

# INCIDENCE, TREATMENT, IN-HOSPITAL AND ONE-YEAR OUTCOMES OF ACUTE MYOCARDIAL INFARCTION IN POLAND IN 2009-2012 – NATIONWIDE DATABASE AMI-PL

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**Background and aim:** A nationwide data on acute myocardial infarction (AMI) are available for some Western but not for Central Eastern European countries. We performed a study on nationwide data of all Polish AMI patients in 2009-2012 to collect the complete database of AMI and assess incidence, quality of care, and cardiovascular events during one year following AMI.

**Methods:** The database of the only public, obligatory, health insurer in Poland (National Health Fund) together with the data from Central Statistical Office were used. The AMI cases were selected based on primary diagnosis ICD-10 codes I21-I22. For years 2009-2012 hospitalizations index (N = 311,813) in a given year and death records were analysed. Additionally, for 2009, data on hospitalisations, procedures and deaths in a 1-year follow-up were obtained.

**Results:** The age-standardized incidence of AMI in Poland in 2009 was 196 cases per 100,000 population (176 per 100,000 were hospitalized) with decreasing trend over time. The incidence was 2.5 times higher in men than in women. Median age of men was 63 and women 74 years. Proportion of STEMI declined from 59% to 48% in 2012. Invasive treatment raised from 72% to 81% of patients. Age-standardized fatality was equal in women and men. In 2009, number of patients with AMI was 75,054 (61% men, 39% women) and 83% of them were treated in cardiology wards. Average length of stay in hospital was 6 days. Invasive strategy was used in 77% of patients with STEMI and 66% with NSTEMI, thrombolysis in 1% and coronary artery bypass grafting (CABG) in 1.9% of patients. Invasive treatment was less frequently used in women and elderly patients. Fatality (in-hospital mortality), if all hospitals where patient was treated until the final discharge (alive or dead) were taken into account, was 10.5%. The lowest fatality was among patients treated invasively – 6.3%. Total number of readmissions within 1 year following AMI was 84,718 and 61.9% of it was due to cardiovascular reasons. The most common causes were: stable coronary artery disease – 27%, heart failure – 7.9%, re-MI – 7% and unstable angina – 6.8%. Within one year

after AMI only 22% of patients underwent cardiac rehabilitation programme. Total 1-year mortality was 19.4% (invasive treatment – 12.3%, non-invasive - 38.0%).

**Conclusions:** In Poland standards of care and early outcomes in AMI are similar to Western countries. Main cause of higher mortality in Polish population is high incidence of AMI indicating a need for intensifying primary prevention programmes. Secondary prevention is also underused, especially in the field of cardiac rehabilitation.

#### References

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## РАСПРОСТРАНЕННОСТЬ ВИРУСА ПАПИЛЛОМЫ ЧЕЛОВЕКА (HPV) У БОЛЬНЫХ С РАКОМ ГОРТАНИ

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Заболеваемость злокачественными опухолями в области головы и шеи составляет около 10% общей заболеваемости раком в Польше и занимает третье место в структуре заболеваемости с точки зрения размещения опухоли. В Польше в 2011 году рак в области головы и шеи диагностирован у 4818 мужчин и 1288 женщин, что составило 6,6% всех случаев рака у мужчин и 1,6% у женщин (1).

**Материал и методы:** Материал для исследования был собран во время операций у пациентов с диагнозом рака гортани (*Carcinoma planoepitheliale*) работниками кафедры отоларингологии и онколарингологии медицинского университета города Люблина. Возраст больных колебался от 40 до 78 лет. Средний возраст пациентов составил 59,8 лет, со стандартным отклонением 9,8 лет. Проанализирована 3- и 5-летняя выживаемость с помощью логрангового критерия по методу Каплана-Мейера с оценкой статистической значимости. Для выделения генома ДНК был использован набор Mini - генома ДНК Prep & A Plus A биотехнологии Гдыня (в соответствии с протоколом). Каждый препарат полученный от больных был использован для качественного и количественного определения ДНК. Обнаружение присутствия вируса на основе амплификации фрагмента *E6/E7 Human papillomavirus 16* проводилось с помощью nested-PCR.