Military and Defence Ethics

ETHICAL CHALLENGES FOR MILITARY HEALTH CARE PERSONNEL

DEALING WITH EPIDEMICS

Edited by
Daniel Messelken and David Winkler

ROUTLEDGE

Ethical Challenges for Military Health Care Personnel

This book examines the issue of ethics in the context of the provision of military health care in an epidemic.

Outbreaks of epidemics like Ebola trigger difficult ethical challenges for civilian and military health care personnel. This book offers theoretical reflections combined with reports from recent military and NGO missions in the field. The authors of this volume focus on military medical ethics adding a distinct voice to the topic of epidemics and infectious diseases. While military health care personnel are always crucially involved during disaster relief operations and large-scale public health emergencies, most of the current literature treats ethical issues during epidemics from a more general perspective without taking into account the specifics of the military context. The contributions in this volume provide first-hand insights into some of the ethical issues encountered by military health care personnel in missions during the Ebola outbreak in 2014/15. This practical perspective is complimented by academic analyses and theoretical reflections on ethical issues associated with epidemics.

This book will be of much interest to students of military studies, ethics and African politics.

Daniel Messelken is Research Associate at the at the University of Zurich, Switzerland, where he leads the Zurich Center for Military Medical Ethics.

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There is an urgent and growing need for all those involved in matters of national defence – from policymakers to armaments manufacturers to members of the armed forces – to behave, and to be seen to behave, ethically. The ethical dimensions of making decisions and taking action in the defence arena are the subject of intense and ongoing media interest and public scrutiny. It is vital that all those involved be given the benefit of the finest possible advice and support. Such advice is best sought from those who have great practical experience or theoretical wisdom (or both) in their particular field and publication of their work in this series will ensure that it is readily accessible to all who need it.

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Introduction to the volume

Daniel Messelken and David T. Winkler

The subject of this book, ethical challenges for (military) health care practitioners during epidemics, is unfortunately of lasting relevance, not only in view of the 2014/15 outbreak of the Ebola virus disease in West Africa but also with regard to the high likelihood of similar and recurring events in the future. Throughout human history, diseases like the plague, cholera, smallpox, or aggressive flu variants have reached epidemic or pandemic levels and killed millions. The increased volume and ease of international travel have increased the speed with which diseases can spread and within recent years SARS, MERS, Zika, and Ebola have all threatened populations (Sands et al., 2016). Despite the fact that epidemic outbreaks of communicable diseases necessitate complex responses that regularly involve military actors with their logistic and medical capabilities, the literature on the topic almost exclusively focuses on civilian efforts in cases of such disasters. However, military actors are often decisively involved if not at the forefront of responding to disasters and large-scale public health emergencies.

This book aims to fill a gap in the literature and amend the discussion of ethical issues in epidemic response and preparedness by adding analyses of the specific aspects that come with the deployment of military assets in the context of epidemic disease outbreaks. It does so by bringing together authors from both academia, with their analytical skills, and contributors who can directly report their experiences in the field as members of military or humanitarian emergency response teams. The dialogue between these quite different authors and their texts has proven productive during the annual workshops of the International Committee of Military Medicine (ICMM) on Military Medical Ethics held in Switzerland and it remains thought-provoking in written form as well.

In our introduction to the volume, we want to first clarify some important (medical) terms and concepts which some readers may not be familiar with. We will then give a short overview on the development of the Ebola disease outbreak in West Africa in 2014/15 before briefly discussing the central ethical issues that arise during epidemics. Finally, we will present the contributions to this volume and show how they interrelate in looking at the topic from different perspectives and with different backgrounds.

Disease, epidemics, and pandemics – some clarifications

Prior to embarking on the discussion, we should start by clarifying some terms that are often used but nevertheless may not be familiar to everyone. This is not only useful to avoid confusion and misunderstanding but will also already help to introduce the context in which the contributions should be read. Of these it is most important to clearly distinguish between infectious diseases, epidemics, and pandemics.

Infectious diseases, according to the WHO, "are caused by pathogenic micro-organisms, such as bacteria, viruses, parasites or fungi" and, by definition, "can be spread, directly or indirectly, from one person to another."[1] Nothing is thus implied regarding the severity or the deadliness of the disease and the number of cases that occur. Typical examples of regularly occurring infectious diseases are influenza or salmonellosis. In tropical countries, malaria and dengue fever can be added to the list. Among the most famous and most feared of infectious diseases are plague, smallpox, typhoid, cholera, tuberculosis, and also Ebola.

