Dataset Integrity Check for Clinical Characteristics and Treatment Patterns of Children and Adults With IgA Nephropathy or IgA Vasculitis: Findings From the CureGN Study

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Contents

1 Standard Disclaimer

The intent of this DSIC is to provide confidence that the data distributed by the NIDDK repository is a true copy of the study data. Our intent is not to assess the integrity of the statistical analyses reported by study investigators. As with all statistical analyses of complex datasets, complete replication of a set of statistical results should not be expected in secondary analysis. This occurs for a number of reasons including differences in the handling of missing data, restrictions on cases included in samples for a particular analysis, software coding used to define complex variables, etc. Experience suggests that most discrepancies can ordinarily be resolved by consultation with the study data coordinating center (DCC), however this process is labor-intensive for both DCC and Repository staff. It is thus not our policy to resolve every discrepancy that is observed in an integrity check. Specifically, we do not attempt to resolve minor or inconsequential discrepancies with published results or discrepancies that involve complex analyses, unless NIDDK Repository staff suspect that the observed discrepancy suggests that the dataset may have been corrupted in storage, transmission, or processing by repository staff. We do, however, document in footnotes to the integrity check those instances in which our secondary analyses produced results that were not fully consistent with those reported in the target publication.

2 Study Background

Cure Glomerulonephropathy Network (CureGN) is a multi-center consortium that seeks to establish an infrastructure for the advancement of glomerular disease studies. CureGN will recruit and maintain a large and diverse population of glomerular disease patients. The study will establish a database of patients diagnosed with the following conditions: minimal change disease (MCD), focal segmental glomerulosclerosis (FSGS), membranous nephropathy (MN), and immunoglobulin A nephropathy (IgAN). CureGN will regularly collect biospecimens and clinical data throughout the duration of the study.

3 Archived Datasets

All the SAS data files, as provided by the Data Coordinating Center (DCC), are located in the CureGN/Data folder in the data package. For this replication, variables were taken from the "repository_iga_data_20190321.sas7bdat" dataset.

4 Statistical Methods

Analyses were performed to duplicate results for the data published by Selewski et al [1] in Kidney International Reports in 2018. To verify the integrity of the dataset, descriptive statistics were computed.

5 Results

For Table 1 in the publication [1], Patient characteristics in the CureGN IgA nephropathy (IgAN)/IgA vasculitis (IgAV) cohort, by diagnosis, Table A lists the variables that were used in the replication and Table B compares the results calculated from the archived data files to the results published in Table 1.

6 Conclusions

The NIDDK repository is confident that the CureGN data files to be distributed are a true copy of the study data.

7 References

[1] David T. Selewski, Josephine M. Ambruzs, Gerald B. Appel, Andrew S. Bomback, Raed Bou Matar, Yi Cai, Daniel C. Cattran, Aftab S. Chishti, Vivette D. D'Agati, Cynthia J. D'Alessandri-Silva, Rasheed A. Gbadegesin, Jonathan J. Hogan, Sandra Iragorri, J. Charles Jennette, Bruce A. Julian, Myda Khalid, Richard A. Lafayette, Helen Liapis, Francesca Lugani, Sarah A. Mansfield, Sherene Mason, Patrick H. Nachman, Cynthia C. Nast, Carla M. Nester, Damien G. Noone, Jan Novak, Michelle M. O'Shaughnessy, Heather N. Reich, Michelle N. Rheault, Dana V. Rizk, Manish K. Saha, Neil S. Sanghani, C. John Sperati, Rajasree Sreedharan, Tarak Srivastava, Agnieszka Swiatecka-Urban, Katherine Twombley, Tetyana L. Vasylyeva, Donald J. Weaver, Hong Yin, Jarcy Zee, Ronald J. Falk, Ali G. Gharavi, Brenda W. Gillespie, Debbie S. Gipson, Larry A. Greenbaum, Lawrence B. Holzman, Matthias Kretzler, Bruce M. Robinson, William E. Smoyer, Michael Flessner, Lisa M. Guay-Woodford, Krzysztof Kiryluk, and CureGN Consortium. Clinical Characteristics and Treatment Patterns of Children and Adults With IgA Nephropathy or IgA Vasculitis: Findings From the CureGN Study. Kidney Int Rep. 2018 Nov. 3(6): 1373–1384.

