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Evaluating data quality in trauma registries

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To the Editor

It was a great pleasure to read Dr. Porgo et al's 'Evidence of data quality in trauma registries: A systematic review' paper.¹ We commend the authors' willingness and effort to engage in the serious question of data quality (DQ) in trauma registries, which are a vital tool in trauma research, building trauma systems, and policy and injury prevention strategies and analysis. As the paper noted, DQ problems affect clinical outcomes and decision processes, and quality-of-care evaluations may suffer sensitivity and specificity due to lack of DQ.

Porgo et al's contribution to the discussion of DQ in trauma registries cannot be understated. The question of how best to maintain trauma databases in a cost-effective manner while maintaining high DQ is one that our group has been navigating for some time. Latin America and the Caribbean region have a long history in trauma surveillance, as evidenced by the cases of Colombia, Nicaragua, El Salvador,² and Jamaica.³ In Colombia, for example, the recently implemented *International Trauma Registry* of the Pan-American Trauma Society has been used widely by Ordoñez et al., to analyze clinical aspects of their patients and promote a better understanding of damage control techniques.⁴

We would like to point out that this database contains a total of 244 variables and 11 surgery modules, includes: demographic information, chief complaint, past history, injury location, injury mechanism, prehospital information, physical exam, imaging, laboratory, emergency department management and diagnosis, hospitalization, and counter-reference. The *International Trauma Registry* has included information that has advanced our understanding of trauma protocols-particularly damage control techniques-in the Latin American sphere

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whose conclusions can be used to further expand knowledge about damage control more generally.⁵

We agree with the author's contention that a standardized, reproducible method for DQ evaluation is needed, and would like to underscore the importance of the *International Trauma Registry* in future analyses of DQ in trauma registries. Although this registry did not meet the requisite number of publications for inclusion into Dr. Porgo et al's study,¹ this registry will help understand the evolution of DQ in trauma registries. In light of this study's analysis, we highlight that the *International Trauma Registry* will need to adhere to DQ measures that go beyond mere completion. Furthermore, we propose studying the limitations in the ability to gather DQ information for this registry, especially with respect to missing information. As the authors of the study mention, several solutions, including multiple imputation, should be considered for missing information. In the end, our group's experiences, in conjunction with the Pan-American Trauma Society, have and will continue to provide an international collection of experiences and data for future clinicians and researchers on registry standards and implementation protocols. We are excited by the collaborative effort it will take to better define DQ dimensions and improve trauma outcomes worldwide.

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