

Quality Assessment of the Documented Neurological Exam of Patients in Rural Hospital Settings

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Quality Assessment of the Documented Neurological Exam of Patients in Rural Hospital Settings

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Introduction

Teleneurology refers to the use of electronic communications to provide neurological care from a location remote to the patient. Lehigh Valley Health Network (LVHN) provides healthcare to three “rural” hospitals in central to eastern Pennsylvania. To address the limited availability of specialist care, teleneurology is greatly utilized in these community hospitals. To aid the flow of teleneurology consults, efficient documentation from the referring provider is essential.

Problem Statement

To assess current neurological exam documentation of referring hospitalists and intensivists from rural Pennsylvania hospitals

Methods

- SQUIRE¹ guidelines were used as framework for reporting this study
- Read only access for CPSI, Meditech and McKennson Portal EMR systems at LVHN hospitals in Schuylkill (LV-S), Hazleton (LV-H) and Poconos (LV-P) was authorized
- Only charts with same day neurological exams documented by the referring hospitalist/intensivist and teleneurologist between November 2017 and February 2018 were chosen
- The documented neurological exams reviewed were organized into mental status, cranial nerves, motor-upper extremities (UE), motor-lower extremities (LE), sensory, reflexes-UE, reflexes-LE and coordination/gait
- Results from the chart review were used to create a survey generated with RedCap Software² and sent to 40 hospitalists and intensivists at LV-S, LV-P and LV-H

Results

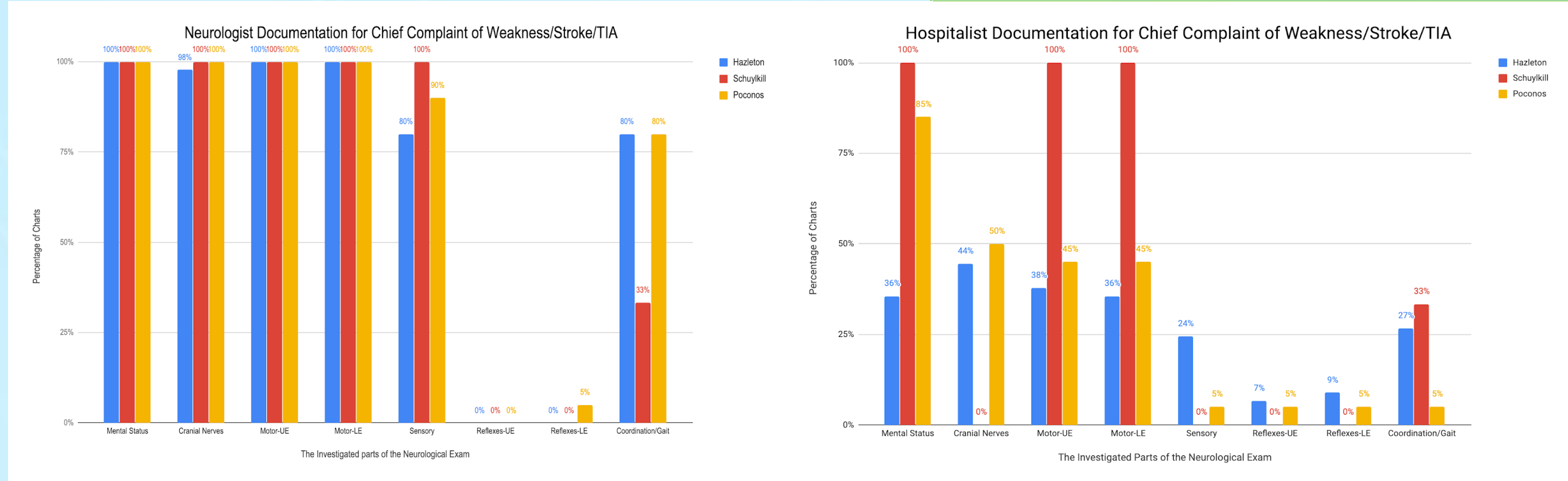
Survey Results

- 7 survey respondents
- Two respondents were utilizing Physician Portal EMR, 4 respondents were using Meditech and 1 respondent uses EPIC
- 57% (n=4) of the participants reported feeling *mildly* comfortable performing the neurological exam
- 29% of the participants (n=2) reported feeling *very comfortable* performing a neurological exam
- 28% of the participants (n=2) reported feeling *very comfortable*, 14% (n=1) were *mildly comfortable* using their current EMR system
- 28% (n=2) reported feeling *mildly to very uncomfortable*
- 14% (n=1) of participants received *less than 1 hour* of EMR training. 29% (n=2) received 1-3 hours of training. 29% (n=2) received *greater than 3 hours* of training