Table A: Variables used to replicate Table 1**:** Patient characteristics in the CureGN IgA nephropathy (IgAN)/IgA vasculitis (IgAV) cohort, by diagnosis

Table Variable	**dataset.variable**
Age at diagnosis, yr	repository_iga_data_20190321.age_dx
Age at biopsy, yr	repository_iga_data_20190321.age_bx
Time from diagnosis to enrollment, yr	repository_iga_data_20190321.duration_yrs
Sex, male	repository_iga_data_20190321.male
Race, white	repository_iga_data_20190321.white
Hispanic/Latino	repository_iga_data_20190321.hispanic
Family history of kidney disease	repository_iga_data_20190321.fameskdever
UPCR at biopsy, continuous	repository_iga_data_20190321.upcr_bx
UPCR at biopsy, categorical	repository_iga_data_20190321.upcr_cat_bx
Hematuria at biopsy	repository_iga_data_20190321.urineblood_bx
Serum albumin at biopsy, continuous	repository_iga_data_20190321.albumin_bx
Serum albumin at biopsy, categorical	repository_iga_data_20190321.alb_3_bx
eGFR at biopsy, continuous	repository_iga_data_20190321.egfr_bx
eGFR at biopsy, categorical	repository_iga_data_20190321.egfr_cat_bx
UPCR at enrollment, continuous	repository_iga_data_20190321.upcr_enr
UPCR at enrollment, categorical	repository_iga_data_20190321.upcr_cat_enr
Hematuria at enrollment	repository_iga_data_20190321.urineblood_enr
Serum albumin at enrollment, continuous	repository_iga_data_20190321.albumin_enr
Serum albumin at enrollment, categorical	repository_iga_data_20190321.alb_3_enr
eGFR at enrollment, continuous	repository_iga_data_20190321.egfr_enr
eGFR at enrollment, categorical	repository_iga_data_20190321.egfr_cat_enr
Hypertension	repository_iga_data_20190321.hypertension_enr
eGFR higher at enrollment than at biopsy	repository_iga_data_20190321.egfr_improve
UPCR lower at enrollment than at biopsy	repository_iga_data_20190321.upcr_improve
UPCR ever <0.3 prior to or at enrollment	repository_iga_data_20190321.upcr_low

Table B: Comparison of values computed in integrity check to reference article Table 1 values

Diagnosis type	Variable	Manuscript (n=667)	DSIC (n=667)	Diff. (n=0)
All	Age at diagnosis, yr	23.9 (12.1-40.9)	23.9 (12.1-40.9)	0.0 (0.0-0.0)
	Age at biopsy, yr	24.3 (12.6-41.8)	24.3 (12.6-41.8)	0.0 (0.0-0.0)
	Time from diagnosis to enrollment, yr	1.0 (0.3-2.9)	1.0 (0.3-2.9)	0.0 (0.0-0.0)
	Sex, male	403 (60.4%)	403 (60.4%)	0 (0.0%)
	Race, white	513 (81.6%)	513 (81.6%)	0 (0.0%)
	Hispanic/Latino	100 (15.1%)	100 (15.1%)	0 (0.0%)
	Family history of kidney disease	188 (29.3%)	188 (29.3%)	0 (0.0%)
	At biopsy			
	UPCR	1.5 (0.7-3.3)	1.5 (0.7-3.3)	0.0 (0.0-0.0)
	3 ≤ UPCR	141 (28.5%)	141 (28.5%)	0 (0.0%)
	1 ≤ UPCR < 3	177 (35.8%)	177 (35.8%)	0 (0.0%)
	0.3 ≤ UPCR < 1	121 (24.5%)	121 (24.5%)	0 (0.0%)
	UPCR < 0.3	55 (11.1%)	55 (11.1%)	0 (0.0%)
	Hematuria – Negative	27 (5.5%)	27 (5.5%)	0 (0.0%)
	Hematuria – Trace	17 (3.5%)	17 (3.5%)	0 (0.0%)
	Hematuria – 1+ Small, 11-25	41 (8.4%)	41 (8.4%)	0 (0.0%)
	Hematuria – 2+ Moderate, 26-50	105 (21.5%)	105 (21.5%)	0 (0.0%)
	Hematuria – 3+ Large, 51-250	299 (61.1%)	299 (61.1%)	0 (0.0%)
	Serum albumin, g/dl	3.7 (3.2-4.1)	3.7 (3.2-4.1)	0.0 (0.0-0.0)
	Serum albumin <3 g/dl	91 (18.2%)	91 (18.2%)	0 (0.0%)
	eGFR, ml/min per 1.73 m^2	78.7 (46.1-110.9)	78.7 (46.1-110.9)	0.0 (0.0-0.0)
	90 ≤ eGFR	239 (41.6%)	239 (41.6%)	0 (0.0%)
	60 ≤ eGFR < 90	131 (22.8%)	131 (22.8%)	0 (0.0%)

