Mortality in Cushing's syndrome: Open Issues

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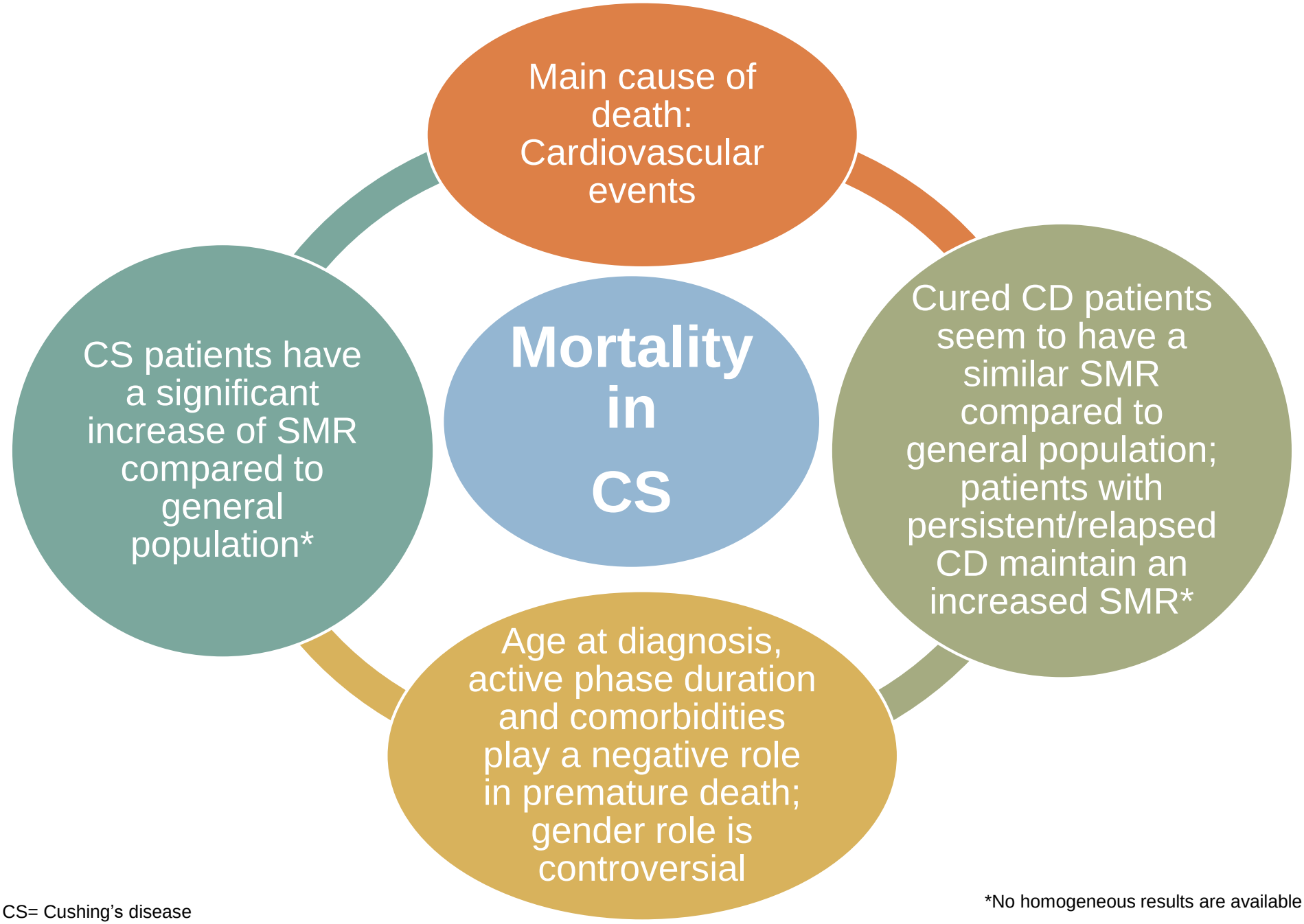
Mortality in Cushing's syndrome: Conclusions



CS= Cushing's disease

*No homogeneous results are available

Open issues and limits of current scientific findings

Mixed population study

- Few studies are focused on active or cured patients separately; the majority of them considered the overall SMR

