

PREAMI

Perindopril and **R**emodelling in **E**lderly
with **A**cute **M**yocardial **I**nfarction

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PREAMI:

Does the trial address a clinically relevant question in population relevant from a public health standpoint?

- LV remodeling after myocardial infarction has a recognised deleterious impact on outcomes
 - *Has the administration of a medication such as ACE-I the capacity to prevent remodeling in patients with preserved LV function?*
- Patients ≥ 65 years of age with LVEF $\geq 40\%$ represent a sizable proportion of patients sustaining AMI:

30% in the nationwide French registry

Methodological considerations

- PREAMI is not a trial comparing ACE-I vs placebo in post-MI patients
- but PREAMI is a trial comparing ACE-I for the first few days following AMI with prolonged, high-dose ACE-I

79% of the patients were on ACE-I at the time they were included in the trial

Methodological considerations

- Are the patients included in the trial representative of the target population?
 - although the target population was very common
 - recruitment rate was extremely slow: on average 2 patients / year / centre
- Comparison with real world data:
 - one-year mortality close to that observed in the real world:

6% in PREAMI vs 8% in the French registry

Methodological considerations

- Very high percentage of patients with missing primary end-point because of inappropriate echo recordings:

28% with inadequate echocardiograms at F/U (354 / 1250), although appropriate echo recordings at baseline were mandatory for inclusion into the trial

PREAMI: results

- Major reduction in the primary end-point
- Consistent across all subgroups
- Mostly, if not entirely, driven by prevention of the remodeling process
- But with no impact on clinical events

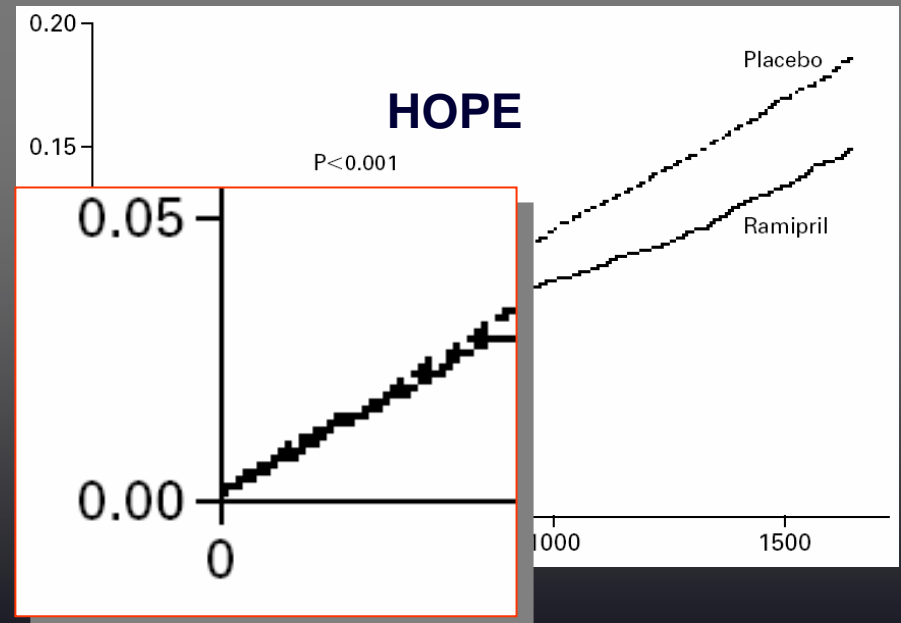
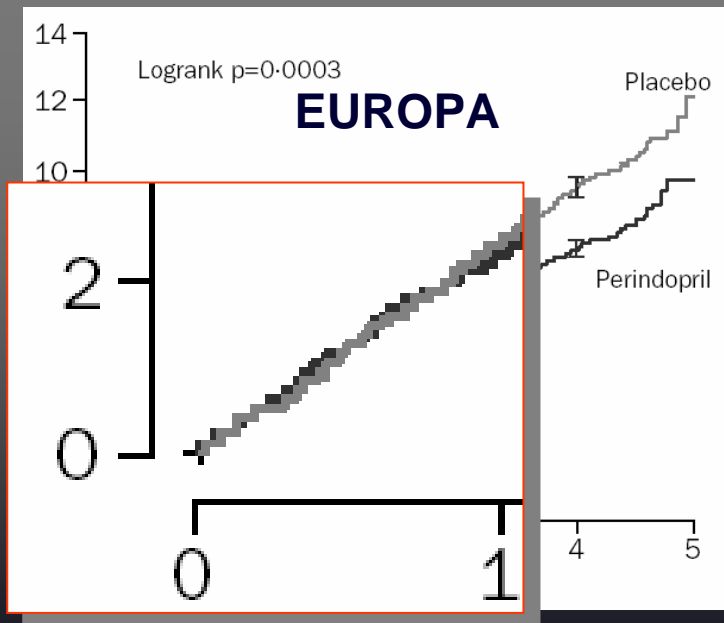
Results: pathophysiological considerations

