

Supplementary Material*

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* This supplementary material was provided by the authors to give readers further details on their article. The material was not copyedited.

Supplement Table 1. International Classification of Diseases, Tenth Revision, Clinical Modification Diagnostic, Procedure, and Diagnosis Related Group Codes

Condition	ICD-10-CM Diagnosis Codes
Delivery	
Delivery inclusion	
Diagnosis codes	Z370, Z371, Z372, Z373, Z374, Z3750, Z3751, Z3752, Z3753, Z3754, Z3759, Z3760, Z3761, Z3762, Z3763, Z3764, Z3769, Z377, Z379, O80, O82, O7582
Procedure codes	10D00Z0, 10D00Z1, 10D00Z2, 10D07Z3, 10D07Z4, 10D07Z5, 10D07Z6, 10D07Z7, 10D07Z8, 10E0XZZ
Diagnosis Related Group Codes (DRG)	765, 766, 767, 768, 774, and 775 through September 2018; 768, 783, 784, 785, 786, 787, 788, 796, 797, 798, 805, 806, and 807 starting October 2018
Delivery exclusion	
Diagnosis codes	O00, O01, O02, O03, O04, O07, O08 Z332 where not occurring with a Z37 delivery code
Procedure codes	10A00ZZ, 10A03ZZ, 10A04ZZ, 10A07Z6, 10A07ZW, 10A07ZX, 10A07ZZ, 10A08ZZ
Cardiac arrest	
Cardiac arrest	I462, I468, I469
Ventricular fibrillation	I4901
Postprocedural cardiac arrest	I97120, I97121
Intraoperative cardiac arrest	I97710, I97711

Condition	ICD-10-CM Diagnosis Codes
Cardiac arrest due to anesthesia during pregnancy	O29112, O29113, O29119
Performance of cardiac output, single, manual (procedure code)	5A12012
Underlying medical conditions	
Asthma	J4520, J4521, J4522, J4530, J4531, J4532, J4540, J4541, J4542, J4550, J4551, J4552, J45901, J45902, J45909, J45990, J45991, J45998
Acquired heart disease*	I251, I252, I253, I254, I255, I256, I257, I258, I259, I050, I051, I052, I058, I060, I061, I062, I068, I069, I070, I071, I072, I078, I079, I080, I081, I082, I083, I088, I089, I0989, I099, I340, I341, I342, I348, I349, I350, I351, I352, I358, I359, I360, I361, I362, I368, I369, I370, I371, I372, I378, I379
Chronic hypertension	O10012, O10013, O10019, O1002, O1003, O10112, O10113, O10119, O1012, O1013, O10212, O10213, O10219, O1022, O1023, O10312, O10313, O10319, O1032, O1033, O10412, O10413, O10419, O1042, O1043, O10912, O10913, O10919, O1092, O1093, I10, I11, I12, I13, I15
Chronic kidney disease	N181, N182, N183, N184, N185, N186, N189, O26832, O26833, O26839
Congenital heart disease	Q200, Q201, Q202, Q203, Q204, Q205, Q206, Q208, Q209, Q210, Q211, Q212, Q213, Q214, Q218, Q219, Q220, Q221, Q222, Q223, Q225, Q226, Q228, Q229, Q230, Q231, Q232, Q233, Q234, Q238, Q239, Q240, Q241, Q242, Q243, Q244, Q245, Q246, Q248, Q249, Q250, Q251, Q252, Q253, Q254, Q255, Q256, Q2571, Q2572, Q2579, Q258, Q259

Condition	ICD-10-CM Diagnosis Codes
Diabetes mellitus (pre-gestational)	E10, E11, E13, O24012, O24013, O24019, O2402, O2403, O24112, O24113, O24119, O24119, O2412, O2413, O24312, O24313, O24319, O2432, O2433, O24812, O24813, O24819, O2482, O2483, O24912, O24913, O24919, O2492, O2493
Mental health disorders	F064, F4000, F4001, F4002, F4010, F4011, F40210, F40218, F40220, F40228, F40230, F40231, F40232, F40233, F40240, F40241, F40242, F40243, F40248, F40290, F40291, F40298, F408, F409, F410, F411, F413, F418, F419, F42, F422, F423, F424, F428, F429, F430, F4310, F4311, F4312, F449, F458, F488, F489, F938, F99, R452, R455, R456, R457, F630, F631, F632, F633, F6381, F6389, F639, F900, F901, F902, F908, F909, F910, F911, F912, F913, F918, F919, F3010, F3011, F3012, F3013, F302, F303, F304, F308, F309, F310, F3110, F3111, F3112, F3113, F312, F3130, F3131, F3132, F314, F315, F3160, F3161, F3162, F3163, F3164, F3170, F3171, F3172, F3173, F3174, F3175, F3176, F3177, F3178, F3181, F3189, F319, F328, F338, F348, F3481, F3489, F349, F39, F320, F321, F322, F323, F324, F325, F3289, F329, F330, F331, F332, F333, F3340, F3341, F3342, F338, F339, F341, F21, F340, F341, F600, F601, F602, F603, F604, F605, F606, F607, F6081, F6089, F609, F6810, F6811, F6812, F6813, F69, F4310, F4311, F4312, F060, F062, F200, F201, F202, F203, F205, F2081, F2089, F209, F21, F22, F23, F24, F250, F251, F258, F259, F28, F29, F323, F333, F4489, F061, F0630, F0631, F0632, F0633, F0634, F068, F09, F4320, F4321, F4322, F4323, F4324, F4325, F4329, F438, F439, F440, F441, F442, F444, F445, F446, F447, F4481, F450, F451, F4520, F4521, F4522, F4529, F4541, F4542, F459, F5000, F5001, F5002,

