



Our new world: COVID-19 and transplant

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Disclosure

I have no relevant financial relationships with commercial interests to disclose

My presentation does include discussion of off-label or investigational use.

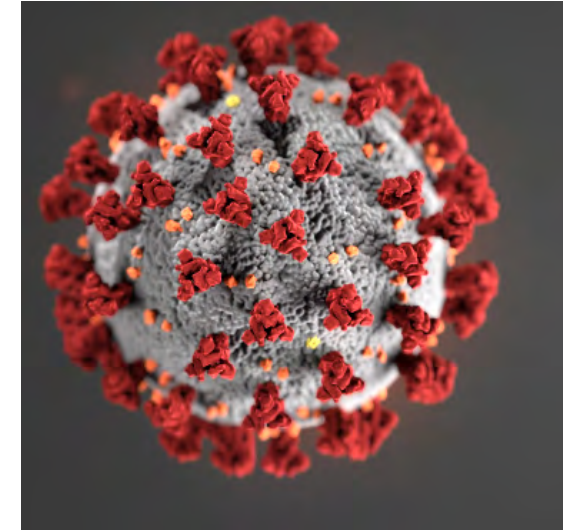
COVID-19, Kidney disease and Transplant

Caused by **SARS-CoV-2**

Initial outbreak in Wuhan, China

Human-to-human transmission confirmed in January 2020

Transmission occurs primarily via respiratory droplets



The lungs are the organs most affected by COVID-19

- Respiratory failure through diffuse alveolar damage
- also affecting the CNS (brainstem), GI, CVS (thrombosis), and the KIDNEYS

Highest risk is in those with “pre-existing conditions”

- Both Kidney disease (as well as its causes) and Transplant (immunosuppression) are considered increased risks

Trend of transplants by week



Select region
(All)

Select organ
(All)

Select age group
(All)

Number of transplants by week



Living donor transplants



Deceased donor transplants



Select region
Northeast

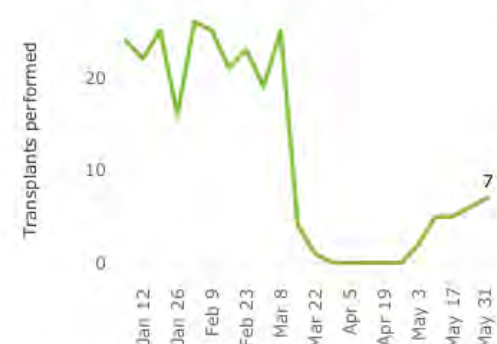
Select organ
(All)

Select age group
(All)

