

Solid Organ Transplantation

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General considerations for this patient population

- COVID-19 has been associated with significant morbidity and mortality among solid organ transplant (SOT) recipients
 - Mortality among hospitalized patients: 20.5%¹
 - Median duration of mechanical ventilation: 12 days²
- SOT recipients were not included in the phase 3 trials for the Moderna, Pfizer, or Johnson & Johnson vaccines
- Benefits of vaccination appear to outweigh theoretical risks



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¹Kates OS et al. *Clin Infect Dis* 2020.

²Heldman MR et al. *Clin Transplant* 2021.

General considerations for this patient population

- Vaccine efficacy in SOT recipients may be lower than the general population
 - Vaccination of close contacts is critical
 - Consider vaccination of waitlisted patients



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Special situations to consider with this population

- Live virus vaccines are contraindicated in adult SOT recipients
 - Johnson & Johnson vaccine utilizes a replication-defective adenoviral vector and may be used
- Optimal timing of vaccination following transplantation or treatment of rejection remains unclear
 - At least 1 month from transplant surgery
 - 3-6 months from T- or B-cell depleting agents



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Addressing common patient questions

- Should I check my antibody response after vaccination? Do I need a booster?
 - Preliminary data from 436 SOT recipients showed that 17% produced antibody to the spike protein 20 days after the first dose of mRNA vaccine¹
 - Study did not include cellular immunity data or clinical correlation
 - Routine assessment of antibody response not currently recommended
 - Further data are needed to address response rates to the mRNA vaccines and need for subsequent doses



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¹Boyarsky BJ et al. *JAMA* 2021.