Condition	ICD-10-CM Diagnosis Codes
	F502, F508, F509, F53, F54, F59, F641, F642, F648, F649, F6811, F688, F913, F930, F939, F983, F988, F989, R45, X71, X72, X73, X74, X75, X76, X77, X78, X79, X80, X81, X82, X83
Pulmonary hypertension	I270, I272
Substance use disorder	F1290, F12920, F12921, F12922, F12929, F12950, F12951, F12959, F12980, F12988, F1299, F1210, F12120, F12121, F12122, F12129, F12150, F12151, F12159, F12180, F12188, F1219, F1220, F12220, F12221, F12222, F12229, F12250, F12251, F12259, F12280, F12288, F1229, T407X1A, T43611A, T43612A, T43613A, T43614A, F1690, F16920, F16921, F16929, F1694, F16950, F16951, F16959, F16980, F16983, F16988, F1699, F1610, F16120, F16121, F16122, F16129, F1614, F16150, F16151, F16159, F16180, F16183, F16188, F1619, F1620, F16220, F16221, F16229, F1624, F1650, F16251, F16259, F16280, F16283, F16288, F1629, T408X1A, T40901A, T40991A, F1890, F18920, F18921, F18929, F1894, F18950, F18951, F18959, F1897, F18980, F18988, F1899, F1810, F18120, F18121, F18129, F1814, F18150, F18151, F18159, F1817, F18180, F18188, F1819, F1820, F18220, F18221, F18229, F1824, F18250, F18251, F18259, F1827, F18280, F18288, F1829, F1190, F11920, F11921, F11922, F11929, F1193, F1194, F11950, F11951, F11959, F11981, F11982, F11988, F1199, F1110, F11120, F11121, F11122, F11129, F1114, F11150, F11151, F11159, F11181, F11182, F11188, F1119, F1120, F11220, F11221, F11222, F11229, F1123, F1124, F11250, F11251, F11259, F11281, F11282, F11288, F1129, T400X1A, T400X2A, T400X3A, T400X4A, T401X1A, T401X2A, T401X3A,

Condition	ICD-10-CM Diagnosis Codes
	<p>T401X4A, T403X1A, T403X2A, T403X3A, T403X4A, T402X1A, T402X2A, T402X3A, T402X4A, T404X1A, T404X2A, T404X3A, T404X4A, T40601A, T40602A, T40603A, T40604A, T40606A, T40691A, T40692A, T40693A, T40694A, T403X5A, F1390, F13920, F13921, F13929, F13930, F13931, F13932, F13939, F1394, F13950, F13951, F13959, F1396, F1397, F13980, F13981, F13982, F13988, F1399, F1310, F13120, F13121, F13129, F1314, F13150, F13151, F13159, F13180, F13181, F13182, F13188, F1319, F1320, F13220, F13221, F13229, F13230, F13231, F13232, F13239, F1324, F13250, F13251, F13259, F1326, F1327, F13280, F13281, F13282, F13288, F1329, F1490, F14920, F14921, F14922, F14929, F1494, F14950, F14951, F14959, F14980, F14981, F14982, F14988, F1499, F1590, F15920, F15921, F15922, F15929, F1593, F1594, F15950, F15951, F15959, F15980, F15981, F15982, F15988, F1599, F1410, F14120, F14121, F14122, F14129, F1414, F14150, F14151, F14159, F14180, F14181, F14182, F14188, F1419, F1510, F15120, F15121, F15122, F15129, F1514, F15150, F15151, F15159, F15180, F15181, F15182, F15188, F1519, F1420, F14220, F14221, F14222, F14229, F1423, F1424, F14250, F14251, F14259, F14280, F14281, F14282, F14288, F1429, F1520, F15220, F15221, F15222, F15229, F1523, F1524, F15250, F15251, F15259, F15280, F15281, F15282, F15288, F1529, F1920, F19220, F19221, F19222, F19229, F19230, F19231, F19232, F19239, F1924, F19250, F19251, F19259, F1926, F1927, F19280, F19281, F19282, F19288, F1929, F1910, F19120, F19121, F19122, F19129, F1914, F19150, F19151, F19159,</p>

