

Supplemental Table 1. Search strategy

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1. exp Renal Insufficiency, Acute/
  2. (acute renal failure\$ or acute kidney failure\$).tw.
  3. (arf or akf).tw.
  4. (acute renal insufficiency\$ or acute kidney insufficiency\$).tw.
  5. (acute tubular necrosis or ATN).tw.
  6. (acute kidney injur\$ or acute renal injur\$ or AKI).tw.
  7. or/1-6
  8. risk.tw
  9. injury.tw
  10. failure.tw
  11. and/8-10
  12. rifle.tw
  13. kidney disease.tw
  14. improving global outcomes.tw
  15. and/14-15
  16. kdigo.tw
  17. or/11-12
  18. or/15-16
  19. acute kidney injury network.tw
  20. or/17-19
  21. and/ 7&20
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Supplemental Table 2. Harmonization of acute kidney injury (AKI) classification and staging system

Stage	RIFLE	AKIN	KDIGO
Stage 1	<i>Risk</i> 1.5 fold ↑ serum creatinine	1.5-2.0 fold ↑ serum creatinine	1.5-1.9 fold ↑ serum creatinine
Stage 2	<i>Injury</i> 2.0 fold ↑ serum creatinine	>2.0-3.0 fold ↑ serum creatinine	2.0-2.9 fold ↑ serum creatinine
Stage 3	<i>Failure</i> 3.0 fold ↑ serum creatinine	>3.0 fold ↑ serum creatinine	≥3.0 fold ↑ serum creatinine or dialysis

RIFLE, Risk, Injury, Failure, Loss, Endstage; AKIN, Acute Kidney Injury Network; KDIGO, Kidney Disease Improving Global Outcomes

Supplemental Table 3. Characteristics of the 312 studies according to definitions of acute kidney injury

	All studies irrespective of AKI definition	Studies using KDIGO-equivalent serum creatinine-based criteria to define AKI	Studies using other biochemical, urine output, or dialysis requirement-based criteria to define AKI	Studies using administrative diagnosis codes to define AKI
<b>No. studies</b>				
All	312	154	130	28
Adults	269	130	114	25
Children	42	24	15	3
Adults and children	1	0	1	0
<b>No. subjects, median (interquartile range)</b>				
All	1,848 (769-8,639)	1,293 (662-7,594)	1,668 (798-5,068)	33,688 (5,246-562,799)
Adults	2,308 (929-10,751)	2,076 (829-10,518)	2,083 (940-6,033)	39,805 (5,731-681,730)
Children	390 (172-1,128)	253 (146-430)	526 (272-1,128)	2,194 (831-9,903)
<b>Percentage of male subjects, mean (range)</b>				
All	64 (28-100)	63 (28-100)	65 (46-99)	59 (38-98)
Adults	65 (28-100)	65 (28-100)	67 (55-99)	59 (38-98)
Children	54 (46-79)	56 (49-79)	53 (46-59)	55 (53-56)
<b>Age (in years), mean (range)</b>				
Adults	60.0 (23.0-80.3)	60.6 (25.5-80.3)	58.7 (23.0-78.0)	63.7 (43.3-79.2)
Children	4.7 (0.0 <sup>s</sup> -13.0)	4.7 (0.0 <sup>s</sup> -11.4)	4.9 (0.0 <sup>s</sup> -9.1)	5.9 (4.0-9.1)
<b>No. of studies by</b>				
<i>Clinical setting (%)</i>				
Community-acquired	19 (6%)	7 (5%)	8 (6%)	4 (14%)
Critical care	57 (18%)	41 (27%)	15 (11%)	1 (4%)
Cardiac surgery	96 (31%)	42 (27%)	53 (41%)	1 (4%)
Trauma	13 (4%)	4 (3%)	6 (5%)	3(11%)
Heart failure	3 (1%)	1 (1%)	1(1%)	1 (4%)
Hematology/oncology	7 (2%)	3 (2%)	3(2%)	1 (4%)

Nephrotoxins	19 (6%)	4 (3%)	14 (11%)	1 (4%)
Hospital-acquired, unspecified	98 (32%)	52 (34%)	30 (23%)	16 (57%)
<i>Continent (%)</i>				
Australia & New Zealand	10 (3%)	9 (6%)	1 (1%)	0 (0%)
Asia	44 (14%)	21 (14%)	20 (15%)	3 (10%)
Europe	98 (32%)	51 (33%)	46 (35%)	1 (4%)
America	153 (49%)	70 (45%)	59 (45%)	24 (86%)
Africa	2 (1%)	0 (0%)	2 (2%)	0 (0%)
Multiple continents	5 (2%)	3 (2%)	2 (2%)	0 (0%)
<i>World zone* (%)</i>				
Australia & New Zealand	10 (3%)	9 (6%)	1 (1%)	0 (0%)
Eastern Asia	26 (8%)	17 (11%)	6 (5%)	3 (10%)
Western Asia	6 (2%)	2 (1%)	4 (3%)	0 (0%)
Southern Asia	8 (3%)	2 (1%)	6 (5%)	0 (0%)
South East Asia	4 (1%)	0 (0%)	4 (3%)	0 (0%)
Eastern Europe	3 (1%)	2 (1%)	1 (1%)	0 (0%)
Western Europe	26 (8%)	15 (10%)	11 (8%)	0 (0%)
Northern Europe	27 (9%)	12 (8%)	14 (11%)	1 (4%)
Southern Europe	35 (11%)	18 (11%)	17 (13%)	0 (0%)
Multi-zone Europe	7 (2%)	4 (3%)	3 (2%)	0 (0%)
North America	142 (45%)	64 (42%)	54 (41%)	24 (86%)
South America	11 (3%)	6 (4%)	5 (3%)	0 (0%)
North Africa	1 (1%)	0 (0%)	1 (1%)	0 (0%)
Western Africa	1 (1%)	0 (0%)	1 (1%)	0 (0%)
Multiple zones	5 (2%)	3 (2%)	2 (2%)	0 (0%)
<i>Latitude (%)</i>				
North	288 (92%)	138 (89%)	122 (93%)	28 (100%)
South	21 (7%)	15 (10%)	6 (5%)	0 (0%)
North and South	3 (1%)	1 (1%)	2 (2%)	0 (0%)
<i>Country income classification † (%)</i>				

Low income	2 (1%)	1 (1%)	1 (1%)	0 (0%)
Lower middle income	5 (2%)	1 (1%)	4 (3%)	0 (0%)
Upper middle income	40 (13%)	20 (13%)	18 (14%)	2 (7%)
High income	258 (82%)	130 (84%)	103 (79%)	25 (89%)
Not available	7 (2%)	2 (1%)	4 (3%)	1 (4%)
<i>Country total health expenditure, % of GDP<sup>‡</sup></i>				
< 5	19 (6%)	8 (5%)	10 (8%)	1 (4%)
5-10	136 (44%)	68 (45%)	63 (48%)	5 (17%)
> 10	150 (48%)	76 (49%)	53 (41%)	21 (75%)
Not available	7 (2%)	2 (1%)	4 (3%)	1 (4%)

AKI denotes acute kidney injury; KDIGO, Kidney Disease Improving Global Outcomes; GDP, gross domestic product; \*According to the United Nations geo-scheme classification; † According to the World Bank classification of income of countries; ‡ According to the World Health Organization; § Newborns.

Supplemental Table 4. Characteristics of the individual studies included in the meta-analysis

