

Title: Understanding the Rural Injury Providers' Experiences with Trauma Clinical Guidance
– A Qualitative Case Series

Authors: Andrew Steiner, BS¹; Michael A. Person, MD, MPH, FACS²; Darren D. Bowe, MD³; Alyssa Johnson, MSN, RN, TCRN, CEN⁴; Gabriela Zavala Wong, MD⁵; Kirsten Senturia, PhD⁶; Ashley N. Moreno, MS⁷; Lacey N. LaGrone, MD, MPH, MA, FACS⁸

ABSTRACT

Introduction: Trauma is the leading cause of death for persons from ages 1-44, and it is estimated that many of these deaths could be prevented. Clinical guidance is an essential step towards the optimization of trauma care, especially within rural environments. This qualitative case series seeks to better understand how trauma clinical guidance plays a role in rural trauma providers' patient management.

Methods: An initial exploratory qualitative case series consisting of five semi-structured interviews with rural providers recruited using snowball sampling from existing professional networks were conducted between February – April 2024. Providers were asked to provide details on how they approach clinical uncertainty and if clinical guidance plays a role in their decision making. Then, providers performed real-time reviews of clinical guidance documents, identifying areas for clinical guidance improvement. Interviews were recorded, transcribed, and data analyzed using narrative and thematic approaches, with key themes identified through peer debriefing with relevant quotes selected.

Results: Of the five providers interviewed, three provide care at a critical access hospital, one provides care at a Level II trauma center, and one at a Level III trauma center. Two interviewees mentioned that they do not use clinical guidance often in direct patient care, and three highlighted the use of ATLS as the foundation of their practice upon which they expand their tools and training. Common requests of TCG from rural providers included: 1) visual components to guide workflow, 2) easy discoverability in a central place, 3) relevant across various resource settings, 4) a centralized 'stamp of approval,' for guidelines that have been mutually agreed on via extensive collaboration, and 5) transfer guidance.

Conclusion: The needs of rural trauma providers should be a focal point when working to improve the creation and dissemination of trauma clinical guidance. Collaboration when creating new TCG is essential. By intentionally designing for the rural population, we will increase the reach and impact of the guidance developed, as well as improve its accessibility and usability for all providers, regardless of resource setting. Through these efforts we will decrease the disparate burden of trauma and unintentional injury on rural patients and their healthcare providers.

AUTHOR CONTRIBUTION STATEMENT

Design: Steiner, LaGrone, Senturia, Bowe, Zavala Wong, Johnson, Person

Data acquisition: Steiner, LaGrone, Bowe, Senturia

Analysis and interpretation: Steiner, LaGrone, Bowe, Senturia, Moreno

Drafting and Critical Revision: Steiner, LaGrone, Bowe, Johnson, Moreno, Senturia

KEYWORDS: Rural; Trauma Care; Trauma Surgery; Clinical Practice Guidelines; Trauma Guidance

Character Count: 2403

Author Affiliations:

1 – University of Colorado School of Medicine at Colorado State University, Fort Collins, CO, USA

2 – University of South Dakota; Sioux Falls, SD, USA

3 – St. Patrick Hospital, Missoula, MT, USA

4 – Montana Department of Public Health & Human Services; Helena, MT, USA

5 – Universidad Peruana Cayetano Heredia Sociedad de Cirujanos Generales del Peru, Lima, Peru

6 – Department of Pediatrics, University of Washington School of Medicine, Seattle WA
Global Alliance to Prevent Prematurity and Stillbirth (GAPPS), Lynwood, WA

7 – Coalition for National Trauma Research; San Antonio, TX, USA

8 – Medical Center of the Rockies, University of Colorado Health; Loveland, CO, USA