

Table 2: Estimates of agreement, sensitivity, specificity, and predictive values for stroke algorithms

# Years	Algorithm		<i>k</i>	Sens. (%)	Spec. (%)	Youden	PPV (%)	NPV (%)
1	1	1+ H	0.12	7.3	99.8	0.07	42.1	98.3
	2	1+ H or 1+ P	0.35	28.4	99.4	0.28	49.2	98.7
	3	1+ H or 2+ P or (1 P & 2+ Rx)	0.35	26.6	99.6	0.26	52.7	98.6
	1f	1+ H	0.22	14.7	99.7	0.14	51.6	98.4
	2f	1+ H or 1+ P	0.39	34.9	99.2	0.34	46.3	98.8
	3f	1+ H or 2+ P or (1 P & 2+ Rx)	0.40	33.9	99.4	0.33	52.9	98.8
2	4	1+ H	0.24	15.6	99.8	0.15	56.7	98.4
	5	1+ H or 1+ P	0.44	43.1	99.1	0.42	46.5	98.9
	6	1+ H or 2+ P or (1 P & 2+ Rx)	0.43	38.5	99.3	0.38	51.2	98.9
	4f	1+ H	0.33	23.8	99.7	0.24	56.5	98.6
	5f	1+ H or 1+ P	0.42	40.5	98.7	0.39	40.5	99.0
	6f	1+ H or 2+ P or (1 P & 2+ Rx)	0.43	42.2	99.1	0.41	46.9	98.9
3	7	1+ H	0.26	18.4	99.7	0.18	50.0	98.5
	8	1+ H or 1+ P	0.42	47.7	98.7	0.46	40.3	99.0
	9	1+ H or 2+ P or (1 P & 2+ Rx)	0.44	44.0	99.0	0.43	45.7	99.0
	7f	1+ H	0.38	29.4	99.6	0.29	55.2	98.7
	8f	1+ H or 1+ P	0.42	54.1	98.2	0.52	36.6	99.1
	9f	1+ H or 2+ P or (1 P & 2+ Rx)	0.45	49.5	98.8	0.48	43.2	99.0

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# Years	Algorithm		<i>k</i>	Sens. (%)	Spec. (%)	Youden	PPV (%)	NPV (%)
5	10	1+ H	0.41	33.0	99.6	0.33	58.1	98.8
	11	1+ H or 1+ P	0.45	60.6	98.1	0.59	37.1	99.2
	12	1+ H or 2+ P or (1 P & 2+ Rx)	0.46	54.1	98.6	0.53	42.1	99.1
	10f	1+ H	0.45	39.4	99.4	0.39	53.7	98.9
	11f	1+ H or 1+ P	0.43	66.1	97.5	0.64	33.0	99.4
	12f	1+ H or 2+ P or (1 P & 2+ Rx)	0.47	61.5	98.3	0.60	39.9	99.3

Notes:

- * # Years = number of years of administrative data to which the case ascertainment algorithm was applied. For example, 1+P in one year identifies individuals as disease cases if they had one or more physician billing claims with the relevant diagnosis code(s) in a one-year period. The algorithm 1+H or 2+P in one year identifies individuals as disease cases if they had one or more hospitalization or two or more physician claims with the relevant diagnosis code(s) in a one-year period.
- * f = full set of ICD-9-CM codes (430-438)
- * H = Hospital separation; P = Physician billing claim; Rx = Prescription drug record; PPV = Positive Predictive Value; NPV = Negative Predictive Value

Source: Lix L, Yogendran M, Burchill C, Metge C, McKeen N, Moore D, Bond R. *Defining and Validating Chronic Diseases: An Administrative Data Approach*. Winnipeg, MB: Manitoba Centre for Health Policy, 2006.