Discordant data are available on SMR in cured CD patients compared to overall population

- SMR after cure is reported similar in some studies and reduced in other ones compared with SMR in overall population

Discordant data are available on SMR in CD cured and CS overall patients compared to general population

- Outcome of patients in remission from disease, especially those cured for a long time, is still matter of debate

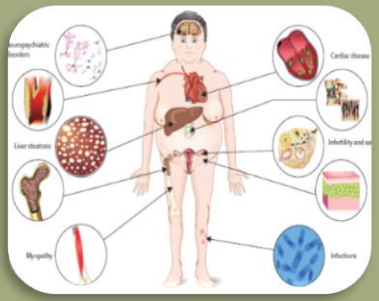
Open issues and limits of current scientific findings

Remission or cure criteria

- Variability between definitions and timing of remission or cure may play an important role in heterogeneity of scientific findings

Follow-up duration

- Follow-up duration is different among studies resulting in different mortality rates



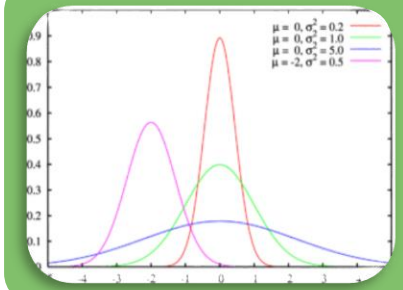
Comorbidities

- No data are available about the impact of treatment comorbidities on mortality rate

Open issues and limits of current scientific findings

Nature and data quality

- Mainly retrospective studies
- Important missing data (e.g. hormonal deficit)



Sample size

- The variable number of patients enrolled in different studies impact on results

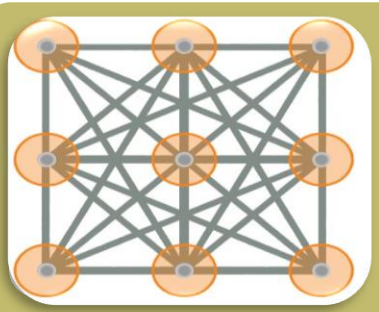
Sample selection criteria

- Variable enrollment criteria

Open issues and limits of current scientific findings

Treatment heterogeneity

- The heterogeinity of number and kind of treatment leads to variable results



Treatment sequences

- No data are available about the impacts of specific treatment sequences on mortality rates

Medical therapy

- No findings are available about the impact of different medical therapies on mortality rates