Condition	ICD-10-CM Diagnosis Codes
	F1916, F1917, F19180, F19181, F19182, F19188, F1919, F1990, F19920, F19921, F19922, F19929, F19930, F19931, F19932, F19939, F1994, F19950, F19951, F19959, F1996, F1997, F19980, F19981, F19982, F19988, F1999, O99320, O99322, O99323, O99324, O99325, O355XX0, O355XX1, O355XX2, O355XX3, O355XX4, O355XX5, O355XX9
Systemic lupus erythematosus	M321, M328, M329
Tobacco use disorder	F17200, F17201, F17203, F17208, F17209, F17210, F17211, F17213, F17218, F17219, F17220, F17221, F17223, F17228, F17229, F17290, F17291, F17293, F17298, F17299, Z720, Z87891, O99330, O99332, O99333, O99334, O99335, T65211A, T65212A, T65213A, T65214A, T65221A, T65222A, T65223A, T65224A, T65291A, T65292A, T65293A, T65294A
Obstetric outcomes	
Cesarean delivery	
Diagnosis codes	O82, O7582
Procedure codes	10D00Z0, 10D00Z1, 10D00Z2
Diagnosis Related Group Codes (DRG)	765, 766 through September 2018; 783, 784, 785, 786, 787, 788 starting October 2018
Multiple gestation	O632, O661, O666, P015, Z372, O3090, O3091, O3092, O3093, Z3750, Z3751, Z3752, Z3753, Z3754, Z3759, Z3760, Z3761, Z3762, Z3763, Z3764, Z3769, O30021, O30022, O30023, O30029, O30131, O30132, O30133, O30139, O30231, O30232, O30233, O30239, O30831, O30832, O30833, O30839, O30001, O30002, O30003, O30009, O30011, O30012,

Condition	ICD-10-CM Diagnosis Codes
	O30013, O30019, O30031, O30032, O30033, O30039, O30041, O30042, O30043, O30049, O30091, O30092, O30093, O30099, O30101, O30102, O30103, O30109, O30111, O30112, O30113, O30119, O30121, O30122, O30123, O30129, O30191, O30192, O30193, O30199, O30201, O30202, O30203, O30209, O30211, O30212, O30213, O30219, O30221, O30222, O30223, O30229, O30291, O30292, O30293, O30299, O30801, O30802, O30803, O30809, O30811, O30812, O30813, O30819, O30821, O30822, O30823, O30829, O30891, O30892, O30893, O30899, O3100X0, O3101X0, O3102X0, O3103X0, O337XX1, O337XX2, O337XX3, O337XX4, O337XX5, O337XX9, O368311, O368312, O368313, O368314, O368315, O368319, O368321, O368322, O368323, O368324, O368325, O368329, O368331, O368332, O368333, O368334, O368335, O368339, O368391, O368392, O368393, O368394, O368395, O368399, O3100X1, O3100X2, O3100X3, O3100X4, O3100X5, O3100X9, O3101X1, O3101X2, O3101X3, O3101X4, O3101X5, O3101X9, O3102X1, O3102X2, O3102X3, O3102X4, O3102X5, O3102X9, O3103X1, O3103X2, O3103X3, O3103X4, O3103X5, O3103X9, O3110X0, O3110X1, O3110X2, O3110X3, O3110X4, O3110X5, O3110X9, O3111X0, O3111X1, O3111X2, O3111X3, O3111X4, O3111X5, O3111X9, O3112X0, O3112X1, O3112X2, O3112X3, O3112X4, O3112X5, O3112X9, O3113X0, O3113X1, O3113X2, O3113X3, O3113X4, O3113X5, O3113X9, O3120X0, O3120X1, O3120X2, O3120X3, O3120X4, O3120X5, O3120X9, O3121X0, O3121X1, O3121X2, O3121X3, O3121X4, O3121X5, O3121X9,

