

Supplementary Material

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Supplemental Table 1. Race code definitions

Race	Codes
White	Race == "White-W" OR "White-WHITE"
Black	Race == "African American-AFRICAN AMERICAN" OR "Black-BLACK" OR "BLACK OR AFRICAN AMERICAN" OR "Hispanic Black-BLACK@HISPANIC" OR "Hispanic Black-BLACK OR AFRICAN AMERICAN@HISPANIC" OR Language == "Cape Verdean-CAPE VERDEAN" OR "Creole" OR "Haitian Creole" OR "French Creole-FRENCH CREOLE" OR "Somalian-SOMALI" OR "African Languages" OR "Amharic" OR "Ethiopian-Tigrinia-TIGRINYA (ETHIOPIA)" OR "Liberian-LIBERIAN" OR "Maay Maay" OR "Efik"
Hispanic	Race == "Hispanic-HISPANIC" OR "Asian-ASIAN@HISPANIC" OR "Dominican-DOMINICAN" OR "Dominican-DOMINICAN@HISPANIC" OR "Hispanic-SPANISH@HISPANIC" OR "Hispanic-H" OR "Hispanic-DECLINED@HISPANIC" OR "Hispanic-HISPANIC OR LATINO@HISPANIC" OR "hispanic-UNKNOWN@HISPANIC" OR "Hispanic-HISPANIC@HISPANIC" OR "Hispanic-@HISPANIC" OR "Hispanic-HISPANIC OR LATINO" OR "Hispanic-LATINO@HISPANIC" OR "Hispanic-OTHER@HISPANIC" OR "Hispanic-UNKNOWN@HISPANIC" OR Language == "Spanish-SPANISH" AND Race == "White-WHITE" OR Language == "Spanish-SPANISH" AND Race == "Not Recorded-UNKNOWN" OR Language == "Spanish-SPANISH" AND Race == "Other-OTHER"
Other	Race == "Asian-ASIAN" OR "Not Recorded-UNKNOWN" OR "Other-OTHER" OR "American Indian-AMERICAN INDIAN OR ALASKA NATIVE"

