24. TÜRK KLİNİK MİKROBİYOLOJİ VE İNFEKSİYON HASTALIKLARI KONGRESİ

6–9 MART 2024
PINE BEACH BELEK / ANTALYA

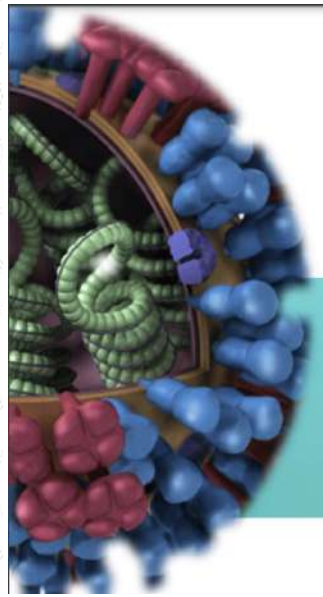
NAKİL ALICILARINDA SOLUNUM YOLU VİRÜSLERİ

Dr. İmran Hasanoğlu
Ankara Yıldırım Beyazıt Üniversitesi Tıp Fakültesi
Ankara Şehir Hastanesi
Enfeksiyon Hastalıkları ve Klinik Mikrobiyoloji ABD

NİÇG
KLİMİK DERNEĞİ NAKİL İNFEKSİYONLARI ÇALIŞMA GRUBU


COVID
BOCA
RSV
INFLUENZA

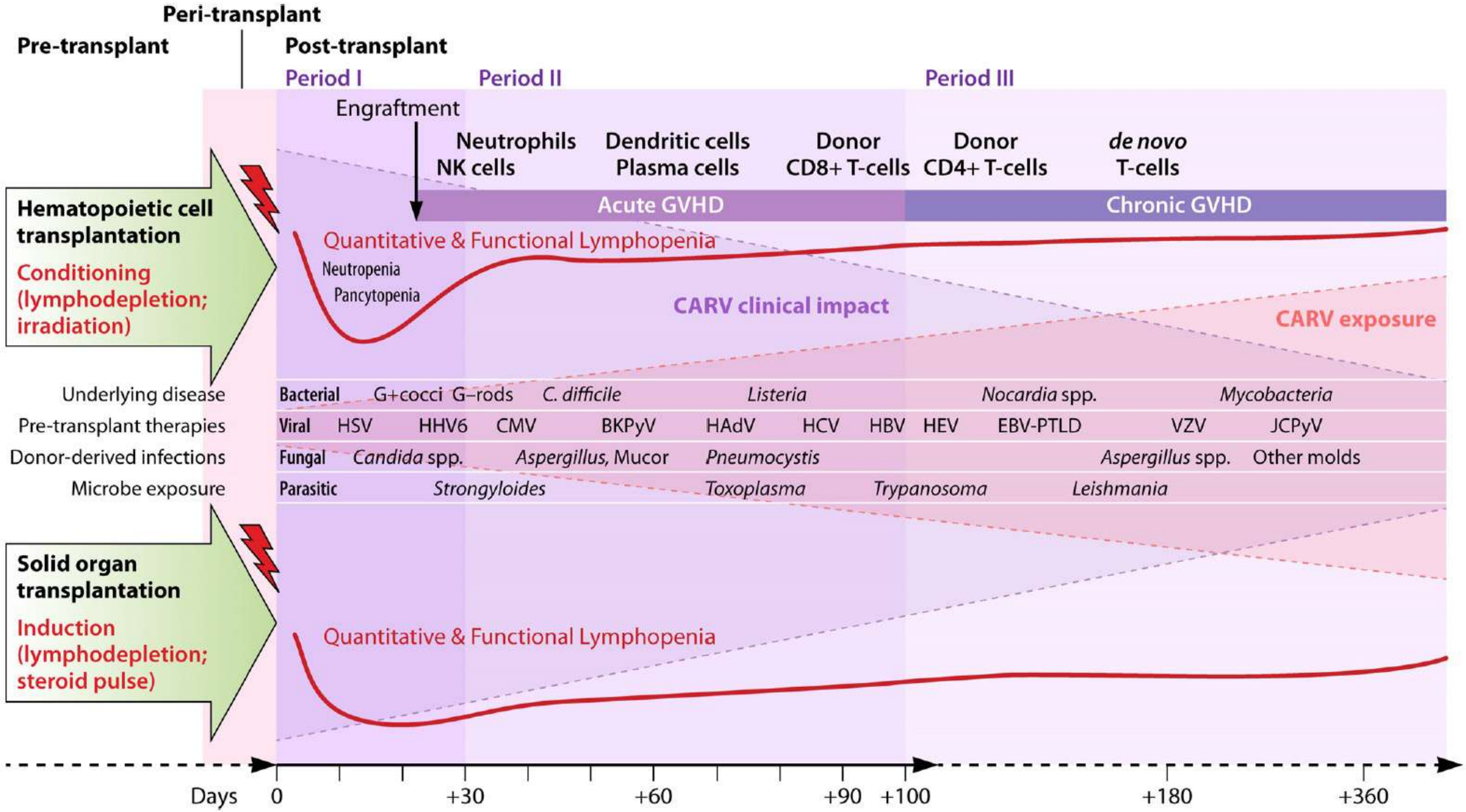
	2024/7. Hafta (12 - 18 Şubat 2024)		2023/2024 Sezonu (2 Ekim 2023 - 18 Şubat 2024)	
	Sayı	Yüzde	Sayı	Yüzde
İnfluenza pozitif numune	**39**	**23,4**	**544**	**16,6**
İnfluenza A	**23**	**59,0**	**468**	**86,2**
Tiplendirilmeyen İnfluenza A	6	26,1	149	31,8
İnfluenza A(H1N1)	10	43,5	257	54,9
İnfluenza A(H3N2)	7	30,4	62	13,2
İnfluenza B	**16**	**41,0**	**75**	**13,8**
Birden Fazla İnfluenza	**0**	**0,0**	**1**	**0,2**
Diğer Solunum Yolu Virüsleri (DSYV) pozitif numune	**41**	**24,6**	**684**	**20,8**
Adenovirus	5	12,2	19	2,8
Birden fazla DSYV	6	14,6	54	7,9
Coronavirus (HCoV-229E, HCoV-OC43, HCoV-NL63 ve HKU1-CoV)	10	24,4	171	25,0
Enterovirus	1	2,4	3	0,4
H. bocavirüs	3	7,3	49	7,2
H. metapneumovirus	0	0,0	11	1,6
Parainfluenzavirus	1	2,4	64	9,4
Parechovirus	0	0,0	7	1,0
Rhinovirus	7	17,1	217	31,7
Respiratuar Sinsityal Virüs	8	19,5	89	13,0
Diğer	0	0,0	0	0,0
İnfluenza ve DSYV pozitif numune	**0**	**0,0**	**51**	**1,6**
Negatif numune	**87**	**52,1**	**2003**	**61,0**
Çalışılan numune	**167**	**100,0**	**3282**	**100,0**



Halk Sağlığı Genel Müdürlüğü

Bulaşıcı Hastalıklar ve Erken Uyarı Dairesi Başkanlığı

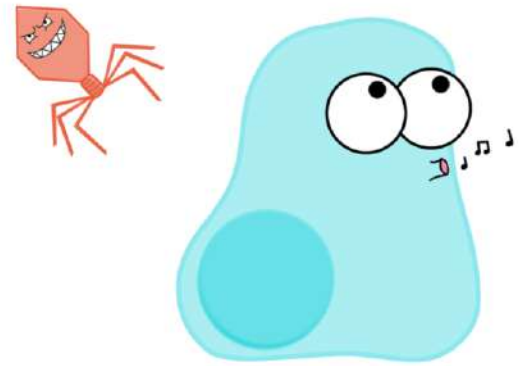
Haftalık İnfluenza (Grip) Sürveyans Raporu



Ison MG, Hirsch HH. 2019. Community-acquired respiratory viruses in transplant patients: diversity, impact, unmet clinical needs. Clin Microbiol Rev 32:e00042-19.

Nakil Alıcılarında Solunum Yolu Virüsleri

- Viral saçılım daha uzun (antiviral kullanımına rağmen)
- Bu da dirençli varyantların gelişimine sebep olabilir
- Nakil alıcıları komplikasyon açısından artmış riske sahip
- Bakteriyel ve fungal enfeksiyon gelişimi açısından artmış risk



Manuel O, Estabrook M; American Society of Transplantation Infectious Diseases Community of Practice. RNA respiratory viral infections in solid organ transplant recipients: Guidelines from the American Society of Transplantation Infectious Diseases Community of Practice. Clin Transplant. 2019

DOI: 10.1111/tid.13998

ORIGINAL ARTICLE

TRANSPLANT INFECTIOUS DISEASE

Difference between SARS-CoV-2, seasonal coronavirus, influenza, and respiratory syncytial virus infection in solid organ transplant recipients

Maria A. Mendoza[1] | Gabriel Motoa[1] | Mohammed A. Raja[1] | Paola Frattaroli[1] | Anmary Fernandez[1] | Shweta Anjan[1,2] | Steve C. Courel[1] | Akina Natori[3] |

TABLE 3 Outcomes in solid organ transplant recipients with SARS-CoV-2, seasonal coronavirus, RSV, and influenza infection

	SARS-COV-2 N = 157	Seasonal N = 70	RSV N = 50	Influenza N = 100
LRTI	103/130 (79.2%)	36/58 (62.1%)	26/47 (55.3%)	45/95 (47.4%)
Hospitalized*	128 (81.5%)	30 (42.8%)	34 (68.0%)	71 (71%)
ICU admission	44 (28.0%)	9 (12.8%)	5 (10.0%)	7 (7.0%)
Mechanical ventilation	25 (15.9%)	3 (4.3%)	2 (4.0%)	6 (6.0%)
Secondary infection	41 (26.11%)	14 (20.0%)	3 (6.0%)	19 (19.0%)
Rejection up to 90 days	7 (4.45%)	1 (1.43%)	2 (4.0%)	6 (6.0%)
Mortality at 90 days	21 (13.4%)	3 (4.3%)	1 (2.0%)	4 (4.0%)