The occurrence of some cases of an infectious disease alone is not sufficient to talk of an epidemic, neither does an epidemic presuppose an infectious disease. Epidemics are defined, in the *Oxford Dictionary of Epidemiology*, as the "occurrence in a community or region of cases of an illness, specific health-related behaviour, or other health-related events *clearly in excess of normal expectancy*" (Porta, 2014, p. 93, emphasis added). Epidemics are thus essentially defined by the number of cases and not by the nature of the illness.

> The number of cases indicating the presence of an epidemic varies according to the agent, size, and type of population exposed; previous experience or lack of exposure to the disease; and time and place of occurrence. Epidemicity is thus *relative to usual frequency* of the disease in the same area, among the specified population, at the same season of the year.
>
> (Porta, 2014, p. 93, emphasis added)

A similar definition is proposed by the WHO.[2] The important and distinguishing criteria for the occurrence of an epidemic is thus a higher number of cases compared to the usual and expected occurrence of an illness.

In contrast to an epidemic, a pandemic is defined by the larger geographical area that it affects. A pandemic is thus defined as an "epidemic occurring over a very wide area, crossing international boundaries, and usually affecting a large number of people" (Porta, 2014, p. 209). This has indirect consequences on the kind of illnesses that have pandemic potential, as they must be able to spread quickly in order to reach a certain level of geographical coverage. "Characteristics of an infectious agent influencing the causation of a pandemic include: the agent must be able to infect humans, to cause disease in humans, and to spread easily from human to human" (Porta, 2014, p. 209).

Most often, the immediate reaction to epidemics are public health measures that are both planned and executed by the (national) public health systems. Thus,

it is usually civilian actors that are on the "front line" and the existing health care system that is relied upon. If the military and their health care services are involved, it is also most of the time on a national level, such as during the SARS or H1N1 crises, where no transnational deployment of military health care personnel were required. This was different during the Ebola outbreak in 2014/15, which resulted in new challenges to the military health services that were involved in the international effort to avert the escalation of the Ebola epidemic to a global pandemic.

The development of the Ebola epidemic in West Africa in 2014–16

The Ebola virus is fortunately only endemic among some species of animals such as certain bats and apes; however, this means that every occurrence of Ebola among human populations has the potential to reach the level of an epidemic as it can be considered to be "in excess of normal expectancy." This is compounded by the fact that the Ebola disease is one of the world's most infectious diseases and spreads easily and quickly after a first infection occurs. The fact that Ebola, like other forms of haemorrhagic fevers, has a very high mortality rate is only relevant with regard to the question of an epidemic insofar as dead bodies remain carriers of the disease and burials of the first victims act as the starting point for Ebola disease epidemics – as was the case in 2014 (Baize et al., 2014). Densely populated areas or communities that live very closely together with poor hygienic standards are also factors that contribute to the spreading of communicable diseases, all of which were present in the affected countries in West Africa. Nevertheless, the massive Ebola disease outbreak in 2014–16 was largely underestimated at the beginning, even by international bodies such as the World Health Organization (WHO).

According to research findings, the 2014–16 Ebola disease epidemic in West Africa started in a small village in the Guéckédou Province of the Republic of Guinea, where a one-year-old infant who had died in December 2013 has been identified as the first victim of the outbreak (Baize et al., 2014). Soon after his death, several family members also showed similar symptoms and some of them passed away. Others who had been close or attended one of the funerals were infected too, and furthered the spread of the disease in the region. It took a while, however, until Ebola was suspected to be the reason for the "mysterious disease characterized by fever, severe diarrhoea, vomiting, and an apparent high fatality rate" (Baize et al., 2014, pp. 1418–1419). Until then, the Ebola disease had never occurred in the West African subcontinent. In early March 2016, regional hospitals alerted the Ministry of Health in Guinea and also Médecins Sans Frontières, which was running a malaria project in the vicinity, and subsequent laboratory investigation proved that the "mysterious disease" was Ebola. As a result, on 21 March 2014 the Guinean Ministry of Health declared an outbreak of the Ebola disease and four days later the WHO stated that it was notified

> of a rapidly evolving outbreak of Ebola virus disease in forested areas south eastern Guinea.… As of 25 March 2014, a total of 86 suspected cases including 60 deaths (case fatality ratio: 69.7%) had been reported. Four health care workers are among the victims.[3]

Interestingly, the WHO statement ended by saying that the "WHO does not recommend that any travel or trade restrictions be applied to Guinea in respect to this event." By late May 2014, the outbreak had reached Conakry, Guinea's capital, and the disease also spread to neighbouring Liberia and Sierra Leone. On August 8, 2014, the WHO declared that the outbreak had reached the level of a public health emergency of international concern.[4] Case numbers continued to grow, reached their peaked in late 2014, and started to decline thereafter. Contrary to widespread fears, only isolated cases occurred outside the affected region. By June 2016, all affected countries had been declared free of Ebola and, by the time of writing, no new cases have been reported.

