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Prognostic Impact of Gender on Clinical Outcomes in Acute Coronary Syndromes

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- All authors declare they have no conflict of interests in presenting this work.

Background

- Recent literature had shown a greater risk for adverse clinical outcomes following acute coronary syndrome (ACS) events in women undergoing percutaneous coronary intervention (PCI).

- Women had acute myocardial infarctions at an older age, they tended to suffer more from diabetes mellitus and hypertension.
- In addition, they had smaller culprit vessel diameters than men, and demonstrated higher frequency of 'no/slow re-flow' angiographic phenomenon than men.

- This is true while propensity-adjusted modeling shows that females were not at intrinsically higher risk for mortality after PCI.

- A true global gender bias exists in the delivery of PCI and secondary drug treatments for ACS, even for patients with documented significant coronary disease.

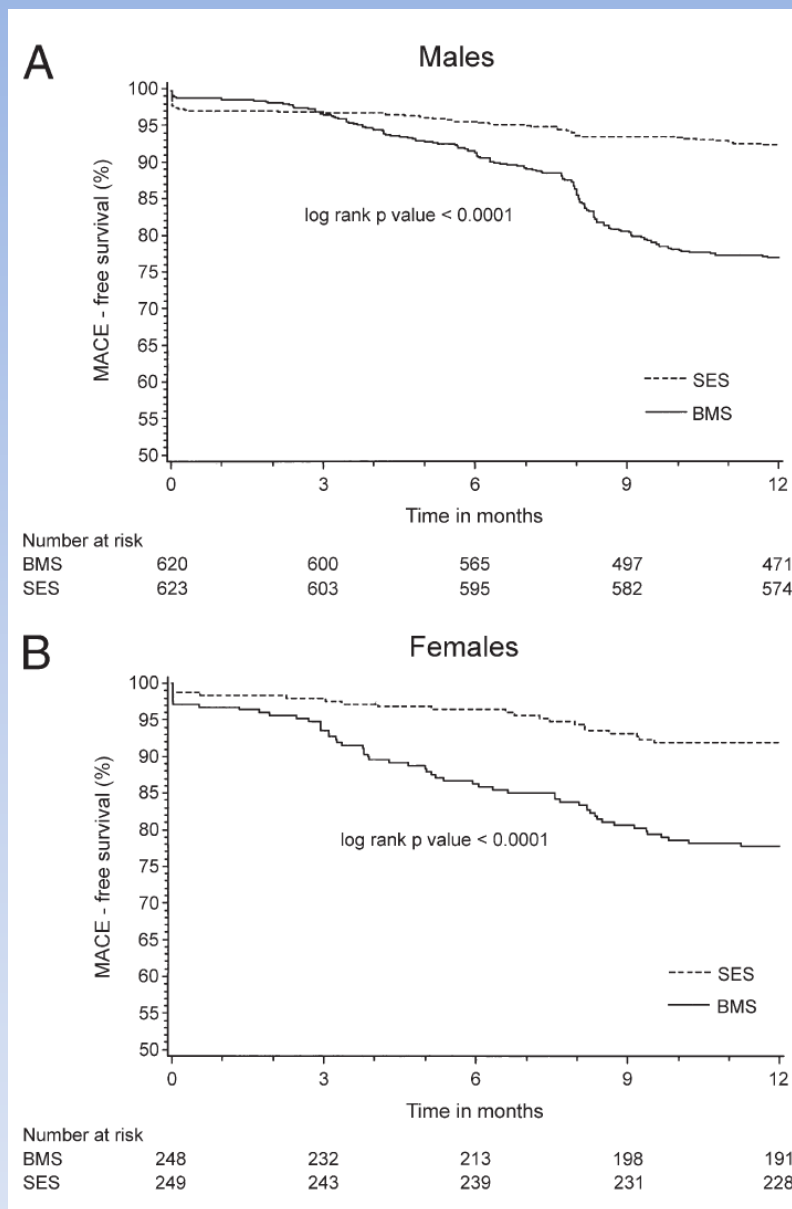
•Poon S., et al. Bridging the gender gap: Insights from a contemporary analysis of sex-related differences in the treatment and outcomes of patients with acute coronary syndromes. *Am Heart J.* 2012

•Bugiardini R., et al. "Gender bias in acute coronary syndromes." *Current vascular pharmacology* 8.2 (2010): 276.

