Identifier	Phase	Location	Status (estimated completion date*)	Intervention	Setting	Kidney outcome measures	Estimated enrollment
2x2 factorial de	esign		-				
NCT01467466	III	USA	Not yet recruiting (4/2015)	NAC vs. placebo and Sodium bicarbonate vs. NS	Coronary and non-coronary angiography	Composite endpoint mortality, dialysis, or persistent decline in kidney function within 90 days	8,680
Drug treatment	t: NAC						
NCT00558142	IV	UK	Recruiting (6/2012)	NAC	Coronary angiography in healthy volunteers or CKD	Changes in renal blood flow within 7 hours	90
NCT00575419	I	USA	Recruiting (12/2013)	NAC (IV)	All contrast studies	↑ sCr ≥ 25% within 72 hours	60
NCT00579995	-	USA	Recruiting	NAC vs. sodium bicarbonate	Coronary angiography	AKI	140
Drug treatment	t: NAC plus	hydration					
NCT01160627	- '	Denmark	Recruiting	NAC plus sodium bicarbonate	PCI for STEMI	↑ sCr > 25% within 72 hours	600
NCT01210456	III	Japan	Enrolling by invitation	NAC plus sodium bicarbonate	All contrast studies	↑ sCr \geq 0.5 mg/dL or \geq 50% within 48 hours or \downarrow urine output < 0.5 ml/kg for > 6 hours	458
NCT01218178	Ш	Italy	Recruiting	NAC plus sodium bicarbonate vs. NAC plus NS	PCI with MI	CIN and need for dialysis	520
Drug treatment	t: miscellan	eous					
NCT01061320	Ш	Thailand	Enrolling by invitation	Alpha tocopherol	Coronary angiography (elective)	AKI	200
NCT01197235	11,111	South Korea	Recruiting (12/2011)	Darbepoetin	Coronary angiography	↑ sCr > 25% with 48 hours	150
NCT01391520	Ш	USA	Not yet recruiting (6/2013)	Deferiprone	Coronary angiography in CKD	Composite of renal and cardiac events by day 90	800
NCT01364402	III	Israel	Not yet recruiting(12/2013)	Erythropoietin	Coronary angiography and PCI in DM, CKD	CIN	142
NCT01142024	-	China	Completed	Glutathione	Cardiovascular angiography	\uparrow sCr \geq 0.5 mg/dL or \geq 25% within 48-72 hours	1,000
NCT01103336	IV	South Korea	Recruiting	Nicorandil (IV)	Coronary angiography	\uparrow sCr \geq 0.5 mg/dL or \geq 25% within 24 hours	210
NCT01448889	II	Israel	Recruiting (12/2012)	100% oxygen by face mask	Coronary angiography	AKI	180
NCT01144091		Israel	Not yet recruiting(12/2012)	Pentoxifylline	Coronary angiography or CT	↑ sCr ≥ 25%	200
NCT01165567	IV	South Korea	Not recruiting	Sarpogrelate	Coronary angiography	\uparrow sCr > 0.5 mg/dL or > 25% within 24 hours	212
NCT01071993	-	USA	Recruiting (2/2012)	Statin (Atorvastatin)	Coronary or peripheral angiography	\uparrow sCr > 0.5 mg/dL or > 25% at 24 to 48 hours	200
NCT01185938	IV	Italy	Recruiting (12/2012)	Statin (Rosuvastatin)	Coronary angiography for NSTEMI	↑ sCr ≥ 0.3 mg/dL	500
Volume expans	sion strateg	ies					
NCT01218828	Ш	USA	Recruiting	LVEDP-based strategy	Coronary angiography	AKI within 4 days; RRT (30 days and long-term)	350
NCT00531765	-	Saudi Arabia	Completed	Sodium bicarbonate	Coronary angiography (elective)	\uparrow sCr \geq 0.5 mg/dL or \geq 25% within 24 hours	220
NCT00639912	IV	Italy	Completed	Sodium bicarbonate vs. NS	PCI for STEMI	AKI within 24 to 72 hours	599
NCT01172353	III	Brazil	Completed	Sodium bicarbonate vs. NS	Hospital	↑ sCr ≥ 0.5 mg/dL within 48 hours; in-hospital RRT	301
NCT00930436	III	USA	Recruiting (9/2012)	Sodium bicarbonate vs. NS	Coronary angiography in CKD	↑ sCr or RRT within 6 months	536
NCT00908843	-	Spain	Recruiting (12/2011)	Sodium bicarbonate vs. oral sodium solution	IV contrast of 120 to 150 mL	AKI within 24 hours	324