Number of transplants in the northeastern US by week



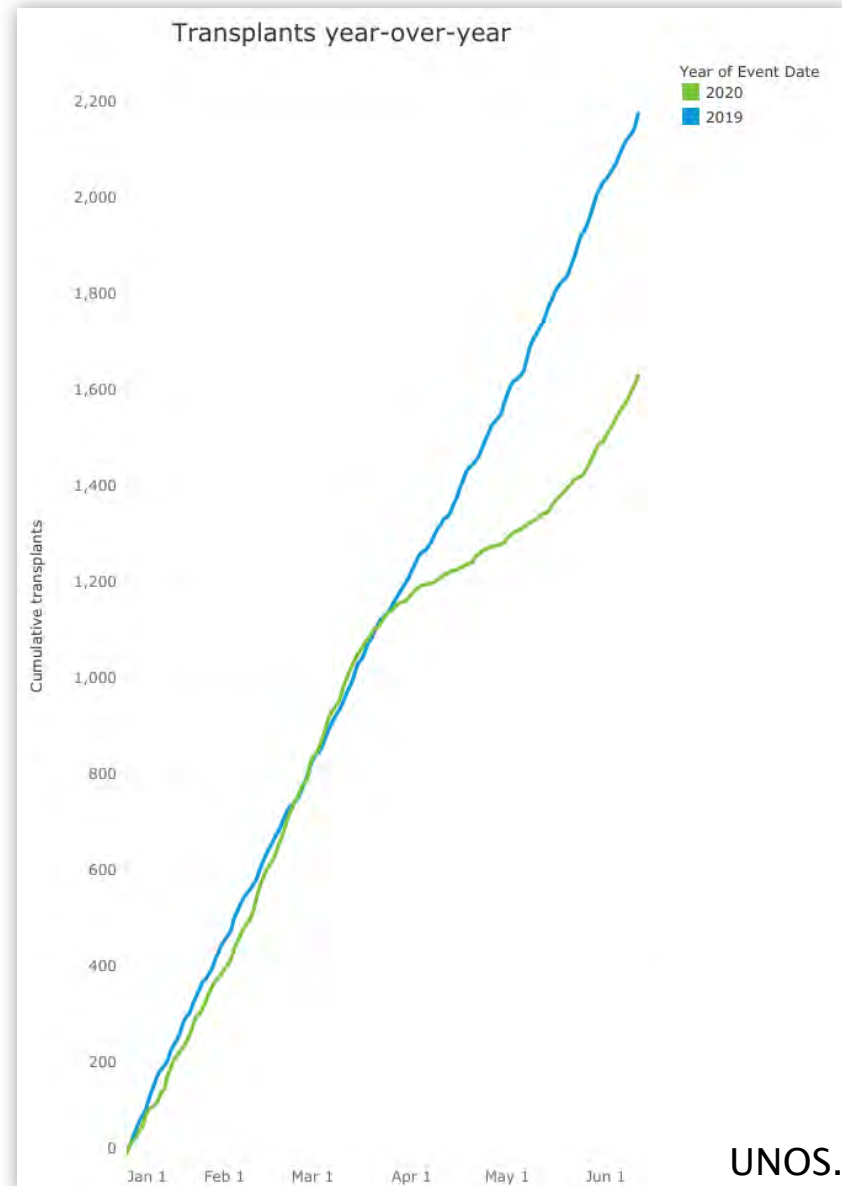
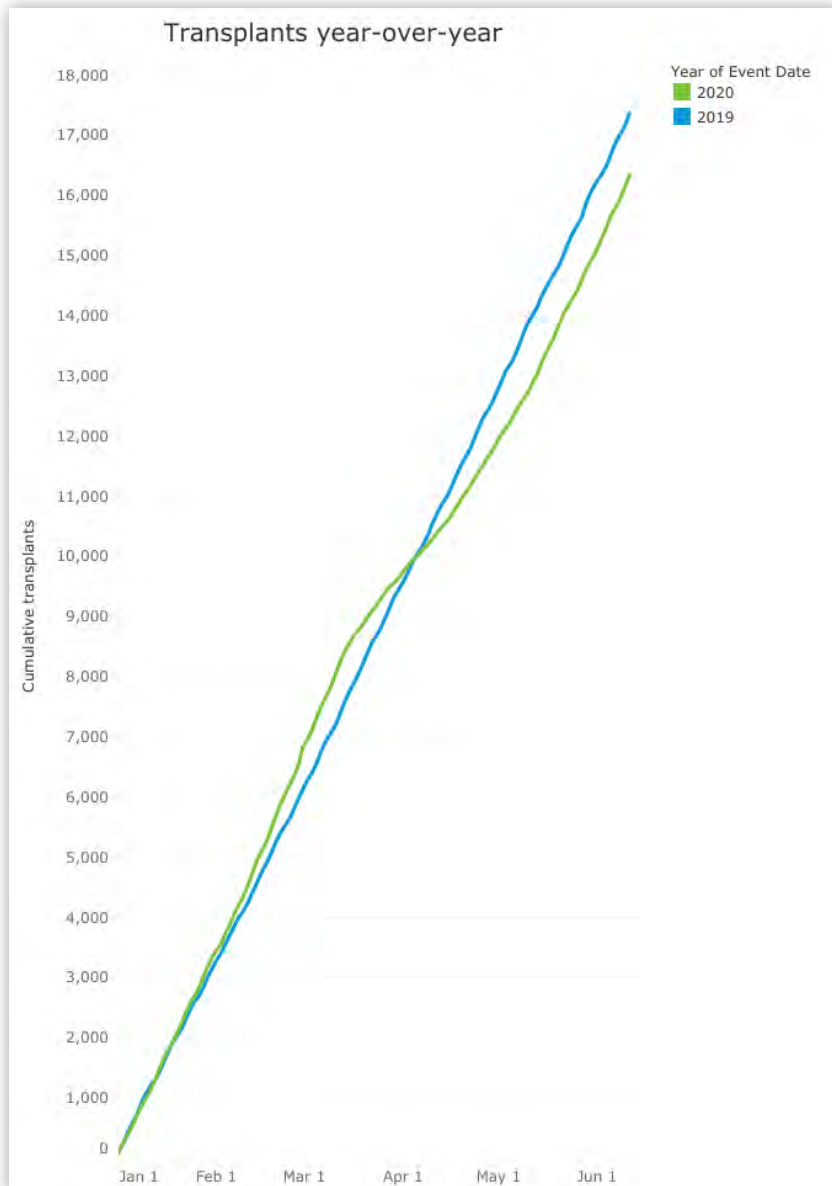
Living donor transplants



