This Article Corrects: "GLASS Clinical Decision Rule Applied to Thoracolumbar Spinal Fractures in Patients Involved in Motor Vehicle Crashes"

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GLASS Clinical Decision Rule Applied to Thoracolumbar Spinal Fractures in Patients Involved in Motor Vehicle Crashes.
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Introduction: There are established and validated clinical decision tools for cervical spine clearance. Almost all the rules include spinal tenderness on exam as an indication for imaging. Our goal was to apply GLASS, a previously derived clinical decision tool for cervical spine clearance, to thoracolumbar injuries. GLass intact Assures Safe Spine (GLASS) is a simple, objective method to evaluate those patients involved in motor vehicle collisions and determine which are at low risk for thoracolumbar injuries.

Methods: We performed a retrospective cohort study using the National Accident Sampling System-Crashworthiness Data System (NASS-CDS) over an 11-year period (1998-2008). Sampled occupant cases selected in this study included patients age 16-60 who were belt-restrained, front- seat occupants involved in a crash with no airbag deployment, and no glass damage prior to the crash.

Results: We evaluated 14,191 occupants involved in motor vehicle collisions in this analysis. GLASS had a sensitivity of 94.4% (95% CI [86.3-98.4%]), specificity of 54.1% (95% CI [53.2-54.9%]), and negative predictive value of 99.9% (95% CI [99.8-99.9%]) for thoracic injuries, and a sensitivity of 90.3% (95% CI [82.8-95.2%]), specificity of 54.2% (95% CI [53.3-54.9%]), and negative predictive value of 99.9% (95% CI [99.7-99.9%]) for lumbar injuries.

Conclusion: The GLASS rule represents the possibility of a novel, more-objective thoracolumbar spine clearance tool. Prospective evaluation would be required to further evaluate the validity of this clinical decision rule. [West J Emerg Med. 2017;18(6)1108-1113.]

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