**Table S4.** Diagnosis or procedure codes to identify CKD and dialyzed patients.

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| --- | --- | --- |
|  | **CKD codes** | **Dialysis codes** |
| **Diagnosis** | 250.4 (diabetes with renal manifestations) | 585.6 (chronic kidney disease, stage V requiring chronic dialysis) |
|  | 285.21 (anemia in chronic kidney disease) | 792.5 (cloudy (hemodialysis) (peritoneal) dialysis effluent) |
|  | 583\* (nephritis and nephropathy, not specified as acute or chronic)^ | 996.1 (mechanical complications involving aortic (bifurcation) graft (replacement) arteriovenous: dialysis catheter) |
|  | 585\* (chronic kidney disease) | 996.56 (mechanical complication of other specified prosthetic device, implant, and graft - due to peritoneal dialysis catheter) |
|  | 586\* (renal failure, unspecified)^ | 996.68 (infection and inflammatory reaction due to internal prosthetic device, implant, and graft - Due to peritoneal dialysis catheter) |
|  | 996.73 (other complications of internal (biological) (synthetic) prosthetic device, implant, and graft - due to renal dialysis device, implant, and graft) | 996.73 (other complications of internal (biological) (synthetic) prosthetic device, implant, and graft - Due to renal dialysis device, implant, and graft) |
|  | V45.1\* (renal dialysis status) | V45.1\* (renal dialysis status) |
|  | V56\* (encounter for dialysis and dialysis catheter care) | V56\* (encounter for dialysis and dialysis catheter care) |
|  | 403\* (hypertensive chronic kidney disease) | E870.2 (accidental cut, puncture, perforation, or hemorrhage during medical care: Kidney dialysis or other perfusion) |
|  | 404\* (hypertensive heart and chronic kidney disease) | E871.2 (foreign object left in body during procedure: Kidney dialysis or other perfusion) |
|  |  | E872.2 (failure of sterile precautions during procedure: Kidney dialysis and other perfusion) |
|  |  | E879.1 (kidney dialysis) |
| **Procedures** | 39.27(arteriovenostomy for renal dialysis) | 39.27 (arteriovenostomy for renal dialysis) |
|  | 55.23 (closed [percutaneous] [needle] biopsy of kidney) | 38.95 (venous catheterization for renal dialysis) |
|  | 55.24 (open biopsy of kidney) | 39.42 (revision of arteriovenous shunt for renal dialysis) |
|  |  | 39.43 (removal of arteriovenous shunt for renal dialysis) |
|  |  | 39.95 (hemodialysis) |
| 54.98 (peritoneal dialysis) |

^Patients identified through ICD9-CM code“583\*” or “586\*” were considered as CKD patients only if these codes were repeated more than twice during the study period to prevent the misclassification of patients with acute renal disease as CKD.