Ko\süperenfeksiyon %20.4

CoVariants

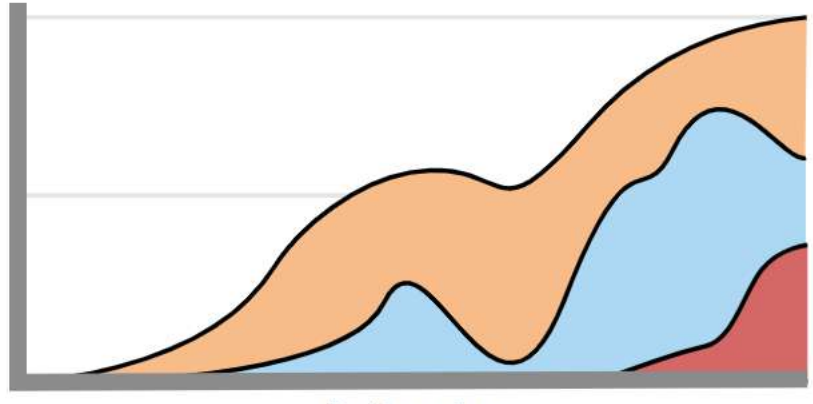
VARIANTS

- 21L (Omicron)
- 22A (Omicron)
- 22B (Omicron)
- 22D (Omicron)
- 22F (Omicron)
- 23A (Omicron)
- 23F (Omicron)
- 23G (Omicron)
- 23H (Omicron)

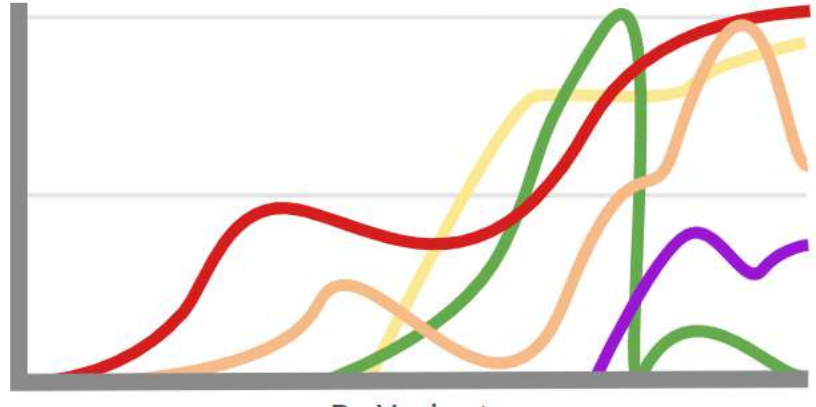
Click on a variant button to start exploring!

CoVariants provides an overview of SARS-CoV-2 variants and mutations that are of interest. Here, you can find out what mutations define a variant, what impact they might have (with links to papers and resources), where variants are found, and see the variants in Nextstrain builds!

Click one of the colored buttons to look at a particular Variant - to read information, see graphs and the protein structure, and link out to focused Nextstrain builds.
To look at many variants at once, check out the Per Variant and Per Country pages, where you can view a lot of data in the same place, and compare variants and countries!



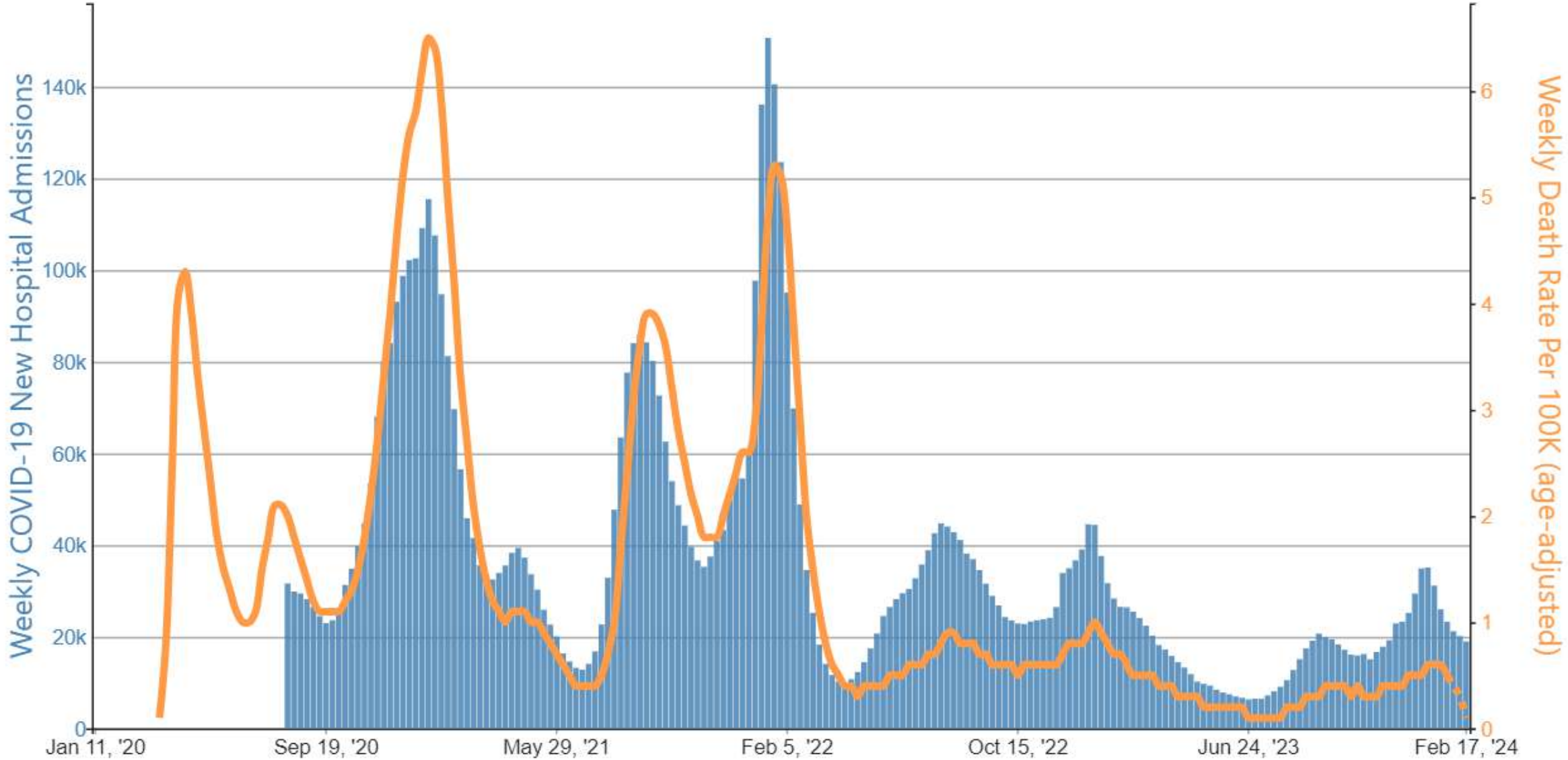
By Country



By Variant

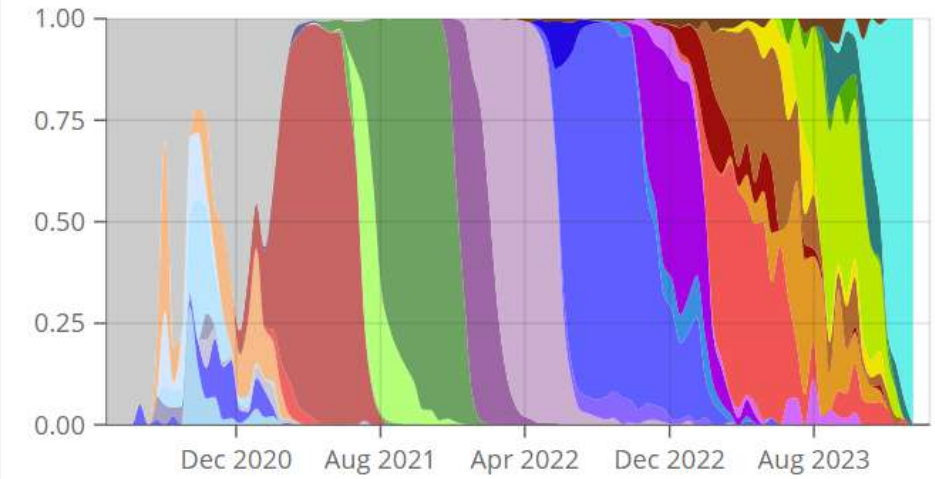
What do the names mean?

COVID-19 New Hospital Admissions and COVID-19 Death Rate per 100,000 Population (Age-Adjusted), by Week, in The United States, Reported to CDC

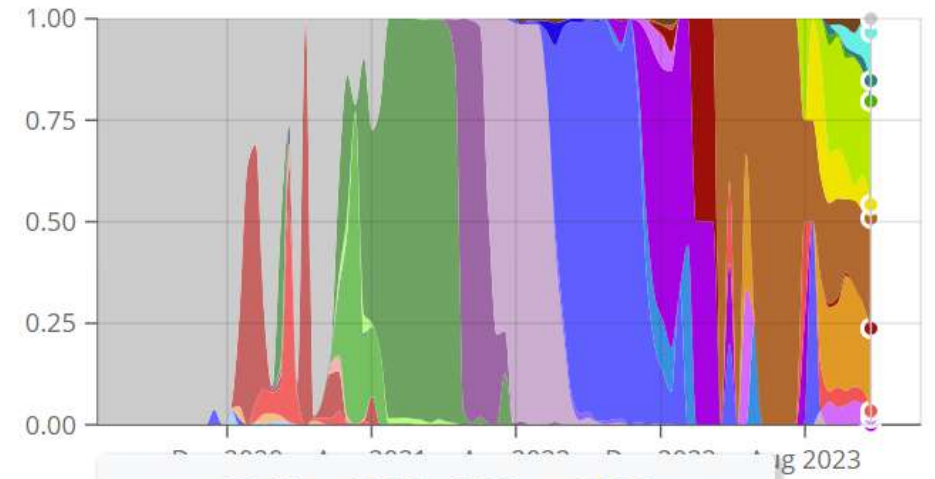


Centers for Disease Control and Prevention. COVID Data Tracker. Atlanta, GA: U.S. Department of Health and Human Services, CDC; 2024, February 28. https://covid.cdc.gov/covid-data-tracker