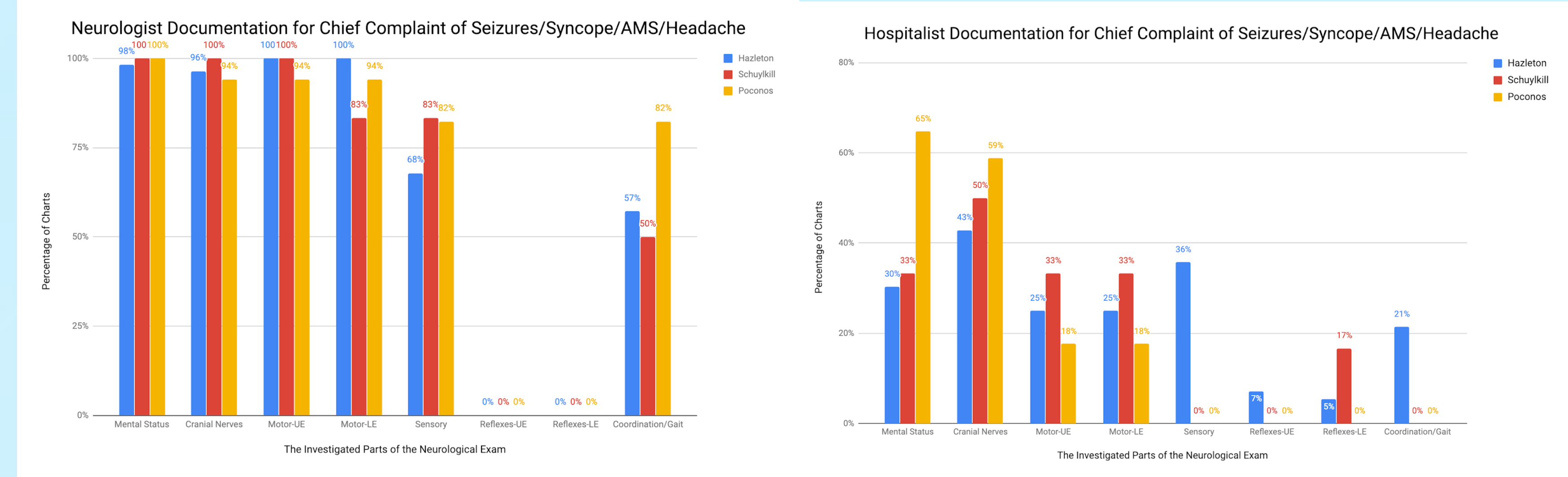
Chart Review Results

Total number of charts reviewed = 185

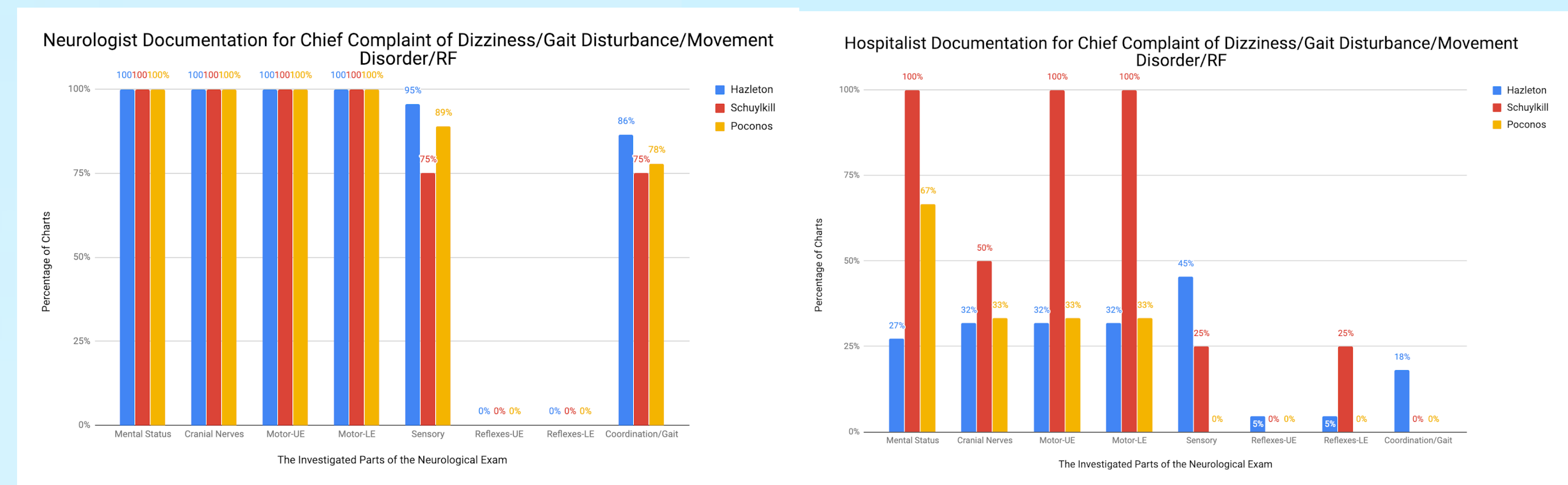
Documentation for chief complaint of Weakness/stroke/ TIA
LV-H n=45 LV-S n=3 LV-P n=20



Documentation for chief complaint of Seizures/Syncope/AMS/Headache
LV-H n=56 LV-S n=6 LV-P n=17



Documentation for chief complaint of Dizziness/Gait Disturbance/Movement Disorder/ Radiological Findings
LV-H n=22 LV-S n=4 LV-P n=9



Discussion

- Teleneurologists face the inherent disadvantages of an “electronic” examination
- Time, knowledge and resources are identified barriers to a complete assessment and documentation of the neurological exam
- Legal ramifications of incomplete documentation can be severe
- Health systems and Leadership are major components of the SELECT curriculum explored in this study
- Limitations include a small number of survey respondents Confirmation bias and habituation bias may also play a role although minimized

Conclusions

- More support in EMR documentation is needed
- Educational initiatives are needed to address the knowledge and comfort deficits in performing the neurological examination

REFERENCES

1. Revised Standards for Quality Improvement Reporting Excellence (SQUIRE 2.0). Received from <http://www.squire-statement.org/index.cfm?fuseaction=page.viewpage&pageid=471>
2. Paul A. Harris, Robert Taylor, Robert Thielke, Jonathon Payne, Nathaniel Gonzalez, Jose G. Conde, Research electronic data capture (REDCap) – A metadata-driven methodology and workflow process for providing translational research informatics support, J Biomed Inform. 2009 Apr;42(2):377-81.