

## Report from the Field

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# What Do 32 COVID-19 Deployments of Emergency Medical Teams Tell Us about Challenges and Lessons Learned?

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## Abstract

The COVID-19 pandemic showed the vital role of Emergency Medical Teams (EMTs) in international surge responses. The EMTs with their internationally skilled team members were able to meaningfully support countries facing the pandemic, especially those who were suffering from scarcity in the quality and quantity of workforce and financial resources within their health systems. This report summarizes the main operational challenges faced by UK-Med and The Polish Center for International Aid (PCPM) Emergency Medical Teams, based on experiences from their 32 COVID-19 deployments. In particular, the paper discusses the hindrances related to Ministries of Health expectations and the changing roles of EMTs during deployments.

The experiences of UK-Med and PCPM offer critical insights for enhancing global EMT practices. Recommendations include maintaining large rosters of health professionals, refining recruitment processes, and developing standards for specialized cells. Furthermore, prioritizing needs assessments and fostering collaboration with Ministries of Health are essential for efficient EMT deployments. Continuous adaptation and improvement are imperative for a more effective response to future health crises.

The sudden breakout and spread of the COVID-19 virus in late 2019 led to a call for emergent health interventions across the world. Due to global efforts, the implementation of several mediated responses helped to limit the severity of the pandemic. Emergency Medical Teams (EMTs) were a leading force in containing the spread of COVID-19.<sup>1</sup>

The available literature on EMT implementation following disaster responses is currently limited, and thus, any addition to the available literature should be considered in the light of these limitations.<sup>1</sup> This short report lists challenges faced by 2 EMTs, UK-Med and PCPM, in their numerous COVID-19 response operations. Both UK-Med and PCPM were classified by the WHO as EMTs. UK-Med works as a governmental emergency medical team (EMT) as well as independently as a non-governmental organization (NGO). UK-Med has deployed to various settings globally, including natural disasters like earthquakes, hurricanes, and floods, as well as conflict zones and public health emergencies. Examples include deployments to earthquake-affected regions in Nepal, Türkiye, and Haiti, conflict zones such as Gaza and Ukraine, and responses to disease outbreaks like Ebola in West Africa.

PCPM is also a non-profit organization that has deployed to a wide range of settings as well, including conflict zones, and areas affected by natural disasters. They have provided medical assistance in regions such as war-torn Syria, refugee camps along international borders, and communities affected by epidemics like cholera and malaria in sub-Saharan Africa. The aim of this short report is to provide recommendations for EMTs and relevant stakeholders in future international deployments.

The classification and minimum standards for Emergency Medical Teams, updated in June 2021, define EMTs as “groups of health professionals, including doctors, nurses, paramedics, support workers, logisticians, who treat patients affected by an emergency or disaster.”<sup>2</sup> They work according to the minimum standards agreed upon by the EMT community and its partners, and deploy fully trained and self-sufficient so as not to burden an already stressed national system.”<sup>2</sup>

When requested, the international community may offer various forms of assistance, including the deployment of EMTs if local and national responses are insufficient to address the emergency.<sup>3</sup> EMTs may be fielded by non-governmental organizations (NGOs) and others by governments themselves. NGOs are recognized as key third sector actors in humanitarian actions and emergency responses.<sup>4</sup> While EMTs are now acknowledged as an essential part of the global health workforce, particularly during times of acute crises, many challenges are faced by those EMTs when responding to emergencies.<sup>1</sup>

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## Discussion

In this section, the mechanism of deployment and the collaboration with local health authorities are discussed along with the challenges and lessons learned linked to them.

### Mechanisms of Deployments

Tables 1 and 2 show the countries UK-Med and PCPM deployed to during COVID-19 pandemic along with the clinical services provided. Some of the requests came from the Ministries of Health of the affected countries, but others were directed to EMTs through the WHO EMT Secretariat.

The UK-Med and PCPM EMTs deployed in response to the COVID-19 pandemic did not function as full teams, but instead operated as bespoke specialized cells. These specialized cells were formed based on the needs identified by the WHO EMT Secretariat, WHO Country Offices, and respective Ministries of Health (MoH). As well, they accounted for the prior COVID-19 response experience of the EMT members involved. Through this flexible approach, the specialized cells proved highly effective in their work, even though their staffing numbers were considerably lower than those typically deployed by EMTs in response to natural disasters or complex emergencies. This EMT specialized cell approach showed a need

for development of further standards for EMT Specialized Cells to ensure uniformity and quality of response. All deployed members have received pre-deployment training including but limited to medical and safeguarding training as well as debriefing meetings prior to their departure to the affected country. This is accompanied with regular check-ins with headquarters and psycho-social support during the deployments period.

