
Geographical Variation in Prevalence of Obstructive CAD and
Accuracy of Clinical Pretest Probability Estimation

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How accurate is pretest probability calculation for
stable chest pain patients with
suspected coronary artery disease?

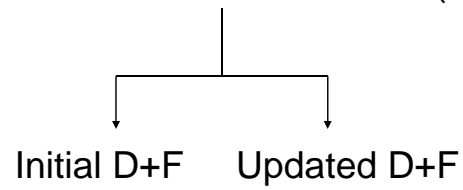
Methods

Study Design

- **Pilot study** of DISCHARGE Trial
 - 23 clinical sites
 - 30 patients ICA and CT each
 - Stable chest pain
 - Routinely scheduled for CT/ICA

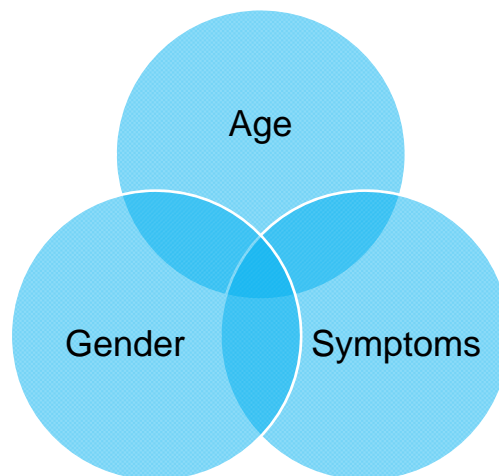
Prevalence and PTPs

- Prevalence: >50% coronary stenosis
- PTP: Diamonds & Forrester (D+F)



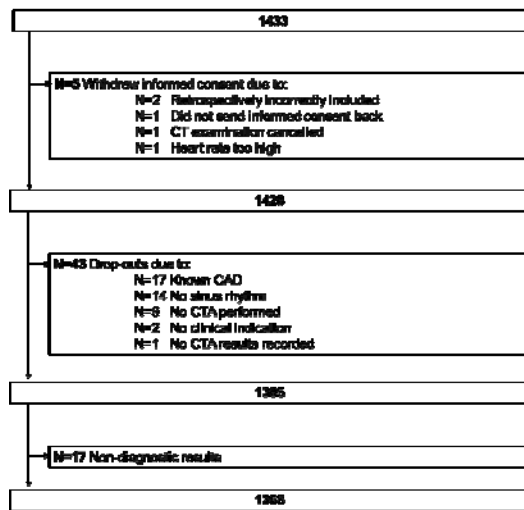
Diamond GA, Forrester JS. Analysis of probability as an aid in the clinical diagnosis of coronary-artery disease. N Engl J Med. 1979.
Genders TS et al. A clinical prediction rule for the diagnosis of coronary artery disease. Eur Heart J. 2011

