

Determinants of Hospital Mortality in AHF in Clinical Practice

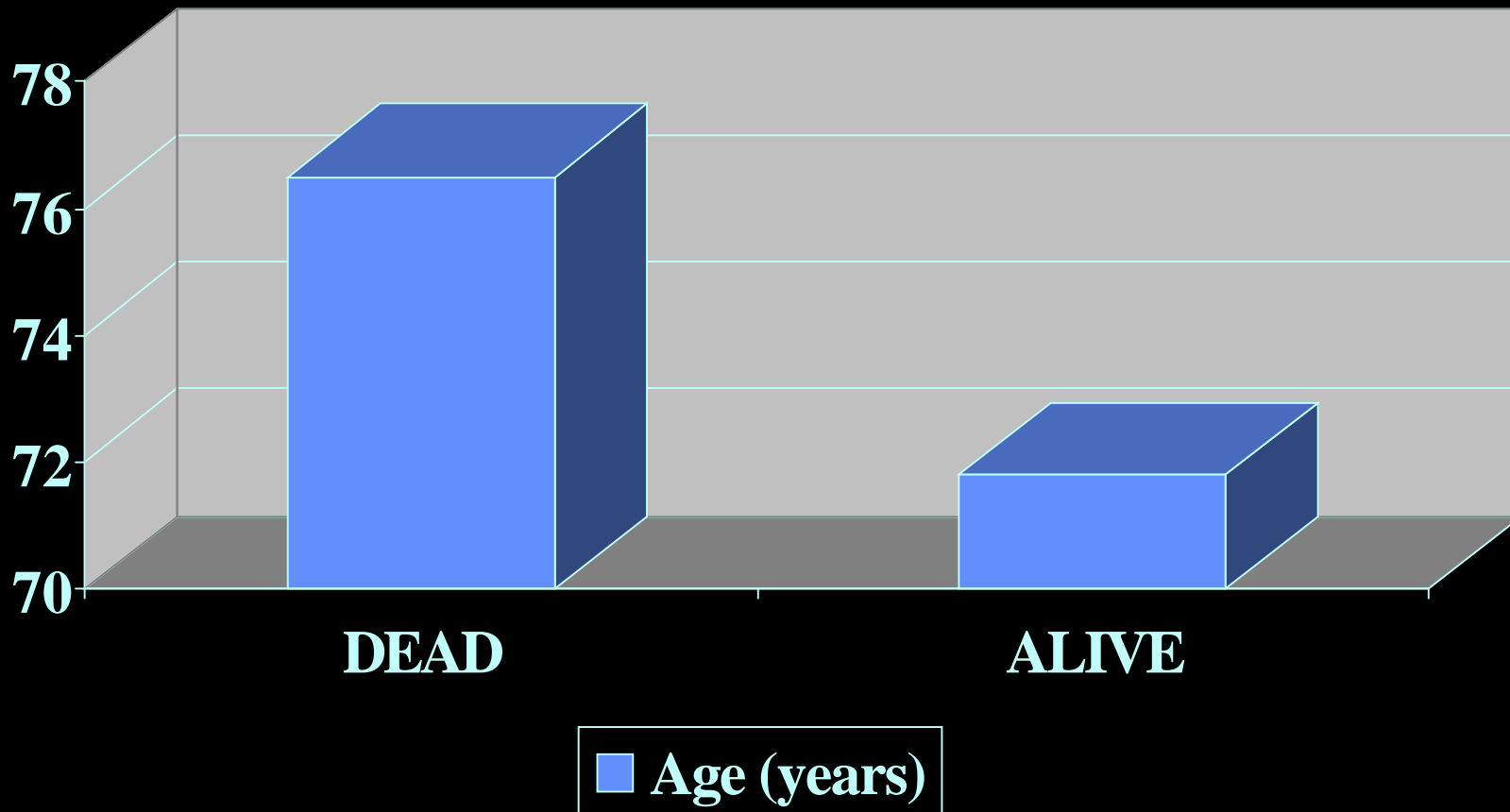
Gerasimos S. Filippatos, MD, FESC
Athens University Hospital, Attikon

In-Hospital Mortality

- **n=2467 patients**
- **Hospital Mortality 7.2 %
(177 patients)**

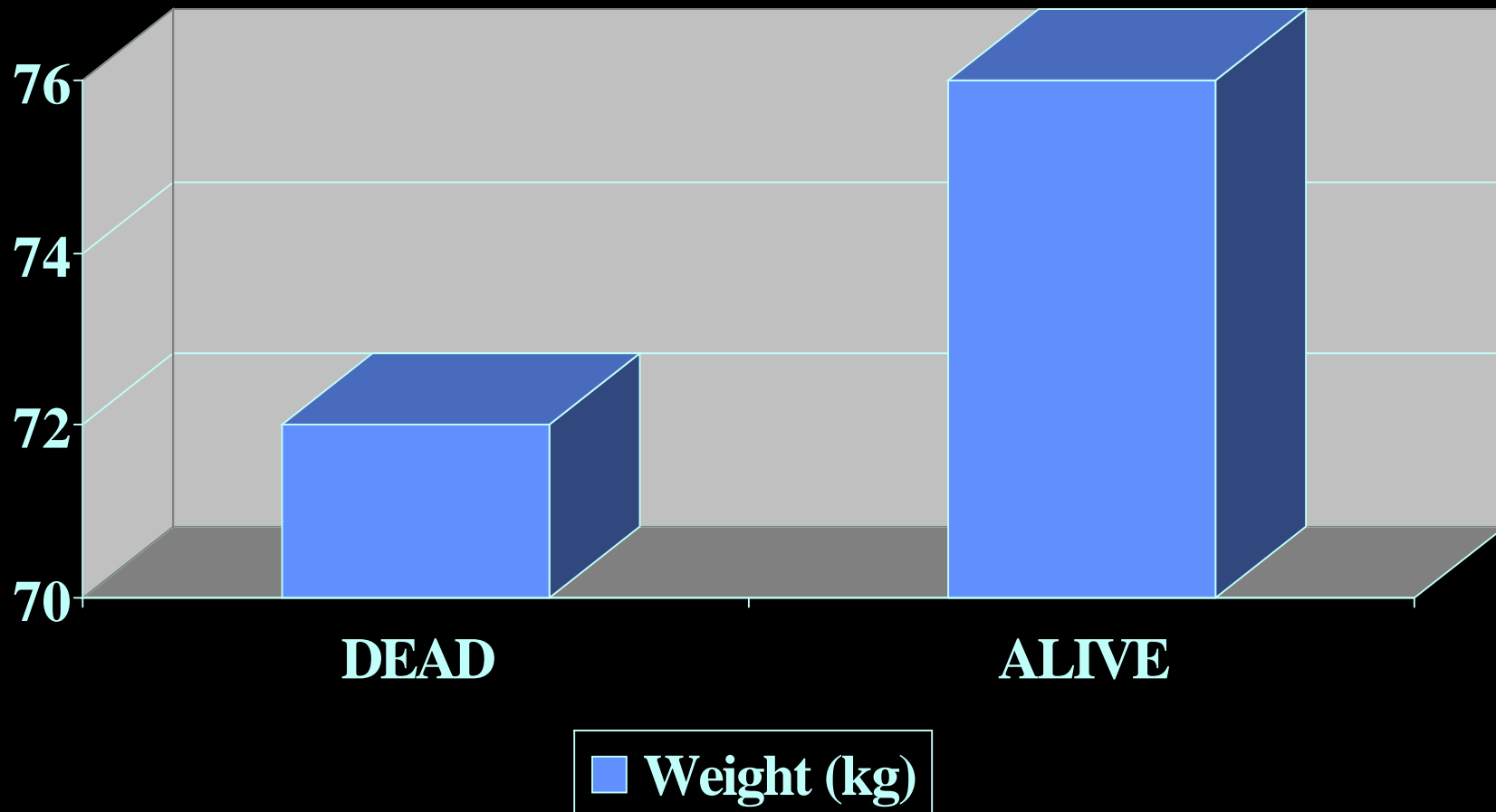
Determinants of Hospital Mortality

AGE

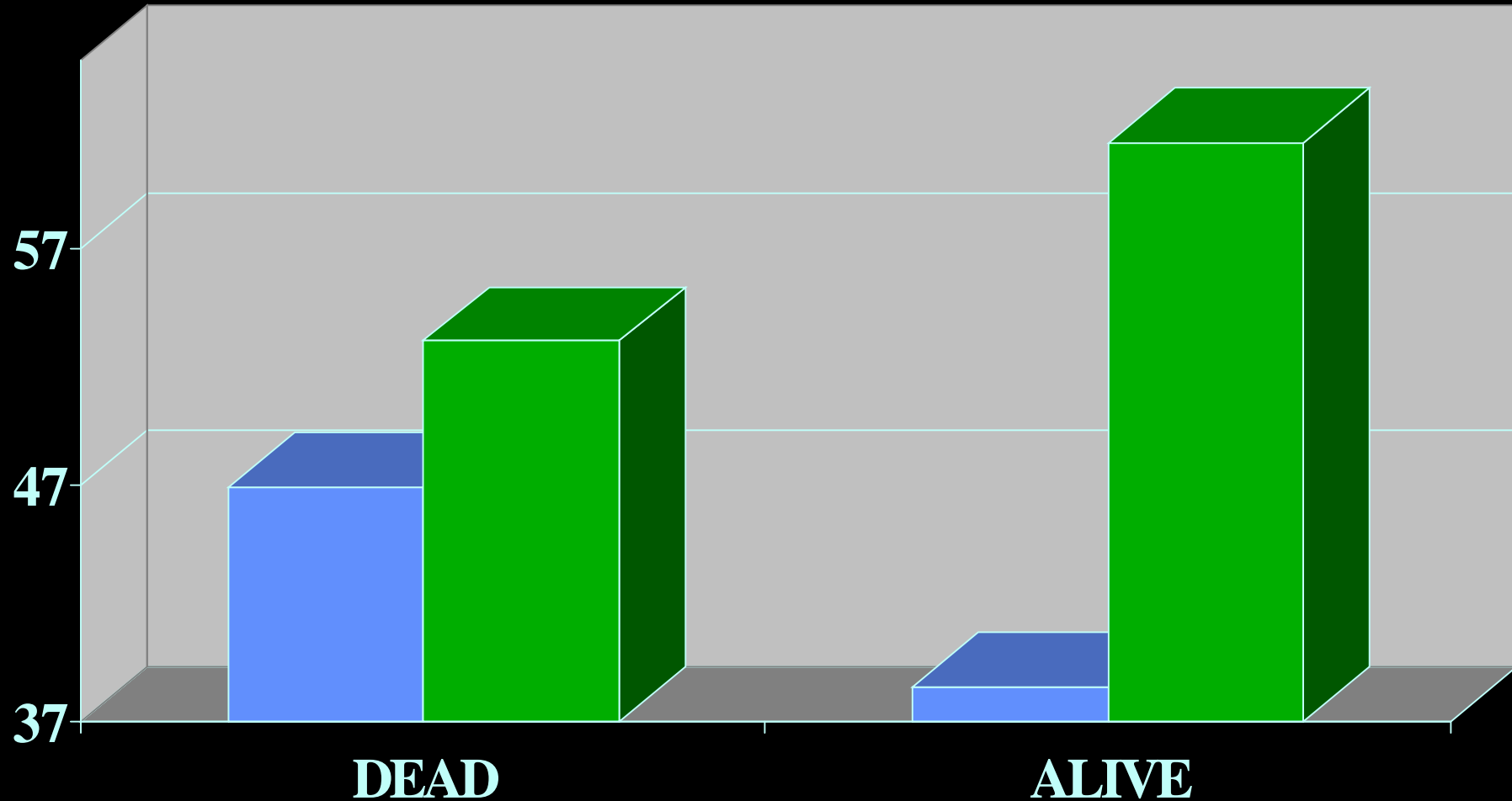


Determinants of Hospital Mortality

WEIGHT (admission)



