

# Transplantation Activities at Baskent University during the COVID-19 Period

8th Congress of the  
Iranian Society  
for  
Organ Transplantation  
(8th ISOT Congress)

13-14 January, 2021

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*Founder and Founder President, Baskent University*

*President of Executive Supreme Board, Baskent University*

*Chair of Division of Transplantation, Baskent University*

*Distinguished Fellow, Royal Society of Medicine*

*Immediate Past-President, The Transplantation Society*

*Founder and President, Turkish Transplantation Society*

*Founder and Past President, Middle East Society for Organ Transplantation*

*Founder and President, Turkic World Transplantation Society*

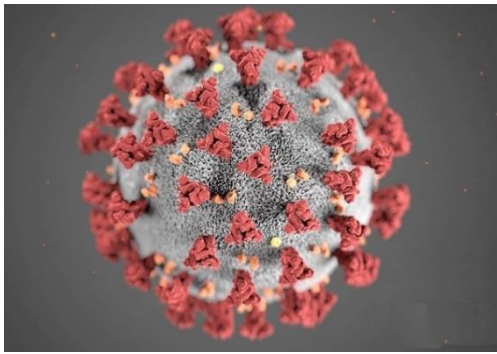
*Founder and Editor-in-Chief, Experimental and Clinical Transplantation*



**BAŞKENT  
UNIVERSITY**



# COVID-19 PANDEMIC



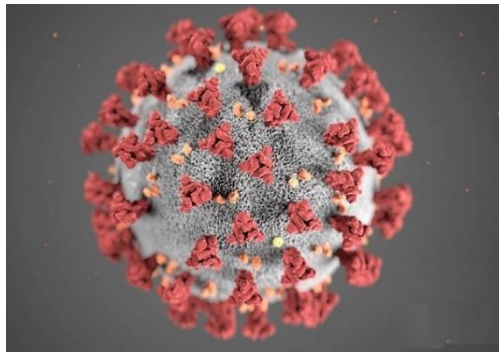
First reported in  
December 2019 in  
Wuhan, China

Officially declared as a  
pandemic on March  
11, 2020 by WHO

COVID-19 is affecting **218**  
**countries and**  
**territories** around the  
world.

- Most people experience mild to moderate respiratory illness and recover without requiring special treatment.
- However, older people and those with underlying medical problems, like cardiovascular disease, diabetes, chronic respiratory disease, and cancer, are more likely to develop serious illness.





# COVID-19 UPDATE\*

*As of December 31, 2020*

➤ Coronavirus Cases:

*83,066,659*

➤ Deaths:

*1,812,188*

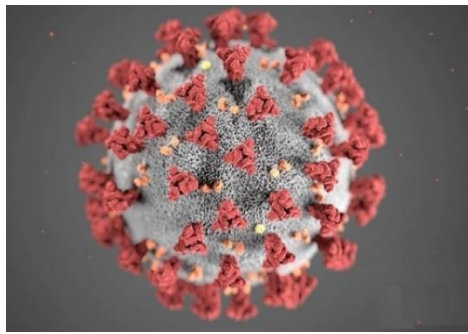
➤ Recovered:

*58,868,485*

**\*Worldometer:**

**December 31, 2020**





# COVID-19 TURKEY UPDATE\*

*As of December 31, 2020*

In Turkey, the first case was reported on **March 11, 2020**:

Coronavirus Cases:

**2,194,272**

Deaths:

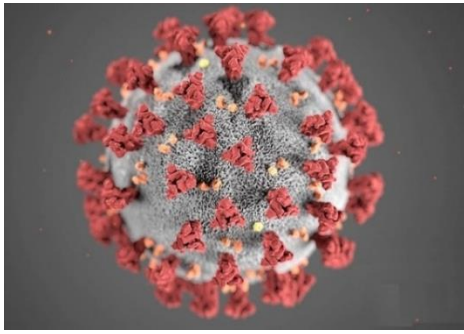
**20,642**

Recovered:

**2,078,629**

**\*Worldometer:**  
December 31, 2020





# Impact of Covid-19 on Donation & Transplantation

*Beginning of this year, when the Covid-19 pandemic has first started, it had the immediate effect of severely reducing living and deceased organ donation and transplantation activity worldwide.*

Our early experience showed that neither hemodialysis nor transplant patients have got infected with Covid-19 higher than the normal population.<sup>1, 2, 3, 4, 5</sup>

While it seems obvious that life saving transplant activity should not be stopped, it should be tailored with careful selection of both donors and recipients within **transparency** and considering **ethical and legal aspects**.

