

Authors' Reply: Are American Surgical Residents Prepared for Humanitarian Deployment? A Comparative Analysis of Resident and Humanitarian Case Logs

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We sincerely thank Mr. David Read for his interest and thoughtful comments on the article entitled “Are American Surgical Residents Prepared for Humanitarian Deployment? A Comparative Analysis of Resident and Humanitarian Case Logs” [1]. His contributions expand the context of our work by highlighting the added value of multidisciplinary surgical teams over more broadly trained individual surgeons.

We agree that, although general surgeons are becoming more specialized, this does not preclude their involvement in humanitarian work. Indeed, a multidisciplinary team that includes a general surgeon, obstetrician–gynecologist, and orthopedist potentially enables humanitarian surgical projects to care for more patients, and the increased surgeon specialization possibly leads to better outcomes [2, 3]. Given that ACGME-defined general surgery cases comprised 30.1%, orthopedic cases comprised 21.2%, and OBGYN cases comprised 46.8% of the 73,934 Médecins Sans Frontières (MSF) procedures evaluated in our study, the AUSMAT teams described by Mr. Read would cover a near-ideal 98.1% of the MSF operative need.

In a perfect world, all humanitarian intervention would involve a wide array of medical specialists, both surgical and non-surgical. The feasibility of such a model, however, is highly context dependent, particularly in face of security, logistical, financial, and human resources constraints. Such constraints, particularly security constraints, typically become more severe just as the situation faced by vulnerable populations becomes more dire.

These constraints often require humanitarian organizations to restrict the number of field staff in any given project. The cost of three surgical sub-specialists over one broadly trained surgeon suddenly becomes more clear when a project coordinator must consequently eliminate two essential staff members, who may be nurses, medical or pediatric physicians, midwives, pharmacists or logisticians.

A multispecialist model also takes little account of the infrastructure required to maximize the efficacy of a surgeon. To do so, one needs more infrastructure—more operating rooms; more anesthetists; more surgical nurses; more surgical instruments, more postoperative care capacity. Each surgeon acts as a resource consumption multiplier. The footprint grows, as does cost. In many cases, growing such a footprint is a logistic impossibility.

Importantly, employment of a broadly trained general surgeon to provide a wide spectrum of surgical care including obstetrics and orthopedics typically does not represent a reduction in level of care below “what is, or was, available locally.” In many LMICs, it is the expectation of the community that the general surgeon be capable of performing obstetrics and orthopedics (not to mention urology and dentistry). Such a model replicates pre-existing levels of care.

The needs on our planet are indeed great, and room exists for many models of surgical care provision. The AUSMAT model seems ideal in settings where security risks are not a leading imperative, and where preexisting infrastructure or space to erect facilities may be more plentiful. But for emergency response organizations whose mandate often involves response in active war zones, where both patients and care providers face omnipresent risk of harm, an AUSMAT model is potentially impractical and unsafe.

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Taking Mr. Read's comments into account, our provocative implication that US-trained general surgical residents are unprepared for humanitarian assignments may have been overstated. A more nuanced, explicit assertion would be that US-trained general surgeons, though prepared to serve in multidisciplinary teams, are unprepared to serve effectively across the full spectrum of humanitarian projects—particularly projects serving the most marginalized and insecure populations.

Unfortunately, until the nature of war itself has changed, the critical need for general surgeons broadly trained in orthopedics, obstetrics, and gynecology will remain. If we fail to respond by educating the next generation of surgical trainees correspondingly, we are not only letting them down, but also depriving the most threatened patients on our planet of a chance at better surgical care.

DK is responding as a private individual and is not speaking on behalf of any organization.

References

1. Lin Y, Dahm JS, Kushner AL, Lawrence JP, Trelles M, Dominguez LB, Kuwayama DP (2018) Are american surgical residents prepared for humanitarian deployment? A comparative analysis of resident and humanitarian case logs. *World J Surg* 42(1):32–39. <https://doi.org/10.1007/s00268-017-4137-x>
2. Sahni NR, Dalton M, Cutler DM, Birkmeyer JD, Chandra A, Wiener M (2016) Surgeon specialization and operative mortality in United States: retrospective analysis. *BMJ* 354:i3571
3. Bilimoria KY, Phillips JD, Rock CE, Hayman A, Prystowsky JB, Bentrem DJ (2009) Effect of surgeon training, specialization, and experience on outcomes for cancer surgery: a systematic review of the literature. *Ann Surg Oncol* 16(7):1799–1808