

# The deadly statistics of heart failure

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# Presenter Disclosures

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## ***Dr. Maggioni:***

- *Serving in Committees of studies on Heart Failure sponsored by: Bayer, Cardioorentis, Novartis Pharma AG*

# Agenda

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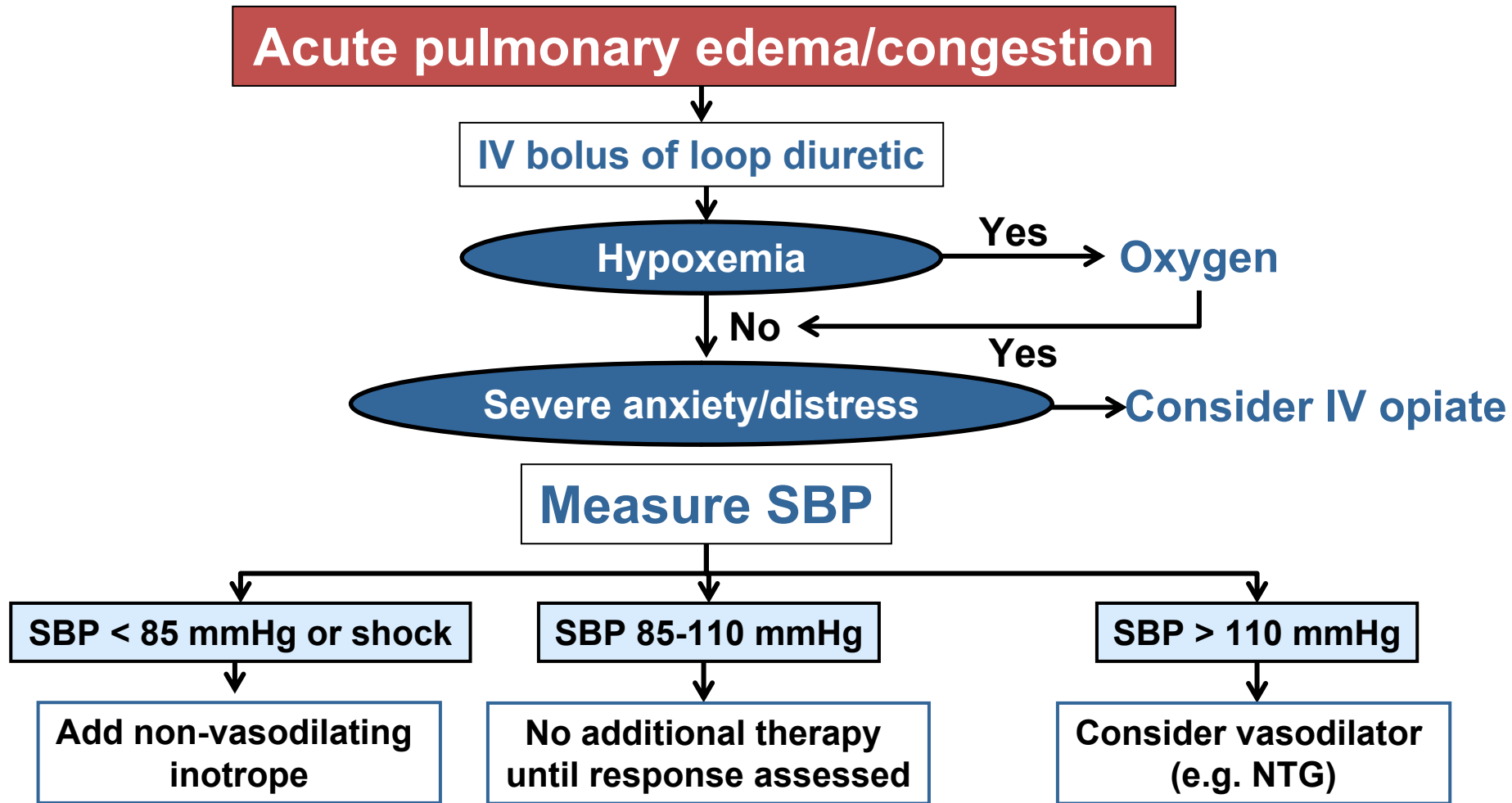
- Hospitalized HF patients
- Chronic HF patients
- Conclusions and perspectives

# Agenda

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- Hospitalized HF patients
  - The point of view of cardiologists
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# ESC HF Guidelines 2012: Algorithm for Management of Acute Pulmonary Edema/Congestion



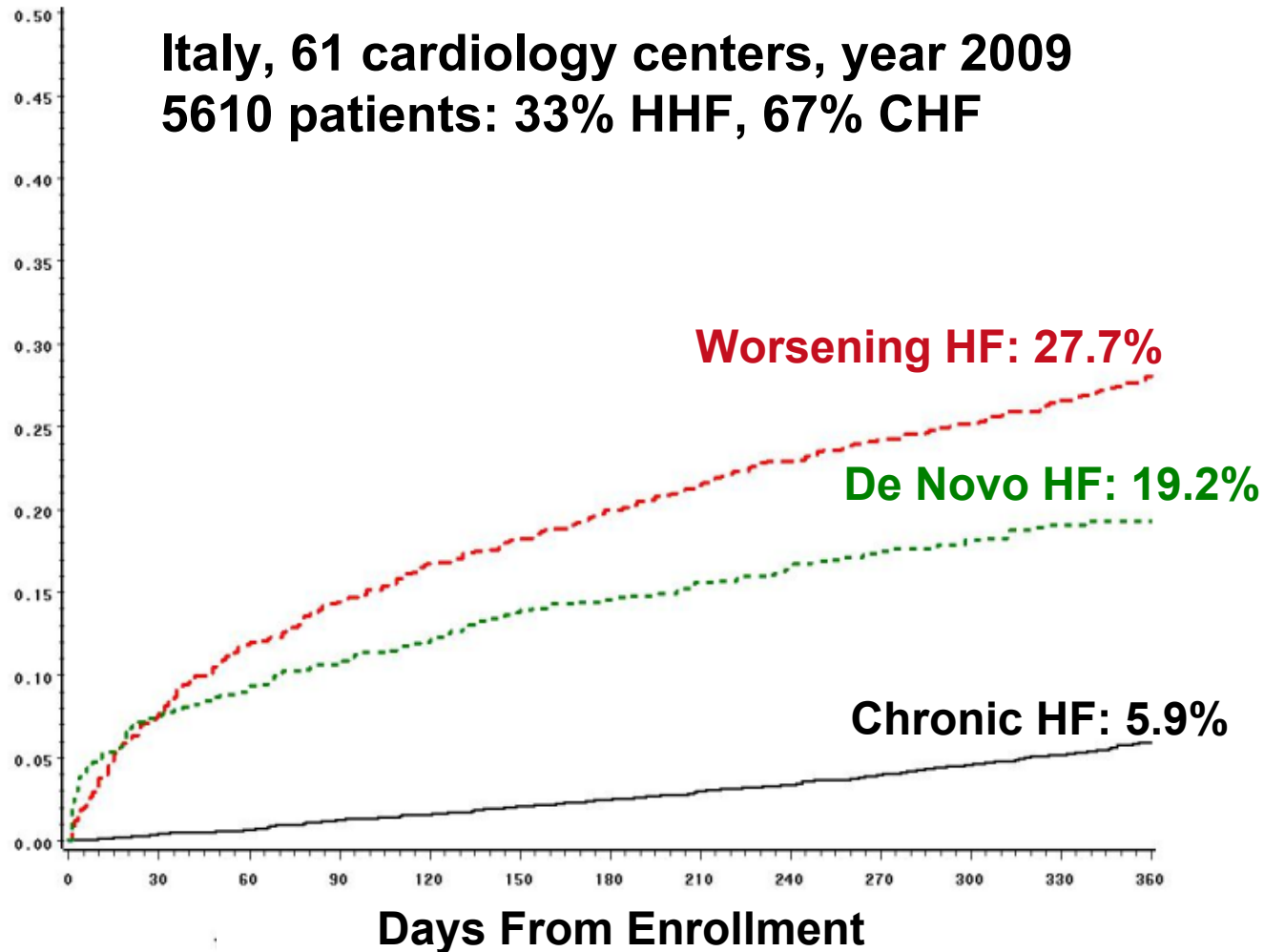
*Please consult published guidelines for additional treatment information.*

