ANNALS OF FAMILY MEDICINE

Online Supplementary Material

Westfall JM, Van Vorst RF, McGloin J, Selker HP. Triage and diagnosis of chest pain in rural hospitals: implementation of the ACI-TIPI in the High Plains Research Network. *Ann Fam Med.* 2006;4:153-158.

http://www.annfammed.org/cgi/content/full/4/2 /153/DC1

Supplemental Appendix. Determining the Rate of Accuracy

To determine accuracy, we adapted a method detailed by Pozen et al.[1] Accuracy is defined as (true positives + true negatives)/(true positives + false positives + true negatives + false negatives).

To determine triage accuracy for acute cardiac ischemia (ACI), we compared the physician's triage decision with recommended triage decisions based on work by Selker et al.[2] Triage categories were defined as:

- Triage true positive = patient with final diagnosis of ACI (ICD-9-CM 410, 411) or met criteria for acute myocardial infarction (MI) who was admitted or transferred.
- Triage true negative = patient with final diagnosis of no ACI (all other diagnoses) and did not meet criteria for acute MI who was discharged home.
- Triage false positive = patient with final diagnosis of ACI (ICD-9-CM 410, 411) or met criteria for acute MI who was discharged home.
- Triage false negative = patient with physician's final diagnosis of no ACI (all other diagnosis) and did not meet criteria for acute MI who was admitted or transferred.

To determine diagnostic accuracy for acute MI, we compared the physician's final diagnosis with clinical criteria for acute MI. Diagnostic categories were defined as:

- Diagnostic true positive = patient with final diagnosis of acute MI (ICD-9-CM 410) who met criteria for acute MI.
- Diagnostic true negative = patient with final diagnosis of no acute MI (all other diagnosis) who did not meet criteria for acute MI.
- Diagnostic false positive = patient with final diagnosis of acute MI (ICD-9-CM 410) who did not meet criteria for acute MI.
- Diagnostic false negative = patient with final diagnosis of no acute MI (all other diagnosis) who met criteria for acute MI.

References

1. Pozen MW, D'Agostino RB, Selker HP, Sytkowski PA, Hood WB, Jr. A predictive instrument to improve coronary-care-unit admission practices in acute ischemic heart disease. A prospective multicenter clinical trial. *N Engl J Med.* 1984;310:1273-1278.
2. Selker HP, Beshansky JR, Griffith JL, et al. Use of the acute cardiac ischemia time-insensitive predictive instrument (ACI-TIPI) to assist with triage of patients with chest pain or other symptoms suggestive of acute cardiac ischemia. A multicenter, controlled clinical trial. *Ann Intern Med.* 1998;129:845-855.