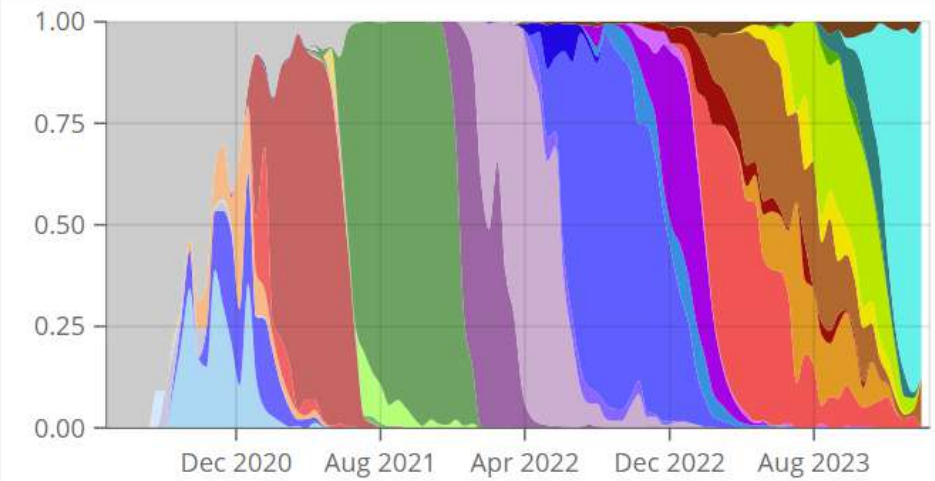
Norway

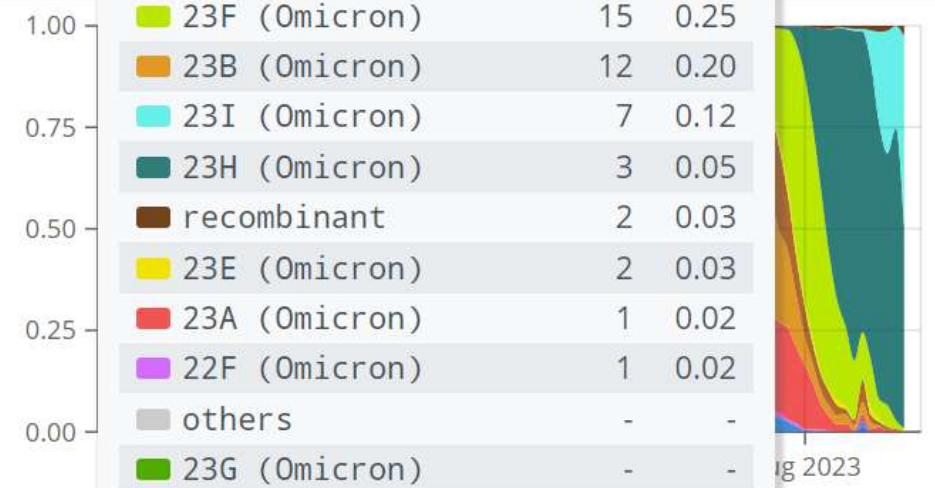


Turkey



Austria





20 Nov 2023 - 04 Dec 2023

Variant	Num seq	Freq
23D (Omicron)	16	0.27
23F (Omicron)	15	0.25
23B (Omicron)	12	0.20
23I (Omicron)	7	0.12
23H (Omicron)	3	0.05
recombinant	2	0.03
23E (Omicron)	2	0.03
23A (Omicron)	1	0.02
22F (Omicron)	1	0.02
others	-	-
23G (Omicron)	-	-
23C (Omicron)	-	-

Clinical TRANSPLANTATION
The Journal of Clinical and Translational Research
WILEY

Outcomes of COVID-19 in hospitalized solid organ transplant recipients compared to a matched cohort of non-transplant patients at a national healthcare system in the United States

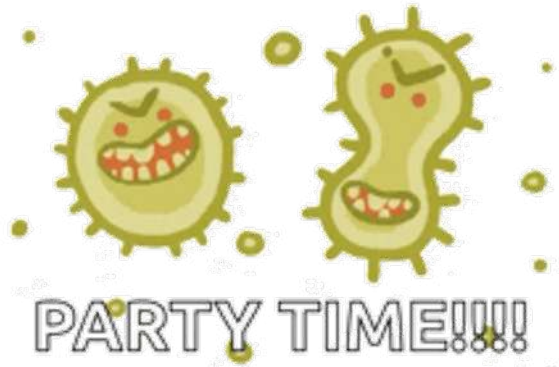
Arielle M. Fisher[1,2] | Daniel Schlauch[1,2] | Matthew Mulloy[3] | Ann
Ashraf I. Reyad[4] | Mick Correll[1,2] | Gregg J. Fromell[2,5] | James F
Adam W. Bingaman[6] | Balamurugan Sankarapandian[4,7] | Sridhar R.

TABLE 4 Odds ratios of primary and secondary outcomes in solid organ transplant and non-transplant patients in the coarsened exact matched cohort using multiple logistic regression

Primary and secondary outcomes	Odds ratio	95% confidence interval	*p*-value
Death	1.93	1.18–3.15	<.01
AKI	2.41	1.59–3.65	<.01
ARDS	1.49	0.93–2.36	.10
Received ICU care	1.46	0.99–2.16	.06
Received invasive mechanical ventilation	2.34	1.51–3.65	<.01
Required vasopressor support	2.14	1.31–3.48	<.01

COVİD-19 ve Enfeksiyöz Komplikasyonlar

- Ko-enfeksiyonlar (diğer solunum yolu virüsleri, toplum kökenli pnömoni)
- Latent enfeksiyonların reaktivasyonu (immünmodülatör tedavi sonrası Tbc, VZV, HSV ve HBV reaktivasyonu bildirilmiş)
- Sağlık hizmeti ilişkili enfeksiyonlar
- Fırsatçı mantar enfeksiyonları



NİÇG
KLİMİK DERNEĞİ NAKİL İNFEKSİYONLARI ÇALIŞMA GRUBU

TOP RATED POSTER
ECCMID 2023

P2491

INFECTIOUS COMPLICATIONS AND LONG TERM FOLLOW UP RESULTS OF COVID-19 IN SOLID ORGAN TRANSPLANT RECIPIENTS

İmran Hasanoğlu[1] , Alpay Arı[2] , Güle Cinar[3] , Gokalp Okut[2] , Tugba Yanik Yalcin[4] , Ayse Ozlem Mete[5] , Kemal Osman Memikoglu[3] , Adalet Altunsoy[6] , Bengu Tatar[7] , Tansu Yamazhan[8] , Derya Seyman[9] , Kemalettin Ozden[10], Ebru Oruc[11], Oya Eren Kutsoylu[12], Kenan Hizel[13], Yesim Uygun Kizmaz[14], Selcan Arslan Ozel[15], Ozge Ozgen Top[16], Sevil Alkan[17], Nilgun Altin[18], Mehmet Karabay[19], Erhan Tatar[7] , Onur Elvan Kirimker[3] , Emre Karakaya[4] , Aziz Bulut[5] , Erkan Olcucuoglu[6] , Dilara Turan Gokce[6] , Cem Tugmen[7] , Buse Kenanoglu[8] , Arif Aslaner[9] , Gurkan Ozturk[20], Suleyman Cetinkunar[11], Tufan Egeli[12], Ebru Sevinc Ok[13], Ayse Nigar Halis[14], Bekir Voyvoda[21], Ozant Helvaci[16], Hasan Anil Kurt[17], Hatice Sahin[18], Hande Arslan[4] , and KLIMIK NICG Study Group

[1]Ankara Yildirim Beyazit University Ankara City Hospital - Ankara (Turkey), [2] S.B.U Izmir Bozyaka Education and Research Hospital - Izmir (Turkey), [3]Ankara University Faculty of Medicine - Ankara (Turkey), [4]Baskent University Faculty of Medicine - Ankara (Turkey), [5]Gaziantep University Faculty of Medicine - Gaziantep (Turkey), [6] S.B.U. Ankara City Hospital - Ankara (Turkey), [7] S.B.U. Izmir Tepecik Education and Research Hospital - Izmir (Turkey), [8]Ege University Faculty of Medicine - Izmir (Turkey), [9] S.B.U. Antalya Education and Research Hospital - Antalya (Turkey), [10]University Faculty of Medicine - Erzurum (Turkey), [11]S.B.U. Adana City Hospital - Adana (Turkey), [12]Dokuz Eylul University Faculty of Medicine - Izmir (Turkey), [13]Kent Hospital - Izmir (Turkey), [14]Kosuyolu Yuksek Ihtisas Education and Research Hospital - Istanbul (Turkey), [15]S.B.U. Derince Education and Research Hospital - Kocaeli (Turkey), [16]Gazi University Faculty of Medicine - Ankara (Turkey), [17]Canakkale 18 Mart University Faculty of Medicine - Canakkale (Turkey), [18]S.B.U. Etlik City Hospital - Ankara (Turkey), [19]Medicana Bahcelievler Hospital - Istanbul (Turkey), [20]Ataturk University Faculty of Medicine - Erzurum (Turkey), [21]Atasehir Medicana Hospital - Istanbul (Turkey)

BACKGROUND

Solid organ transplant recipients (SOTR) constitute a vulnerable population for COVID-19. Although mortality and morbidity of COVID-19 in SOTR is well-documented, there are limited number of studies regarding incidence of infectious
COVID-

METHODS

Multicenter retrospective observational study included SARS-CoV-2 PCR positive SOTR patients diagnosed between April 2020 – May 2022. Data of the patients with at least 6 months of follow-up were collected via a central
is, bacteremia, bacterial pathogen proven fungal
19 were accounted as

RESULT

Clinical
Table
rejectio
Infectio
patient
older
(p<0.01)
and high dose steroid treatment for induction immunosuppression (p<0.01) at the time of diagnosis;

of SARS-CoV-2 PCR
loped an infectious
te emphasizes that
imen modification is a
reful consideration.

Table 1. Characteristics of patients

576 hasta
Enfeksiyöz komplikasyon %18.5
Hastalık ciddiyeti ile risk artıyor
İleri yaş, DM ve indüksiyon immunsupresyonu için steroid kullananlarda risk fazla

ECCMID Copenhagen, Denmark 15–18 April 2023

NİÇG
KLİMİK DERNEĞİ NAKİL İNFEKSİYONLARI ÇALIŞMA GRUBU

04544
Clinical characteristics and outcomes of haematopoetic stem cell transplant receipients with COVID-19: a retrospective observational study

12. COVID-19

12c. Clinical features, case management, complications, outcome (incl. long-term)
Likely attendance
Onsite

Gule Cinar [1], Ayse Kaya Kalem [2], Kemalettin Ozden [3], Tuba Turunc [4], Cigdem Erol [5], Kenan Hizel [6], Nilgun Altin [7], Meltem Kurt Yuksel [8], Mehmet Sezgin Pepeler [9], Elif Suyani [10], Ebru Koca [11], Ahmet Ifran [12], Merih Reis Aras [13], Alpay Azap [1], ayse Hande Arslan [5]

A total of 192 haematopoetic stem cell transplant receipients were enrolled. 8 (4%) of the patients had previously received three mRNA vaccinations and none of these patients died. 81(42%) of all, required hospital admission for a median of 12 days. Higher age, more comorbidities and taking more than two immunosuppressant drugs were associated with hospital admission (all p <0.01). 24 (12.5%), 4 (2%) and 8 (4.1%) of the all patients, died at the end of 28 days, 3 months and 6 months follow-up respectively. Remdesivir was administered to 10 (5%) of the all patients, of which non of them died. Higher age, more comorbidities, taking more than two immunosuppressant drugs, being an allogenic transplant receipient and higher d dimer levels at the presentation were associated with mortality (all p <0.01).

