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Estimating the Prevalence of Hypertension from Administrative Data in the Absence of a Gold Standard

The study proposes a case ascertainment algorithm for surveillance of hypertension in children and youth in Alberta. First, multiple case ascertainment algorithms were used and compared to estimate the prevalence of hypertension across the province, assessing for regional differences and the effects of demographic factors. Second, a Bayesian latent class regression model was developed to assess the performance of the algorithm, when there is no perfect reference for a gold standard. The real data included all patients with hypertension aged 20 years or below in years 1994/95 to 2009/10; Population-based administrative data were used to identify patients diagnosed with hypertension.