

Appendix A. Formulas for calculating sensitivity, specificity, positive predictive value and negative predictive value of each ICD-10 coding algorithm

Hyponatremia reference standard		
Serum sodium laboratory measurements		
	Serum sodium ≤ 132 mmol/L	Serum sodium > 132 mmol/L
Code E87.1 positive	a	b
Code E87.1 negative	c	d

Sensitivity= $a/(a+c)$: the proportion of patients with serum sodium ≤ 132 mmol/L who are code E87.1 positive
 Specificity= $d/(b+d)$: the proportion of patients with serum sodium > 132 mmol/L who are code E87.1 negative
 Positive predictive value= $a/(a+b)$: proportion of patients who are code E87.1 positive with serum sodium ≤ 132 mmol/L
 Negative predictive value= $d/(c+d)$: proportion of patients who are code E87.1 negative with serum sodium > 132 mmol/L