NCT00130598	11,111	Italy, Switzerland	Completed	Sodium bicarbonate (IV + oral) vs. sodium bicarbonate (IV) vs. NS (IV)	IV or intra-arterial contrast	Decrease in GFR within 48 hours	258
Device							
NCT01168024	Ш	USA	Not yet recruiting(10/2012)	CINCOR™ System	PCI	\uparrow sCr \geq 25% or \geq 0.5 mg/dl within 96 hours	560
NCT01098032	Ш	Italy	Enrolling by invitation	RenalGuard system	Coronary and/or peripheral procedures	\uparrow sCr \geq 0.3 mg/dl within 48 hours or dialysis	200
NCT01456013	11, 111	USA	Not yet recruiting (3/2013)	RenalGuard system	Elective cardiac catheterization	AKI within 3 days	326

Table 1. Current clinic trials regarding the prevention of contrast-induced acute kidney injury (AKI) in adults. Drugs are administered orally unless otherwise specified, sodium bicarbonate and normal saline (NS) are administered IV unless otherwise specified, all interventions are versus placebo unless otherwise specified. ACEI: angiotensin converting enzyme inhibitor; ARB: angiotensin receptor blocker; ACS: acute coronary syndrome; CT: computed tomography; CKD: chronic kidney disease; DM: diabetes mellitus; GFR: glomerular filtration rate; LVEDP: left ventricular end diastolic pressure; NAC: N-acetylcysteine; PCI: percutaneous coronary intervention; sCr: serum creatinine; STEMI: ST segment elevation myocardial infarction; IV: intravenous; RRT renal replacement therapy, vs. versus. *If no estimated completion date is given, then the estimated completion date is prior to 11.15.2011.

Identifier	Phase	Country	Status (Estimated Intervention Primary outcome measures completion date*)		Estimated enrollment	
Drug treatment						
NCT01366976	-	USA	Not yet recruiting (5/2016)	ecruiting (5/2016) Acetaminophen Oxidative stress by F2isoP, AKI (serum creatinine, NGAL)*		52
NCT01256372	II	Denmark	Not yet recruiting	AP214 (α-MSH analogue)	Serum creatinine, safety	75
NCT00903604	II	Denmark	Completed	AP214	Pharmacokinetics, AKI**	42
NCT00791648	-	USA	Recruiting (12/2012)	Atorvastatin	AKI on days 1 to 3, up to 6 months, delirium	820
NCT01336959	II	USA	Recruiting (2/2012)	BCT197 (Novartis)	AKI at 48 hours	140
NCT01066351	III	Thailand	Enrolling by invitation	Erythropoietin	AKI	200
NCT01369732	IV	South Korea	Not yet recruiting (5/2012)	Erythropoietin	AKI by RIFLE	90
NCT01423955	II	Sweden	Not yet recruiting (7/2012)	Erythropoietin	AKI by cystatin C on day 3	70
NCT00557219	Ш	Poland	Recruiting (6/2012)	Fenoldopam vs. ketanserin vs. placebo	Serum cystatin C and NGAL at 24 and 48 hours	90
NCT00554359	I	USA, Israel, Switzerland	Completed	I5NP (a small interfering RNA)	Pharmacokinetics	16
NCT00556491	-	USA	Completed	Minocycline	AKI within 5 days	126
NCT01359722	-	Brazil	Recruiting (12/2012)	N-acetylcysteine	eGFR decline of 30%	50
NCT01394419	IV	South Korea	Recruiting (8/2012)	N-acetylcysteine	AKI within 5 days	170
NCT01384643	IV	South Korea	Recruiting (5/2012)	Propofol	Serum creatinine	64
NCT00756964	II	USA	Completed	Rasburicase	AKI by Acute Kidney Injury Network criteria	30
NCT01141556	III	Switzerland	Recruiting (1/2013)	Selenium	SOFA score, AKI**	410
Volume expansio	n strategies	5				
NCT00484354	-	USA	Recruiting (12/2012)	Sodium bicarbonate	Serum creatinine within 72 hours	350
NCT00672334	11, 111	Australia, Canada,	Recruiting	Sodium bicarbonate vs. normal saline	Serum creatinine increase > 25% or > 44 μmol/L at days 2 to 5	500
		Germany, Ireland	_			
NCT00921518	II	USA	Recruiting (1/2012)	Sodium bicarbonate vs. normal saline	AKI within 5 days	100
