

BACKGROUND

The AMIS (Acute Myocardial Infarction in Switzerland) project was initiated by the steering committee* representing the Swiss societies of cardiology, intensive care and internal medicine. AMIS Data Center was developed and implemented in 1997 by the Clinical Epidemiology Division of the Geneva University Hospitals. Since January 2000, the registry also documents cases of unstable angina (UA), and is called AMIS Plus. In November 2000, the Data Center was transferred to the Institute of Social and Preventive Medicine in Zurich. For electronic data submission there is a close collaboration with the Department of Computer Science, ETH Zurich.

OBJECTIVES

Data collection on:

- Trends in epidemiology (including risk factors) in patients with acute coronary syndromes
- Diagnostic and therapeutic interventions during hospitalization
- Compliance with guidelines
- Quality of treatment and outcome during hospitalization
- Integration of new diagnostic and therapeutic interventions ...in order to optimize the care of patients.

METHODS

Eligible are all Swiss hospitals which admit patients with acute coronary syndromes. Data are collected on 118 variables, including, among others, demographics, risk factors, symptoms, laboratory values, invasive therapy, complications and medication.

RESULTS

Period: 1997-Sept.2001

Participating Hospitals: total n=51

>500 beds (n=8), 250-499 beds (n=7), 125-245 beds (n=19),

<124 beds (n=17)

Patients: total n=7768

Females: n=2166, age: median = 73.3, Min = 21.6, Max = 100

Males: n= 5584, age: median = 64.2, Min = 17.57,

Max = 100.3

Figure 1.

Boxplot age by gender (median, 25th/75th percentiles, lowest/highest values)

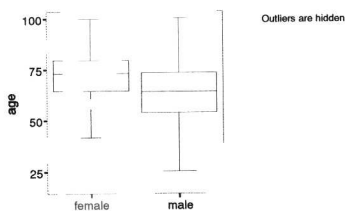


Figure 2.

Distribution of gender by age groups

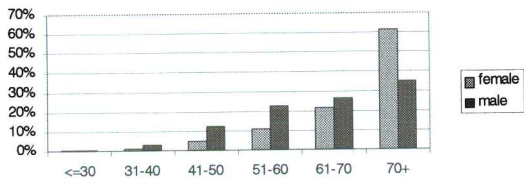


Figure 3.

Cardiovascular risk factors

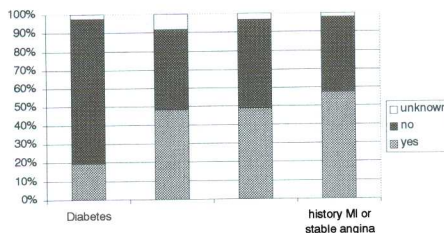


Figure 4.

Risk Factor Smoking

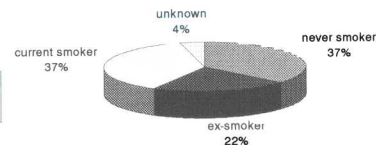


Figure 5.

Symptoms at admission

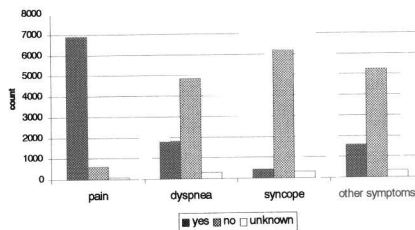


Figure 6.

Boxplot of duration of hospital stay (Patient alive and not transferred)

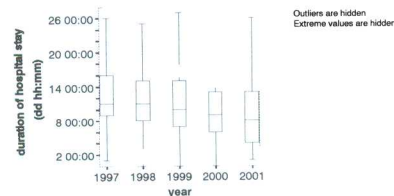


Figure 7.

Use of GP IIb/IIIa inhibitors with PCI over time

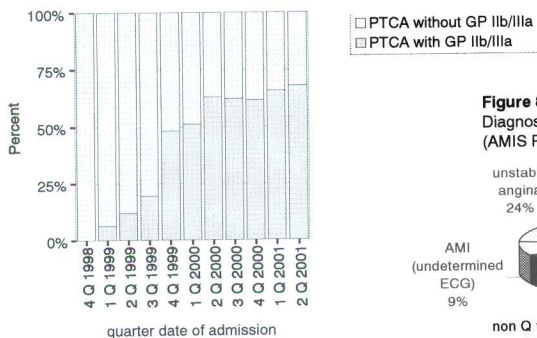
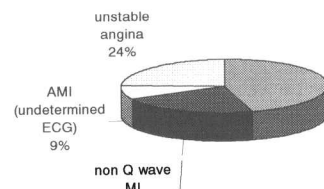


Figure 8.

Diagnosis at discharge of AMIS Plus Patients (AMIS Plus since Jan 2000, n= 2415)



CONCLUSIONS AND FURTHER DEVELOPMENT

AMIS Plus registry is a fairly comprehensive data base with indicators of current practice in management of acute coronary syndromes in Switzerland. It has the advantage over data from clinical trials of more accurately reflecting everyday practice. Therefore, it is an excellent tool for quality assurance. Benchmarking as a way of communicating and motivating participating hospitals will be used more systematically in the future, while modern communication tools, such as the internet, will be increasingly used in order to enable faster feedback and interactivity.

Smoking, the only behaviorally modifiable major risk factor, is currently practiced by well over a third of those hospitalised with an acute coronary event, stressing the need for systematic assessment of the patient's smoking status and at least a minimal smoking cessation intervention. The length of hospital stay has progressively and significantly decreased since the beginning of data collection. This puts more pressure on coronary care teams who are left with progressively less time for a comprehensive care of patients. The use of GP IIb/IIIa inhibitors with coronary interventions has increased rapidly during 1999 and has levelled off since at around 70%.