Determinants of Hospital Mortality

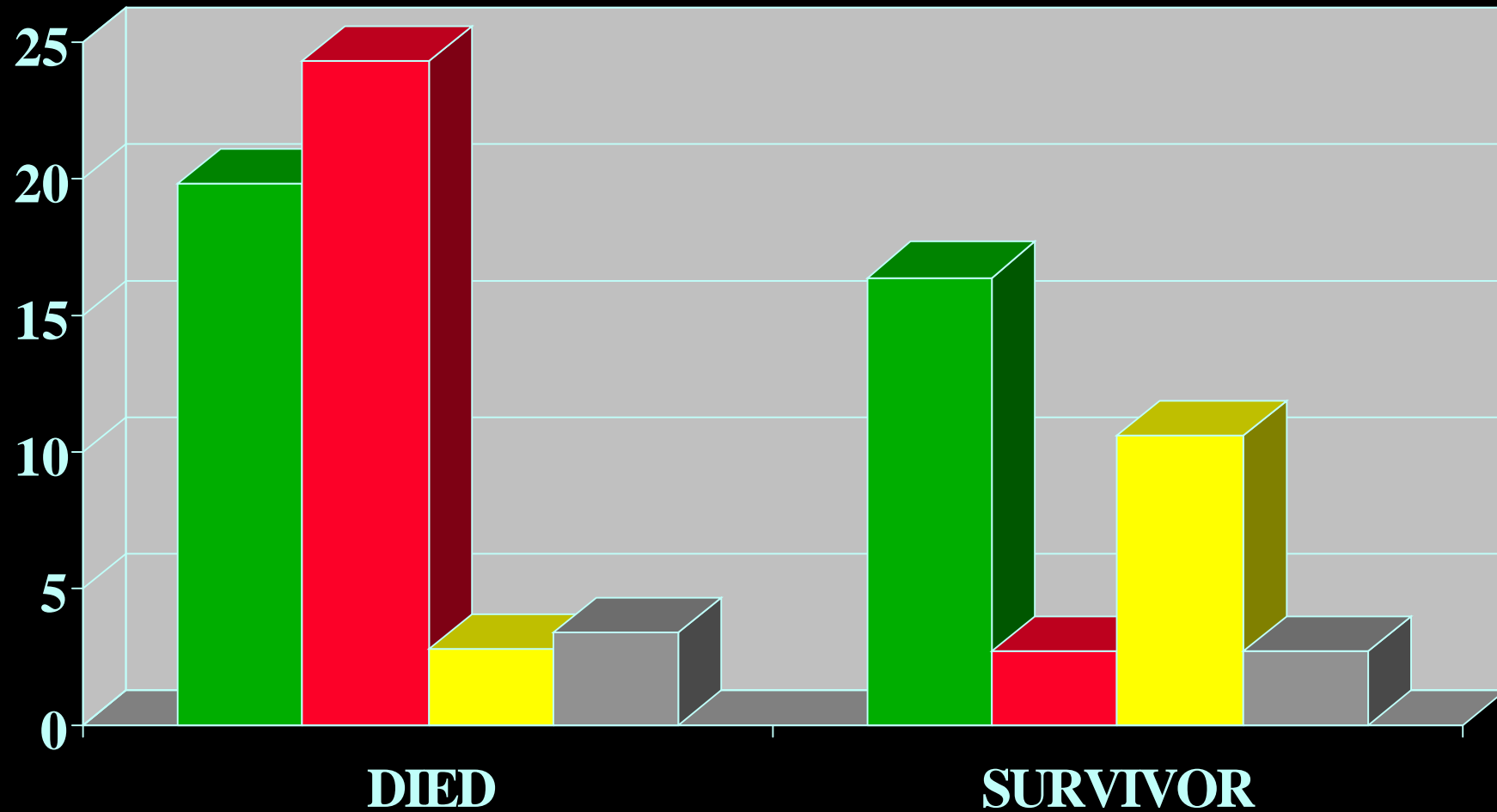


■ De novo AHF ■ Exacerbation CHF

Acute Heart Failure

- **Decompensated HF**
- **Pulmonary Edema**
- **Acute Hypertensive HF**
- **Cardiogenic shock**
- **High output HF**
- **Right side HF**

Classification of AHF and Mortality



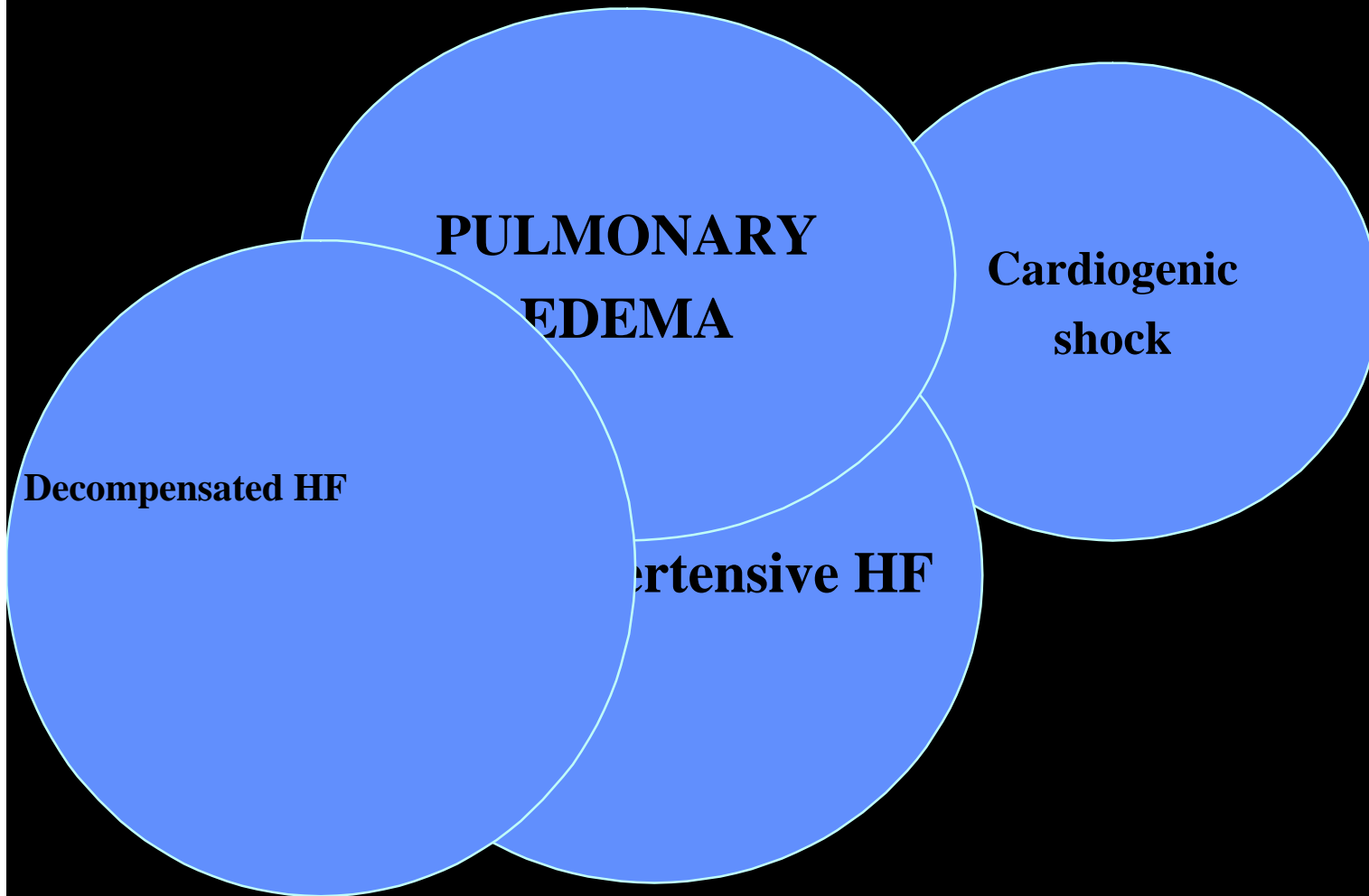
PulmEdema

CardioShock

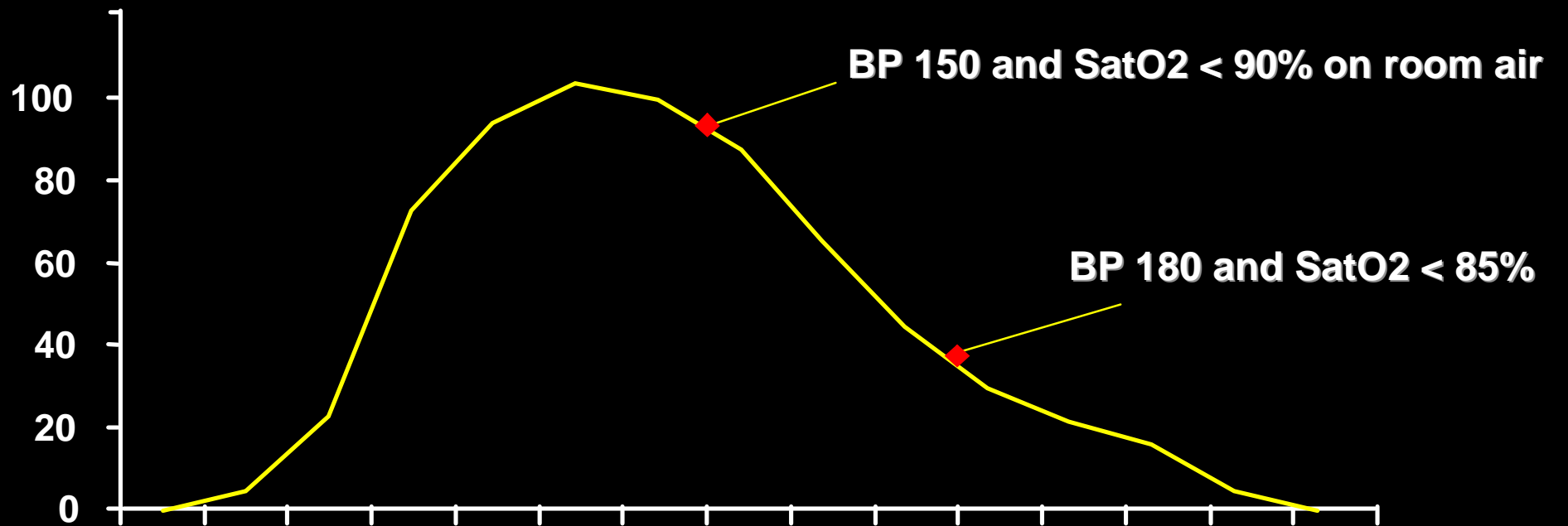
HypertensiveHF

RightHF

Phenotype of AHF



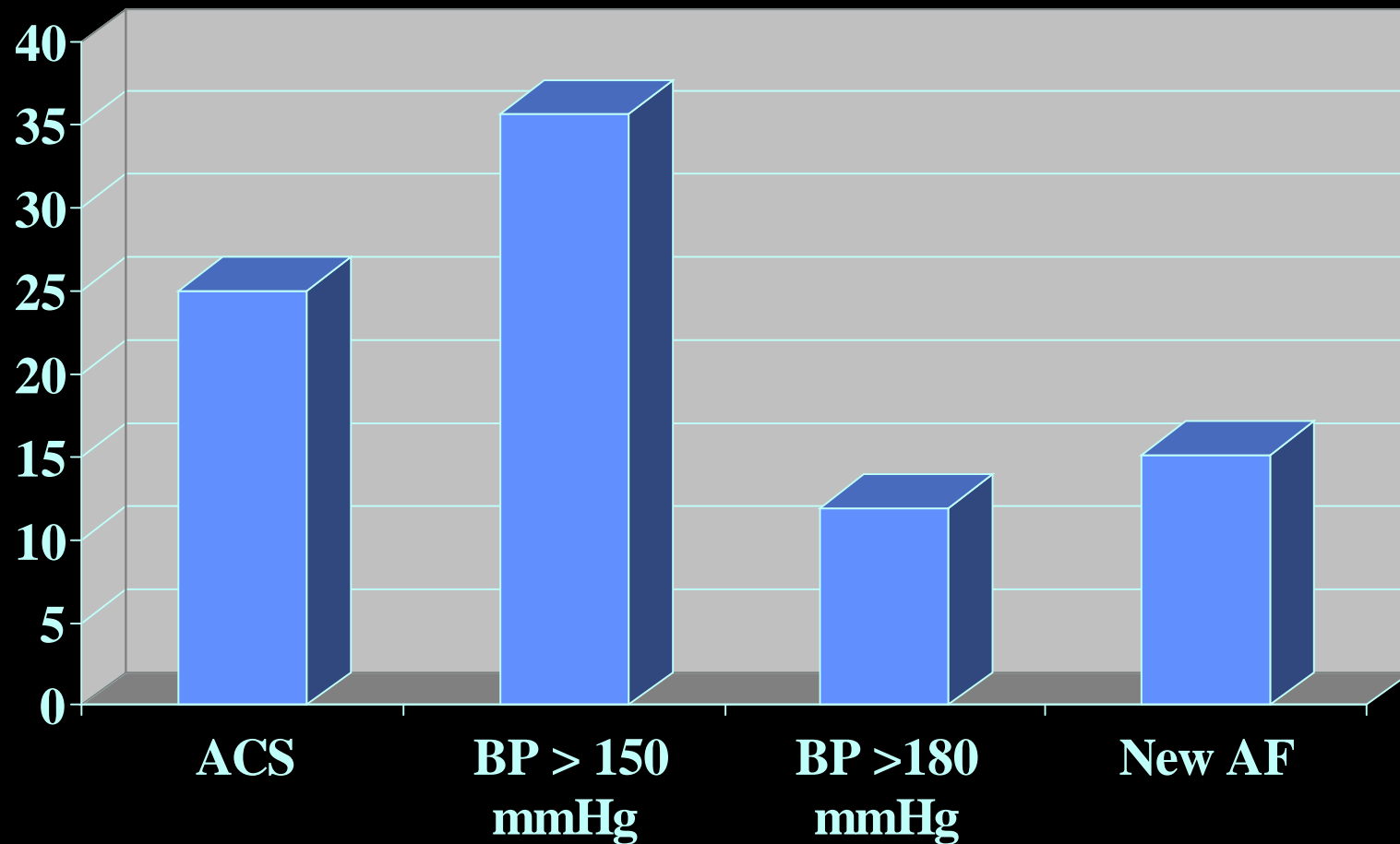
Diagnostic criteria for Acute Hypertensive Heart Failure