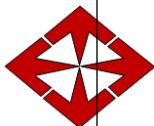
<sup>1</sup>*Exp Clin Transplant. 2020;18(2):139-140*

<sup>2</sup>*Exp Clin Transplant. 2020;18(3):270-274*

<sup>3</sup>*Exp Clin Transplant. 2020;18(3):275-283.*

<sup>4</sup>*Exp Clin Transplant. 2020;18(5):564-571*

<sup>5</sup>*Exp Clin Transplant. 2020;18(6):689-695*



# BASKENT UNIVERSITY EXPERIENCE

## Donor Evaluation Protocol of Baskent University

### Donor Evaluation Protocol of Baskent University Division of Transplantation

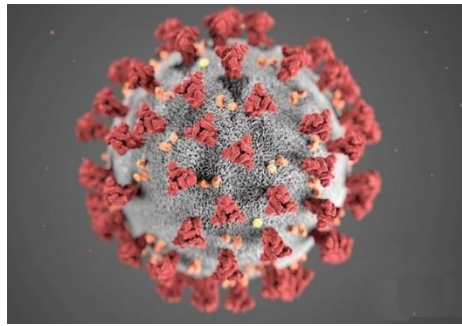
#### Social evaluation

1. Recipient candidate must be a relative (up to the 4th degree) or spouse of recipient.
2. Donor candidate must be  $\geq 18$  years old.

#### Medical evaluation

- |        |  |
|--------|--|
| Step 1 | Physical and psychosocial evaluation <ol style="list-style-type: none"><li>a) Information about procedure</li><li>b) Complete medical history</li><li>c) Physical examination</li><li>d) Laboratory tests (blood group test, basic biochemical tests, serology for hepatitis)</li><li>e) Radiological evaluation (abdominal ultrasonography-guided, chest radiography)</li></ol> |
| Step 2 | Triphasic abdominal computed tomography  |
| Step 3 | Assessment of the general operative risk <ol style="list-style-type: none"><li>a) Pulmonary function test, echocardiography, stress test</li><li>b) Consultations (cardiology, pulmonology, hepatology, psychiatry for routine evaluation; if necessary, other department consultations may be requested)</li></ol>  |
| Step 4 | Magnetic resonance cholangiography   |
| Step 5 | Liver biopsy   |





# BASKENT UNIVERSITY EXPERIENCE

As a result of our findings, we decided to continue our transplant activities in a controlled manner at our centers located in 3 different cities:

From March 1, 2020 to  
December 30, 2020

**69** kidney transplants (58 adults, 11 pediatrics) from  
67 living related and 2 deceased donors:

*68 patients alive with normal kidney function  
1 patient died to due to cardiac problem*

**21** liver transplants (8 adults, 13 pediatrics) from 20  
living related and 1 deceased donors:

*20 patients alive with normal liver function  
1 patient died to due to cardiac oxalosis*



# Results of Liver and Kidney Transplantation at Baskent University Hospitals

March 1, 2020 – December 30, 2020

**7  
COUNTRIES**

- BULGARIA
- JORDAN
- KENYA
- KUWAIT
- KYRGYZSTAN
- RUSSIA
- SOMALI

**5 KIDNEY TRANSPLANTS**

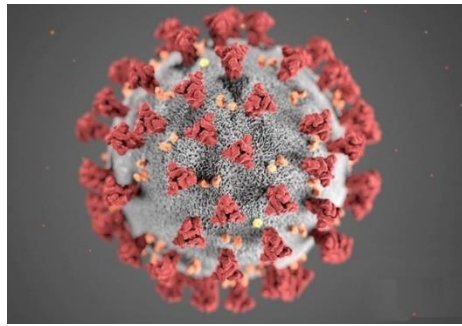
**5 LIVER TRANSPLANTS**

**TURKEY**

- **64 KIDNEY TRANSPLANTS**
- **16 LIVER TRANSPLANTS**







# BASKENT UNIVERSITY EXPERIENCE

From March 1, 2020 to  
December 30, 2020

- Kidney and Liver transplant patients should be warned in terms of personal hygiene and closely monitored by organ transplant centers.
- PCR tests should be carried out twice before transplantation for all organ transplant recipients and donors
- If there is an indication for hospitalization, they should be followed in an isolated unit, and no aggressive changes should be made to immunosuppressive doses unless necessary.
- During this period, no patients died due to Covid-19, only one patient has got infected with Covid-19 and has recovered.