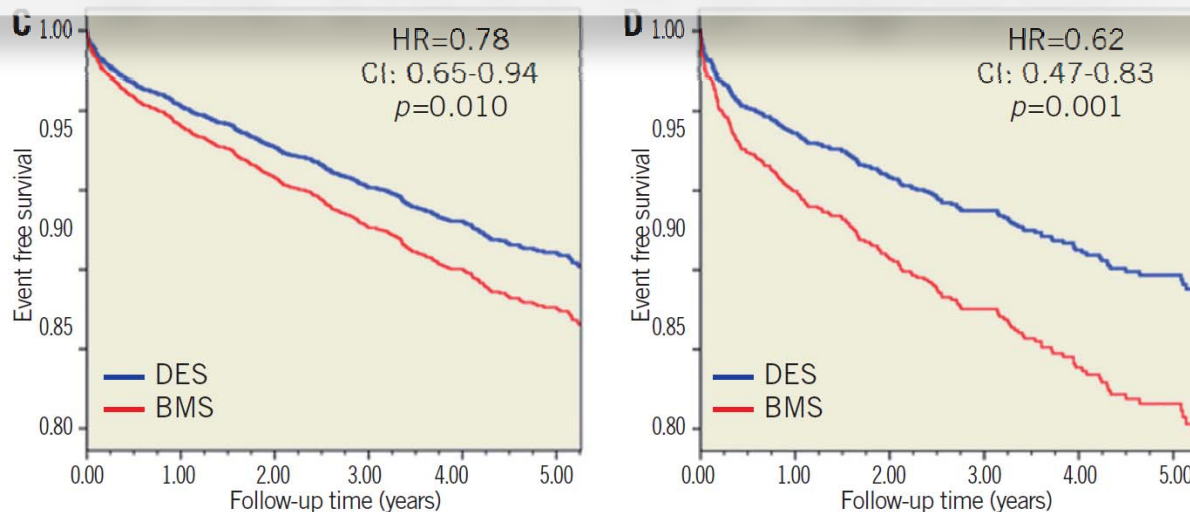
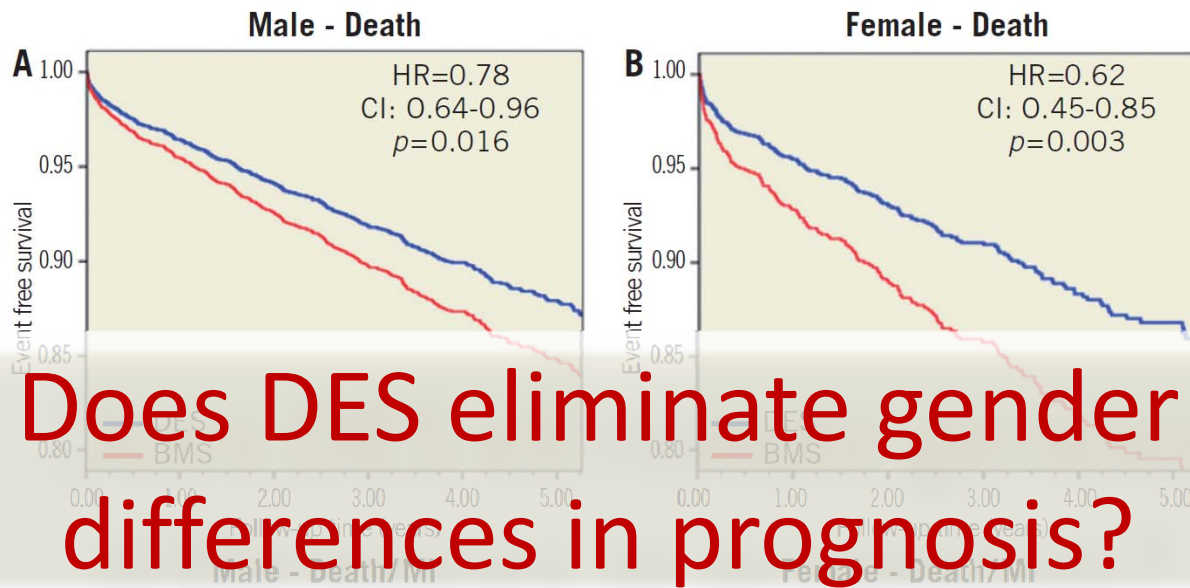
ESC Guidelines for the management of acute coronary syndromes in patients presenting without persistent ST-segment elevation

(Recommendations for gender)

| Recommendations | Class ^a | Level ^b | Ref ^c |
|---------------------------------------------------------------|--------------------|--------------------|------------------|
| Both genders should be evaluated and treated in the same way. | I | B | 246 |



•Solinas E et al. Gender-Specific Outcomes After Sirolimus-Eluting Stent Implantation
J Am Coll Cardiol. 2007;50(22):2111-2116.



