(20.8%) received their vaccines during the IDPT visit or shortly after. Compared to the prior cohort, all vaccines rates improved with the post IDPT visit (p< 0.001) (Table 3).

Table 1. Characteristics of 183 SOT candidates

Variable	Value
Age (year), median (IQR)	57 (49-65)
Male sex (N, %)	114 (62.3)
Race (N, %)	
Asian	1 (0.55)
Black	62 (33.9)
Other	7 (3.8)
White	113 (61.7)
Transplant type (N, %)	
Heart	46 (25.1)
Kidney	67 (36.6)
Liver	30 (16.4)
Lung	33 (18)
Multivisceral	6 (3.3)
Pancreas	1 (0.6)
Insurance type (N, %)	
Blue Cross Blue Shield	43 (23.5)
HAP	14 (7.7)
Medicaid	19 (10.4)
Medicare	94 (51.4)
Other	13 (7.1)
Distance (miles) to transplant center (mean, IQ)	
Overall	52.5 (13.5-62.2)
Heart	44 (13.7-56.4)
Kidney	51.1 (11.2-59.3)
Liver	84.5 (22.7-149.5)
Lung	37.3 (12-57.3)
Multivisceral	60.2 (11.6-103.8)
Pancreas	43.5 (43.5-43.5)
CCI score (Mean, SD)	
Overall	4.1 (1.98)
Heart	3.7 (1.49)
Kidney	4.4 (1.94)
Liver	5.2 (2.16)
Lung	2.7 (1.33)
Multivisceral	6.7 (1.97)
Pancreas	5 (0)
Smoking history (N, %)	97 (53)
HFHS PCP (N, %)	67 (36.6)
Infectious Disease pre-transplant clinic visit (N, %)	
In person	70 (38.3)
Video	113 (61.7)
NP provider	167 (91.3)
Fellow provider	3 (1.7)
Consultant provider	13 (7)

Abbreviations: SOT, solid organ transplant; IQR, interquartile range; SD, standard deviation; CCI, Charlson Comorbidity Index; PCP, primary care physician; HFHS PCP, PCP from Henry Ford Health System.

IDPT and vaccines - ID week 2021 - Table 1

Table 2. Vaccination status in 183 SOT candidates before and after IDPT visit

Vaccine	Eligible SOTc, N	Vaccination pre-IDPT visit, N (%)	Additional vaccination post-IDPT visit, N (%)	Total patients vaccinated, N (%)
Influenza	183	98 (53.6)	41 (22.4)	139 (76)
Pneumococcal 13 V	183	67 (36.6)	62 (33.9)	129 (70.5)
Pneumococcal 23 V	183	87 (47.5)	26 (14.2)	113 (61.7)
Hepatitis B*	103	31 (30.1)	42 (40.8)	73 (70.9)
Tdap	183	101 (55.2)	29 (15.8)	130 (71)
Td	183	16 (8.7)	7 (3.9)	23 (12.6)
Varicella (Shingrix)	183	36 (19.7)	65 (35.5)	101 (55.2)

Note: SOT, solid organ transplant; SOTc, solid organ transplant candidate. * 80/183 (43.7%) SOT candidates were already immune to Hep B.

IDPT and vaccines - ID week 2021 - Table 2

Table 3. Vaccine uptake rates comparing prior cohort to post IDPT

Vaccine	Prior SOTc cohort vaccinated, N (%)	New SOTc cohort vaccinated post-IDPT, N (%)	P value
Influenza	247 (46.6)	139 (76)	<0.001
Pneumococcal 13 V *	270 (50.9)	129 (70.5)	<0.001
Pneumococcal 23 V *	270 (50.9)	113 (61.7)	<0.001
Hepatitis B	167 (43.7)	73 (70.9)	<0.001
Tdap	167 (31.5)	130 (71)	<0.001
Td	6 (1.1)	23 (12.6)	<0.001

Abbreviations: IDPT, Infectious Disease pre-transplant clinic; SOTc, solid organ transplant candidate. * Our previous cohort did not distinguish between P23 V and P13 V vaccines

IDPT and vaccines - ID week 2021 - Table 3

Conclusion. IDPT clinic visits significantly improved vaccine uptake in SOTc at our institution. Approximately one in five SOTc had vaccines administered at the time of IDPT visit or shortly after. Implementation of an Infectious Diseases wellness visit as a requirement for all SOTc can provide opportunities to greatly optimize vaccine completion before transplantation.

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1378. Impact of Cytomegalovirus Prophylaxis on Clinical Outcomes in Kidney Transplantation: A United States Renal Data System-Medicare Linked Database Study

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Session: P-79. Transplant: Studies of Pre-transplant Screening and Evaluation

Background. Guidelines recommends cytomegalovirus (CMV) prophylaxis by CMV serostatus/risk status, as the currently available antiviral agents may lead to myelosuppressive events in kidney transplant recipients (KTRs). Limited data exist for the United States (US) on the such clinical outcomes with CMV prophylaxis KTRs especially stratified by CMV risk strata. We examined the associations between clinical outcomes and CMV prophylaxis among adult KTRs stratified by CMV risk strata.

