

# COVID-19 ve İnfluenza

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(KUISCID)





# Solunum Yolu Virüsleri

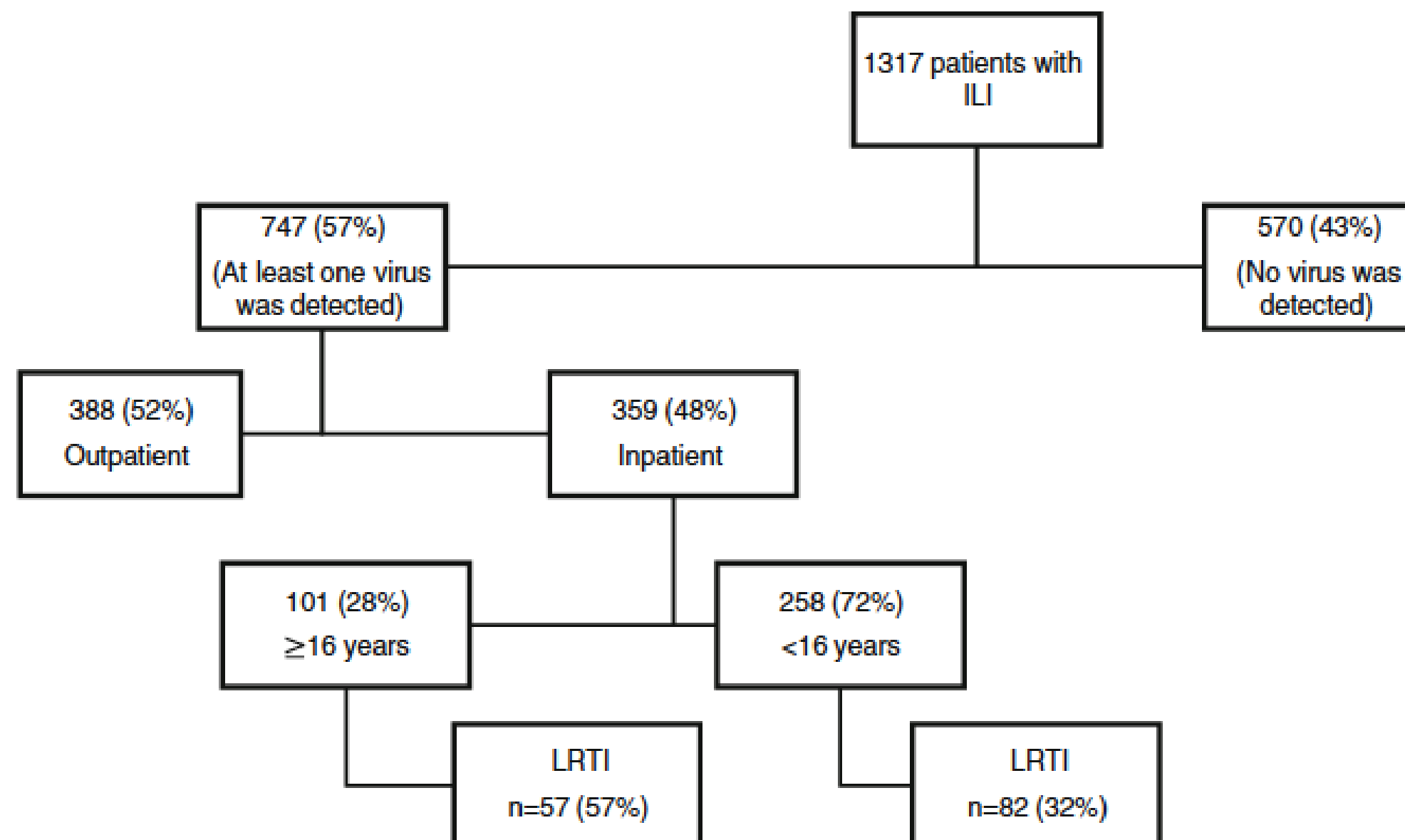
European Journal of Clinical Microbiology & Infectious Diseases (2018) 37:779–783

<https://doi.org/10.1007/s10096-017-3174-6>

ORIGINAL ARTICLE

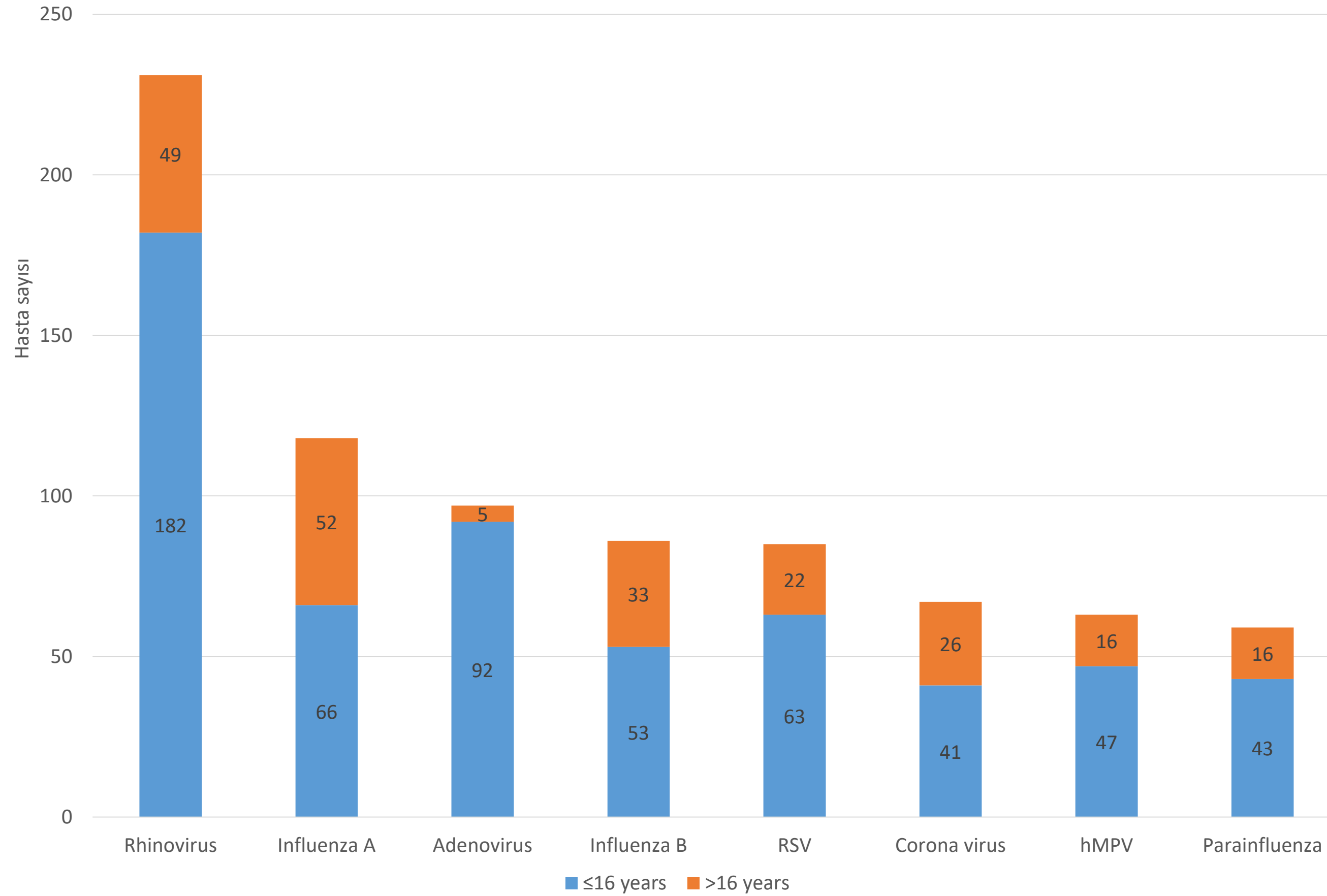
## The rapid diagnosis of viral respiratory tract infections and its impact on antimicrobial stewardship programs