Diagnosis type	Variable	Manuscript (n=667)	DSIC (n=667)	Diff. (n=0)
	30 ≤ eGFR < 60	142 (24.7%)	142 (24.7%)	0 (0.0%)
	eGFR < 30	62 (10.8%)	62 (10.8%)	0 (0.0%)
	At enrollment			
	UPCR	0.6 (0.2-1.7)	0.6 (0.2-1.7)	0.0 (0.0-0.0)
	3 ≤ UPCR	81 (14.9%)	81 (14.9%)	0 (0.0%)
	1 ≤ UPCR < 3	138 (25.3%)	138 (25.3%)	0 (0.0%)
	0.3 ≤ UPCR < 1	147 (27.0%)	147 (27.0%)	0 (0.0%)
	UPCR < 0.3	179 (32.8%)	179 (32.8%)	0 (0.0%)
	Hematuria – Negative	84 (16.1%)	84 (16.1%)	0 (0.0%)
	Hematuria – Trace	48 (9.2%)	48 (9.2%)	0 (0.0%)
	Hematuria – 1+ Small, 11-25	72 (13.8%)	72 (13.8%)	0 (0.0%)
	Hematuria – 2+ Moderate, 26-50	126 (24.1%)	126 (24.1%)	0 (0.0%)
	Hematuria – 3+ Large, 51-250	192 (36.8%)	192 (36.8%)	0 (0.0%)
	Serum albumin, g/dl	4.0 (3.6-4.3)	4.0 (3.6-4.3)	0.0 (0.0-0.0)
	Serum albumin <3 g/dl	48 (9.7%)	48 (9.7%)	0 (0.0%)
	eGFR, ml/min per 1.73 m^2	82.9 (48.8-105.2)	82.9 (48.8-105.2)	0.0 (0.0-0.0)
	90 ≤ eGFR	261 (43.0%)	261 (43.0%)	0 (0.0%)
	60 ≤ eGFR < 90	150 (24.7%)	150 (24.7%)	0 (0.0%)
	30 ≤ eGFR < 60	133 (21.9%)	133 (21.9%)	0 (0.0%)
	eGFR < 30	63 (10.4%)	63 (10.4%)	0 (0.0%)
	Hypertension	121 (19.1%)	121 (19.1%)	0 (0.0%)
	eGFR higher at enrollment than at biopsy	215 (40.6%)	215 (40.6%)	0 (0.0%)
	UPCR lower at enrollment than at biopsy	267 (62.8%)	267 (62.8%)	0 (0.0%)
	UPCR ever <0.3 prior to or at enrollment	247 (39.3%)	247 (39.3%)	0 (0.0%)
IgAN	Age at diagnosis, yr	28.8 (14.7-43.5)	28.8 (14.7-43.5)	0.0 (0.0-0.0)
	Age at biopsy, yr	29.6 (15.0-43.9)	29.6 (15.0-43.9)	0.0 (0.0-0.0)
	Time from diagnosis to enrollment, yr	1.2 (0.3-3.1)	1.2 (0.3-3.1)	0.0 (0.0-0.0)

