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Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health

Title

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Permalink

<https://escholarship.org/uc/item/89w5f3x3>

Journal

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 15(5.1)

ISSN

1936-900X

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Publication Date

2014

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Peer reviewed

36 Medical Student Clinical Decision Rule Utilization During the EM Clerkship

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Background: Many clinical decision rules (CDR) exist to aid EM physicians in the testing, treatment, and admission of patients. It is unknown to what extent 4th year medical students are exposed to CDRs or how students view their impact on medical decision making (MDM).

Objectives: To evaluate medical student consideration of common emergency medicine CDRs and to measure the perceived impact these CDRs have on MDM. We hypothesized that these results would demonstrate significant opportunities to better educate students regarding the application of CDRs to guide appropriate resource utilization in the Emergency Department.

Methods: This was a multicenter survey study of 181 fourth year medical students during their EM clerkship in three urban, tertiary care academic centers. Subjects were surveyed at the completion of their 4 week rotation on whether they had evaluated a patient with a complaint covered by a pertinent CDR. Subjects were asked if they had considered the rule, and then ranked the impact of the CDR on a 10 point Likert scale.

Results: The percentage utilization and mean Likert scores for each CDR were: San Francisco Syncope rule 33% (7.7), Pneumonia Severity Index 57% (6.9), Ottawa Knee Rule 60% (7.3), Ottawa Ankle Rule 83% (7.8), Centor Criteria 73% (7.5), Wells Criteria (DVT) 84% (7.8), Wells Criteria (PE) 95% (8.0), PERC rule 63% (8.0). For patients with head injuries, students considered the Canadian head CT rule 40% (7.7), New Orleans head CT rule 13% (6.0), and neither 46%. For patients with possible cervical spine injuries, students considered NEXUS criteria 80% (8.3), Canadian C-spine rule 43% (7.3), and 7% neither.

Conclusions: All CDRs were rated as having a high impact on patient care. However, students did not consistently consider CDRs where applicable. There are significant opportunities to better educate students regarding the use of CDRs during the EM rotation. The most significant limitation to this study was student recall bias.

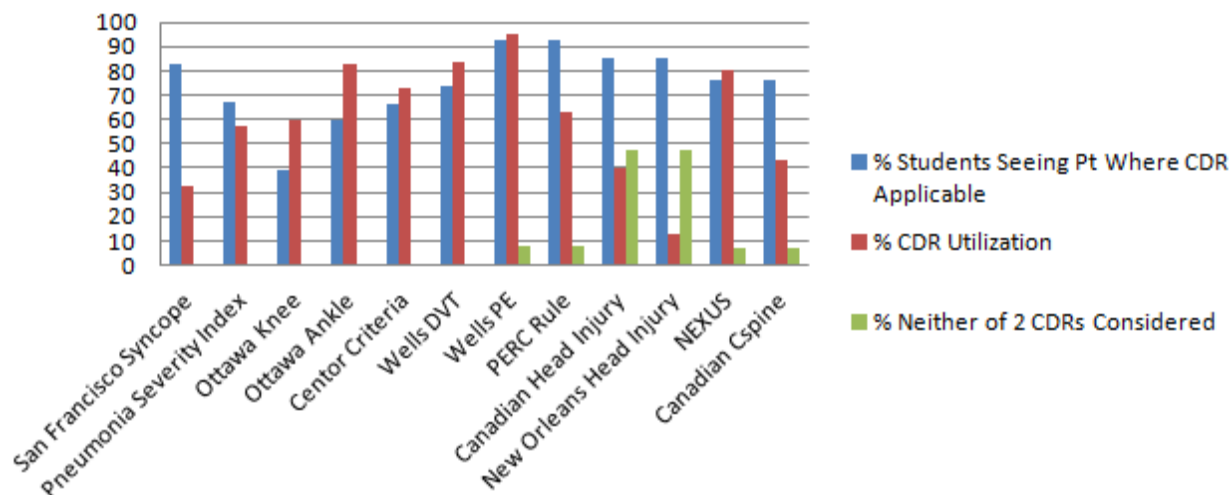


Figure 1. Clinical decision rule utilization.

*Data set 1: % Students seeing pt where CDR applicable

†Data set 2: % CDR utilization

‡Data set 3: % neither of 2 CDRs considered

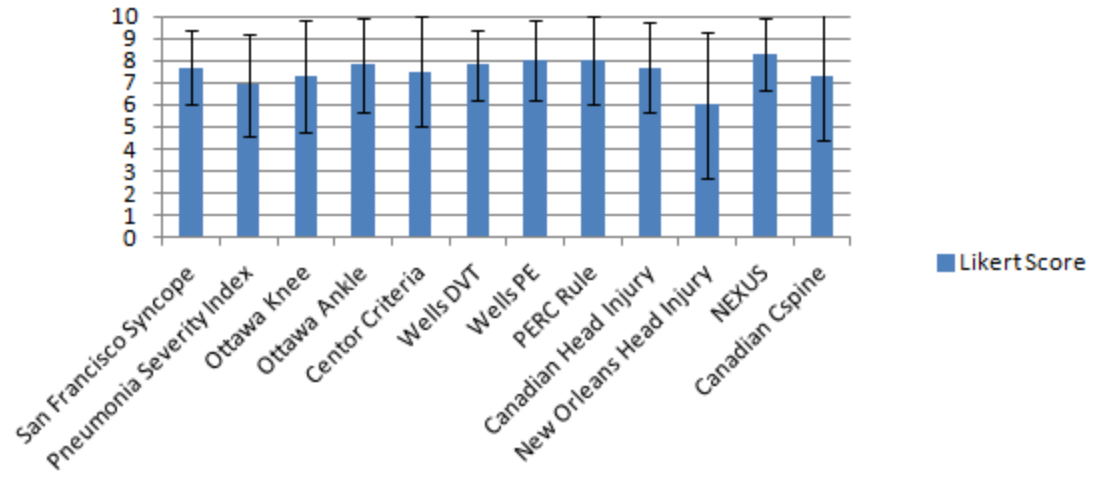


Figure 2. Clinical decision rule perceived impact Likert scores.