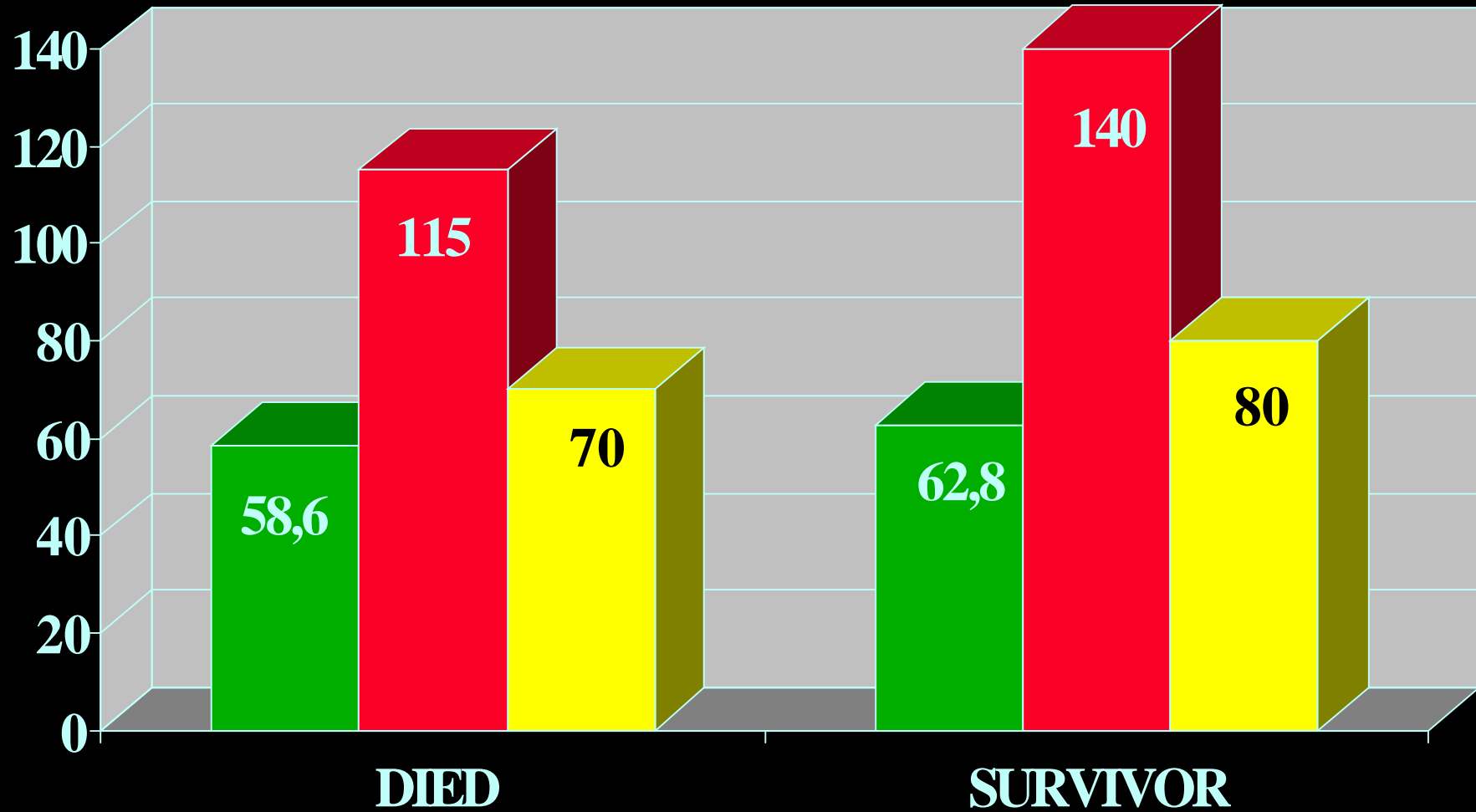
Acute Heart Failure Population

Filippatos G (2005)

HELSINKI-ZURICH AHF STUDY (n=312)



