

The DIAG-HEART Protocol

Statistical Analysis for Cardiovascular Detection

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Key Findings: Statistical Analysis (Steps 2 & 3)

Study Data Overview

Analysis based on a sample of **270 patients** with a pathology prevalence of **44.4%**.

Non-Significant Variables (To be discarded)

Traditional markers lack discriminatory power in our sample:

- **Cholesterol:** $p = 0.052$ (Fails to meet significance threshold).
- **Blood Sugar (FBS):** $p = 0.92$ (Total absence of correlation).

Statistical Priority

Focus on high-correlation variables: **Thallium (0.52)** and **Number of vessels via fluoroscopy (0.45)**.

Validation via Classification Tree (Step 6)

What the AI confirms:

- Validated variable hierarchy.
- **Thallium** is the primary risk discriminator.
- Significant importance of the **number of vessels**.

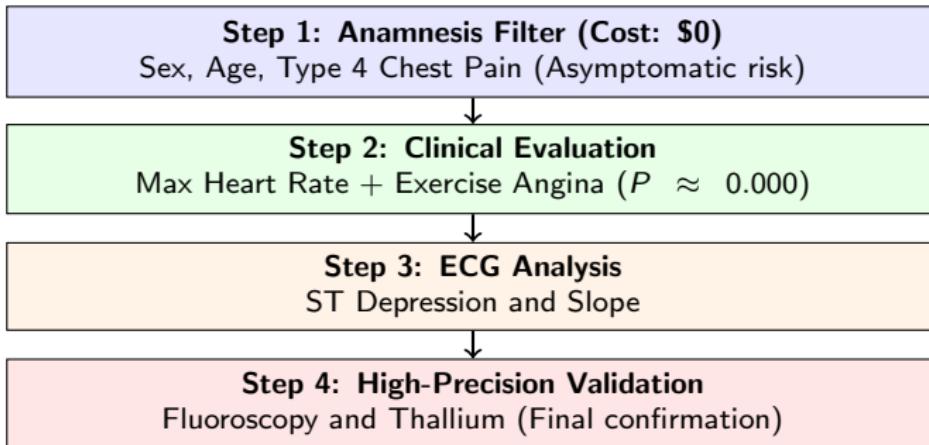
The Clinical Advantage:

- AI prioritizes pure computational efficiency.
- **Our protocol** integrates clinical reality and cost-effectiveness.

Result

The automated algorithm confirms that our variable selection is the most accurate for predicting pathology.

The Final Protocol: DIAG-HEART



Why is this protocol convincing?

It replaces guesswork with statistics: expensive tests are only prescribed once clinical risk is established through previous steps.

Conclusion and Impact

- **Rigor:** Exclusive use of statistically significant variables ($p < 0.05$).
- **Economy:** Reduction of redundant blood tests (FBS, Cholesterol).
- **Safety:** Targeted detection of high-risk patients.

**"Saving lives with fewer tests,
but better tests."**