

# Covid-19 and Ukrainian Crisis Exponentiates the Need for the Inclusion of Conflict and Disaster Medicine in Medical Curriculum

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**ABSTRACT:** Conflict medicine is an age-old branch of medicine which focuses on delivering healthcare services to the injured in the setting of conflicts, wars, disasters, and/or other calamities. The course in its purest form has been traditionally given only in military medical schools while civilian medical students are usually taught parts of the course in other overlapping subjects like surgery, infectious diseases, etc. However, in a crisis situation, civilian doctors are expected to double up as military doctors, which leads to emotional, mental, and physical stress for the civilian doctors along with logistical and organizational challenges. The current Covid-19 pandemic and the Russo-Ukrainian conflict have highlighted once again the emergent need for the implementation of conflict medicine courses in regular medical curricula, so as to make the medical students situation-ready. With our present discussion, we aim to provide a brief overview of the course, its core modules, challenges to its implementation, and possible solutions. We believe that the complex management skills gained by this course are not only useful in conflict scenario but are also valuable in managing day-to-day medical emergencies.

**KEYWORDS:** conflict medicine, crisis, medical education, Ukraine, medicine, disaster

**TYPE:** Commentary

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Conflict medicine, also referred to as catastrophe/defence/military medicine, is an age-old branch of medicine which is as old as the first war itself. Unlike other medical branches, most of the literature regarding conflict medicine is buried in the coffins of the individual doctors, who acted as private vassals of their kingdoms and were forbidden from sharing the findings. In the modern context however, there has been a growing discussion worldwide to implement some form of conflict and disaster medicine as part of routine medical curriculum,<sup>1</sup> more so in the war-torn countries where it conceptualizes practical and real-life experience. The Covid-19 pandemic and the emerging situation in Europe have only exposed the dire need for such training for future medical students.

## What is Conflict Medicine?

Conflict medicine focuses on delivering healthcare services to conflict and war survivors besides providing medical preparation, planning, and recovery throughout the duration of the conflict.<sup>2</sup> The true potential of the field is realized only in the

acute settings of conflict and disaster zones, which partly is the reason to the neglected attitude towards the field in peaceful countries. In the beginning, it was divided into two main branches – military surgery and hygiene with sanitation, with majority of the text written in German (50%), Latin, French, Russian, and English.<sup>3</sup> As time passed, some aspects of the course underwent institutionalization with additions in other courses like surgery, infectious diseases, and first aid. Nowadays however, the course in its pure form is imparted only to military doctors who graduate from military schools or universities. In countries with no military medical schools, the civilian physicians, however, are expected to double up as military doctors, should such situation arise.

## Core Modules in Conflict Medicine

Although the course differs between countries, the core modules are mostly analogous. The course focuses on acquiring skills for quick response and patient management in tense and resource-limited scenarios. Logistical planning and use of creative yet viable alternatives remain at the heart of the



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**Table 1.** Standard core modules in conflict and disaster medicine course (adopted from Faculty of Conflict and Catastrophe Medicine, The Worshipful Society of Apothecaries, England, UK).

No.	Module	Module Description
1.	Epidemiology of disasters & societies affected by conflict	Defining the situation and gathering information. Answering who, what, when, where, why, and how. Gathering data, surveillance, safety risk analysis, and plan of action.
2.	Priorities for intervention in disasters	Setting priorities, WASH (Water, sanitation, and hygiene) requirements, provision of shelter, food, water, clothes, evacuations, logistical modalities.
3.	Recognition, prevention, treatment, and control of communicable diseases and epidemics.	Disease identification, control spread, morbidity, mortality, causes, reporting for surveillance, natural history or history of conflict, treatment possibilities, vaccinations, prophylaxis.
4.	Clinical knowledge	The specialised clinical knowledge which gives the aid worker the ability to deal with the health problems likely to be encountered in the disaster environment. Pre-hospital triage, trauma, surgery, resuscitation principles.
5.	Disaster and conflict environment	Non-medical concepts and subjects important for the understanding and management of catastrophes. Coordination with international stakeholders (Red Cross, UN, WHO, ECDC etc). Humanitarianism, gender neutrality, ethics and codes.
6.	Management and protection of teams and team members	The core knowledge and understanding required to ensure the safe, efficient, and effective operation of individuals and groups attending a disaster or supporting a society affected by conflict.

