Rural Injury Providers' Experience with Trauma Clinical Guidance – A Qualitative Case Series

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Background

- **Unintentional Injury is the leading cause of death for persons aged 1 – 44** resulting in more than 3.4 million yrs of potential life lost [1]
- A significant portion of these deaths could be prevented if all hospitals performed as well as highest-performing hospitals [2]
- One component of improving trauma and injury care is awareness of & adherence to Trauma Clinical Guidance (TCG) [3,4]
- The **current landscape of TCG is vast.** Guidance is difficult to find, variably updated, absent, inaccessible or perceived as unhelpful
- TCG is often NOT written for rural trauma providers, often representing many different specialties (Surgical, EM, FM, anes, etc.)
- **Specific Aim**: We sought to understand perspectives of a diverse group of rural trauma providers on their use and relevance of TCGs to their clinical practice and suggested improvements

Methods

- **Initial exploratory qualitative** cross-sectional case series with five semi-structured interviews with diverse set of rural trauma providers

- Recorded & Transcribed verbatim, followed by iterative **thematic analysis** by study personnel
- Using **an interview guide**, clinicians provided information about their practice environment, use and perspective of trauma clinical guidance, thoughts for improvement and a real-time review of an existing guideline
- **Quantitative** work will continue as part of the DFI conference series.
- We evaluated TCGs from the following orgs:

THE COMMITTEE ON TRAUMA · AMERICAN COLLEGE OF SURGEONS · WSES The World Society of Emergency Surgery · Western Trauma Association · Brain Trauma Foundation · Joint Trauma System, The Department of Defense Center of Excellence for Trauma, Bold, Responsible Practice of Battlefield Medicine · east, Eastern Association for the Surgery of Trauma, Advancing Science, Fostering Relationships, and Building Careers · JOURNAL OF NEUROSCIENCES IN RURAL PRACTICE, The Official Journal of the Asociación Ayuda Enfermo Neurocirúrgico (AAEN)

* https://catalyst.harvard.edu/community-engagement/mmr/

Results

- Interviewed five providers. 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.
- The providers represent the west coast, mountain-west and Midwest regions (1, 3 and 1 respectively)
- Two are surgeons (TACS & GS/TACS); one is an EM physician; one is a CRNA; and one is an FM/EM physician leader
- Two interviewees (surgeons) mentioned they do not use clinical guidance often in direct patient care; 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 the following (see Table 1 for examples).
  1) visual components to guide workflow at the bedside, 2) easy discoverability in a central place, 3) a centralized 'stamp of approval,' for guidelines that have been mutually agreed on via extensive collaboration, 4) relevant across various resource settings and lastly 5) transfer guidance.

Table 1. Summary of Rural Provider Needs from Clinical Guidance

Rural Provider Guidance Need	Example / Explanation
Visual component or a flow diagram that helps to walk through step-by-step how manage a trauma patient. (Or at least a summary table of recommendations for injury type)	*"A picture is much easier to decipher"* *"The visual graphic helps support my decision making" and "helps consider things I may be missing"*
Readily discoverable and aggregated centrally	*"So, I can find the most relevant guidance for the patient in front of me without having to search for it.* *"App based" akin to "trauma.com" for ease of access and "not having to scour all the associations and journals"*
Endorsement from a centralized body or organization	the American College of Surgeons (ACS) could be "*the stamp of approval.*" to ensure it is meeting validity, collaboration and other needs
Mutual agreement between professional societies	*"I would rather just have a conversation with the expert and do what they want me to do instead of leaving ourselves open to criticism and liability I would rather share the responsibility"*
Resource-relevant / stratified based on the typical resources available (imaging, surgical intervention)	*Participant: "If there's a guideline, it should be evidence-based, and evidence-based practice shouldn't vary between providers so guidelines should be identical between providers […] the best way to stratify is by resources available; make the guidelines "tiered".* *Interviewer: "So I hear you saying, "Boil down the guidelines to things that are necessary to do in a rural setting that will not delay transfer to definitive care."?"* *Participant: "Yes, that's exactly right!"* Without this "tiering", guidance is relevant primarily in high-resource settings. Furthermore, in settings with limited or variable resources, this adds to moral distress and potential liability and risk to rural providers.
Provide information for how to counsel patients who indicate a preference to stay in their community.	It would be helpful to have guidance on how best to discuss or encourage transfer when patients are hesitant, or against patient preference; as one provider put it the "transfer just in case" scenario.

References

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Conclusions

- Rural trauma providers needs should be a focal point when working to improve the creation and dissemination of trauma clinical guidance.
- **Collaboration between medical societies is essential when creating new Trauma Clinical Guidelines.**
- 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.

Implications

- Through these efforts we hope to **decrease the disparate burden of trauma and unintentional injury on rural patients** and their healthcare providers and **increase the visibility of existing TCGs**
- Incorporating these suggestions into TCGs is one means to limiting preventable deaths, increasing the utility of TCGs for not just rural providers
- **Making TCG more generalizable beyond level 1 trauma centers will also reduce the risk of moral injury among rural trauma providers who are not able to provide concordant care due to resource limitations**

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