Şiran Keske<sup>1</sup> • Önder Ergönül<sup>1,2</sup> • Faik Tutucu<sup>2</sup> • Doruk Karaaslan<sup>2</sup> • Erhan Palaoğlu<sup>3</sup> • Füsün Can<sup>4</sup>





# Solunum Yolu Virüsleri



	<b>Koronaviruslar</b>			<b>İnfluenza</b>
	SARS	MERS	COVID-19	pH1N1
Olgu sayıları	8000	2500	>50M	Milyonlar
Ölüm Oranı (%)	8.5	35	3	0.02-0.4
Ro	1.8	0.5	3	1.2

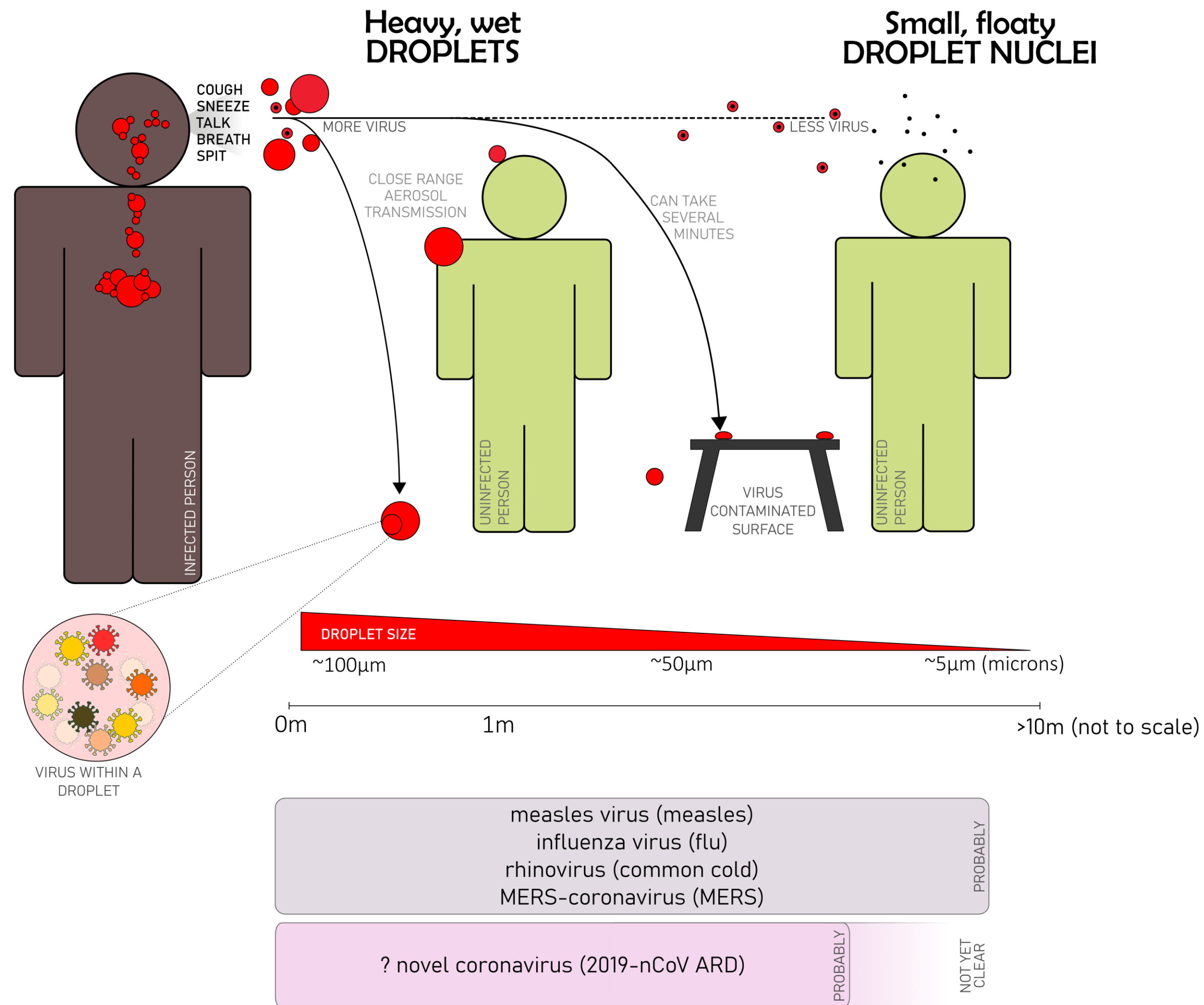
Petrosillo N, Viceconte G, Ergonul O, Ippolito G, Peterson E.  
COVID-19, SARS and MERS: Are they closely related?  
Clinical Microbiology and Infection 2020



# COVID-19 ve Influenza

	Influenza	Covid-19	comment
Kuluçka süresi	2 (1-3)	5 (2-14)	
Semptomlar		Anosmi, ishal daha sık	
Damlacık (Droplet)	Evet	Evet	
Aerosol	Hayır	Evet	
Tanı			
Tam kan sayım			
Lökopeni	Evet	Evet	
Lenfopeni	Evet	Evet	
Thrombocytopenia	Evet	Evet	
PCR			
Antikor testi	Yok	Var	
Tedavi			
Oseltamivir	Etkili	Değil	Hidroksiklorokin ile verilmemeli
Favipiravir	?	?	Bir taşla 2 kuş?
Aşı	60-70% effective	90%	