Hypertension and Mortality

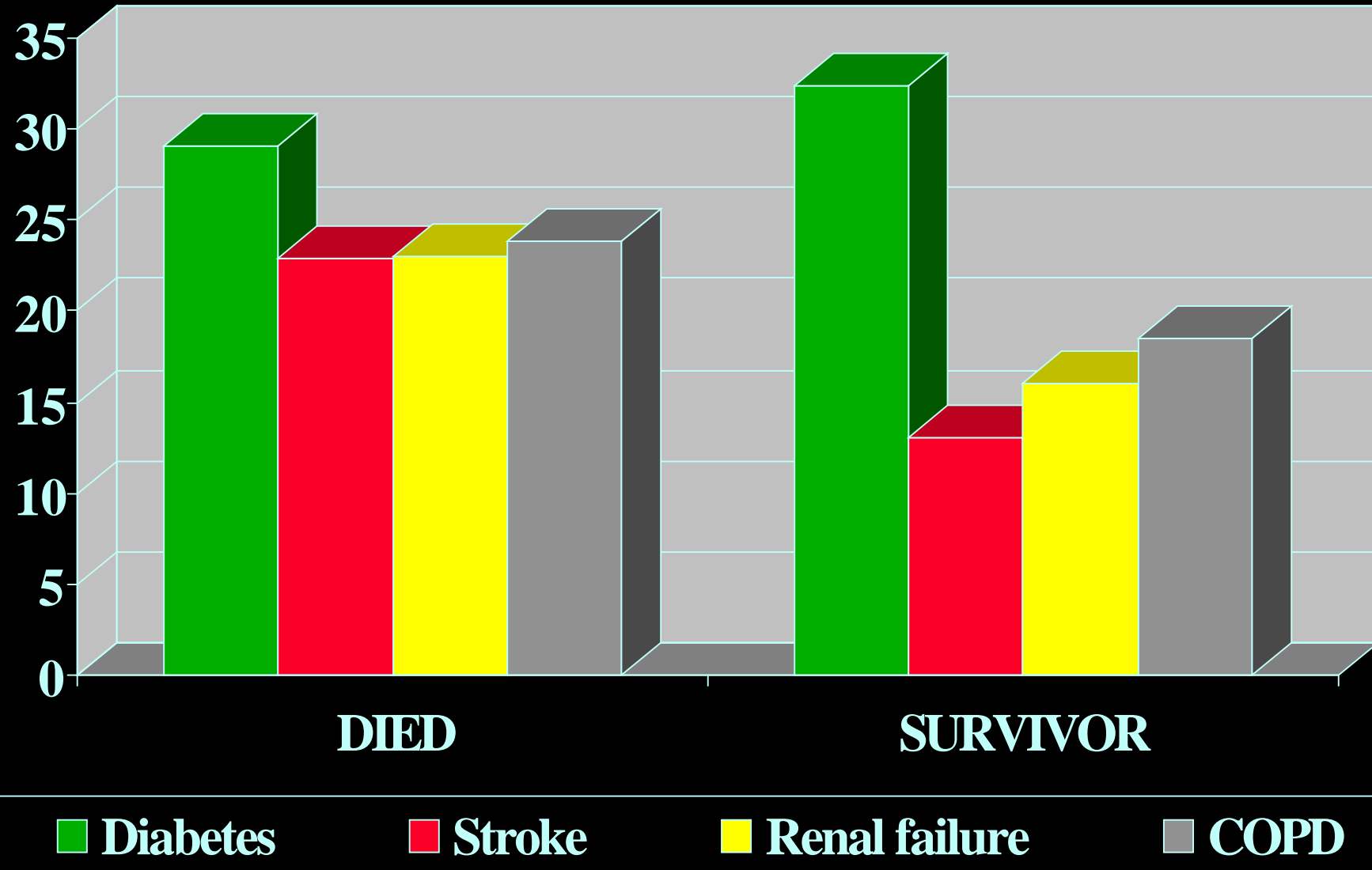


■ Hypertension History

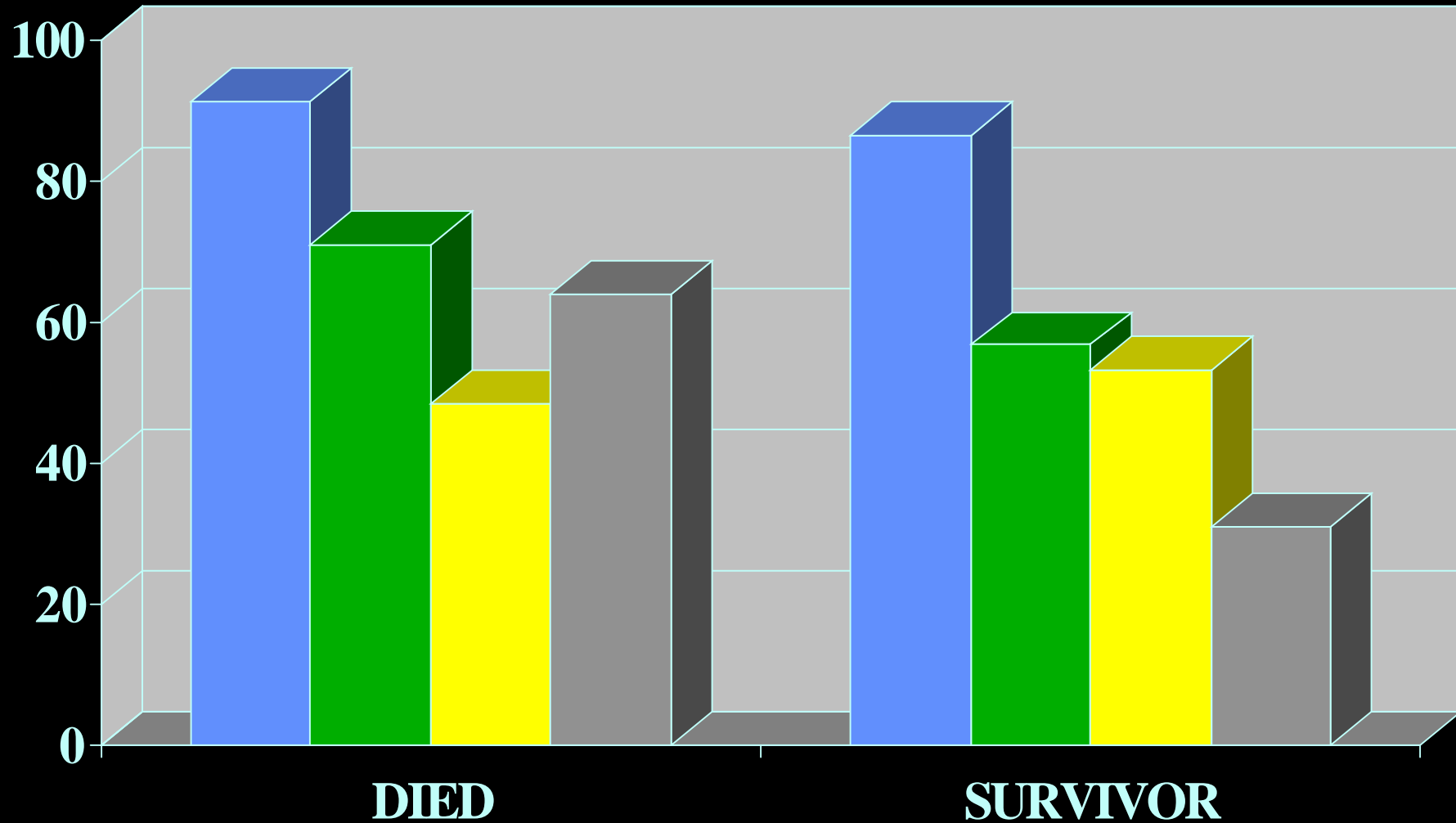
■ SBP

■ DBP

Concomitant Diseases and Mortality

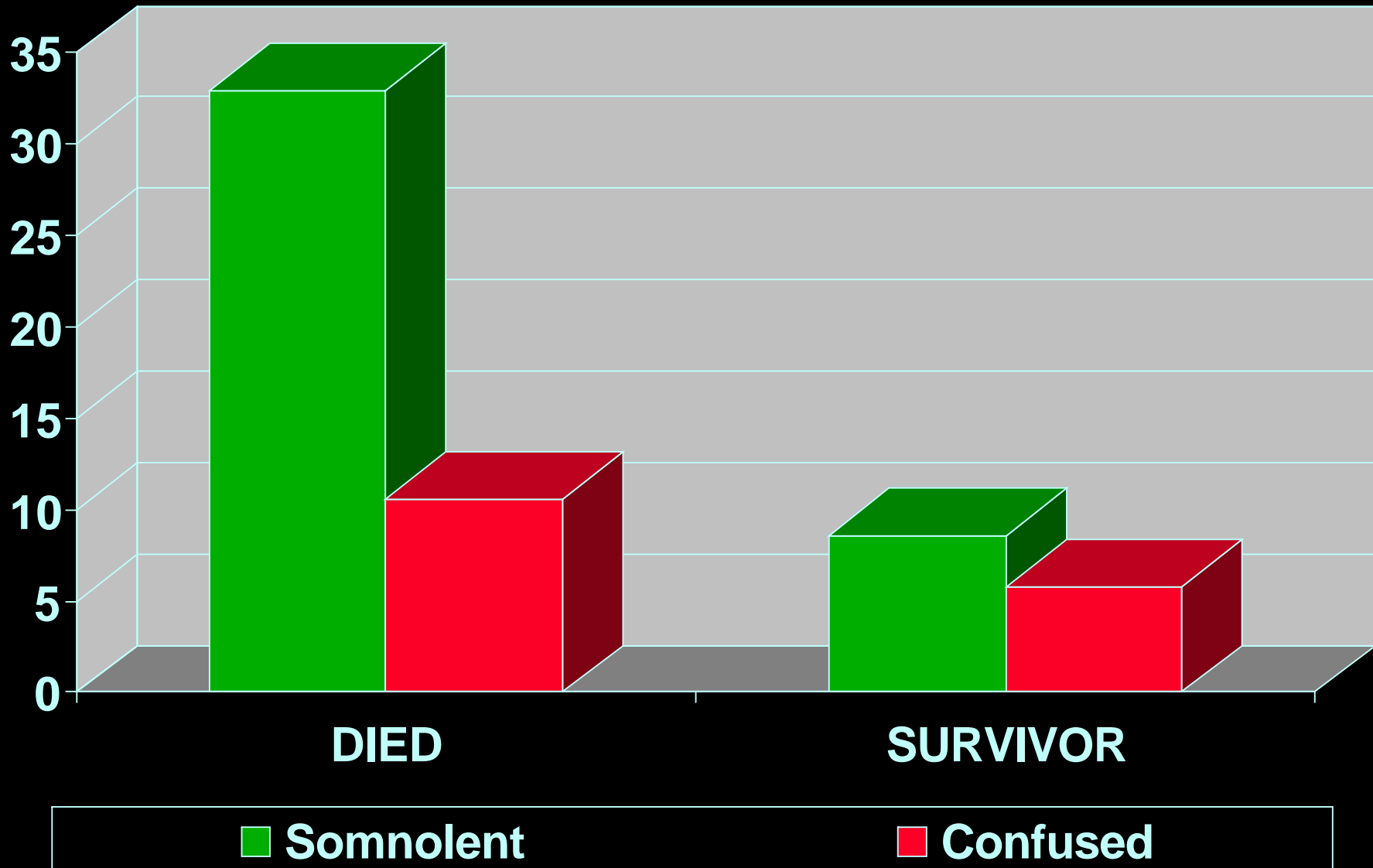


Physical Signs and Mortality



■ Rales ■ JVP ■ Edema ■ Cold periphery

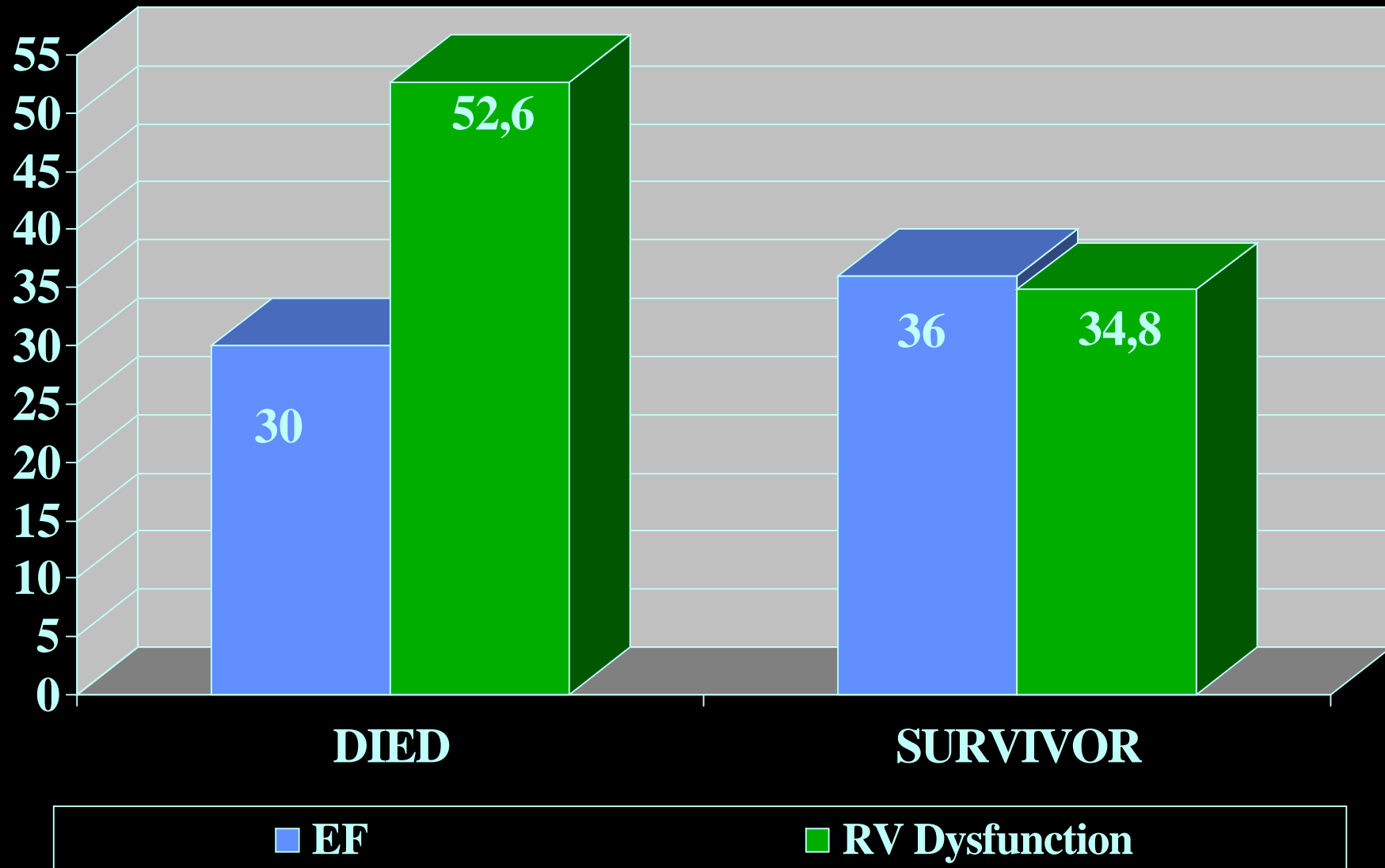
Alertness and Mortality



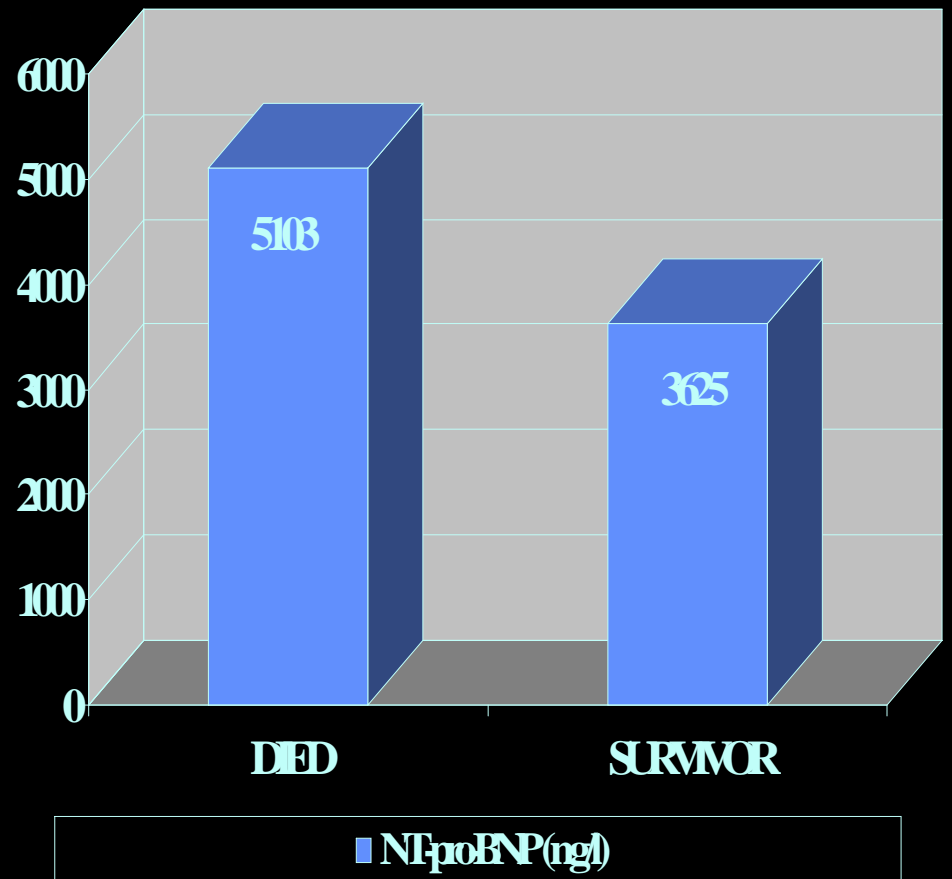
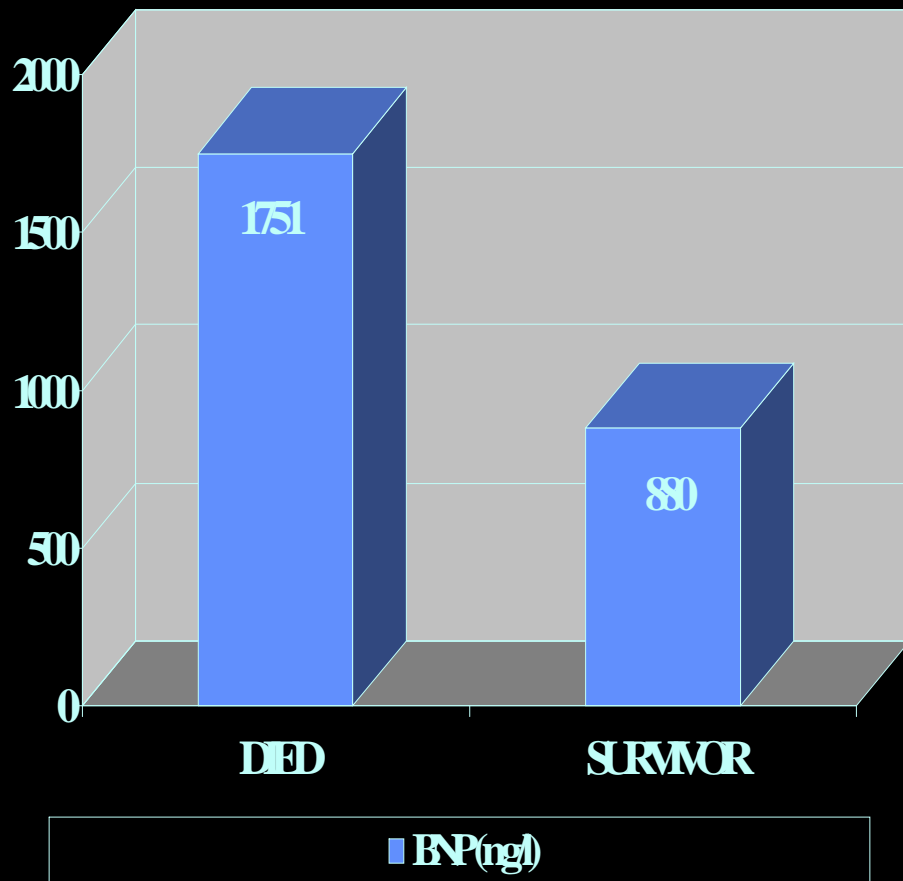
Quality of life and mortality

- **Confined to bed**
- **Any problems with Self-Care**
- **Unable to wash or dress myself**
- **Unable to perform usual activities**
- **Extremely anxious or depressed**