NCT00878956	II	Australia, New	Recruiting (12/2012)	Sodium bicarbonate vs. normal saline	Increase in serum creatinine by ≥ 0.5 mg/dL or ≥ 25%	490
		Zealand				
Remote ischemic	precondition	oning (RIPC)				
NCT01247545	III	UK	Not yet recruiting (12/2013)	RIPC	Adverse cardiac and cerebral outcomes, AKI**	1610
NCT00821522	1	USA	Enrolling by invitation	RIPC	AKI by Acute Kidney Injury Network criteria	120
NCT01067703	III	Germany	Not yet recruiting (4/2013)	RIPC	Composite of mortality, MI, stroke, and/or AKI	2070
NCT01071265	-	Canada	Recruiting (4/2013)	RIPC	MI, serum creatinine within 4 days**	250
NCT01328912	III	Canada	Not yet recruiting (9/2013)	RIPC	Composite of MACE including AKI	434
Miscellaneous						
NCT01033916	-	USA	Recruiting	Strict (80-120) vs. liberal (121-180) glucose control	AKI	200
NCT01361594	-	USA	Not yet recruiting (6/2014)	Strict (100-140) vs. liberal (140-180) glucose control	Hospital mortality and complications, AKI**	326
NCT00861822	1	Canada	Recruiting	Red blood cell transfusion for anemia	Anemia	60
NCT01338961	-	Russia	Recruiting	Hypothermic vs. normothermic CPB	Troponin release, AKI**	500
NCT00720967	Ш	European countries	Not yet recruiting (11/2012)	Pre-operative HD or Intra-operative ultrafiltration	Operative mortality, AKI**	450

Table 2. Current clinical trials regarding the prevention of acute kidney injury (AKI) in adults undergoing cardiothoracic surgery. All interventions are versus placebo unless otherwise specified. AKI: acute kidney injury; CPB: cardiopulmonary bypass; eGFR: estimated glomerular filtration rate; HD: hemodialysis; MACE: Multiple adverse cardiovascular events; MI: myocardial infarction; MSH: melanocyte-stimulating hormone NAC: N-acetylcysteine; NGAL: Neutrophil gelatinase-associated lipocalin; RIFLE: Risk, injury, failure, loss, end stage renal disease; RIPC: remote ischemic preconditioning; SOFA: Sequential organ failure assessment; vs.: versus. * If no estimated completion date is given, then the estimated completion date is prior to 11.15.2011; **secondary endpoint.

Identifier	Phase	Location	Status (Estimated completion date*)	Intervention	Setting	Primary outcome measures	Estimated enrollment
Acute MI							
NCT00971607	II	Canada	Recruiting (5/2012)	Sevoflurane	Acute MI	Infarct size, renal function at 48 hours**	50
Cirrhosis							
NCT01359813	III	France	Recruiting	Albumin	Cirrhosis and SIRS without SBP	Renal function at 3 months	206
NCT00852800	II	Brazil	Enrolling by invitation	Standard vs. low dose albumin	Cirrhosis with SBP	Renal function or mortality at 90 days	43
ICU							
NCT00676234	II	Switzerland	Completed	Erythropoietin	ICU, critically ill	Urine NGAL at 96 hours	80
NCT00870883	II	Brazil	Recruiting	NAC plus deferoxamine	ICU with hypotension	AKI	140
NCT01227148	III	Taiwan	Completed	Tight glucose control	ICU, critically ill	Measures of protein metabolism, AKI**	112
Renal artery sten	ting						
NCT00868972	II, III	Italy	Recruiting	Distal embolic protection device	Renal artery stenting	CrCl, cystatin C at 1 and 3 months	150
Rhabdomyolysis							
NCT00391911	IV	Canada	Completed	NAC vs. NAC+CVVHDF vs. placebo	ICU, rhabdomyolysis	eGFR, mortality, maximum RIFLE score	32
SIRS/Sepsis							
NCT00706771	II	Australia	Not yet recruiting (7/2012)	Sodium bicarbonate vs. NS	SIRS	RIFLE class I or greater	170
NCT00962156	Ш	Denmark, Finland, Iceland, Norway	Recruiting (12/2011)	6% HES 130/0.4 vs. ringer's lactate	Severe sepsis	Mortality, dialysis dependency	800
