

303: Performance indicators for AMI in Lazio Region: INCA indicators in cardiology

Tozzi Q., Caracci G., Agabiti N., Catalano N., Casertano L., Cardo S., Gillespie F., Duranti G., Scanzano P., Mantuano C., Gangale A., Fabio V., Santini M., Guasticchi G.

Objective:

Development of an acute myocardial infarction (AMI) process and an outcome indicator set for the regional health care system.

Methods:

The project has been developed by the Agency of Public Health of Lazio Region (ASP) Rome, in collaboration with the National Association of Hospital Cardiologists (ANMCO). It involves 40 cardiology units throughout the Region, encompassing around 5,000,000 citizens. AMI was chosen according to its epidemiological features and its associated financial burden. In the Lazio Region in 1999, AMI was responsible for 53% of all deaths from ischemic heart disease among men (72% in the age group 35-64) and for 40% of those deaths among women (74% in the age group 35-64 years. In 2001, the Lazio information system registered 8,516 discharges for AMI (ICD-9 CM code = 410 as the principal diagnosis). The research team included 3 cardiologists, 2 public health experts, 2 quality managers, 3 outcome researchers, 1 accreditation expert, 1 psychologist, 1 statistician, 1 computer scientist, 1 communication expert and 1 lawyer. The research team cooperated with 49 cardiologists, ANMCO members, appointed by the General Directors of the participating healthcare organisations.

The research project comprised the following steps:

- 1) A systematic literature review of structure, process and outcome indicators in cardiology,
- 2) A review of the accreditation standards for cardiology at the national and international levels,
- 3) A selection, within a shared framework, of:
 - Organisational models of cardiac care for varying levels of complexity, including definitions of the major features and main connections with other hospital units and services,
 - Structure, process and outcome indicators for AMI

Based on shared indicator selection criteria, the research team submitted a preliminary indicator set to the ANMCO cardiologists, to be evaluated using a questionnaire. Survey results were discussed and a consensus of 17 indicators were agreed on, followed by testing and approval.

- 4) Education and training of two members from each participating organisation was performed,
- 5) Data collection. One of the main objectives of the project was to implement performance measurements at a regional level by integrating ordinary administrative data (DRG based on ICD9CM codes) with clinical data,
- 6) Data analysis and discussion of results,
- 7) The Diffusion of results and future perspectives.

Results:

The verifiable end-points that were expected of the overall project (deliverables and important milestones) have been achieved. Organisational models of cardiac care have been defined by clinicians and public health professionals within the theoretical accreditation framework. Through consensual procedures and according to international evidence based literature, a set of 17 process and outcome indicators for AMI has been selected. A specific procedure for data collection has been developed, and participants have undergone relevant training.

Conclusions:

The project, based on a model of collaboration between Governmental Agencies of Public Health, Scientific Societies and Regional Health Care Services, aimed at developing shared performance indicators and standards, has been successful. Results will be useful in designing implementation strategies for the regional accreditation of health care services. Benchmarking within the regional hospital cardiology care services could be developed following self-evaluation and continuous quality improvement cycles.

Joint Commission on Accreditation of Healthcare Organisations (JCAHO). Specification Manual for National Implementation of Hospital Core Measures Version 2.0. November 2003. Scott I, Harper C, Clough A, West M. WESTCOP: a disease management approach to coronary artery disease. Aust Health Rev. 2000; 23(2): 96-112. Tran CT et al; Canadian Cardiovascular Outcomes Research Team/Canadian Cardiovascular Society; Acute Myocardial Infarction Quality Indicator Panel. CCORT/CCS quality indicators for acute myocardial infarction care. Can J Cardiol. 2003 Jan; 19(1): 38-45