

FEATURED CASE STUDY:

Real-world cfDNA in the Era of COVID-19



Monitoring transplant patients during the COVID-19 resurgence has become more difficult and risky.

This case study¹ highlights a transplant center's evaluation of kidney recipients diagnosed with COVID-19 aimed to:

- Determine if background cfDNA levels were elevated in severe COVID-19 cases
- Assess if background cfDNA levels correlated with COVID-19 severity and outcome
- Map kinetics of background cfDNA in patients as they recover

Case Study¹



PATIENTS HISTORY

9 patients with the average age of 61 years

Sex: 5 males and 4 females

Race: 2 Blacks and 7 Hispanics

Median Body Mass Index (BMI): 24.9

Median time from transplant: 0.72 years

The Journey



- **Median time from transplant to COVID-19 symptoms:** 8.6 months
- **Median Serum Creatinine after COVID-19 Diagnosis:** 1.35
- **Acute Kidney Injury:** 6 patients
- **2 patients required ventilation:** 2 patients expired

Clinical Assessment with Prospera



- **Time from onset of COVID-19 symptoms to Prospera draw:** 2.4 weeks
- **Median Prospera result:** 0.54%
- **Elevated cfDNA levels (>8x median):** 4 patients

Key Takeaway: Four of the nine patients with COVID-19 exhibited very elevated levels of background cfDNA. In both cases of severe COVID infection that led to death, background cfDNA levels were markedly elevated compared to those who recovered. In both surviving patients with elevated background cfDNA, background levels returned to baseline by 75 days post-infection.

Exploratory Questions:

1. Do you have transplant patients with COVID-19 who might benefit from Prospera?
2. How have you managed immunosuppressive therapies in your kidney transplant patients who have COVID-19?
3. What might you do differently after reading this case study?

REFERENCES:

1. Akkina, S. "Real-world cfDNA in the Era of COVID-19." The Transplant Society Conference, Virtual, 8 September 2020. Conference Presentation

A Call for Stories:

Share your learnings with our community



Natera wants to thank all the healthcare professionals who have been on the frontlines of this crisis. Your dedication, determination, grit, resilience, and sacrifice over the last few months have been inspiring and invaluable to our community.

We extend our call for stories, research, and experiences to our transplant and nephrology partners so we can continue to learn together and improve patients' lives during these uncertain times.

Please contact prospera@natera.com to discuss with the Natera Clinical Team.