# Droplet ve Aerosol



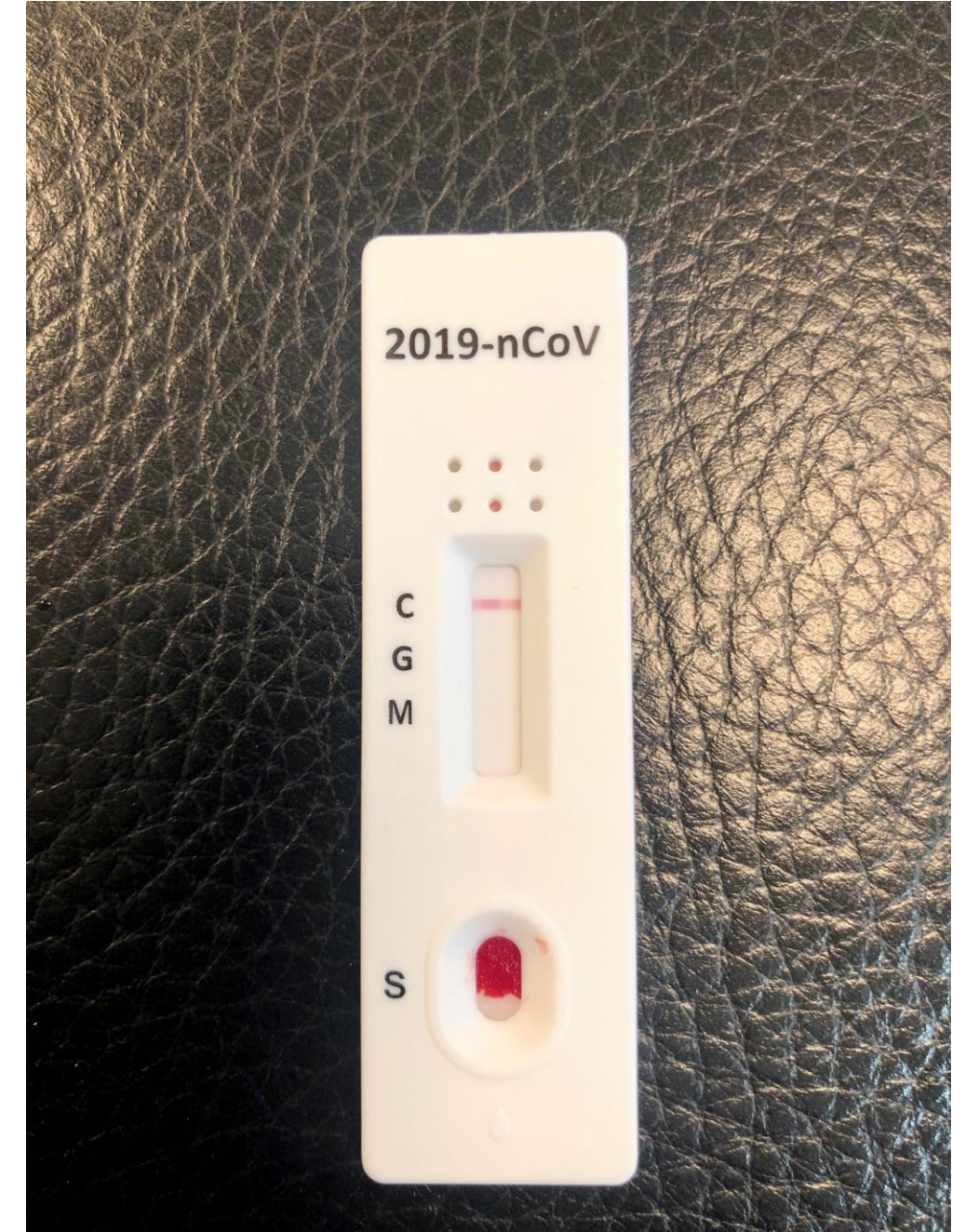


## **Tanı Yöntemleri Çalışmıyor**

Test Duyarlılığı %55 – 60

PCR tarama için kullanılmamalı

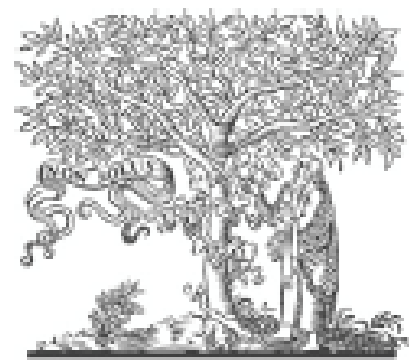
Tarama için antikor testleri



**Etkin Tedavi Yok**

**Bulaşma Yolu Tartışmalı**





ELSEVIER

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# Clinical Microbiology and Infection

journal homepage: [www.clinicalmicrobiologyandinfection.com](http://www.clinicalmicrobiologyandinfection.com)



Original article

## National case fatality rates of the COVID-19 pandemic

Önder Ergönül<sup>1, 2, 3, \*</sup>, Merve Akyol<sup>4</sup>, Cem Tanrıöver<sup>4</sup>, Henning Tiemeier<sup>5</sup>,  
Eskild Petersen<sup>3, 6</sup>, Nicola Petrosillo<sup>3, 7</sup>, Mehmet Gönen<sup>2, 4, 8</sup>

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**Table 2**

Multivariable analysis for the prediction of national case fatality rates (CFRs) (as of 18th August 2020)

	Standardized coefficient	95% confidence interval	p value
Number of tests (per 1000)	−3.54	[−5.60, −1.47]	0.002
Obesity in ages 18+ (%)	3.26	[1.20, 5.33]	0.003
Tuberculosis incidence (per 1000 people)	3.15	[1.09, 5.22]	0.004
Duration since first death (days)	2.89	[0.83, 4.96]	0.008
Median age (years)	2.83	[0.76, 4.89]	0.009
Number of hospital beds (per 1000 people)	−2.47	[−4.54, −0.41]	0.021
Rural population (%)	−2.19	[−4.25, −0.13]	0.039
Raised blood pressure in ages 18+ (%)	1.50	[−0.57, 3.56]	0.148
Male population (%)	1.35	[−0.71, 3.42]	0.189