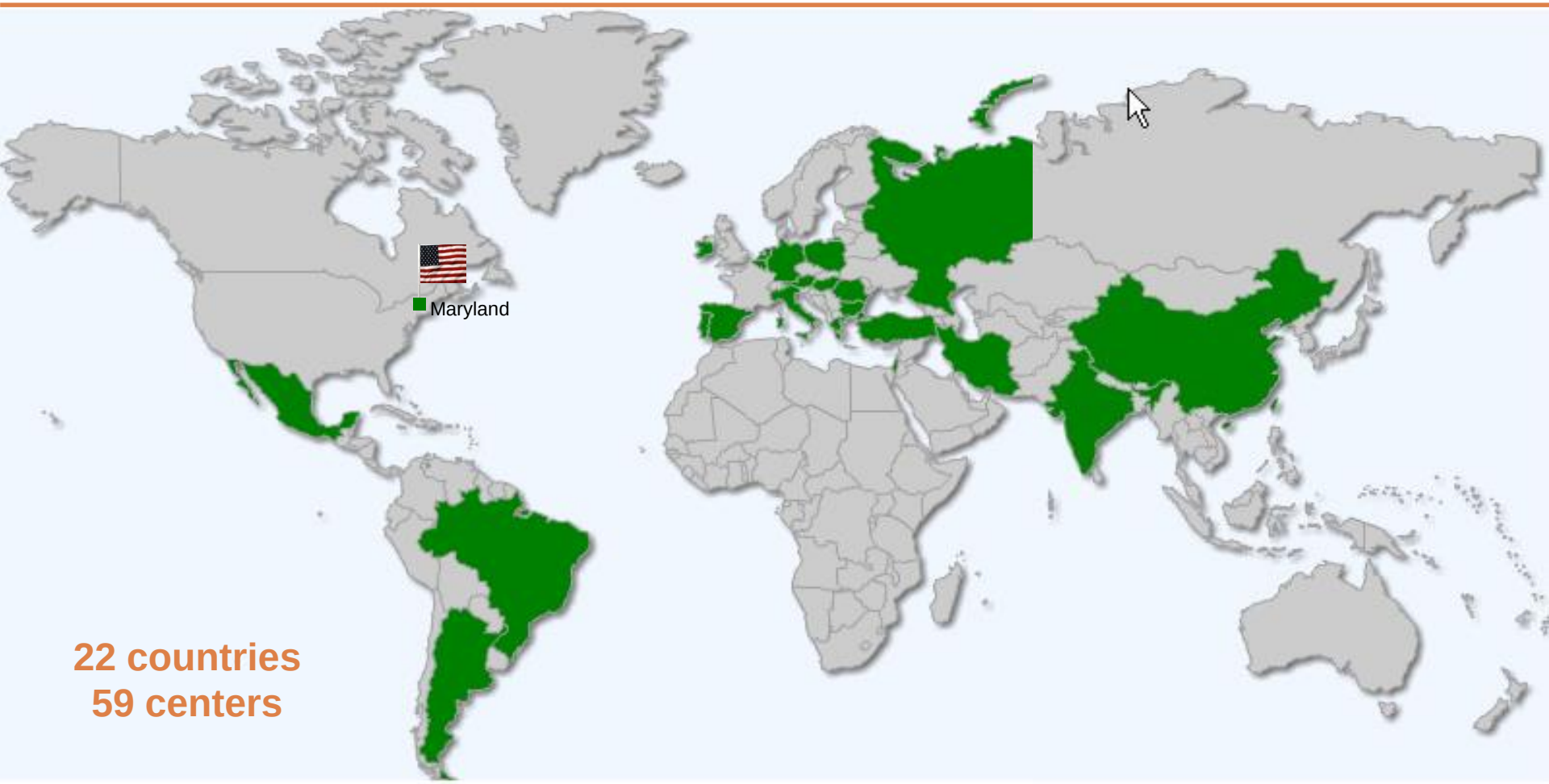
On going studies regarding mortality

MISSION

Mortality in Cushing's Syndrome: a Study International Observational of ENEA (European Neuroendocrine Association)

