



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

War in the time of COVID-19: humanitarian catastrophe in Nagorno-Karabakh and Armenia



As a small country with a population of 3 million, Armenia has been severely affected by the COVID-19 pandemic, and for several months was among the countries with the highest prevalence of COVID-19.¹ On Oct 23, 2020, the number of confirmed cases was 70 836 and the number of new daily diagnosed cases reached 2484. As a result, Armenia is now the second country in the world with the highest number of new daily diagnosed cases per person (778 cases per million per day), overtaking only the Czech Republic (1321 cases per million per day).¹

The first case of COVID-19 in Armenia was registered at the beginning of March, 2020, and on March 16, the country declared a state of emergency and went into lockdown. During the next few months, the numbers rose substantially; but by the end of the summer, Armenia was able to flatten the curve. Although there was some increase in the number of cases because of the opening of schools, the number of new daily cases on Sept 26 was 328, and the country had started to overcome the threat from this global pandemic. Unfortunately, this success was short-lived, as another catastrophe began.

Nagorno-Karabakh (also known as Artsakh) is a former partly self-governing region of the Soviet Union, historically inhabited by the Armenians. The status of this region has been disputed between Azerbaijan and Armenia since the collapse of the Soviet Union. Since 1991, it has been a *de facto* independent state, although not recognised by the UN. On Sept 27, 2020, Azerbaijan initiated a large-scale war against Nagorno-Karabakh. The conflict was complicated by the open involvement of Turkey, allied with Azerbaijan, providing substantial military and political backing, which has been independently verified by several major media outlets.^{2,3} Ballistic missiles, drones, and other heavy artillery have been used, resulting in multiple civilian deaths and injuries. Hospitals, churches, kindergartens, and schools were hit during the bombardment and missile attacks, which included the use of internationally banned cluster bombs.⁴ As a result of the intensive bombardment of Nagorno-Karabakh by the Azerbaijani armed forces, by October 8,

it was reported by the Guardian that half of the entire Karabakh population, mainly women, children, and the elderly, have already been displaced to Armenia, further exacerbating the humanitarian catastrophe in this region.⁵ Several coauthors and signatories of this Comment have witnessed the bombardment of the capital, Stepanakert, when delivering medical care for those in need. Several of our colleagues were killed during this commitment.

As a result of these unrelenting attacks, large numbers of people have been wounded and require medical care, which has put the Armenian and Nagorno-Karabakh health-care systems under unprecedented pressure. This strain has forced many of the existing COVID-19 centres to shift their scope, and most non-emergency medical care has either been delayed or cancelled. Although a ceasefire was agreed on Nov 9, the situation remains volatile and previous ceasefires have proven short-lived.

Since the start of the war, the daily number of COVID-19 cases in Armenia has increased 8-fold.¹ Nagorno-Karabakh, with a population of 150 000, had been able to control the pandemic situation before the war with a total number of 300 cases; however, at present, because of widespread destruction and displacement of people, it is virtually impossible to track the COVID-19 situation on the ground. Furthermore, regular bombardments forced residents in the major cities within Karabakh to seek refuge in large groups in basements and bunkers within confined spaces, thus increasing the chance of further spread of the virus.

With this Comment, we, as individuals and physicians from different countries and nationalities, call on our colleagues from all over the world and international medical community to pay attention to this crisis, and raise their voice against war in Nagorno-Karabakh with its ensuing humanitarian catastrophe. We urge our colleagues to pressure their governments to exercise every effort to avoid further military aggression during a global pandemic and to facilitate international humanitarian assistance to the health-care system of Nagorno-Karabakh and Armenia, both with resources and professional help.

We declare no competing interests.

Published Online
November 27, 2020
[https://doi.org/10.1016/S2214-109X\(20\)30510-6](https://doi.org/10.1016/S2214-109X(20)30510-6)

Copyright © 2020 The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY-NC-ND 4.0 license.

**Airazat M Kazaryan, Bjørn Edwin, Ara Darzi, Gevorg N Tamamyan, Mushegh A Sahakyan, Davit L Aghayan, Åsmund A Fretland, Sheraz Yaqub, Brice Gayet, on behalf of the Doctors Against The War collaborators*†
kazair@so-hf.no

See Online for appendix

†For the Doctors Against The War collaborators see appendix

Department of Gastrointestinal Surgery, Østfold Hospital Trust, Grålum 1714, Norway (AMK); Intervention Centre, Oslo University Hospital, Rikshospitalet, Oslo, Norway (AMK, BE, MAS, DLA, AAF); Chair of Faculty Surgery Number 2, IM Sechenov First Moscow State Medical University, Moscow, Russia (AMK); Department of Surgery Number 1, Yerevan State Medical University after M Heratsi, Yerevan, Armenia (AMK, MAS, DLA); Department of Hepatopancreatobiliary Surgery, Oslo University Hospital, Rikshospitalet, Oslo, Norway (BE, MAS, DLA, AAF, SY); Institute of Clinical Medicine, University of Oslo, Oslo, Norway (BE); Institute of Global Health Innovation, Imperial College London, London, United Kingdom (AD); Pediatric Cancer and Blood Disorders

Centre of Armenia, Haematology Centre after RYeolyan, Yerevan, Armenia (GNT); Department of Paediatric Oncology and Haematology, Yerevan State Medical University after MnHeratsi, Yerevan, Armenia (GNT); and Department of Digestive Oncologic and Metabolic Surgery, Institut Mutualiste Montsouris, Université Paris Descartes, Paris, France (BG)

- 1 Our World In Data. Coronavirus pandemic data explorer. <https://ourworldindata.org/coronavirus-data-explorer> (accessed Oct 23, 2020).
- 2 Abdulrahim R. Turkish-backed Syrian fighters join Armenian-Azeri conflict. Oct 14, 2020. www.wsj.com/articles/turkish-backed-syrian-fighters-join-armenian-azeri-conflict-11602625885 (accessed Oct 23, 2020).
- 3 McKernan B. Syrian recruit describes role of foreign fighters in Nagorno-Karabakh. Oct 2, 2020. www.theguardian.com/world/2020/oct/02/syrian-recruit-describes-role-of-foreign-fighters-in-nagorno-karabakh (accessed Nov 20, 2020).
- 4 Amnesty International. Armenia/Azerbaijan: civilians must be protected from use of banned cluster bombs. Oct 5, 2020. <https://www.amnesty.org/en/latest/news/2020/10/armenia-azerbaijan-civilians-must-be-protected-from-use-of-banned-cluster-bombs/> (accessed Nov 20, 2020).
- 5 France-Presse A. Half of Nagorno-Karabakh population displaced by Armenia and Azerbaijan clashes. Oct 8, 2020. www.theguardian.com/world/2020/oct/08/half-of-nagorno-karabakh-population-displaced-by-armenia-and-azerbaijan-clashes (accessed Nov 20, 2020).