Conclusions

Patients undergoing haemapoetic stem cell transplantation are at a high risk of severe morbidity and mortality associated with COVID-19. This is the first multicenter retrospective study that evaluated the impact of SARS-CoV-2 on survival and the long term outcomes of HSCT recipients in Turkey.

İmmünsupresif rejimleri??

Association Between Maintenance Immunosuppressive Regimens and COVID-19 Mortality in Kidney Transplant Recipients

Alexandre O. Gérard, MD,[1,2] Susana Barbosa, PhD,[3] Dany Anglicheau, MD, PhD,[4] Lionel Couzi, MD, PhD,[5] Marc Hazzan, MD, PhD,[6] Olivier Thaunat, MD, PhD,[7] Gilles Blancho, MD, PhD,[8] Sophie Caillard, MD, PhD,[9,*] and Antoine Sicard, MD, PhD[1,10,*]; French SOT COVID Registry†

Induction therapy			
Anti-CD25	Reference		
Thymoglobulins	0.959	0.67-1.38	0.875
No induction	0.305	0.09-1.06	0.149
Maintenance immunosuppression			
Calcineurin inhibitors[c]: yes	Reference		
Calcineurin inhibitors: no	1.792	0.90-3.55	0.208
Antimetabolites[d]: yes	Reference		
Antimetabolites: no	0.773	0.48-1.24	0.497
Corticosteroids: yes	Reference		
Corticosteroids: no	0.483	0.31-0.76	0.011[a]
mTOR inhibitors: yes	Reference		
mTOR inhibitors: no	0.824	0.44-1.55	0.754
Belatacept: yes	Reference		
Belatacept: no	1.89	0.68-5.24	0.441

Steroid içermeyen rejimlerde mortalite riski daha düşük

JAMA Network | Open™

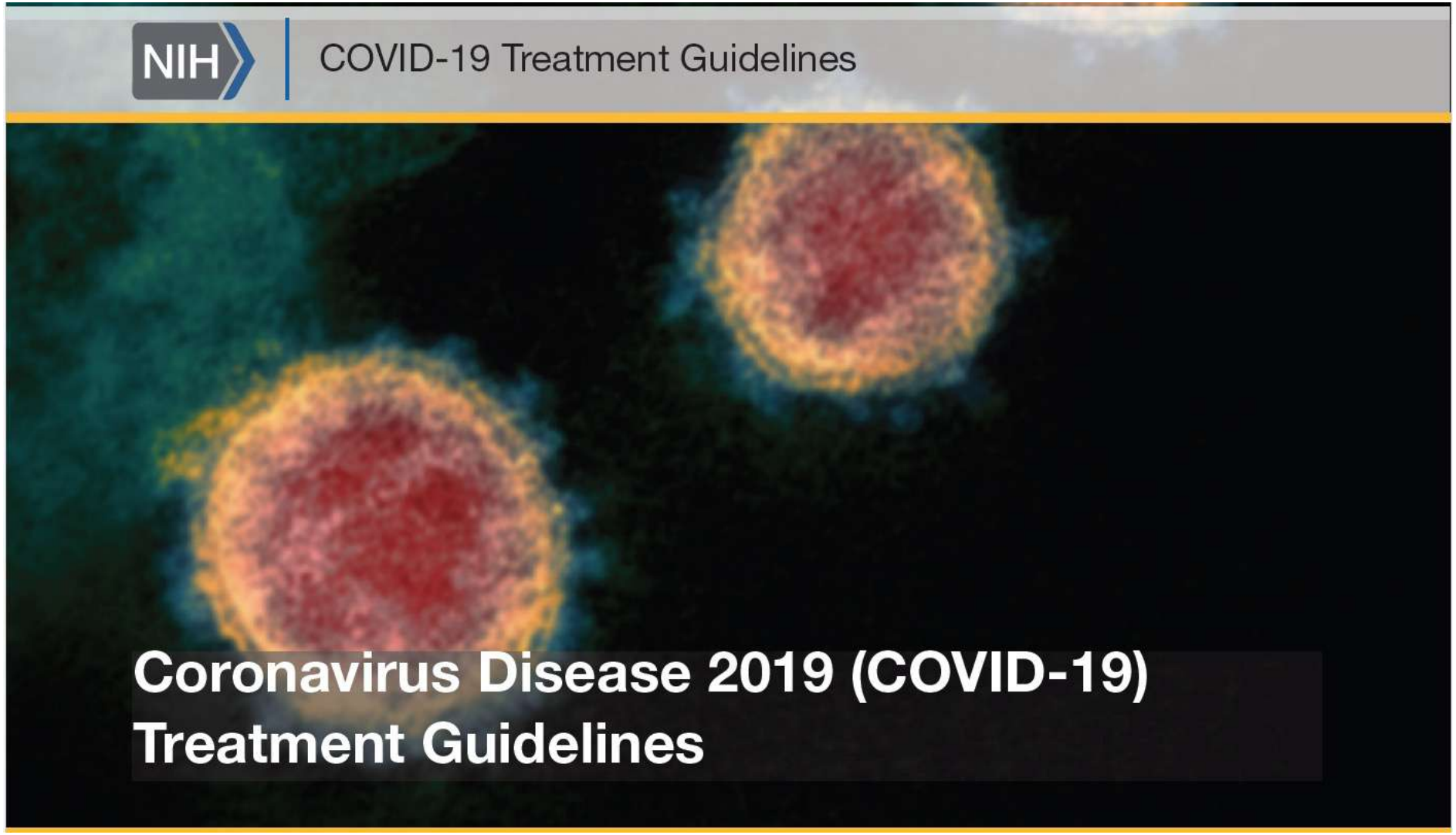
Original Investigation | Public Health

COVID-19 Hospitalization in Solid Organ Transplant Recipients on Immunosuppressive Therapy

Epiphane Kolla, MD, MPH; Alain Weill, MD; Mohamad Zaidan, MD, PhD; Eleonora De Martin, MD, PhD; Sylvie Colin De Verdiere, MD; Laura Semenzato, MSc; Mahmoud Zureik, MD, PhD; Lamiae Grimaldi, PharmD, PhD

60456 hasta

MMF, sirolimus ve steroidler ile hastaneye yatış riski daha yüksek



Coronavirus Disease 2019 (COVID-19) Treatment Guidelines

Table 2a. Therapeutic Management of Nonhospitalized Adults With Mild to Moderate COVID-19 Who Do Not Require Supplemental Oxygen

Patient Disposition	Panel's Recommendations
All Patients	• Symptom management should be initiated for all patients **(AIII)**. • The Panel **recommends against** the use of **dexamethasone**[a] or other systemic corticosteroids in the absence of another indication **(AIIb)**.
Patients Who Are at High Risk of Progressing to Severe COVID-19[b,c]	*Preferred therapies. Listed in order of preference:* • **Ritonavir-boosted nirmatrelvir (Paxlovid)**[d] **(AIIa)**; see footnote on drug interactions[e] • **Remdesivir**[d,f] **(BIIa)** *Alternative therapy. For use when the preferred therapies are not available, feasible to use, or clinically appropriate:* • **Molnupiravir**[d,g,h] **(CIIa)**

COVID-19 Treatment Guidelines Panel. Coronavirus Disease 2019 (COVID-19) Treatment Guidelines. National Institutes of Health.

Table 2b. Therapeutic Management of Hospitalized Adults With COVID-19

Disease Severity	Recommendations for Antiviral or Immunomodulator Therapy		Recommendations for Anticoagulant Therapy
	Clinical Scenario	Recommendation	
Hospitalized for Reasons Other Than COVID-19	Patients with mild to moderate COVID-19 who are at high risk of progressing to severe COVID-19[a,b]	See Therapeutic Management of Nonhospitalized Adults With COVID-19.	For patients without an indication for therapeutic anticoagulation: • **Prophylactic dose of heparin**, unless contraindicated **(AI)**; **(BIII)** for pregnant patients
Hospitalized but Does Not Require Supplemental Oxygen	All patients	The Panel **recommends against** the use of **dexamethasone (AIIa)** or other systemic corticosteroids **(AIII)** for the treatment of COVID-19.[c]	
	Patients who are at high risk of progressing to severe COVID-19[a,b]	**Remdesivir**[d] **(BIIb)** for patients who are immunocompromised; **(BIII)** for other high-risk patients	
Hospitalized and Requires Conventional Oxygen[e]	Patients who require minimal conventional oxygen	**Remdesivir**[d,f] **(BIIa)**	For nonpregnant patients with D-dimer levels above the ULN who do not have an increased bleeding risk: • **Therapeutic dose of heparin**[h] **(CIIa)** For other patients: • **Prophylactic dose of heparin**, unless contraindicated **(AI)**; **(BIII)** for pregnant patients
	Most patients	Use **dexamethasone plus remdesivir**[f] **(BIIa)**. If remdesivir cannot be obtained, use **dexamethasone (BI)**.	
	Patients who are receiving dexamethasone and who have rapidly increasing oxygen needs and systemic inflammation	Add 1 of the following immunomodulators:[g] *Preferred* • **PO baricitinib (BIIa)** • **IV tocilizumab (BIIa)** *Alternatives* • **IV abatacept (CIIa)**	
Hospitalized and Requires HFNC Oxygen or NIV	All patients	**Dexamethasone** should be administered to all patients **(AI)**. If not already initiated, promptly add 1 of the following immunomodulators: *Preferred* • **PO baricitinib**[g,i] **(AI)** *Preferred Alternative* • **IV tocilizumab**[g,i] **(BIIa)** *Additional Alternatives (Listed in Alphabetical Order)* • **IV abatacept**[g,i] **(CIIa)** • **IV infliximab**[g,i] **(CIIa)** Add remdesivir to 1 of the options above in certain patients (for examples, see footnote).[j]	For patients without an indication for therapeutic anticoagulation: **Prophylactic dose of heparin**, unless contraindicated **(AI)**; **(BIII)** for pregnant patients For patients who are started on a therapeutic dose of heparin in a non-ICU setting and then transferred to the ICU, the Panel recommends switching to a **prophylactic dose of heparin**, unless there is another indication for therapeutic anticoagulation **(BIII)**.
Hospitalized and Requires MV or ECMO	All patients	**Dexamethasone** should be administered to all patients **(AI)**. If the patient has not already received a second immunomodulator, promptly add 1 of the following (listed in alphabetical order): • **PO baricitinib**[i,k] **(BIIa)** • **IV tocilizumab**[i,k] **(BIIa)**	

Antiviral ajanlar erken dönemde etkili ama...

