

# Convalescent plasma: reaching into the past to find answers to new problems

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By August 2022, Poland had experienced four waves of the coronavirus disease 2019 (COVID-19) pandemic. From the outbreak of the pandemic, 6.1 million Polish citizens had been infected with this disease, including 116,000 who had died. In total, 55.1 million vaccines had been administered to Polish people (Our World in Data; <https://ourworldindata.org>). According to the World Health Organization (WHO), the global figures were: 572 million infected, 6.4 million deaths, and 12.3 billion vaccine doses administered (WHO situation report; <https://www.who.int>). With a worldwide population of almost 8 billion, the reported rate of infection was 7% with mortality of 1.1%. The rates for Poland were 16% morbidity and 1.9% mortality.

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) happened to be not only new and highly contagious, but also a highly pathogenic agent. It caused lockdowns, and it limited all aspects of our lives [1]. In the face of high morbidity and mortality in the early stages of the pandemic, medical staff lacked any causative treatment, while new medicines and vaccines were being anticipated [2–5].

One of the first therapeutic decisions in Poland [6] and many other countries was the use of convalescent plasma (CCP). This method of anti-infective therapy of blood products had been well-known for many years, and had previously been adopted especially during new pandemics, such as Spanish flu or Ebola fever. With the COVID-19 pandemic situation, many convalescents responded to real-life unmet needs, and were willing to donate their plasma to help severely sick people with COVID-19. The first Polish experience of the use of plasma of convalescents in the treatment of patients with COVID-19, based on data from the SARSTER

database (<http://www.pteilchz.org.pl/informacje/sarster/>), was published in 2020 [7].

The Regional Center of Blood Donation and Blood Treatment in Bydgoszcz happened to be the most active blood center in Poland in terms of the generation and medical utilization of CCP. These achievements over the first 12 months of the pandemic are presented in two papers by Gagola et al. [8, 9] in this issue of “Acta Haematologica Polonica”.

It is important to emphasize that the use of CCP was one of the first therapeutic modalities against COVID-19. It was relatively easily accessible, cheap, it had some proofs of efficacy, and it was ready available for mass use. It took almost a further six months for the medical world to develop new antivirals specifically anti-SARS-CoV-2, and monoclonal antibodies of the same specificity. It must be admitted that the value of using CCP has been shown to be ambiguous. But nowadays it carries a timeless value, which has only been replaced by new antivirals and specific monoclonal antibodies.

COVID-19 has become the hottest global topic in scientific literature ever. In the 30 months after the first outbreak of infection, almost 277,000 scientific papers were published. Given this activity, the Polish Society of Hematology and Transfusion Medicine [10, 11] and the Polish Association of Epidemiologists and Infectiologists (<http://www.pteilchz.org.pl/informacje/sarster/>) have made significant contributions to improving the health of Polish citizens suffering from COVID-19.

## Authors' contributions

Both authors contributed equally to this paper.

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## Conflict of interest

None.

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## Ethics

The work described in this article has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans; EU Directive 2010/63/EU for animal experiments; uniform requirements for manuscripts submitted to biomedical journals.

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