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Authors

Piccoli, Giorgina B
Brunori, Giuliano
Gesualdo, Loreto
[et al.](#)

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The impact of the Russian–Ukrainian war for people with chronic diseases

Giorgina B. Piccoli¹✉, Giuliano Brunori², Loreto Gesualdo³ and Kamyar Kalantar-Zadeh⁴

People with chronic diseases are at high risk of becoming innocent victims of the Russian–Ukrainian war, owing to interruption of their health care. More than 10 million Ukrainian people have left their homes and almost 5 million have left the country. Provision of kidney care for these refugees is an emerging challenge.

“Many patients with severe chronic diseases will die owing to a lack of medical care”

A war is a war, even when euphemisms such as ‘special military operation’ are used by the perpetrators. Currently, more than 70 wars are ongoing and more than 400 million children are living in conflict zones worldwide. For everyone involved, war results in destruction, pain and disbelief. The Russian–Ukrainian war is no different in this regard, although it is happening in Europe, involves enormous military forces and could lead to nuclear conflict. Notwithstanding the atrocities that are being committed against civilians, this war highlights the devastating impact that the disruption of modern health-care systems can have on ordinary people, particularly those with chronic diseases.

Since 1950, life expectancy at birth has increased from around 62 years in Europe to >80 years in the European Union¹ and from about 50 years in the USSR to 72.5 years in Ukraine and around 73 years in Russia^{2,3}. The prevalence of chronic diseases has also increased, partly as a result of improved survival owing to better medical care. The available data for 2017–2020 suggest that the prevalence of chronic diseases in Ukraine is similar to that in the European Union; for example, 25–30% of adults in the European Union and 30% of adults in Ukraine have hypertension⁴, and up to 8% of adults in the European Union and 5.6% of adults in Ukraine have diabetes mellitus⁵. Around 10% of adults in the European Union are estimated to have chronic kidney disease, but equivalent data for Ukraine are not available⁶. As the median age of the Ukrainian population (40.6 years in 2022 (REF.⁷)) is several years lower than that of the European Union (44.1 years in 2021 (REF.⁸)), we can very conservatively assume that at least 15 million Ukrainian people have chronic diseases.

The war is disrupting health-care infrastructure and organization in Ukraine, and the economic sanctions that have been imposed on Russia will probably also deleteriously affect the Russian health-care system. The prevalence of dialysis and kidney transplantation can be considered indicators of chronic disease care. In 2017, approximately 854 patients per million population (pmp) were receiving kidney replacement therapy (KRT) in

European countries compared to 210 pmp in Ukraine alone and 333 pmp in Russia⁹. The unadjusted incidence of KRT in Ukraine (37 cases pmp) was also lower than in Russia (67 cases pmp) and the European Union (127 pmp). However, the incidence and prevalence of KRT, as well as the number of kidney-transplant recipients, in Ukraine has considerably increased in recent years as a result of progressive implementation of **health-care reform** that was established in 2017 (REF.¹⁰). A Ukrainian registry of kidney-transplant recipients was set up and more than 300 deceased-donor kidney transplants were performed in 2021, the highest number in the country since independence. Before the war began, more than 11,000 patients in Ukraine were receiving KRT; they could choose their dialysis centre and modality, and they could obtain immunosuppressive drugs, erythropoietin, iron supplements and phosphate binders free of charge¹⁰. The current situation is very complex and, although kidney care might still be available in some areas, information — particularly from war zones in which health care is likely to have been completely disrupted — is difficult to obtain.

The challenges that are now being faced by people with chronic diseases in Ukraine are aggravated by a lack of medications for acute diseases (such as antibiotics) at a time when basic needs such as heating, electricity and clean water are not being met, owing to the war. Many patients with severe chronic diseases will die owing to a lack of medical care, including those with kidney failure who are unable to access dialysis. These patients are particularly vulnerable as a treatment interruption of even a few days can be life-threatening.

Estimates from the **UN Refugee Agency** as of 10 April 2022 suggest that more than 4.5 million refugees, mainly women and children, have escaped from Ukraine. If the war continues, this figure — which was initially projected to reach 5 million refugees in Europe alone — might eventually double. If major cities are evacuated of civilians, the next wave of refugees will probably consist mainly of older people with a high prevalence of chronic diseases. Even if the war ends now, many Ukrainian

¹Nephrologie, Centre Hospitalier Le Mans, Le Mans, France.

²Division of Nephrology, Santa Chiara Hospital, APSS, Trento, Italy.

³Nephrology, Dialysis and Transplantation Unit, University of Bari Aldo Moro, Bari, Italy.

⁴Division of Nephrology, Hypertension, and Kidney Transplantation, University of California Irvine (UCI) College of Health Sciences, Irvine, CA, USA.

✉e-mail: gpiccoli@yahoo.it

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“ peace is the first and most fundamental requirement for human health ”

hospitals will need to be rebuilt. If five million Ukrainian refugees enter other European countries, we can expect that at least two million — including half a million people with chronic kidney disease — will need chronic disease care. Even in high-income countries, health-care resources will probably be strained, particularly in regions in which refugees concentrate. In Poland, paediatric units are already reported to be saturated and dozens of children are being transferred to other countries, including Italy. European countries should be prepared not only to open schools and provide shelter, but also to adapt the capacity of health care for projected needs to avoid overwhelming health-care resources. Disruption of the health-care education system in Ukraine is of further concern. European countries should be ready to support Ukrainian nursing and medical students to ensure that a new generation of nurses and physicians are ready to participate in rebuilding health-care services after the war.

Nephrology societies worldwide are increasingly focusing on education with the aim of increasing awareness of kidney health and preventing kidney disease. They highlight the importance of a healthy lifestyle, normalization of blood pressure and early treatment of comorbidities such as metabolic bone disease and anaemia. However, the Russian–Ukrainian war reminds us that peace is the first and most fundamental requirement for human health.

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Competing interests

The authors declare no competing interests.

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