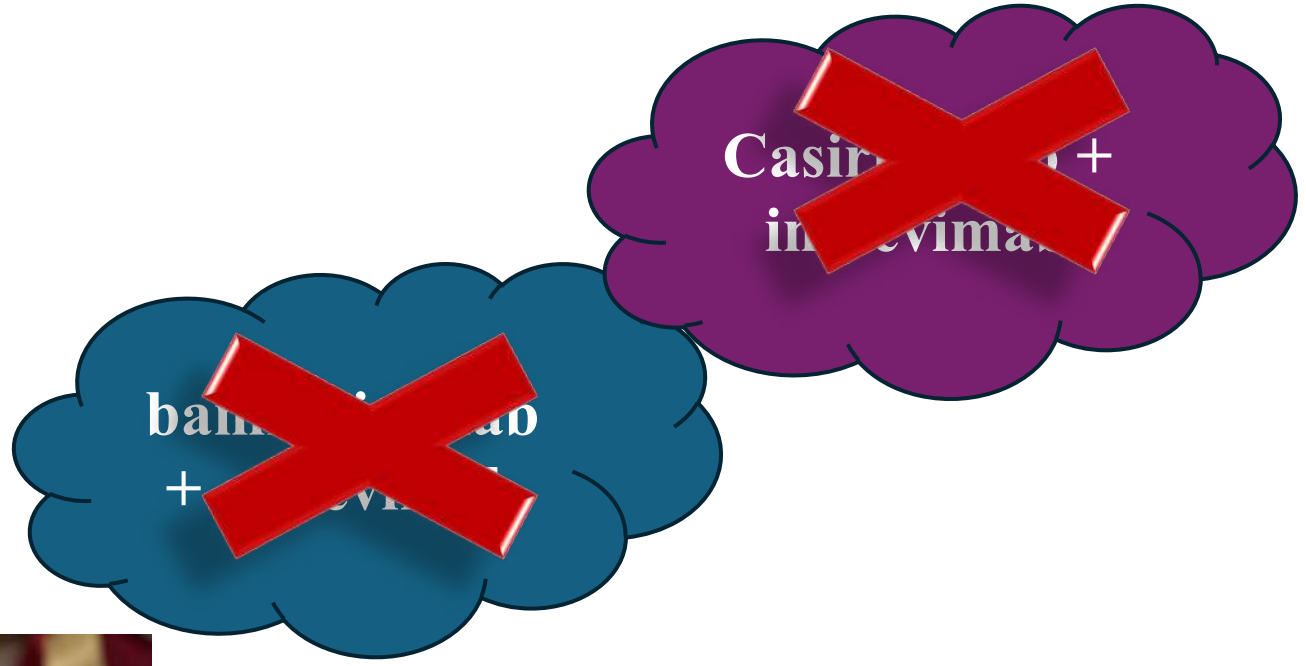
İmmünsupresif hastalarda uzamış semptomlar
Uzamış viral replikasyon

Uzun süreli

Paxlovid
Remdesivir

COVİD-19 Temas sonrası proflaksi?

OMİCRON



COVID-19 Treatment Guidelines Panel. Coronavirus Disease 2019 (COVID-19) Treatment Guidelines. National Institutes of Health.

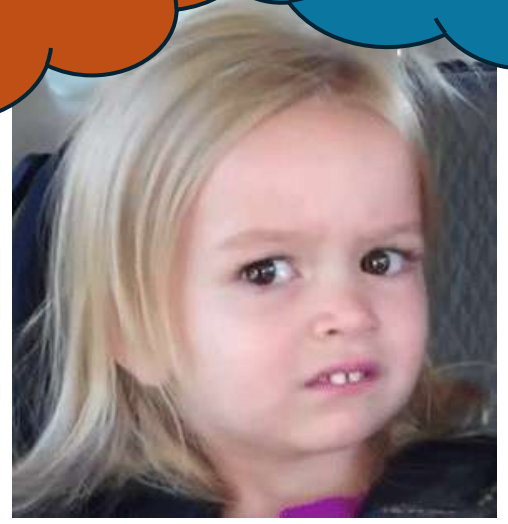
COVİD-19 ve Upuzun İsimleri....

- Persistan, rekürren veya yeni gelişen semptomlar
- Kardiyopulmoner şikayetler
- Nörokognitif bozukluk
- Yeni gelişen DM

Post COVİD durumu

Post COVİD sendromu

Long COVİD



Post akut sekel COVİD (PASC)

NIH | COVID-19 Treatment Guidelines

Persistent, New, or Recurrent Symptoms More Than 4 Weeks After SARS-CoV-2 Infection

Some patients report persistent, new, or recurrent symptoms and conditions (e.g., cardiopulmonary injury, neurocognitive impairment, new-onset diabetes) more than 4 weeks after the initial COVID-19 diagnosis.[50] The nomenclature for this phenomenon is evolving; no clinical terminology has been established. The terminology used includes long-COVID, post-COVID-19 condition, post-COVID-19 syndrome, and post-acute sequelae of SARS-CoV-2. People who have these symptoms or conditions have been called "long haulers."

Original Clinical Science—General

PASC in Solid Organ Transplant Recipients With Self-reported SARS-CoV-2 Infection

Sami Alasfar, MD,[1] Teresa Po-Yu Chiang, MD, MPH,[2] Andrew J. Snyder, BS,[3] Michael T. Ou, BS,[2] Brian J. Boyarsky, MD, PhD,[2] Aura T. Abedon, BS,[2] Jennifer L. Alejo, MD,[2] Sydney Cook, BS,[4] Willa Cochran, CRNP,[1] Emily Brigham, MD,[5,6] Ann M. Parker, MD, PhD,[1] Jacqueline Garonzik-Wang, MD, PhD,[7] Allan B. Massie, PhD,[8] Daniel C. Brennan, MD,[1] Tracy Vannorsdall, PhD,[9] Dorry L. Segev, MD, PhD,[8] and Robin K. Avery, MD[1]

- Travma 53%
- Kognitif bozukluk 50%
- Yorgunluk 41%
- Depresyon 36%
- Solunumsal problemler 35%
- Anksiyete 23%
- Tad alma bozukluğu 22%
- Koku alma bozukluğu 21%
- Kronik ağrı 19%

Nakil hastalarında sıklık daha fazla

The Journal of Infectious Diseases

MAJOR ARTICLE

IDSA Infectious Diseases Society of America

hivma hiv medicine association

OXFORD

Risk of Severe COVID-19 and Protective Effectiveness of Vaccination Among Solid Organ Transplant Recipients

Table 2. Risk of Severe COVID-19 by Transplantation and Transplant Organ

Transplant Organ	Mild/Moderate, No. (%) (n = 33 338)	Severe, No. (%) (n = 427)	% Severe Disease	Adjusted OR (95% CI)	*P* Value
None	26 805 (80.40)	177 (41.45)	0.66	Reference	
Kidney	4217 (12.65)	171 (40.05)	3.90	4.30 (3.27–5.65)	<.001
Liver	1910 (5.73)	47 (11.01)	2.40	3.22 (2.27–4.58)	<.001
Heart	223 (0.67)	15 (3.51)	6.30	7.60 (4.19–13.79)	<.001
Lung or heart/lung	66 (0.2)	10 (2.34)	13.16	18.14 (8.53–38.58)	<.001
Others	117 (0.35)	7 (1.64)	5.65	9.25 (3.99–21.43)	<.001

Ağır COVİD'e karşı aşı koruyuculuğu 2 doz aşı ile %47, 4 doz aşı ile %64

history prior to updated (2023–2024 Formula) vaccine*	Updated (2023–2024 Formula) vaccine	Number of updated (2023–2024 Formula) doses indicated†	Dosage (mL/ug)	cap and label colors	Interval between doses
Unvaccinated	Moderna	3	0.25 mL/25 ug	Dark blue cap; green label	Dose 1 and Dose 2: 4 weeks Dose 2 and Dose 3: At least 4 weeks
	OR				
	Pfizer-BioNTech	3	0.3 mL/3 ug	Yellow cap; yellow label	Dose 1 and Dose 2: 3 weeks Dose 2 and Dose 3: At least 8 weeks
1 dose any Moderna	Moderna	2	0.25 mL/25 ug	Dark blue cap; green label	Dose 1: 4 weeks after last dose Dose 1 and Dose 2: At least 4 weeks
2 doses any Moderna	Moderna	1	0.25 mL/25 ug	Dark blue cap; green label	At least 4 weeks after last dose
3 or more doses any Moderna	Moderna	1	0.25 mL/25 ug	Dark blue cap; green label	At least 8 weeks after last dose
1 dose any Pfizer-BioNTech	Pfizer-BioNTech	2	0.3 mL/3 ug	Yellow cap; yellow label	Dose 1: 3 weeks after last dose Dose 1 and Dose 2: At least 8 weeks
2 doses any Pfizer-BioNTech	Pfizer-BioNTech	1	0.3 mL/3 ug	Yellow cap; yellow label	At least 8 weeks after last dose
3 or more doses any Pfizer-BioNTech	Pfizer-BioNTech	1	0.3 mL/3 ug	Yellow cap; yellow label	At least 8 weeks after last dose

vaccines

MDPI

Review

Solid Organ Rejection following SARS-CoV-2 Vaccination or COVID-19 Infection: A Systematic Review and Meta-Analysis

