

EDITORIAL



Cancer patient care during different war times; is the response too slow?

War is a major action of provoked humanitarian destabilization, and the recent Russian invasion of Ukraine is no exception, leading to human disqualification and global uncertainty. All past conflicts have left vulnerable people in despair across involved countries and geopolitical areas of interest. These conflicts have taught many lessons concerning the routine management of chronic diseases, such as cancer. Have they been learned though?

An abrupt decline in health sector financial funds has a predictable impact on prevention, immunization, health promotion, rehabilitation and cure of displaced populations. During war, environmental pollutants (i.e. dust and droplets in air and water), leukemogen, benzene and pyrophoric depleted uranium are induced, provoking unavoidable risk factors for hematologic malignancies and certain solid tumors.^{1,2}

As a result of bombing, hospitals and national grid are structurally and functionally damaged. Road blockage, limited supply of electricity and insufficient maintenance, lack of medical supplies and depletion of human resources make health care provision disrupted,³ without undermining the emotional burden on the health care employees who only have the obligatory 'choice' to act as heroes. Deficits in routine imaging diagnostics lead to a more advanced or unknown disease stage. There is also a delay in pathological diagnosis (i.e. applying immunophenotyping and immunohistochemistry on analyzed specimens). Post-traumatic stress, depression, personal and social fear, lack of family or community support with loss of dignity and unavailability of public services impact patients' care access and availability or viability of therapeutic care.^{1,4-6}

Oncology units' capacity decreases (i.e. single bedrooms occupied by double or triples)³ mainly due to orthopedic and war surgery emergencies, as survival changes meaning. Limited treatment opportunities adversely affect cancer-specific survival rates.^{1,4-6} Many patients seek care in neighboring cities or countries (conflict-induced cross-border travel). Less strict entry visa regulations (i.e. smaller fee) and/or a shorter-distance travel are the most important criteria in choosing a country as treatment destination, placing luck as the unique variable affecting the outcome. As the treatment cost exceeds patients' incomes, they are obliged to even sell their properties.⁷

Economic and political punitive sanctions applied decrease imports and affect high-tech equipment needed

for meticulous oncologic surgery (e.g. osseointegrated and modular tumor prosthesis used for treating limb sarcoma).^{2,8,9} A substantial economic assistance through host countries and humanitarian agencies [i.e. Exceptional Care Committees (ECC) of the United Nations High Commissioner for Refugees (UNHCR)] is therefore warranted.^{8,10} There is also a public insurance inability to cover expensive novel chemotherapy and biologic agents. Further, there is diversity in the operating procedures based on systemic therapy cost. Depending on the patient's age, it does not cover patients in the terminal stage of the disease.¹⁰ A shortage of analgesics and a lack of infection control procedures influence cancer management.^{5,9} The import of some chemotherapeutic agents as well as devices that use radiation, such as scanners and radioisotopes, is prohibited because they are categorized as potential war weapons.^{1,5,7} Positron emission tomography scan is not feasible and, subsequently, the whole therapeutic management is affected. Pediatric and adolescent patients may die of curable malignancies (i.e. Ewing sarcoma) and survival rates are lower than in developed nonwar countries.⁵

Hospitals operate with a limited number of oncologists, with no involvement of primary care providers. The main delivered service is day acute care and there is inability to handle therapy toxicity, with no palliative care and end-of-life support. Difficult communication between damaged and separated hospital branches has a negative impact on organizing and coordinating hospital services (i.e. multidisciplinary teams and discussions). There is a need for continuous support from another oncology center, or collaboration with foreign university volunteers, through a telemedicine program. There are difficulties in data collection and processing before participating in clinical trials due to the unavailability of administrative assistance.³ Real-world trials become real war trials, without any intention to literally exaggerate.

