

Supplementary Material

Supplementary Tables

Supplementary References

Acknowledgments

Supplementary Table 1: International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10) codes used in the Development Phase

Disease Group	CureGN^{1*}	Sahli et al²	Baker et al^{3**}	USRDS⁴
HEENT infections (including oral and upper respiratory)	<i>B3781, J020, J030, J0301, B30, H00036, H05013, H10, H60399, H650, H6500, H651, H65199, H669, J00-J06, J029, J32, J340, J069, J350, J050</i>	H00, H05.0, H06.1, H10.0, H13.0, H13.1, H19.0-H19.2, H22.0, H32.0, H44.0, H44.1, H45.1, H58.8, H59.8, H60.0-H60.3, H62.0-H62.4, H66.0-H66.4, H67.0, H67.1, H70, H75.0, H94.0, J32, J34.0, J36, J37.8, J39.0, J39.1, K04.0, K04.1, K04.4, K04.6, K04.7, K05.2, K11.3, K11.2, J00-J06	B30, H000, H03, H043, H050, H100-H103, H109, H130, H131, H160, H190-H192, H220, H440, H451, H600-H603, H608, H609, H62, H65-H67, H680, H70, H730, H750, H830, H940, J00-J06, J32, J340, J36, J37, J390, J391, K02, K044, K046, K050, K052, K053, K113, K122, C11	H00.011-H10.9, H16.251-H16.269, H32, H66.001-H66.43, H67.1-H67.9, H70.001-H70.93, H75.00-H75.83, H83.01-H83.09, H92.10-H92.13, H95.00-H95.199, J31.0-J32.9, J35.01-J35.03, J36-J37.1, J39.0-J39.2, J95.02, K04.6, K04.7, K11.3, K12.2 C11
Infections involving upper and lower respiratory tract	<i>J09X2, A370, A3791</i>			J00-J18.1
Lower respiratory tract infections	<i>J110, J123, A0103, A5484, B59, J153, J200, J128, J129, J15, J158, J159, J16, J168, J18, J20, J40, J90</i>	J09-J18, J20-J22, J85.0-J85.2, J86	A15, J65, A481, A482, B59, J09-J18, J20-J22, J40-J42, J440, J47, J85, J86, J988, B44	J18.8-J21.9, J40, J41.1, J47.0-J47.9, J85.0-J85.2, J86.0-J92.9, J94.0-J94.9, R09.1
Cardiac and vascular infections		I30.1, I32.0, I32.1, I33, I38, I40.0, I41.0-I41.2, I98.0, I98.1	B332, I00-I02, I05-I09, I301, I33, I38-I412, I430, I716, I790, I791, T826, T827	I09.2, I32, I33.0, I39-I40.8, I41, M35.2
Gastrointestinal and hepatobiliary infections	<i>A040, A044, A047, J112, A084, A09, K5720, K5732, K578, K610, K652, K659, K85</i>		A00-A09, I880, K528, K529, R11, K230, K231, K25-K28, K293-K295, K35-K37, K61, K630, K632, K650, K678, K908, K930, K750, K770, K830, B15-B19, C161-C166, C168, C169, C210, C211, C220, D002, D013, D06	K35.2-K37, K50.014, K50.114, K50.814-K51.014, K51.214-K51.514, K51.814, K51.914, K57.00, K57.01, K57.20, K57.21, K57.40, K57.41, K57.80, K57.81, K61.0-K61.4, K63.0, K65.0-K65.9, K67-K68.9, K71.0-K71.9, K75.0-K75.3, K75.81-K75.9, K76.4, K77, K81.0-K81.9, K90.81
Central nervous system infections	G039	G00-G07, G53.0, G53.1, G63.0, G73.4, G94.0	A801-A804, A809, A811, A812, A818, A819, A82-A89, G00-G02, G030, G039, G04-G610, A17	G00.0-G04.02, G04.2-G09, G14, G37.4, G92, I67.3
MSK and integumentary infections	<i>M0020, M8600</i>	M00, M01, M60.0, M63.0-M63.2, M65.0, M65.1, M68.0, M71.0, M71.1, M73.0, M73.1, M86, M90.0-M90.2	M462, M463-M465, M00, M01, M021, M023, M03, M600, M630-M632, M650, M651, M680, M710, M711, M896, T845-T847, T857, T874	L94.6, M00.00-M01.X9, M02.10-M02.19, M02.30-M02.89, M46.20-M46.39, M86.00-M86.9, M90.80-M90.89