# Kidney Transplantation at Baskent University Hospitals

## Characteristics of Kidney Transplant Recipients During COVID-19 Pandemic (N = 69)

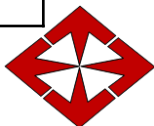
<b>Adult</b>	n=58
<b>Pediatric</b>	n=11
<b>Age</b>	35.8 (range; 6 to 67)
<b>Gender</b>	M: 49 F: 20
<b>Donor type</b>	Deceased: 2 Living Related: 67
<b>Length of hospitalization (days)</b>	8.1 (range; 3 to 18 days)
<b>Etiology</b>	Hypertension: n=15 VUR: n=5 DM: n=6 PKD: n=4 FSGS: n= 4 MPGN: n=2 Unknown: n=23 Others: n=10



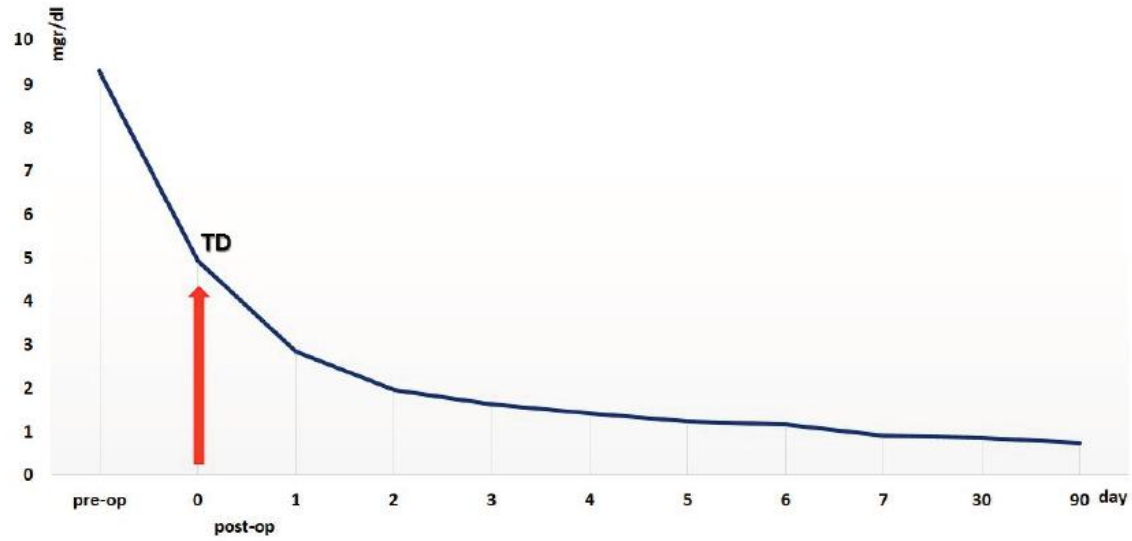
# Kidney Transplantation at Baskent University Hospitals

