

ONLINE SUPPLEMENTAL MATERIAL

Infections and Risk of Peripartum Stroke during Delivery Admissions

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Supplemental Table I. International Classification of Diseases, 9th Revision, Clinical Modification Codes Used to Identify Deliveries and Pregnancy Characteristics

IDENTIFICATION OF DELIVERIES AND PREGNANCY CHARACTERISTICS	Diagnostic Codes
Delivery admission (1/1/2007 – 9/30/2007)	MDC 14 (pregnancy, childbirth and puerperium) <i>and</i> DRG 370, 371, 372, 373, 374, or 375
Delivery admission (10/1/2007-12/31/2011)	MDC 14 (pregnancy, childbirth and puerperium) <i>and</i> DRG 765, 766, 767, 768, 774, or 775
Vaginal delivery	DRG 372-375 (1/1/2007-9/30/2007), DRG 767, 768, 774, 775 (10/1/2007-12/31/2011)
Cesarean delivery	DRG 370-371 (1/1/2007-9/30/2007), DRG 765-766 (10/1/2007-12/31/2011), ICD-9 649.8, 652.21, 653.4, 653.41, 654.2x, 654.21, 656.31, 669.7, 669.71, 660.11, 763.4
Gestational hypertension	642.3x, 642.9x
Mild or unspecified preeclampsia	642.4x, 642.7x
Severe preeclampsia	642.5x
Eclampsia	642.6x

Supplemental Table II. International Classification of Diseases, 9th Revision, Clinical Modification Codes Used to Identify Exposures of Interest

Primary exposure “infection” included infection of any type present on admission, including any of the following	Diagnostic Codes
<i>Sepsis</i>	022.3, 036.2, 038.x, 054.5, 449, 670.0x, 790.7, 995.91, 785.52
<i>Genitourinary</i>	590.x, 595.x, 597.x, 598.x, 599.0, 658.4x, 670.x
<i>Sexually transmitted</i>	054.x, 091.x, 092.x, 093.x, 094.x, 095.x, 096.x, 097.x, 098.x, 099.x, 131.x, 647.x, 042.x, V08.x
<i>Respiratory</i>	011, 012, 021.x, 032.x, 033.x, 034.0, 039.1, 052.1, 055.1, 073.0, 112.4, 114.x, 115.x, 130.4, 136.3, 480.x, 460, 461.x, 462, 464.x, 465.x, 473.x, 480.x, 481, 482.x, 483.x, 484.x, 485, 513.0, 517.1, 784.91,
<i>Other infections</i>	001.x, 002.x, 003.x, 004.x, 005.x, 006.x, 007.x, 008.x, 009.x, 020.x, 031.x, 088.81, 083.0, 114.1, 681.x, 682.x, 686.x, , 686.x, 647.x, 675.x, 672.x, 646.6
Secondary exposures of interest	Diagnostic codes
Sickle cell disease	282.4x, 282.6x
Systemic lupus erythematosus	710.0x
Coagulopathy	286.0-286.9, 287.1, 287.3-287.5, 289.81-289.82
Hypercoagulable state	289.81, 289.82, 649.3x
DVT/PE (acute, chronic, or history of prior)	415.1x, 453.4x, 453.5x, 453.7x, 453.8x, 671.3x, 671.4x, 673.x, V125.1, V125.5
Chronic renal disease	581.x-583.x, 585.x, 587.x, 588.x, 646.2x
Active smoking	305.1.x, 649.0x
Preexisting hypertension	401.x-405.x, 642.0x-642.2x, 642.7x
Diabetes mellitus (excluding gestational diabetes)	250.x, 648.0x
Alcohol abuse	291.xx, 303.xx, 305.0x
Gestational diabetes	648.8x

Supplemental Table III. International Classification of Diseases, 9th Revision, Clinical Modification Codes Used to Identify Primary Outcome

Primary outcome “stroke diagnosis” included any of the following diagnosis codes:	Diagnostic code	Sensitivity%/specificity%/PPV%(95%CI)*
Ischemic stroke ¹	433.01, 433.10, 433.11, 433.21, 433.31, 433.81, 433.91, 434.00, 434.01, 434.11, 434.91, and 436	Sensitivity 86 (73-94) Specificity 95 (88-98) PPV 90 (77-97)
Intracerebral hemorrhage ¹	431	Sensitivity 82 (66-92) Specificity 93 (86-97) PPV 80 (64-91)
Subarachnoid hemorrhage ¹	430	Sensitivity 98 (90-100) Specificity 92 (84-96) PPV 86 (75-94)
Cerebral venous thrombosis ²	325	Sensitivity 70.4 (66.7-83.4) Specificity 96.9 (94.4-98.3) PPV 87.4 (78.6-93.0)
Peripartum phlebitis and thrombosis, cerebral venous thrombosis, and thrombosis of intracranial venous sinus ²	671.5	Sensitivity 77.8 (69.0-84.6) Specificity 92.7 (89.5-94.9) PPV 75.7 (66.9-82.8)
Cerebrovascular disorders in the puerperium ³	674.00, 674.01, 674.02, 674.03, 674.04	Sensitivity: 92 internally validated ⁴ Specificity: not available PPV: 68 (48-84); internally validated at 80.4 ⁵

PPV: positive predictive value. CI: confidence interval.

**Sensitivity and specificity based on studies referenced.*

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