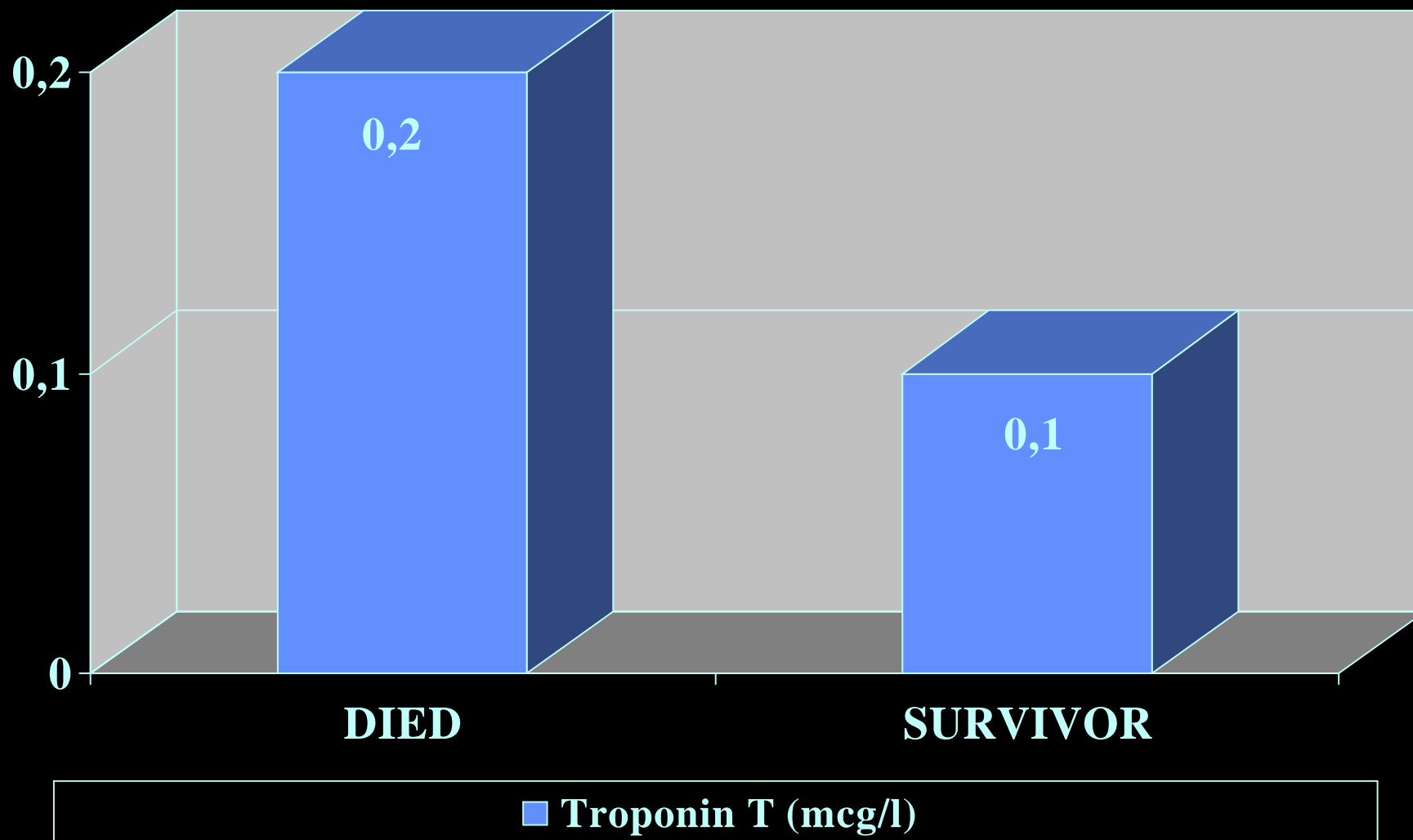
Echocardiography and Mortality



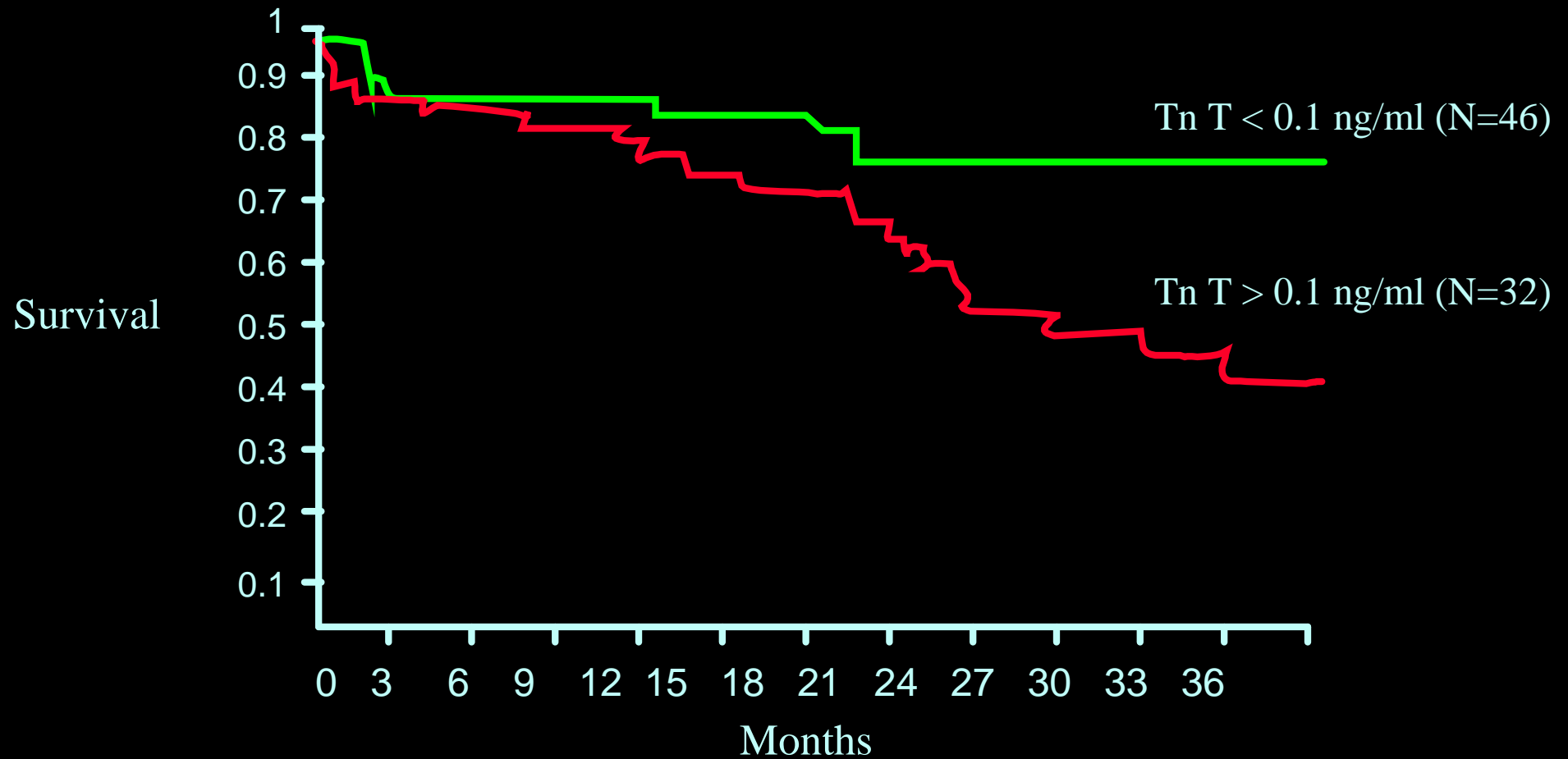
Laboratory parameters on Admission and Mortality