IV = intravenous

SBP = systolic blood pressure

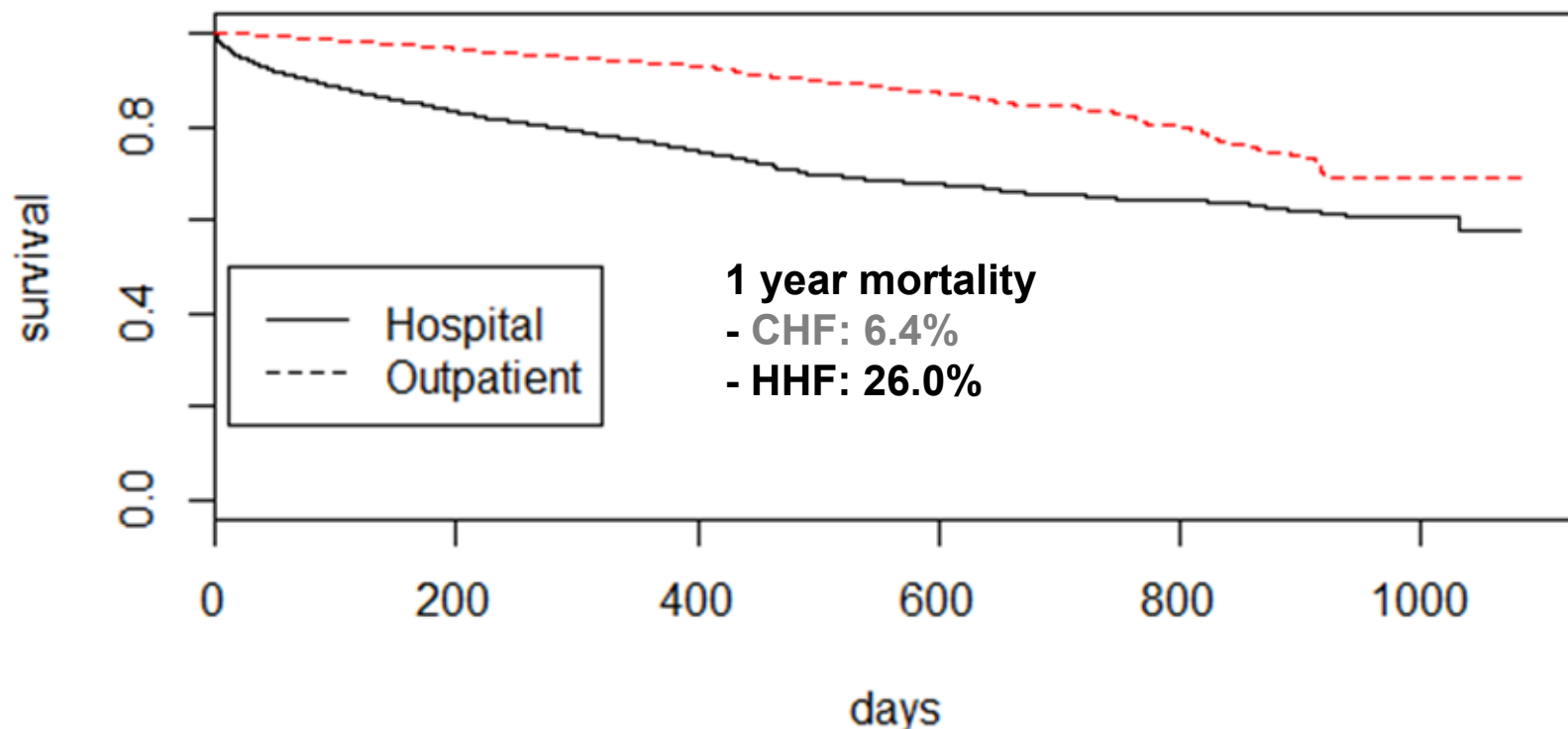
*Adapted from McMurray JJ, et al. Eur J Heart Fail. 2012; 14(8): 803-869.*

# IN-HF Outcome: 1-year All-Cause Mortality



# ESC Heart Failure Long-Term Registry: Follow-up outcomes

Kaplan-Meier Curves for all-cause mortality



From May 2011 to April 2013, 21 countries, **12,440** patients, **40.5%** with **acute HF** (hospitalized patients) and **59.5%** with **chronic HF** (outpatients)

# Agenda

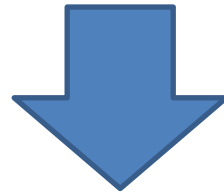
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- Hospitalized HF patients
  - The point of view of cardiologists
  - The Real World Evidence
- Chronic HF patients
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# Incidence of HF admissions in an Italian community setting in 2010