Diagnosis type	Variable	Manuscript (n=667)	DSIC (n=667)	Diff. (n=0)
	Sex, male	303 (59.9%)	303 (59.9%)	0 (0.0%)
	Race, white	374 (78.9%)	374 (78.9%)	0 (0.0%)
	Hispanic/Latino	81 (16.1%)	81 (16.1%)	0 (0.0%)
	Family history of kidney disease	149 (30.5%)	149 (30.5%)	0 (0.0%)
	At biopsy			
	UPCR	1.4 (0.7-3.0)	1.4 (0.7-3.0)	0.0 (0.0-0.0)
	3 ≤ UPCR	89 (24.9%)	89 (24.9%)	0 (0.0%)
	1 ≤ UPCR < 3	140 (39.2%)	140 (39.2%)	0 (0.0%)
	0.3 ≤ UPCR < 1	86 (24.1%)	86 (24.1%)	0 (0.0%)
	UPCR < 0.3	42 (11.8%)	42 (11.8%)	0 (0.0%)
	Hematuria – Negative	24 (6.8%)	24 (6.8%)	0 (0.0%)
	Hematuria – Trace	15 (4.3%)	15 (4.3%)	0 (0.0%)
	Hematuria – 1+ Small, 11-25	33 (9.4%)	33 (9.4%)	0 (0.0%)
	Hematuria – 2+ Moderate, 26-50	78 (22.2%)	78 (22.2%)	0 (0.0%)
	Hematuria – 3+ Large, 51-250	201 (57.3%)	201 (57.3%)	0 (0.0%)
	Serum albumin, g/dl	3.8 (3.4-4.1)	3.8 (3.4-4.1)	0.0 (0.0-0.0)
	Serum albumin <3 g/dl	53 (14.5%)	53 (14.5%)	0 (0.0%)
	eGFR, ml/min per 1.73 m^2	70.6 (41.8-101.6)	70.6 (41.8-101.6)	0.0 (0.0-0.0)
	90 ≤ eGFR	150 (35.4%)	150 (35.4%)	0 (0.0%)
	60 ≤ eGFR < 90	97 (22.9%)	97 (22.9%)	0 (0.0%)
	30 ≤ eGFR < 60	127 (30.0%)	127 (30.0%)	0 (0.0%)
	eGFR < 30	50 (11.8%)	50 (11.8%)	0 (0.0%)
	At enrollment			
	UPCR	0.7 (0.2-1.8)	0.7 (0.2-1.8)	0.0 (0.0-0.0)
	3 ≤ UPCR	58 (14.4%)	58 (14.4%)	0 (0.0%)
	1 ≤ UPCR < 3	110 (27.3%)	110 (27.3%)	0 (0.0%)
	0.3 ≤ UPCR < 1	104 (25.8%)	104 (25.8%)	0 (0.0%)

Diagnosis type	Variable	Manuscript (n=667)	DSIC (n=667)	Diff. (n=0)
	UPCR < 0.3	131 (32.5%)	131 (32.5%)	0 (0.0%)
	Hematuria – Negative	68 (17.6%)	68 (17.6%)	0 (0.0%)
	Hematuria – Trace	37 (9.6%)	37 (9.6%)	0 (0.0%)
	Hematuria – 1+ Small, 11-25	60 (15.5%)	60 (15.5%)	0 (0.0%)
	Hematuria – 2+ Moderate, 26-50	95 (24.5%)	95 (24.5%)	0 (0.0%)
	Hematuria – 3+ Large, 51-250	127 (32.8%)	127 (32.8%)	0 (0.0%)
	Serum albumin, g/dl	4.0 (3.7-4.3)	4.0 (3.7-4.3)	0.0 (0.0-0.0)
	Serum albumin <3 g/dl	27 (7.3%)	27 (7.3%)	0 (0.0%)
	eGFR, ml/min per 1.73 m^2	75.8 (43.5-100.1)	75.8 (43.5-100.1)	0.0 (0.0-0.0)
	90 ≤ eGFR	167 (36.1%)	167 (36.1%)	0 (0.0%)
	60 ≤ eGFR < 90	116 (25.1%)	116 (25.1%)	0 (0.0%)
	30 ≤ eGFR < 60	122 (26.4%)	122 (26.4%)	0 (0.0%)
	eGFR < 30	57 (12.3%)	57 (12.3%)	0 (0.0%)
	Hypertension	89 (18.5%)	89 (18.5%)	0 (0.0%)
	eGFR higher at enrollment than at biopsy	156 (39.6%)	156 (39.6%)	0 (0.0%)
	UPCR lower at enrollment than at biopsy	186 (62.0%)	186 (62.0%)	0 (0.0%)
	UPCR ever <0.3 prior to or at enrollment	184 (38.9%)	184 (38.9%)	0 (0.0%)
IgAV	Age at diagnosis, yr	12.7 (7.6-22.4)	12.7 (7.6-22.4)	0.0 (0.0-0.0)
	Age at biopsy, yr	13.0 (8.3-22.4)	13.0 (8.3-22.4)	0.0 (0.0-0.0)
	Time from diagnosis to enrollment, yr	0.6 (0.2-1.5)	0.6 (0.2-1.5)	0.0 (0.0-0.0)
	Sex, male	100 (62.1%)	100 (62.1%)	0 (0.0%)
	Race, white	139 (89.7%)	139 (89.7%)	0 (0.0%)
	Hispanic/Latino	19 (11.8%)	19 (11.8%)	0 (0.0%)
	Family history of kidney disease	39 (25.3%)	39 (25.3%)	0 (0.0%)
	At biopsy			
	UPCR	1.8 (0.7-4.6)	1.8 (0.7-4.6)	0.0 (0.0-0.0)
	3 ≤ UPCR	52 (38.0%)	52 (38.0%)	0 (0.0%)