Methods. We employed a retrospective cohort design using the US Renal Data System registry-linked Medicare data (2011-2017). The cohort included 22,918 adult KTRs with continuous Medicare Part A & B coverage for ≥ 6-month pre and ≥ 12-month post KT and Part D coverage for ≥ 12-month post- KT. CMV prophylaxis was defined as ≥ 1 prescription fill or medical claim for valacyclovir or valganciclovir at prophylaxis doses within 28 days post-KT.

Results. CMV prophylaxis was utilized by 75% of the cohort. In no CMV prophylaxis group, 52.2% and 34.2% of high and intermediate risk KTRs received valganciclovir (as either pre-emptive or deferred therapy), respectively. Among high risk KTRs, CMV prophylaxis group had significantly lower proportions of KTRs with CMV infection, opportunistic infections (OIs) including bacterial, and fungal infections, and new onset of diabetes mellitus (NODAT) compared to no prophylaxis group. There were no differences in the rates of acute rejection or death; however, a trend towards lower rate of graft-failure at 12-month post-KT. Nearly 40% of high-risk KTRs had myelosuppressive events (leukopenia: 18%; neutropenia:15% thrombocytopenia :19%); however, their differences were non-significant except for thrombocytopenia by CMV prophylaxis status (**Table 1**). CMV infection and myelosuppressive event rates were higher in high-risk than intermediate/low risk KTRs irrespective of CMV prophylaxis status.

Conclusion. CMV prophylaxis was associated with lower rates of CMV infection, OIs, NODAT and graft failure compared to no prophylaxis, however, the burden of CMV infection, OIs and myelosuppression was greater in high-risk KTRs indicating further research is needed on factors associated with greater disease burden in high-risk KTRs.

Table 1. Univariate analysis on Clinical Outcomes following CMV prophylaxis among adults KTRs at 12-month post-transplant

	CMV Prophylaxis Use Stratified by CMV Risk Strate											
	Overall (N= 22,918)			High (D+/R-) (N=3,520)			Intermediate (R+) (N=16,957)			Low (D-/R-) (N=2,441)		
Outcomes	**Yes**	**No**	**Sig.***	**Yes**	**No**	**Sig.***	**Yes**	**No**	**Sig.***	**Yes**	**No**	**Sig.***
Sample Size	17,181 (75.0%)	5,137 (22.4%)		3,022 (85.6%)	498 (14.1%)		13,975 (82.4%)	2,982 (17.6%)		784 (32.1%)	1,657 (67.9%)	
Direct CMV Outcomes												
CMV Infection	1,399 (7.9%)	450 (8.8%)		552 (18.3%)	123 (24.7%)	<0.001	833 (6.0%)	295 (9.9%)	<0.001	14 (1.8%)	32 (1.9%)	
Use of Valganciclovir	17,181 (100.0%)	1,374 (26.7%)	<0.001	3,022 (100.0%)	260 (52.2%)	<0.001	13,975 (100.0%)	1,021 (34.2%)	<0.001	784 (100.0%)	93 (5.6%)	<0.001
Indirect Outcomes												
Opportunistic Infections	6,427 (36.1%)	1,953 (37.9%)	0.017	1,141 (37.7%)	232 (46.5%)	<0.001	5,016 (35.8%)	1,177 (39.3%)	<0.010	270 (34.4%)	544 (32.8%)	
Bacterial	5,176 (29.1%)	1,655 (32.1%)	<0.001	909 (30.0%)	196 (39.3%)	<0.001	4,061 (29.0%)	1,013 (33.8%)	<0.001	206 (26.3%)	446 (26.9%)	
Septicemia	2,091 (11.7%)	637 (12.4%)		396 (13.1%)	84 (16.8%)	0.023	1,610 (11.5%)	373 (12.5%)		85 (10.8%)	180 (10.8%)	
Fungal	615 (3.5%)	202 (3.9%)		118 (3.9%)	30 (6.0%)	0.029	474 (3.4%)	118 (3.9%)		23 (2.9%)	54 (3.3%)	
Candidiasis	319 (1.8%)	117 (2.3%)	0.026	66 (2.2%)	21 (4.2%)	0.007	242 (1.7%)	71 (2.4%)	0.018	11 (1.4%)	25 (1.5%)	
Viral	1,675 (9.4%)	427 (8.3%)	0.014	331 (10.9%)	53 (10.6%)		1,263 (9.0%)	239 (8.0%)	0.069	81 (10.3%)	135 (8.1%)	0.074
BK virus	417 (2.3%)	87 (1.7%)	0.005	87 (2.9%)	16 (3.2%)		310 (2.2%)	44 (1.5%)	0.010	20 (2.6%)	27 (1.6%)	
Varicella zoster virus	192 (1.1%)	81 (1.6%)	0.004	27 (0.9%)	5 (1.0%)		157 (1.1%)	42 (1.4%)		8 (1.0%)	34 (2.0%)	0.068
Transplant Outcomes												
Dialysis	1,945 (10.9%)	571 (11.1%)		342 (11.3%)	56 (11.2%)		1,512 (10.8%)	310 (10.4%)		91 (11.6%)	205 (12.4%)	
Acute Rejection	2,278 (12.8%)	733 (14.2%)	0.007	419 (13.8%)	81 (16.2%)		1,751 (12.5%)	443 (14.8%)	0.001	108 (13.8%)	209 (12.6%)	
Graft Failure	514 (2.9%)	163 (3.2%)		105 (3.5%)	8 (1.6%)	0.029	389 (2.8%)	110 (3.7%)	0.009	20 (2.6%)	45 (2.7%)	
Death	475 (2.7%)	179 (3.5%)	0.002	105 (3.5%)	22 (4.4%)		343 (2.5%)	113 (3.8%)	<0.001	27 (3.4%)	44 (2.7%)	
New Onset of Diabetes (NODAT)												
Individuals without Diabetes	12,142 (68.3%)	3,602 (70.1%)		2,167 (71.7%)	323 (64.9%)		9,422 (67.4%)	2,065 (69.2%)		553 (70.5%)	214 (12.9%)	
NODAT	3,552 (29.3%)	1,108 (30.8%)		599 (27.6%)	120 (37.2%)	<0.05	2,813 (29.9%)	694 (33.6%)		140 (25.3%)	294 (24.2%)	
Myelosuppresive Events	5,642 (31.7%)	1,461 (28.4%)	<0.001	1,187 (39.2%)	206 (41.3%)		4,221 (30.2%)	840 (28.1%)	0.023	234 (29.8%)	415 (25.0%)	0.011
Leukopenia	2,418 (13.6%)	626 (12.2%)	0.008	547 (18.1%)	98 (19.6%)		1,771 (12.7%)	343 (11.5%)	0.072	100 (12.8%)	185 (11.1%)	
Neutropenia	1,827 (10.3%)	371 (7.2%)	<0.001	472 (15.6%)	85 (17.0%)		1,283 (9.2%)	217 (7.3%)	0.001	72 (9.2%)	69 (4.2%)	<0.001
Thrombocytopenia	2,858 (16.0%)	866 (16.8%)		549 (18.1%)	112 (22.4%)	0.022	2,194 (15.7%)	511 (17.1%)	0.058	115 (14.7%)	243 (14.6%)	