Total population: **2,970,973**

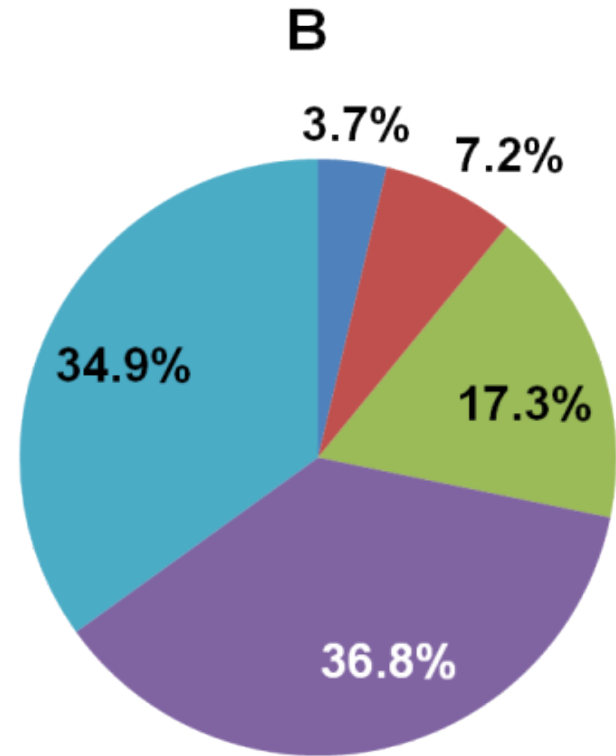
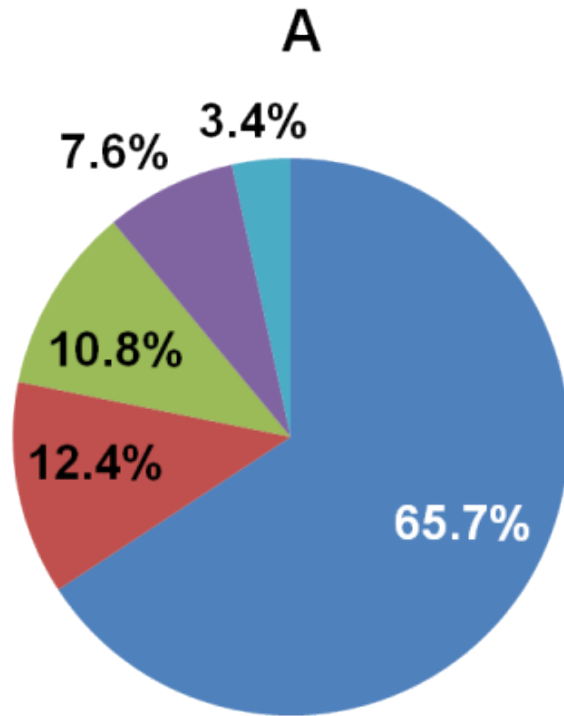


Admission for HF: **8,754** (incidence **3‰**)