- LV remodeling does exist in patients with preserved LV function (mean LVEF 59%) after MI, beyond the age of 65
- however, no difference in patients $>$ or $<$ median age (73 years)

Prevention of remodeling might exist even in younger patients

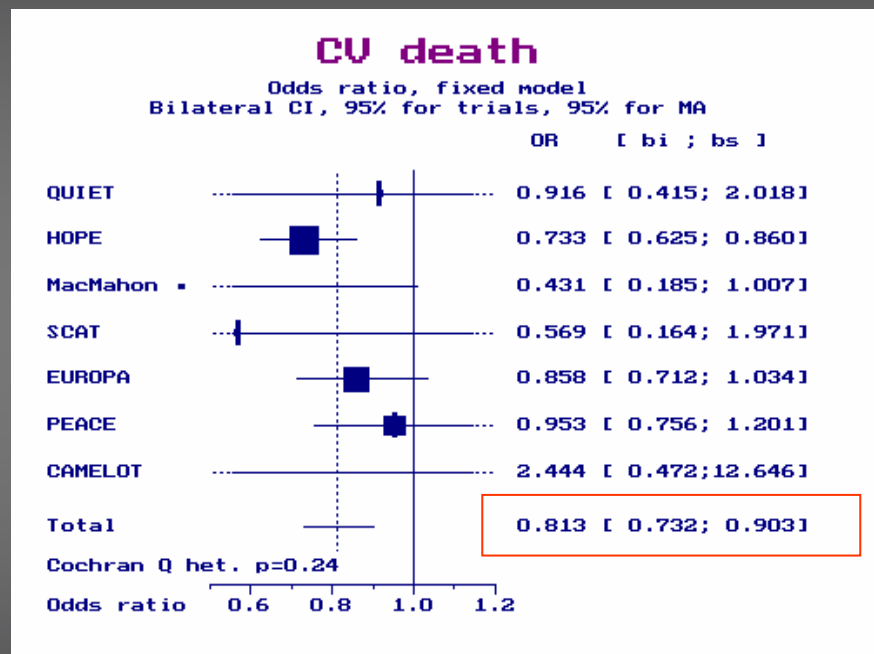
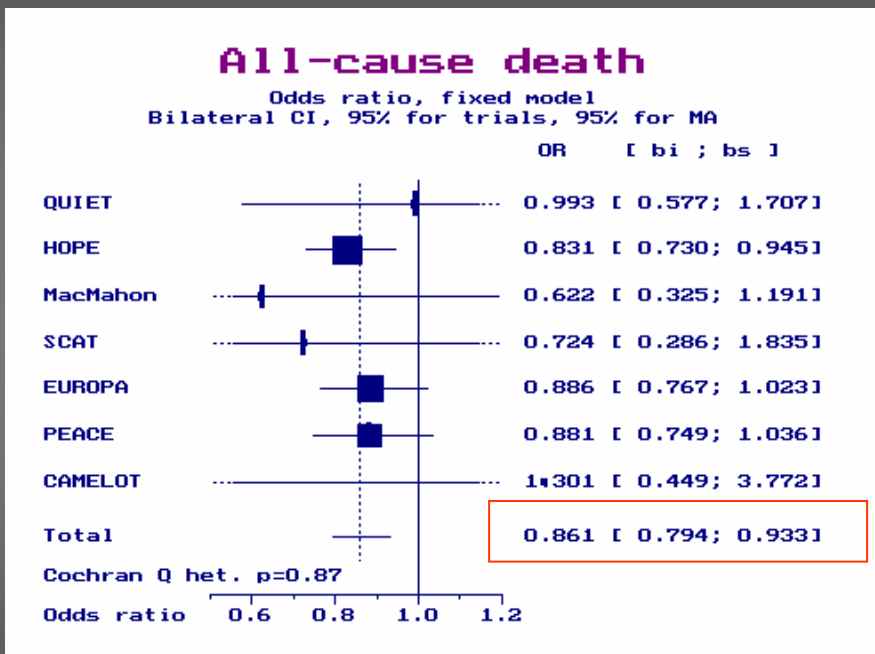
Results: clinical considerations

- Why does the lack of remodeling in patients on ACE-I not translate into improved clinical outcomes?
- One-year follow-up is an adequate duration for assessing LV remodeling, but not for assessing clinical events



Should these results change our practice?

Meta-analysis of long-term ACE-I in patients with documented CAD and preserved LV function



EUROPA

Previous MI	7910	8.9	11.3	
No previous MI	4299	6.4	7.3	

HOPE

Prior myocardial infarction	4892	20.9	
No prior myocardial infarction	4405	14.2	

Conclusion

- PREAMI documents the capacity of high dose perindopril to avoid late remodeling in older patients with recent MI, preserved LV function and most of whom had received ACE-I therapy in the first days following AMI.
- It does not document improved survival nor event-free survival at one year in these patients.
- However, it has been demonstrated that patients with documented CAD and preserved LV function should receive high-dose ACE-I.
- The findings of the trial therefore give additional insight into the mechanisms by which high-dose ACE-I therapy can be beneficial in patients with documented CAD and adequate LV function.