## Characteristics of Kidney Transplant Donors During COVID-19 Pandemic

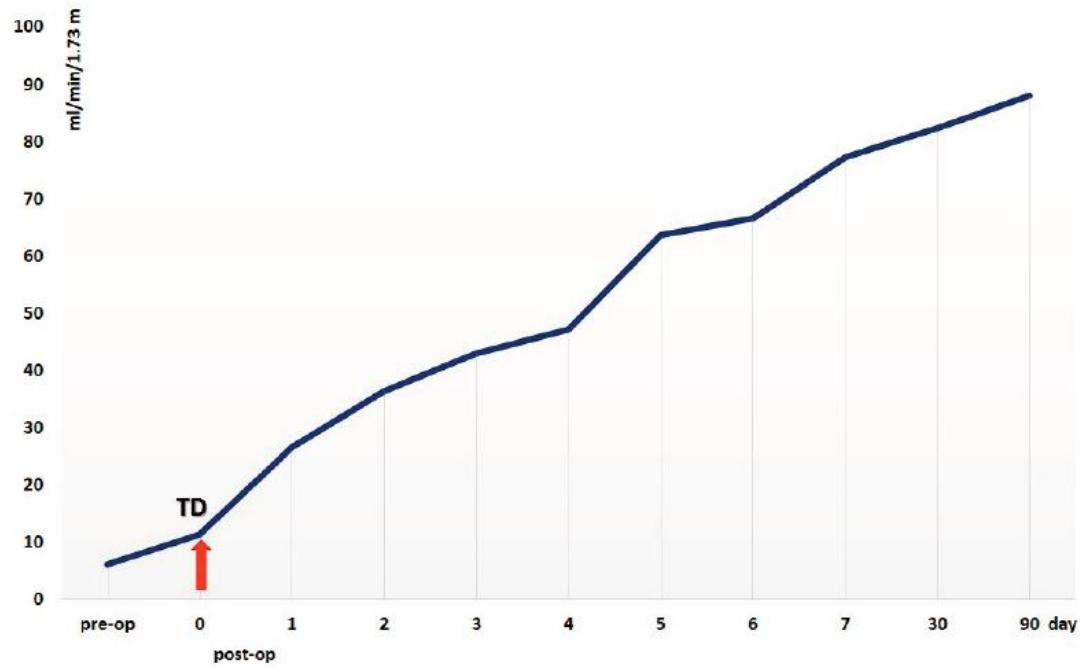
<b>Age (years)</b>	44.4 yo (range; 22 to 61)
<b>Gender</b>	M: 31 F: 38
<b>Length of hospitalization (days)</b>	3.4 (range: 1 to 8 days)
<b>Degree of relation</b>	Spouse (n=25 ) Sibling (n=17) Mother (n=10) Father (n=9) Aunt (n=2) Deceased (n=2) Son (n=2) Cousin (n=1) Nephew (n=1)



### Mean Serum Creatinine Values of Kidney Transplant Recipients



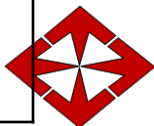
### Mean Glomerular Filtration Rates of Kidney Transplant Recipients



# Liver Transplantation at Baskent University Hospitals

## Characteristics of Liver Transplant Recipients During COVID-19 Pandemic (N = 21)

<b>Adult</b>	N = 8
<b>Pediatric</b>	N = 13
<b>Age</b>	35.8 (range; 6 to 67)
<b>Gender</b>	M = 14 F = 7
<b>Donor type</b>	Deceased: 1 Living Related: 20
<b>Length of hospitalization (days)</b>	17.1 (range, 6-36 days)
<b>Etiology</b>	Biliary atresia: n=6 Wilson's disease: n=1 Alcoholic Chirrosis: n=1 PFIC: n=4 Criptogenic Chirrosis: n=4 Oxalosis: n=2 Hepatitis B (HCC): n=2



