypertensive heart disease with heart failure -Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified -Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease -Hypertensive heart and chronic kidney disease, benign, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified -Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease -Hypertensive heart and chronic kidney disease, unspecified, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified -Hypertensive heart and chronic kidney disease, unspecified, with heart failure and chronic kidney disease stage V or end stage renal disease - Heart Failure
Valvular Diseases	093.2, 394.x-397.1, 397.9, 424.x, 746.3-746.6, V42.2, V43.3	<ul style="list-style-type: none"> -Syphilitic endocarditis - Diseases of mitral valve: mitral stenosis, rheumatic mitral insufficiency, mitral stenosis with insufficiency, other and unspecified mitral valve diseases - Disease of aortic valve: rheumatic aortic stenosis, rheumatic aortic insufficiency, rheumatic aortic stenosis with insufficiency, other and unspecified rheumatic aortic diseases - Disease of mitral and aortic valves: Mitral valve stenosis and aortic valve stenosis, mitral valve stenosis and aortic valve insufficiency, mitral valve insufficiency and aortic valve stenosis, mitral valve insufficiency and aortic valve

		<p>insufficiency, multiple involvement of mitral and aortic valves, mitral and aortic valve disease, unspecified.</p> <ul style="list-style-type: none"> -Rheumatic diseases of pulmonary valve - Rheumatic disease of endocardium, valve unspecified. -Other diseases of endocardium: mitral valve disorders, aortic valve disorders, tricuspid valve disorders, specified as nonrheumatic, pulmonary valve disorders, endocarditis, valve unspecified, unspecified cause, endocarditis in diseases classified elsewhere, other endocarditis, valve unspecified. - Congenital stenosis of aortic valve -Congenital insufficiency of aortic valve -Congenital mitral stenosis -Congenital mitral insufficiency - Heart Valve replaced by transplant -Heart Valve replaced by other means
Pulmonary Circulation Disorders	416.x, 417.9	<ul style="list-style-type: none"> - Chronic pulmonary heart disease: <ul style="list-style-type: none"> Primary pulmonary hypertension Kyphoscoliotic heart disease Chronic pulmonary embolism Other chronic pulmonary heart diseases Chronic pulmonary heart disease, unspecified -Unspecified disease of pulmonary circulation
Peripheral Vascular Disorders	440.x, 441.x, 442.x, 443.1-443.9, 447.1, 557.1, 557.9, V43.4	<ul style="list-style-type: none"> -Atherosclerosis -Aortic aneurysm and dissection -Other aneurysm -Thromboangiitis obliterans, other arterial dissection, other specified peripheral vascular diseases, peripheral vascular disease, unspecified -Stricture of artery - Chronic vascular insufficiency of intestine - Unspecified vascular insufficiency of intestine - Blood vessels replaced by other means
Coagulopathy	286.x, 287.1, 287.3-287.5	<ul style="list-style-type: none"> -Coagulation defects -Qualitative platelet defects -Primary thrombocytopenia -Secondary thrombocytopenia -Thrombocytopenia, unspecified
Lymphoma	200.x-202.3, 202.5-203.0, 203.8, 238.6, 273.3	-Lymphosarcoma and reticulosarcoma and other specified malignant tumors of lymphatic tissue

		<ul style="list-style-type: none"> -Hodgkin's disease -Nodular Lymphoma, Mycosis fungoides -Sézary's disease -Malignant histiocytosis -Letterer-Siwe disease -Malignant mast cell tumors -Peripheral T-cell lymphoma -Other malignant lymphomas -Other and unspecified malignant neoplasms of lymphoid and histiocytic tissue -Multiple myeloma -Other immunoproliferative neoplasms -Neoplasm of uncertain behavior of plasm cells -Macroglobulinemia
Renal Failure	403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 585.x, 586, V42.0, V45.1 V56.x	<ul style="list-style-type: none"> -Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage V or end stage renal disease -Hypertensive chronic kidney disease, benign, with chronic kidney disease stage V or end stage renal disease -Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage V or end stage renal disease -Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage V or end stage renal disease -Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease -Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage V or end stage renal disease -Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease -Hypertensive heart and chronic kidney disease, unspecified, without heart failure and with chronic kidney disease stage V or end stage renal disease - Hypertensive heart and chronic kidney disease, unspecified, with heart failure and chronic kidney disease stage V or end stage renal disease -Chronic kidney disease -Renal failure, unspecified -Kidney replaced by transplant

		<ul style="list-style-type: none">-Postsurgical renal dialysis status-Encounter for dialysis and dialysis catheter care
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Table II. Risk of Stroke Associated with High Risk Score, Using Different Score Cutoffs

High Risk Score Stratum	Odds Ratio (95% CI*) Associated with High Risk Score (AUC**)
5 - 10	3.43 (2.84, 4.13) (AUC = 0.58)
6 - 10	4.20 (3.31, 5.32) (AUC = 0.55)
7 - 10	4.52 (3.20, 6.37) (AUC = 0.52)
8 - 10	5.84 (3.58, 9.52) (AUC = 0.51)

* CI indicates Confidence Interval

** AUC indicates area under the Receiver Operating Characteristic curve for model sensitivity analysis.

Table III. Risk Factors for Ischemic Stroke after Sepsis or Bloodstream Infection

Risk of Ischemic Stroke within a Year of Hospitalization for Sepsis or Bloodstream infection	
Predictors	Odds Ratio (95% CI)
Age greater than 45 years old	2.19 (1.45, 3.30)
Valvar Diseases	1.73 (1.30, 2.29)
Coagulopathy	2.90 (2.36, 3.56)
Hypertension	1.09 (0.88, 1.34)
Peripheral Vascular Disorder	1.74 (1.36, 2.23)
Pulmonary Circulation Disorders	1.61 (1.12, 2.30)
Renal Failure	1.43 (1.17, 1.74)
Rheumatoid Arthritis/Collagen Vascular Diseases	1.63 (1.10, 2.40)

Table IV. Risk Factors for Hemorrhagic Stroke after Sepsis or Bloodstream Infection

Risk of Hemorrhagic Stroke within a Year of Hospitalization for Sepsis or Bloodstream infection	
Predictors	Odds Ratio (95% CI)
Age greater than 65 years old	0.46 (0.31, 0.69)
Lymphoma	2.27 (0.99, 5.21)
Coagulopathy	6.71 (4.62, 9.76)
Congestive Heart Failure	1.71 (1.11, 2.63)
Pulmonary Circulation Disorders	2.82 (1.58, 5.02)

* CI indicates Confidence Interval