course. The core modules of the programme are described in Table 1.<sup>4</sup>

Presently, the course is included in majority of universities in the Middle Eastern and North African [MENA] countries,<sup>1</sup> along with some universities in China and Italy, with multiple other countries imparting knowledge as part of other courses. In USA, disaster medicine training remains minimal despite the recommendations by the Association of American Medical Colleges (AAMC) to include it as integral part of medical education.<sup>5</sup> In Germany, federal laws have been enacted mandating medical students to be familiar with disaster medicine principles.<sup>5</sup> In Italy a nationwide pilot programme called DisasterSIMS was developed which reached 88% of the

Italian medical schools between 2013 and 2018. Based on the success, an international version was also developed.<sup>6</sup>

Although medical, dental, nursing, and paramedic professionals remain the major target audience, the nature of the disaster and war demands that ordinary civilians shall also be familiarized. Since most conflict injuries need basic first aid in the first few hours, restricting the course to only medical students could prove to be counter-intuitive. We encourage that public-at-large should be imparted basic knowledge of hygiene, first-aid, safe transportation of injured, and operation of essential medical equipments.

### Challenges to Implementing the Course

A few arguments have been raised against the introduction of conflict and disaster medicine in medical curriculum.<sup>7</sup> Firstly, there is little evidence to support any direct impact of the course on patient management and outcomes in disaster scenario. Secondly, exposing students to mock situations don't fully recapitulate the real-life scenarios. The emotional and stress components of real wars and natural catastrophes can hardly be trained. The course may be offensive towards the sensitivities of certain students and can cause emotional trauma. Additionally, such courses can be very resource- and time-consuming with fears of it rendering traditional curriculum stagnant. Finally, it can be difficult to motivate students regarding the need of such courses, especially in countries which are not so prone to conflicts, disasters, and/or wars.

Implementing changes to medical curriculum is a long and strenuous undertaking, one that requires a clear outline of long-term benefits, goals, and opportunities for students. Incorporation of medical simulations and their benefits including improved attention, response, and retention have been extensively documented.<sup>8</sup> Generally, students tend to prefer simulation-based training in comparison to traditional didactics which are more engaging. While we do appreciate the counterpoints discussed above, some universities have shown that it may not be so difficult as we assume. The Lebanese University has arranged joint curriculum with International Red Cross which provides first-hand training over the weekends and holidays, which have prompted other medical schools in the region to follow suit.<sup>2</sup>

### Conclusions

Challenges remain towards the successful adoption of conflict and disaster medicine as an integral part of medical studies despite strong policy support from various stakeholders. The course is essential for students to improve their capacity for managing complex situations (both physically and emotionally), acting quickly, prioritizing, and making decisions. The skills gained are important not only in conflict scenario but also in day-to-day medical emergencies and work. The Covid-19 pandemic and the

humanitarian crisis in Ukraine have thus once again shed light on the need to include conflict medicine– to be or not to be.

## Declarations

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## Competing Interests:

The authors declare no competing interests in the commentary. The ECOMSIR Collaborative is a non-governmental, non-profit student collaborative and remains neutral to claims regarding any issues including collaborator's institutional affiliations.

## Author Contributions

NJ conceptualized the report, while all authors were involved in the data collection and preparation of the manuscript. Supervision was done by SJ and AR. Project management was done by NJ. All authors have read and agreed to the final version of the report for publication.

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## Ethical Approval

Not applicable, because this article does not contain any studies with human or animal subjects.

## Informed Consent

Not applicable, because this article does not contain any studies with human or animal subjects.

## Trial Registration

Not applicable, because this article does not contain any clinical trials.

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