Troponin T and Mortality



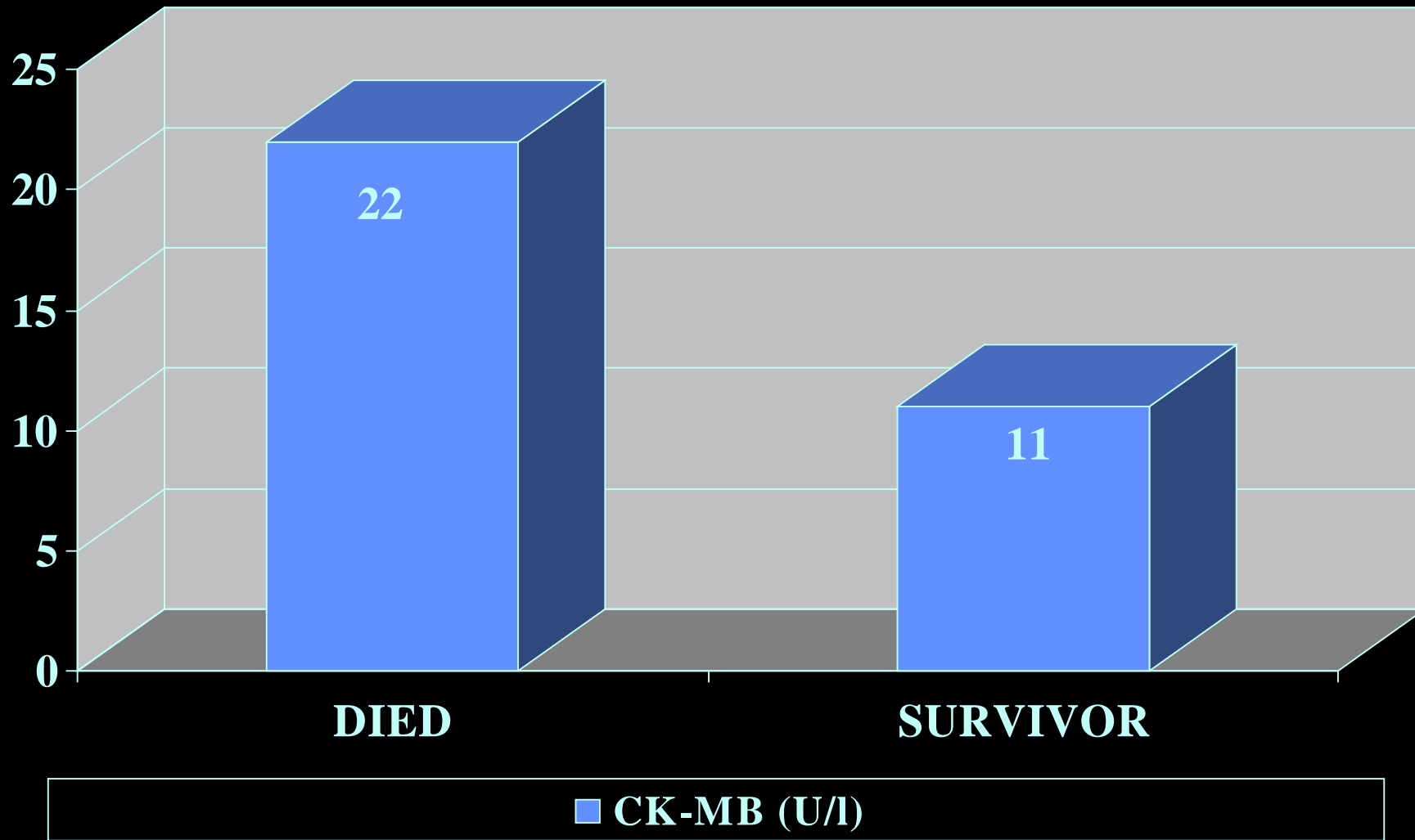
AHFS: Prognostic Value of Tn T



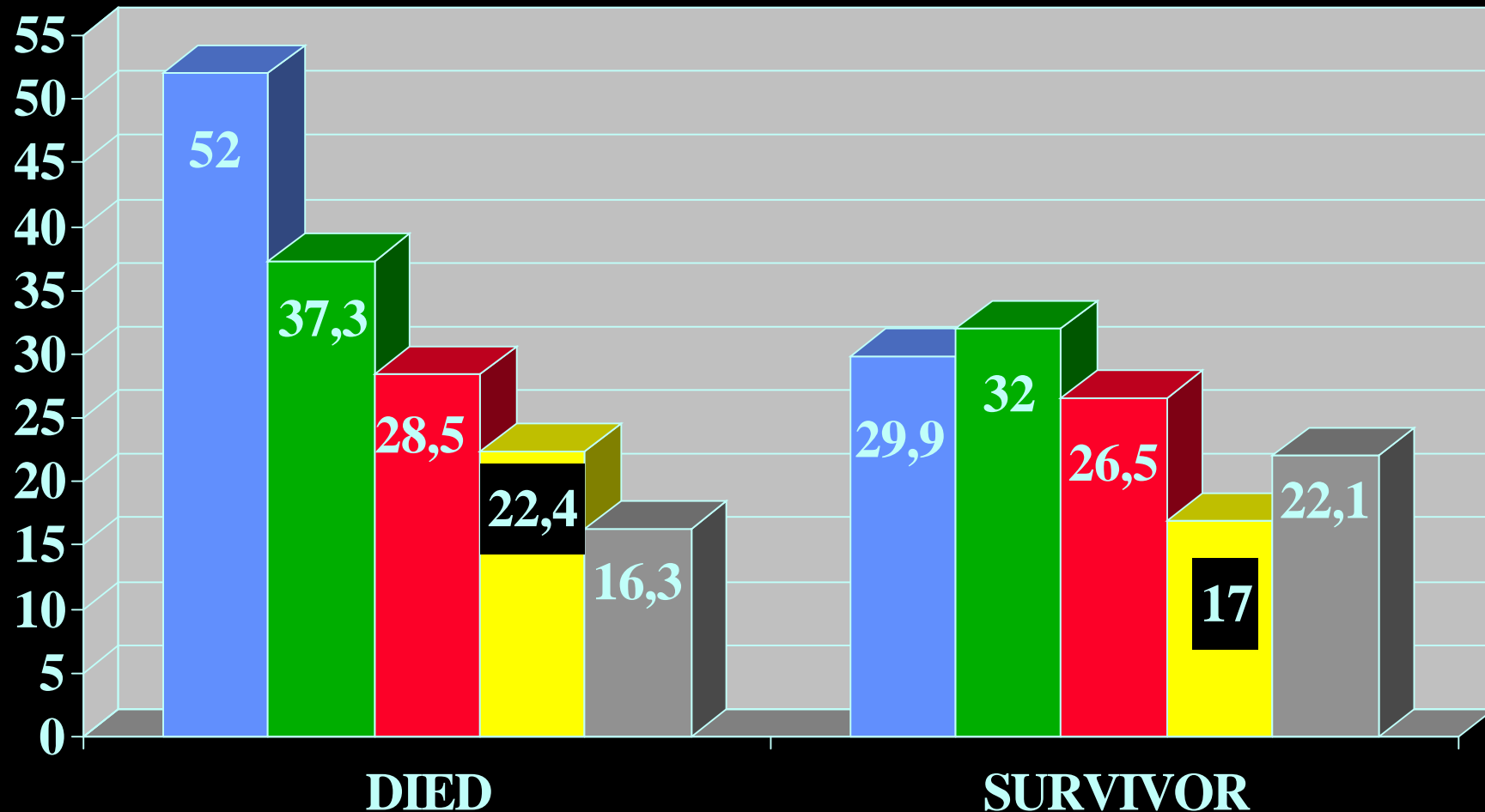
In Diastolic HF: 31% troponin I > 0.5

Ann Cardiol Angeiol (Paris) 2003;52:308

CK - MB and Mortality

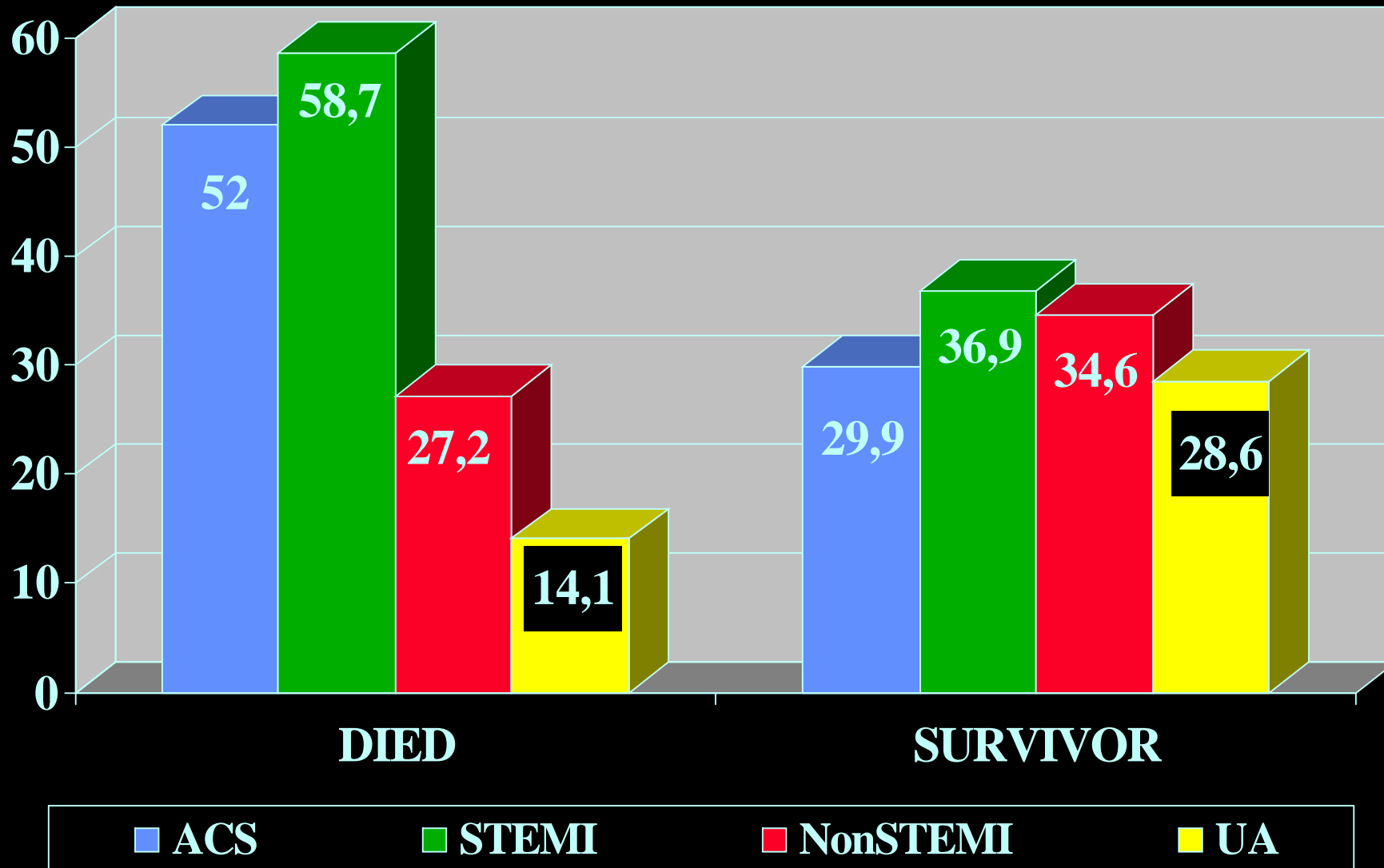


Cause of Heart Failure

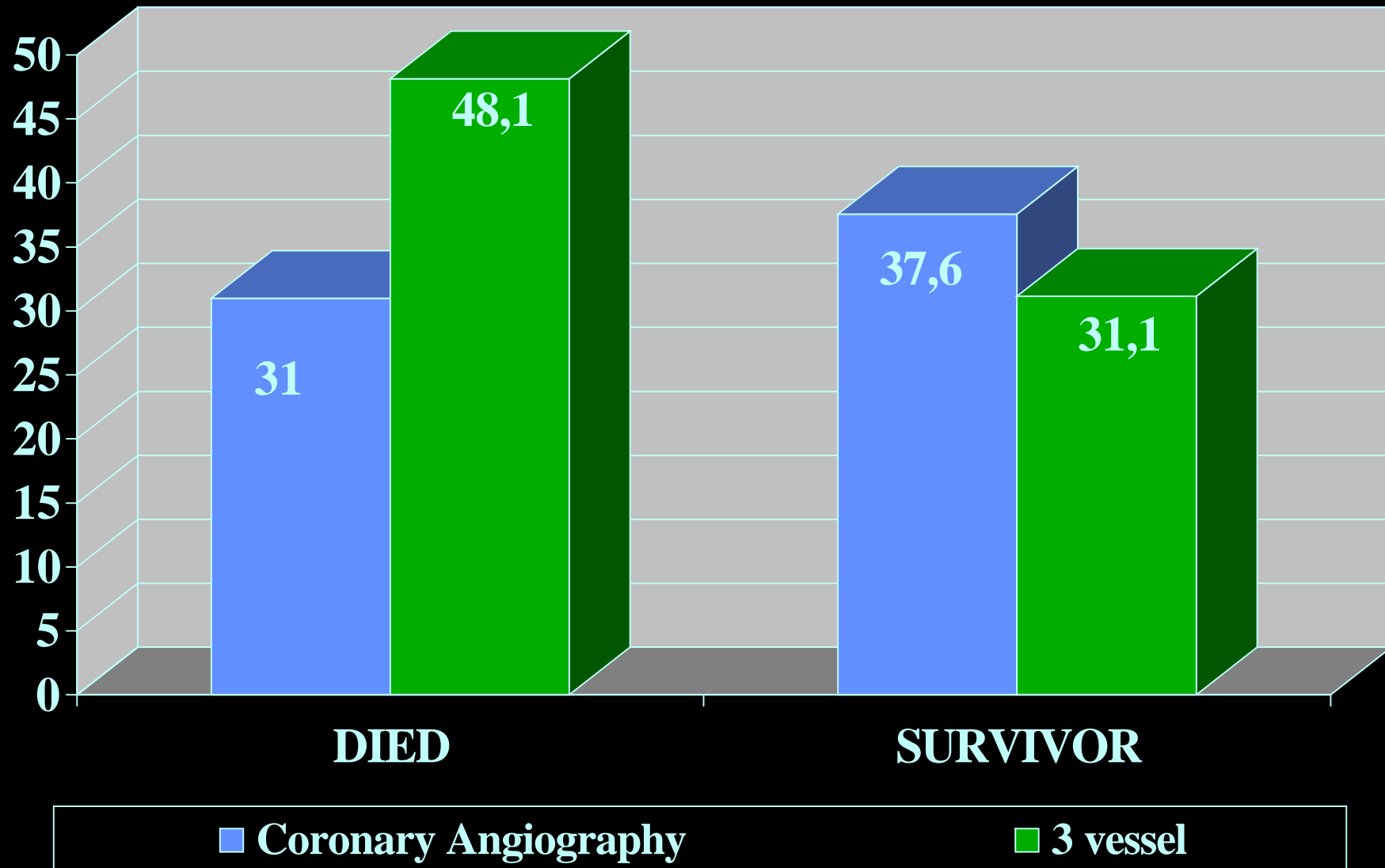


■ ACS ■ Arrhythmia ■ VHD ■ Infection ■ Non Compliance to HF Tx

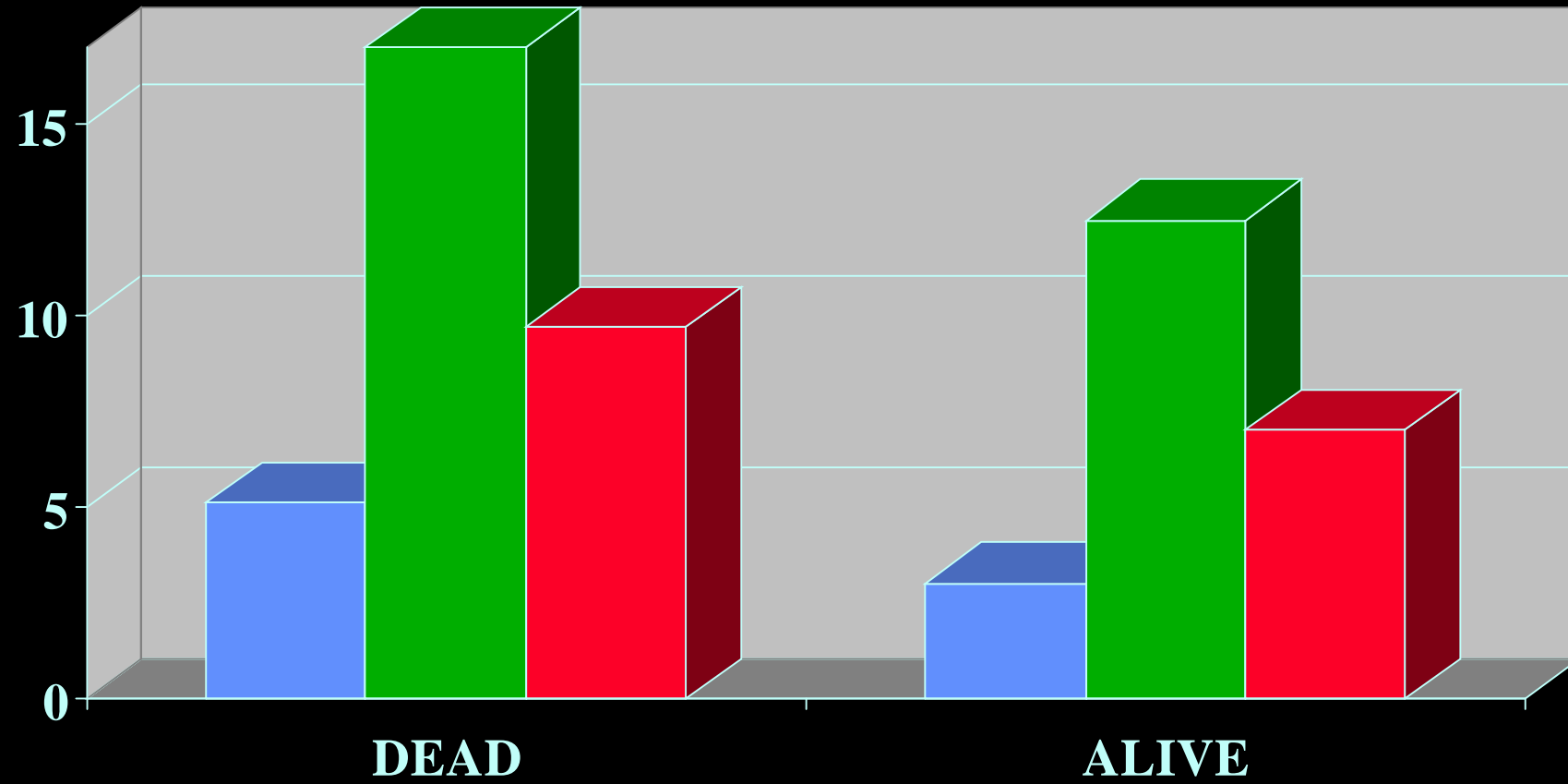
ACS and AHF Mortality



Coronary Angiography and Mortality

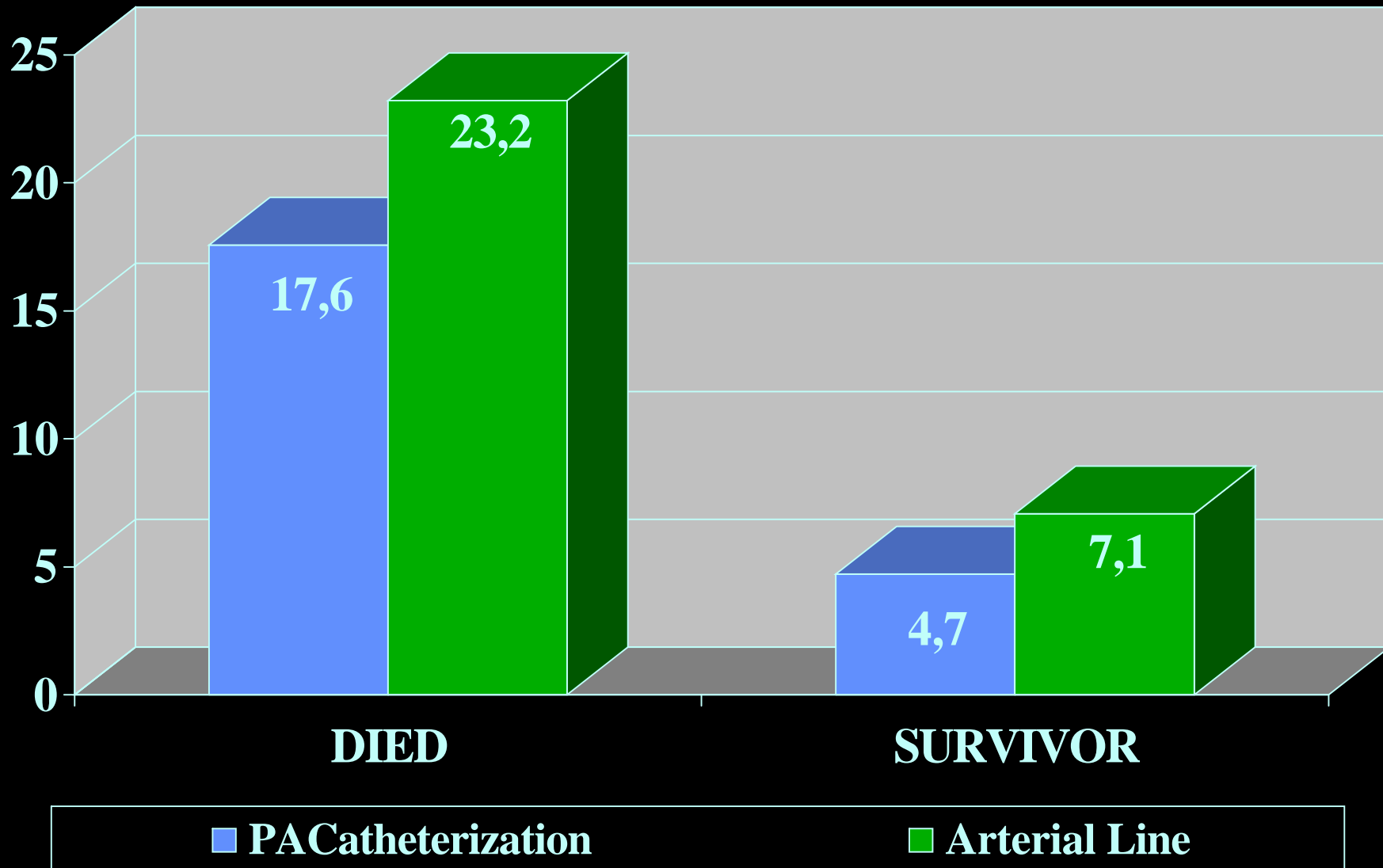


Management of ACS

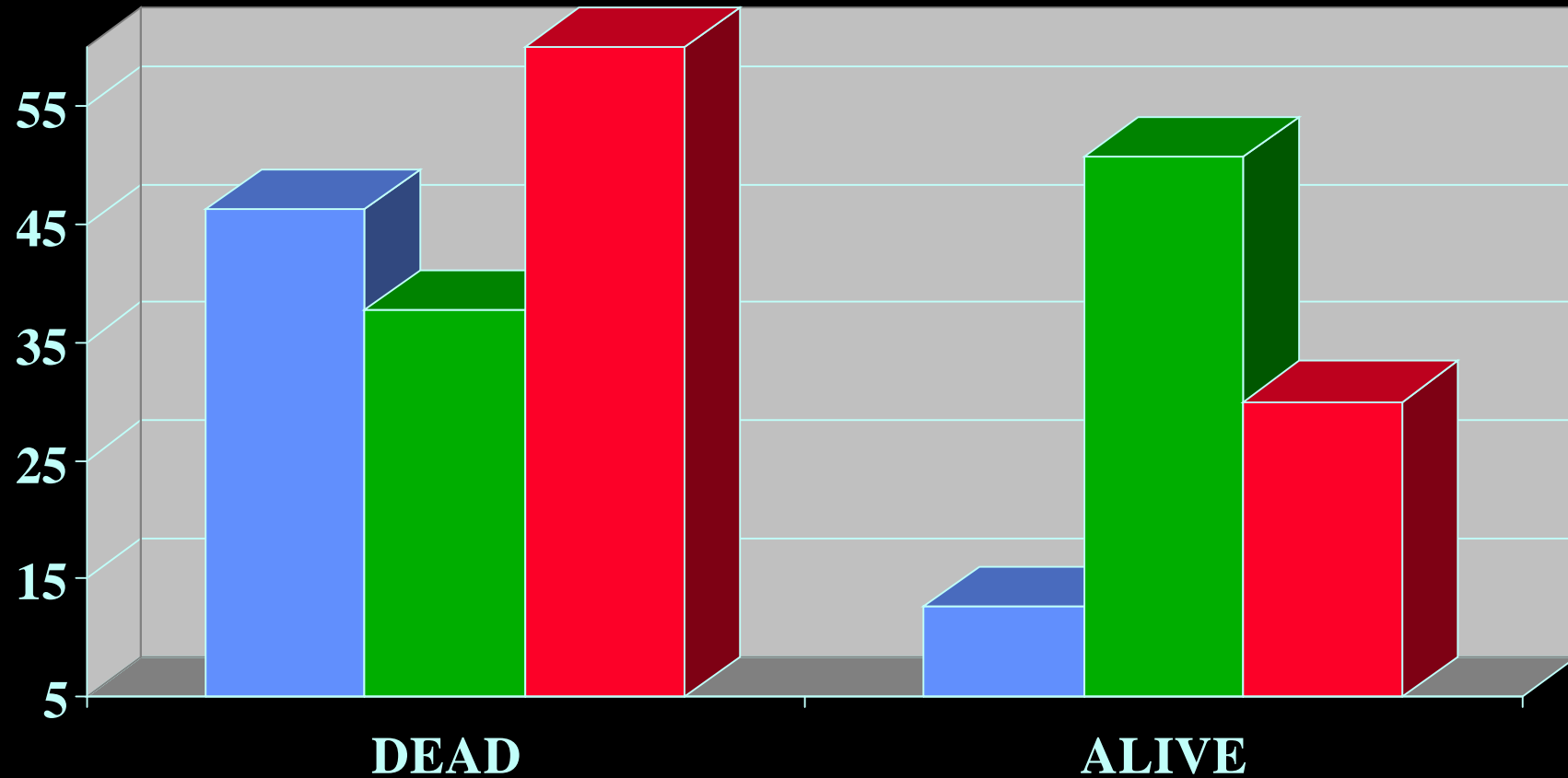


■ Thrombolysis ■ PCI ■ CABG

Investigations

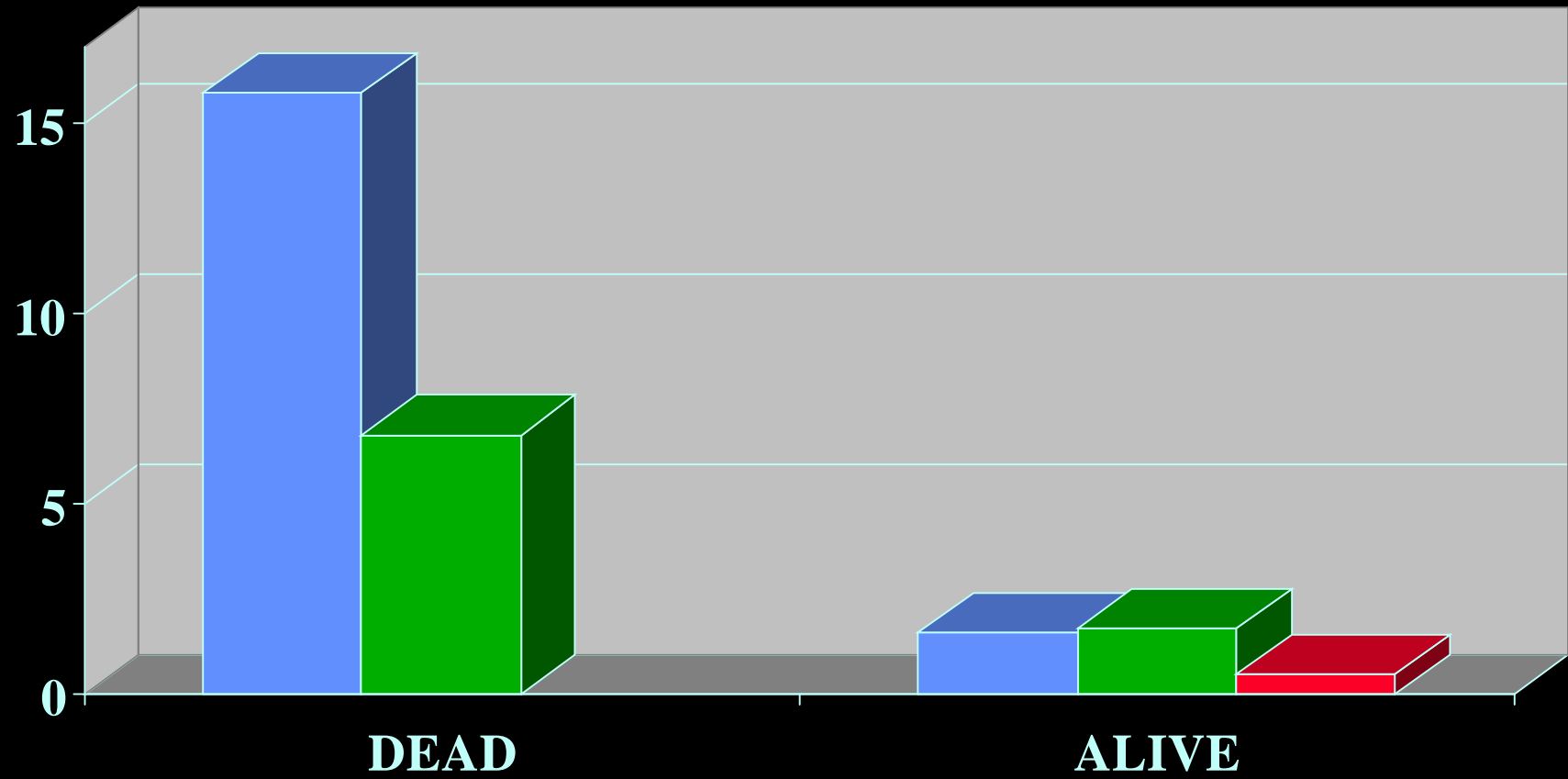


Management of Acute Heart Failure



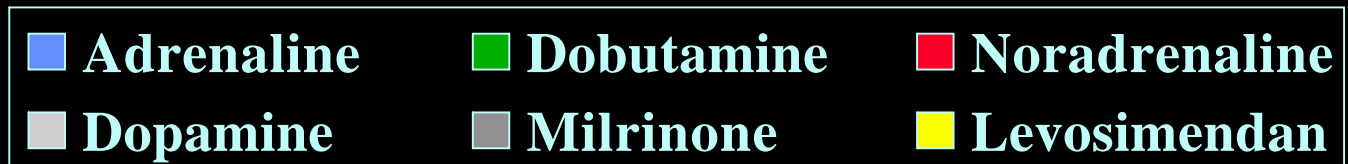
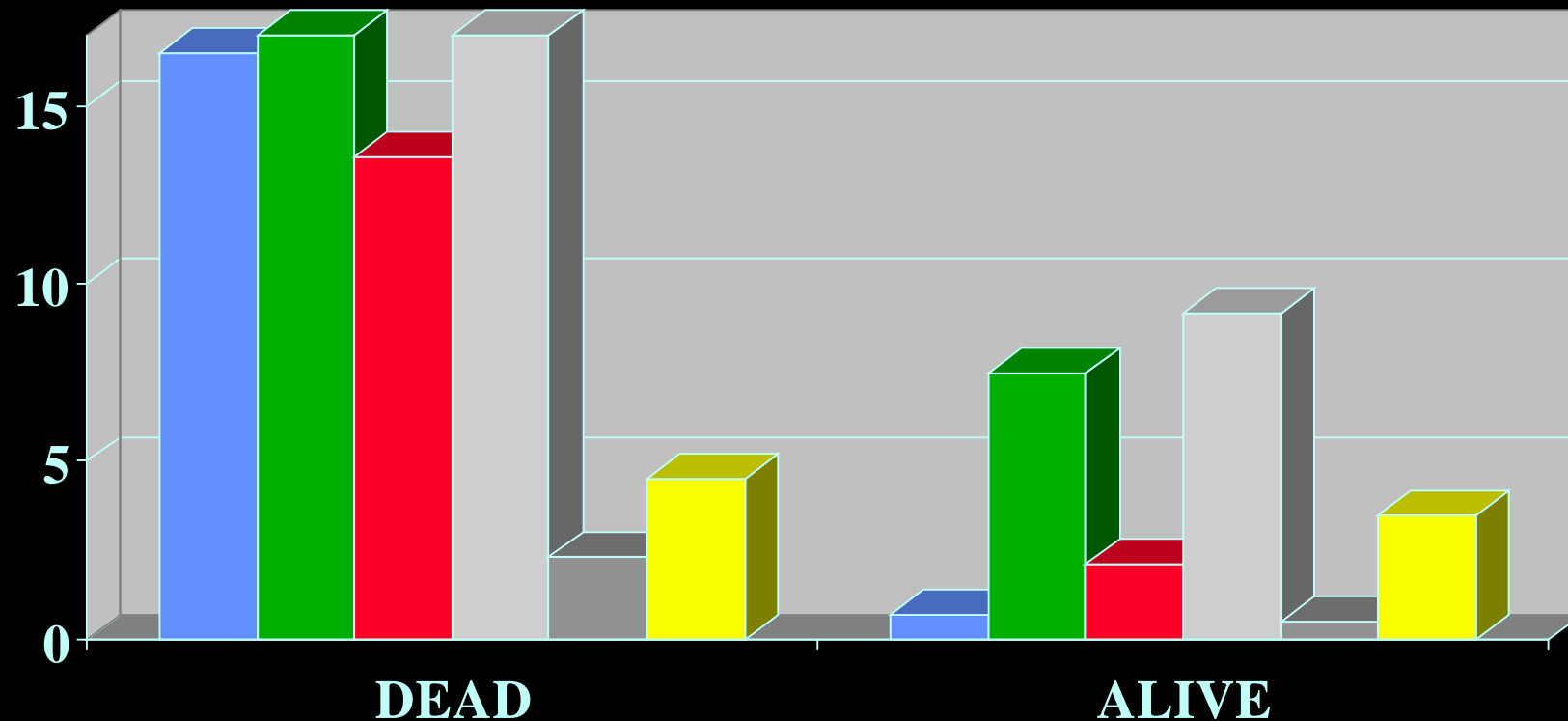
■ Ventilatory Support ■ NIPPV ■ Intubated

Advanced Management of AHF



