

**Table 3: Estimates of agreement, sensitivity, specificity, and predictive value for hypertension algorithms**

# Years	Algorithm	$\kappa$	Sens. (%)	Spec. (%)	Youden	PPV (%)	NPV (%)
1	1 1+P	0.59	56.7	96.2	0.53	81.8	88.2
	2 2+P	0.49	40.9	98.6	0.39	89.6	84.9
	3 1+H or 1+ P	0.60	57.8	96.2	0.54	81.7	88.4
	4 1+ H or 2+ P	0.50	42.5	98.5	0.41	89.3	85.2
	5 1+ H or 1+ P or 1+ Rx	0.70	78.5	92.4	0.71	75.5	93.5
	6 1+ H or 1+ P or 2+ Rx	0.70	77.5	93.1	0.71	77.0	93.3
	7 1+H or 1+P or (1 P and 2+Rx)	0.61	55.9	97.4	0.53	86.5	88.1
2	8 1+P	0.63	68.6	93.0	0.62	74.5	90.9
	9 2+P	0.59	55.1	97.0	0.52	84.4	87.9
	10 1+H or 1+ P	0.64	69.9	92.8	0.63	74.1	91.2
	11 1+ H or 2+ P	0.60	56.7	96.7	0.53	83.5	88.2
	12 1+ H or 1+ P or 1+ Rx	0.66	81.4	89.1	0.70	68.9	94.1
	13 1+ H or 1+ P or 2+ Rx	0.67	80.9	90.0	0.71	70.6	94.1
	14 1+H or 2+P or (1P and 2+Rx)	0.67	67.8	95.6	0.63	82.0	90.9
3	15 1+P	0.63	73.2	90.6	0.64	69.7	91.9
	16 2+P	0.64	64.3	95.2	0.60	79.9	90.0
	17 1+H or 1+ P	0.63	74.5	90.4	0.65	69.7	92.2
	18 1+ H or 2+ P	0.65	65.9	94.9	0.61	79.4	90.4
	19 1+ H or 1+ P or 1+ Rx	0.63	82.3	86.7	0.69	64.9	94.3
	20 1+ H or 1+ P or 2+ Rx	0.65	81.9	88.0	0.70	66.9	94.2
	21 1+H or 2+P or (1P and 2+Rx)	0.68	73.0	93.7	0.67	77.5	92.1
5	22 1+P	0.64	78.4	89.1	0.67	68.0	93.3
	23 2+P	0.67	70.7	93.9	0.65	77.4	91.5
	24 1+H or 1+ P	0.65	79.8	88.9	0.69	68.1	93.7
	25 1+ H or 2+ P	0.67	72.3	93.7	0.66	77.2	91.9
	26 1+ H or 1+ P or 1+ Rx	0.61	84.2	84.4	0.69	61.6	94.7
	27 1+ H or 1+ P or 2+ Rx	0.63	83.7	86.1	0.70	64.2	94.7
	28 1+H or 2+P or (1P and 2+Rx)	0.70	77.4	92.8	0.70	76.1	93.2

*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.
- \* H = Hospital separation; P = Physician billing claim; Rx = Prescription drug record; PPV = Positive Predictive Value; NPV = Negative Predictive Value

Source: Lix L, Yogendran M, Mann J. *Defining and Validating Chronic Diseases: An Administrative Data Approach. An Update with ICD-10-CA*. Winnipeg, MB: Manitoba Centre for Health Policy, November 2008.