Condition	ICD-10-CM Diagnosis Codes
	O3122X0, O3122X1, O3122X2, O3122X3, O3122X4, O3122X5, O3122X9, O3123X0, O3123X1, O3123X2, O3123X3, O3123X4, O3123X5, O3123X9, O3130X0, O3130X1, O3130X2, O3130X3, O3130X4, O3130X5, O3130X9, O3131X0, O3131X1, O3131X2, O3131X3, O3131X4, O3131X5, O3131X9, O3132X0, O3132X1, O3132X2, O3132X3, O3132X4, O3132X5, O3132X9, O3133X0, O3133X1, O3133X2, O3133X3, O3133X4, O3133X5, O3133X9, O318X10, O318X11, O318X12, O318X13, O318X14, O318X15, O318X19, O318X20, O318X21, O318X22, O318X23, O318X24, O318X25, O318X29, O318X30, O318X31, O318X32, O318X33, O318X34, O318X35, O318X39, O318X90, O318X91, O318X92, O318X93, O318X94, O318X95, O318X99, O320XX1, O320XX2, O320XX3, O320XX4, O320XX5, O320XX9, O337XX0, O337XX1, O337XX2, O337XX3, O337XX4, O337XX5, O337XX9, O321XX1, O321XX2, O321XX3, O321XX4, O321XX5, O321XX9, O322XX1, O322XX2, O322XX3, O322XX4, O322XX5, O322XX9, O323XX1, O323XX2, O323XX3, O323XX4, O323XX5, O323XX9, O324XX1, O324XX2, O324XX3, O324XX4, O324XX5, O324XX9, O326XX1, O326XX2, O326XX3, O326XX4, O326XX5, O326XX9, O328XX1, O328XX2, O328XX3, O328XX4, O328XX5, O328XX9, O329XX1, O329XX2, O329XX3, O329XX4, O329XX5, O329XX9, O333XX1, O333XX2, O333XX3, O333XX4, O333XX5, O333XX9, O334XX1, O334XX2, O334XX3, O334XX4, O334XX5, O334XX9, O335XX1, O335XX2, O335XX3, O335XX4, O335XX5, O335XX9, O336XX1,

Condition	ICD-10-CM Diagnosis Codes
	O336XX2, O336XX3, O336XX4, O336XX5, O336XX9, O350XX1, O350XX2, O350XX3, O350XX4, O350XX5, O350XX9, O351XX1, O351XX2, O351XX3, O351XX4, O351XX5, O351XX9, O352XX1, O352XX2, O352XX3, O352XX4, O352XX5, O352XX9, O353XX1, O353XX2, O353XX3, O353XX4, O353XX5, O353XX9, O354XX1, O354XX2, O354XX3, O354XX4, O354XX5, O354XX9, O355XX1, O355XX2, O355XX3, O355XX4, O355XX5, O355XX9, O356XX1, O356XX2, O356XX3, O356XX4, O356XX5, O356XX9, O357XX1, O357XX2, O357XX3, O357XX4, O357XX5, O357XX9, O358XX1, O358XX2, O358XX3, O358XX4, O358XX5, O358XX9, O359XX1, O359XX2, O359XX3, O359XX4, O359XX5, O359XX9, O360111, O360112, O360113, O360114, O360115, O360119, O360121, O360122, O360123, O360124, O360125, O360129, O360131, O360132, O360133, O360134, O360135, O360139, O360191, O360192, O360193, O360194, O360195, O360199, O360911, O360912, O360913, O360914, O360915, O360919, O360921, O360922, O360923, O360924, O360925, O360929, O360931, O360932, O360933, O360934, O360935, O360939, O360991, O360992, O360993, O360994, O360995, O360999, O361111, O361112, O361113, O361114, O361115, O361119, O361120, O361121, O361122, O361123, O361124, O361125, O361129, O361131, O361132, O361133, O361134, O361135, O361139, O361191, O361192, O361193, O361194, O361195, O361199, O361911, O361912, O361913, O361914, O361915, O361919, O361921, O361922, O361923, O361924, O361925, O361929, O361931, O361932, O361933, O361934, O361935, O361939, O361991,

Condition	ICD-10-CM Diagnosis Codes
	O361992, O361993, O361994, O361995, O361999, O3620X1, O3620X2, O3620X3, O3620X4, O3620X5, O3620X9, O3621X1, O3621X2, O3621X3, O3621X4, O3621X5, O3621X9, O3622X1, O3622X2, O3622X3, O3622X4, O3622X5, O3622X9, O3623X1, O3623X2, O3623X3, O3623X4, O3623X5, O3623X9, O364XX1, O364XX2, O364XX3, O364XX4, O364XX5, O364XX9, O365111, O365112, O365113, O365114, O365115, O365119, O365121, O365122, O365123, O365124, O365125, O365129, O365131, O365132, O365133, O365134, O365135, O365139, O365191, O365192, O365193, O365194, O365195, O365199, O365911, O365912, O365913, O365914, O365915, O365919, O365921, O365922, O365923, O365924, O365925, O365929, O365931, O365932, O365933, O365934, O365935, O365939, O365991, O365992, O365993, O365994, O365995, O365999, O3660X1, O3660X2, O3660X3, O3660X4, O3660X5, O3660X9, O3661X1, O3661X2, O3661X3, O3661X4, O3661X5, O3661X9, O3662X1, O3662X2, O3662X3, O3662X4, O3662X5, O3662X9, O3663X1, O3663X2, O3663X3, O3663X4, O3663X5, O3663X9, O3670X1, O3670X2, O3670X3, O3670X4, O3670X5, O3670X9, O3671X1, O3671X2, O3671X3, O3671X4, O3671X5, O3671X9, O3672X1, O3672X2, O3672X3, O3672X4, O3672X5, O3672X9, O3673X1, O3673X2, O3673X3, O3673X4, O3673X5, O3673X9, O3680X1, O3680X2, O3680X3, O3680X4, O3680X5, O3680X9, O368121, O368122, O368123, O368124, O368125, O368129, O368131, O368132, O368133, O368134, O368135, O368139, O368191, O368192, O368193, O368194, O368195, O368199,