# Yeniden Enfeksiyon Mümkün mü?

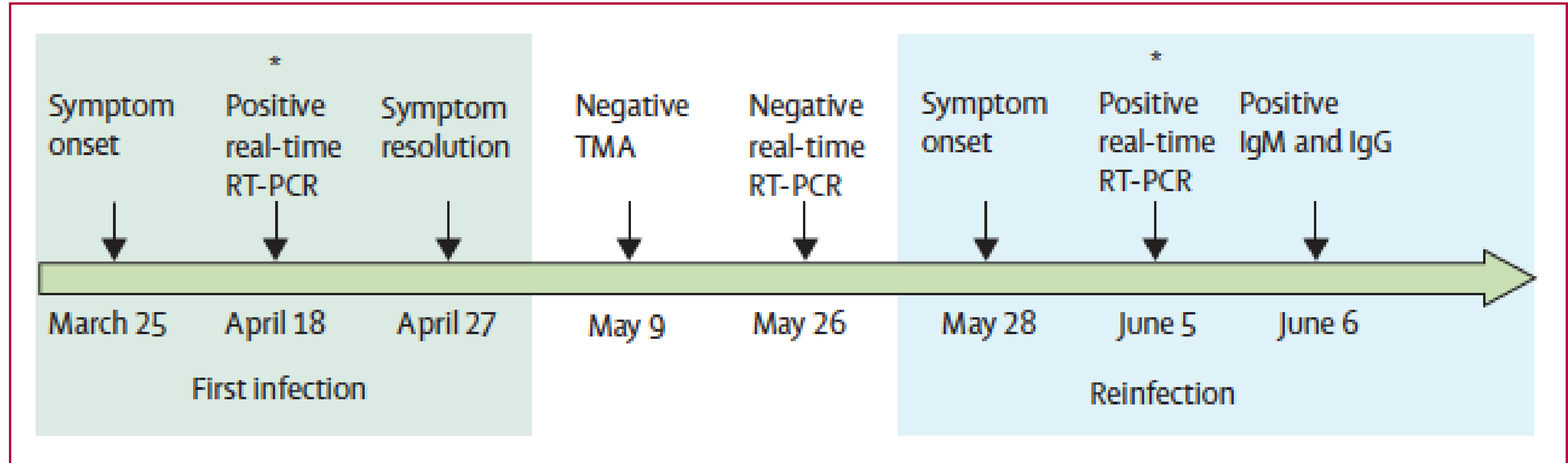


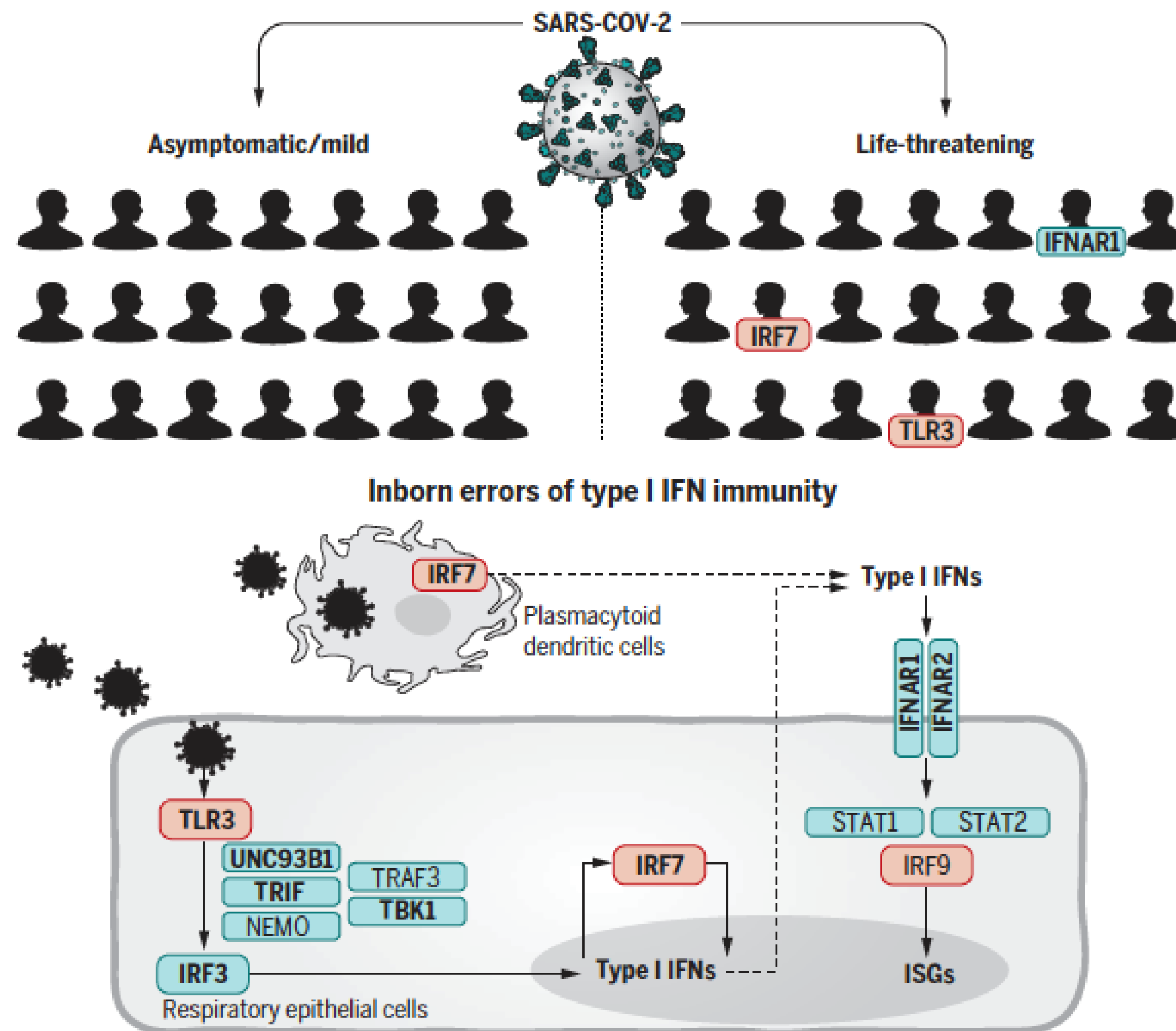
Figure 1: Timeline of symptom onset, molecular diagnosis, and sequencing of specimens  
TMA=transcription-mediated amplification. \*Sequenced specimens.

## Sorular:

1. Sıklığı nedir?
2. Daha mı ağır, daha mı hafif?
3. Aşılar işe yaracak mı?

## CORONAVIRUS

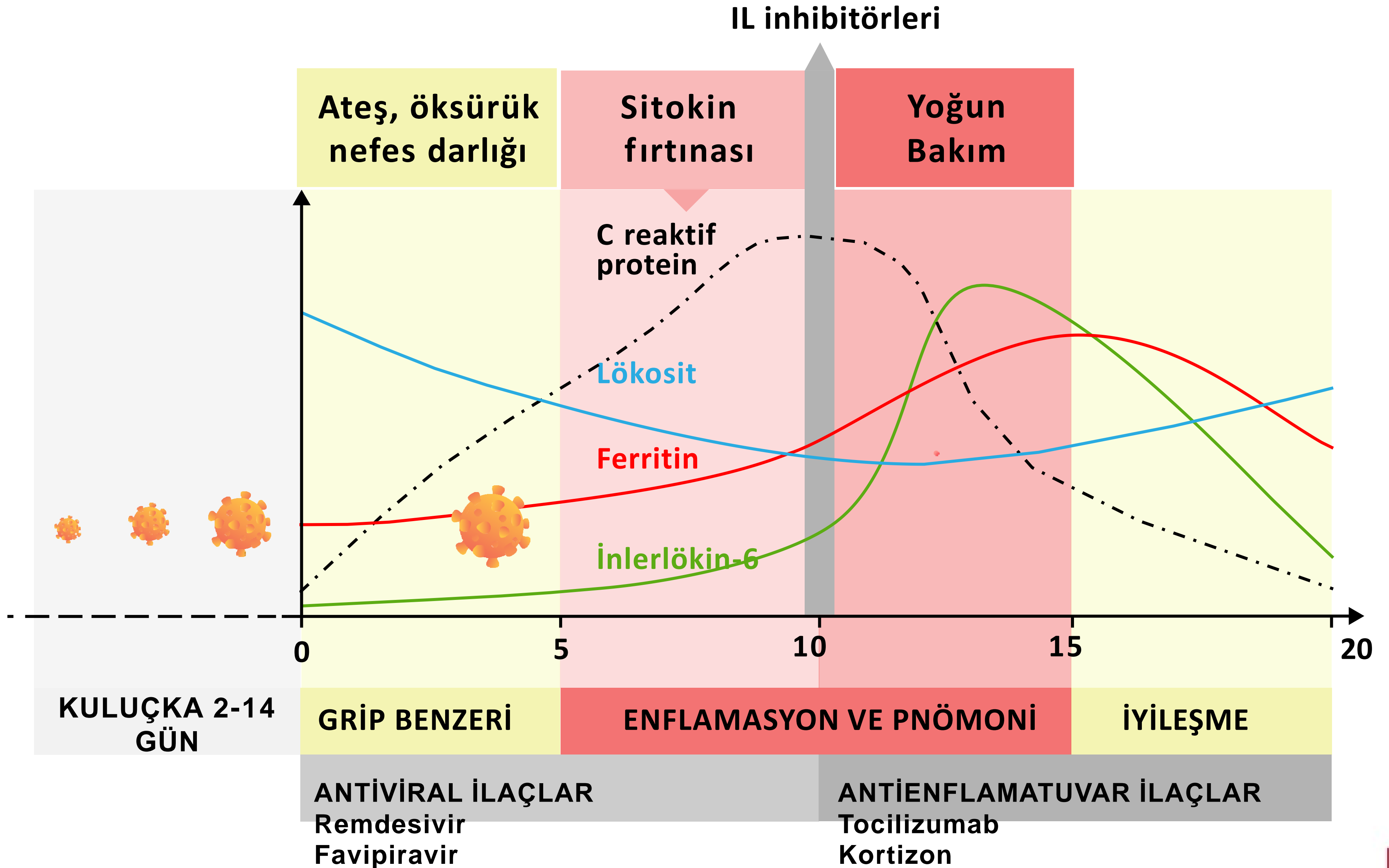
# Inborn errors of type I IFN immunity in patients with life-threatening COVID-19



**Inborn errors of TLR3- and IRF7-dependent type I IFN production and amplification underlie life-threatening COVID-19 pneumonia.** Molecules in red are encoded by core genes, deleterious variants of which underlie critical influenza pneumonia with incomplete penetrance, and deleterious variants of genes encoding biochemically related molecules in blue underlie other viral illnesses. Molecules represented in bold are encoded by genes with variants that also underlie critical COVID-19 pneumonia.