Author	Year	Country	Study design	Population	Mean age, years	Men, %	Study setting	Study setting reclassification	Study AKI definition	Study AKI definition reclassification	Total No. patients	No. patients with AKI	No. patients with R or stage-1 AKI	No. patients with I or stage-2 AKI	No. patients with F or stage-3 AKI	No. patients requiring RRT	Newcastle-Ottawa quality score
Slocum (1)	2012	USA	Retrospective	Adults	70.0*	55*	Cardiac catheterization	Nephrotoxins	Increase in sCr by $\geq$ 0.5 mg/dL or $\geq$ 25% from baseline	Other clinical definition	47,480	4,308	-	-	-	177	7
Ishikawa (2)	2012	Canada	Retrospective	Adults	61.0	50	Lung resection surgery	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	1,129	67	59	8	0	1	6
Lellouche (3)	2012	Canada	Prospective	Adults	65.3	73	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr by $>$ 0.57 mg/dL from baseline	Other clinical definition	3,434	365	-	-	-	92	8
Lamy (4)	2012	UK, Canada, India, China, Argentina	Post-hoc RCT	Adults	67.5	81	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	4,752	1,235	825	306	104	55	8
Chong (5)	2012	Singapore	Retrospective	Adults	65.0	66	Cardiac catheterization	Nephrotoxins	Increase in sCr by $\geq$ 0.5 mg/dL or $\geq$ 25% within 48 hours	Other clinical definition	770	88	-	-	-	NR	7
Wu (6)	2012	Taiwan	Prospective	Adults	60.8	67	Surgical intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	10,953	572	151	57	319	572	8
Arnaoutakis (7)	2012	USA	Retrospective	Adults	52.0	82	Left ventricular assist device	Hospital-acquired	Need for RRT	Other clinical definition	1,312	106	-	-	-	106	7
Ried (8)	2012	Germany	Retrospective	Adults	65.7	100	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	3,139	98	-	-	-	62	5
Thakar (9)	2012	USA	Retrospective	Adults	73.8	49	Heart failure	Heart failure	ICD-9-CM diagnosis codes	Administrative coding-based definition	6,535	424	-	-	-	-	7
Bojan (10)	2012	France	Retrospective	Children	0.3	NR	Cardiac surgery	Cardiac surgery	AKIN criteria	KDIGO-equivalent sCr-based definition	958	244	-	-	-	79	8
Selby (11)	2012	UK	Prospective	Adults	80.0*	NR	Hospitalization	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	59,296	3,202	1970	638	594	90	4
Amin (12)	2012	USA	Retrospective	Adults	68.9	59	Acute myocardial infarction	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	33,249	7,095	-	-	-	-	8
Wohlauer (13)	2012	USA	Prospective	Adults	37.2	74	Surgical intensive care unit	Critical care	Increase in sCr to $\geq$ 1.8 mg/dL within 48 hours	Other clinical definition	2,158	154	-	-	-	36	6
Ryden (14)	2012	Sweden	Retrospective	Adults	65.5	80	Cardiac surgery	Cardiac surgery	AKIN criteria	KDIGO-equivalent sCr-based definition	7,594	1,047	918	108	21	-	6
Patel (15)	2012	USA	Prospective	Adults	72.0	68	Cardiac surgery	Cardiac surgery	AKIN criteria	KDIGO-equivalent sCr-based definition	1,139	407	-	-	-	-	6
Kim (16)	2012	USA	Retrospective	Adults	45.5	71	Surgical intensive care unit	Critical care	AKIN criteria	KDIGO-equivalent sCr-based definition	571	170	-	-	-	-	7
Zhou (17)	2012	China	Retrospective	Adults	59.1	69	Surgical and medical intensive care unit	Critical care	AKIN criteria	KDIGO-equivalent sCr-based definition	1,036	353	161	77	115	73	6
Parolari (18)	2012	Italy	Retrospective	Adults	65.0	69	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	3,219	288	-	-	-	-	5
Sims (19)	2012	UK	Retrospective	Adults	65.4	74	Cardiac surgery	Cardiac surgery	AKIN criteria	KDIGO-equivalent sCr-based definition	5,701	2,424	-	-	-	183	6

Candela-Toha (20)	2012	Spain	Prospective	Adults	66.1	59	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	2,103	300	178	77	45	72	6
Mehrotra (21)	2012	USA	Retrospective	Adults	NR	60	Kidney Transplantation	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	27,232	3,066	-	-	-	439	7
Tóth (22)	2012	Hungary	Prospective	Children	1.1	NR	Cardiac surgery	Cardiac surgery	pRIFLE criteria	KDIGO-equivalent sCr-based definition	1,510	481	173	26	282	96	9
Libório (23)	2012	Brazil	Retrospective	Children	5.0	53	Visceral Leishmaniasis	Hospital-acquired	pRIFLE	KDIGO-equivalent sCr-based definition	146	67	45	21	1	-	7
Ried (24)	2012	Germany	Retrospective	Adults	78.0	50	Cardiac surgery	Cardiac surgery	Decrease in eGFR by $\geq 50\%$ or need for dialysis	Other clinical definition	598	36	-	-	-	-	7
Fox (25)	2012	USA	Retrospective	Adults	64.8	65	Acute myocardial infarction	Hospital-acquired	Increase in sCr by 0.3-0.5 mg/dL (mild), by 0.5-1.0 mg/dL (moderate), or $\geq 1.0$ mg/dL (severe)	KDIGO-equivalent sCr-based definition	59,970	9,659	3,919	3,363	2,377	-	8
Stewart (26)	2012	USA	Retrospective	Adults	25.5	98	Burned military casualties	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	692	165	97	36	32	41	7
Garner (27)	2012	UK	Retrospective	Adults	61.0	50	Hospitalization	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	2,822	125	95	20	10	-	9
Craig (28)	2012	UK	Retrospective	Adults	34.0	48	Severe acute liver injury	Hospital-acquired	need for RRT	Other clinical definition	663	113	-	-	-	113	7
Colpaert (29)	2012	Belgium	Prospective	Adults	61.4	62	Surgical and medical intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	951	527	172	266	89	55	8
Tolpin (30)	2012	USA	Retrospective	Adults	NR	76	Cardiac surgery	Cardiac surgery	Increase in sCr by $\geq 0.3$ mg/dL or $\geq 150\%$ from baseline	KDIGO-equivalent sCr-based definition	3,914	472	-	-	-	-	7
Coca (31)	2012	USA	Prospective	Adults	71.6	68	Cardiac surgery	Cardiac surgery	AKIN criteria	KDIGO-equivalent sCr-based definition	1,159	409	-	-	-	17	8
Wehbe (32)	2012	USA	Retrospective	Adults	53	58	Lung transplantation	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	657	424	309	115	40	7	
Pedersen (33)	2012	Denmark	Post-hoc RCT	Children	0.96	55	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	105	57	35	13	9	12	6
Viswanathan (34)	2012	USA	Retrospective	Children	0*	52*	Neonatal intensive care unit	Critical care	Increase in sCr to $> 1.5$ mg/dL within 72 hours or decrease in urine output to $< 1$ mL/kg/hour for at least 24 hours	Other clinical definition	472	59	-	-	-	-	6
Blinder (35)	2012	UK	Retrospective	Children	7 days	56	Cardiac surgery	Cardiac surgery	Pediatric modified AKIN	KDIGO-equivalent sCr-based definition	430	225	135	59	31	153	7
Han (36)	2012	Korea	Retrospective	Adults	68	60	Intensive care unit	Critical care	AKIN criteria	KDIGO-equivalent sCr-based definition	1,625	827	548	100	179	143	7
Haase (37)	2012	Germany	Retrospective	Adults	66.7	73	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	920	179	179	64	20	40	6
Kavaz (38)	2012	Turkey	Prospective	Children	3.8	58	Intensive care unit	Critical care	AKIN criteria	KDIGO-equivalent sCr-based definition	189	63	-	-	-	9	8
Girman (39)	2012	UK	Retrospective	Adults	49.8	49	General Practice	Community-acquired	READ diagnosis code	Administrative coding-based definition	1,914,482	119,966	-	-	-	-	6
Brown (40)	2011	USA	Prospective	Adults	66.2	70	Cardiac surgery	Cardiac surgery	Increase in sCr by $\geq 0.3$ mg/dL or $\geq 50\%$ from baseline or need for RRT	Other clinical definition	4,987	1,723	1,350	242	132	32	9

Jiang (41)	2011	China	Retrospective	Adults	NR	NR	Intensive care unit	Critical care	AKIN criteria	KDIGO-equivalent sCr-based definition	524	135	-	-	-	-	0
Stallworth (42)	2011	USA	Retrospective	Children	4.0	53	Sickle cell disease	Hematology/Oncology	ICD-9-CM diagnosis codes	Administrative coding-based definition	2,194	23	-	-	-	-	6
Cartin-Ceba (43)	2011	USA	Retrospective	Adults	62.0	52	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	1,461	4	1	1	2	1	7
Thakar (44)	2011	USA	Retrospective	Adults	61.7	97	Diabetes	Community acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	3,679	530	466	64		-	9
ACT Investigators (45)	2011	Brazil	Post-hoc RCT	Adults	68.0	61	Post-intravascular angiographic procedure	Nephrotoxins	Increase in sCr by > 25% from baseline within 48-96 hours	Other clinical definition	2,308	289	-	-	-	6	5
Mitchell (46)	2011	USA	Prospective	Adults	47.0	43	Contrast-enhanced computed tomography imaging	Nephrotoxins	Increase in sCr by > 0.5 mg/dL or > 25% from baseline within 2-7 days	Other clinical definition	633	70	-	-	-	-	6
Ried (47)	2011	Germany	Retrospective	Adults	78.0	54	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	598	323	196	98	29	36	7
Wu (48)	2011	Taiwan	Prospective	Adults	59.9	60	Major surgery	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	9,425	4,393	2,434	979	745	236	8
Meier(49)	2011	Switzerland	Retrospective	Adults	61.0	55	Hospitalization	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	104,272	4,296	1,742	1,578	976	976	7
Lahoti (50)	2011	USA	Retrospective	Adults	59.0	56	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	2,398	301	144	67	89	56	5
Lu (51)	2011	China	Retrospective	Adults	60.8	65	Hospitalization	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	38,734	934	-	-	-	-	0
Liu (52)	2011	USA	Post-hoc RCT	Adults	49.8	54	Acute lung injury	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	1,000	814	541	123	150	-	6
Karkouti (53)	2011	Canada	Retrospective	Adults	62.7	75	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	12,388	256	-	-	-	-	7
Mandelbaum (54)	2011	USA	Retrospective	Adults	65.8	58	Intensive care unit	Critical care	AKIN criteria	KDIGO-equivalent sCr-based definition	14,524	8,272	5,595	2,046	631	-	6
Lombardi (55)	2011	Spain	Prospective	Adults	59.0	61	Mechanical ventilation	Critical care	AKIN criteria	KDIGO-equivalent sCr-based definition	2,783	803	-	-	-	-	7
Barbosa(56)	2011	Brazil	Retrospective	Adults	62.6	33	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr by $\geq$ 50% or post-operative need for dialysis	Other clinical definition	3,890	266	-	-	-	-	7
Alkandari (57)	2011	Canada	Retrospective	Children	5.8	56	Intensive care unit	Critical care	AKIN criteria	KDIGO-equivalent sCr-based definition	2,106	377	206	91	80	30	7
Wi (58)	2011	Korea	Retrospective	Adults	62.7	71.9	Cardiac catheterization	Nephrotoxins	Increase in sCr by > 25% or > 0.5 mg/dL within 48 hours	Other clinical definition	1,041	148	-	-	-	-	7
Shlipak (59)	2011	USA	Prospective	Adults	71.0	68	Cardiac surgery	Cardiac surgery	AKIN criteria	KDIGO-equivalent sCr-based definition	1,147	407	-	-	-	-	9
Piccinni (60)	2011	Italy	Prospective	Adults	66.0	59	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	576	379	205	99	75	48	9
Clec'h (61)	2011	France	Prospective	Adults	59.2	61	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	8,639	2,846	1,025	830	991	545	7