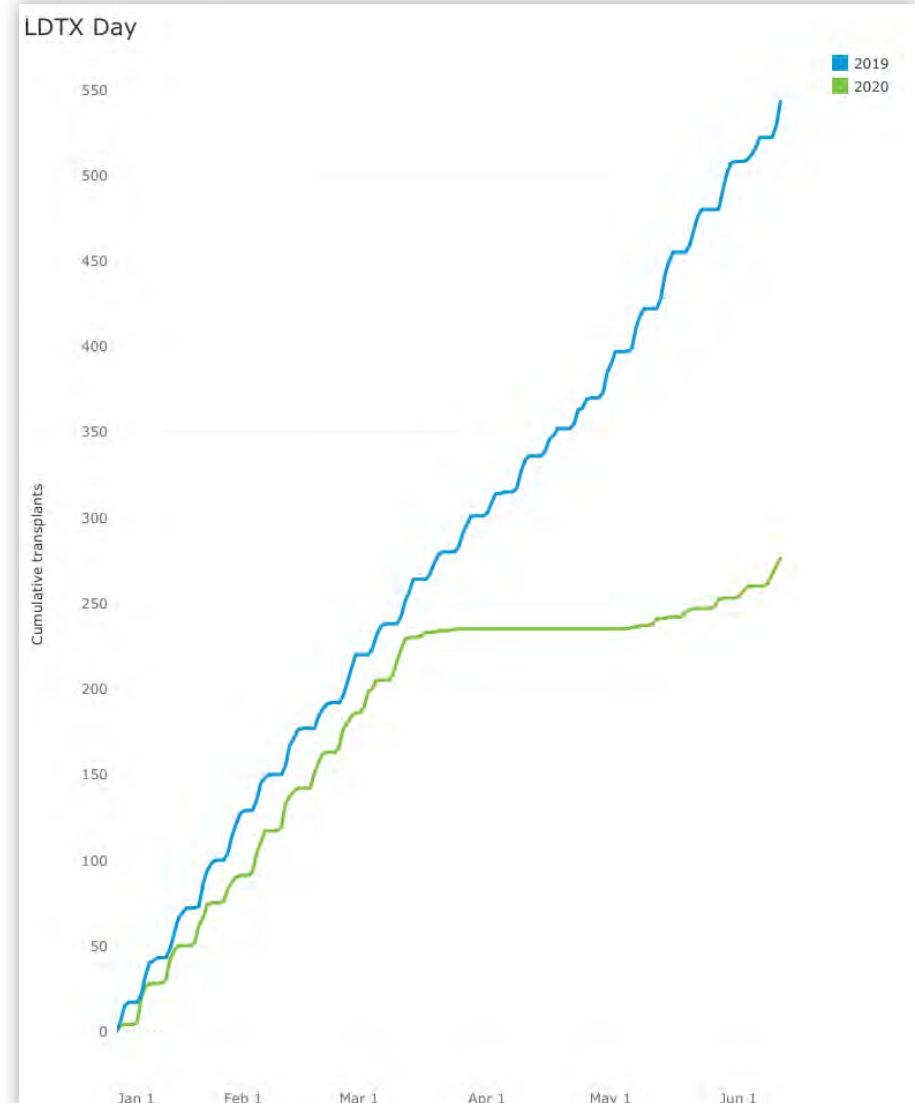
