

Croatian blood collection system amid the COVID-19 pandemic

Ivan Miskulin

M Miskulin¹, P De Marchi¹, T Domacinovic¹, N Pavlovic¹, D Nujic¹, I Miskulin¹

¹Department of Public Health, Faculty of Medicine Osijek, Josip Juraj Strossmayer University of Osijek, Osijek, Croatia
Contact: ivan.miskulin@mefos.hr

Background:

Croatian blood collection system is based on voluntary donation, according to the recommendations of the World Health Organisation and the Council of Europe. The ongoing COVID-19 pandemic has influenced all the dimensions of human lives and the functional pattern of the health care systems in the whole world. The aim of this study was to investigate the influence of ongoing COVID-19 pandemic on Croatian blood collection system and to evaluate the main factors that influence voluntary blood donation practice in blood donors (BDs).

Methods:

This cross-sectional questionnaire study was conducted in convenient sample of voluntary BDs from Split-Dalmatia County during the May 2020 to December 2020.

Results:

The study sample consisted of 479 regular BDs, 88.5% males and 11.5% females, mean age 39.8 ± 10.8 years. Majority of them had high school education and living with the partner (67.4% and 74.5%, respectively). During COVID-19 pandemic 71.0% of them continued with regular donations while 29% of them postponed their donation. According to the BDs knowledge regarding COVID-19 infection there were 88.9% of those with unsatisfactory and only 11.1% of those with satisfactory knowledge regarding this infection. The study revealed that females, BDs living alone and younger BDs (aged 18 to 43 years) had more frequently postponed blood donation during COVID-19 pandemic ($P < 0.0001$, $P = 0.004$ and $P = 0.017$, respectively). The study further showed that there was no correlation between BDs knowledge about COVID-19 infection and their blood donation practice during ongoing pandemic.

Conclusions:

The study revealed that ongoing COVID-19 pandemic impacted the Croatian blood collection system via reduction in the practice of voluntary blood donations. Sociodemographic characteristics of BDs were the main factors that influence Croatian BDs voluntary blood donation practice during pandemic while their knowledge about COVID-19 infection was not correlated with their behaviour.

Key messages:

- The sustainability of the health care system during a pandemic depends significantly on the blood supply, which is why it is necessary to ensure that blood collection system is continually maintained.
- The knowledge of blood donors about COVID-19 infection needs to be improved in order to prevent spreading of the infection generally and especially within this highly important population subgroup.