Budano (62)	2011	Italy	Prospective	Adults	66.0	73	Cardiac catheterization	Nephrotoxins	Increase in sCr by $\geq$ 25% within 48 hours	Other clinical definition	755	120	-	-	-	-	7
Pannu (63)	2011	Canada	Retrospective	Adults	62.2	49	Hospitalization	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	43,008	7,856	5198	489	439	-	8
Türker (64)	2011	Turkey	Retrospective	Children	0.0	54	Intensive care unit	Critical care	Increase in sCr to $>$ 1 mg/dL (for $\geq$ 33-week gestation) or $>$ 1.3 mg/dL (for $<$ 33-week gestation) within 48 hours of life	Other clinical definition	553	78	-	-	-	-	7
Hwang (65)	2011	Korea	Retrospective	Adults	63.7	69	ST- and non-ST elevation myocardial infarction	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	2,053	602	530	45	27	-	5
Zhong (66)	2011	China	Prospective	Children	8.9	NR	Renal disease	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	95	33	-	-	-	13	5
Cho (67)	2011	Korea	Retrospective	Adults	57.0	71	Unilateral radical nephrectomy for renal cell carcinoma	Hematology/Oncology	RIFLE criteria	KDIGO-equivalent sCr-based definition	519	175	165	8	2	-	6
Pettila (68)	2011	Australia and New Zealand	Prospective	Adults	45.0	47	Influenza (H1N1)	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	628	211	41	56	114	33	8
Grams (69)	2011	USA	Post-hoc RCT	Adults	49.8	54	Acute lung injury	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	1,000	306	181	49	76	89	7
van Kuijk (70)	2011	The Netherlands	Prospective	Adults	67.9	76	Vascular surgery	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	1,158	120	58	39	23	-	6
Licker (71)	2011	Switzerland	Retrospective	Adults	63.2	68	Lung cancer surgery	Hematology/Oncology	RIFLE criteria	KDIGO-equivalent sCr-based definition	1,345	91	56	33	2	-	5
Choi (72)	2011	Korea	Retrospective	Adults	72.0	40	Hospitalization	Hospital-acquired	ICD-10-CM diagnosis codes	Administrative coding-based definition	1,093,262	1156	-	-	-	-	7
Martin-Loeches (73)	2011	Spain	Prospective	Adults	43.0	55	Intensive care unit (influenza A H1N1)	Critical care	AKIN criteria	KDIGO-equivalent sCr-based definition	661	118	37	15	66	50	8
Ishani (74)	2011	USA	Retrospective	Adults	65.1	99	Cardiac surgery	Cardiac surgery	Baseline-to-peak sCr increase by 1-24% (class I), 25-49% (class II), 50-99% (class III), or $\geq$ 100% (class IV)	Other clinical definition	29,388	9,410	5,357	2,719	1,334	-	6
Krawczeski (75)	2011	USA	Prospective	Children	2.1	53	Cardiac surgery	Cardiac surgery	AKIN	KDIGO-equivalent sCr-based definition	373	112	-	-	-	-	7
Pompilio (76)	2011	Italy	Retrospective	Adults	65.0	70	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr to 2.0 mg/dL and doubling of baseline pre-operative sCr	Other clinical definition	5,818	457	-	-	-	146	7
Ali (77)	2011	UK	Retrospective	Adults	74.5	54	Outpatient database	Community-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	523,390	474	117	251	194	48	7
Mithani (78)	2011	USA	Retrospective	Adults	66.0	99	Cardiac surgery	Cardiac surgery	AKIN criteria	KDIGO-equivalent sCr-based definition	2,104	495	-	-	-	-	7
Lin (79)	2011	Taiwan	Retrospective	Adults	NR	67	Acute pancreatitis	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	1,734	261	-	-	-	-	8
James (80)	2011	Canada	Retrospective	Adults	63.1	72	Coronary angiography	Nephrotoxins	AKIN criteria	KDIGO-equivalent sCr-based definition	14,782	1,420	1,099	321	-	-	6

Englberger (81)	2011	USA	Retrospective	Adults	67.0	66	Cardiac surgery	Cardiac surgery	AKIN criteria	KDIGO-equivalent sCr-based definition	4,836	1,272	1,141	57	74	96	6
Garzotto (82)	2011	Italy	Prospective	Adults	66.0	59	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	576	379	205	99	75	48	8
Moffett (83)	2011	USA	Retrospective	Children	NR	NR	Hospitalization	Hospital-acquired	pRIFLE criteria	KDIGO-equivalent sCr-based definition	1,660	561	441	117	3	-	5
Bolesta (84)	2011	USA	Retrospective	Adults	67.6	64	Cardiac surgery	Cardiac surgery	AKIN criteria	KDIGO-equivalent sCr-based definition	667	179	-	-	-	9	6
Noyez (85)	2011	The Netherlands	Retrospective	Adults	66.0	71	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr to 2.0 mg/dL and doubling of baseline pre-operative sCr	Other clinical definition	995	18	-	-	-	13	6
Huang (86)	2011	Taiwan	Prospective	Adults	65.7	76	Cardiac surgery	Cardiac surgery	AKIN criteria	KDIGO-equivalent sCr-based definition	1,052	183	-	-	-	50	9
Du (87)	2011	USA	Prospective	Children	11.4	50	Pediatric emergency center	Community-acquired	pRIFLE criteria	KDIGO-equivalent sCr-based definition	252	18	12	6	0	-	7
Kimura (88)	2011	Japan	Retrospective	Adults	66.3	67	Cardiac catheterization	Nephrotoxins	AKIN criteria	KDIGO-equivalent sCr-based definition	2,193	81	-	-	-	-	6
de Geus (89)	2011	The Netherlands	Prospective	Adults	58.7	58	Hospitalization	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	632	171	67	48	56	28	6
Li (90)	2011	Taiwan	Retrospective	Adults	68.9	82	Cardiac surgery	Cardiac surgery	AKIN criteria	KDIGO-equivalent sCr-based definition	964	186	74	33	79	68	5
Fonseca Ruiz (91)	2011	USA	Retrospective	Adults	52.6	53	Intensive care unit	Critical care	AKIN criteria	KDIGO-equivalent sCr-based definition	794	315	110	95	110	39	6
Zappitelli (92)	2011	USA	Retrospective	Children	8.0	51	Aminoglycoside use	Nephrotoxins	AKIN criteria	KDIGO-equivalent sCr-based definition	557	109	69	26	14	-	7
Paden (93)	2011	USA	Retrospective	Children	0.02	50	Extracorporeal membrane oxygenation	Critical care	pRIFLE criteria	KDIGO-equivalent sCr-based definition	378	50	17	15	10	18	5
Englberger (94)	2011	USA	Prospective	Adults	59.0	71	Elective thoracic aortic surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	851	151	107	38	6	18	6
Askenazi (95)	2011	USA	Retrospective	Children	4.6	56	Neonatal intensive care unit	Critical care	ICD-9-CM diagnosis codes	Administrative coding-based definition	9,903	1,040	-	-	-	2,626	7
Ostermann (96)	2011	UK and Germany	Prospective	Adults	NR	NR	Intensive care unit	Critical care	AKIN	KDIGO-equivalent sCr-based definition	41,175	14,576	7,864	1,565	5,147	-	4
Amin (97)	2010	USA	Prospective	Adults	61.3	67	Acute myocardial infarction	Hospital-acquired	Increase in sCr by $\geq$ 0.3 mg/dL from admission value	KDIGO-equivalent sCr-based definition	2098	393	-	-	-	-	8
Mehta (98)	2010	USA	Retrospective	Adults	65.0	69	Cardiac surgery	Cardiac surgery	Baseline-to-post-operative peak sCr increase by > 50% or > 0.7 mg/dL, or need for de novo dialysis	Other clinical definition	10,415	2,083	-	-	-	-	6
Robert (99)	2010	USA	Prospective	Adults	66.0	71	Cardiac surgery	Cardiac surgery	AKIN criteria	KDIGO-equivalent sCr-based definition	24,747	7,391	5,659	852	880	-	8
James (100)	2010	Canada	Prospective	Adults	48.5	44	Hospitalization	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	920,985	6,520	-	-	-	615	7