Electricity is essential for the functioning of radiotherapy and brachytherapy equipment, and with its shortage even sophisticated devices such as these become useless.^{4,5} The lack of (i) functional machines, (ii) regular equipment maintenance, (iii) quality assurance measures and (iv) the presence of new equipment result in a long irradiation waiting list and demand prolonged times under the machine.^{5,11} In Iraq, mean interval times between (i) referral and starting date of any palliative treatment was ~19 days and (ii) simulation and radiotherapy starting date in the curative setting was postponed by ~35 days.¹¹

Obtaining an ID registration number is important for patients with cancer. Changes in residency and phone

numbers lead to the absence of medical history and regular follow-up.^{3,11} As for unregistered refugees, they receive a refugee status to be considered for UNHCR support. Protracted health care is referred to the UNHCR's ECC, to provide full or partial therapies.¹⁰

Brain drain occurs dramatically, because the most highly skilled and competent physicians and academics may leave the in-war state¹² as scientific refugees. The need for continuing education, practicing professionals' accreditation and certification, qualified board-certified trainers, clinical training institutions and complete students' training^{3,9,12,13} may influence decisions taken in the scientific capital of the threatened country.

Most recent conflicts have not made a great impact on Western countries so far. However, with the ongoing Russian–Ukrainian war, Europe is most likely going to be affected and many countries are manifesting their support in this unprecedented European crisis.

We should all act together to stop this tragedy. A more person-centered, organized and coordinated approach toward patients with cancer is essential. There is also a need for a triage process to safely direct patients toward cancer management, as well as an implementation of electronic medical records universally. In addition, further financial support of host countries is important to cover accommodation and treatment costs for refugee patients. Cancer management has also been delayed due to coronavirus disease 2019 (COVID-19) restrictions, and thus facilities that are crucial for cancer treatment must be found, along with a provision of psychological support for patients and their caregivers. We should not let linguistic and cultural differences become a barrier to our humanitarian duty of helping people in need.

Cancer disease and war have some common threads. Both are influenced by many determinants that may be preventable and deserve great attention and effort, as the chain of sinister events, leading to both, is usually accumulated toward the critical point of equilibrium loss, and both share malignant routes toward chaos and life deprivation. Information included in this brief report reflects common perceptions and expected meanings. The paradox is that while discussing about war, we usually focus on geopolitical issues or tactics and forget that human lives and needs are, for many reasons, vulnerable in war times.

M. Tolia^{1,*†}, K. Kamposioras^{2,†}, E. K. Symvoulakis³, D. Mauri⁴, P. Skouras⁵, D. Schizas⁶, N. Charalampakis⁷, I. Kokakis⁸, D. Matthaïos⁹, I. Gazouli⁴, K. Ferentinos¹⁰, C. Girvalaki¹¹ & K. Apostolidis¹¹

¹Department of Radiotherapy, School of Medicine, University of Crete, Heraklion, Crete, Greece;

²Department of Medical Oncology, The Christie NHS Foundation Trust, Manchester, UK;

³Clinic of Social and Family Medicine, School of Medicine, University of Crete, Heraklion;

⁴Medical Oncology, University of Ioannina, Ioannina;

⁵Medical Faculty, School of Health Science, University of Thessaly, Larissa;

⁶First Department of Surgery, National and Kapodistrian University of Athens, Laikon General Hospital, Athens;

⁷Oncology Clinic, Metaxa Hospital, Piraeus;

⁸First Department of Radiology, Radiotherapy Unit, Aretaieion University Hospital, Medical School of Athens, Athens;

⁹Oncology Department, General Hospital of Rhodes, Rhodes;

¹⁰Department of Medicine, School of Medicine, European University Cyprus, Nicosia, Cyprus;

¹¹European Cancer Patient Coalition, Brussels, Belgium (*E-mail: mariatolia@uoc.gr).

Available online 11 August 2022

<https://doi.org/10.1016/j.esmooop.2022.100557>

FUNDING

None declared.

DISCLOSURE

The authors have declared no conflicts of interest.

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