Kidney and genitourinary infections	N110, N111, N390, N451, N751	N08.0, N10, N12, N13.6, N15.1, N16.0, N22.0, N29.0, N29.1, N30.0, N33, N34, N39.0, N41, N43.1, N45, N48.1, N48.2, N49, N51, N61, N70-N77.1, O23, O86	A55, A57-A60, N00, N05, N10, N136, N151, N300, N341, N351, N37, N390, N410-N413, N431, N45, N481, N482, N490, N49, N51, N70-N74, N751, N764, N87, C53, T835, T836	N10-N12, N13.6, N15.1, N15.9, N16, N28.84-N28.86, N30.0- N30.31, N30.80, N30.81, N34.0-N34.3, N35.111-N35.12, N37-N39.0, N41.0-N41.9, N45.1-N45.4, N47.6, N48.1-N48.29, N49.0-N49.9, N51, N70.01-N74, N75.1, N76.0-N76.4, N77.1, N98.0, O86.12, O86.81, O86.89
Dermatologic infections	<i>B372, B369, L03011, L03113, L03115, L03211, L03314, L0390</i>	L00-L08	A46, L00-L04, L050, L08, B86, S1013, S1083, S1093, S2013, S2033, S2043, S2083, S3083, S3093, S4083, S5083, S6083, S7083, S8083, S9083, T009, T0903, T1108, T1303, T1403, T633, T634, T793, T8901, T8902, B35, B36, B42, B43, B47	L01.0-L08.9, L44.4, L70.2, L88, L92.8, L98.0, L98.3
Sepsis, bacteremia, and fungemia	<i>A413, A4151, A41, A4159, A419, B7881</i>	O85	A40, A41, A39, A19	O85, R78.81
System unspecified infections and/or systemic infections	<i>J09, J09X, J10, J11, B9789, B34, B349, B951, B952, B958, B9620, A490, A499, B37, R509</i>	A00-B99, O75.3, O98	A50-A54, A56, A63, A64, B20, A18, C46, T802, T814, A20-A28, A30-A38, A42-A44, A480, A483, A484, A488, A49, A65-A71, A74, A75, A77-A79, B95, B96, A90-A96, A98, A99, B00-B07, A08, B09, B25-B27, B33, B34, B97, B37-B41, B45, B46, B48-B58, B60, B64-B83, B85-B89, B94, B99, E033, E321, F024, F071, I88, T64	A00.0-A32.9, A35-B99.9, D86.0-D86.9, G93.7, I00-I02.9
Other infections	R05	U80, U81, U88, U89, O91	N290, B21, B22, B23, B24, A16, N740, N741, N61	R11.11, E32.1, N61

*Codes in *italics* indicate CureGN database codes that are pathogen-specific

**Baker et al included ICD-10 codes for adverse reactions to infectious disease treatment that are not shown in this table. Infection-related neoplasms have been sorted by primary location of neoplasm.

Supplementary References

1. Glenn DA, Henderson CD, O'Shaughnessy M, et al. Infection-Related Acute Care Events among Patients with Glomerular Disease. *Clin J Am Soc Nephrol*. 2020;15(12):1749-1761. doi:10.2215/CJN.05900420
 2. Sahli L, Lapeyre-Mestre M, Derumeaux H, Moulis G. Positive predictive values of selected hospital discharge diagnoses to identify infections responsible for hospitalization in the French national hospital database: PPV of Hospitalization for Infection Codes in France. *Pharmacoepidemiol Drug Saf*. 2016;25(7):785-789. doi:10.1002/pds.4006
 3. Baker MG, Barnard LT, Kvalsvig A, et al. Increasing incidence of serious infectious diseases and inequalities in New Zealand: a national epidemiological study. *The Lancet*. 2012;379(9821):1112-1119. doi:10.1016/S0140-6736(11)61780-7
 4. United States Renal Data System. *Volume 2: ESRD Analytical Methods*.; 2018:661.
- S1 Henriksen DP, Nielsen SL, Laursen CB, Hallas J, Pedersen C, Lassen AT. How Well Do Discharge Diagnoses Identify Hospitalised Patients with Community-Acquired Infections? – A Validation Study. Pizzol FD, ed. *PLoS ONE*. 2014;9(3):e92891.
- S2 Holland-Bill L, Xu H, Sørensen HT, et al. Positive predictive value of primary inpatient discharge diagnoses of infection among cancer patients in the Danish National Registry of Patients. *Ann Epidemiol*. 2014;24(8):593-597.e18.

CureGN Collaborators

The CureGN Consortium members listed below, from within the four Participating Clinical Center networks and Data Coordinating Center, are acknowledged by the authors as Collaborators.