Vannaphan (101)	2010	Thailand	Retrospective	Adults	27.7	76	Severe malaria	Hospital-acquired	sCr > 3 mg/dL, urine output < 400 mL/day	Other clinical definition	915	195	-	-	-	171	5
Iglesias (102)	2010	USA	Prospective	Adults	49.2	57	Orthotopic liver transplantation	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	688	243	178	45	20	6	9
Silva Júnior (103)	2010	Brazil	Retrospective	Adults	35.0	77	AIDS	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	532	197	96	41	59	-	5
Brown (104)	2010	USA	Prospective	Adults	66.2	70	Cardiac surgery	Cardiac surgery	Increase in sCr by $\geq$ 0.3 mg/dL or $\geq$ 50% within 1-7 days	KDIGO-equivalent sCr-based definition	4,987	1,886	-	-	-	-	9
Yende (105)	2010	USA	Retrospective	Adults	67.2	52	Community-acquired pneumonia	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	1,895	462	188	83	191	-	7
Hennessy (106)	2010	USA	Retrospective	Adults	NR	NR	Cardiac surgery	Cardiac surgery	Increase in sCr to > 2.0 mg/dL and 2 times the preoperative sCr value, or post-operative requirement for dialysis	Other clinical definition	1,287	83	-	-	-	43	6
Fang (107)	2010	China	Retrospective	Adults	NR	56	Hospitalization	Hospital-acquired	Increase in sCr by $\geq$ 0.3 mg/dL or $\geq$ 50% within 48 hours	KDIGO-equivalent sCr-based definition	11,923	5,619	4,185	776	658	317	6
D'Onofrio (108)	2010	Italy	Retrospective	Adults	67.9	74	Cardiac surgery Diabetes and non-cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	2,488	584	228	248	108	32	7
Coca (109)	2010	USA	Prospective	Adults	66.1	97	Cardiac surgery Diabetes and non-cardiac surgery	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	35,302	6,257	5,109	760	388	-	6
Lafrance (110)	2010	USA	Retrospective	Adults	62.9	96	Hospitalization	Hospital-acquired	Nadir-to-peak sCr ratio of $\geq$ 1.5 during hospitalization	KDIGO-equivalent sCr-based definition	1,126,636	140,316	71,593	35,538	33,185	-	7
Ibrahim (111)	2010	UK	Retrospective	Adults	35.1	59	Human immunodeficiency virus infection	Community-acquired	> 40% decrease in eGFR or > 55% increase in sCr	Other clinical definition	2,556	184	-	-	-	83	7
Ingraham (112)	2010	United States, Canada, and Puerto Rico	Retrospective	Adults	46.2	65	Severe trauma	Trauma	ICD-9-CM diagnosis codes	Administrative coding-based definition	94,795	1,222	-	-	-	-	7
Kwon (113)	2010	Korea	Prospective	Adults	63.3*	60*	Hospitalization	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	8,207	96	55	32	9	11	7
Soto (114)	2010	Portugal	Prospective	Adults	59.1	63	Emergency department	Community-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	616	130	100	-	-	6	7
Lahoti (115)	2010	USA	Retrospective	Adults	56.0	52	Acute myelogenous leukemia (induction chemotherapy) or high-risk myelodysplastic syndrome	Hematology/Oncology	RIFLE criteria	KDIGO-equivalent sCr-based definition	537	187	81	51	60	-	6
Bihorac (116)	2010	USA	Prospective	Adults	42.5	62	Trauma	Trauma	RIFLE criteria	KDIGO-equivalent sCr-based definition	982	253	106	79	68	29	8
Fisher (117)	2010	USA	Retrospective	Children	9.1	56	Acute myeloid leukemia	Hematology/Oncology	ICD-9-CM diagnosis codes	Administrative coding-based definition	831	135	-	-	-	-	8
Choi (118)	2010	USA	Retrospective	Adults	44.4	98	Human immunodeficiency virus	Community-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	17,325	3,060	2,453	273	334	-	8
Szeczch (119)	2010	USA	Retrospective	Adults	58.0	51	Hypertensive urgency/emergency	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	1,566	363	241	65	57	-	7

Akram (120)	2010	UK	Prospective	Adults	66.9	49	Community-acquired pneumonia	Community-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	1,241	223	130	63	30	30	9
Romano (121)	2010	Italy	Retrospective	Adults	63.2	81	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	1,034	391	-	-	-	34	7
Shema-Didi (122)	2010	Israel	Retrospective	Adults	57.7	NR	Hospitalization	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	25,800	1,943	-	-	-	43	7
Mitter (123)	2010	USA	Prospective	Adults	64.5	67	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	9,461	424	112	52	260	-	7
Argalious (124)	2010	USA	Retrospective	Adults	65.9	68	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	10,648	1,286	-	-	-	182	7
Laoprasopwattana (125)	2010	Thailand	Retrospective	Children	9.1*	56*	Dengue hemorrhagic fever	Hospital-acquired	Increase in sCr to > 2 mg/dL or > 2.0-fold increase from baseline	Other clinical definition	2,893	25	-	-	-	11	8
Matheny (126)	2010	USA	Retrospective	Adults	NR	44	Hospitalization	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	26,107	2,078	1,352	726	-	-	6
De Santo (127)	2010	Italy	Prospective	Adults	61.9	53	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	1,424	606	492	98	16	65	7
Santiago (128)	2010	Spain	Prospective	Children	4.4	60	Intensive care unit	Critical care	pRIFLE criteria	KDIGO-equivalent sCr-based definition	174	73	-	-	-	-	5
Gude (129)	2010	Norway	Retrospective	Adults	50.0	NR	Heart transplantation	Hospital-acquired	Post-operative increase in sCr by $\geq$ 0.3 mg/dL or $\geq$ 50% within 7 days, or need for early post-operative dialysis	KDIGO-equivalent sCr-based definition	585	145	-	-	-	71	5
Morgan (130)	2010	Australia	Prospective	Adults	61.2*	68*	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	2,379	228	-	-	-	109	3
Jyrala (131)	2010	USA	Retrospective	Adults	66.3	66	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr to > 2.25 mg/dL regardless of the need for dialysis support	Other clinical definition	885	79	-	-	-	22	7
Ahmed (132)	2010	USA	Retrospective	Adults	78.4	38	Hospitalization	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	3,656	371	-	-	-	-	5
Schneider (133)	2010	USA	Retrospective	Children	0.6	54	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	3,396	339	111	101	127	-	8
Lafrance (134)	2010	Canada	Retrospective	Adults	69.8	54	Chronic kidney disease	Community-acquired	Decrease in eGFR by $\geq$ 25% and > 5 mL/min/1.73 m <sup>2</sup> from baseline	Other clinical definition	6,862	3,079	-	-	-	-	8
Uchino (135)	2010	Australia	Retrospective	Adults	67.2	55	Hospitalization	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	20,126	3,641	1,837	1,055	749	224	7
Hsu (136)	2010	Taiwan	Prospective	Adults	65.9	77	Hepatocellular carcinoma	Hospital-acquired	Decrease in eGFR to < 60 mL/min/1.73m <sup>2</sup>	Other clinical definition	566	134	-	-	-	-	6
Kong (137)	2010	China	Prospective	Adults	65.0	60	Ischemic stroke	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	2,774	21	-	-	-	-	6
Gordon (138)	2010	Canada, Australia, USA	Post-hoc RCT	Adults	60.4	61	Septic shock	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	778	464	106	130	179	247	6
Ferreira (139)	2010	Portugal	Retrospective	Adults	44.0	64	Liver transplantation	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	708	235	119	60	56	73	7