Notes:

*Significant differences between the groups were determined by t-tests or analysis of variance (ANOVA) for continous variables or chi-square tests for categorical variables.

Abbreviations:

CMV: Cytomegalovirus; D+/R- = CMV-seropositive kidney donor and CMV-seronegative recipient; R+ = CMV-seropositive recipient; D-/R- =CMV-seronegative donor and CMV-seronegative

Table 1

Disclosures. **Amit D. Raval, PhD**, **Merck and Co., Inc.** (Employee) **Yuexin Tang, PhD**, **JnJ** (Other Financial or Material Support, Spouse's employment)**Merck & Co., Inc.** (Employee, Shareholder)

1379. Vaccination Rates among Liver Transplant Recipients at a Tertiary Care Hospital in Newark, NJ

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Session: P-79. Transplant: Studies of Pre-transplant Screening and Evaluation

Background. Transplant candidates and recipients are at increased risk of infectious complications of vaccine-preventable diseases due to their longstanding immunosuppressive regimens. We assessed the rates of vaccination in our liver transplant patients at University Hospital (UH) in Newark, NJ.

Methods. Retrospective chart-review including patients > 18 years old who underwent liver transplantation at UH for a 3-year period from 01/01/2017 to 07/20/2020. Data collected included demographics, clinical outcomes, eligibility and receipt of vaccinations before and after transplantation, protection titers after administration of hepatitis vaccinations and presence of an ID outpatient consultation. We looked at the following receipt of vaccinations: Prevnar-13, Pneumovax-23, Influenza, TDaP, Shingrix, Varivax, Havrix and Engerix/Heplisav. Characteristics of study participants was analyzed using descriptive statistics and Chi-Square/Fisher's Exact tests were used to test associations.

Results. 119 unique medical charts were reviewed and no patients were excluded. Of those patients who were eligible to receive Hepatitis A vaccination, only 44.8% were documented to receive vaccination and of those eligible to receive Hepatitis B vaccination, only 47.8% received it. Influenza vaccination pre-transplantation was 46% and 66.1% in post-transplant recipients. For the other vaccinations, during the pre-transplant period, 17.6 % of patients received Prevnar-13, 36.1% Pneumovax-23 and 20.2% TDaP and 26.1% received Shingrix. Patients who had ID consultation were significantly more likely to receive appropriate Hepatitis A and Hepatitis B vaccinations (p values 0.026 and 0.005).