NCT00922870	Ш	France	Recruiting (2/2012)	Hemofiltration	Septic shock	Days without catecholamines, AKI**	60
Surgery							
NCT00420277 & NCT00421200	III	Belgium, Czech Republic, Nether- lands, Poland, Sweden	Completed	MaIPEG-Hb vs. 6% HES	Hip arthroplasty with hypotension	Hypotension, AKI**	462
NCT01225094	11,111	Canada	Not yet recruiting (9/2014)	Curcumin	AAA repair	Serum creatinine on day 4	3500
NCT01251029	1	Israel	Not yet recruiting (1/2014)	NAC	CKD and vascular, orthopedic, or abdominal surgery	Renal function	200
NCT01035541		Germany	Recruiting	PiCCO® monitoring with goal directed hemodynamic management	Major non-cardiac surgery	Serum creatinine within 3 days	Not stated
NCT01424150	III	Australia, New Zealand	Not yet recruiting (11/2016)	Restrictive versus liberal fluid	Major abdominal surgery	Mortality, AKI **	2600
Tumor lysis syndi	rome						
NCT00628628	II	USA	Active, not recruiting (6/2013)	Rasburicase	Chemotherapy	Plasma uric acid, AKI	80

Table 3. Current clinical trials regarding the prevention of acute kidney injury (AKI) in adults in specific clinical settings. All interventions are versus placebo unless otherwise specified. AAA: abdominal aortic aneurysm repair, AKI: acute kidney injury; CKD: chronic kidney disease; CrCl: creatinine clearance; CVVHDF: continuous veno-venous hemo(dia)filtration; eGFR: estimated glomerular filtration rate; HES: hydroxyethylstartch; ICU: intensive care unit; MI: myocardial infarction; NAC, N-acetylcysteine; NGAL: Neutrophil gelatinase-associated lipocalin; NS: normal saline; SBP: spontaneous bacterial peritonitis; SIRS: systemic inflammatory response syndrome, RIFLE: risk, injury, failure loss, end stage renal disease. *If no estimated completion date is given, then the estimated completion date is prior to 11.15.2011; **secondary endpoint.

Identifier	Phase	Location	Status (Estimated completion date*)	Setting, Condition	Intervention	Primary outcome measures	Estimated enrollment
RRT: Anticoag	ulation		•				
NCT00209378	IV	Netherlands	Recruiting	ICU, AKI requiring CVVH	Citrate vs. heparin	Mortality, filter life,bleeding complications	200
NCT01269112	IV	Switzerland	Recruiting (12/2012)	ICU, AKI requiring RRT	Citrate vs. heparin	Delivered RRT dose, filter life	190
NCT01228292		Belgium	Not yet recruiting (1/2013)	ICU, AKI requiring RRT	Citrate vs. heparin	RTT interruption due to filter clotting	250
NCT01318811	IV	USA	Recruiting	ICU, CVVHD requirement	Dilute vs. concentrated heparin	Filter life	200
RRT: Catheter	manageme	ent					
NCT00875069	III	France	Recruiting	ICU requiring RRT	Ethanol lock for dialysis catheters	Bloodstream infections	1300
RRT: Device					·		
NCT01400893	II	USA	Recruiting (12/2012)	ICU, AKI requiring CRRT	Selective cytopheretic device	All cause mortality	344
NCT01239966	III	France	Recruiting (6/2012)	ICU, AKI and ALI	Neonatal oxygenator membrane added to hemofiltration circuit for extra-corporeal CO ₂ removal	CO ₂ reduction	10
RRT: Fluid rem	noval						
NCT01077895	III	Belgium	Recruiting	ICU, Intra-abdominal hypertension and AKI	Fluid removal via CVVH	Intra-abdominal pressure	30
RRT: Hemodyr	namic inter	ventions /volume	monitoring				
NCT00221598	N/A	Belgium	Recruiting	Hospital, AKI or CKD requiring HD	Various dialysate temperatures	Hemodynamics	40
NCT00971971	N/A	Brazil	Completed	ICU, AKI requiring SLED	Sodium and ultrafiltration profiling	Hemodynamics	40
NCT00811109	,	France	Completed	ICU, AKI requiring intermittent HD	Blood volume and temperature monitoring	Hemodynamics	600