Saad Alhumaid [1,*], Ali A. Rabaan [2,3,4], Kuldeep Dhama [5], Shin Jie Yong [6], Firzan Nainu [7], Khalid Hajissa [8], Nourah Al Dossary [9], Khulood Khaled Alajmi [10], Afaf E. Al Saggar [11], Fahad Abdullah AlHarbi [12], Mohammed Buhays Aswany [13], Abdullah Abdulaziz Alshayee [13], Saad Abdalaziz Alrabiah [13], Ahmed Mahmoud Saleh [13], Mohammed Ali Alqarni [13], Fahad Mohammed Al Gharib [14], Shahd Nabeel Qattan [15], Hassan M. Almusabeh [1], Hussain Yousef AlGhatm [16], Sameer Ahmed Almoraihel [17], Ahmed Saeed Alzuwaid [17],

Survey of current transplant center practices regarding COVID-19 vaccine mandates in the United States

Benjamin E. Hippen[1] | David A. Axelrod[2] | Kennan Maher[3] | Ruixin Li[3] | Deepali Kumar[4] | Yasar Caliskan[3] | Tarek Alhamad[5] | Mark Schnitzler[3] | Krista L. Lentine[3]

Has your center considered a COVID-19 vaccine mandate for *any candidates* for any solid-organ transplant? (n = 140)	*n* (%)
Yes	123 (87.9)
No	13 (9.3)
Unsure	4 (2.9)
Has your center considered a COVID-19 vaccine mandate for *deceased donor candidates* for any solid-organ transplant? (n = 140)	*n* (%)
Yes	50 (35.7)
No	85 (60.7)
Unsure	5 (3.6)

PERSONAL VIEWPOINT AJT

Mandating COVID-19 vaccination prior to kidney transplantation in the United States: No solutions, only decisions

Benjamin E. Hippen

PERSONAL VIEWPOINT

Ethical review of COVID-19 vaccination requirements for transplant center staff and patients

Olivia S. Kates[1] | Peter G. Stock[2] | Michael G. Ison[3] | Richard D. M. Allen[4] | Patrizia Burra[5] | Jong Cheol Jeong[6] | Vivek Kute[7] | Elmi Muller[8] | Alejandro Nino-Murcia[9] | Haibo Wang[10] | Anji Wall[11]

[1]Division of Infectious Diseases, Department of Medicine, Johns Hopkins University, Baltimore, Maryland

[2]Department of Surgery, University of California, San Francisco, San Francisco, California

[3]Division of Infectious Diseases, Feinberg School of Medicine, Northwestern University, Chicago, Illinois

[4]Bosch Institute, University of Sydney, Sydney, New South Wales, Australia

[5]Department of Surgery, Oncology and Gastroenterology, Padua University Hospital, Padua, Italy

[6]Department of Internal Medicine, Seoul National University Bundang Hospital,

Transplant centers seeking to increase coronavirus disease 2019 (COVID-19) vaccine coverage may consider requiring vaccination for healthcare workers or for candidates. The authors summarize current data to inform an ethical analysis of the harms, benefits, and individual and societal impact of mandatory vaccination, concluding that vaccine requirements for healthcare workers and transplant candidates are ethically justified by beneficence, net utility, and fiduciary duty to patients and public health. Implementation strategies should mitigate concerns about respect for autonomy and transparency for both groups. We clarify how the same arguments might be applied to related questions of caregiver vaccination, allocation of other healthcare resources, and mandates for non-COVID-19 vaccines. Finally, we call for effort to achieve global equity in vaccination as soon as possible.

Nakil öncesi herkese COVİD testi yapalım mı?

Şikayet ve bulguları varsa EVET

MÜMKÜNSE ertele

Vaka bazında karar ver, net süre yok

Donör için de aynı öneri geçerli

Pozitif saptadık ne yapalım?

Ne kadar erteleyeceğiz??

COVID-19 Treatment Guidelines Panel. Coronavirus Disease 2019 (COVID-19) Treatment Guidelines. National Institutes of Health.

Version 8 Release Date: February 20, 2024

Summary of Current Evidence and Information– Donor SARS-CoV-2 Testing & Organ Recovery from Donors with a History of COVID-19

Akciğer dışı donörlerden geçiş bildirilmemiş

End organ disfonksiyonu ve tromboz yok ise değerlendirilebilir

Erken dönem sonuçlar COVİD negatif donörler ile benzer

Version 8 Release Date: February 20, 2024

Summary of Current Evidence and Information– Donor SARS-CoV-2 Testing & Organ Recovery from Donors with a History of COVID-19

SARS-CoV-2 pozitif donör

Şikayet başlangıcı veya testten sonra en az 20 gün geçti ise akciğer uygun

Hiç şikayet yok ise Ct değeri ile risk değerlendirip tüm organları kullanabilirsin

c. The candidate risk of mortality or further complications while delaying transplantation and remaining on the waiting list.
d. Currently unknown long-term outcomes, including the possibility of thrombotic events, of recipients of organs from living donors with COVID-19

3. Infectious diseases experts can offer subject matter expertise when evaluating living donors who are found to be SARS-CoV-2 positive in the pre-donation period.

- Infectious diseases experts can offer subject matter expertise regarding transplant candidacy and potential treatment of asymptomatic candidates testing positive for SARS-CoV-2 at the time of organ offer.

DOI: 10.1111/tid.13998

TRANSPLANT INFECTIOUS DISEASE

ORIGINAL ARTICLE

Difference between SARS-CoV-2, seasonal coronavirus, influenza, and respiratory syncytial virus infection in solid organ transplant recipients

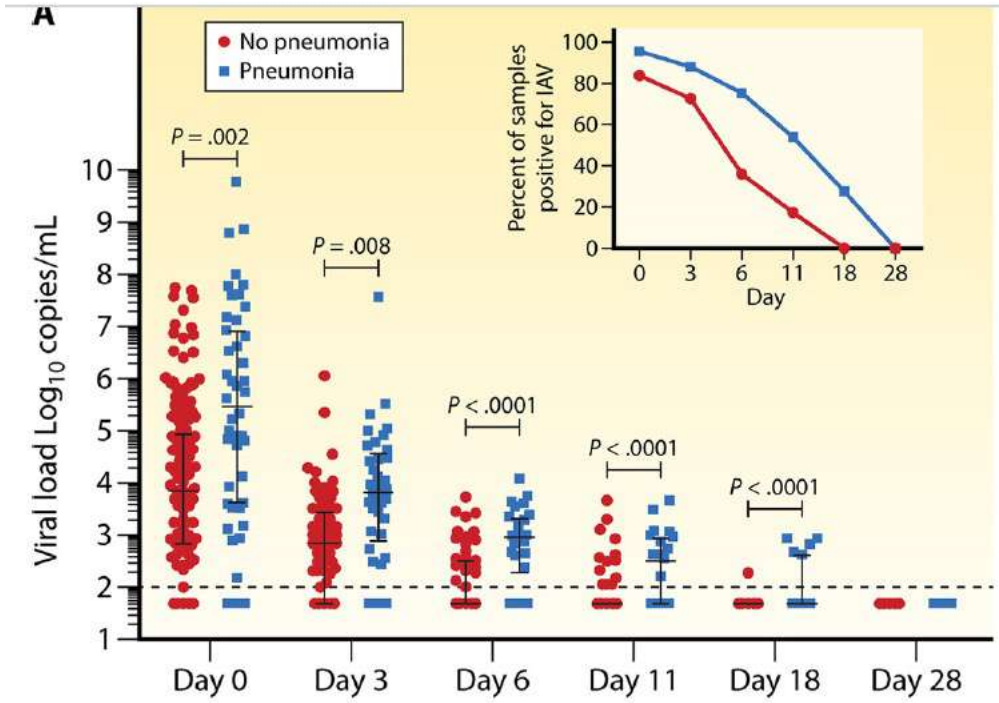
Maria A. Mendoza[1] | Gabriel Motoa[1] | Mohammed A. Raja[1] | Paola Frattaroli[1] | Anmary Fernandez[1] | Shweta Anjan[1,2] | Steve C. Courel[1] | Akina Natori[3] |

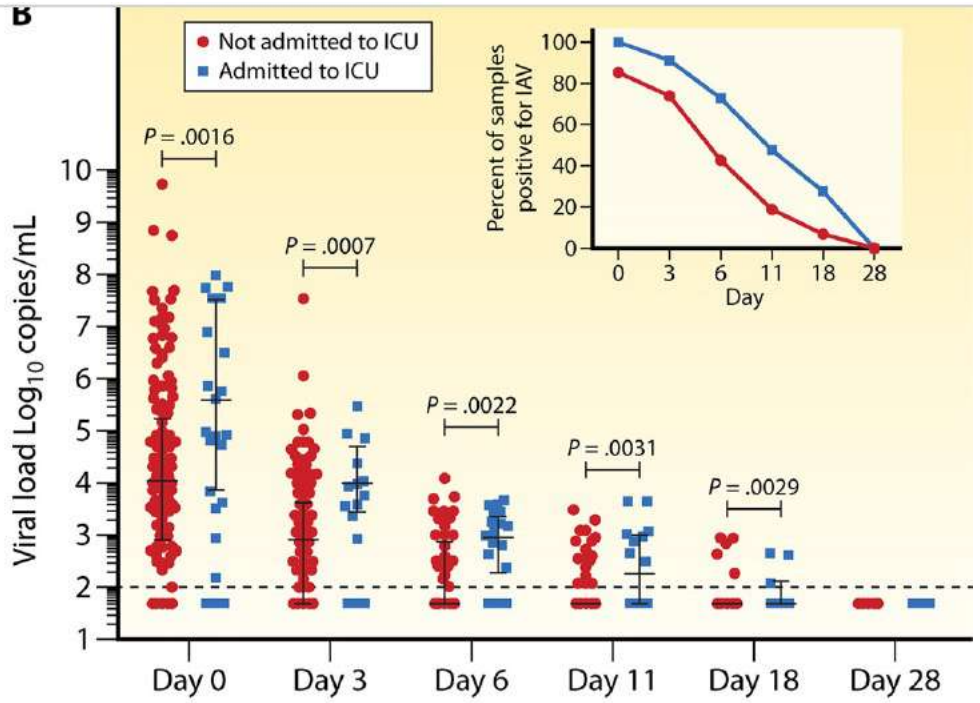
TABLE 3 Outcomes in solid organ transplant recipients with SARS-CoV-2, seasonal coronavirus, RSV, and influenza infection