Condition	ICD-10-CM Diagnosis Codes
	O368211, O368212, O368213, O368214, O368215, O368219, O368221, O368222, O368223, O368224, O368225, O368229, O368231, O368232, O368233, O368234, O368235, O368239, O368291, O368292, O368293, O368294, O368295, O368299, O368911, O368912, O368913, O368914, O368915, O368919, O368921, O368922, O368923, O368924, O368925, O368929, O368931, O368932, O368933, O368934, O368935, O368939, O368991, O368992, O368993, O368994, O368995, O368999, O3690X1, O3690X2, O3690X3, O3690X4, O3690X5, O3690X9, O3691X1, O3691X2, O3691X3, O3691X4, O3691X5, O3691X9, O3692X1, O3692X2, O3692X3, O3692X4, O3692X5, O3692X9, O3693X1, O3693X2, O3693X3, O3693X4, O3693X5, O3693X9, O401XX1, O401XX2, O401XX3, O401XX4, O401XX5, O401XX9, O402XX1, O402XX2, O402XX3, O402XX4, O402XX5, O402XX9, O403XX1, O403XX2, O403XX3, O403XX4, O403XX5, O403XX9, O409XX1, O409XX2, O409XX3, O409XX4, O409XX5, O409XX9, O4100X1, O4100X2, O4100X3, O4100X4, O4100X5, O4100X9, O4101X1, O4101X2, O4101X3, O4101X4, O4101X5, O4101X9, O4102X1, O4102X2, O4102X3, O4102X4, O4102X5, O4102X9, O4103X1, O4103X2, O4103X3, O4103X4, O4103X5, O4103X9, O411011, O411012, O411013, O411014, O411015, O411019, O411021, O411022, O411023, O411024, O411025, O411029, O411031, O411032, O411033, O411034, O411035, O411039, O411091, O411092, O411093, O411094, O411095, O411099, O411211, O411212, O411213, O411214, O411215, O411219, O411221, O411222, O411223, O411224, O411225, O411229, O411231,

Condition	ICD-10-CM Diagnosis Codes
	O411232, O411233, O411234, O411235, O411239, O411291, O411292, O411293, O411294, O411295, O411299, O411411, O411412, O411413, O411414, O411415, O411419, O411421, O411422, O411423, O411424, O411425, O411429, O411431, O411432, O411433, O411434, O411435, O411439, O411491, O411492, O411493, O411494, O411495, O411499, O418X11, O418X12, O418X13, O418X14, O418X15, O418X19, O418X21, O418X22, O418X23, O418X24, O418X25, O418X29, O418X31, O418X32, O418X33, O418X34, O418X35, O418X39, O418X91, O418X92, O418X93, O418X94, O418X95, O418X99, O4190X1, O4190X2, O4190X3, O4190X4, O4190X5, O4190X9, O4191X1, O4191X2, O4191X3, O4191X4, O4191X5, O4191X9, O4192X1, O4192X2, O4192X3, O4192X4, O4192X5, O4192X9, O4193X1, O4193X2, O4193X3, O4193X4, O4193X5, O4193X9, O6010X1, O6010X2, O6010X3, O6010X4, O6010X5, O6010X9, O6012X1, O6012X2, O6012X3, O6012X4, O6012X5, O6012X9, O6013X1, O6013X2, O6013X3, O6013X4, O6013X5, O6013X9, O6014X1, O6014X2, O6014X3, O6014X4, O6014X5, O6014X9, O6020X1, O6020X2, O6020X3, O6020X4, O6020X5, O6020X9, O6022X1, O6022X2, O6022X3, O6022X4, O6022X5, O6022X9, O6023X1, O6023X2, O6023X3, O6023X4, O6023X5, O6023X9, O640XX1, O640XX2, O640XX3, O640XX4, O640XX5, O640XX9, O641XX1, O641XX2, O641XX3, O641XX4, O641XX5, O641XX9, O642XX1, O642XX2, O642XX3, O642XX4, O642XX5, O642XX9, O643XX1, O643XX2, O643XX3, O643XX4, O643XX5, O643XX9,

