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# Kidney donation and transplantation in Poland within two years of war in Ukraine

Michał Macech<sup>1</sup>, Anna Pszeny<sup>3</sup>, Jolanta Małyszko<sup>2</sup>, Milena Michalska<sup>1</sup>, Ewa Wojtaszek<sup>2</sup>, Jarosław Czerwiński<sup>3,4</sup>, Artur Kamiński<sup>3,5</sup>, Zbigniew Gałązka<sup>1</sup>

<sup>1</sup>Department of General, Vascular, Endocrine and Transplant Surgery, Medical University of Warsaw, Warsaw, Poland;

<sup>2</sup>Department of Nephrology, Dialysis and Internal Medicine, Medical University of Warsaw, Warsaw, Poland;

<sup>3</sup>Polish Transplant Coordinating Center , POLTRANSPLANT, Warsaw, Poland;

<sup>4</sup>Department of Emergency Medicine, Medical University of Warsaw, Warsaw, Poland;

<sup>5</sup>Department of Transplantology and Central Tissue Bank, Medical University of Warsaw, Warsaw, Poland

# Introduction

On 24th of February 2022 war in Ukraine has broken out and many refugees escaped to Poland.

Since the beginning of the war, around 80% of new immigrants are Ukrainian citizens.

Polish government, based on law from 12<sup>th</sup> of March 2022, provided them easy access for national health system (NFZ), what led to enrolling Ukrainians to the polish waiting-list (KLO) as well for kidney living-donation (LKD) with subsequent transplantation (LDKTx), kidney donation from brain-death donors (DBD) and kidney transplantation (KTx).

**Objective.** We evaluated impact of Ukrainian's migration on kidney donation and transplantation in Poland.

# Methods

We analysed data provided from National Transplant Registries POLTRANSPLANT within two years of war (period A - 24<sup>th</sup> of February 2022-24<sup>th</sup> of February 2024).

Period A was compared with period B (1<sup>st</sup> of January 2018-31<sup>st</sup> of December 2019).

Timeframe of period B was chosen to avoid impact of COVID-19 pandemic which resulted global fall in organ transplantation.

Chi<sup>2</sup> was used for statistical analysis. p-value <.05 was set up as statistically significant.

**Data gathered in aspects of:**

**Living kidney donation**

**Living kidney donor  
transplantation**

**Deceased donor donation**

**Deceased donor kidney  
transplantation**

**Enrollment for waiting list  
(period A only)**

Period A  
24 FEB 2022 –  
24 FEB 2024  
(study group)

Period B  
01 JAN 2018 –  
31 DEC 2019  
(control group)

# Results

In period A, 57 Ukrainians out of 90 foreigners were enrolled for KTx to KLO.

48 potential Ukrainian donors were identified and 39 of them became kidney DBD out of 990 kidney donors. During period A, Ukrainian donors represented 80% (39 out of 49) of the foreigners.

24 Ukrainians underwent KTx out of 1740 kidney transplantations.

3 pairs of Ukrainian refugees underwent LKD and LDkTx out of 182 LKD.

In period B, none of 92 LKD and LDkTx were from Ukraine.

13 potential Ukrainian donors were identified and 7 became donors out of 993 DBD donors.

9 underwent KTx out of 1886 all kidney transplants in the period B.

Significant improvement of donation and transplantation from DBD in period A compared to period B was observed.

LDkTx in period A from Ukrainian refugees compared to period B, the difference was not significant.

	Period A	Period B
DBD	39 of 990 <sup>1</sup>	7 of 993 <sup>2</sup>
KTx	24 of 1740 <sup>3</sup>	9 of 1886 <sup>4</sup>
LDkTx	3 of 182	0 of 92

1 vs. 2;  $p < 0.05$

3 vs. 4;  $p < 0.05$

# Conclusion

During war, we observed substantial growth of enrolment to KLO, kidney donation from LKD as well as DBD donation, and KTx among Ukrainian citizens and immigrants.

Although, they represent small percentage of total number of donors and recipients, however, portray majority of the foreigners in Polish transplant system.