



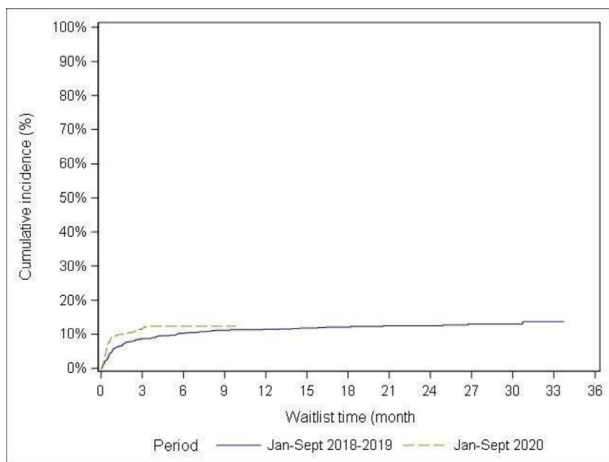
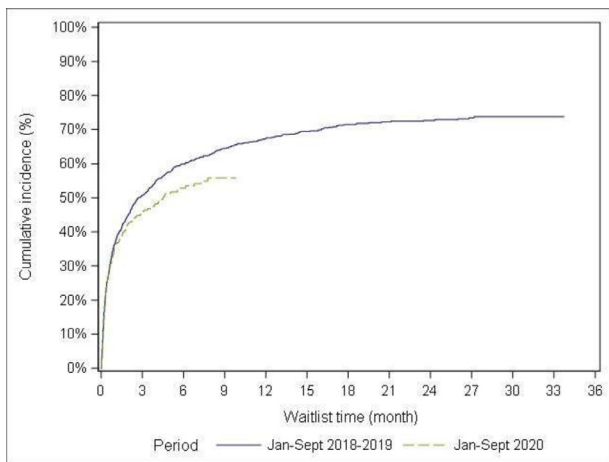
Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Methods: All patients newly registered on the national waiting list for heart transplantation between January and September 2018-2020 were included in the study (n=1 311). The number of new listings and transplants per million population (pmp) in 2018-2019 period and in 2020 COVID era were compared. Cumulative incidence of transplantation and waitlist mortality estimated with the competing risk analysis with transplantation and death or delisting for medical condition as the competing events were compared between the study periods.

Results: In 2020 compared with the 2018-2019 period, the total number of patients newly registered on the waiting list declined 11%, from 6.8 to 5.9 pmp and the number of transplants performed decreased 22%, from 4.6 to 3.5 pmp. While 3-month cumulative incidence of transplantation (Figure 1) decreased from 51% [47-54] to 45% [40-50], a non-significant increase in cumulative incidence of death or delisting for medical condition (9% [7-11] versus 12% [9-15]) (Figure 2) was observed.

Conclusion: In 2020 COVID era, the waitlist and transplant access significantly declined in France without significant change in waitlist mortality.



(24)

The Case Number Changes in Adult Heart Transplantation and Waitlist Addition Due to COVID-19

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Purpose: To understand the long term effect of COVID-19 on 1) heart transplant waitlist trends and on 2) heart transplant case numbers in the United States.

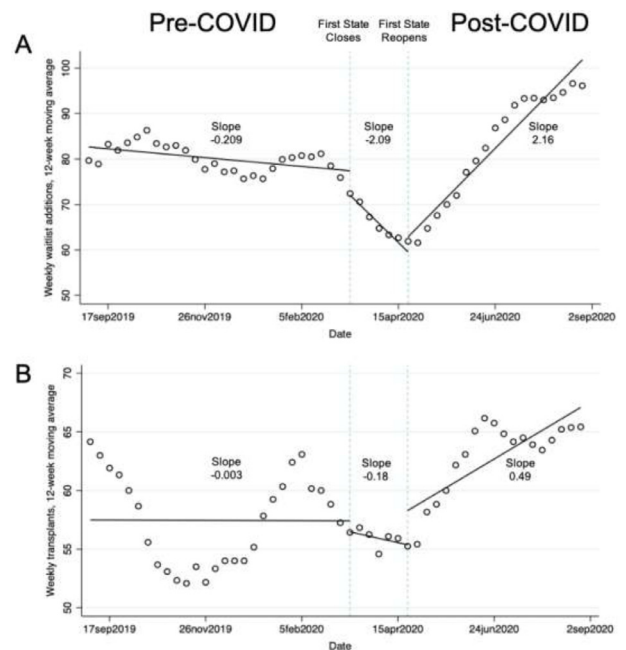
Methods: The number of new adult heart transplant waitlist additions and transplant procedures were obtained from the UNOS database. Our time frame includes the 52 weeks between September 3, 2019 and September 4,

2020. Temporal changes in waitlist additions and heart transplants were analyzed using interrupted time series analyses with two transition periods. The first transition from the pre-COVID to the post-COVID era was determined as the week of March 11, 2020, when the first state imposed stay-at-home orders. The second transition period was determined as the first state re-opening during the week of April 22, 2020.

Results: Weekly waitlist additions were decreasing at -0.19 additions per week (95% CI: -0.35 to -0.03, p=0.018) prior to the COVID-19 era, defined as before the week of March 11, 2020, with a significant decrease in weekly waitlist additions of -2.09 (95% CI: -2.44 to -1.73, p<0.001) during the post-COVID-19 era and prior to the first state re-opening the week of April 22, 2020 (Figure A). Weekly waitlist additions increased at 2.16 additions per week (95% CI: 1.81 to 2.51, p<0.001) following the first state announcing re-opening the week of April 22, 2020.

Weekly transplants were relatively unstable, although decreasing at -0.003 transplants per week (95% CI: -0.279 to 0.273, p=0.984) in the pre-COVID era, and were trending downward at -0.18 transplants per week (95% CI: -0.3702 to 0.0036, p=0.054) thereafter (Figure B). The number of transplants rebounded and increased significantly at 0.49 transplants per week (95% CI: 0.26 to 0.72, p<0.001) after April 22, 2020.

Conclusion: The number of heart transplants and waitlist additions decreased significantly due to COVID-19 and rebounded following the first US state reopening the week of April 22, 2020. Waitlist additions continue to rise past levels observed during the pre-COVID era.



(25)

The Impact of COVID-19 on the Cardiopulmonary Transplant Journey

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Purpose: The effect of the COVID 19 pandemic had the potential to have a major impact on patients during their journey through transplant assessment and heart or lung transplantation. Patients awaiting cardiopulmonary transplantation form a vulnerable group at increased risk because of their end stage cardiovascular or respiratory disease. We evaluated the impact of COVID pandemic on our transplant program.

Methods: We retrospectively reviewed our adult and paediatric heart and lung transplant activity from 2015. We assessed deaths on the active waiting list between Jan - 27th May for each yearly period and compared our