Determining The Presence Of Errors In 72-hour Return Visits To The Emergency Department

The Problem

While errors in medicine are considered an important health care issue, there is opportunity for research in methodology to accurately and reproducibly identify errors.

Aim/Goal

The objective of this study is to assess the inter-rater agreement between reviewers on determination of the presence of errors in management (errors), adverse events (AE), and opportunities for improvement (improvement) in Emergency Department (ED) cases involving 72-hour returns.

The Team

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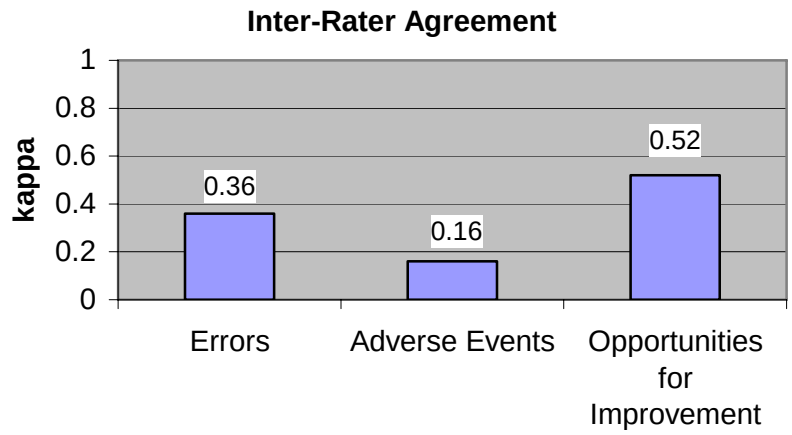
The Interventions

This is a retrospective review of ED visit charts by ED physicians at a university tertiary referral center. All patients seen and discharged from the ED between 7/11/08 and 11/6/08 who had a subsequent return visit with hospital admission within 72 hours were included. Each case was randomly assigned to two reviewers of a 10-member panel who were not involved in the care of the patient. Using accepted definitions, reviewers determined if error/AE/improvement was present. If assessed as no evidence, it was classified as absent; if it was assessed as possibly/probably/definitely present it was classified as present. We calculated a kappa agreement statistic for each of the three categories.

The Results/Progress to Date

A total of 72 cases were assessed. We found low-moderate agreement in errors in management (0.36, $p<0.01$) and opportunities for improvement (0.52, $p < .01$), while there was poor agreement in classifying adverse events (0.19, $p=14$). Interestingly, there was a strong correlation between cases classified as having an error and having an opportunity for improvement (0.90, $p<0.001$).



Lessons Learned

We found low-moderate agreement in our classification of errors and opportunity for improvement, while we had poor agreement for classification of adverse events. The development of more specific definitions and classification schemes for error, opportunities for improvement, and most importantly adverse events is warranted.

Next Steps/What Should Happen Next:

We are continuing to gather data in order to increase our sample size to see if, with larger numbers, there is any change in the inter-rater agreement. Then we plan to test more specific definitions and classification schemes for error and adverse events that achieve higher inter-rater agreement.

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