Population-based Registers for Myocardial Infarction in Europe: results from EUROCISS Project

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Background and objective: EUROCISS Project (European Cardiovascular Indicators Surveillance Set), funded under the Health Monitoring Programme of European Commission, aims to develop health indicators and recommendations for monitoring cardiovascular diseases (CVD).

Methods: Prioritise CVD according to their importance in public health; identify indicators for assessing morbidity and mortality; develop data collection and harmonizing recommendations; describe data collection, validation procedures and discuss their comparability. Population characteristics (geographical area, age range, gender), methods (case definition, ICD codes), procedures (record linkage, validation), morbidity indicators (attack rate, incidence, case fatality) collected by questionnaire.

Results: The main outcome was the inventory of acute myocardial infarction (AMI) population-based registers in the 18 European partner countries: 8 countries have no register, 10 regional, 4 of which also national. Registers differ in: ICD codes (only AMI or also acute and subacute ischemic forms), age range (35-64, 35-74, all), record linkage (probabilistic, personal identification number), calendar years, validation (MONICA, ESC/ACC diagnostic criteria). Differences make morbidity indicators difficult to compare.

Conclusion: New diagnostic criteria led to a more exhaustive definition of myocardial necrosis as acute coronary syndrome (ACS). Given the high burden of AMI/ACS, efforts are needed to implement population-based registers in all countries. Application of recommended indicators, validated through standardized methodology, will provide reliable, valid and comparable data.

Key words: acute myocardial infarction, acute coronary syndrome, population-based register, morbidity