**CureGN Principal Investigators; *CureGN Site Principal Investigators; #CureGN Lead Coordinators.

CureGN Participating Clinical Centers (PCC) through Columbia University:

Columbia University, New York, NY, US: Woojin Ahn, Gerald Appel, Paul Appelbaum, Revekka Babayev, Andrew Bomback, Eric Brown, Pietro Canetta, Lucrezia Carlassara, Brenda Chan, Vivette Denise D'Agati, Samitri Dogra, Hilda Fernandez, Ali Gharavi^{**}, William Hines, Syed Ali Husain, Namrata Jain, Krzysztof Kiryluk, Fangming Lin, Maddalena Marasa[#], Glen Markowitz, Hila Milo Rasouly, Sumit Mohan, Nicola Mongera, Jordan Nestor, Thomas Nickolas, Jai Radhakrishnan, Maya Rao, Simone Sanna-Cherchi, Shayan Shirazian, Michael Barry Stokes, Natalie Uy, Anthony Valeri, Natalie Vena

University of Warsaw, Warszawa, Poland: Bartosz Foronczewicz, Barbara Moszczuk, Krzysztof Mucha^{*}, Agnieszka Perkowska-Ptasińska

Gaslini Children's Hospital, Genoa, Italy: Gian Marco Ghiggeri^{*}, Francesca Lugani

CureGN Participating Clinical Centers (PCC) through the Midwest Pediatric Nephrology Consortium:

Arkana Laboratories, Little Rock, AR, USA: Josephine Ambruzs, Helen Liapis

Children's Hospital of Michigan, Detroit, MI, USA: Rossana Baracco, Amrisha Jain^{*}

Children's Hospital of New Orleans/LSU Health, New Orleans, LA, USA: Isa Ashoor, Diego Aviles^{*}

Children's Mercy Hospital, Kansas City, MO, USA: Tarak Srivastava^{*}

Children's National Medical Center, Washington DC, USA: Sun-Young Ahn^{*}

Cincinnati Children's Hospital Cincinnati, OH, USA: Prasad Devarajan, Elif Erkan^{*}, Donna Claes, Hillary Stone

Connecticut Children's Medical Center, Hartford, CT, USA: Sherene Mason^{*}, Cynthia Silva

Duke Children's Hospital Medical Center, Durham, NC, USA: Rasheed Gbadegesin^{*}

East Carolina University Brody School of Medicine, Greenville, NC, USA: Liliana Gomez-Mendez^{*}

Emory University, Atlanta, GA, USA: Larry Greenbaum^{**}, Chia-shi Wang, Hong (Julie) Yin

Helen DeVos Children's Hospital, Grand Rapids, MI, USA: Yi Cai^{*}, Goebel Jens, Julia Steinke

Levine Children's Hospital/ Carolinas Medical Center, Charlotte, NC, USA: Donald Weaver^{*}

Lurie Children's Hospital, Chicago IL, USA: Jerome Lane^{*}

Mayo Clinic, Rochester, MN, USA: Carl Cramer^{*}

Medical College of Wisconsin, Milwaukee, WI, USA: Cindy Pan, Rajasree Sreedharan^{*}

Medical University of South Carolina, Charleston SC, USA: David Selewski, Katherine Twombly^{*}

Nationwide Children's Hospital, Columbus, OH, USA: Corinna Bowers[#], Mary Dreher[#]

Mahmoud Kallash^{*}, John Mahan, Samantha Sharpe[#], William Smoyer^{**}

Oregon Health and Science University, Portland, OR, USA: Amira Al-Uzri^{*}, Sandra Iragorri

Riley Children's Hospital, Indianapolis, IN, USA: Myda Khalid^{*}

Cardinal Glennon Children's Medical Center/ St. Louis University, St. Louis, MO, USA: Craig Belsha^{*}

Texas Children's Hospital, Houston, TX, USA: Michael Braun, AC Gomez, Scott Wenderfer^{*}

Texas Tech Health Sciences Center, Amarillo, TX, USA: Tetyana Vasylyeva^{*}

Children's of Alabama, University of Alabama, Birmingham, AL, USA: Daniel Feig^{*}

University of Colorado Children's Hospital, Colorado, Aurora, CO, USA: Gabriel Cara Fuentes, Melisha Hannah*

University of Iowa Children's Hospital, Iowa City, IA, USA: Carla Nester*

University of Kentucky, Lexington, KY, USA: Aftab Chishti*

University of Louisville, Louisville, KY, USA: Jon Klein**

Holtz Medical Center, University of Miami, Miami, FL, USA: Chryso Katsoufis, Wacharee Seeherunvong*

University of Minnesota Children's Hospital, Minneapolis, MN, USA: Michelle Rheault*

University of New Mexico Health Sciences Center, Albuquerque, NM, USA: Craig Wong*

University of Oklahoma Health Sciences Center, Oklahoma City, OK, USA: Nisha Mathews*

University of Virginia, Charlottesville, VA, USA: John Barcia*, Agnes Swiatecka-Urban

University of Wisconsin, Madison, WI, USA: Sharon Bartosh*

Vanderbilt Children's Hospital, Nashville TN, USA: Tracy Hunley*

Washington University in St. Louis, St. Louis, MO, USA: Vikas Dharnidharka*, Joseph, Gaut