Median age: **79 years**

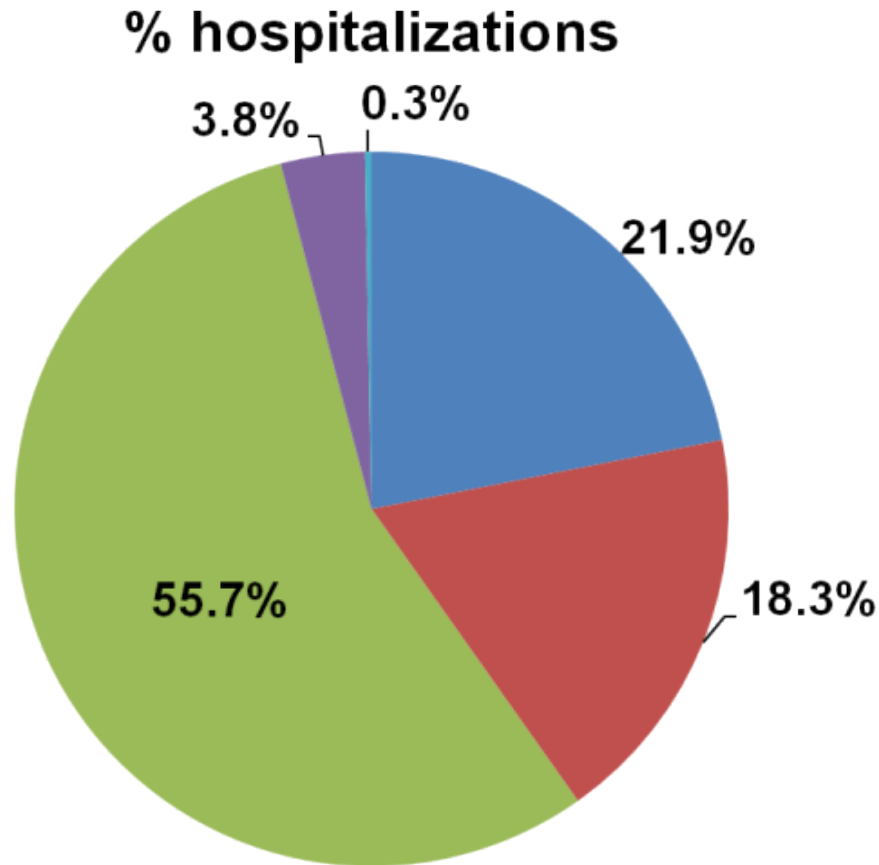
Female sex: **54.3%**

# Age groups of the total population (A) and of patients admitted for HF (B)



■ <55 years   ■ 55-64 years   ■ 65-74 years   ■ 75-84 years   ■ ≥85 years

# Where are patients managed when admitted to hospital?



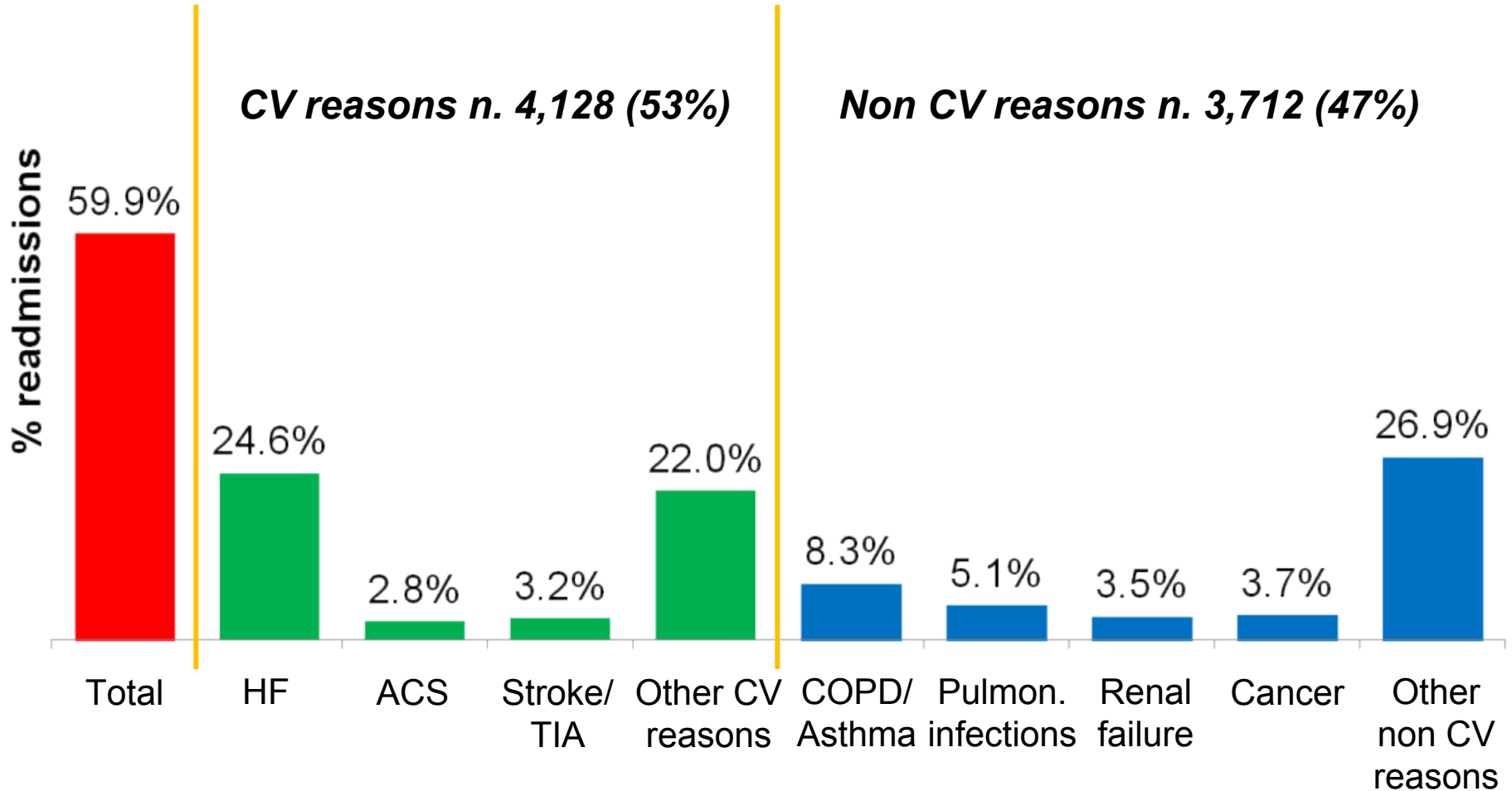
■ Cardiology ■ Geriatrics ■ Internal Medicine ■ CCU/ICU ■ Surgery

# In-Hospital and 1 year all-cause mortality

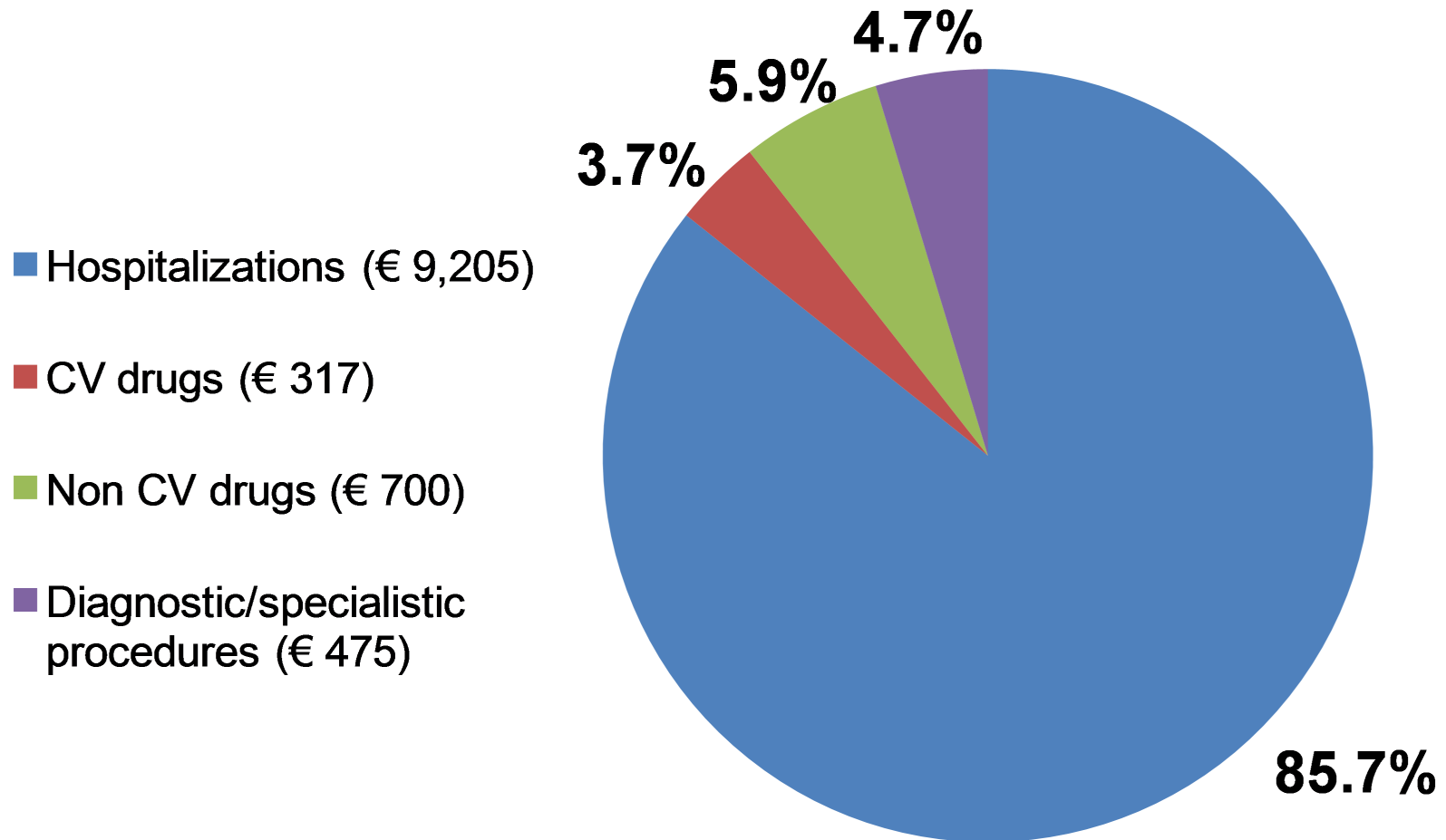
- In-hospital all-cause mortality: **9.8%**
- 1- year all-cause mortality: **28.7%**

