Analysis of Paramedic Error on Ambulance Call Reports

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Introduction

- Paramedics complete Ambulance Call Reports (ACRs) for each emergency call attended
- All ACRs with medically directed acts are audited for quality assurance purposes
- Ambulance Call Evaluations (ACEs) are completed for all protocol-driven prehospital medical directives that are audited as having an error
- The rate of error attributed to documentation versus actual clinical error is unknown
- It is unknown if there is a difference in errors between medics who use electronic ACRs (eACRs) versus traditional paper based ACRs

Objectives

Primary Objective

- To identify the proportion of errors attributed to documentation as opposed to clinical error

Secondary Objective

- To determine whether there is a difference in documentation error between Emergency Medical Services (EMS) using paper versus eACRs

Methods

- A retrospective record review was conducted between January 1 and June 28, 2010 of all ACRs and accompanying ACEs
- Electronic filtering was performed for all ACRs that had a potential protocol variation identified
- Auditors completed ACEs for each ACR determined to potentially possess protocol variations and determined the severity of this error (None, Minor, Major, Critical)
- Following further investigation of Major and Critical errors, a Professional Standards Specialist and a Paramedic Educator analyzed the ACEs, ACRs and correspondence to determine whether errors were related to documentation or clinical care

Results

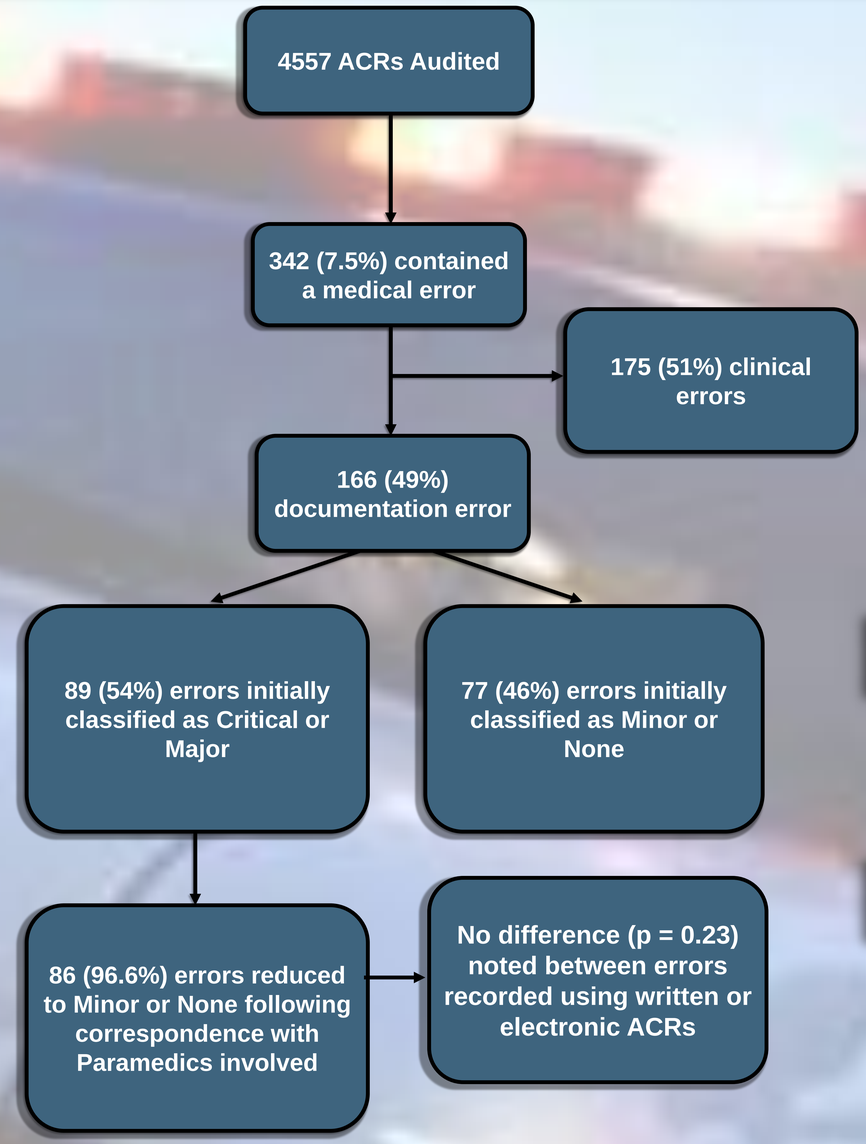

Figure 1: Flow diagram of retrospective findings

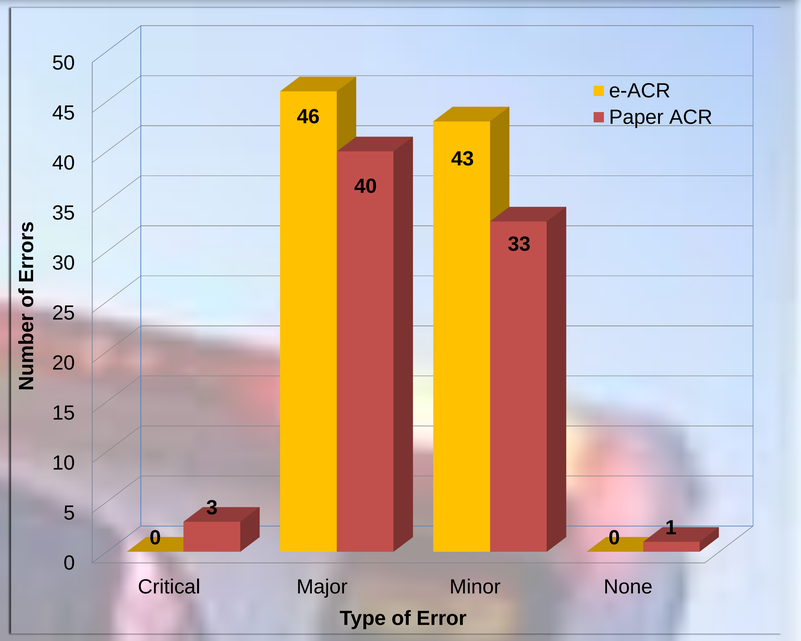

Figure 2: Number of errors committed by paramedics who use paper versus electronic ACRs

Limitations

- Potential for false positive documentation errors, which may have truly been clinical errors
- Inter-rater reliability unable to be determined due to retrospective nature of study data

Conclusions

- Nearly half of paramedic errors can be classified as documentation related as opposed to clinically related
- A large proportion of documentation errors were downgraded in severity
- There was no significant difference in documentation error rates between paramedics who use paper versus eACRs
- Education is required to improve documentation
- Education related training may result in decreased workload of programs providing offline medical control