Condition	ICD-10-CM Diagnosis Codes
	O644XX1, O644XX2, O644XX3, O644XX4, O644XX5, O644XX9, O645XX1, O645XX2, O645XX3, O645XX4, O645XX5, O645XX9, O648XX1, O648XX2, O648XX3, O648XX4, O648XX5, O648XX9, O649XX1, O649XX2, O649XX3, O649XX4, O649XX5, O649XX9, O690XX1, O690XX2, O690XX3, O690XX4, O690XX5, O690XX9, O691XX1, O691XX2, O691XX3, O691XX4, O691XX5, O691XX9, O692XX1, O692XX2, O692XX3, O692XX4, O692XX5, O692XX9, O693XX1, O693XX2, O693XX3, O693XX4, O693XX5, O693XX9, O694XX1, O694XX2, O694XX3, O694XX4, O694XX5, O694XX9, O695XX1, O695XX2, O695XX3, O695XX4, O695XX5, O695XX9, O6981X1, O6981X2, O6981X3, O6981X4, O6981X5, O6981X9, O6982X1, O6982X2, O6982X3, O6982X4, O6982X5, O6982X9, O6989X1, O6989X2, O6989X3, O6989X4, O6989X5, O6989X9, O699XX1, O699XX2, O699XX3, O699XX4, O699XX5, O699XX9, O3673X0
Stillbirth	Z371, Z373, Z374, Z3760, Z3761, Z3762, Z3763, Z3764, Z3769, Z377
Severe maternal complications	
Acute heart failure and pulmonary edema	I501, I5020, I5021, I5023, I5030, I5031, I5033, I5040, I5041, I5043, I50810, I50811, I50813, I50814, I5082, I5083, I5084, I5089, I509, I97130, I97131, J810
Acute myocardial infarction	I2101, I2102, I2109, I2111, I2119, I2121, I2129, I213, I214, I219, I21A1, I21A9, I220, I221, I222, I228, I229
Acute renal failure	N170, N171, N172, N178, N179, O904

Condition	ICD-10-CM Diagnosis Codes
Adult respiratory distress syndrome	J80, J951, J952, J953, J95821, J95822, J9600, J9601, J9602, J9620, J9621, J9622, J9690, J9691, J9692, R0603, R092
Air or thrombotic embolism	I2601, I2602, I2609, I2690, I2692, I2693, I2694, I2699, O88012, O88013, O88019, O8802, O8803, O88212, O88213, O88219, O8822, O8823, O88312, O88313, O88319, O8832, O8833, O88812, O88813, O88819, O8882, O8883, T800XXA
Amniotic fluid embolism	O88112, O88113, O88119, O8812, O8813
Aortic aneurysm or dissection	I7100, I7101, I7102, I7103, I711, I712, I713, I714, I715, I716, I718, I719, I790
Arrhythmia [†]	I4902, I470, I471, I472, I479, I480, I483, I484, I4891, I4892, I491, I492, I493, I4940, I4949, I498, I499
Disseminated intravascular coagulation	D65, D688, D689, O45002, O45003, O45009, O45012, O45013, O45019, O45022, O45023, O45029, O45092, O45093, O45099, O46002, O46003, O46009, O46012, O46013, O46019, O46022, O46023, O46029, O46092, O46093, O46099, O670, O723
Mechanical ventilation (procedure codes)	5A1935Z, 5A1945Z, 5A1955Z
Peripartum cardiomyopathy	O903
Puerperal cerebrovascular disorders	A812, G450, G451, G452, G453, G454, G458, G459, G460, G461, G462, G463, G464, G465, G466, G467, G468, G9349, H3400, H3401, H3402, H3403, I6000, I6001, I6002, I6010, I6011, I6012, I602, I6020, I6021, I6022, I6030, I6031, I6032, I604, I6050, I6051, I6052, I606, I607, I608,