# Patients with 12-month hospital re-admissions: $4,936/8,239 = 59.9\%$

Total number of readmissions = 7,840



# NHS costs per year for 1 patient admitted for HF = € 10,697

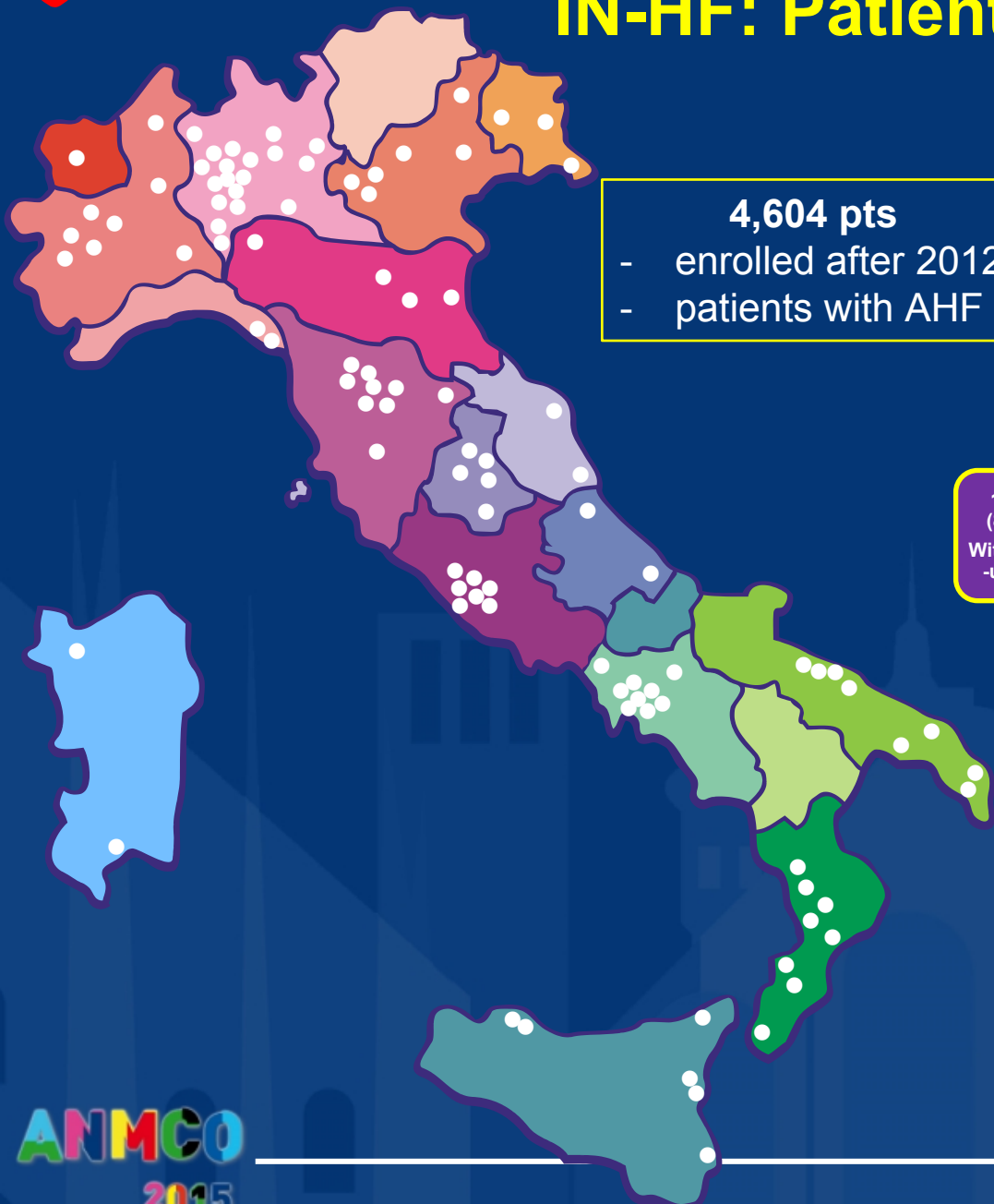


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- Hospitalized HF patients
- **Chronic HF patients**
  - Patients' outcomes from 1995 to 2014
- Conclusions and perspectives