### Shortage in deployable staff

UK-Med had been prepared through establishing a roster of 1200+ register members from the UK and outside UK to deploy diverse teams who are not necessarily coming from one single country or a country that is already affected by similar crises. The UK-Med register was born out of the UK National Health Service (NHS). With over a hundred agreements in place between UK-Med and individual NHS Trusts, staff were historically on an UK-Med on-call roster for a period of several months to be able to respond within the timelines outlined in the WHO Blue Book of EMT Standards. UK-Med undertook to recruit, onboard, and train several hundred international health and operations staff, which mitigated the challenges of staff shortage. This scale up allowed the organization to not only support those initial EMT requests, but also allow for simultaneous deployments due to the

**Table 1.** Two types of COVID missions mounted by EMT PCPM

Type of mission	Clinical care / ICU support	On-job training & preparedness
Composition	2+ doctors, 2–4+ medical staff + support staff x 2–3 shifts/day 7–10 persons x 2–3 shifts/day	2 doctors, 2 medical staff + support staff per hospital 5–7 persons x 1–2 teams
Duration	2–4 weeks Staff rotation after 2 weeks	Varies: from 2–4 weeks to 2–3 months 3–4 days/hospital in case of roving teams
Main tasks	Direct clinical care at ICUs Addressing staffing gaps Surge support during peaks Helping local staff take some rest	On-job training in: <ul style="list-style-type: none"> <li>• Case management of COVID–19 patients</li> <li>• Infection Prevention &amp; Control (IPC)</li> <li>• Triage, patient flow</li> <li>• Use of ultrasound for quick triage</li> </ul>
Prerequisite	License to practice	
EMT PCPM deployments	Italy, Ethiopia	Kyrgyzstan, Tajikistan, Lebanon, Madagascar, Uganda

**Table 2.** Example of types of COVID missions provided by UK-Med

Type of mission	Direct Clinical care response including ICU/HDU support within an embedded host structure	Capacity Building and Training deployment within numerous host structures
Composition	Standard Package developed which consisted of 1 Team Lead, 1 Medical Coordinator, 3 MD's (ED, Ward, ICU), 3 Nurses (ED, Ward, ICU), 1 IPC Specialist, 1 RCCE Specialist	Smaller multidisciplinary team able to move between facilities in country 1 MD (ICU), 2 Nurses (ED, ICU), 1 IPC Specialist
Duration	Normally 6 weeks, with several extending beyond this period Staff rotation kept minimal with most able to commit for duration of deployment	Varied from 4–6 weeks
Main tasks	Hands on clinical care in all departments Support to triage, IPC, patient flows and referral pathways Developing/implementing guidelines and SOPs Mentorship and coaching	On-the-job and dedicated training in: <ul style="list-style-type: none"> <li>• Case management of COVID–19 patients</li> <li>• IPC Protocols</li> <li>• Triage, patient flow</li> <li>• BLS, ACLS</li> <li>• Delivering Training of Trainers programs</li> </ul>
Prerequisite	License to practice	License to practice not required as no direct patient care delivered
Example UK-Med deployment	Botswana, Namibia, Lesotho	Djibouti, Mauritania

availability of more flexible staffing models in the latter period of the pandemic.

In Poland, as in many other countries, the pandemic exacerbated a dramatic shortage of doctors and nurses. As a result, EMT staff were unable to take any protracted leave of absence, or even any unpaid leave or break in service. For PCPM, its medical staff were able to participate in the EMT missions up to the limit of their available annual leave days.

During the pandemic, a global shortage of medical staff with the necessary skillsets imposed a major obstacle to effective national and international responses. According to Parvaresh-Masoud et al,<sup>5</sup> the COVID-19 pandemic significantly increased the need for qualified health care providers. At the same time, the number of available emergency medical staff significantly decreased due to factors such as their affliction by the disease, fear over affliction, family members' request to not work in critical conditions, and staying home to care for afflicted family. Therefore, considerations to retrieve staff from national systems for EMT response outside their country when staff is needed in their own country should be taken into account. Therefore, EMTs are recommended to establish a large roster of health professionals allowing for multiple simultaneous deployments.