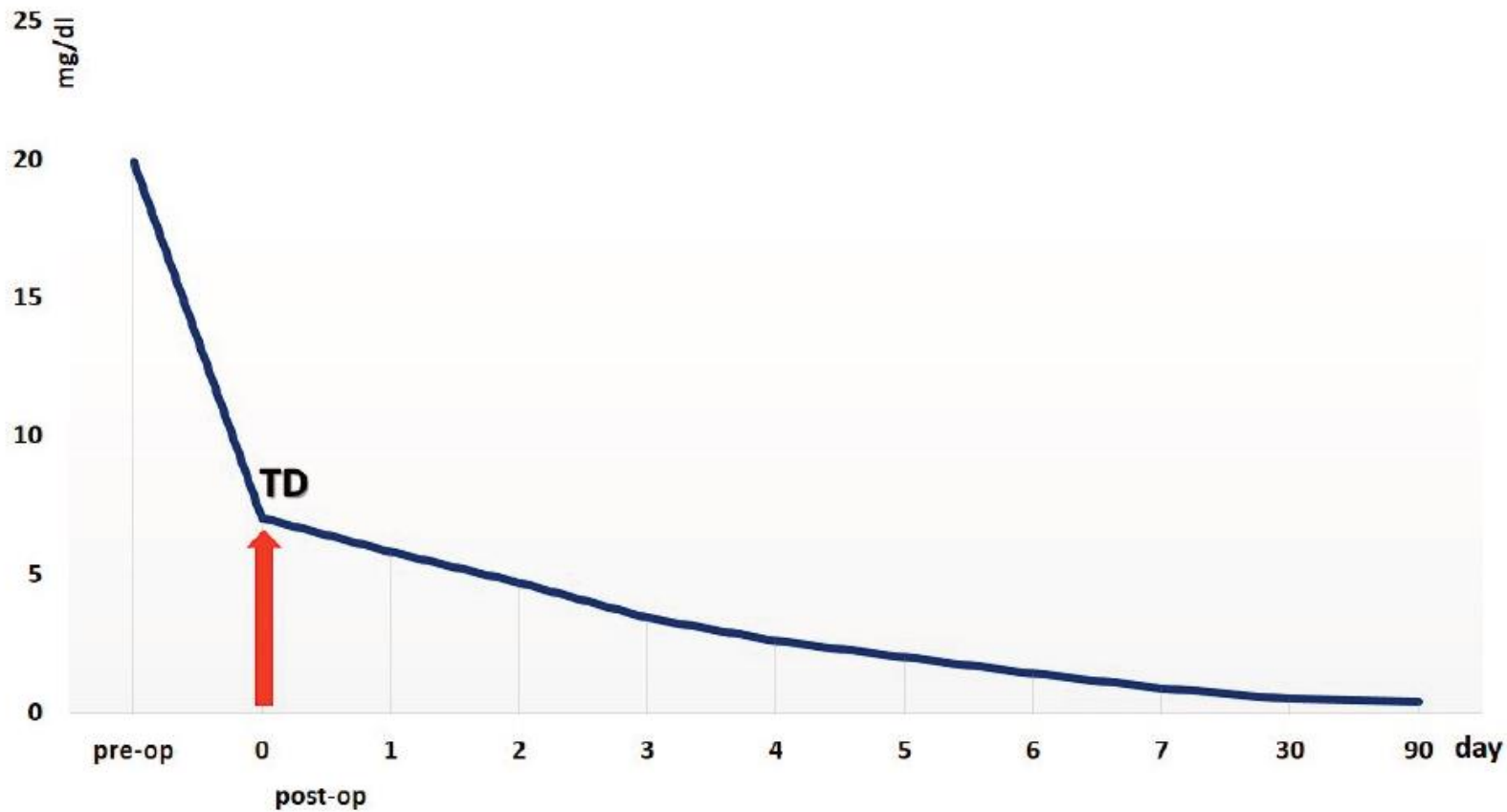
# Liver Transplantation at Baskent University Hospitals