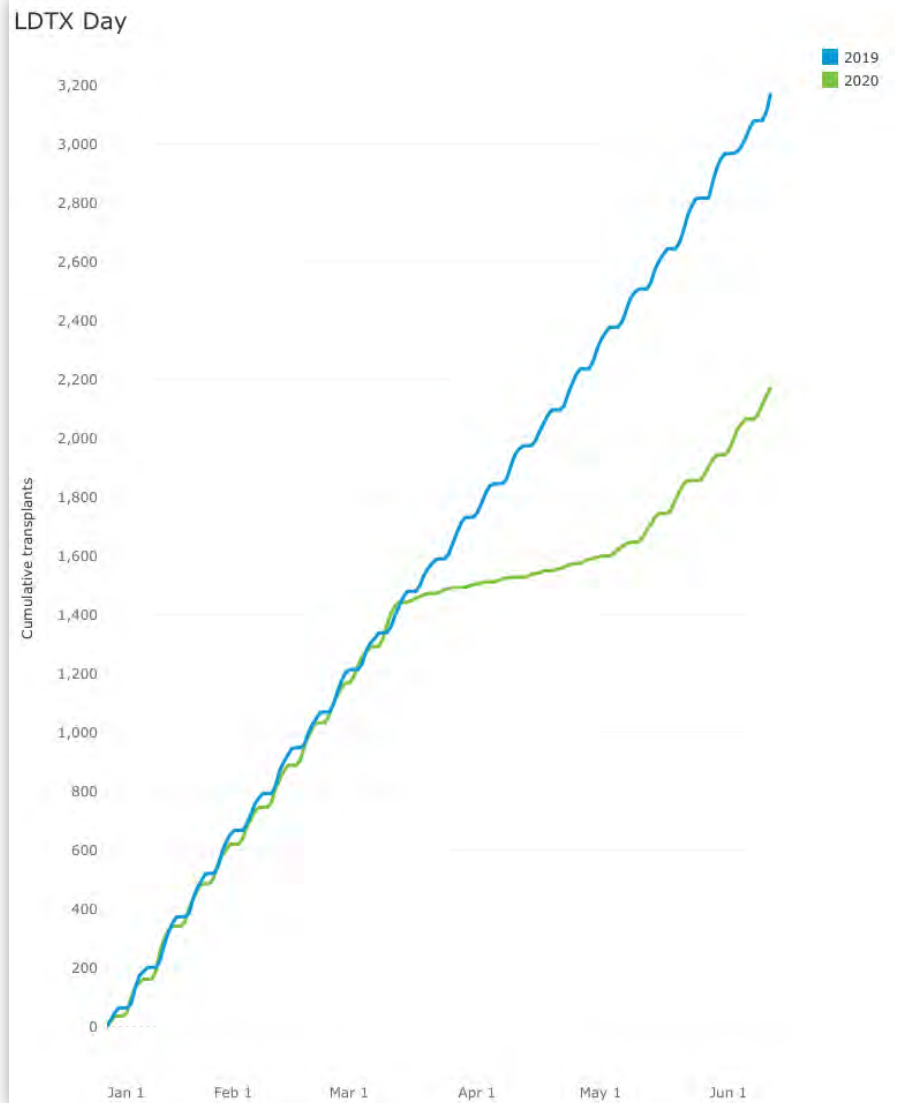
Deceased donor transplants



