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Forecasting the weather
- ensemble techniques
in probabilistic weather prediction

Seasonal variations in acute myocardial infarction, angina pectoris and stroke morbidity in the Czech Republic

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Seasonal patterns in mortality from coronary heart disease and stroke have long been recognised, with the highest incidence being reported in winter. Whether the occurrence of common cardiovascular disorders varies by season is less understood. The purpose of this study is to describe the seasonal variation in acute myocardial infarction (I21 according to ICD-10), angina pectoris (I20) and stroke (cerebral infarction, I63, and stroke not specified as haemorrhage or infarction, I64) in the population of the Czech Republic, in relation to gender and age, by using hospital admission data from the National Registry of Hospitalised Patients as an indicator of morbidity (in total 1,194,622 hospital admissions for acute myocardial infarction, angina and stroke over 1994-2007). The main aims of the study are (i) to determine seasonal patterns in acute myocardial infarction, angina and stroke morbidity, (ii) to identify those diagnoses and population groups that are most closely affected by seasonality, and (iii) to examine whether hospital admissions due to cardiovascular diseases are linked to the occurrence of positive/negative daily air temperature anomalies. Periods when morbidity data were affected by epidemics of influenza and other acute respiratory infections were excluded from the analysis in order not to confound results.