


Adapt and overcome: next steps in validating military–civilian partnerships

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To cite: Alexander D, Armen S. Adapt and overcome: next steps in validating military–civilian partnerships. *Trauma Surg Acute Care Open* 2024;**9**:e001419. doi:10.1136/tsaco-2024-001419

‘He who would become a surgeon should join the army, and follow it.’ This maxim put forth by Hippocrates over 2000 years ago is easy to accept during times of armed conflict when military surgeons are frequently deployed to trauma intensive practice settings with high surgical volume. However, during times of peace, decreased operative volume and the lack of exposure to complex trauma at military treatment facilities (MTFs) erode surgical skill sets and result in a ‘crisis of conscience’ for military general surgeons.¹ Numerous variations of the military–civilian partnership (MCP) model have been developed during the past two decades to address this discrepancy and craft a mutually beneficial solution that will maintain military surgeon readiness while adding value to established civilian intuitions.²

Dr Lammers *et al* present retrospective data from the University of Alabama at Birmingham (UAB), a busy academic level 1 trauma center with a well-established MCP with US Air Force Special Operations Surgical Teams (SOSTs). They importantly demonstrate that early mortality after emergency trauma laparotomy (ETL) was not adversely impacted when performed by SOST general surgeons, when compared with their trauma fellowship-trained civilian counterparts.³ In the UAB MCP model, military surgeons staff trauma and acute care surgery call as fully integrated members of the faculty complement. During a 3-year period (2019–2022), a prospective database was maintained for all ETLs and 24-hour mortality differences were reviewed. Although median number of cases per surgeon was lower in the military cohort, there were no differences in early mortality nor intraoperative utilization of blood products. Statistical differences were noted for median operative time (129 vs. 110 min), use of resuscitative endovascular balloon occlusion of the aorta (REBOA) (7% vs. 0.2%), and in requesting assistance from the in-house backup attending surgeon (12% vs. 3%).³ The increased use of REBOA is not unexpected considering the emphasis placed on REBOA training by the military and utilization in the austere environment when operating as a solo surgeon. The increased tendency to request help intraoperatively supports the collegiality and culture of safety inherent to both the military and the mature program UAB has developed.

This study represents a necessary step forward in validating the synergistic benefit of embedding

military general surgeons into busy civilian trauma centers, which is a foundational goal of any MCP.² In their model, Lammers *et al* demonstrate patient safety can be maintained while simultaneously providing the opportunity for military general surgeons to practice with the appropriate level of autonomy required to maintain clinical readiness. Future areas of investigation could include analysis of all operations performed, focusing on critical wartime tasks similar to what deployed surgeons would face in theater. Additionally, this would enable case volume and outcome comparisons with general surgeons working entirely at MTFs. In doing so, they can further validate the UAB model as one that supports military operational readiness while demonstrating safety and benefit to the host institution. We congratulate Dr Lammers *et al* for taking the next steps in establishing the role of integrated MCPs as a critical solution to the challenges facing modern military general surgeon preparedness.

Contributors Both authors were responsible for the content and revisions of the commentary.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Commissioned; internally peer reviewed.

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REFERENCES

- 1 Edwards MJ, White CE, Remick KN, Edwards KD, Gross KR. Army general surgery crisis of conscience. *J Am Coll Surg* 2018;**226**:1190–4.
- 2 Knudson MM, Elster EA, Hoyt DB, Bailey JA, Johannigman JA, Scalea TM, Shackelford SA, Gross KR, Eastridge B, Gurney JM, *et al*. The Blue Book: Military–Civilian Partnerships for Trauma Training, Sustainment, and Readiness. Chicago, Illinois: American College of Surgeons, 2020.
- 3 Lammers D, Uhlrich R, Rokayak O, Manley N, Betzold R, Hu P. Comparison of military and civilian surgeon outcomes with emergent trauma Laparotomy in a mature military–civilian partnership. *Trauma Surg Acute Care Open* 2024.



► <http://dx.doi.org/10.1136/tsaco-2023-001332>

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