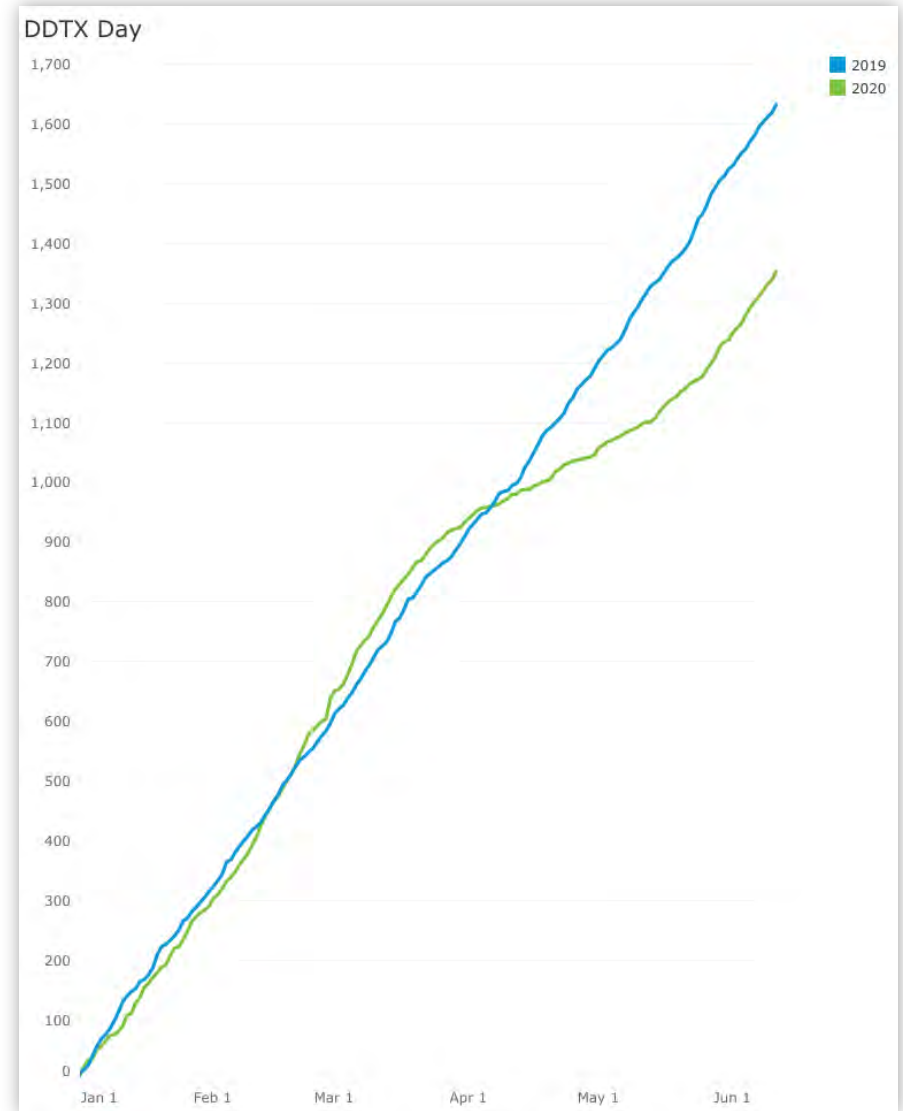
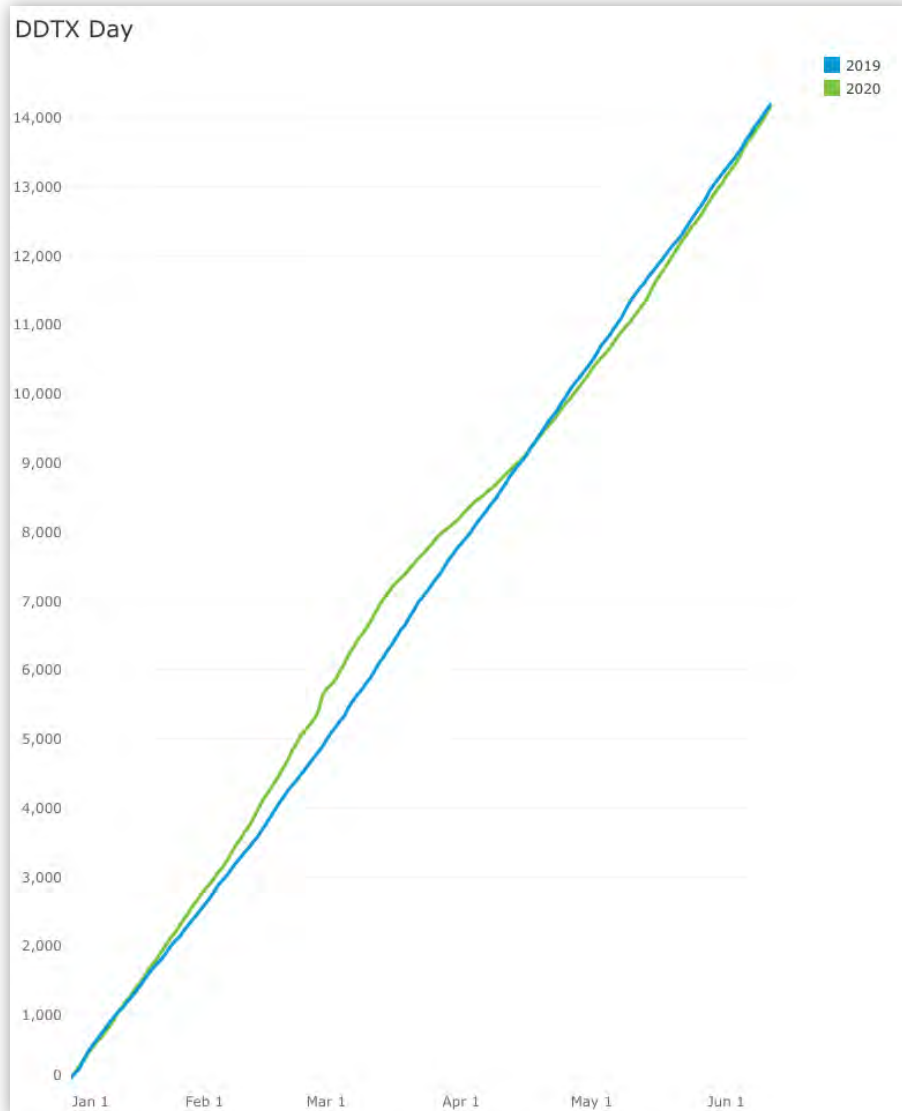
All transplants