# The Course of The Infection





Contents lists available at ScienceDirect

International Journal of Infectious Diseases

journal homepage: [www.elsevier.com/locate/ijid](http://www.elsevier.com/locate/ijid)

## Appropriate use of tocilizumab in COVID-19 infection

Şiran Keske<sup>a</sup>, Süda Tekin<sup>b</sup>, Bilgin Sait<sup>c</sup>, Pelin İrkören<sup>b</sup>, Mahir Kapmaz<sup>b</sup>,  
Cansu Çimen<sup>a</sup>, Semra Uğur<sup>d</sup>, İrfan Çelebi<sup>h</sup>, Veli Oğuzalp Bakır<sup>e</sup>, Erhan Palaoglu<sup>f</sup>,  
Evren Şentürk<sup>d</sup>, Benan Çağlayan<sup>g</sup>, Nahit Çakar<sup>d</sup>, Levent Tabak<sup>g</sup>, Önder Ergönül<sup>b,\*</sup>

<sup>a</sup>American Hospital, Department of Infectious Diseases and Clinical Microbiology, Istanbul, Turkey

<sup>b</sup>Koç University, School of Medicine, Department of Infectious Diseases and Clinical Microbiology, Istanbul, Turkey

<sup>c</sup>American Hospital, Department of Internal Medicine, Istanbul, Turkey

<sup>d</sup>Koç University, School of Medicine, Department Anesthesiology & Intensive Care Unit, Istanbul, Turkey

<sup>e</sup>Koç University, College of Engineering, Department of Industrial Engineering, Istanbul, Turkey

<sup>f</sup>American Hospital, Clinical Laboratory, Istanbul, Turkey

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<sup>h</sup>American Hospital, Department of Radiology and Beykent University School of Medicine, Turkey

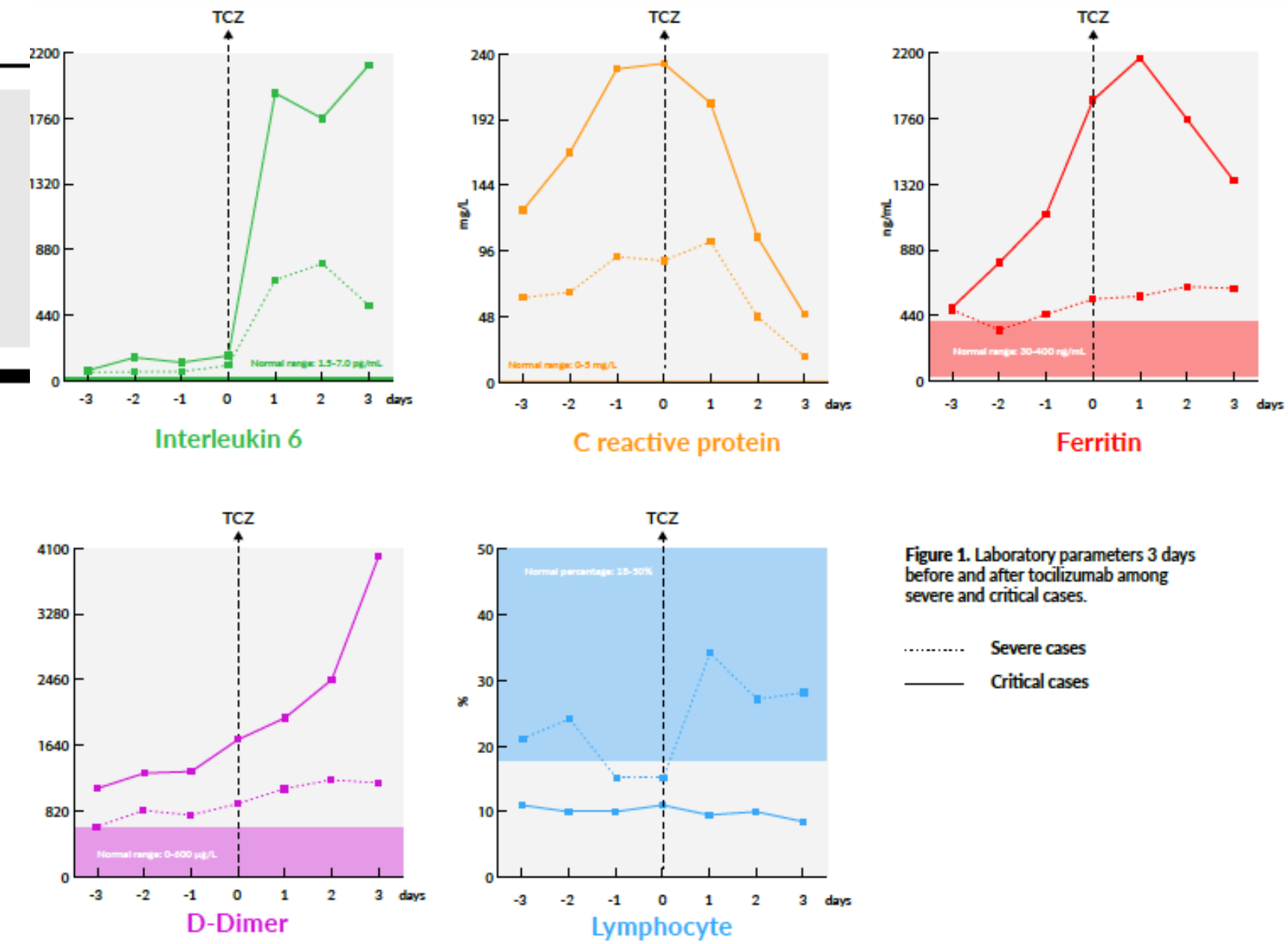


Figure 1. Laboratory parameters 3 days before and after tocilizumab among severe and critical cases.

..... Severe cases  
—— Critical cases

Tocilizumab alan toplam 43 hasta

Ciddi seyirli hastalarda yoğun bakımdan önce alanlarda ölüm yok



Treatment	n=36 (%)	Countries
Primarily Antiviral effect		
Lopinavir/ritonavir	n=13 (36.1)	Hungary, Turkey, Italy, Poland, Thailand, Croatia, Korea, Ukraine, Albania, Cyprus, Slovenia, China, Serbia
HCQ	n=12 (33.3)	Hungary, Turkey, Thailand, Croatia, Korea, Ukraine, Albania, Peru, Cyprus, Mexico, Slovenia, Serbia
Azithromycin	n=12 (33.3)	Hungary, Turkey, Italy, Croatia, Korea, Macedonia, Albania, Peru, Cyprus, Slovenia, Bulgaria, Serbia
Remdesivir	n=11 (30.5)	Poland, Denmark, France, Belgium, Israel, Germany, Netherlands, Sweden, Cyprus, UK, Serbia
Oseltamivir	n=8 (22.2)	Hungary, Turkey, Croatia, Korea, Ukraine, Cyprus, Bulgaria, Serbia
Favipiravir	n=7 (19.4)	Hungary, Turkey, Poland, Thailand, Korea, Serbia, Portugal
Ribavirin	n=3 (8.3)	Korea, China, Serbia
Doxycycline	n=4 (11.1)	Hungary, Croatia, Korea, Bulgaria



Treatment	n=36 (%)	Countries
Primarily antiinflammatory effect		
Corticosteroids	n=26 (72.2)	Hungary,Turkey, Italy, Poland, Thailand, Denmark, France, Belgium, Israel, Germany, Canada, Netherlands, Sweden, Croatia, Korea, Albania, Peru, Cyprus, Mexico, Finland, UK, Slovenia, China, Bulgaria, Serbia, Portugal
IL-6 blocker (tocilizumab)	n=10 (27.7)	Turkey, Italy, Poland, Thailand, Croatia, Korea, Albania, Peru, Serbia, Portugal
IL-6 blocker (sarilumab)	n=3 (8.3)	Italy, Israel, Korea
IL-1 blocker (anakinra)	n=2 (5.5)	Turkey, Korea
Eculizumab	n=2 (5.5)	Italy, Korea
Bevacizumab	n=1 (2.7)	Korea
JAK-inhibitor (baricitinib)	n=1 (2.7)	Korea
Convalescent plasma	n=9 (25)	Hungary,Turkey, Italy,Israel, Croatia, Macedonia, China, Bulgaria, Serbia
Mesenchymal stem cell	n=0	



## DISEASE SEVERITY

## PANEL'S RECOMMENDATIONS

(Recommendations are listed in order of preference in each category below; however, all options are considered acceptable.)