Diamonds & Forrester

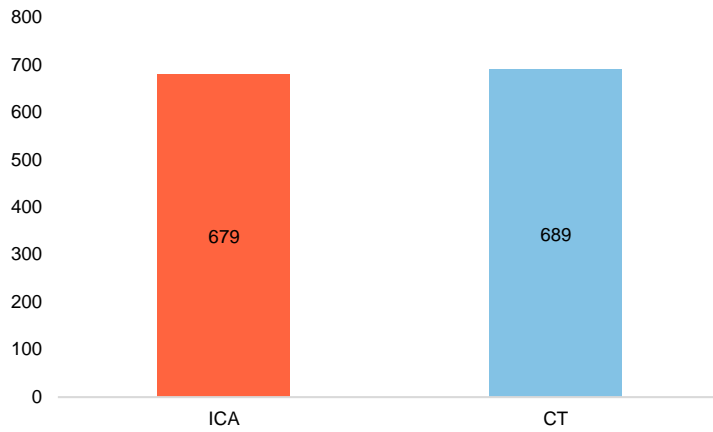


Results

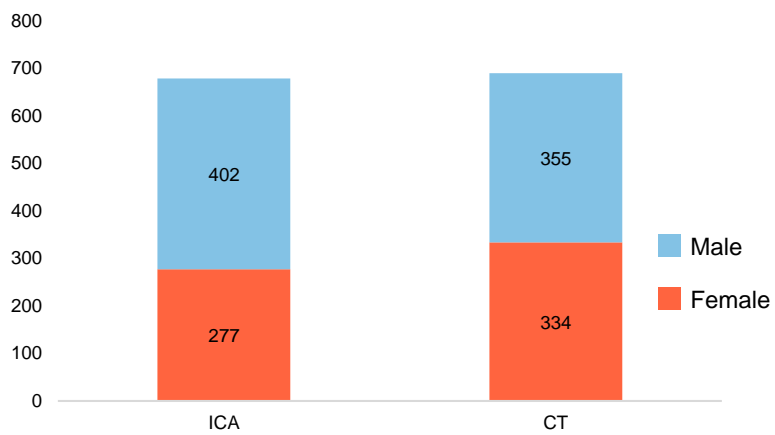
Flowchart



Patient collective



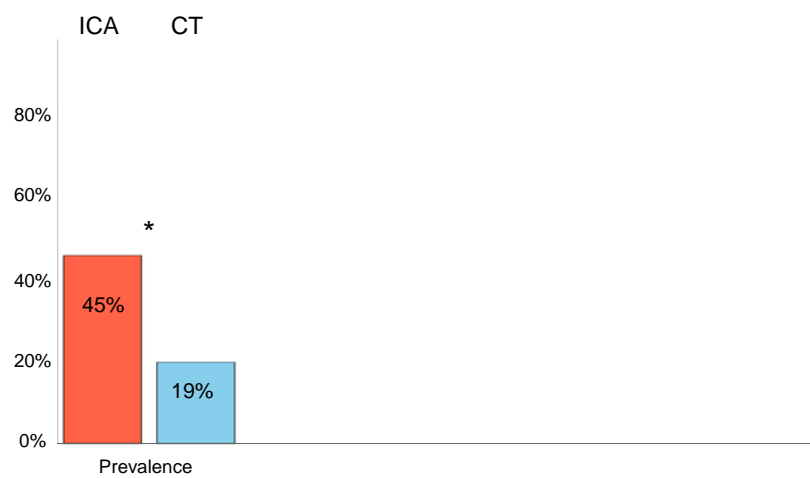
Gender in both groups



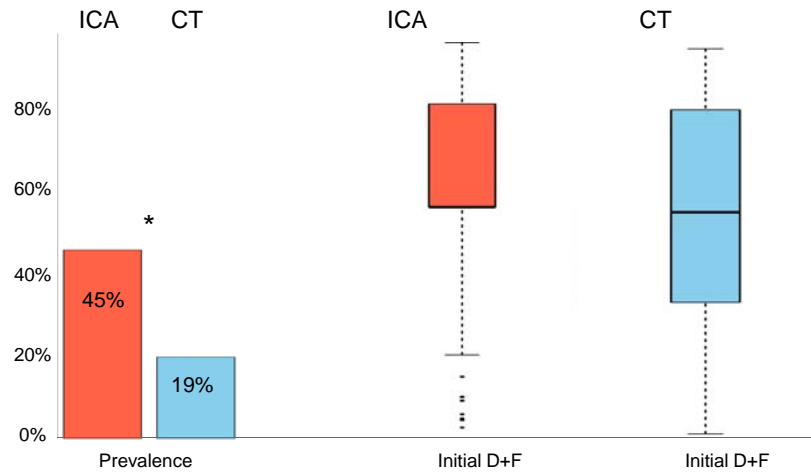
Prevalence in both groups



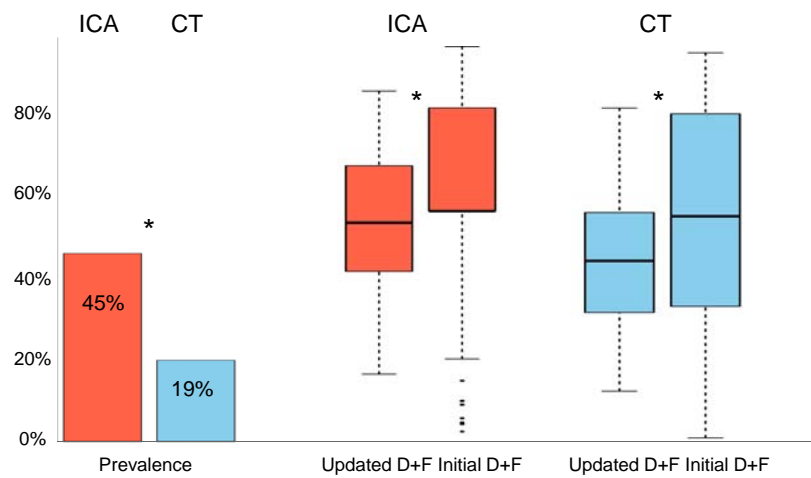
Pretest calculator vs prevalence