Living donors



Deceased donors



TRANSPLANT DURING COVID-19 SURGE

Waitlist additions & inactivation's by week



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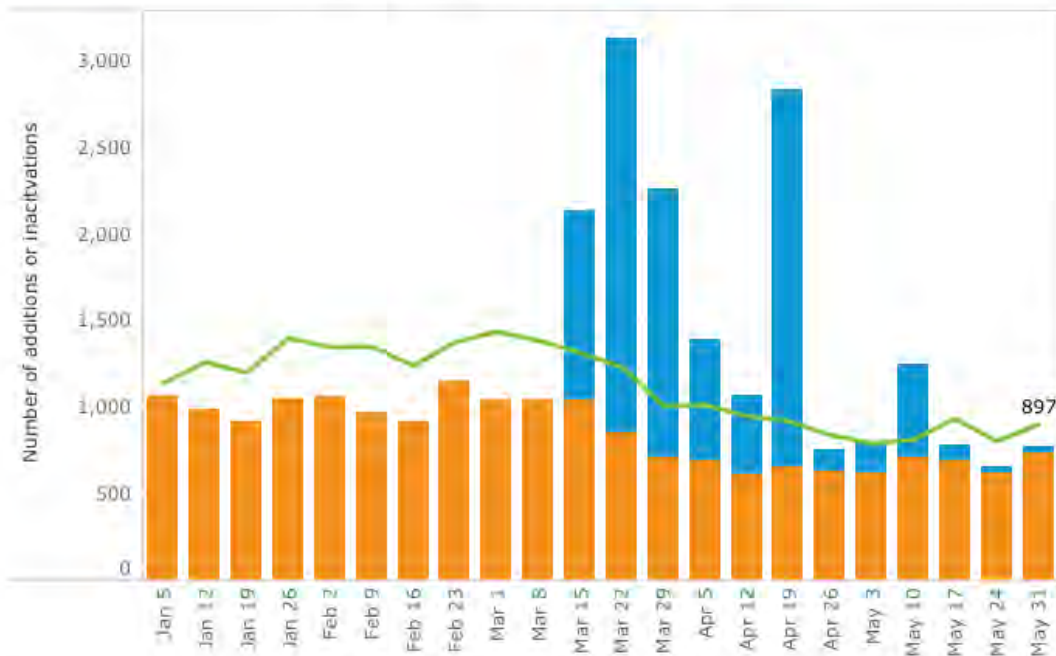
Select region
(All)