■ IABP ■ Hemodialysis ■ Heart Transplantation

Use of Inotropes and Levosimendan



Risk Factors

- De Novo AHF
- ACS as a cause of HF
- Renal Failure
- Age
- Weight
- Stroke
- Confined to bed, Cold Periphery, Not Alert,
- JVP
- High BNP, NTproBNP
- Positive Troponin, CK-MB

Risk of in Hospital Mortality

Age	Alertness	ACS	Cold periphery	Risk of in Hospital Death
60	Yes	No	No	2%
70	Yes	No	Yes	6.3%
>75	No	Yes	Yes	37%

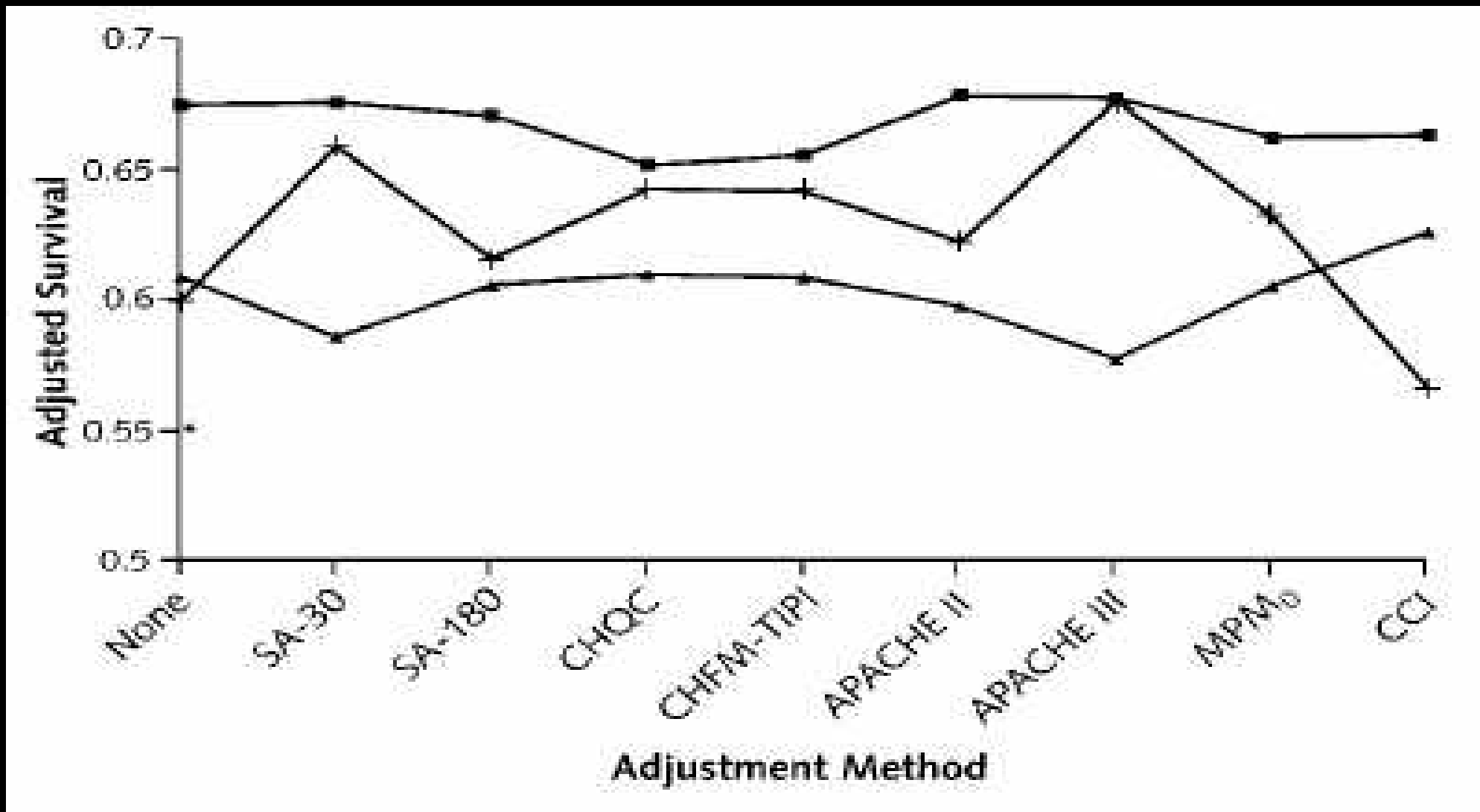
Statistical Analysis by M. Hochadel

Significance of identification of high risk patients

- The course of HF is difficult to predict.
- Outcome report cards have been used to measure quality.
- The American Board of Medical Specialties is considering requiring outcome report card evaluations for certification
- Use of the currently available risk adjustment methods may lead to erroneous conclusions about the quality of care.
 - *Ann Intern Med.* 2000;133:10-20.