Not Hospitalized  
or  
Hospitalized but Does Not Require  
Supplemental Oxygen

No specific antiviral or immunomodulatory therapy recommended  
The Panel **recommends against** the use of **dexamethasone (AI)**  
See the Remdesivir section for a discussion of the data on using this drug in hospitalized patients with moderate COVID-19.<sup>a</sup>

Hospitalized and Requires  
Supplemental Oxygen

(but Does Not Require Oxygen Delivery  
Through a High-Flow Device,  
Noninvasive Ventilation, Invasive  
Mechanical Ventilation, or ECMO)

**Remdesivir** 200 mg IV for one day, followed by remdesivir 100 mg IV once daily for 4 days or until hospital discharge, whichever comes first **(AI)<sup>b,c,d</sup>**  
or  
**Remdesivir** (dose and duration as above) plus **dexamethasone<sup>e</sup>** 6 mg IV or PO for up to 10 days or until hospital discharge, whichever comes first **(BIII)<sup>f</sup>**  
If **remdesivir** cannot be used, **dexamethasone<sup>e</sup>** may be used instead **(BIII)**

Hospitalized and Requires Oxygen  
Delivery Through a High-Flow Device  
or Noninvasive Ventilation

**Dexamethasone<sup>d</sup>** plus **remdesivir** at the doses and durations discussed above **(AIII)<sup>f</sup>**  
or  
**Dexamethasone<sup>d,e</sup>** at the dose and duration discussed above **(AI)**

Hospitalized and Requires Invasive  
Mechanical Ventilation or ECMO

**Dexamethasone<sup>d,e</sup>** at the dose and duration discussed above **(AI)**  
or  
**Dexamethasone<sup>e</sup>** plus **remdesivir** for patients who have recently been intubated at the doses and durations discussed above **(CIII)<sup>f</sup>**

Rating of Recommendations: A = Strong; B = Moderate; C = Optional

Rating of Evidence: I = One or more randomized trials with clinical outcomes and/or validated laboratory endpoints; II = One or more well-designed, nonrandomized trials or observational cohort studies; III = Expert opinion

## Summary Recommendations

**Remdesivir is the only Food and Drug Administration-approved drug for the treatment of COVID-19.** In this section, the COVID-19 Treatment Guidelines Panel (the Panel) provides recommendations for using antiviral drugs to treat COVID-19 based on the available data. **As in the management of any disease, treatment decisions ultimately reside with the patient and their health care provider.** For more information on these antiviral agents, see [Table 2](#).

### Remdesivir

- See [Therapeutic Management of Patients with COVID-19](#) for recommendations on using remdesivir with or without dexamethasone.

### Chloroquine or Hydroxychloroquine With or Without Azithromycin

- The Panel **recommends against** the use of **chloroquine** or **hydroxychloroquine** with or without azithromycin for the treatment of COVID-19 in hospitalized patients (AI).
- In nonhospitalized patients, the Panel **recommends against** the use of **chloroquine** or **hydroxychloroquine** with or without **azithromycin** for the treatment of COVID-19, except in a clinical trial (AI).
- The Panel **recommends against** the use of **high-dose chloroquine** (600 mg twice daily for 10 days) for the treatment of COVID-19 (AI).

### Lopinavir/Ritonavir and Other HIV Protease Inhibitors

- The Panel **recommends against** using **lopinavir/ritonavir (AI)** or **other HIV protease inhibitors (AIII)** to treat COVID-19, except in a clinical trial.

### Ivermectin

- The Panel **recommends against** the use of **ivermectin** for the treatment of COVID-19, except in a clinical trial (AIII).

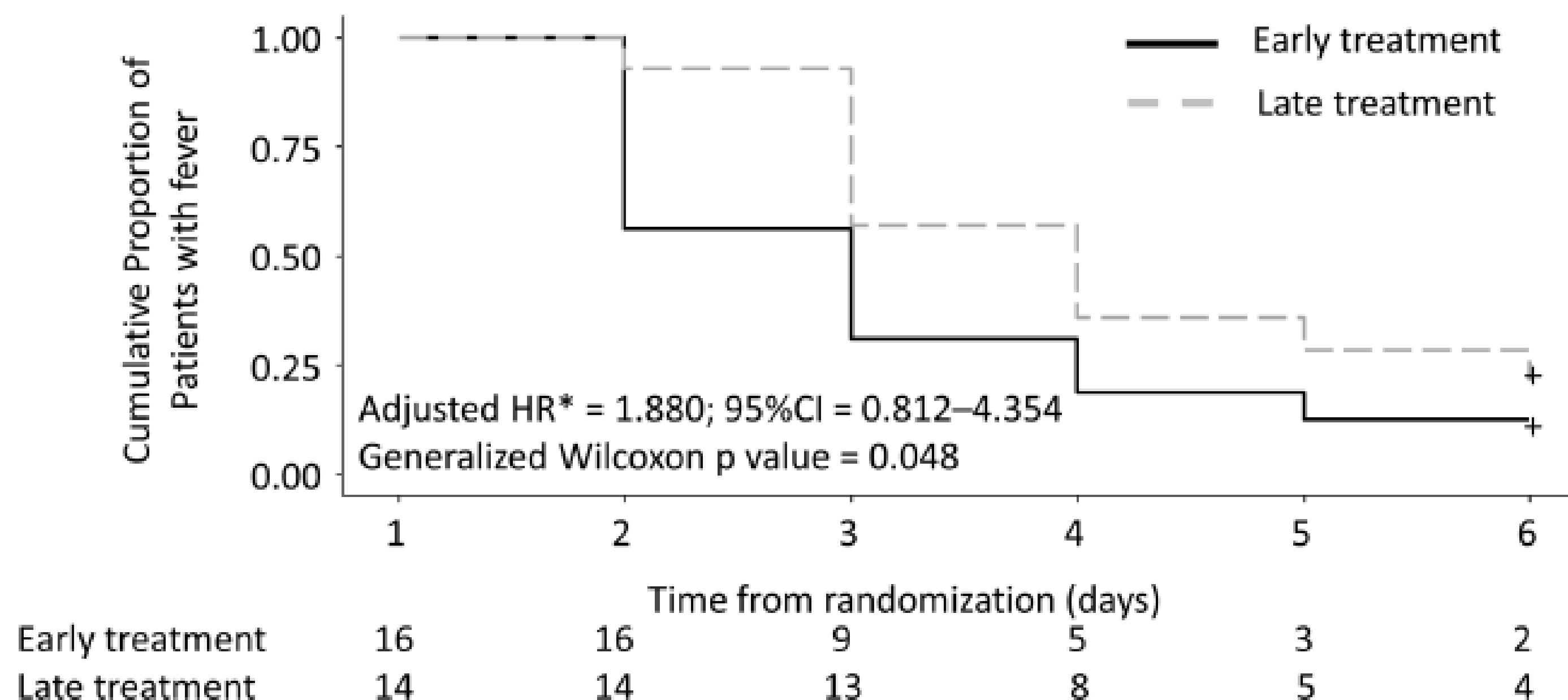
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**Rating of Recommendations:** A = Strong; B = Moderate; C = Optional