CureGN Participating Clinical Centers (PCC) through the University of North Carolina:

Hôpital Maisonneuve-Rosemont, Montreal, Canada: Louis-Philippe Laurin*, Virginie Royal

Medical University of South Carolina, Charleston, SC, USA: Anand Achanti, Milos

Budisavljevic*, Sally Self

Northwestern University, Chicago, IL, USA: Cybele Ghossein, Shikha Wadhvani*

Ohio State University, Columbus, OH, USA: Salem Almaani, Isabelle Ayoub, Tibor Nadasdy, Samir, Parikh, Brad Rovin*

University of Chicago, Chicago, IL, USA: Anthony Chang

University of Alabama at Birmingham, Birmingham, AL, USA: Huma Fatima, Jan Novak, Matthew Renfrow, Dana Rizk*

University of North Carolina Kidney Center, Chapel Hill, NC, USA: Dhruvi Chen, Vimal Derebail, Ronald Falk**, Keisha Gibson, Susan Hogan, Koyal Jain, J. Charles Jennette, Amy Mottl*, Caroline Poulton#, Manish Kanti Saha

Vanderbilt University, Nashville, TN, USA: Agnes Fogo, Neil Sanghani*

Virginia Commonwealth University, Richmond, VA, USA: Jason Kidd*, Hugh Massey, Selvaraj Muthusamy

CureGN Participating Clinical Centers (PCC) through the University of Pennsylvania:

MetroHealth Medical Center/Case Western Reserve University, Cleveland, OH, USA: Santhi Ganesan, Agustin Gonzalez-Vicente, Jeffrey Schelling*

Cedars-Sinai Health System, Los Angeles, CA, USA: Jean Hou

Children's Hospital of LA, Los Angeles, CA, USA: Kevin Lemley*, Warren Mika, Pierre Russo

Children's Hospital of Philadelphia, Philadelphia, PA, USA: Michelle Denburg, Amy Kogon, Kevin Meyers*, Madhura Pradhan

Cleveland Clinic, Cleveland, OH, CA: Raed Bou Matar*, John O'Toole*, John Sedor*

Cohen Children's Medical Center, New Hyde Park, NY, USA: Christine Sethna*

Johns Hopkins University, Baltimore, MD, USA: Serena Bagnasco, Michael Choi, Alicia Neu, John Sperati*

Lundquist Institute at Harbor-UCLA Medical Center, Torrance, CA, USA: Sharon Adler*, Tiane Dai, Ram Dukkipati

Mayo Clinic, Rochester, MN, USA: Fernando Fervenza*, Sanjeev Sethi

Montefiore Medical Center, The Bronx, New York, NY, USA: Frederick Kaskel, Kaye Brathwaite, Kimberly Reidy*

New York University, New York, NY, USA: Suzanne Vento #, Joseph Weisstuch, Ming Wu, Olga Zhdanova

NIDDK, Bethesda, MD, USA: Jurgen Heymann, Jeffrey Kopp*, Meryl Waldman, Cheryl Winkler

Spokane Providence Medical Center, Spokane, WA, USA: Katherine Tuttle*

Stanford University, Palo Alto, CA, USA: Jill Krissberg, Richard Lafayette*

Sunnybrook Health Sciences Centre, Toronto, Canada: Michelle Hladunewich*

The Hospital for Sick Children, Toronto, Canada: Rulan Parekh*

University Health Network, Toronto, Canada: Carmen Avila-Casado, Daniel Cattran*, Reich Heather, Philip Boll

University of Miami, Miami, FL, USA: Yelena Drexler, Alessia Fornoni*

University of Michigan, Ann Arbor, MI, USA: Patrick Gipson*, Jeffrey Hodgins, Andrew Oliverio

University of Pennsylvania, Philadelphia, PA, USA: Jon Hogan, Lawrence Holzman**, Matthew Palmer

University of Pittsburgh School of Medicine, Pittsburgh, PA, USA: Blaise Abromovitz*, Michael Mortiz*

University of Washington, Seattle, WA, USA: Charles Alpers, J. Ashley Jefferson*

UT Southwestern, Dallas, TX, USA: Elizabeth Brown, Kamal Sambandam*

Data Coordinating Center (DCC):

Arbor Research Collaborative for Health, Ann Arbor, MI, USA: Bruce Robinson**, Abigail Smith

Cedar Sinai Medical Center, Los Angeles, CA, USA: Cynthia Nast

Duke University, Durham, NC, USA: Laura Barisoni

University of Michigan, Ann Arbor, MI, USA: Brenda Gillespie**, Deb Gipson**, Maggie Hicken, Matthias Kretzler**, Laura Mariani

Steering Committee Chair: Lisa M. Guay-Woodford, Children's National Hospital, Washington DC, USA