# IN-HF: Patients disposition



**4,604 pts**  
 - enrolled after 2012  
 - patients with AHF

**25,743 pts**  
 Total population

**21,139 pts**  
 Total population

**18,474**  
 (87.4%)  
 With follow-up data

**2,665**  
 (12.6%)  
 Lost to follow-up

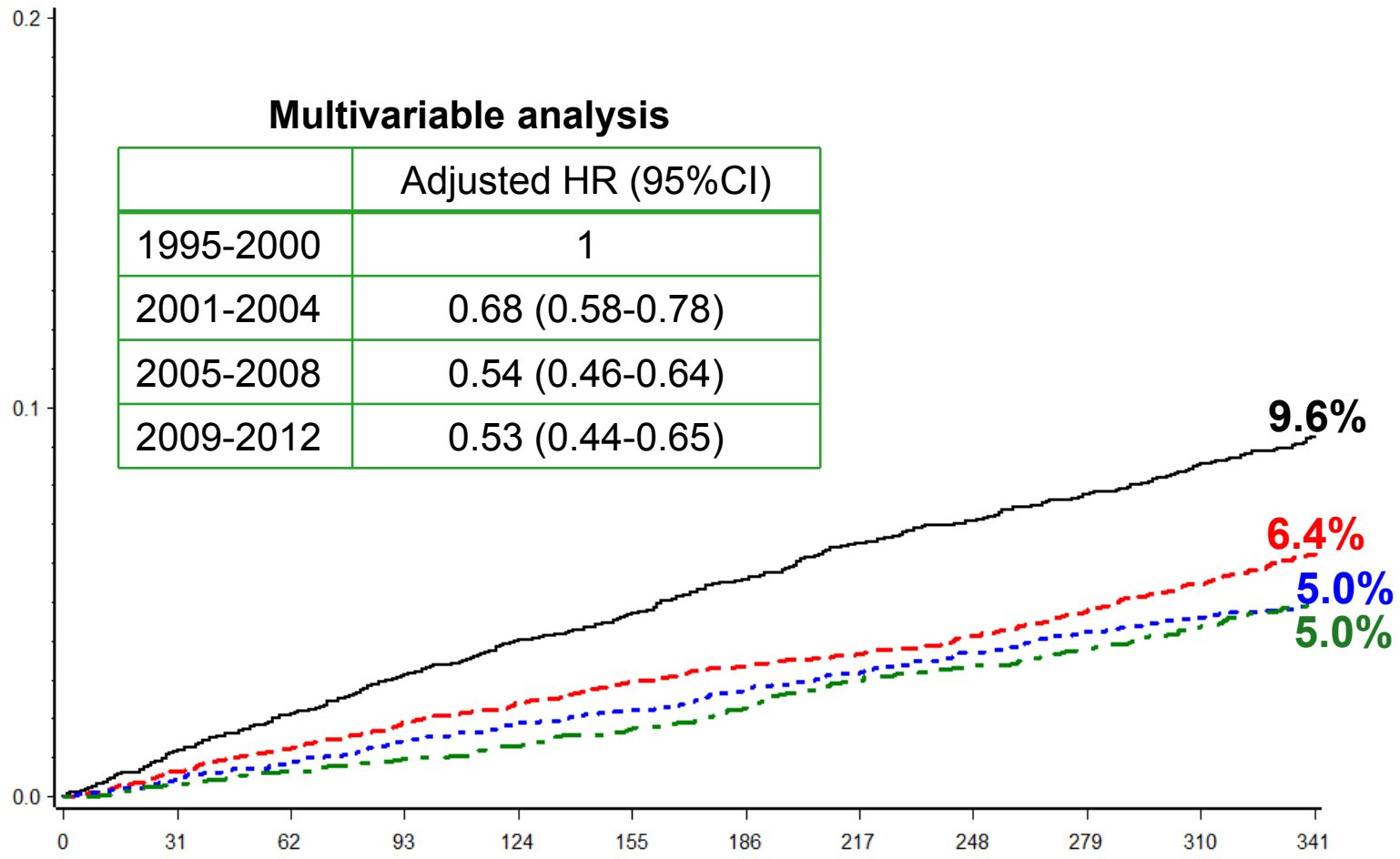
	<b>Total Population (n. 21,139)</b>	
	<b>Centers</b>	<b>Patients</b>
North	43	9,755
Center	24	6,942
South	28	4,442





# 1-year all-cause mortality by years of enrollment

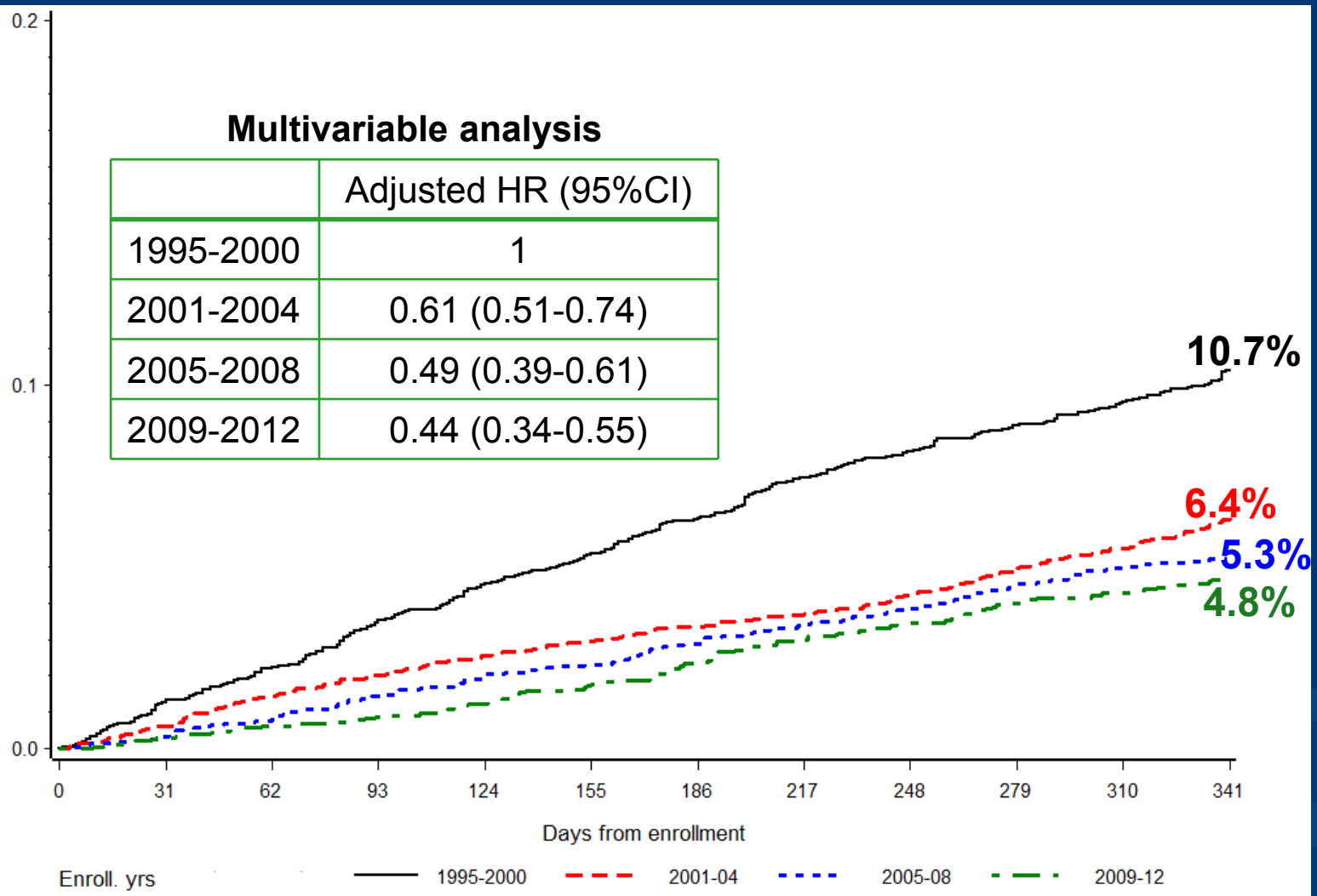
## Overall population (n. 18,474 patients)