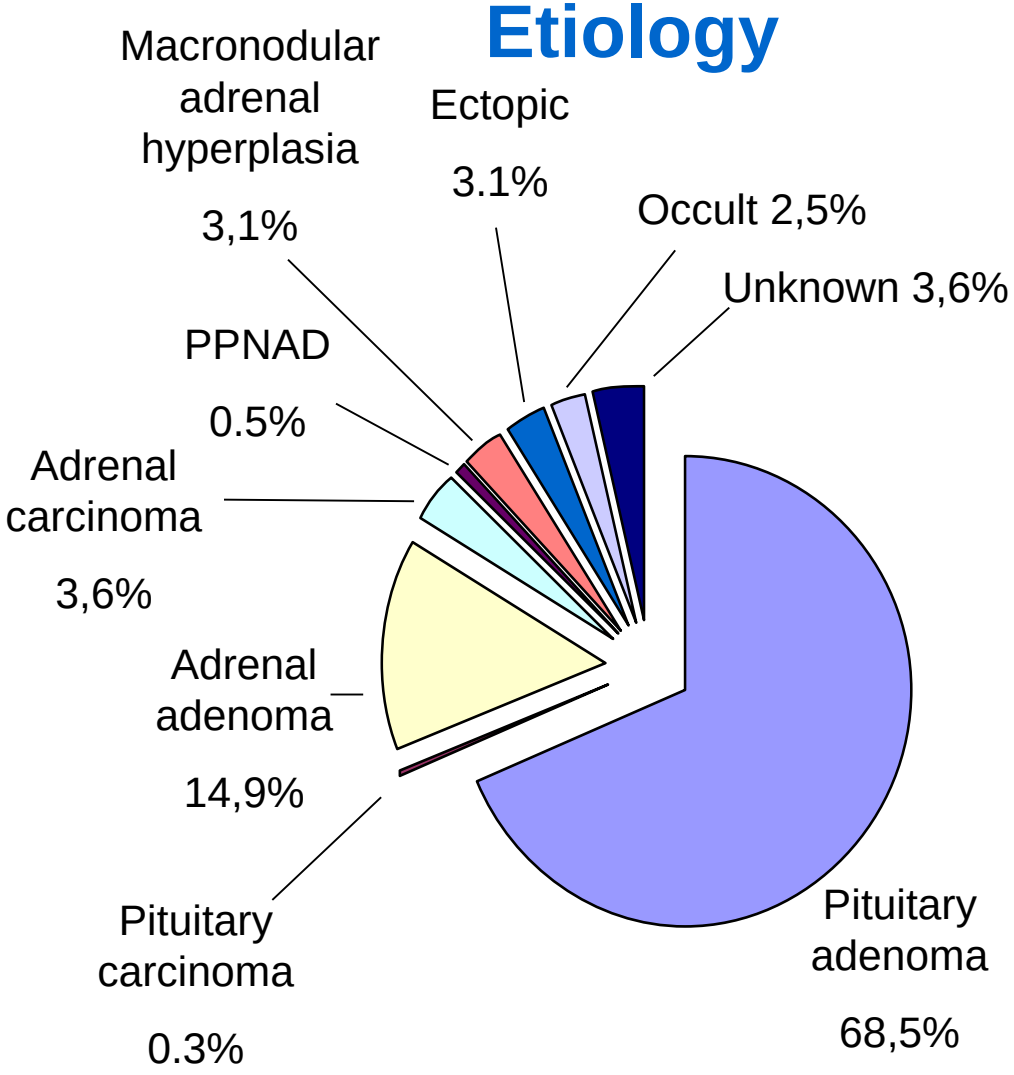
DESIGN	Multicenter Retrospective observational study
CASE LOAD	4956 Patients with Cushing's syndrome 4872 patients finally analyzed
ANALYSIS	descriptive statistics, survival curve, crude mortality rate

