

From 2020 to 2024, there were 12,536 hospitalizations from 6,662 patients to the solid organ transplant (SOT) services, including Advanced Lung Disease, Advanced Heart Failure, Kidney Transplant, and Liver Transplant. To calculate the rate of CMV admissions in SOT patients, we considered the number of hospitalizations for management of CMV infection as the primary diagnosis as the numerator and the total number of hospitalizations to the SOT services as the denominator. Overall, the rate of CMV admissions in SOT patients has increased over time (Table 1), being the highest in the Advanced Lung Disease Service and the Kidney Transplant service.

**Table 1. Hospital Admissions in Solid Organ Transplant Patients by Primary Diagnosis**

| Year | Non-CMV | CMV | Rate of CMV admissions per 1000 admissions |
|------|---------|-----|--|
| 2021 | 2519    | 8   | 3.2  |
| 2022 | 2421    | 4   | 1.6  |
| 2023 | 2456    | 14  | 5.7  |
| 2024 | 2569    | 21  | 8.1  |
| 2025 | 2505    | 19  | 7.5  |

**Table 2. Rate of Hospital Admissions for CMV Infection in Advanced Heart Failure Patients**

| Year | Non-CMV | CMV | Rate of CMV admissions per 1000 admissions |
|------|---------|-----|--|
| 2021 | 233     | 2   | 8.5  |
| 2022 | 205     | 0   | 0  |
| 2023 | 284     | 1   | 3.5  |
| 2024 | 314     | 4   | 12.6                                       |
| 2025 | 296     | 1   | 3.4  |

**Table 3. Rate of Hospital Admissions for CMV Infection in Advanced Lung Disease Patients**

| Year | Non-CMV | CMV | Rate of CMV admissions per 1000 admissions |
|------|---------|-----|--|
| 2021 | 206     | 0   | 0  |
| 2022 | 210     | 0   | 0  |
| 2023 | 218     | 4   | 18   |
| 2024 | 202     | 3   | 14.6                                       |
| 2025 | 236     | 13  | 52.2                                       |

**Table 4. Rate of Hospital Admissions for CMV Infection in Kidney Transplant Patients**

| Year | Non-CMV | CMV | Rate of CMV admissions per 1000 admissions |
|------|---------|-----|--|
| 2021 | 1172    | 3   | 2.6  |
| 2022 | 1132    | 3   | 2.6  |
| 2023 | 1111    | 9   | 8  |
| 2024 | 1124    | 12  | 10.6                                       |
| 2025 | 1091    | 5   | 4.6  |

**Table 5. Rate of Hospital Admissions for CMV Infection in Liver Transplant Patients**

| Year | Non-CMV | CMV | Rate of CMV admissions per 1000 admissions |
|------|---------|-----|--|
| 2021 | 908     | 3   | 3.3  |
| 2022 | 874     | 1   | 1.1  |
| 2023 | 843     | 0   | 0  |
| 2024 | 929     | 2   | 2.1  |
| 2025 | 882     | 0   | 0  |

The mean and average length of stay for admissions for CMV infection has increased over time (Table 6) since 2020, unlike for admissions for non-CMV diagnosis, which has remained stable (Table 7).

To estimate the hospitalization cost, we used the Payments and Refunds slice in Slicer Dicer that displays the total payment amount less any refunds associated with the account. This includes bad debt and external AR payments and refunds. This field shows payments as a positive amount. Based on the data available, the cost appears skewed (Table 8 and 9). Though, among CMV admissions, 23 (33.82%) were on the lowest quartile of cost, 20 (29.4%) in the second quartile, 16 (23.5%) in the third quartile, and 9 (13.2%) in the highest quartile. Using a linear regression model, with diagnosis and length of stay as predictors, we estimated the cost of a 7-day admission for CMV infection, the median duration in 2024, to be \$30,171.52. We are open to feedback on how to better track hospital admission costs and would appreciate if the reviewers could suggest another metric we could analyze.

**Table 6. Length of Stay for Hospital Admissions for CMV Infection in Solid Organ Transplant Patients**

| Year | Mean | SD | Median | Interquartile Range |
|------|------|----|--------|---------------------|
|------|------|----|--------|---------------------|

|      |      |      |   |          |
|------|------|------|---|----------|
| 2020 | 5.1  | 3.5  | 4 | 8, 2.5   |
| 2021 | 4.3  | 3.2  | 3 | 6, 2.5   |
| 2022 | 9.3  | 11.7 | 4 | 9, 4     |
| 2023 | 7.3  | 7.5  | 5 | 8.5, 2.5 |
| 2024 | 13.3 | 14.5 | 7 | 15, 4    |
| 2025 | 7    | 7.1  | 7 | 12, 2    |

**Table 7. Length of Stay for Hospital Admissions for Non-CMV diagnosis in Solid Organ Transplant Patients**

| Year | Mean | SD  | Median | Interquartile Range |
|------|------|-----|--------|---------------------|
| 2020 | 6.4  | 9.6 | 4      | 7, 2                |
| 2021 | 7.4  | 17  | 4      | 7, 2                |
| 2022 | 6.8  | 8.3 | 4      | 7, 2                |
| 2023 | 6.5  | 8.7 | 4      | 7, 2                |
| 2024 | 7.9  | 13  | 4      | 8, 3                |
| 2025 | 6.3  | 7.5 | 4      | 7, 2                |

**Table 8. Payments for Hospital Admissions for CMV Infection in Solid Organ Transplant Patients**

| Year | Mean      | SD       | Median    | Interquartile Range |
|------|-----------|----------|-----------|---------------------|
| 2020 | \$17714.6 | 11403    | \$16619   | 25708.9, 11302.6    |
| 2021 | \$12565.3 | 1980.4   | \$12480   | 13841.3, 11289.2    |
| 2022 | \$96632.1 | 276544.6 | \$12663.4 | 29409.5, 11192.4    |
| 2023 | \$44776.4 | 60141.2  | \$15735.6 | 36610.8, 14307.5    |
| 2024 | \$47133.1 | 49534.1  | \$31075.7 | 62671.1, 14744.2    |
| 2025 | \$7162.5  | 10129.3  | \$7162.5  | 14325, 0            |

**Table 9. Payments for Hospital Admissions for Non-CMV diagnosis in Solid Organ Transplant Patients**

| Year | Mean      | SD       | Median    | Interquartile Range |
|------|-----------|----------|-----------|---------------------|
| 2020 | \$76646.6 | 161222   | \$26296.6 | 67205.1, 13440      |
| 2021 | \$94808.5 | 243343.6 | \$32963.5 | 83945, 15057.3      |
| 2022 | \$93199.3 | 175289.9 | \$33091   | 87237.3, 15338.2    |
| 2023 | \$87114.5 | 174118.6 | \$31777.6 | 76509.8, 15947.4    |
| 2024 | \$102606  | 208362.2 | \$29475   | 87866.3, 13004.8    |
| 2025 | \$16544.5 | 51553.2  | \$0       | 13039.5, 0          |