Enroll. yrs      — 1995-2000      - - - 2001-04      - - - 2005-08      - - - 2009-12



# 1-year all-cause mortality by years of enrollment HF reduced EF (<45%) (n. 11,050 patients)

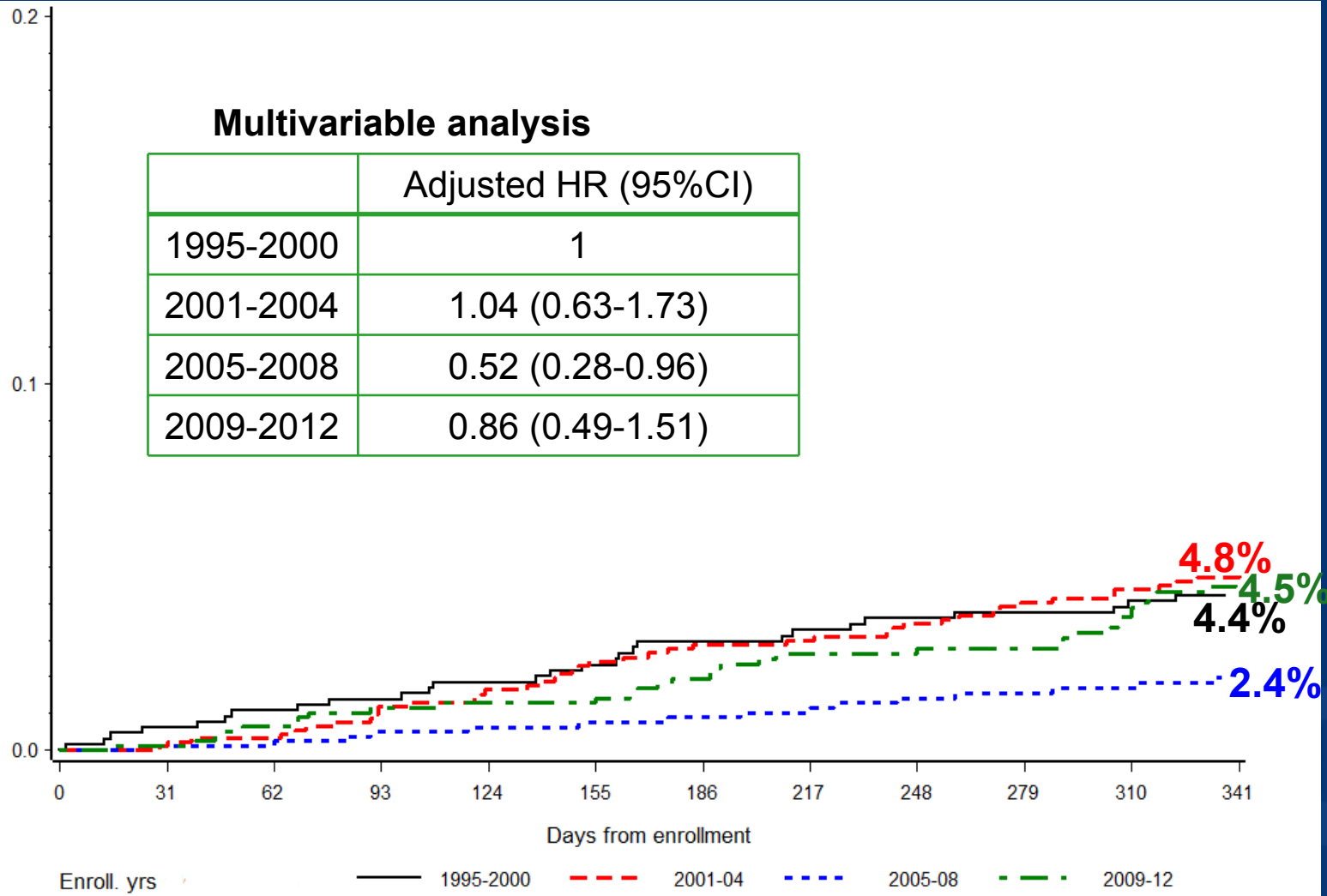




# 1-year all-cause mortality by years of enrollment HF preserved EF ( $\geq 45\%$ ) (n. 3,215 patients)

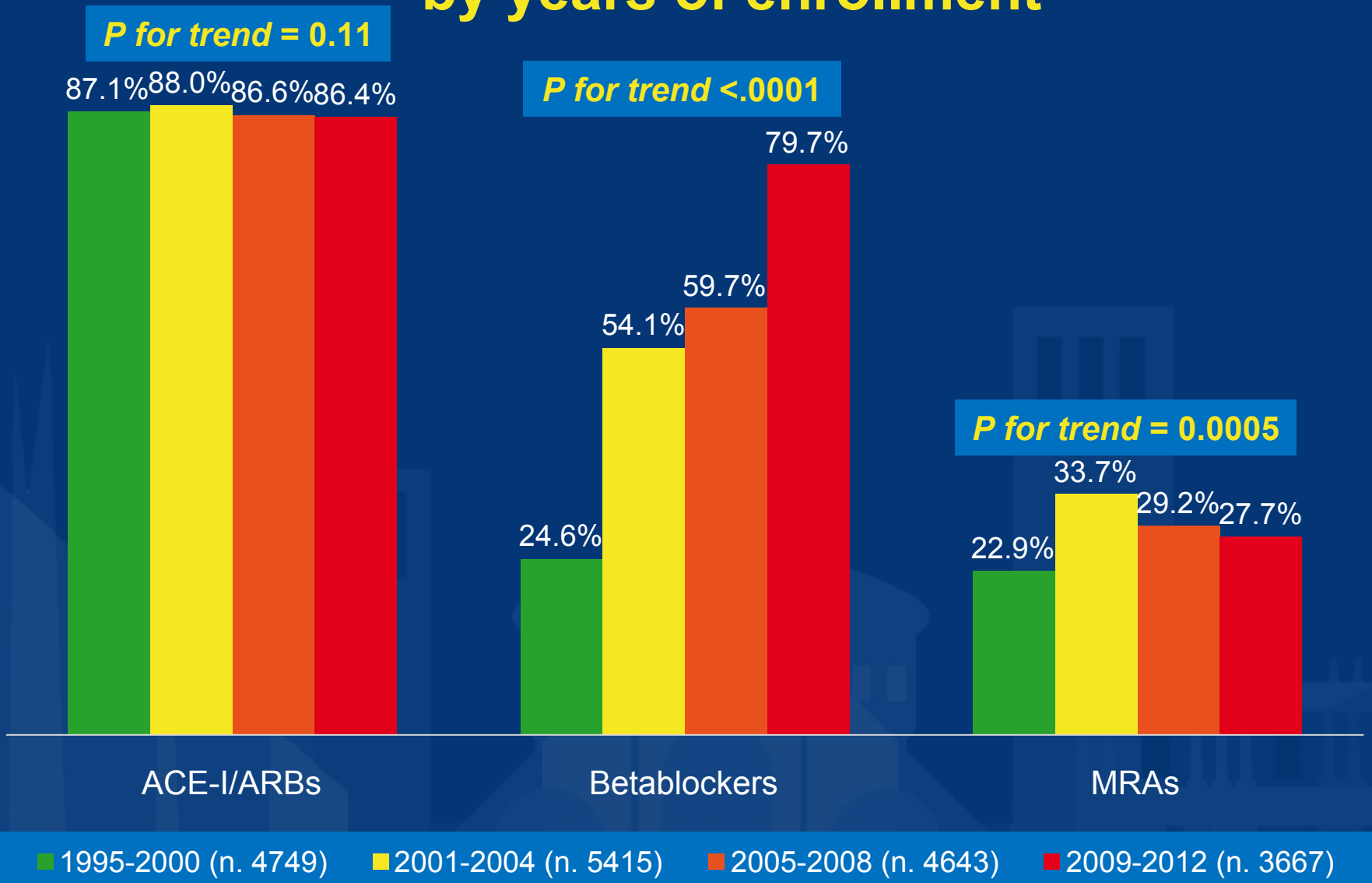
## Multivariable analysis

	Adjusted HR (95%CI)
1995-2000	1
2001-2004	1.04 (0.63-1.73)
2005-2008	0.52 (0.28-0.96)
2009-2012	0.86 (0.49-1.51)



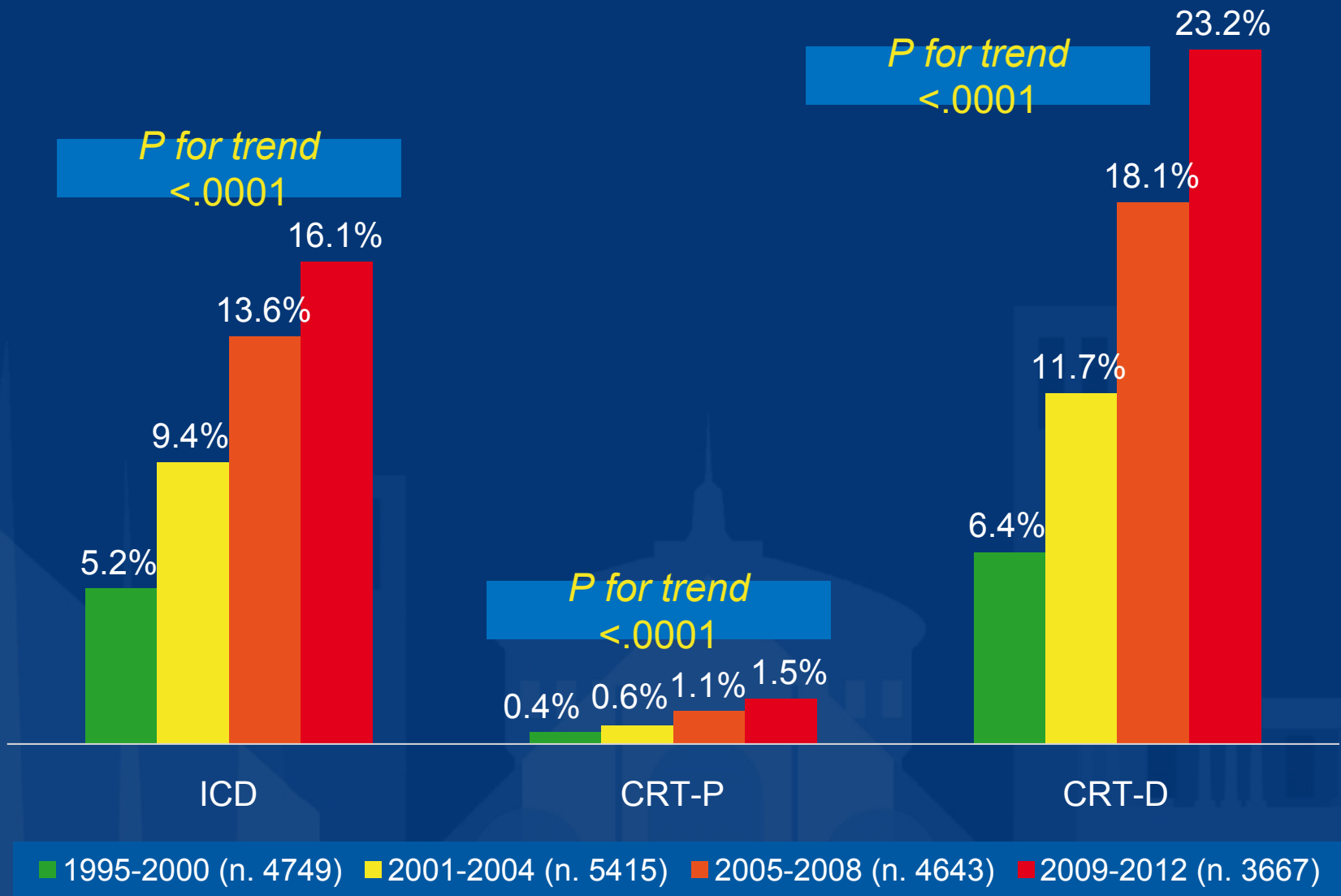


# 1A Recommended treatments by years of enrollment



# Study population:

## Device implantation by years of enrollment



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- **Conclusions and perspectives**

# Conclusions

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- Due to the relevant advances in patients' treatment, outcomes in patients with chronic HF and reduced EF seem to be improved in the last decades
- Patients hospitalized for HF have generally a more severe clinical profile than those with chronic HF and a still unacceptably high rate of events
- Real world data confirm the clinical relevance of HF and the related burden on public health

# Perspectives

- Further efforts should be focused on:
  - Widespread application of recommended treatments in patients with chronic HFrEF
  - New treatments (and trial methodology) for HHF and HFpEF patients
- Research projects should involve not only cardiology centers but also intensive care and internal medicine centers
- Due to multiplicity of causes of readmission, to concretely reduce the burden of HF, a multidisciplinary approach is needed