**Rating of Evidence:** I = One or more randomized trials with clinical outcomes and/or validated laboratory endpoints; II = One or more well-designed, nonrandomized trials or observational cohort studies; III = Expert opinion

## A prospective, randomized, open-label study of late favipiravir in hospitalized patients with COVID-19

Yohei Doi, Masaya Hibino, Ryota Hase, Michiko Yamamoto, Yu Kasamatsu, Masahiro Hirose, Yoshikazu Mutoh, Yoshito Homma, Masaki Terada, Taku Ogawa, Fumihiro Kashizaki, Toshihiko Yokoyama, Hayato Koba, Hideki Kasahara, Kazuhisa Yokota, Hideaki Kato, Junichi Yoshida, Toshiyuki Kita, Yasuyuki Kato, Tadashi Kamio, Nobuhiro Kodama, Yujiro Uchida, Nobuhiro Ikeda, Masahiro Shinoda, Atsushi Nakagawa, Hiroki Nakatsumi, Tomoya Horiguchi, Mitsunaga Iwata, Akifumi Matsuyama, Sumi Banno, Takenao Koseki, Mayumi Teramachi, Masami Miyata, Shigeru Tajima, Takahiro Maeki, Eri Nakayama, Satoshi Taniguchi, Chang Kweng Lim, Masayuki Saijo, Takumi Imai, Hisako Yoshida, Daijiro Kabata, Ayumi Shintani, Yukio Yuzawa, Masashi Kondo



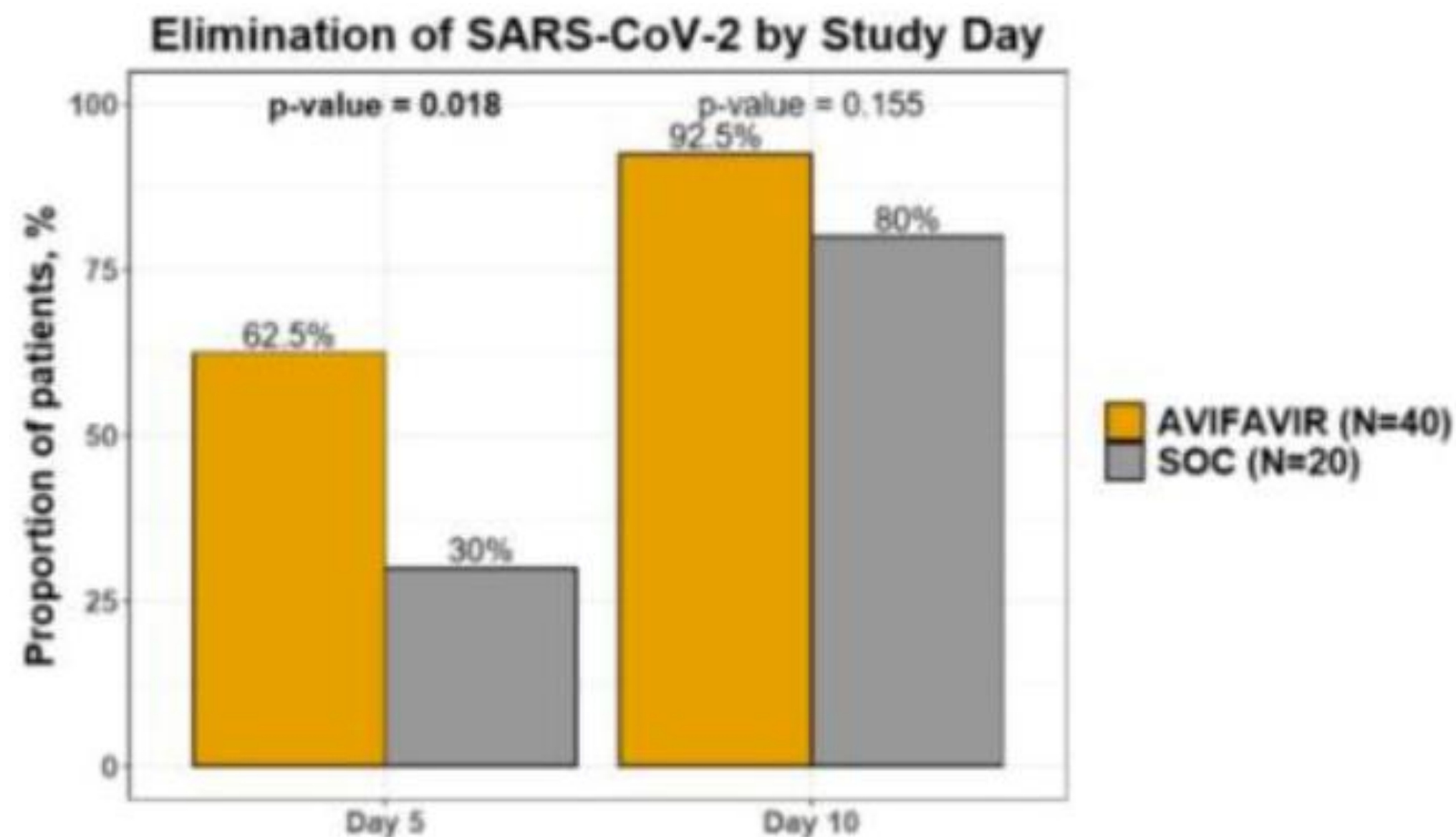


# Favipiravir, Rusya, n=60 (3 grup: 3x20)

## AVIFAVIR for Treatment of Patients with Moderate COVID-19:

### Interim Results of a Phase II/III Multicenter Randomized Clinical Trial

Andrey A. Ivashchenko<sup>1</sup>, Kirill A. Dmitriev<sup>2</sup>, Natalia V. Vostokova<sup>3</sup>, Valeria N. Azarova<sup>3</sup>, Andrew A. Blinow<sup>4</sup>, Alina N. Egorova<sup>3</sup>, Ivan G. Gordeev<sup>5</sup>, Alexey P. Ilin<sup>6</sup>, Ruben N. Karapetian<sup>7</sup>, Dmitry V. Kravchenko<sup>6</sup>, Nikita V. Lomakin<sup>8</sup>, Elena A. Merkulova<sup>3</sup>, Natalia A. Papazova<sup>9</sup>, Elena P. Pavlikova<sup>10</sup>, Nikolay P. Savchuk<sup>11</sup>, Elena N. Simakina<sup>12</sup>, Tagir A. Sitdekov<sup>2</sup>, Elena A. Smolyarchuk<sup>13</sup>, Elena G. Tikhomolova<sup>14</sup>, Elena V. Yakubova<sup>4</sup>, Alexandre V. Ivachtchenko<sup>11</sup>