Heise (140)	2010	Germany	Retrospective	Adults	65.2	NR	Cardiac surgery	Cardiac surgery	need for RRT	Other clinical definition	3,508	383	-	-	-	383	8
Hsu (141)	2010	Taiwan	Retrospective	Adults	66.0	77	Hepatocellular carcinoma, transarterial chemoembolization	Nephrotoxins	Increase in sCr by $\geq 50\%$ or $\geq 0.5$ mg/dL to 1.5 mg/dL within 7 days	Other clinical definition	591	11	-	-	-	-	7
Thakar (142)	2009	USA	Retrospective	Adults	NR	98	Intensive care unit	Critical care	Increase of serum creatinine by 0.3 mg/dL from baseline	KDIGO-equivalent sCr-based definition	325,395	71,486	57,126	7,934	6,426	3,140	7
Rodrigues (143)	2009	Brazil	Prospective	Adults	57.0	54	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr by $\geq 50\%$ regardless of post-operative dialysis requirement	Other clinical definition	769	78	-	-	-	18	6
Lau (144)	2009	Australia	Prospective	Adults	63.7	65	Acute coronary syndrome	Hospital-acquired	Increase in sCr by $> 0.57$ mg/dL from baseline	Other clinical definition	3,393	15	-	-	-	-	7
Yan (145)	2009	China	Retrospective	Adults	56.2	96	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	509	167	108	25	34	-	6
Machado (146)	2009	Brazil	Retrospective	Adults	61.0	70	Cardiac surgery	Cardiac surgery	Increase in sCr by $\geq 0.3$ mg/dL or $\geq 50\%$ from baseline	KDIGO-equivalent sCr-based definition	817	396	-	-	-	31	5
Li (147)	2009	China	Prospective	Adults	56.6*	62*	Hospitalization	Hospital-acquired	Increase in sCr to $> 2.0$ mg/dL or $\geq 50\%$	Other clinical definition	108,744	320	-	-	-	95	8
Slankamenac (148)	2009	Switzerland	Retrospective	Adults	57.2	55	Liver resection	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	569	86	-	-	-	5	7
Wu (149)	2009	Taiwan	Retrospective	Children	7.28	79	Rhabdomyolysis	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	172	15	-	-	-	5	7
Stamou (150)	2009	USA	Retrospective	Adults	62.9	73	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr to $> 2.0$ mg/dL and $>$ twice the pre-operative sCr value	Other clinical definition	2,101	151	-	-	-	42	7
Saddadi (151)	2009	Iran	Prospective	Adults	23.0	NR	Hematopoietic cell transplantation	Hematology/Oncology	Doubling of sCr	Other clinical definition	1,693	22	-	-	-	-	7
Cartin-Ceba (152)	2009	USA	Retrospective	Adults	66.0	54	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	11,644	5,738	3,347	1,326	686	1,065	6
Amdur (153)	2009	USA	Retrospective	Adults	70.8	98	Hospitalization	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	147,226	21,536	-	-	-	-	8
Nicoara (154)	2009	USA	Retrospective	Adults	NR	NR	Cardiac surgery	Cardiac surgery	need for RRT	Other clinical definition	7,339,520	30,033	-	-	-	30,033	5
Soltani (155)	2009	USA	Retrospective	Adults	31.0	NR	Burn	Hospital-acquired	need for RRT	Other clinical definition	3356	33	-	-	-	33	7
Costantini (156)	2009	USA	Retrospective	Adults	45.5	71	Surgical intensive care unit	Critical care	AKIN criteria	KDIGO-equivalent sCr-based definition	571	170	146	15	9	12	8
De Santo (157)	2009	Italy	Prospective	Adults	64.0	81	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	1,047	399	342	49	8	36	7
Zappitelli (158)	2009	Canada	Retrospective	Children	2.8	57	Cardiac surgery	Cardiac surgery	pRIFLE criteria	KDIGO-equivalent sCr-based definition	390	140	80	41	19	7	6
Lo (159)	2009	USA	Retrospective	Adults	63.5*	61*	Hospitalization	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	562,799	703	-	-	-	703	6
Haider (160)	2009	USA	Retrospective	Adults	48.5	64	Trauma	Trauma	ICD-9-CM diagnosis codes	Administrative coding-based definition	681,730	3,625	-	-	-	-	6
Joannidis (161)	2009	European countries	Prospective	Adults	63.0	61	Intensive care unit	Critical care	AKIN criteria	KDIGO-equivalent sCr-based	16,784	4,093	1,077	1,003	1,983	-	7

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Manrique (162)	2009	USA	Retrospective	Children	1.8	51	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	395	80	52	23	4	5	7
Ahmadi (163)	2009	Iran	Retrospective	Adults	58.6	75	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr to > 2.0 mg/dL	Other clinical definition	13,315	85	-	-	-	-	7
Yuan (164)	2009	China	Retrospective	Adults	34.0	77	Road traffic injury	Trauma	RIFLE criteria	KDIGO-equivalent sCr-based definition	3,945	423	182	121	120	59	7
Abelha (165)	2009	Portugal	Retrospective	Adults	64.0	65	Intensive care unit	Critical care	AKIN criteria	KDIGO-equivalent sCr-based definition	1,166	87	-	-	-	-	7
Zacharia (166)	2009	USA	Prospective	Adults	55.1	28	Cerebral aneurysmal subarachnoid hemorrhage	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	787	179	-	-	-	-	8
Hauer (167)	2009	Germany	Prospective	Adults	66.3	57	Cardiac surgery	Cardiac surgery	need for RRT	Other clinical definition	1,574	67	-	-	-	67	7
Metz (168)	2009	USA	Retrospective	Adults	66.2	67	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr by $\geq$ 50%	KDIGO-equivalent sCr-based definition	2,556	477	-	-	-	43	7
Hsu (169)	2009	USA	Retrospective	Adults	73.3	59	Hospitalization	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	39,805	1,061	-	-	-	-	9
Hobson (170)	2009	USA	Retrospective	Adults	61.7	34	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	2,973	1,265	637	386	242	75	7
Bihorac (171)	2009	USA	Retrospective	Adults	57.2	45	Major Surgery	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	10,518	3,326	1,535	928	863	196	8
Kajimoto (172)	2009	Japan	Retrospective	Adults	59.0	85	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr by $\geq$ 1.0 mg/dL or post-operative dialysis requirement	Other clinical definition	1,183	28	-	-	-	-	8
Antunes (173)	2009	Portugal	Retrospective	adults	60.6	88	Cardiac surgery	Cardiac surgery	Post-operative sCr $\geq$ 2.1 mg/dL plus an increase in sCr by $\geq$ 0.9 mg/dL if baseline sCr < 2.0 mg/dL; or increase in sCr by $\geq$ 1.5 mg/dL if baseline sCr $\geq$ 2.0 mg/dL; or dialysis requirement	Other clinical definition	4,567	256	-	-	-	-	8
Esper (174)	2009	USA	Retrospective	Adults	60.5	48	Hospitalization	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	12,500,459	1,000,037	-	-	-	-	8
Kheterpal (175)	2009	USA	Prospective	Adults	53.6	39	General surgery	Hospital-acquired	Increase in sCr to at least 2 mg/dL or dialysis requirement	Other clinical definition	75,952	762	-	-	-	561	8
Tsagalis (176)	2009	Greece	Prospective	Adults	70.4	61	Acute stroke	Hospital-acquired	AKIN criteria	KDIGO-equivalent sCr-based definition	2,155	575	460	62	53	-	6
Georgiou (177)	2009	USA	Retrospective	Adults	NR	78	Trauma	Trauma	ICD-9-CM diagnosis codes	Administrative coding-based definition	36,038	296	-	-	-	-	7
Huffmyer (178)	2009	USA	Retrospective	Adults	NR	NR	Cardiac surgery	Cardiac surgery	Decrease in eGFR by 50%	Other clinical definition	2,760	765	-	-	-	74	7
Bagshaw (179)	2009	Canada , USA, Saudi Arabia	Retrospective	Adults	62.5	57	Septic shock	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	4,532	2,917	738	1,332	847	-	7
Ishani (180)	2009	USA	Retrospective	Adults	79.2	39	Hospitalization	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	233,803	7,197	-	-	-	-	8
Silva (181)	2009	Brazil	Retrospective	Adults	45.0*	77*	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	829	147	7	32	108	52	7

