## Case

## Rating Mrs. Pane's History

- Mrs. Pane has both low risk and high risk features in her history.
- To decide on a disposition for Mrs. Pane, you need to decide if her history is "slightly suspicious" or "moderately suspicious."
- You wonder what strategies have been proposed to reduce subjectivity in this determination.



Table 2

Three Objective Models For Scoring the History Component of the HEART Score

| Model 1                    | Model 2 Model 3            |                            |  |
|----------------------------|----------------------------|----------------------------|--|
| 0 Points:                  | 0 Points:                  | 0 Points:                  |  |
| Atypical Only              | 0-2 Symptoms               | 1-2 Minor Only             |  |
| 1 Point:                   | 1 Point:                   | 1 Point:                   |  |
| Typical and Atypical       | 3-4 Symptoms               | >1 Major or >2 Minor       |  |
| 2 Points:                  | 2 Points:                  | 2 Points:                  |  |
| Typical Only               | >4 Symptoms                | >1 Major or Major + Minor  |  |
| Typical:                   | Symptoms:                  | Major:                     |  |
| -Substernal chest pain     | -Substernal chest pain     | -Dyspnea                   |  |
| -Exertional chest pain     | -Exertional chest pain     | -Substernal chest pain     |  |
| -Relief with nitroglycerin | -Relief with nitroglycerin | -Exertional chest pain     |  |
| -Cold sweats/ diaphoresis  | -Weakness                  | -Relief with nitroglycerin |  |
| -Pain in L arm             | -Nausea/ vomiting          | Minor:                     |  |
| -Jaw pain                  | -Dyspnea                   | -Weakness                  |  |
| Atypical:                  | -Cold sweats/ diaphoresis  | -Nausea/ vomiting          |  |
| -Weakness                  | -Jaw/ teeth pain           | -Cold sweats/ diaphoresis  |  |
| -Nausea                    | -Neck pain                 | -Jaw/ teeth pain           |  |
| -Dyspnea                   | -Pain in both arms         | -Neck pain                 |  |
| -Dizziness                 | -Pain under shoulders      | -Pain in both arms         |  |
| -Pain in both arms         | -Pain in L arm             | -Pain under shoulders      |  |
| -Pain under shoulders      | -Dizziness                 | -Pain in L arm             |  |
| -Pain in R arm/ shoulder   | -Pain in R arm/ shoulder   | -Dizziness                 |  |
| -Neck pain                 |                            | -Pain in R arm/ shoulder   |  |

## In one year at a single tertiary care ED (n = 745)

|   | Model 1             | Model 2                | Model 3             |
|---|---------------------|------------------------|---------------------|
| Mean<br>HEART<br>Score  | 2.97<br>(SD = 1.17) | 2.57<br>(SD = 1.25)    | 3.30<br>(SD = 1.35) |
| AIC for Positive Cardiac Test Result (e.g. positive stress ECG) | 400.39              | 395.46<br>(better fit) | 397.64              |

AIC = Akaike information criterion

Marchick MR, Setteducato ML, Revenis JJ, et al. Comparison of Three Symptom Classification Methods to Standardize the History Component of the HEART Score. Crit Pathw Cardiol. 2017;16(3):102-104. doi:10.1097/HPC.000000000000119