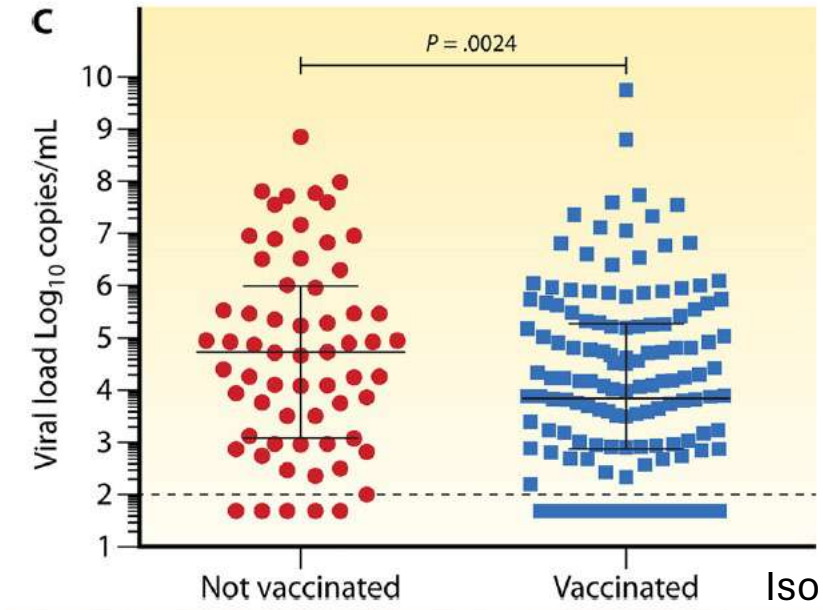
	SARS-COV-2 *N* = 157	Seasonal *N* = 70	RSV *N* = 50	Influenza *N* = 100
LRTI	103/130 (79.2%)	36/58 (62.1%)	26/47 (55.3%)	45/95 (47.4%)
Hospitalized*	128 (81.5%)	30 (42.8%)	34 (68.0%)	71 (71%)
ICU admission	44 (28.0%)	9 (12.8%)	5 (10.0%)	7 (7.0%)
Mechanical ventilation	25 (15.9%)	3 (4.3%)	2 (4.0%)	6 (6.0%)
Secondary infection	41 (26.11%)	14 (20.0%)	3 (6.0%)	19 (19.0%)
Rejection up to 90 days	7 (4.45%)	1 (1.43%)	2 (4.0%)	6 (6.0%)
Mortality at 90 days	21 (13.4%)	3 (4.3%)	1 (2.0%)	4 (4.0%)

Nakil hastalarinda İnfluenza

- Yeni bir gelişme yok.



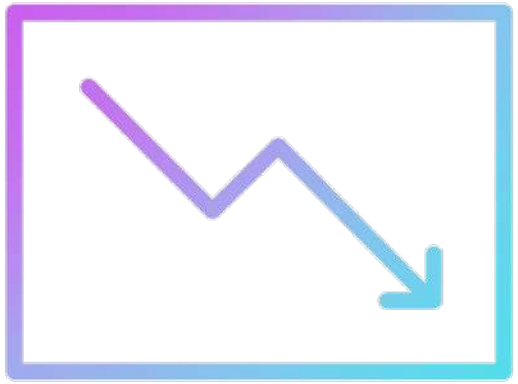




Ison MG, Hirsch HH. 2019. Community-acquired respiratory viruses in transplant patients: diversity, impact, unmet clinical needs. Clin Microbiol Rev 32:e00042-19.

İnfluenza Aşısı

Hastalığın ciddiyeti
Viral saçılım
YBÜ yatışı



İnfluenza Tedavi

Şüphe durumunda hızlıca başlanmalı

Semptom süresinden bağımsız

Oseltamivir
Zanamivir (inhale/iv)
Peramivir (iv) (sadece tedavi)
Baloxavir (sadece komplike olmayan influenza tedavisinde)
Laninamivir (sadece Japan and South Korea)

Manuel O, Estabrook M; American Society of Transplantation Infectious Diseases Community of Practice. RNA respiratory viral infections in solid organ transplant recipients: Guidelines from the American Society of Transplantation Infectious Diseases Community of Practice. Clin Transplant. 2019

İnfluenza Tedavi

Standart tedavi Oseltamivir 2x75 mg 5 gün süre ile

Uzamış viral saçılım?

Uzun süre? (10 gün)
Yüksek doz? (2x150 mg)

Zayıf öneri

İmmünkompetan hastada faydası gösterilmemiş!

Ison MG, Hirsch HH. 2019. Community-acquired respiratory viruses in transplant patients: diversity, impact, unmet clinical needs. Clin Microbiol Rev 32:e00042-19.

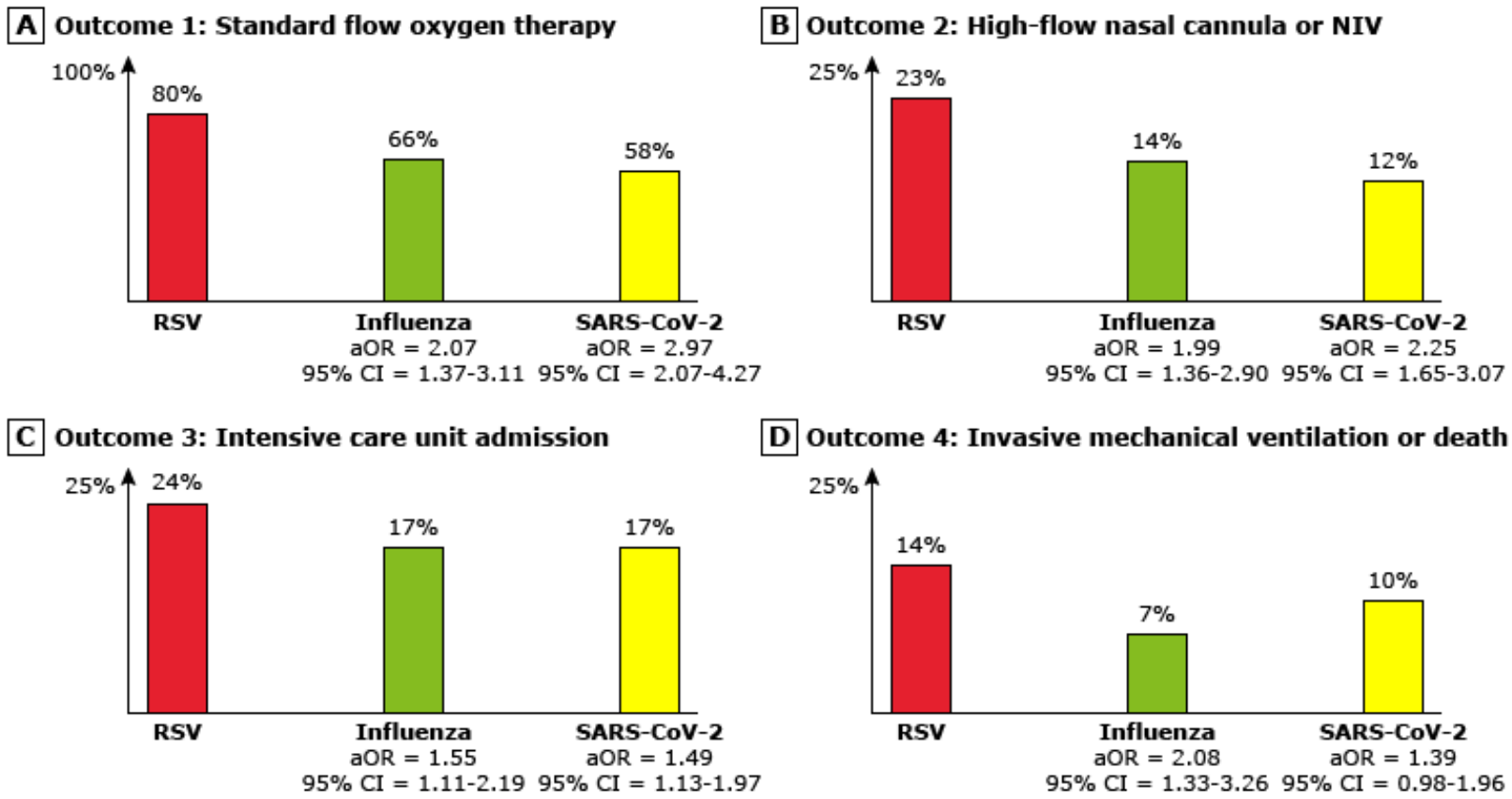
İnfluenza Proflaksi

- Aşı yanıtı düşük bekleniyor ise antiviral proflaksi düşünülebilir
- Oseltamivir 75 mg tek doz sezon başından itibaren 12 hafta süre ile
- Etkinlik %80
- Tanılı influenza ile yakın temas sonrası proflaksi

Manuel O, Estabrook M; American Society of Transplantation Infectious Diseases Community of Practice. RNA respiratory viral infections in solid organ transplant recipients: Guidelines from the American Society of Transplantation Infectious Diseases Community of Practice. Clin Transplant. 2019

RSV

Severity of disease for hospitalized patients with RSV, influenza, and SARS-CoV-2



Surie D, Yuengling KA, DeCuir J, et al. Disease severity of respiratory syncytial virus compared with COVID-19 and influenza among hospitalized adults aged ≥60 Years – IVY Network, 20 U.S. states, February 2022-May 2023. MMWR Morb Mortal Wkly Rep. 2023;72:1083.

RSV

HKHN alıcılarında üst solunum yolu enfeksiyonun alt solunum yolu enfeksiyonuna progresyonu %40-60, alt solunum yolu enfeksiyonunda mortalite yaklaşık %80

SON alıcılarında, RSV'ye bağlı alt solunum yolu enfeksiyonu akciğer alıcılarında kronik reject (bronşiyolit obliterans sendromu/kronik akciğer allograft disfonksiyonu) için risk faktörü

Waghmare A et al. Respiratory syncytial virus lower respiratory disease in hematopoietic cell transplant recipients: viral RNA detection in blood, antiviral treatment, and clinical outcomes. Clin Infect Dis. 2013 Dec;57(12):1731-41. doi: 10.1093/cid/cit639. Epub 2013 Sep 24. PMID: 24065324; PMCID: PMC3840404.

RSV Tedavi

- Optimal yaklaşım bilinmiyor
- Ribavirin aerosolize formu FDA tarafından risk gruplarında alt solunum yolu enfeksiyonunda onaylı
- Özellikle akciğer nakil alıcıları ve HKHN alıcılarında düşünülebilir (düşük kanıt düzeyi) fakat etkinliği kanıtlar randomize kontrollü çalışmalar yok
- HKHN alıcılarında skorlama sistemleri tedavi kararına yardımcı olabilir
- Ribavirin oral kullanım alternatif (2x600-800 mg 5-7 gün süre ile)
- Tek doz IVIG kullanımı? (UpToDate) (Rehber önerisi yok)

Ison MG, Hirsch HH. 2019. Community-acquired respiratory viruses in transplant patients: diversity, impact, unmet clinical needs. Clin Microbiol Rev 32:e00042-19.