Lecomte (182)	2008	Belgium	Retrospective	Adults	NR	65	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	1,050	525	159	21	5	-	6
Ostermann (183)	2008	UK and Germany	Retrospective	Adults	60.9	NR	Intensive care unit	Critical care	AKIN criteria	KDIGO-equivalent sCr-based definition	22,303	7,898	4,259	857	2,782	1,847	6
Benedetto (184)	2008	Italy	Prospective	Adults	67.5	84	Cardiac surgery	Cardiac surgery	Post-operative dialysis requirement or post-operative decrease in eGFR by $\geq 50\%$	Other clinical definition	536	49	-	-	-	23	5
Lopes (185)	2008	Portugal	Retrospective	Adults	58.6	59	Intensive care unit	Critical care	AKIN criteria	KDIGO-equivalent sCr-based definition	662	334	140	67	127	79	7
Arora (186)	2008	USA	Retrospective	Adults	65.9	79	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	1,358	546	537	7	2	-	8
Bagshaw (187)	2008	Australia, New Zealand	Retrospective	Adults	50.1	70	Trauma	Trauma	RIFLE criteria	KDIGO-equivalent sCr-based definition	9,449	1,711	888	681	142	-	7
Bagshaw (187)	2008	Australia, New Zealand	Retrospective	Adults	66.0	59	Non-trauma hospitalization	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	110,638	41,648	-	-	-	-	8
Roe (188)	2008	UK	Retrospective	Adults	34.6	62	Human immunodeficiency virus infection	Community-acquired	Increase in sCr > 1.36 mg/dL or peak sCr > 150% from baseline	Other clinical definition	2,274	130	-	-	-	33	7
Payen (189)	2008	24 European countries	Prospective	Adults	60.6	62	Sepsis	Hospital-acquired	SOFA renal score (sCr > 3.5 mg/dL or urine output < 500 mL/day)	Other clinical definition	3,147	1,120	-	-	-	278	7
Plötz (190)	2008	The Netherlands	Retrospective	Children	6.1	61	Respiratory failure requiring mechanical ventilation	Hospital-acquired	pRIFLE criteria	KDIGO-equivalent sCr-based definition	103	60	31	22	7	6	6
Nickolas (191)	2008	USA	Prospective	Adults	60.1	51	Hospitalization	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	635	30	-	-	-	9	8
Perez Valdivieso (192)	2008	Spain	Prospective	Adults	62.1	71	Hospitalization	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	903	644	112	185	347	202	6
Candela-Toha (193)	2008	Spain	Retrospective	Adults	65.9	60	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	1,780	67	-	-	-	67	7
Pedersen (194)	2008	Denmark	Prospective	Children	0.7	56	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	1,128	130	-	-	-	130	7
Athappan (195)	2008	India	Prospective	Adults	35.9	55	Snake bite	Hospital-acquired	Increase in sCr by $\geq 50\%$	KDIGO-equivalent sCr-based definition	1,180	159	-	-	-	72	6
García-Rodríguez (196)	2008	UK	Prospective	adults	61.0	53	Statin use	Community-acquired	Doubling of sCr	Other clinical definition	127,391	14	-	-	-	-	5
García-Rodríguez (197)	2008	Canada	Prospective	adults	63.9	55	Statin use	Community-acquired	Doubling of sCr	Other clinical definition	25,238	17	-	-	-	-	6
Zappitelli (198)	2008	USA	Prospective	Children	6.4	55	Intensive care unit	Critical care	pRIFLE and AKIN criteria	KDIGO-equivalent sCr-based definition	150	56	-	-	-	1	7
Zappitelli (198)	2008	USA	Retrospective	Children	7.8	49	Aminoglycoside use	Nephrotoxins	pRIFLE criteria	KDIGO-equivalent sCr-based definition	254	71	-	-	-	-	7
Bagshaw (199)	2008	Australia	Retrospective	Adults	61.7	59	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	120,123	43,395	19,545	16,370	7,541	-	6
Hsu (200)	2008	USA	Retrospective	Adults	57.3	43	Hospitalization	Hospital-acquired	Need for RRT	Other clinical definition	602,584	1,764	-	-	-	1,764	7
Lassnigg (201)	2008	Austria and Switzerland	Prospective	Adults	63.6	69	Cardiac surgery	Cardiac surgery	AKIN criteria	KDIGO-equivalent sCr-based definition	7,241	597	463	3	131	321	7
Lima (202)	2008	Brazil	Retrospective	Adults	45.0*	77*	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	829	147	7	32	108	52	5

Csaicsich (203)	2008	Austria	Retrospective	children	0.0	NR	Intensive care unit	Critical care	sCr > 1.5 mg/dL and/or oliguria/anuria (urine output < 1 and < 0.5 mL/kg/hour, respectively)	Other clinical definition	359	16	-	-	-	-	6
Roghi (204)	2008	Italy	Prospective	Adults	63.0	78	Percutaneous coronary intervention	Nephrotoxins	Increase in sCr by $\geq$ 0.5 mg/dL or > 25% from baseline	Other clinical definition	2,860	106	-	-	-	-	6
Daher (205)	2008	Brazil	Retrospective	Adults	45.0*	77*	Infectious	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	722	147	8	32	107	52	7
Bagshaw (206)	2008	Australia and New Zealand	Retrospective	Adults	61.6	60	Intensive care unit	Critical care	AKIN criteria	KDIGO-equivalent sCr-based definition	120,123	44,553	21,741	12,160	10,652	-	6
Mittalhenkle (207)	2008	USA	Prospective	Adults	73.1	42	Hospitalization	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	5,731	225	-	-	-	-	8
Schetz (208)	2008	Belgium	Post-hoc RCT	Adults	63.0	67	Intensive care unit	Critical care	Doubling of sCr	Other clinical definition	2,707	516	163	101	63	291	6
Dasta (209)	2008	USA	Retrospective	Adults	69.9*	63*	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr by $\geq$ 0.5mg/dL	Other clinical definition	3,741	258	138	70	50	9	7
Karkouti (210)	2008	Canada	Retrospective	Adults	65.2	76	Cardiac surgery	Cardiac surgery	Increase in sCr by > 100% or dialysis requirement	Other clinical definition	3,286	173	-	-	-	-	7
Covic (211)	2008	Romania	Retrospective	Adults	66.1	51	Stroke	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	1,090	158	115	33	10	-	7
Bagshaw (212)	2008	Australia and New Zealand	Retrospective	Adults	65.3	60	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	120,123	43,395	19,547	16,344	7,504	-	8
From (213)	2008	USA	Retrospective	Adults	61.0	53	Cardiac catheterization	Nephrotoxins	Post-procedure increase in sCr by $\geq$ 25% or > 0.5 mg/dL within 7 days	Other clinical definition	11,516	1,343	-	-	-	-	6
Washburn (214)	2008	USA	Prospective	Children	6.5	53	Intensive care unit	Critical care	pRIFLE criteria	KDIGO-equivalent sCr-based definition	137	103	50	28	25	6	7
Iglesias (215)	2008	USA	Retrospective	Adults	80.3	47	Heart failure	Heart failure	Increase in sCr by $\geq$ 0.3 mg/dL	KDIGO-equivalent sCr-based definition	682	221	-	-	-	-	6
López-Herce (216)	2008	Spain	Prospective	Children	1.9	56	Trans-pyloric enteral nutrition	Hospital-acquired	Increase in sCr to > twice the 95 <sup>th</sup> percentile for age, with or without change in urine output, and/or need for RRT	Other clinical definition	526	53	-	-	-	38	6
Khetarpal (217)	2007	USA	Prospective	Adults	47.1	52	Major noncardiac surgery	Hospital-acquired	Post-operative decrease in calculated creatinine clearance to $\leq$ 50 ml/min within the 7 days	Other clinical definition	15,102	121	-	-	-	14	8
Perez Valdivieso (218)	2007	Spain	Prospective	Adults	62.4	69	Hospitalization	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	668	386	83	109	194	-	7
Eachempati (219)	2007	USA	Prospective	Adults	63.3	60	Intensive care unit	Critical care	Increase in sCr to 2.4 mg/dL	Other clinical definition	8,505	530	-	-	-	104	8
Liu (220)	2007	USA	Post-hoc RCT	Adults	51.8	60	Acute lung injury	Hospital-acquired	Increase in sCr by > 50% within 4 days	KDIGO-equivalent sCr-based definition	876	209	-	-	-	-	7
Thakar (221)	2007	USA	Retrospective	Adults	68.6	70	Cardiac surgery	Cardiac surgery	Post-operative decrease in GFR by $\geq$ 50% or dialysis requirement	Other clinical definition	31,677	1,863	-	-	-	555	7