Disease Severity Scores in HF

Ann Intern Med. 2000;133:10-20



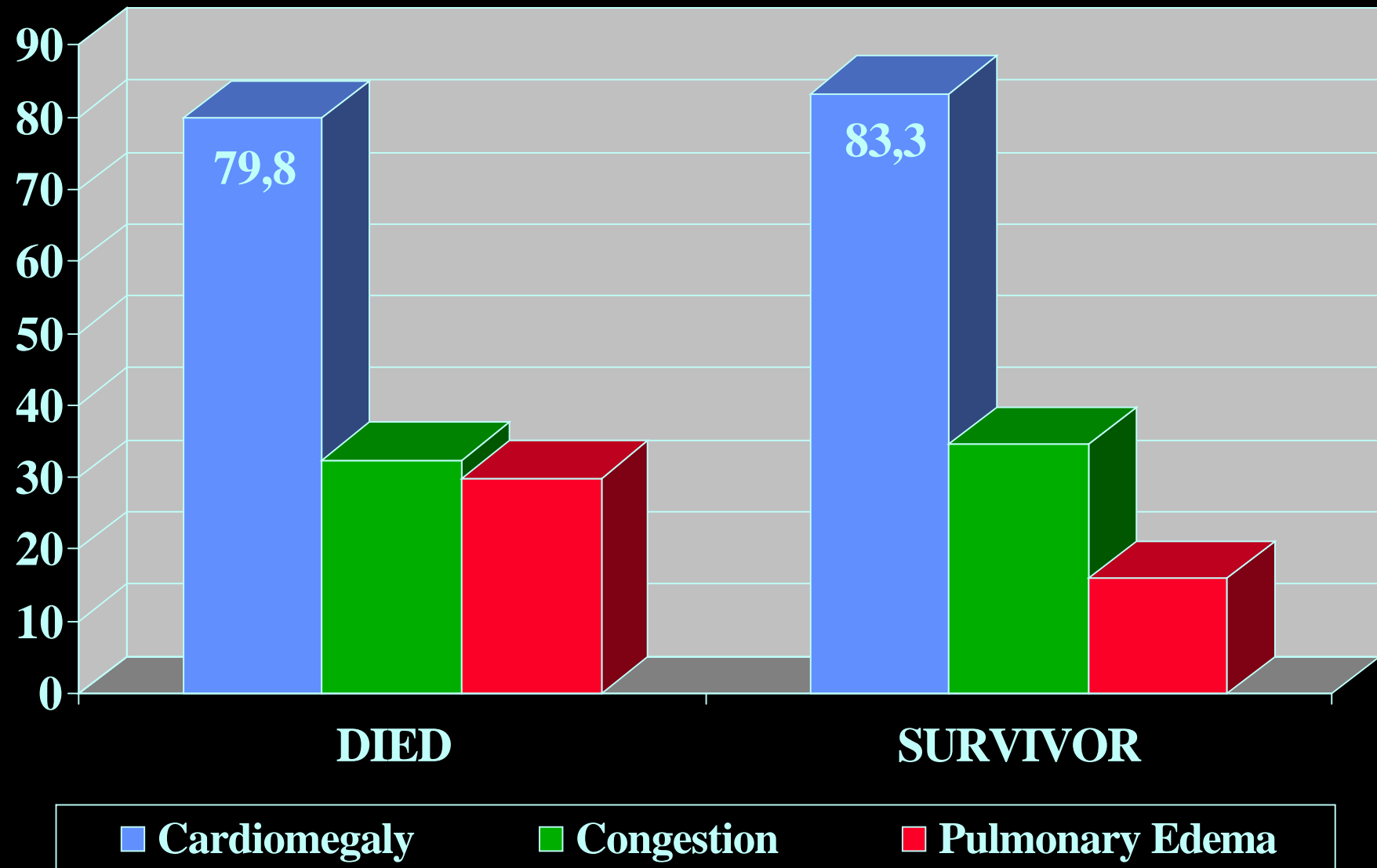
Analyses of the Euro HF Surveys could build predictive models to improve the understanding of the clinical factors predictive of mortality, and hospital length of stay in patients with acute heart failure.

«Perhaps it is more important to know what kind of patient has the disease, than what kind of disease has the patient»

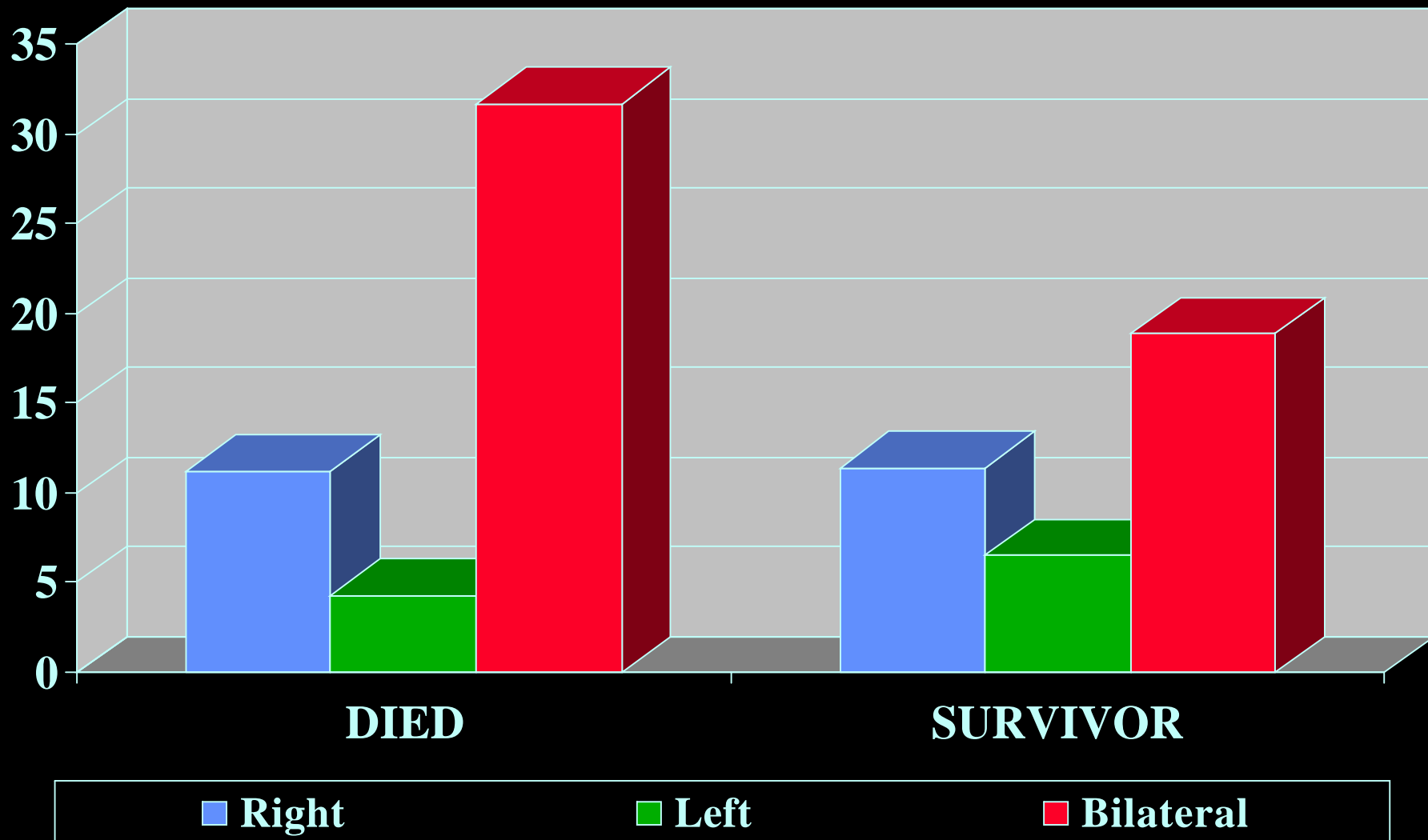
William Osler, MD

Back up slides

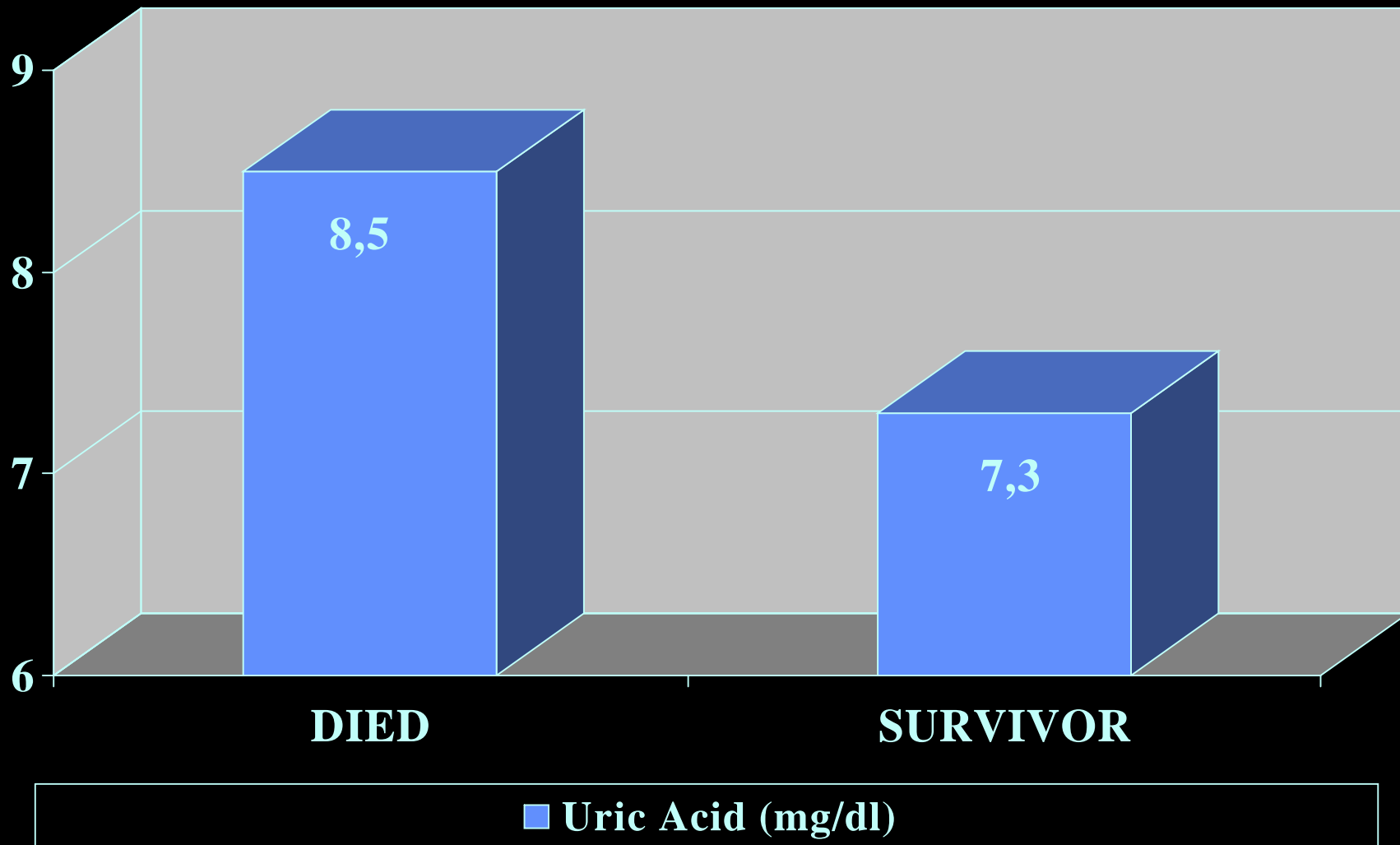
Chest X-Ray on Admission and Mortality



Pleural Effusion in Chest X-Ray on Admission and Mortality



Uric Acid and Mortality



Concomitant Medication on Admission