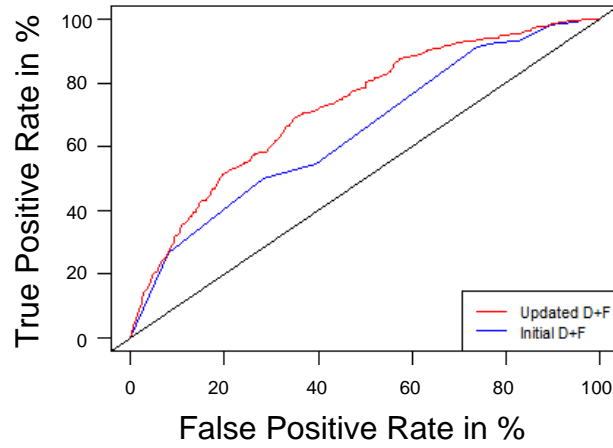
Pretest calculator vs prevalence



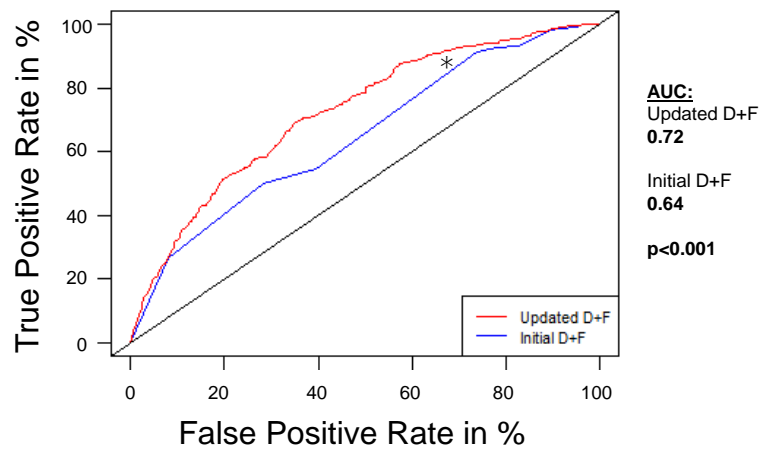
Pretest calculator vs prevalence



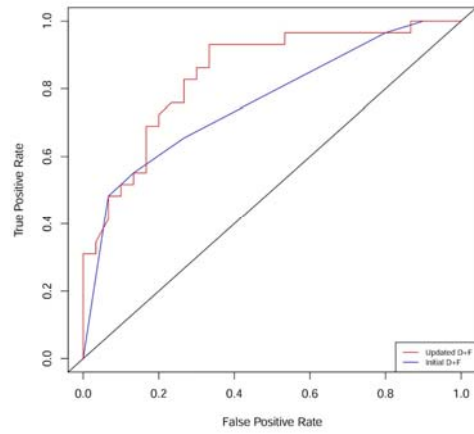
Discriminative power



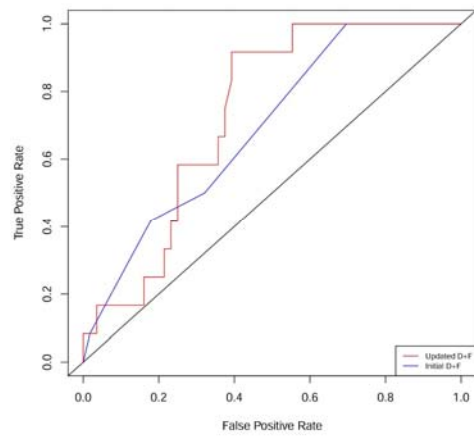
Discriminative power



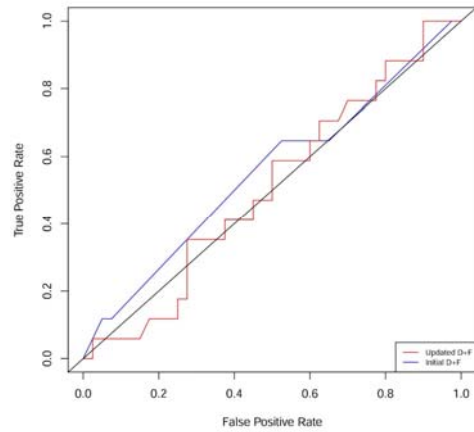
Variance of ROCs



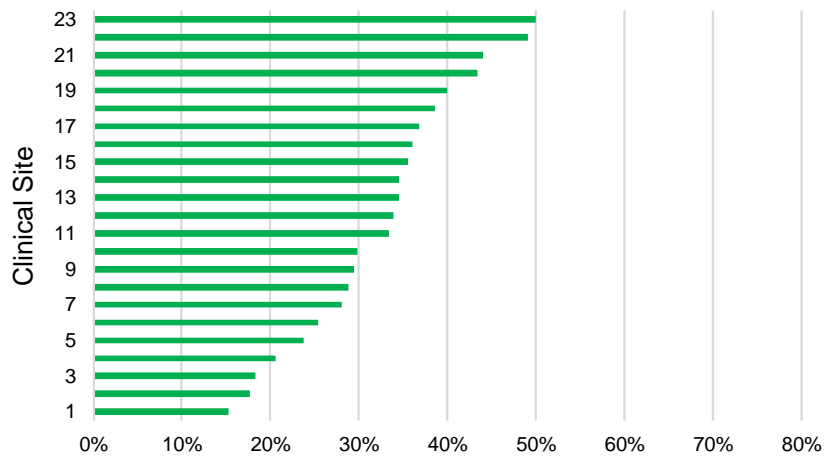