Bouzas-Mosquera (222)	2007	Spain	Prospective	Adults	61.0	84	Cardiac catheterization	Nephrotoxins	Post-procedure increase in sCr by $\geq 0.5$ mg/dL within 3 days	Other clinical definition	602	72	-	-	-	8	7
Landoni (223)	2007	Italy	Prospective	Adults	64.1	84	Cardiac surgery	Cardiac surgery	Doubling of sCr from baseline	Other clinical definition	3,103	68	-	-	-	24	6
Pedersen (224)	2007	Denmark	Prospective	Children	0.7	56	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	1,128	130	-	-	-	130	8
Swaminathan (225)	2007	USA	Retrospective	Adults	71.9*	65*	Cardiac surgery	Cardiac surgery	ICD-9-CM diagnosis codes	Administrative coding-based definition	7,339,520	290,023	-	-	-	30,033	7
Del Duca (226)	2007	Canada	Prospective	Adults	65.0	69	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr by $\geq 25\%$ within 3 days	Other clinical definition	649	156	-	-	-	27	8
Chawla (227)	2007	USA	Post-hoc RCT	Adults	59.8	57	Severe sepsis	Hospital-acquired	Increase in sCr by $\geq 25\%$ or $\geq 0.3$ mg/dL within 7 days	Other clinical definition	547	127	-	-	-	25	7
Cruz (228)	2007	Italy	Prospective	Adults	64.3	62	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	2,164	234	45	82	107	71	7
Zappitelli (229)	2007	USA	Prospective	Children	6.3	54	Intensive care unit	Critical care	pRIFLE criteria	KDIGO-equivalent sCr-based definition	140	106	50	31	25	7	8
Doddakula (230)	2007	Ireland	Retrospective	Adults	63.2	72	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	1,609	47	-	-	-	47	6
Di Bella (231)	2007	Italy	Prospective	Adults	66.2	69	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	1,642	22	-	-	-	22	6
Sizzi (232)	2007	Italy	Prospective	Adults	36.1	0	Laparoscopic myomectomy	Hospital-acquired	Need for RRT	Other clinical definition	2,050	1	-	-	-	1	9
Palomba (233)	2007	Brazil	Prospective	Adults	60.1	62	Cardiac surgery	Cardiac surgery	Increase in sCr to $> 2.0$ mg/dL or by $\geq 50\%$ from baseline	Other clinical definition	603	66	-	-	-	11	6
Ostermann (234)	2007	UK and Germany	Retrospective	Adults	60.5	64	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	41,972	15,019	7,207	4,613	3,199	1,836	5
Brandt (235)	2007	USA	Retrospective	Adults	47.4	74	Trauma	Trauma	Increase in sCr to $> 1.5$ mg/dL or by $> 50\%$ , or by $\geq 0.5$ mg/dL	Other clinical definition	1033	246	-	-	-	25	5
Prescott (236)	2007	UK	Prospective	Adults	67.0*	61*	Hospitalization	Hospital-acquired	Need for RRT	Other clinical definition	5,054,800	809	-	-	-	809	8
Newell (237)	2007	USA	Retrospective	Adults	45.2	72	Trauma	Trauma	sCr $\geq 3.5$ mg/dL, BUN $> 100$ mg/dL, or RRT	Other clinical definition	1,543	17	-	-	-	-	6
Thombs (238)	2007	USA	Retrospective	Adults	43.3	73	Burn	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	31,338	117	-	-	-	-	6
Akcan-Arikan (239)	2007	USA	Prospective	Children	6.4	55	Intensive care unit	Critical care	pRIFLE criteria	KDIGO-equivalent sCr-based definition	150	123	60	32	31	11	6
Ali (240)	2007	UK	Retrospective	Adults	76.0*	54*	Hospitalization	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	5,321	474	105	233	136	37	7
Feldman (241)	2007	USA	Retrospective	Adults	64.7	66	Percutaneous coronary intervention	Nephrotoxins	Increase in sCr to $\geq 2.5$ mg/dL and/or dialysis requirement	Other clinical definition	47,020	47	-	-	-	-	6
Hingorani (242)	2007	USA	Retrospective	Children & Adults	38.5	47	Hematopoietic cell transplant	Hematology/Oncology	Increase in sCr to $> 2.0$ mg/dL (in men), $> 1.8$ mg/dL (in women), $> 1.0$ mg/dL (in children age 2-16 years), or $> 0.6$ mg/dL (in children age $< 2$ years), or doubling of serum creatinine in the first 100 days after transplantation	Other clinical definition	1,635	332	-	-	-	-	5

Chittineni (243)	2007	USA	Retrospective	Adults	77.6	45	Decompensated congestive heart failure	Heart failure	Increase in sCr by $\geq$ 0.5 mg/dL from baseline	Other clinical definition	509	107	-	-	-	-	5
Bailey (244)	2007	Canada	Prospective	Children	6.0	46	Intensive care unit	Critical care	Doubling of baseline sCr	Other clinical definition	985	44	-	-	-	7	6
Sakr (245)	2007	European countries	Prospective	Adults	61.0	62	Intensive care unit	Critical care	Need for RRT	Other clinical definition	3,147	115	-	-	-	115	7
Bányász (246)	2006	Hungary	Retrospective	Children	0.0	32	Low-birth weight	Critical care	BUN > 40 mg/dL or sCr > 1 mg/dL	Other clinical definition	328	41	-	-	-	-	7
Prakash (247)	2006	India	Prospective	Adults	44.9	57	Intensive care unit	Critical care	Increase in sCr by $\geq$ 0.5 mg/dL (if baseline sCr < 1.5 mg/dL), or by $\geq$ 1.0 mg/dL (if baseline sCr 1.5-5.0 mg/dL)	Other clinical definition	1,215	46	-	-	-	25	7
Charytan (248)	2006	USA	Prospective	Adults	66.8	74	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr by > 50%, or need for RRT	Other clinical definition	1,117	31	-	-	-	9	8
Plurad (249)	2006	USA	Retrospective	Adults	35.4	84	Emergency department hypotension with post-traumatic	Trauma	Peak sCr > 2.0 mg/dL	Other clinical definition	2,574	213	-	-	-	28	7
Boyle (250)	2006	USA	Prospective	Adults	56.9	80	Cardiac Transplantation	Hospital-acquired	Need for RRT	Other clinical definition	756	44	-	-	-	44	7
Schneider (251)	2006	Canada	Retrospective	Adults	78.1*	46*	NSAID use	Community-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	121,722	4,228	-	-	-	-	7
Hein (252)	2006	Germany	Retrospective	Adults	67.0	68	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	2,683	254	-	-	-	254	6
Sharma (253)	2006	USA	Retrospective	Adults	50.0*	55*	Laparoscopic gastric bariatric surgery	Hospital-acquired	Increase in sCr to > 1.4 mg/dL with an increase in sCr by > 0.3 mg/dL from baseline within 7 days	Other clinical definition	1,800	42	-	-	-	6	5
Vachvanichsanong (254)	2006	Thailand	Retrospective	Children	7.6*	56*	Hospitalization	Hospital-acquired	Increase in sCr > 2.0 mg/dL or doubling of sCr	Other clinical definition	60,160	311	-	-	-	55	7
Karkouti (255)	2006	Canada	Prospective	Adults	64.0	64	Cardiac surgery	Cardiac surgery	Increase in baseline-to-peak post-operative sCr by > 2.0-fold within 7 days, or dialysis requirement	Other clinical definition	655	114	-	-	-	-	8
Mahajan (256)	2006	India	Retrospective	Adults	66.4*	71*	Aged $\geq$ 60 years	Community-acquired	Increase in sCr to > 2 mg/dL or by $\geq$ 25% if CKD present	Other clinical definition	929	454	-	-	-	152	6
Heringlake (257)	2006	Germany	Prospective	Adults	NR	NR	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	29,623	4,562	2,667	1,481	592	-	6
Ahlström (258)	2006	Finland	Prospective	Adults	63.4	NR	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	658	342	168	100	74	47	5
Mathur (259)	2006	India	Retrospective	Children	0.0	NR	Neonatal Sepsis	Hospital-acquired	BUN >20 mg/dL on two separate occasions at least one day apart	Other clinical definition	200	52	-	-	-	-	5
Black (260)	2006	UK	Prospective	Adults	70.9	68	Angiography	Nephrotoxins	Post-operative increase in sCr by > 50%	Other clinical definition	1,559	90	-	-	-	16	6
Uchino (261)	2006	Australia	Retrospective	Adults	63.7	55	Hospitalization	Hospital-acquired	RIFLE criteria	KDIGO-equivalent sCr-based definition	20,126	3,623	1,831	1,047	745	-	5