Manuel O, Estabrook M; American Society of Transplantation Infectious Diseases Community of Practice. RNA respiratory viral infections in solid organ transplant recipients: Guidelines from the American Society of Transplantation Infectious Diseases Community of Practice. Clin Transplant. 2019

Original Article

The Use of Aerosolized Ribavirin in Respiratory Syncytial Virus Lower Respiratory Tract Infections in Adult Immunocompromised Patients: A Systematic Review

Lisa Avery[1,2], Charles Hoffmann[3], and Karen M. Whalen[2]

Hospital Pharmacy
2020, Vol. 55(4) 224–235

DOI: 10.1177/0018578719836646
journals.sagepub.com/home/hpx
SAGE

Conclusion

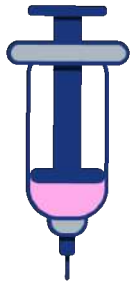
There is a lack of comparative trials on the use of RBV AER for the treatment of RSV LRTI in adult hospitalized immunocompromised patients. This systematic review only identified studies in the HSCT/BMT, leukemic, and transplant population. Dosing regimens ranged from 2 g over 2 to 3 hours every 8 hours to 6 g over 12 to 18 hours daily with no standardized durations. No conclusions can be made on the mortality benefit with combination therapy (IVIG and or PZB). There may be a mortality benefit when RBV AER is initiated early after the diagnosis or prior to MV, although this warrants further study. Patient isolation and the resulting psychological effects must be weighed against the benefit of therapy.

RSV Tedavi

- Bebeklerde RSV enfeksiyonunu önlemek için monoklonal antikorlar kullanılabilir.
- Ancak yetişkinlerde hastalığın önlenmesinde monoklonal antikorların herhangi bir rolü yoktur.
- Mevcut formülasyonlar kullanılarak uygun dozların kas içine veya deri altına verilmesi mümkün değildir.

Use of Respiratory Syncytial Virus Vaccines in Older Adults: Recommendations of the Advisory Committee on Immunization Practices — United States, 2023

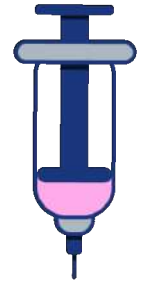
Michael Melgar, MD[1]; Amadea Britton, MD[1]; Lauren E. Roper, MPH[1]; H. Keipp Talbot, MD[2]; Sarah S. Long, MD[3]; Camille N. Kotton, MD[4]; Fiona P. Havers, MD[1]



Arexvy

Recommendations for Use of RSV Vaccines in Older Adults

On June 21, 2023, ACIP recommended that adults aged ≥60 years may receive a single dose of RSV vaccine, using shared clinical decision-making.§§§



Abrysvo

TABLE 1. Efficacy of 1 dose of GSK respiratory syncytial virus RSVpreF3 vaccine against respiratory syncytial virus–associated disease among adults aged ≥60 years — multiple countries, 2021–2023

Efficacy evaluation period	Vaccine efficacy against outcome*	
	RSV-associated LRTD†	RSV-associated medically attended LRTD§
Season 1¶	82.6 (57.9–94.1)**	87.5 (58.9–97.6)††
Season 2§§	56.1 (28.2–74.4)††	—¶¶
Combined seasons 1 and 2 (interim)***	74.5 (60.0–84.5)†††	77.5 (57.9–89.0)††

TABLE 3. Efficacy of 1 dose of Pfizer respiratory syncytial virus RSVpreF vaccine against respiratory syncytial virus–associated disease among adults aged ≥60 years — multiple countries, 2021–2023

Efficacy evaluation period	Vaccine efficacy against outcome, % (95% CI)*	
	RSV-associated LRTD†	RSV-associated medically attended LRTD§
Season 1¶	88.9 (53.6–98.7)	84.6 (32.0–98.3)
Season 2 (interim)**	78.6 (23.2–96.1)	—††
Combined seasons 1 and 2 (interim)§§	84.4 (59.6–95.2)	81.0 (43.5–95.2)

ACIP Home

Meeting Information

Committee Information +

ACIP Shared Clinical Decision-Making Recommendations

When does ACIP make shared clinical decision-making recommendations?

Generally, ACIP makes shared clinical decision-making recommendations when individuals may benefit from vaccination, but broad vaccination of people in that group is unlikely to have population-level impacts.

Use of Respiratory Syncytial Virus Vaccines in Older Adults: Recommendations of the Advisory Committee on Immunization Practices — United States, 2023

Michael Melgar, MD[1]; Amadea Britton, MD[1]; Lauren E. Roper, MPH[1]; H. Keipp Talbot, MD[2]; Sarah S. Long, MD[3]; [illegible]MD[4]; Fiona P. Havers, MD[1]

BOX. Underlying medical conditions and other factors associated with increased risk for severe RSV disease

Chronic underlying medical conditions associated with increased risk

- Lung disease (such as chronic obstructive pulmonary disease and asthma)
- Cardiovascular diseases (such as congestive heart failure and coronary artery disease)
- Moderate or severe immune compromise*
- Diabetes mellitus
- Neurologic or neuromuscular conditions
- Kidney disorders
- Liver disorders
- Hematologic disorders
- Other underlying conditions that a health care provider determines might increase the risk for severe respiratory disease

Other factors associated with increased risk

- Frailty†
- Advanced age§
- Residence in a nursing home or other long-term care facility
- Other underlying factors that a health care provider determines might increase the risk for severe respiratory disease

World Health Organization

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Data

About WHO

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- Rift Valley fev
- Zika
- "Disease X"*

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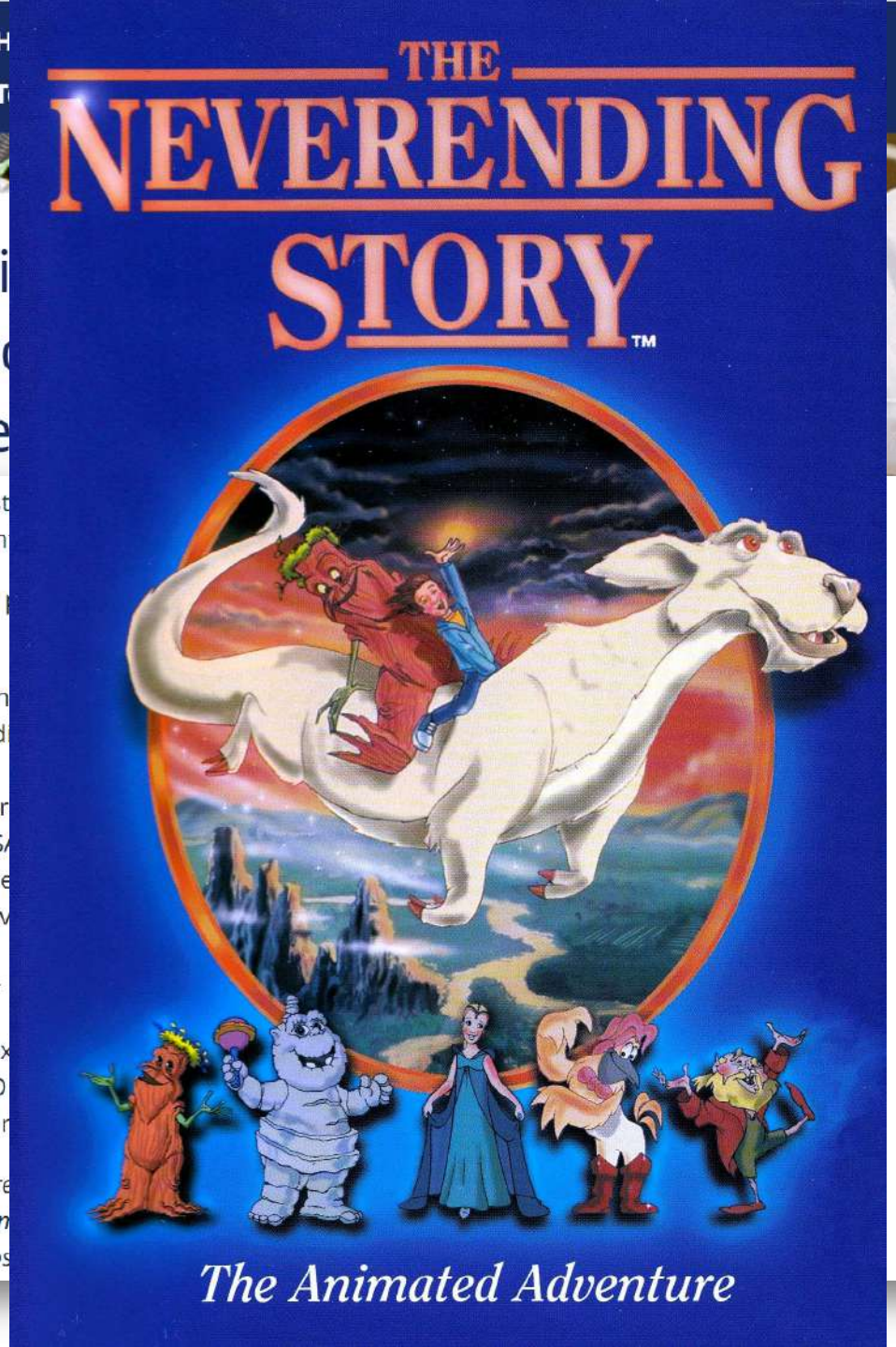

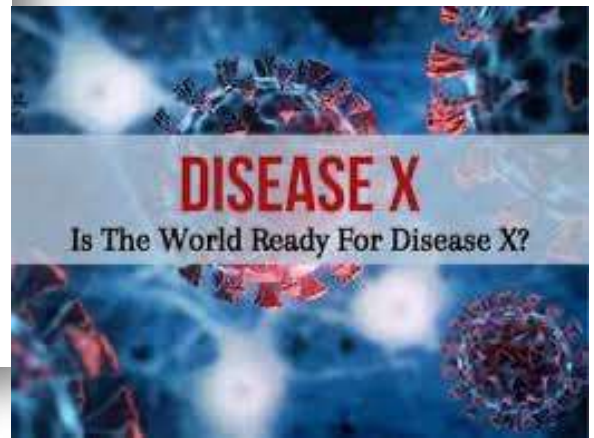

Teşekkürler..