SUPPLEMENTARY METHODS

The performance parameters for International Classification of Diseases (ICD)-10 code validation for diagnostic accuracy included the positive predictive value (PPV), negative predictive value (NPV), error rate, sensitivity, and specificity. The PPV were used to quantify diagnostic accuracy (number of correctly classified cases). PPV referred to the proportion of gold-standard diagnoses for migraine, migraine without aura, and migraine with aura cases relative to all of those identified with the diagnostic codes in the Korean National Health Insurance Service data. The NPV was defined as the ratio of patients truly diagnosed as negative relative to all those who had negative test results. Our dataset included only patients who were diagnosed with migraine, and therefore, the NPV could not be calculated based on the initial visit alone. To address this limitation, we calculated the NPV among patients who had subsequent visits during which a diagnosis of migraine was not made. Accordingly, the NPV presented in our results reflects this subgroup of patients.

		Disease		Predictive Value	
		⊕	⊖		
Test	⊕	**A** True Positive (TP)	**B** False Positive (FP)	Positive Predictive Value (PPV) $\frac{TP}{TP+FP} = \frac{A}{A+B}$	Total Positive Results (A + B)
	⊖	**C** False Negative (FN)	**D** True Negative (TN)	Negative Predictive Value (NPV) $\frac{TN}{FN+TN} = \frac{D}{C+D}$	Total Negative Results (C + D)
Sensitivity & Specificity		Sensitivity $\frac{TP}{TP+FN} = \frac{A}{A+C}$	Specificity $\frac{TN}{FP+TN} = \frac{D}{B+D}$		
		All diseased patients (A + C)	All non-diseased patients (B + D)		