# Tedavi Seçenekleri

## Yararsız antiviraller:

1. Hidroxychloroquine (HCQ)
  - HCQ + azitromycin
2. Lopinavir/ritonavir

## Kısmen yararlı antiviraller:

1. Remdesivir
2. Favipiravir

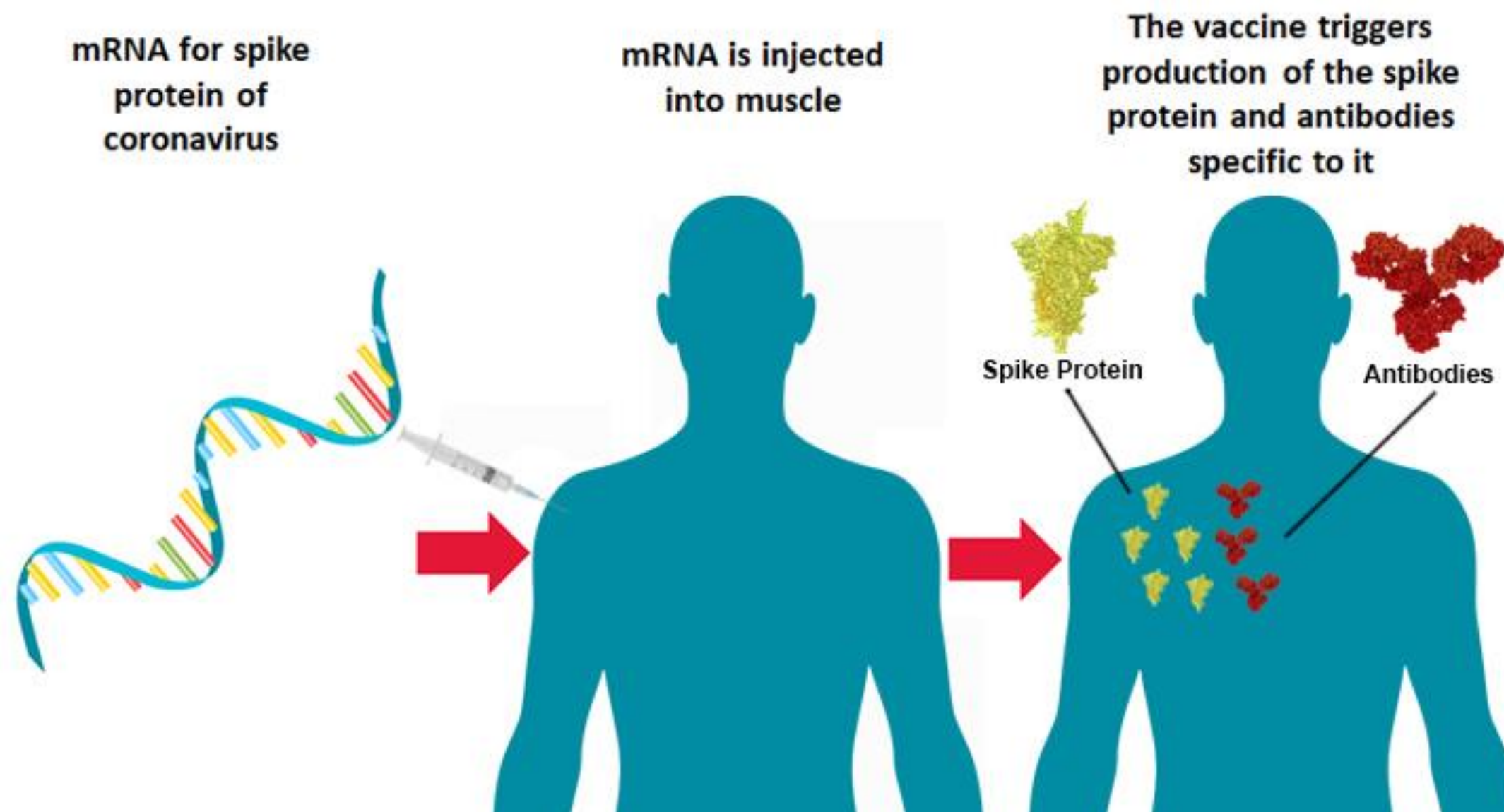
## Anti-enflamatuvar:

1. Tocilizumab (IL-6 inhibitor)
2. Kortikosteroidler





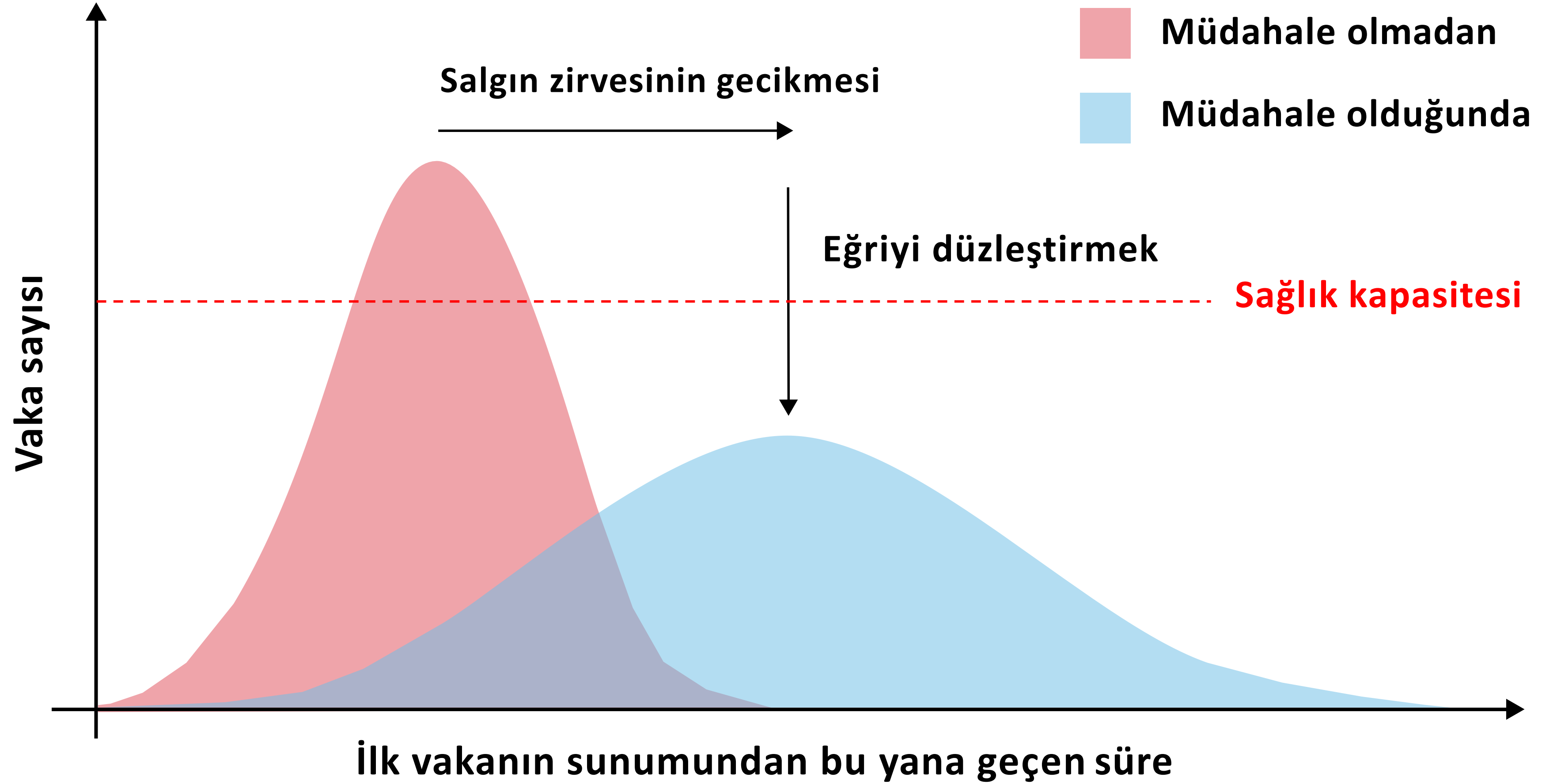
# RNA AŞISI







# Pandeminin Seyri





# Sonuçlar

- Maske
- Sosyal mesafe
- Temizlik
- Evde kalma

Avoid 3 C:

- Closed : kapalı ortamlar
- Contact: temas
- Crowd : gereksiz sosyalleşmeler