### **Unmatched country needs with EMT capacities**

Drawing from previous deployments and establishing a structured set of pre-deployment calls, UK-Med initially engaged with the WHO Country Office to gain a comprehensive understanding of the situation and available resources. Subsequently, discussions were initiated with counterparts from the MoH to facilitate a careful and appropriate negotiation process. Typically, a needs assessment team is deployed to the affected area before determining the composition of the team to be deployed.

Recent case studies illustrate that EMTs are often deployed with little understanding of needs and capacities in affected countries due to the lack of coordination with governmental entities before deployments.<sup>1</sup> Several requests sent out for EMT assistance did not tackle the true issue at hand and often asked for specialists that were either not needed (ex. surgeons) or exceeded requirements (ex. full ICU teams for facilities that had no ICU setup).

Prior to the pandemic, the role of both UK-Med and PCPM EMTs in training and capacity-building was minimal or none, as they were developed to deliver a rapid clinical response capacity as part of the international health care system and defined in the EMT Standards. In contrast to their usual deployments to sudden-onset emergencies, in the COVID-19 pandemic response, EMTs including UK-Med and PCPM were requested to provide training and capacity-building to the hospital staff. Mohammadi et al.<sup>6</sup> showed the crucial need raised by the Emergency Medical Services (EMS) personnel to be mentored and provided with on-the-job trainings, and standard scientific protocol to ensure high-quality care and the safety of patients. However, many EMTs were unprepared for this, and only a few had meaningful training experience, especially in international settings.

### **Establishment of collaboration with MoH in country**

*Needs for clinical licenses for EMTs.* The collaboration of both EMTs with MoHs in each of the deployed countries functioned well, despite challenges in a few to obtain licenses to practice. Direct refusal of several MoH to grant a clinical license to practice to EMT personnel deployed at the request of this Ministry was one of the notable failures of these COVID-19 responses. The EMT clinicians

were allowed to be with the patients only in case a local clinician was with them providing medical interventions. This limited the efficiency of the EMT deployment and where patient care could have been augmented.

*Inadequate support from MoH.* The challenge of inadequate support to EMTs by health authorities and the altered communications between EMTs and governmental entities was addressed by Hamilton et al.<sup>1</sup> A lack of clear communications and delay in services provided showed effects on the mental health of medical personnel. Some deployments were also hampered by inadequate knowledge of EMTs processes, bureaucratic and administrative barriers, and slow mobilization of resources. Other challenges were the lack of critical care equipment and teams facing resistance due to cultural differences.<sup>7</sup>

EMTs deployed on assignments should have the prerogative to terminate their response if they do not possess the requisite licensing credentials. The advent of the pandemic presented unprecedented challenges to states, necessitating rapid and comprehensive responses across various domains, including the licensure protocols for essential health care personnel. In cases where the necessary licenses are not granted, health care professionals may consider returning to their countries of origin as a potentially more suitable course of action. The best way to avoid these negative consequences is conducting appropriate needs assessment to ensure EMTs will be delivering the right services in the right place and ready for reaching full operational status in a timely manner.<sup>8</sup> Ideally, local and national governmental agencies may improve coordination and accountability of effective EMT efforts by conducting those early needs assessments and relaying these findings prior to deployment.<sup>9</sup>

## **Conclusions and Recommendations**

In conclusion, the shared experiences of PCPM and UK-Med in responding to the challenges posed by the pandemic offer valuable insights for the improvement of EMTs on a global scale. The shortage of skilled medical staff emerged as a significant hurdle during the pandemic, highlighting the critical need for a robust and flexible approach to staffing. The ability to recruit, onboard, and train a diverse pool of health professionals allowed for not only supporting initial EMT requests but also facilitating simultaneous deployments.

The pandemic brought to light the necessity for EMTs to adapt their role to include training and capacity building for national staff, challenging the traditional deployment model outlined in the EMT Blue Book Standards. It would be advisable for the WHO EMT Secretariat or an affiliated entity to develop a course on teaching methods in multicultural settings. The utilization of specialized cells, formed ad-hoc to address specific needs, proved effective, emphasizing the need for the development of standardized practices for EMT specialized cells.

Recommendations derived from these experiences include recognizing the advantage of EMTs having a large roster of health professionals available for longer deployment, refining recruitment processes, and establishing standards for EMT specialized cells. Additionally, the narrative highlights the importance of conducting a thorough needs assessments, collaborating with Ministries of Health, and ensuring proper licensing credentials for efficient and effective EMT deployments. Therefore, the global EMT community is encouraged to continuously adapt and enhance their practices, fostering a more agile and responsive approach to all future health crises.

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