Supplemental Table 2. Diagnosis Codes

Diagnosis	Codes
Dialysis	Z99.2, V45.11
Hypertension	401.1, 401.9, 401.0, 459.31, 997.91, I10, I15.1, I15.9, I15.0, I87.311, I87.393, LPA196, MHAB1, LPA1305, HTN_pl0.5, 199, 134, I15.2, 405.01, I87.313, I15.8, I87.312, 405.99, 459.33, 459.30, I87.329, 405.91, I87.303, I87.309, I87.323, I87.333, I87.302, I87.332
Diabetes	250.00, 250.01, 249.20, 249.70, 250.02, 249.00, 250.10, 250.03, 250.42, 249.60, 249.80, 250.11, 249.11, 250.62, 250.80, 250.50, 250, 250.90, 250.92, 249.01, 250.60, 250.83, 250.40, 250.70, 250.81, 250.93, 250.20, 250.71, 250.61, 250.12, 250.13, 250.1, 250.52, 250.91, 250.51, 357.2, 648.00, E08.22, E10.319, E08.40, E10.3299, E10.65, E11.00, E11.10, E11.22, E11.29, E11.311, E11.319, E11.351, E11.3512, E11.3513, E11.39, E11.40, E11.42, E10.3293, E10.3393, E11.21, E11.3293, E10.36, E10.9, E10.10, E10.69, E10.8, E11.3511, E11.59, E11.621, E11.65, E10.339, E10.329, E11.649, E11.321, E11.51, E11.622, E11.49, E11.8, E11.9, E11.69, E13.10, E13.359, E13.39, E10.39, E11.329, E11.3599, E08.311, E10.3553, E11.3393, E11.3593, E11.43, E13.9, E11.3553, E13.3599, E08.9, E10.649, E11.3519, E13.01, E11.52, E10.349, E13.3593, E13.49, E11.3592, E13.65, E11.359, E11.36, E08.10, LPA105, LPA1059, LPA579, EHAT2, LPA1048, 294, 420, 250.72, 253.5, 250.73, 588.1, E11.3213, E11.3299, E23.2, E11.3313, LPA511, 250.0, 648.03, E08.00, E11.628, E13.621, E08.65, E08.621, E08.41, E11.3399, 250.82, 250.22, 648.01, E10.621, E11.638, E10.3512, E11.3211, E08.69, E08.8, E11.3291, O24.113, O24.119, O24.112, O24.12, O24.912, O24.313, E10.3211, LPA106, 250.43, E09.9, E10.42, E10.59, E08.29, E09.65, E10.49, E08.51, E11.01, E10.40, 250.41, 249.40, E10.51, E10.29, E11.641, E10.610, E11.3212, E11.3292, E11.11, O24.420, E08.01, E08.21, 250.63, E10.22, E10.3313, E13.319, E11.41, E08.351, E10.21, E11.3311, E11.3219, E13.622, O24.919, ELAC2, E13.22, E08.622, E08.3293, E08.319, 250.9, 249.61, E13.40, E08.3291, E11.3412, E10.11, E11.3552, N25.1, E11.610, E08.42, 250.21, E13.11, O24.425, O24.429, E11.3491, E11.3392, E08.3393, E11.620, E11.618, EHGZ5, E08.649, E13.618, E11.3591, E11.349, E11.3391, E11.3551, E11.339, O24.439, E13.52, E09.11, E09.22, E08.52, E09.621, E13.69, 250.6, 295, E08.341, E11.3319, E08.331, E10.3319, E08.3413, E08.3313, E11.3493, 249.10, 249.90, 250.23, E10.3493, E10.43, E11.331, E13.21, E08.36, E08.59, E08.43, E09.40, E08.329, E08.321, E09.59, E09.21, E11.3419, E13.59, 249.50, E10.622, E10.3312, E10.3311, 249.41, E10.321, E09.329, E08.3519, E08.618, E08.3593, E13.8, E09.69, E09.8, E09.42, E08.11, E10.3292, 250.53, E13.628, E10.3593, E10.628, E10.351, E10.3519, E10.3591, E13.00, E08.3513, E10.3511, E10.3399, E10.3513, E10.3599, E11.3312, E08.3299, E10.359, E08.49, E09.649, E09.43, E10.41, E13.43
Coronary artery disease	414.00, 411.81, 414.9, 411.89, 414.01, 414.8, 414.0, 440.21, 440.1, 414.05, 440.9, 440.20, I20.9, I25.10, I20.8, I25.9, I24.8, I25.110, I25.119, I20.0, I70.0, I25.118, I25.709, I70.739, MLAN9, LPA91, MLPG1, 198, 133, 132, I25.810, I70.211, I70.262, I70.233, I70.249, I70.25, I70.8, I70.219, I70.261, 414.2, I25.708, I70.245, I70.209, I70.1, I70.213, I70.212, 437.0, I70.90, I25.758, I25.759, LPA32, 440.8, 440.0, I70.434, I70.229, I25.83, I70.299, I70.202, I70.444, I70.221, I70.203, 414.04, I67.2, I24.9, I70.292, 440.29, 414.3, 440.23, I25.710, 440.22, I25.82, I25.720, I25.700, I70.242, 414.02, I25.84, I70.244, I70.448, I70.445, I70.409, I70.235, 414.06, 440.24, I25.799, I70.243, I25.811, I25.718, I25.89, MLEH1, MLPE4, I70.223, I70.232, I70.201, I70.569, I70.269, I70.629, I70.248, I25.111, I70.234, I70.208, I70.222, I70.302, I70.239, I70.263, I70.293, 440.30, I25.760, 414.03, I25.728, 440.2, I25.812, I25.798, MLAI5, NLHB1, I25.790, I20.1, I25.719, I70.91, 414, I25.701, 440.31, I70.411, I70.238, 440, I70.218, I70.313

Cirrhosis	571.5, 571.2, K70.30, K74.60, K74.69, QLJL1, 202, K70.31, K74.3, K74.5, LPA81, 571.6, K74.4, LPA1363, K71.7
Chronic obstructive pulmonary disease	J44.9, J44.0, J44.1, LPA80, LHAZ1, 088, 140, 492.8, J43.8, 494.1, J47.9, J47.1, J47.0, 494.0, LPA54, 494, 491.20, 491.22, 491.21, 748.61, LJFH8, 491.2
Congestive heart failure	544, 428.0, LPA89, MLSN3, 404.91, 402.91, 402.11, 402.00, 404.11, 404.13, 404.93, 404.01
Human immunodeficiency virus	B20, Z21, 042, V08, LPA190, 894, 489, 893, 892, 490, DJBQ4, 079.53, 795.71, 795.8, 890, DKNF1, 488, Z71.7, 042.0