Kornowski R et al. A comparative analysis of major clinical outcomes with drug-eluting stents versus bare metal stents in male versus female patients. EuroIntervention. 2012

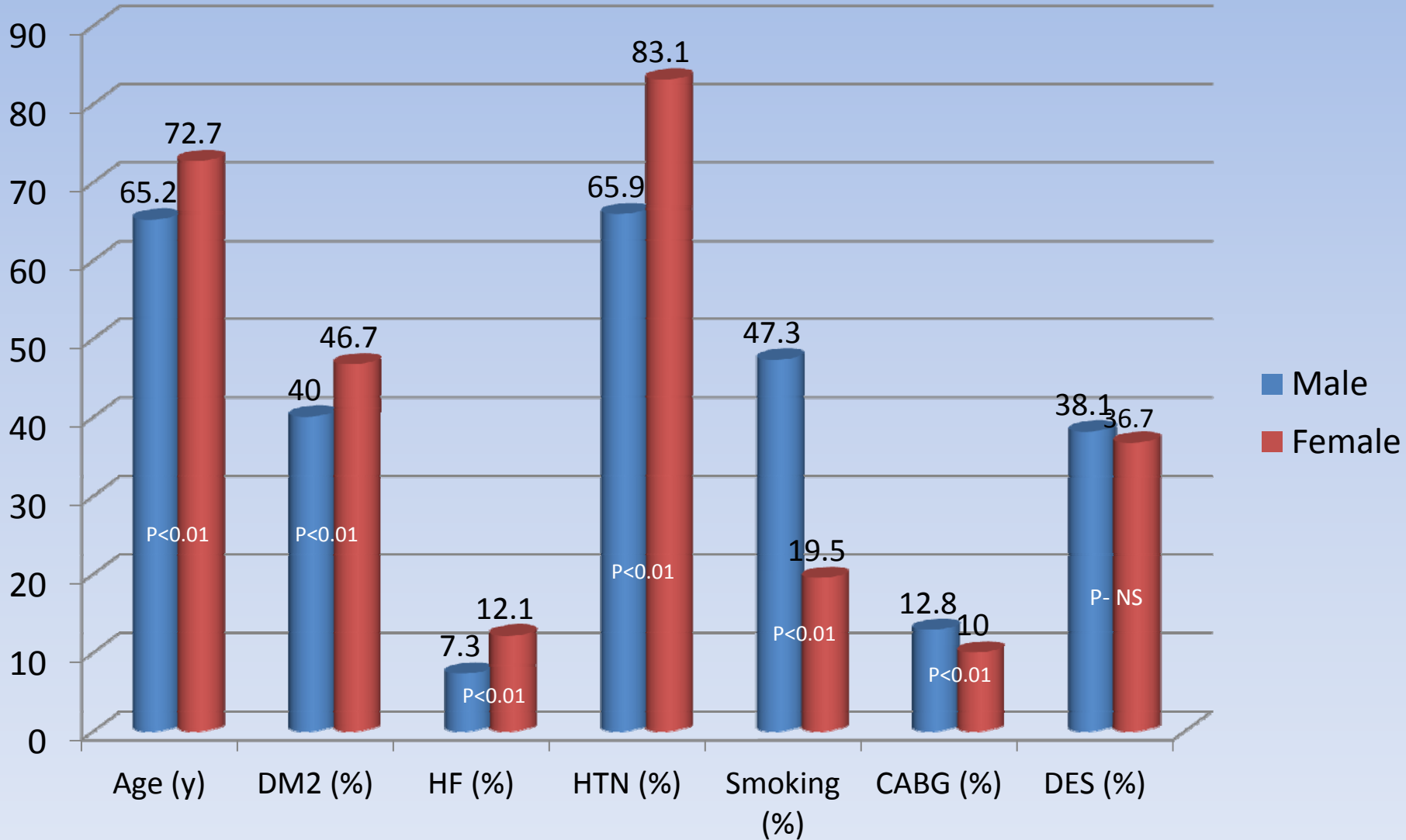
- We aimed to assess the impact of gender on clinical results following ACS.
- Due to known increased baseline risk factors- to analyze the outcomes using multivariable analysis.

