

#### 5.4.A. Agreement on Elements of History in Chest Pain Patients

Cruz(1) et al studied the agreement between research assistants (RAs) and emergency physicians (MDs) on the presence or absence of certain symptom characteristics in patients presenting to the emergency department with chest pain. The following table shows responses to the question “Was the quality of the chest pain crushing?”

Note to non-clinicians: "crushing" chest pain suggests a possible myocardial infarction (heart attack), which is something emergency physicians always worry about in people with chest pain.

“Crushing” Pain?	MD Recorded	MD Recorded	
	Yes	No	
RA recorded Yes	117	6	123
RA recorded No	18	2	20
Total	135	8	143

- What is the observed percent agreement?
- What is expected agreement based on the marginals?
- What is Kappa?
- What does it mean when we say the disagreements were "not balanced" in this study?
- Why do you think there was imbalance in the direction observed in this study?

1. Cruz CO, Meshberg EB, Shofer FS, McCusker CM, Chang AM, Hollander JE. Interrater reliability and accuracy of clinicians and trained research assistants performing prospective data collection in emergency department patients with potential acute coronary syndrome. *Ann Emerg Med.* 2009;54(1):1-7.