Variance of ROCs



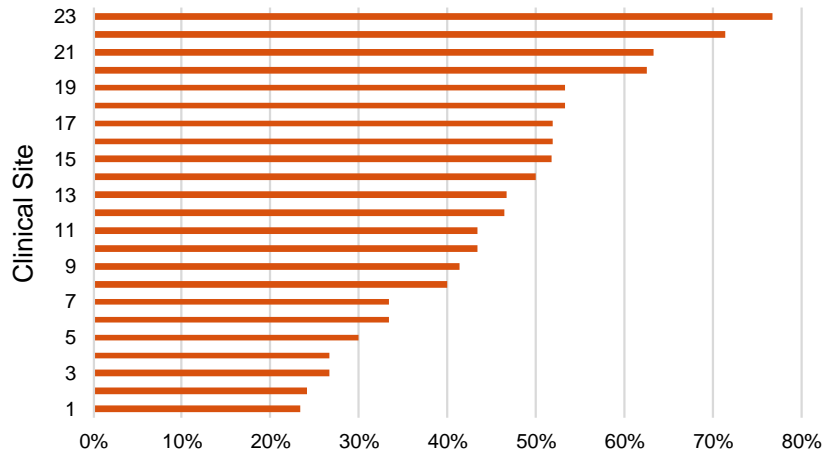
Variance of ROCs



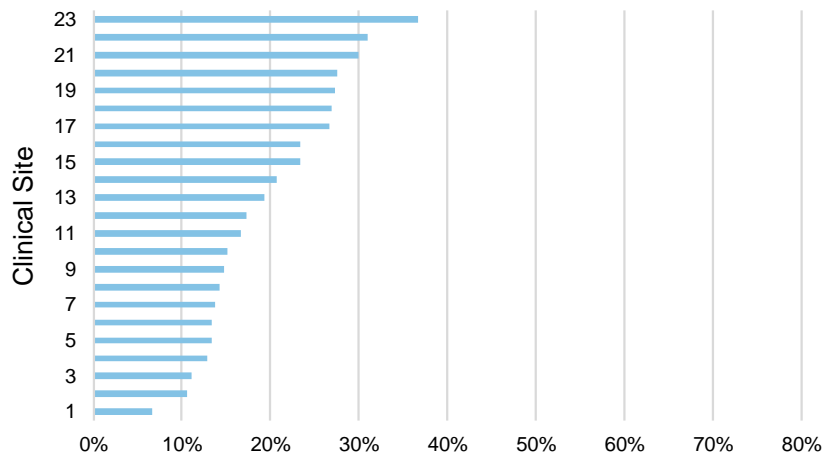
Variance of prevalence



Prevalence for ICA



Prevalence for CT



Conclusion

- Pretest calculation overestimates prevalence
- High variance in Europe
- More accurate models?

Thank you for your attention

Any questions?