Condition	ICD-10-CM Diagnosis Codes
	I609, I610, I611, I612, I613, I614, I615, I616, I618, I619, I6200, I6201, I6202, I6203, I621, I629, I6300, I63011, I63012, I63013, I63019, I6310, I63111, I63112, I63113, I63119, I6312, I63131, I63132, I63133, I63139, I6319, I6320, I63211, I63212, I63213, I63219, I6322, I63231, I63232, I63233, I63239, I6329, I6330, I63311, I63312, I63313, I63319, I63321, I63322, I63323, I63329, I63331, I63332, I63333, I63339, I63341, I63342, I63343, I63349, I6339, I6340, I63411, I63412, I63413, I63419, I63421, I63422, I63423, I63429, I63431, I63432, I63433, I63439, I63441, I63442, I63443, I63449, I6349, I6350, I63511, I63512, I63513, I63519, I63521, I63522, I63523, I63529, I63531, I63532, I63533, I63539, I63541, I63542, I63543, I63549, I6359, I636, I638, I6381, I6389, I639, I6501, I6502, I6503, I6509, I651, I6521, I6522, I6523, I6529, I658, I659, I6601, I6602, I6603, I6609, I6611, I6612, I6613, I6619, I6621, I6622, I6623, I6629, I663, I668, I669, I670, I671, I672, I673, I674, I675, I676, I677, I6781, I6782, I6783, I679, I67841, I67848, I67850, I67858, I6789, I680, I682, I688, I97810, I97811, I97820, I97821, O2250, O2252, O2253, O873
Restoration of cardiac rhythm (procedure code)	5A2204Z
Sepsis	A327, A400, A401, A403, A408, A409, A4101, A4102, A411, A412, A413, A414, A4150, A4151, A4152, A4153, A4159, A4181, A4189, A419, I76, O85, O8604, R6520, R6521, T8112XA, T8144XA
Severe anesthesia complications	O29112, O29113, O29119, O29122, O29123, O29129, O29192, O29193, O29199, O29212, O29213, O29219, O29292, O29293, O29299, O740, O741, O742, O743, O8901, O8909, O891, O892, T882XXA, T883XXA

Condition	ICD-10-CM Diagnosis Codes
Severe preeclampsia/eclampsia, Hemolysis, Elevated Liver enzymes and Low Platelets (HELLP) syndrome	O1410, O1412, O1413, O1414, O1415, O1420, O1422, O1423, O1424, O1425, O1500, O1502, O1503, O151, O152, O159
Shock	O751, R570, R571, R578, R579, T782XXA, T8110XA, T8111XA, T8119XA, T886XXA
Sickle cell disease with crisis	D5700, D5701, D5702, D57211, D57212, D57219, D57411, D57412, D57419, D57811, D57812, D57819
Status asthmaticus	J4522, J4532, J4542, J4552, J45902
Temporary tracheostomy (procedure codes)	0B110F4, 0B113F4, 0B114F4
Transfusion (procedure codes)	30230H0, 30230H1, 30230K0, 30230K1, 30230L0, 30230L1, 30230M0, 30230M1, 30230N0, 30230N1, 30230P0, 30230P1, 30230Q0, 30230Q1, 30230R0, 30230R1, 30233H0, 30233H1, 30233K0, 30233K1, 30233L0, 30233L1, 30233M0, 30233M1, 30233N0, 30233N1, 30233P0, 30233P1, 30233Q0, 30233Q1, 30233R0, 30233R1, 30240H0, 30240H1, 30240K0, 30240K1, 30240L0, 30240L1, 30240M0, 30240M1, 30240N0, 30240N1, 30240P0, 30240P1, 30240Q0, 30240Q1, 30240R0, 30240R1, 30243H0, 30243H1, 30243K0, 30243K1, 30243L0, 30243L1, 30243M0, 30243M1, 30243N0, 30243N1, 30243P0, 30243P1, 30243Q0, 30243Q1, 30243R0, 30243R1

Abbreviation: International Classification of Diseases, Tenth Revision, Clinical Modification, ICD-10-CM.

* Acquired heart disease includes chronic ischemic heart disease and valvular heart disease.

† Arrhythmia includes ventricular flutter, atrial flutter and fibrillation, ventricular tachycardia, supraventricular tachycardia, and other cardiac arrhythmias.

Supplement Methods

Analyses were conducted with SAS v.9.4 (SAS Institute), using SAS survey procedures (e.g., *proc surveyfreq*, *proc surveymeans*) with strata, cluster, and weight variables indicated below to account for complex sampling.

Variables for Statistical Analyses to Account for Complex Sampling

- 1) NIS strata
- 2) Hospital cluster
- 3) Weight

Sample SAS Code

```
/* Prevalence of cardiac arrest per 100,000 delivery hospitalizations, by
year, 2017-2019 */
proc surveyfreq data=nis.arrest1719 order=formatted nomcar;
    strata NIS_STRATUM;
    cluster HOSP_NIS;
    weight DISCWT;
    tables insubset*year*(arrest) / row CL;
    ods output CrossTabs=Table2_arrest_1 (keep=table insubset arrest year
rowPercent rowLowerCL rowUpperCL WgtFreq);
    format insubset arrest yesno.;
run;
```