Countries involved in the study

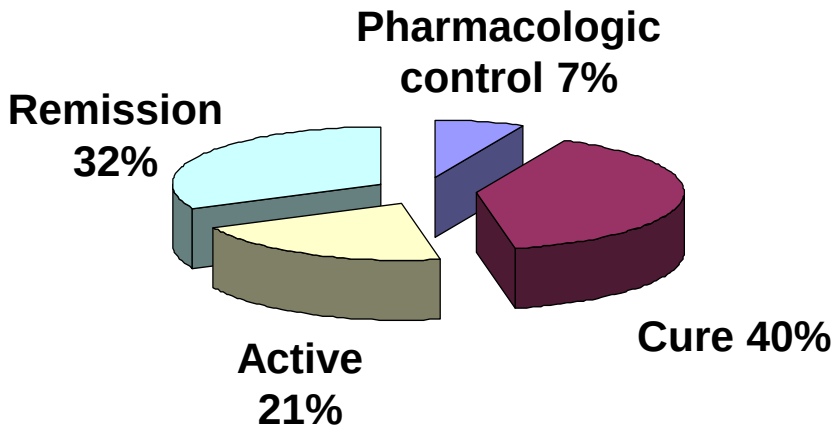


Patient population: etiology and disease status

Etiology

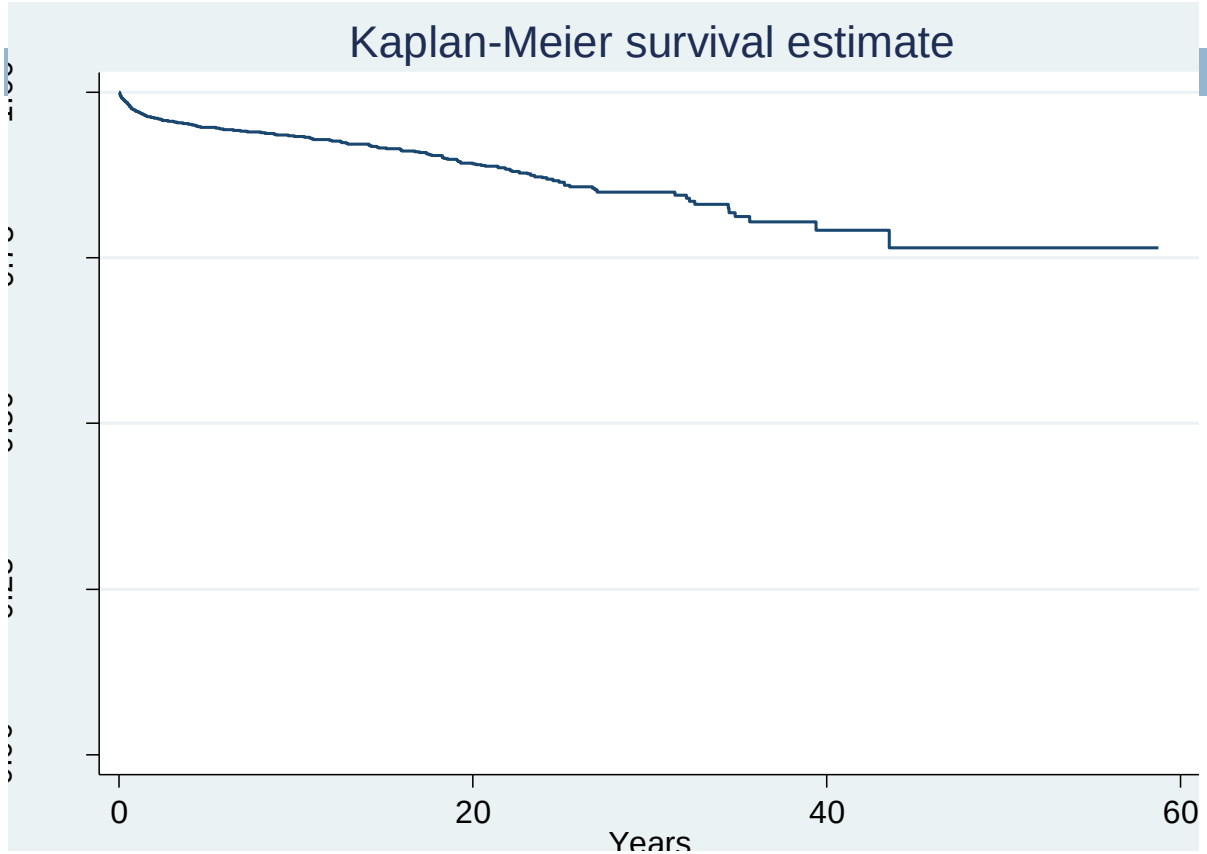