## Characteristics of Liver Transplant Donors During COVID-19 Pandemic

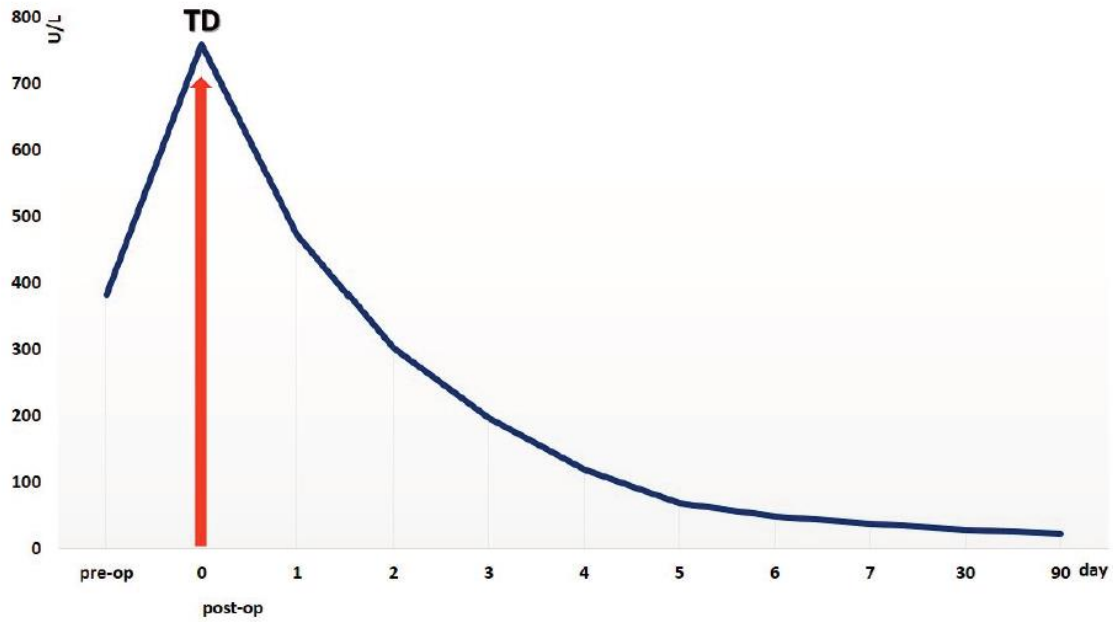
<b>Age (years)</b>	33.1 yo (range; 21 to 57)
<b>Gender</b>	M = 12 F = 9
<b>Length of hospitalization (days)</b>	4.3 days (range, 3 to 6 days)
<b>Degree of relative</b>	Mother: n=8 Father: n=3 Deceased: n=1 Brother: n=3 Uncle: n=2 Aunt: n=1 Spouse: n=2



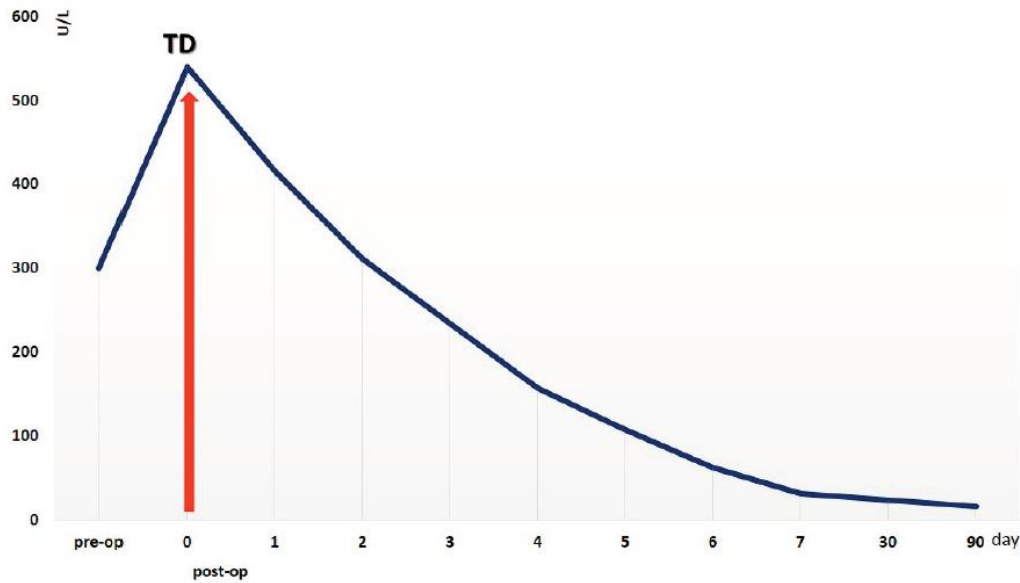
Mean Total Bilirubin Values of Liver Transplant Recipients



Mean Aspartate Aminotransferase Values of Liver Transplant Recipients



Mean Alanine Aminotransferase Values of Liver Transplant Recipients







# Meeting the Growing Needs for Organs

*Despite The Covid-19 pandemic, it is the responsibility of the international community to ensure that demand for organs is met within **transparency**, **ethical** and **legal boundaries**.*

## Acceptable Sources of Organs

Living-Related

Spouses and In-Laws

Organ Exchange

Deceased Donation



The most important problem in transplantation today is

## Deceased Organ Donation

Therefore, the main goal should be to promote organ donation from deceased donors and fight against living unrelated transplantation especially during the Covid-19 period.

