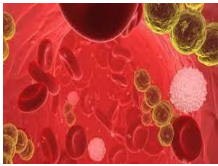


Premature mortality burden due to sepsis in the Belgrade population during the COVID-19 pandemic

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Key message 1 The men and elderly had the highest premature mortality due to sepsis.

Key message 2 The YLL due to sepsis in 2022 was 2.8 times higher than in 2020.

Background: Sepsis represents a major global problem in terms of associated morbidity, mortality, and social and economic losses. As a time-dependent and life-threatening disease, sepsis requires preparedness for prompt and standardized quality treatment, especially during public health crises. The burden of sepsis is understudied in Serbia, and in this research, we estimated the premature mortality due to sepsis in the Belgrade population during the COVID-19 pandemic.

Methods: Years of Life Lost (YLL) were calculated for sepsis (International Classification of Disease 10th revision: A41) as the main cause of death in Belgrade from 2020 to 2022. The Vital Statistics Reports of the Republic Statistics Office of Serbia provided annual data on deaths, life tables and estimated number of inhabitants disaggregated by five-year age groups and sex.

Results: During the *COVID-19 pandemic* in Belgrade, the YLL due to sepsis was increasing from 718.5 YLL in 2020, to 958.8 YLL in 2021, and 2004.7 YLL in 2022. The men had higher YLL due to sepsis than the women. The highest values of YLL were estimated for deaths in the age of 70-74 years.

Conclusion: This study is the first to provide estimates of the premature mortality due to sepsis in the Belgrade population during the COVID-19 pandemic. Since the pandemic may have added to the burden of sepsis, future studies need to provide more insights into pre-pandemic trends in sepsis incidence, case fatality and associated premature mortality to help inform policies and measures to improve the quality and safety of healthcare provision.