Methods

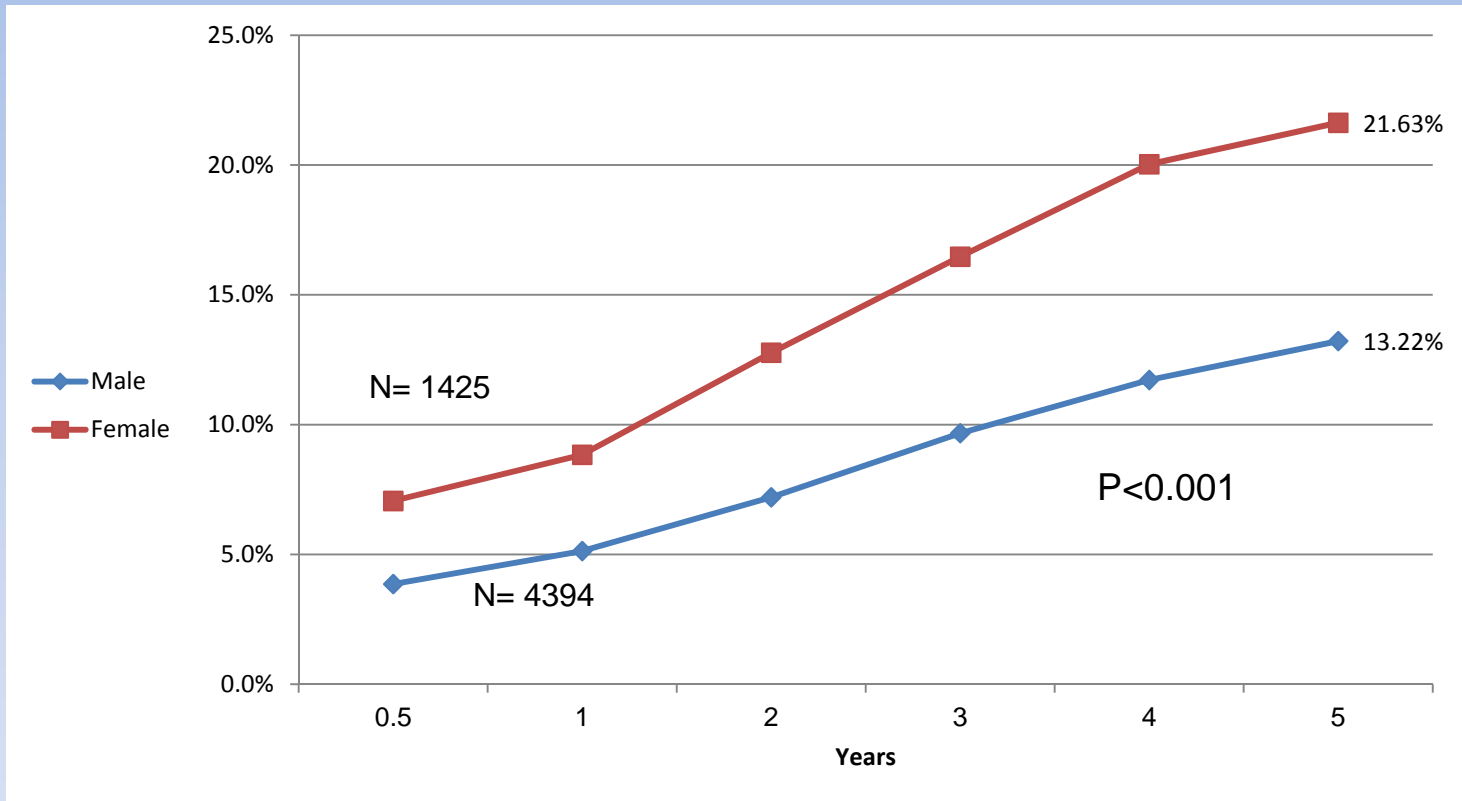
- We used our database of all comer PCI and selected all patients treated for acute coronary syndrome between 1/4/2004-31/12/2011.
- Procedural and angiographic results and clinical outcomes up to 5 years were collected and adjudicated for major cardiac adverse events.