This is the most efficient way to eliminate commercial transplantation and transplant tourism



# SOME OF OUR TRANSPLANT PATIENTS AT BASKENT UNIVERSITY





## JORDAN

**Patient:** Lujain Fayez - 4 yrs old  
Biliary Atresia, LL lobe Tx

**Donor:** Father, Fayez Jarob'a, 34 yrs old





## **RUSSIA**

**Patient:** Sergey Globa  
50 yrs old, Alcholic Chirosis, R Lobe Tx

**Donor:** Brother, Andrei Globa, 46 yrs old





## JORDAN

**Patient:** Sham Abdala  
1.5 yrs old, Biliary atresia,  
LL segment tx

**Donor:** Mother, Nour Mahmoud Abedai,  
46 yrs old





## TURKEY

**Patient:** Zeynep Pembe Çelik  
5 months old, Biliary atresia,  
LL segment tx

**Donor:** Uncle, Veysel Bilal Aslankara, 46 yrs old





## TURKEY

**Patient:** Muhammed Can Gölyeri, 16 yrs old  
Congenital hepatic fibrosis and Polycystic kidney disease, LL liver tx

**Liver Tx Donor:** Mother, Melek Gölyeri, 38 yrs old  
**Kidney Tx Donor:** Father, Ercan Gölyeri, 39 yrs old





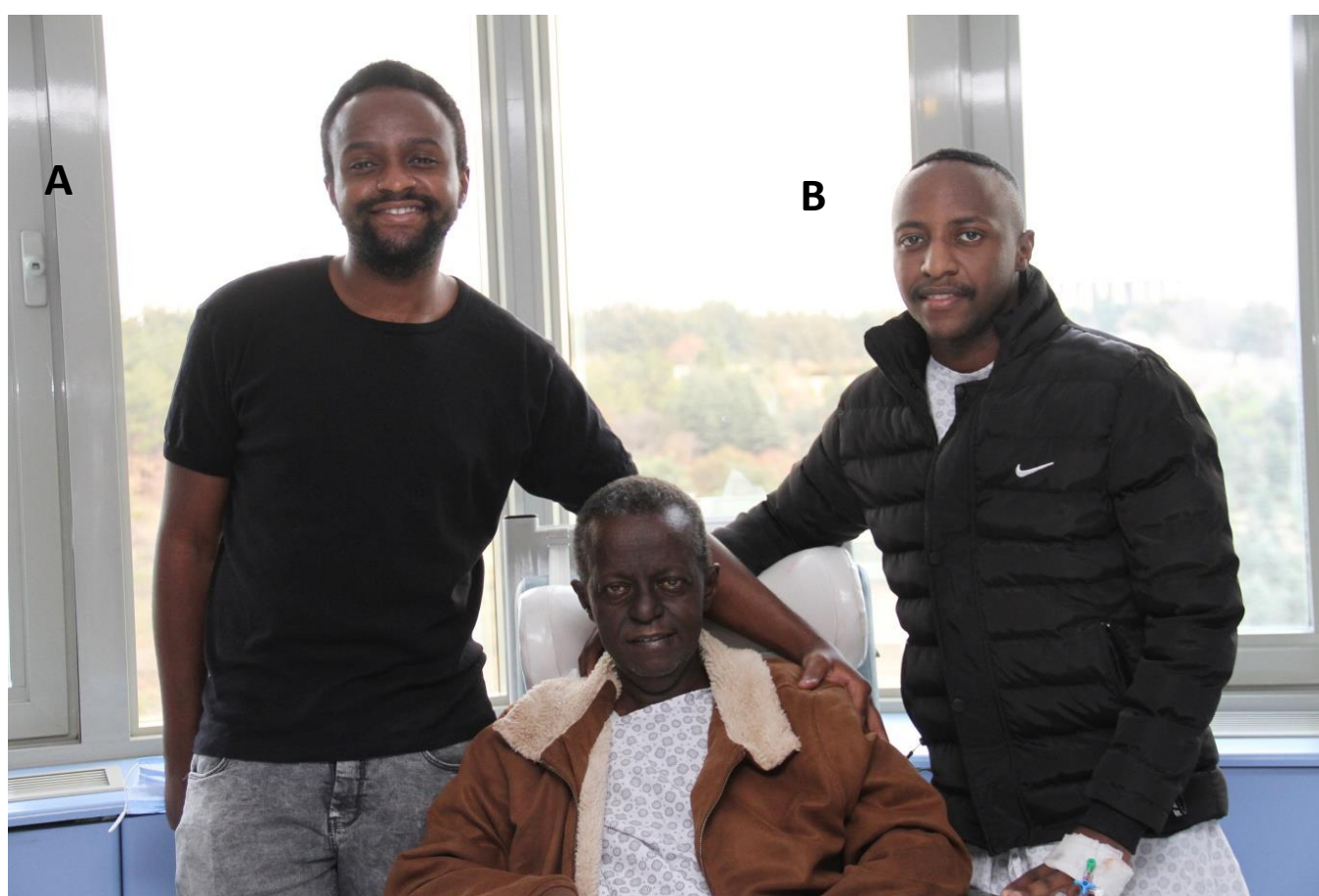


## **BULGARIA**

**Patient:** Selahtin Erdinch Mustafa, 15 yrs old,  
FSGS, Kidney Tx

**Donor:** Mother, Mukaddes Selahtin, 33 yrs old





## REPUBLIC OF KENYA

**Patient:** Simon Mutaka Muasya, 57 yrs old,  
Criptogenic Chirrosis + Hepatorenal Syndrome,  
R lobe liver tx (Son), Kidney tx (Son)

**Donor A:** Son, Kelvin Mutaya Muasya, 24 yrs old, R Lobe Liver Tx

**Donor B:** Son, Tony Musau Muasya, 23 yrs old, Kidney Tx



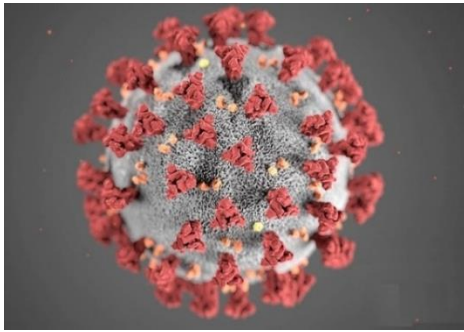


## KYRGYZSTAN

**Patient:** Kamila Torobekova,  
8 yrs old  
Unknown etiology, kidney tx

**Donor:** Father, Ilkham Murkamilov,  
37 yrs old





# CONCLUSION

Our findings show that neither hemodialysis nor transplant patients have got infected with Covid-19 higher than the normal population.<sup>1, 2, 3, 4, 5</sup>

