Table S1: ICD-9 and CPT codes used to exclude admissions of patients with pre-existing chronic kidney disease.

ICD-9 Codes			ICD-9 E/V Codes	CPT Codes
38.95	404.12	583.2	E870.2	0505F
39.27	404.13	583.4	E871.2	0507F
39.42	404.90	583.6	E879.1	3066F
39.43	404.91	583.7	V42.0	36145
39.95	404.92	583.81	V45.1	36800
54.98	404.93	583.89	V45.11	36810
55.52	446.4	583.9	V45.12	4052F
55.53	458.21	585.1	V45.73	4053F
55.6	572.4	585.2	V56.0	4054F
189.0	581.0	585.3	V56.1	4055F
250.41	581.1	585.4	V56.2	90935
270.0	581.2	585.5	V56.32	90937
285.21	581.3	585.6	V56.8	90945
403.00	581.81	585.9		90947
403.01	581.89	589.1		90967
403.10	581.9	710.0		90968
403.11	582.0	753.14		90969
403.90	582.1	753.15		90970
403.91	582.2	756.71		90999
404.00	582.4	792.5		50200
404.01	582.81	996.56		
404.02	582.89	996.68		
404.03	582.9	996.73		
404.10	583.0	996.81		
404.11	583.1			

Table S2: Nephrotoxic medications classified by their relative contribution to the development of AKI: Group 1 if nephrotoxic as single agent or Group 2 if nephrotoxic in at-risk clinical situations or in conjunction with additional agent(s).

Group 1	**Group 2**
Acyclovir	Accupril
Amikacin	Aminocaproic Acid
Amphotericin B Liposomal	Aspirin
Cidofovir	Bevacizumab
Cisplatin	Bumetanide
Colistimethate Sodium	Celecoxib
Cyclophosphamide	Chlorothiazide
Cyclosporine	Daptomycin
Fludarabine Phosphate	Enalapril
Gentamicin	Enalaprilat
Hydroxyurea	Etravirine
Ibuprofen	Everolimus
Ifosfamide	Foscarnet
Imatinib Mesylate	Furosemide
Indomethacin	Gabapentin
IVIG	Ganciclovir
Ketorolac Tromethamine	Glipizide
Lomustine	Hydrochlorothiazide
Meloxicam	Linezolid
Mercaptopurine	Lisinopril
Mesalamine	Lithium Carbonate
Methotrexate	Losartan
Naproxen	Methocarbamol
Neomycin	Mitoxantrone Hcl
Sirolimus	Nelarabine
Streptomycin	Phenylephrine
Tacrolimus	Piperacillin/Tazobactam
Tobramycin	Ramipril
Vancomycin	Spironolactone
	Trimethoprim/Sulfamethoxazole
	Val-Acyclovir
	Val-Ganciclovir
	Valsartan

Table S3. Data conversions to allow for analysis. The extracted lab values and the numeric conversions used in this study are listed below.

Lab	Stated value	Value assigned for lab measurement	Units
Creatinine	< 0.1	0.1	mg/dL
Creatinine	< 0.2	0.2	mg/dL
Hematocrit	< 15	15	%
Hematocrit	> 65	65	%
Platelets	< 5	5	$10^3/\mu L$
Platelets	< 10	10	$10^3/\mu L$

Table S4: AKI definition for staging evaluated patients who met minimum criteria for acute kidney injury during their admission. Urine output data were unreliable and not used for this study. Conversion factor for creatinine in mg/dL to μmol/L, x88.4.

	Serum Creatinine Change	**Serum Creatinine Value (mg/dl)**
KDIGO Stage 1	≥1.5- to 2-fold increase	Increase of ≥0.3
KDIGO Stage 2	≥2- to 3-fold increase	
KDIGO Stage 3	≥3-fold increase	≥ 4

Table S5. Discharge diagnoses and mortality. The five most frequent primary discharge diagnoses are listed for the subgroups in this study. Note the individuals in Stages 1, 2, and 3 are subsets of the AKI cohort.

	Most Frequent Primary Discharge Diagnosis[1]	In Hospital Mortality[1]
Not Evaluated (N=11,540) **9593 (83%) with data available**	1. Acute Appendicitis- 325 (2.8%) 2. Hypertrophy of Tonsils with Adenoids- 314 (2.7%) 3. Pneumonia, Organism Unspecified- 312 (2.7%) 4. Other Convulsions- 268 (2.3%) 5. Acute RSV Bronchiolitis- 253 (2.2%)	5 (0.04%)
Evaluated (N=2374) **2305 (97%) with data available**	1. Dehydration- 84 (3.5%) 2. Encounter for Antineoplastic Chemotherapy- 79 (3.3%) 3. Idiopathic Scoliosis- 63 (2.7%) 4. Fever, Unspecified- 57 (2.4%) 5. Pneumonia, Organism Unspecified- 47 (2.0%)	5 (0.2%)
No AKI (N=1652) **1604 (97%) with data available**	1. Idiopathic Scoliosis- 58 (3.5%) 2. Dehydration- 51 (3.1%) 3. Encounter for Antineoplastic Chemotherapy- 39 (2.4%) 4. Constipation- 37 (2.2%) 5. Pneumonia, Organism Unspecified- 34 (2.1%)	1 (0.06%)
AKI (N=722) **701 (97%) with data available**	1. Encounter for Antineoplastic Chemotherapy- 40 (5.5%) 2. Dehydration- 33 (4.6%) 3. Fever, Unspecified- 24 (3.3%) 4. Diabetes Mellitus Type 1 with Ketoacidosis- 22 (3.0%) 5. Congenital Pyloric Stenosis- 17 (2.4%) Acute febrile mucocutaneous lymph node synd.- 17 (2.4%)	4 (0.6%)
Stage 1 (N=443) **427 (96%) with data available**	1. Encounter for Antineoplastic Chemotherapy- 22 (5.0%) 2. Diabetes Mellitus Type 1 with Ketoacidosis- 16 (3.6%) 3. Dehydration- 14 (3.2%) Acute febrile mucocutaneous lymph node synd.- 14 (3.2%) 5. Pneumonia, Organism Unspecified- 11 (2.5%) Congenital Pyloric Stenosis- 11 (2.5%)	1 (0.2%)
Stage 2 (N=199) **194 (97%) with data available**	1. Encounter for Antineoplastic Chemotherapy- 16 (8.0%) 2. Dehydration- 10 (5.0%) 3. Fever, Unspecified- 9 (4.5%) 4. Diabetes Mellitus Type 1 with Ketoacidosis- 6 (3.0%) 5. ALL without Remission- 5 (2.5%) Neutropenia, Unspecified- 5 (2.5%) Failure to Thrive- 5 (2.5%)	0 (0.0%)
Stage 3 (N=80) **77 (96%) with data available**	1. Dehydration- 9 (11.3%) 2. Acute Kidney Failure, Unspecified- 7 (8.8%) 3. Fever, Unspecified- 6 (7.5%) 4. Bloodstream infection due to central venous cath- 5 (6.3%) 5. [All other diagnoses in ≤2 individuals]	3 (3.8%)

[1]Numbers for diagnoses are given as Number (Percent of total in selected cohort).