Select organ
(All)

Select age group
(All)

- New waiting list addition
- Inactivated due to COVID-19 precautions
- Inactivated due to another reason

Waitlist additions and inactivations



Week of waiting list registration or Most recent period of inactivation

*The COVID-19 Precaution inactive reason became available in UNet the week of Mar 15.

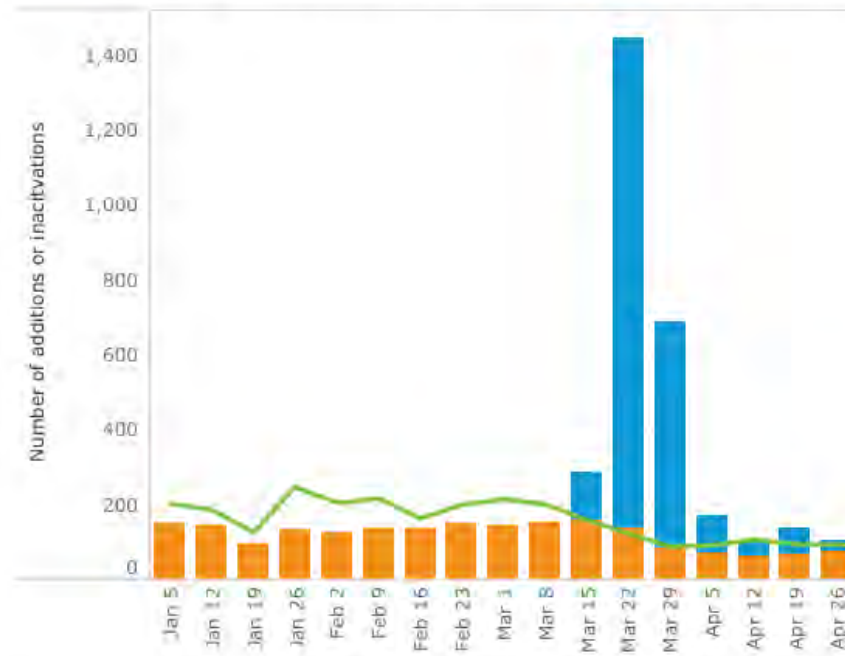
Select region
Northeast

Select organ
(All)

Select age group
(All)

- New waiting list addition
- Inactivated due to COVID-19 precautions
- Inactivated due to another reason