Diagnosis type	Variable	Manuscript (n=667)	DSIC (n=667)	Diff. (n=0)
	1 ≤ UPCR < 3	37 (27.0%)	37 (27.0%)	0 (0.0%)
	0.3 ≤ UPCR < 1	35 (25.5%)	35 (25.5%)	0 (0.0%)
	UPCR < 0.3	13 (19.5%)	13 (19.5%)	0 (0.0%)
	Hematuria – Negative	3 (2.2%)	3 (2.2%)	0 (0.0%)
	Hematuria – Trace	2 (1.4%)	2 (1.4%)	0 (0.0%)
	Hematuria – 1+ Small, 11-25	8 (5.8%)	8 (5.8%)	0 (0.0%)
	Hematuria – 2+ Moderate, 26-50	27 (19.6%)	27 (19.6%)	0 (0.0%)
	Hematuria – 3+ Large, 51-250	98 (71.0%)	98 (71.0%)	0 (0.0%)
	Serum albumin, g/dl	3.4 (2.9-3.8)	3.4 (2.9-3.8)	0.0 (0.0-0.0)
	Serum albumin <3 g/dl	38 (27.9%)	38 (27.9%)	0 (0.0%)
	eGFR, ml/min per 1.73 m²	103.5 (70.3-122.5)	103.5 (70.3-122.5)	0.0 (0.0-0.0)
	90 ≤ eGFR	89 (59.3%)	89 (59.3%)	0 (0.0%)
	60 ≤ eGFR < 90	34 (22.7%)	34 (22.7%)	0 (0.0%)
	30 ≤ eGFR < 60	15 (10.0%)	15 (10.0%)	0 (0.0%)
	eGFR < 30	12 (8.0%)	12 (8.0%)	0 (0.0%)
	At enrollment			
	UPCR	0.5 (0.2-1.6)	0.5 (0.2-1.6)	0.0 (0.0-0.0)
	3 ≤ UPCR	23 (16.2%)	23 (16.2%)	0 (0.0%)
	1 ≤ UPCR < 3	28 (19.7%)	28 (19.7%)	0 (0.0%)
	0.3 ≤ UPCR < 1	43 (30.3%)	43 (30.3%)	0 (0.0%)
	UPCR < 0.3	48 (33.8%)	48 (33.8%)	0 (0.0%)
	Hematuria – Negative	16 (11.9%)	16 (11.9%)	0 (0.0%)
	Hematuria – Trace	11 (8.1%)	11 (8.1%)	0 (0.0%)
	Hematuria – 1+ Small, 11-25	12 (8.9%)	12 (8.9%)	0 (0.0%)
	Hematuria – 2+ Moderate, 26-50	31 (23.0%)	31 (23.0%)	0 (0.0%)
	Hematuria – 3+ Large, 51-250	65 (48.1%)	65 (48.1%)	0 (0.0%)
	Serum albumin, g/dl	3.9 (3.4-4.3)	3.9 (3.4-4.3)	0.0 (0.0-0.0)

Diagnosis type	Variable	Manuscript (n=667)	DSIC (n=667)	Diff. (n=0)
	Serum albumin <3 g/dl	21 (17.1%)	21 (17.1%)	0 (0.0%)
	eGFR, ml/min per 1.73 m^2	100.1 (82.4-118.7)	100.1 (82.4-118.7)	0.0 (0.0-0.0)
	90 ≤ eGFR	94 (64.8%)	94 (64.8%)	0 (0.0%)
	60 ≤ eGFR < 90	34 (23.4%)	34 (23.4%)	0 (0.0%)
	30 ≤ eGFR < 60	11 (7.6%)	11 (7.6%)	0 (0.0%)
	eGFR < 30	6 (4.1%)	6 (4.1%)	0 (0.0%)
	Hypertension	32 (20.6%)	32 (20.6%)	0 (0.0%)
	eGFR higher at enrollment than at biopsy	59 (43.7%)	59 (43.7%)	0 (0.0%)
	UPCR lower at enrollment than at biopsy	81 (64.8%)	81 (64.8%)	0 (0.0%)
	UPCR ever <0.3 prior to or at enrollment	63 (40.6%)	63 (40.6%)	0 (0.0%)