Looking back, the Ebola epidemic in 2014–16 was the largest outbreak of the Ebola disease in history. Between 2014 and 2016, more than 28,000 confirmed cases of Ebola occurred and more than 11,000 patients died of Ebola, mainly in Liberia, Guinea, and Sierra Leone, with few cases in neighbouring countries or among expats. In comparison, *all* previous outbreaks of the Ebola disease combined had "only" resulted in 2,427 reported cases and 1,597 fatalities.[5] In addition to these direct victims of the epidemic, there was also an important indirect impact on the health care system and public health in general, which has been neglected in the media coverage. According to the figures of the Centers for Disease Control and Prevention (CDC), more than 500 health care workers in West Africa died of Ebola, which amounts, for example, to an 8 percent loss of the health care workforce in Liberia. As another indirect and rather "hidden" side effect of the concentration of the fight against Ebola, it is estimated that approximately 10,000 additional people died of malaria, tuberculosis, or HIV as a result of the reduced availability of general health care owing to focus on the fight against Ebola. The situation in the affected countries in West Africa did therefore fulfil the criteria of a disaster, which is defined as "a sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community's or society's ability to cope using its own resources."[6]

The epidemic had hit countries with already weak or deficient health care systems that lacked the resilience to cope with the crisis created by the Ebola epidemic. As a result, they were further negatively affected, being unable to cope and requiring external assistance. These severe impacts occurred even though the (international) responses were eventually much bigger and much more organized than during previous occurrences of Ebola. By the end of 2015, more than 3.6 billion US dollars had been spent for Ebola response activities and several countries from around the world had also mobilized and deployed logistical and medical support to the affected region.

One reason why international reaction to the epidemic was eventually so extensive is probably to be found in the strong media attention that the outbreak received. Both the nature of the disease and the potential of a global pandemic were factors that favoured a broad public interest and it is difficult to judge at what point the coverage become a media hype and what would amount to justified coverage. The fear or even panic of a pandemic that spread around the world also led to extensive security measures, for example at airports. The dense and extensive infrastructure of today's interconnected world with frequent and direct flight connections suddenly begun to be seen as a risk factor as not only people but also the virus could travel long distances. In addition, the 2014–16 epidemic did not only occur in a remote jungle but quickly reached cities with international airports. Compared to previous outbreaks of the Ebola disease, the changed international environment, which is now much more interconnected both physically (flight connection) and virtually (social networks), played its role in generating risks and perception. Fortunately, the pessimistic forecasts, which predicted up to 1.4 million Ebola victims (Meltzer et al., 2014, p. 3), did not become a reality.

A remarkable particularity of the 2014–16 epidemic was the large involvement of international military health care providers sent by countries such as Russia, the USA, the UK, and Germany in order to curb the spread of the disease and prevent a pandemic. Interestingly, it may have been the call of an NGO that led to these deployments. In September 2014, Médecins Sans Frontières (MSF), which was the first and, over the whole epidemic, the strongest nonstate actor to respond on the ground,[7] urged the international community to strengthen their support. In a speech to the UN, MSF president Joanne Liu urged "that states immediately deploy *civilian and military assets* with expertise in biohazard containment" (Médecins Sans Frontières, 2015, p. 13, emphasis added). This public appeal for (logistic and medical) support from the *military* is probably unprecedented in the history of MSF and emphasizes how difficult the situation on the ground had become. As a result, a number of (non-African) countries deployed military personnel to take part in specific Ebola missions. It is the involvement of military personnel in the 2014–16 outbreak that differentiates it from other outbreaks and that was the reason for this volume that looks at the challenges that these military actors had to face. For them, these deployments were somehow a new kind of mission as they do not belong to the traditional tasks of the military, even though one might see them as an expanded kind of humanitarian intervention or civil–military cooperation.

Medical aspects of the 2014–16 Ebola epidemic

Epidemics are particularly frightening when provoked by infectious agents that are highly contagious and/or cause a very high fatality rate. Severe epidemics and pandemics have been occurring repeatedly over the last centuries, with outbreaks of smallpox and measles, followed by Russian influenza, Spanish influenza, and the respiratory syndromes MERS (Zumla et al., 2015) and SARS