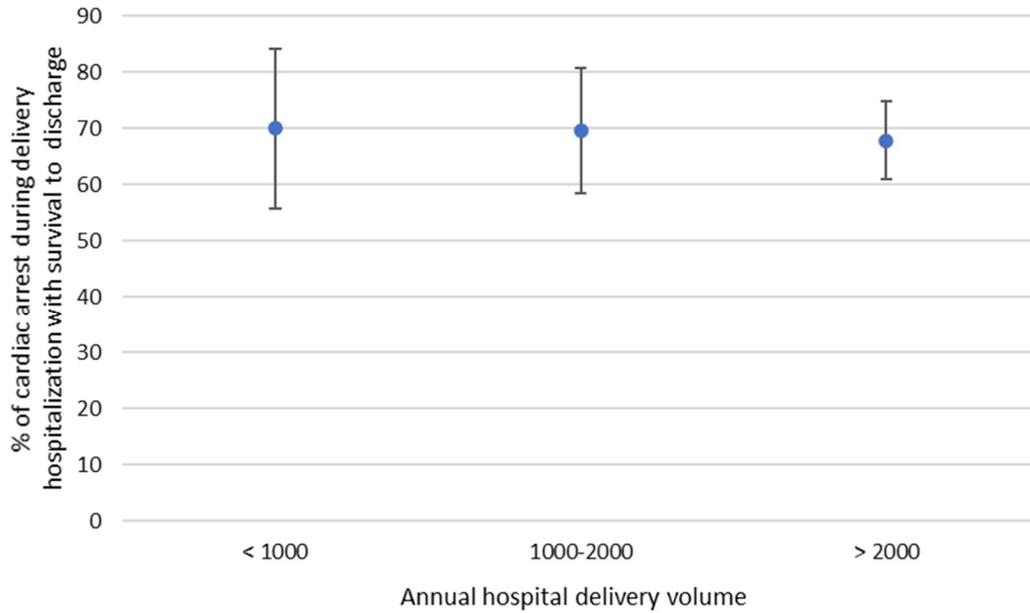
Supplement Table 2. Missingness of Outcomes and Patient-, Hospital-, and Community-Level Characteristics

Characteristic	Total Sample of Deliveries (N=10,921,784)	Deliveries with cardiac arrest (N=1,465)
	No. (%)	No. (%)
Cardiac arrest	0	0
Death (discharge disposition)	1,910 (0.02)	0
Maternal age	0	0
Race/Hispanic ethnicity	410,499 (3.75)	50 (3.41)
Payer	13,820 (0.13)	5 (0.34)
Rurality (county-level)	29,110 (0.27)	0
Median household-level income national quartile for patient zip code	99,840 (0.91)	15 (1.02)
Hospital region	0	0
Teaching hospital	0	0
Annual hospital delivery volume	0	0
Underlying medical conditions	0	0
Obstetric outcomes	0	0
Length of stay	0	0
Discharge disposition	0	0

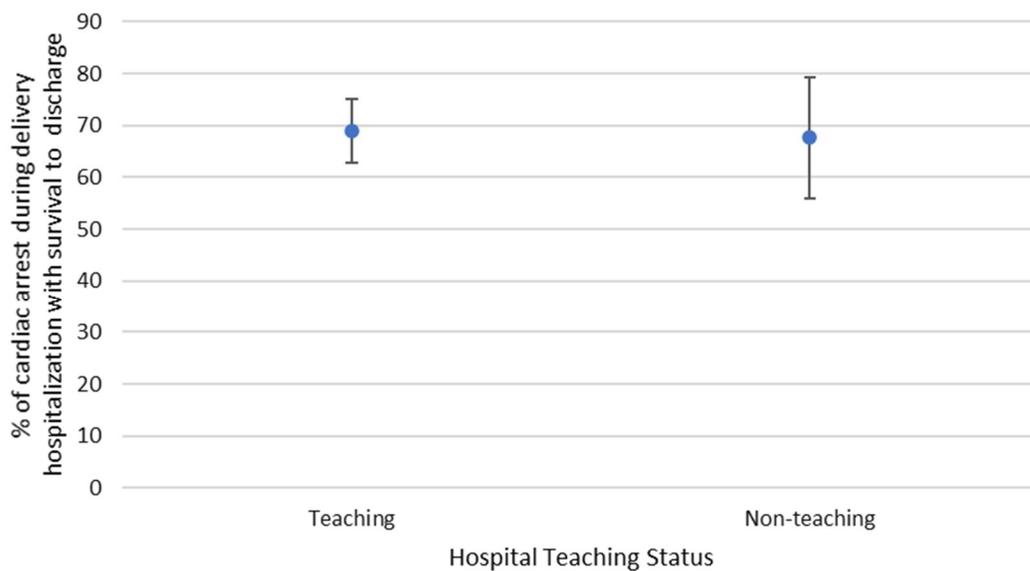
Data are from the National Inpatient Sample. Ns are weighted.

Supplement Figure. Proportion of survival to hospital discharge following documented cardiac arrest during delivery hospitalization, by annual hospital delivery volume (A) and hospital teaching status (B), 2017 to 2019

A



B



Data are from the National Inpatient Sample (weighted n=1,465).