Attachment A: SAS Code

```
/*************************************************************************************************
CureGN IgAN vs. IgAV
Saved As:  /prj/niddk/ims_analysis/CureGN/prog_initial_analysis/iga.check.table1.sas
Programmer:  Anne Taylor
Date Written:  16May2019
Purpose:  To check Table 1 of Clinical Characteristics and Treatment Patterns of Children and
          Adults With IgA Nephropathy or IgA Vasculitis: Findings From the CureGN Study.
*************************************************************************************************/

options validvarname=upcase mprint linesize=157;

title 'CureGN IgAN vs. IgAV';
title2 "Program Saved As:  %sysfunc(getoption(sysin))";

libname iga '/prj/niddk/ims_analysis/CureGN/private_created_data/IGA';

proc format;
   value diagtypefmt
      1='IgAN'
      2='IgAV'
      ;
   value yesno
      0='No'
      1='Yes'
      ;
   value upcrcatfmt
      1='3 <= UPCR'
      2='1 <= UPCR < 3'
      3='0.3 <= UPCR < 1'
      4='UPCR < 0.3'
      ;
   value hemfmt
      1='Negative'
      2='Trace'
      4='1+ Small, 11-25'
      5='2+ Moderate, 26-50'
      6='3+ Large, 51-250'
      ;
   value egfrcatfmt
      1='90 <= eGFR'
      2='60 <= eGFR < 90'
      3='30 <= eGFR < 60'
      4='eGFR < 30'
      ;

proc tabulate data=iga.repository_iga_data_20190321 missing f=8.1;
   class type;
```

```
   var age_dx age_bx duration_yrs upcr_bx albumin_bx egfr_bx upcr_enr albumin_enr egfr_enr;
   table age_dx='Age at diagnosis, yr'
         age_bx='Age at biopsy, yr'
         duration_yrs='Time from diagnosis to enrollment, yr'
         upcr_bx='UPCR at biopsy'
         albumin_bx='Serum albumin at biopsy, g/dl'
         egfr_bx='eGFR at biopsy, ml/min per 1.73 m2'
         upcr_enr='UPCR at enrollment'
         albumin_enr='Serum albumin at enrollment, g/dl'
         egfr_enr='eGFR at enrollment, ml/min per 1.73 m2',(all type='Diagnosis')*(n*f=8. median q1 q3)/rts=40;
   title4 'Table 1: Patient characteristics in the CureGN IgA nephropathy (IgAN)/IgA vasculitis (IgAV) cohort, by diagnosis';

%macro npct(charact,charlabel);
   proc tabulate data=iga.repository_iga_data_20190321;
      class &charact type;
      table &charact="&charlabel",(all type='Diagnosis')*(n*f=12. colpctn*f=12.1);
      format male white hispanic fameskdever alb_3_bx alb_3_enr hypertension_enr egfr_improve upcr_improve upcr_low yesno.;
   run;
%mend npct;

%npct(male,%nrstr(Sex, male));
%npct(white,%nrstr(Race, white));
%npct(hispanic,Hispanic/Latino);
%npct(fameskdever,Family history of kidney disease);
%npct(upcr_cat_bx,UPCR at biopsy);
%npct(urineblood_bx,Hematuria at biopsy);
%npct(alb_3_bx,Serum albumin at biopsy <3 g/dl);
%npct(egfr_cat_bx,%nrstr(eGFR at biopsy, ml/min per 1.73 m2));
%npct(upcr_cat_enr,UPCR at enrollment);
%npct(urineblood_enr,Hematuria at enrollment);
%npct(alb_3_enr,Serum albumin at enrollment <3 g/dl);
%npct(egfr_cat_enr,%nrstr(eGFR at enrollment, ml/min per 1.73 m2));
%npct(hypertension_enr,Hypertension);
%npct(egfr_improve,eGFR higher at enrollment than at biopsy);
%npct(upcr_improve,UPCR lower at enrollment than at biopsy);
%npct(upcr_low,UPCR ever <0.3 prior to or at enrollment);
```