Waitlist additions and inactivations in the northeast



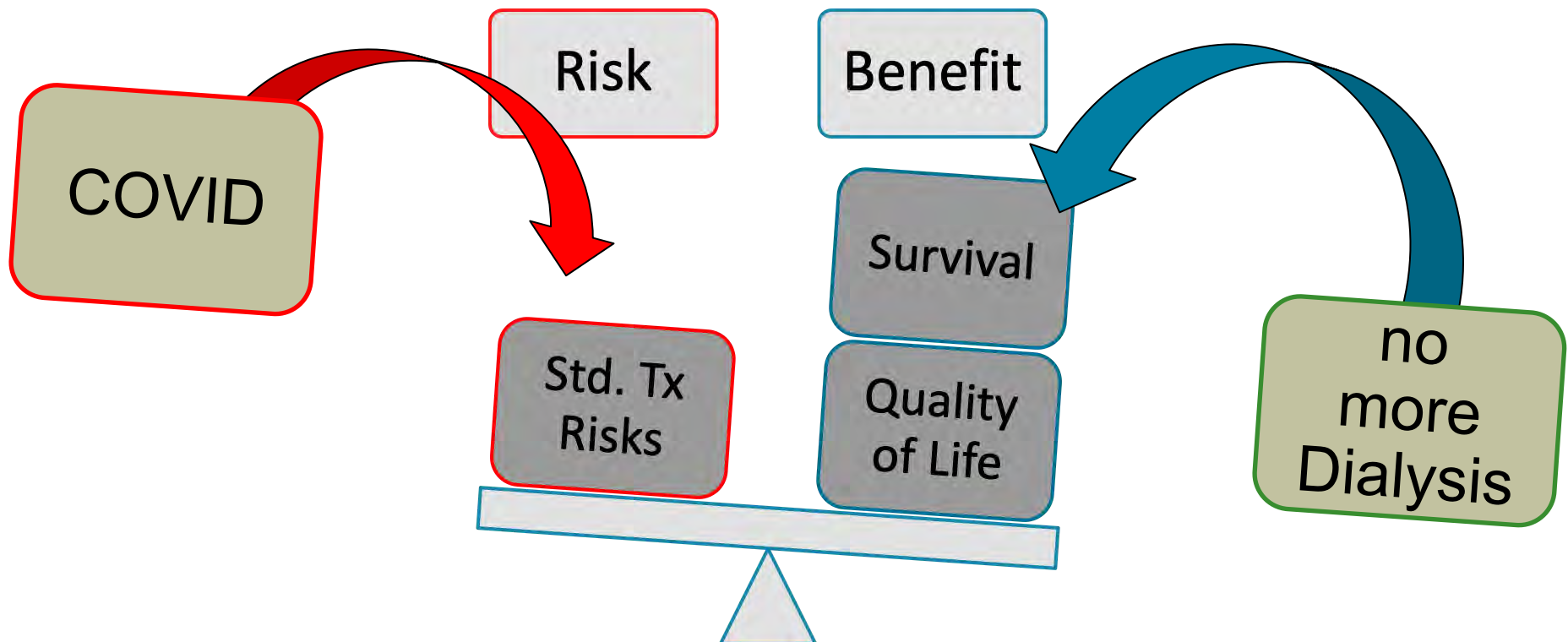
Week of waiting list registration or Most recent period of inactivation

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Why transplants stopped?



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Why transplants stopped?



CMS, CDC, and US Surg. Gen. recommended cessation of elective surgery:

- To conserve critical resources (ventilators, PPE,...etc.)
- Limiting exposure of patients and staff to the SARS-CoV-2 virus

	Recipient	Living Donor	Deceased Donor
Risk	Immunosuppression Donor Derived Nosocomial	Nosocomial	None
Resource preservation	OR/?ICU	OR	ICU/OR/PPE
Testing	Pre- and Post-Tx	Pre-donation	Pre-donation
Isolation	Pre- and Post-Tx	Pre-donation	N/A (ICU cohort)

Covid considerations for post-transplant patients



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- **Recommendations to Transplant patients became universal to all**
- **Transplant recipients need to be more vigilant about risks of contracting the virus**
- **Mixed data on overall risk, slightly higher rates of detrimental outcomes in transplant patients**
- **Multiple reports from China, Italy, and early US experience (NY and WA) data:**
 - Mortality 10-25%
 - Mostly Kidney recipients
- **Ongoing registries of patients and their outcomes throughout the US**

The new (old) reality in healthcare

“Reducing Risks”



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In the operating room, clinics and hospital:

Operating room: **Risks:** Unknown patient status and Aerosol generation

Testing: Rapid test on patients if time permits

Precautions: Staff protection through PPE and other practices

Hospital: **Risks:** Nosocomial transmission, exposure of visitors

Testing: All admitted, at risk staff

Precautions: PPE, avoid mixed units for at risk population, no visitors

Clinics: similar to above, screening all staff and patients, virtual care

MGH safe care to everyone



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E-checking in through patient gateway prior to your appointment



Screening all who enter our facilities (patients and providers; no visitor policy)



Masks are worn by all (patients and providers)

2 m (6 ft) apart



Limited numbers of patients per clinic to allow social distancing



Rooms and surfaces are being **disinfected more frequently**



Separate section of the hospital for COVID-19 patients or suspected cases

Thank You!

www.massgeneral.org/transplant