Supplemental Table 3. Medication list

Medication class	Medication names
Angiotensin converting enzyme inhibitors / angiotensin II receptor blockers	benazepril, lotensin, captopril, capoten, "enalapril", "vasotech", "epaned", "lexxel", "fosinopril", "monopril", "lisinopril", "prinvil", "zestril", "qbrelis", "moexipril", "univasc", "perindopril", "aceon", "quinapril", "accupril", "ramipril", "altace", "trandolapril", "mavik", "azilsartan", "edarbi", "candesartan", "atacand", "eprosartan", "teveten", "irbesartan", "avapro", "telmisartan", "micardis", "valsartan", "diovan", "losartan", "cozaar", "olmesartan", "benicar", "lotrel", "hyzaar"
Loop diuretics	"Bumetanide", "Bumex", "Ethacrynic acid", "Edecrin", "Furosemide", "Lasix", "Torsemide", "Demadex"
Thiazide diuretics	"Hydrochlorothiazide", "hctz", "benicar", "chlorathiazide", "chlorthalidone", "diuril", "hyzaar", "indapamide", "metolazone", "micardis", "prinzipide"
Potassium-sparing diuretics	"Aldactone", "Amiloride", "Dyazide", "Eplerenone", "Maxzide", "Spironolactone", "Triamterene"
Proton-pump inhibitors	"omeprazole", "Prilosec", "Yosprala", "lansoprazole", "Prevacid", "Prevacid 24-Hour", "dexlansoprazole", "Dexilent", "rabeprazole", "Aciphex", "pantoprazole", "Protonix", "esomeprazole", "Nexium", "Vimovo", "Zegerid", "dexilant", "dexlansoprazole"
Non-steroidal anti-inflammatory drugs	"celecoxib", "celebrex", "diclofenac", "cambia", "cataflam", "voltaren", "zipsor", "zorvolex", "diflunisal", "dolobid", "etodolac", "Iodine", "ibuprofen", "motrin", "advil", "idomethacin", "indocin", "ketoprofen", "orudis", "ketorolac", "toradol", "nabumetone", "relafen", "naproxen", "aleve", "anaprox", "naprelan", "naprosyn", "oxaprozin", "daypro", "piroxicam", "feldene", "salsalate", "disalsate", "amigesic", "sulindac", "clinoril", "tolmetin", "tolectin"
Immunosuppressants	"jakafi", "ruxolitinib", "tofacitinib", "xeljanz", "cyclosporine", "neoral", "sandimmune", "sangcya", "tacrolimus", "astagraf", "envarsus", "prograf", "sirolimus", "rapamune", "everolimus", "afinitor", "zortress", "azathioprine", "azasan", "imuran", "leflunomide", "arava", "mycophenolate", "cellcept", "myfortic", "abatacept", "orencia", "adalimumab", "humira", "anakinra", "kineret", "certolizumab", "cimzia", "etanercept", "enbrel", "golimumab", "simponi", "infliximab", "remicade", "ixekizumab", "taltz", "natalizumab", "tysabri", "rituximab", "rituxan", "secukinumab", "cosentyx", "tocilizumab", "actemra", "ustekinumab", "stelara", "vedolizumab", "entyvio", "basiliximab", "simulect", "daclizumab", "zinbryta", "antithymocyte globulin", "IVIG", "methotrexate", "prednisone", "deltasone", "orasone", "budesonide", "entocort", "prograf", "astagraf", "mycophenolate", "rapamune", "afinitor", "imuran", "arava", "cyclophosphamide", "eculizumab", "soliris", "belatacept", "nulojix"

Supplemental Table 4. Characteristics and outcomes in the three unmatched remdesivir-treated patients

Characteristic	Patient 1	Patient 2	Patient 3
Demographics	69 yo WF	47 yo HF	56 yo WM
Duration of remdesivir (days)	5	5	3
Reason for discontinuation	NA	NA	Improved/Discharged
Creatinine prior to Remdesivir	2.17	2.11	ESKD
ESKD	No	No	Yes
History of kidney transplant	No	Yes	No
Admission to ICU	No	No	No
Steroids given during course of hospitalization	Prednisone	No	Dexamethasone
<u>Adverse effects</u>			
Seizure	No	No	No
Cardiac arrest	No	No	No
Cardiac arrhythmia	Sinus bradycardia (49)	Sinus bradycardia (50)	Afib, 10-beat NSVT (prior to Remdesivir)
Infusion reaction	No	No	No
Altered Mental Status	No	No	No
Hyperglycemia > 200mg/dL (peak glucose)	No (143)	No (88)	Yes (271)
Anemia <8 g/dL (lowest hemoglobin)	Yes (7.8)	No (9.7)	No (12)
Transaminitis > 5 ULN (peak ALT U/L)	No (25)	No (81)	No (31)
Other possible remdesivir SE	No	No	Diarrhea
28 day mortality	No	No	No

Abbreviations: WF = white female, HF = Hispanic female, WM = white male, NA = not applicable, ESKD = end-stage kidney disease, ICU = intensive care unit, NSVT = nonsustained ventricular tachycardia, Afib = atrial fibrillation, SE = side effects