- The outcome of 5,819 patients with ACS undergoing emergent PCI was analyzed and compared according to gender.

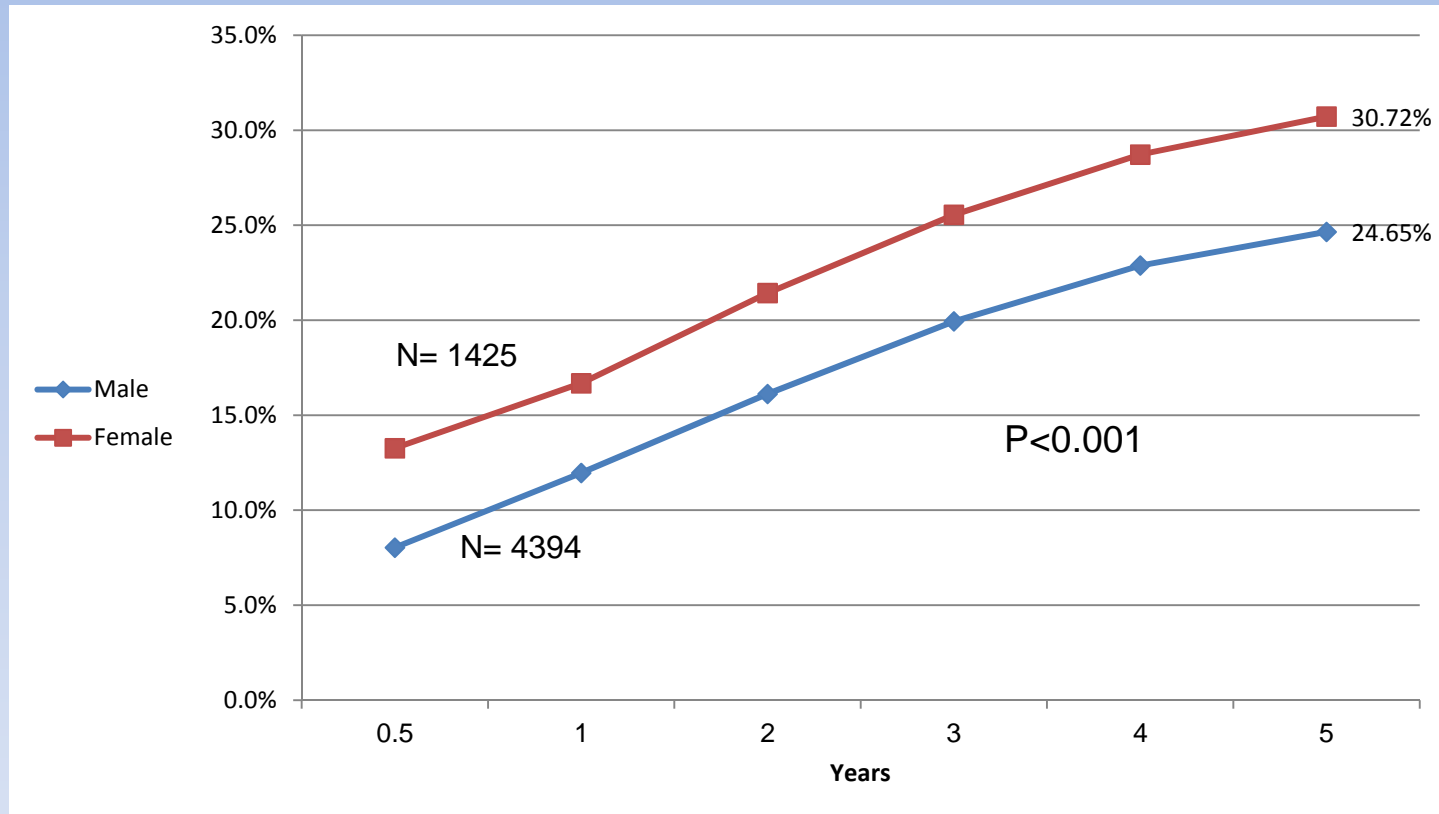
Results



Mortality

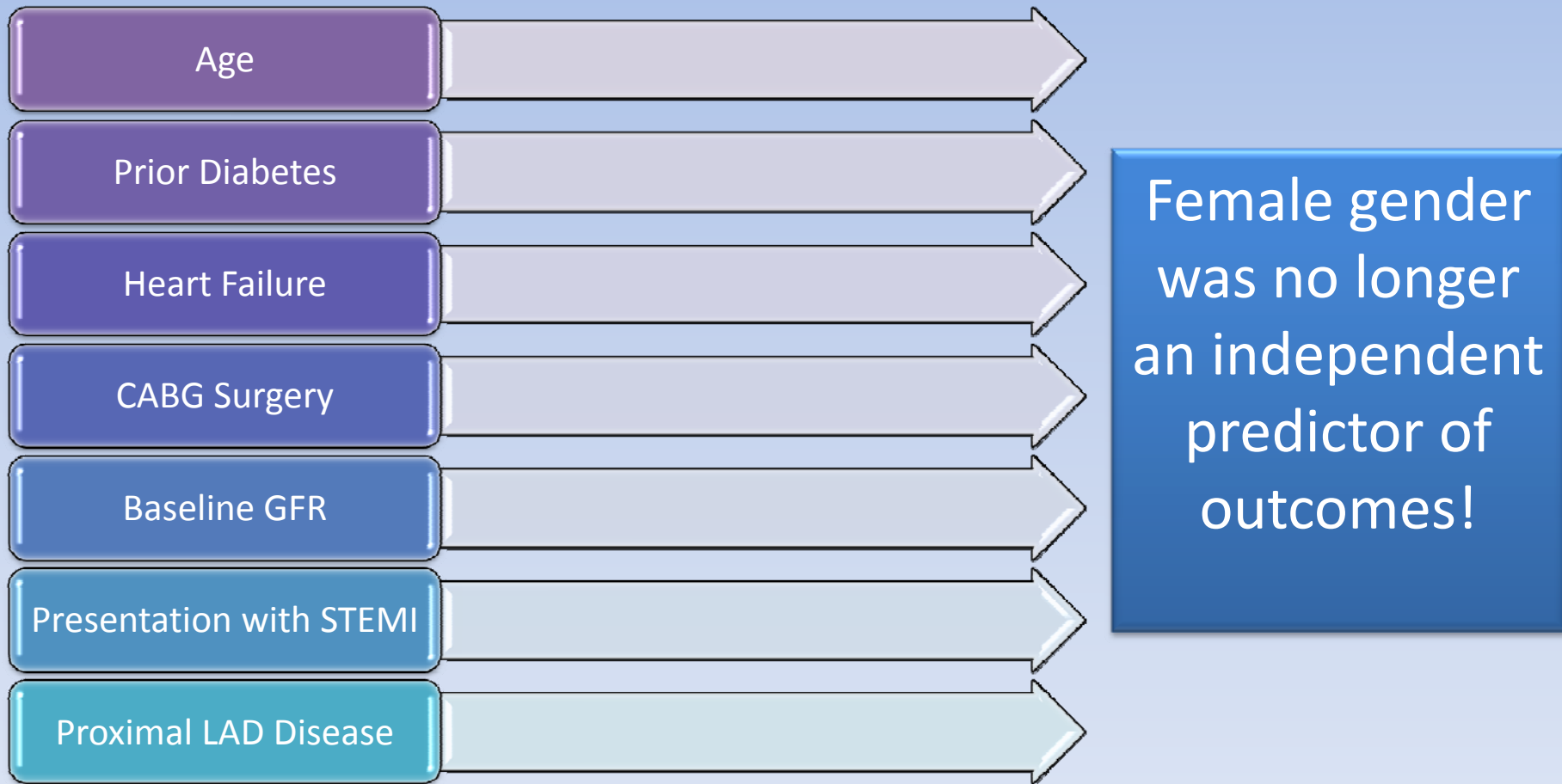


MACE



MACE- Major adverse cardiac events (Death+AMI+TVR)

Multivariate Analysis



Conclusions

- Our results indicate a higher mortality rate among female patients sustaining PCI for ACS.
- However, after correction for advanced age and co-morbidities, gender was no longer an independent predictor of outcomes.

Discussion

- Is the elevated risk a consequence of increased cumulative risk factors?
- How can we better our gender-specific therapy?
- DES vs. BMS?



Thank you!