While it seems obvious that life saving transplant activity should not be stopped, it should be tailored with careful selection of both donors and recipients within **transparency** and considering **ethical and legal aspects**.

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# Baskent University

## Medical & Research Centers

Ankara Hospital - Ankara



Ankara Hospital Outpatient Clinics - Ankara



Ankara Hospital Outpatient Clinics Ümitköy- Ankara



Ümitköy Dialysis Center - Ankara



Yenikent Dialysis Center - Ankara



Alanya Medical and Research Center - Alanya



Ayaş Physical Therapy, Rehabilitation Center-Ankara



Women's and Children's Health Center - Ankara



Adana Dr. Turgut Noyan Medical and Research Center Yüreğir Hospital - Adana



Adana Medical and Research Center Seyhan Hospital - Adana



Adana Medical and Research Center Kışla Hospital-Adana



Alanya-Oba Outpatient Clinics-Alanya



# Baskent University

## Medical & Research Centers

İskenderun Dialysis Center -  
İskenderun



İstanbul Medical and  
Research Center - İstanbul



İstanbul Dialysis Center -  
İstanbul



Zübeyde Hanım Medical and  
Research Center - İzmir



İzmir Çiğli Outpatient  
Clinics - İzmir



Konya Medical and  
Research Center - Konya



Şanlıurfa Dialysis Center -  
Şanlıurfa



Zile Dialysis Center -  
Tokat



Yalova Dialysis Center -  
Yalova



Zonguldak Dialysis Center -  
Zonguldak



Karadeniz Ereğli Dialysis  
Center - Zonguldak



Çiğdem Dialysis Center  
Ankara



# Baskent University Experimental Animal Breeding Center



First Location



Second Location



Final Location



# *Donate Life*



*Thank you...*