Disease status



Survival curve of complete cohort

Mortality rate per 1000 person-years

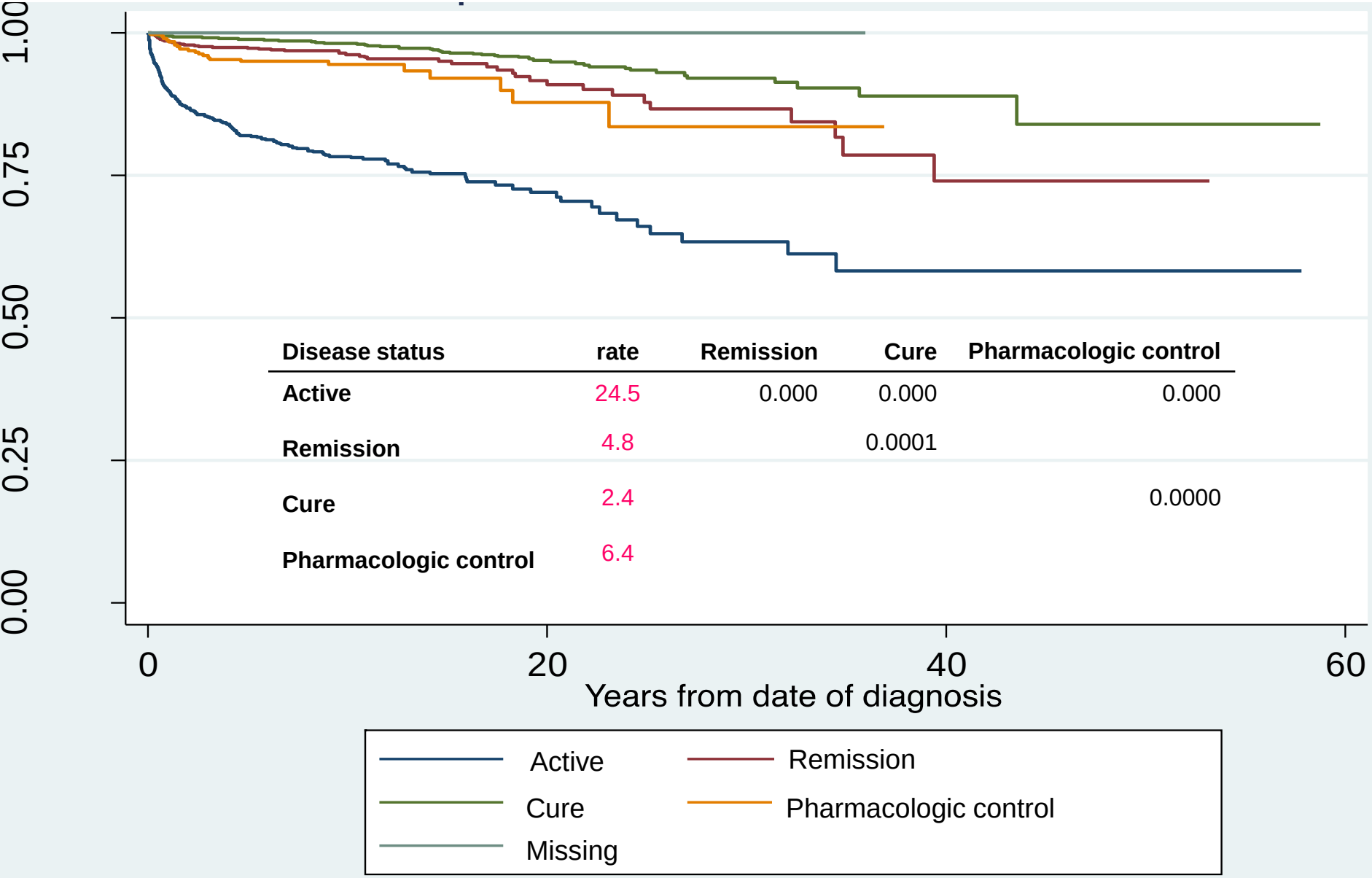


Gen. Popul.	rate
4872	6.9

Crude Mortality rate:

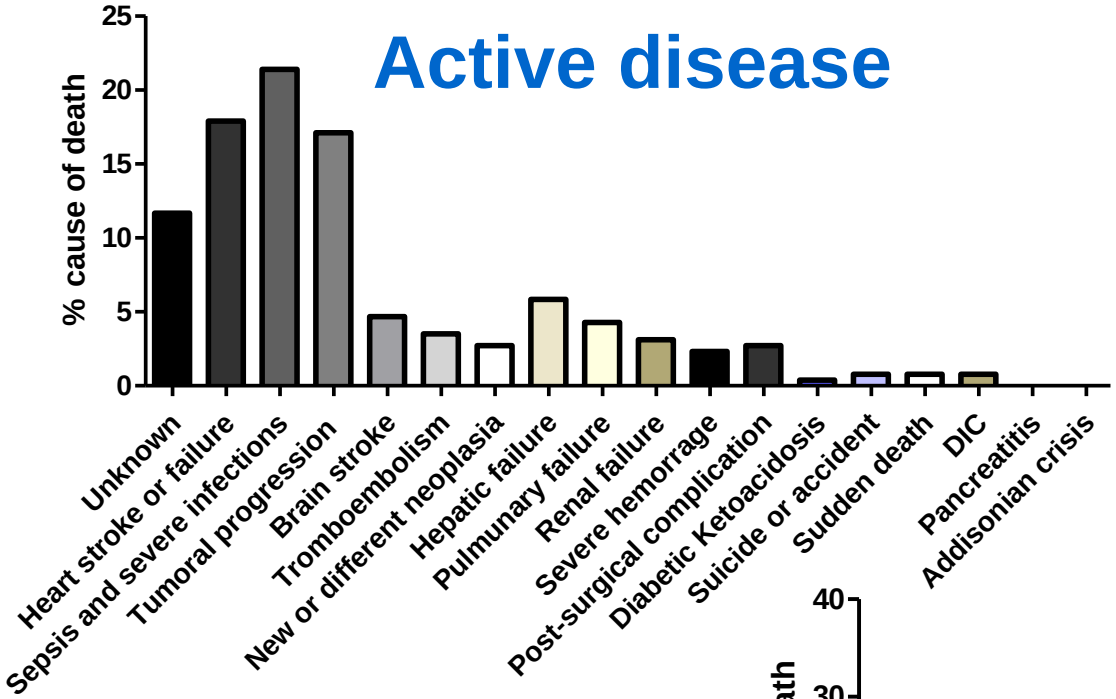
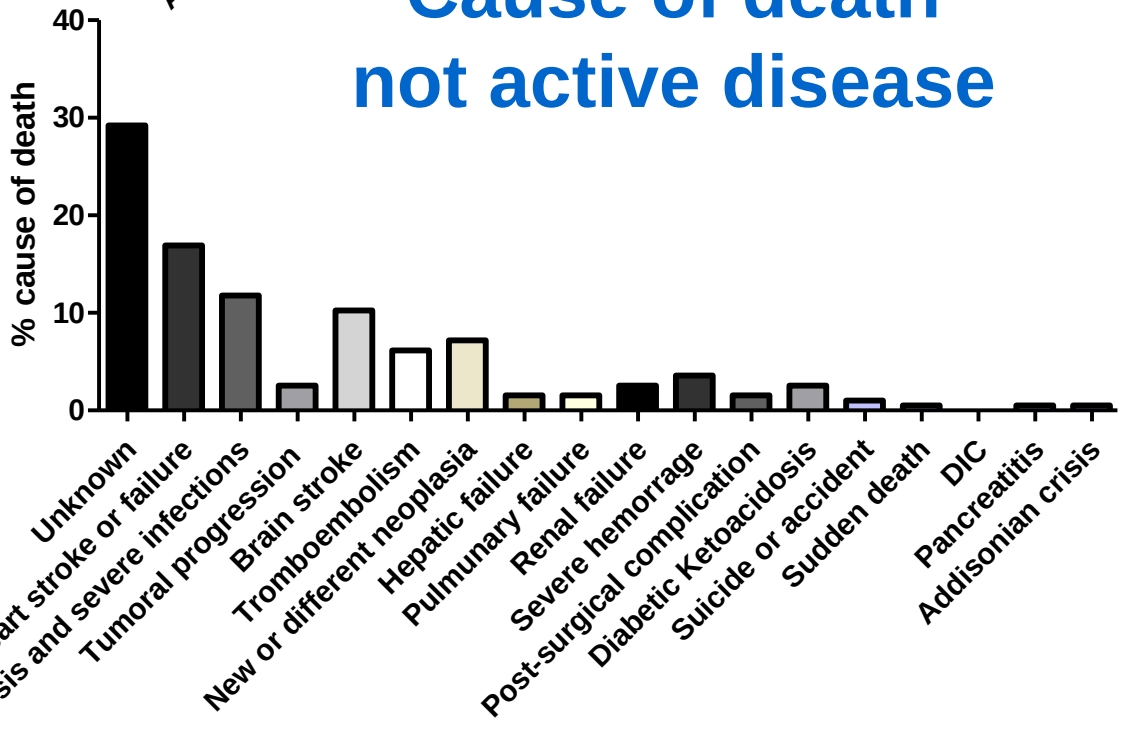
Number of deaths observed during the sum of all the years of follow up of all the patients *expressed in:* Number of deaths for 1000 person-years

Disease status-realated survival curve of complete cohort



Disease status	rate	Remission	Cure	Pharmacologic control
Active	24.5	0.000	0.000	0.000
Remission	4.8		0.0001	
Cure	2.4			0.0000
Pharmacologic control	6.4			

Cause of death
Active disease



Cause of death
not active disease