Hoste (262)	2006	USA	Retrospective	Adults	60.6	52	Intensive care unit	Critical care	RIFLE criteria	KDIGO-equivalent sCr-based definition	5,383	3,617	670	1,436	1,511	219	7
Junge (263)	2006	Germany	Retrospective	Adults	53.7*	55*	Liver transplantation	Hospital-acquired	Decrease in calculated GFR by > 50% or by a doubled serum creatinine above 2.5 mg/dL	Other clinical definition	1,352	162	-	-	-	52	4
Wald (264)	2006	USA	Retrospective	Adults	72.4	80	Endovascular aneurysmal repair	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	6,516	439	-	-	-	56	7
Xue (265)	2006	USA	Retrospective	Adults	73.8	43	Hospitalization	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	5,403,015	127,614	-	-	-	19,014	8
Chan (266)	2006	Canada	Retrospective	Adults	67.1	NR	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	9,721	255	-	-	-	255	8
Noyez (267)	2006	The Netherlands	Prospective	Adults	64.2	78	Cardiac surgery	Cardiac surgery	Increase in sCr to $\geq$ 1.7 mg/dL or dialysis	Other clinical definition	627	15	-	-	-	-	7
Beaver (268)	2006	USA	Retrospective	Adults	62.1	64	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	940	36	-	-	-	36	7
Wyatt (269)	2006	USA	Retrospective	Adults	43.4	62	Human immunodeficiency virus infection	Community-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	25,114	1,516	-	-	-	-	7
Kuitunen (270)	2006	Finland	Prospective	Adults	NR	NR	Cardiac surgery	Cardiac surgery	RIFLE criteria	KDIGO-equivalent sCr-based definition	813	156	-	-	-	26	7
Wijeyesundera (271)	2006	Canada	Prospective	Adults	62.0	74	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	10,751	137	-	-	-	137	8
Landoni (272)	2006	Italy	Retrospective	Adults	61.1	69	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	7,846	126	-	-	-	126	8
Bah (273)	2006	Guinea	Retrospective	Adults	44.0	60	Hospitalization	Hospital-acquired	Need for RRT	Other clinical definition	606	21	-	-	-	21	4
Gamborgi (274)	2006	Brazil	Retrospective	Adults	49.0*	62*	Hospitalization (contact with Lonomia oblique)	Hospital-acquired	sCr $\geq$ 1.5 mg/dL with no prior history of kidney disease	Other clinical definition	2,067	39	-	-	-	11	7
Conen (275)	2006	Switzerland	Retrospective	Adults	64.2	74	Percutaneous coronary intervention	Nephrotoxins	Increase in sCr by $\geq$ 25% from baseline	Other clinical definition	1,383	139	-	-	-	-	7
Bahar (276)	2005	Turkey	Retrospective	Adults	48.7	72	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	14,437	168	-	-	-	168	8
Ranucci (277)	2005	Italy	Prospective	Adults	67.5	78	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	1,048	28	-	-	-	28	5
Bagshaw (278)	2005	Canada	Prospective	Adults	64.9	62	Intensive care unit	Critical care	Need for RRT	Other clinical definition	5,693	240	-	-	-	240	8
Ciesla (279)	2005	USA	Prospective	Adults	37.5	73	Trauma	Trauma	Increase in sCr to > 1.8 mg/dl and absence of previous renal illness	Other clinical definition	1,344	168	-	-	-	-	7
Cataldi (280)	2005	Italy	Retrospective	Children	0.0	59	Preterm birth	Critical care	Increase in sCr to > 1.3 (< 33 weeks gestation) or > 1 mg/dL (> 33 week gestation) $\pm$ oliguria (urine output < 1 mL/kg/hour)	Other clinical definition	172	71	-	-	-	-	7
Kincaid (281)	2005	USA	Retrospective	Adults	62.2	68	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr to > 2.0 mg/dL within 3 days	Other clinical definition	1,209	42	-	-	-	24	7
Baskin (282)	2005	Turkey	Prospective	Children	0.25	66	Cardiac surgery	Cardiac surgery	Increase in sCr to > 1.2 mg/dL and/or decrease in urine output to < 0.5 mL/kg/hour	Other clinical definition	64	21	-	-	-	-	7
Hollenbeck (283)	2005	USA	Prospective	Adults	65.5	99	Radical cystectomy	Hospital-acquired	Need for RRT	Other clinical definition	2,538	20	-	-	-	20	6
Carter (284)	2005	USA	Retrospective	Adults	NR	86	Heat illness	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based	5,246	78	-	-	-	-	6

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Uchino (285)	2005	Asia, European, USA, Canada, Australia	Prospective	Adults	67.0	63.6	Intensive care unit	Critical care	Oliguria (urine output < 200 mL in 12 hours) and/or marked azotemia (BUN > 84 mg/dL)	Other clinical definition	29,269	1,738	-	-	-	1,260	5
Kubal (286)	2005	UK	Retrospective	Adults	64.4	80.6	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	6033	61	-	-	-	61	7
Franceschini (287)	2005	USA	Prospective	adults	40.0	68	Human immunodeficiency virus infection	Community-acquired	Increase in sCr by 0.5 mg/dL (if baseline sCr < 2.0 mg/dL), 1.0 mg/dL (if baseline sCr 2.0-4.9 mg/dL), or 1.5 mg/dL (if baseline sCr ≥ 5.0 mg/dL)	Other clinical definition	754	71	-	-	-	5	8
Huerta (288)	2005	UK	Retrospective	Adults	NR	NR	Outpatient	Community-acquired	Bun > 47.6 mg/dL, Cr > 1.7 mg/dL	Other clinical definition	386,916	103	-	-	-	-	6
Gaudino (289)	2005	Italy	Prospective	Adults	61.1	75	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	6,542	69	-	-	-	69	8
Conlon (290)	2005	USA	Prospective	Adults	65.1	66	Cardiac surgery	Cardiac surgery	rise in serum creatinine of 1 mg/dL above baseline postoperatively.	Other clinical definition	798	82	-	-	-	3	7
Thakar (291)	2005	USA	Prospective	Adults	NR	70	Cardiac surgery	Cardiac surgery	30% or greater decline in postoperative GFR not requiring dialysis	Other clinical definition	31,677	4,986	-	-	-	555	7
Ostermann (292)	2005	UK and Germany	Retrospective	Adults	60.5	64	Intensive care unit	Critical care	BUN > 22 mg/dL and sCr > 1.35 mg/dL and/or urine output < 800 mL/24 hours or 200 mL/6 hours	Other clinical definition	41,972	7,522	-	-	-	1747	6
Karkouti (293)	2005	Canada	Prospective	Adults	62.0	75	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	9,080	134	-	-	-	134	7
Chu (294)	2005	Hong Kong	Retrospective	Adults	39.0	NR	Severe acute respiratory distress syndrome	Hospital-acquired	Increase in sCr by ≥ 30% or to > 1.8 mg/dL	Other clinical definition	536	36	-	-	-	10	7
Bell (295)	2005	Sweden	Retrospective	Adults	NR	70*	Medical intensive care unit	Critical care	Need for RRT	Other clinical definition	8,152	207	-	-	-	207	7
Khilji (296)	2004	Pakistan	Retrospective	Adults	NR	NR	Cardiac surgery	Cardiac surgery	sCr > 1.6 mg/dL	Other clinical definition	500	137	-	-	-	-	7
Miraoui (297)	2004	Tunisia	Retrospective	Adults	56.0	NR	Intensive care unit	Critical care	BUN > 84 mg/dL or sCr > 2 mg/dL or cr clearance < 50 ml/min	Other clinical definition	923	95	-	-	-	-	7
Wyatt (298)	2004	USA	Retrospective	Adults	51.7	67	Non-renal solid organ transplantation	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	519	130	-	-	-	42	6
Srinivasan (299)	2004	UK	Retrospective	Adults	65.2	77	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr to > 2.26 mg/dL or need for dialysis	Other clinical definition	951	52	-	-	-	-	8
Mariani (300)	2004	Italy	Retrospective	Adults	63.0	85	Cardiac surgery	Cardiac surgery	Need for RRT	Other clinical definition	569	12	-	-	-	12	6
Bove (301)	2004	Italy	Prospective	Adults	60.2	67	Cardiac surgery	Cardiac surgery	100% increase in sCr	Other clinical definition	5,068	171	-	-	-	94	7
Collins (302)	2004	USA	Retrospective	Adults	61.1	67	Acute type A aortic dissection	Cardiac surgery	Need for RRT	Other clinical definition	617	119	-	-	-	119	6
Agras (303)	2004	Turkey	Retrospective	Children	0.0*	49*	Neonatal	Hospital-acquired	sCr > 1.5 mg/dL	Other clinical definition	1,311	45	-	-	-	10	6

Moran (304)	2004	USA	Retrospective	Adults	57.0	NR	Free tissue transfer in setting of concomitant renal disease	Hospital-acquired	ICD-9-CM diagnosis codes	Administrative coding-based definition	1,053	3	-	-	-	-	5
Brown (305)	2004	USA	Retrospective	Adults	37.0	81	Trauma	Trauma	Peak sCr > 2 mg/dL	Other clinical definition	2,083	217	-	-	-	97	6
Paramesh (306)	2004	USA	Retrospective	Adults	NR	NR	Orthotopic liver transplantation	Hospital-acquired	Need for RRT	Other clinical definition	1,602	350	-	-	-	350	6
Mueller (307)	2004	Switzerland	Prospective	Adults	64.3	74	Percutaneous coronary intervention	Nephrotoxins	Post-procedure increase in sCr by $\geq$ 25% within 48 hours	Other clinical definition	1,383	139	-	-	-	2	6
Stallwood (308)	2004	UK	Retrospective	Adults	64.5	81	Cardiac surgery	Cardiac surgery	Post-operative increase in sCr to > 2.26 mg/dL or need for RRT	Other clinical definition	2,199	53	-	-	-	19	6
Esteban (309)	2004	USA, Canada, South America, European	Prospective	Adults	66.0	62	Mechanical ventilation	Critical care	Increase in sCr to > 2 mg/dL, or sCr doubling (if preexisting CKD), or need for RRT	Other clinical definition	4,118	830	-	-	-	-	7
Michael (310)	2004	USA	Prospective	Children	13.0*	54*	Stem cell transplantation	Hematology/Oncology	Doubling of sCr	Other clinical definition	272	29	-	-	-	14	7

NR denotes not reported; sCr, serum creatinine; RRT, renal replacement therapy; CKD, chronic kidney disease; NSAID, non-steroidal anti-inflammatory drug; ICD, international classification of diseases; CM, clinical modification; AKI, acute kidney injury; RIFLE, Risk, Injury, Failure, Loss, Endstage; pRIFLE, pediatric RIFLE; AKIN, Acute Kidney Injury Network; KDIGO, Kidney Disease Improving Global Outcomes; \* Values refer to patients with AKI and not the entire cohort.



## Supplemental References (Supplemental Table 4)

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