NCT01405092	N/A	USA	Recruiting (21/2011)	ICU, AKI requiring CRRT	Blood volume monitoring device	Hypotension	25
RRT: Membrar							
NCT00912184	IV	Australia	Unknown	ICU, AKI requiring CRRT	High cut-off super high flux polyamide membrane	Vasopressor dependency	72
NCT01067313	IV	France	Completed	ICU, AKI requiring CRRT	Membrane with enhanced middle molecule clearance	Urea, creatinine, protein, and albumin clearance	24
RRT: Modality	,						
NCT00675818		Canada	Active, not recruiting	ICU, AKI requiring CRRT	CVVH vs. CVVHD	Change in severity of illness	75
NCT01062984		USA	Recruiting (2/2012)	ICU, AKI requiring CRRT	CVVH vs. CVVHD	Urea clearance	20
NCT01228123		Germany	Completed	ICU, AKI requiring RRT	CVVH vs. intermittent HD	Mortality	Not stated
RRT: Pharmac	=	-					
NCT01467583		USA	Not yet recruiting (11/2013)	AKI with and without HD or CRRT	Fondaparinux	Prevention of VTE and safety	60
NCT01314209	•	Finland	Recruiting (3/2012)	ICU, AKI requiring CRRT	Pharmacokinetics of dexmedetomidine	Dexmedetomidine levels	10
NCT00877370		USA	Completed	ICU, AKI requiring CVVHD	Pharmacokinetics of ertapenem	Ertapenem levels	8
NCT00780351	IV	Taiwan	Completed	Hospital, AKI requiring SLEDD-f	Pharmacokinetics of vancomycin	Vancomycin levels	15
Non-RRT inter			(()				
NCT00978354		Canada	Recruiting (12/2012)	ICU	Furosemide vs. placebo	Worsening AKI	216
NCT01134900	N/A	US	Enrolling by invitation	All hospitalized AKI	Pharmacist monitoring and intervention	Medication errors	450
					regarding drug dosing and nephrotoxic drugs		

Table 4. Current clinical trials regarding the management of acute kidney injury (AKI) in adults, in general. All interventions are versus placebo unless otherwise specified AKI: acute kidney injury; ALI: acute lung injury; CKD: chronic kidney disease; CRRT: continuous renal replacement therapy; CVVH: continuous venovenous hemofiltration; CVVHD: continuous venovenous hemodialysis; CVVHDF: continuous veno-venous hemo(dia)filtration; HD: hemodialysis; ICU: intensive care unit; SLED: sustained low-efficiency dialysis; SLEDD: Slow Efficiency Daily Dialysis; SLEDD-f: Sustained low efficiency daily hemodiafiltration; RRT: renal replacement therapy; VTE: venous thromboembolism. *If no estimated completion date is given, then the estimated completion date is prior to 11.15.2011; **secondary endpoint.

Identifier	Phase	Country	Status (Estimated completion date*)	Intervention	Primary outcome measures	Estimated enrollment
Cardiopulmona	ry bypass a	ssociated				
NCT00621790	III	Italy	Recruiting (7/2012)	Fenoldopam	Renal replacement therapy	1000
Cardiorenal syn	drome					
NCT00608491	III	USA	Recruiting (12/2011)	Ultrafiltration via Aquadex system 100 vs. standard	Serum creatinine and weight loss at 1, 2, 3, 4, and 7 days	200
NCT01138683	III	Belgium	Recruiting (9/2011)	Ultrafiltration vs. diuretics	AKI	40
NCT01140399	IV	Italy	Not yet recruiting (3/2012)	Ultrafiltration vs. furosemide plus dopamine vs. furosemide	Composite score of: dyspnea, weight loss, GFR, and BNP	186
NCT01441245	IV	Italy	Recruiting (11/2012)	Continuous vs. intermittent furosemide	BNP and renal function	58
NCT01132846	IV	USA, Canada	Recruiting (12/2011)	Dopamine vs. nasiritide vs. standard	Cystatin C and urinary volume at 72 hours	360
NCT00972569	1,11	USA	Enrolling by invitation (7/2015)	Nasiritide plus sildenafil vs. nasiritide vs. standard	Creatinine clearance and BUN at 48 hours	69
NCT00348556	I	USA	Active, not recruiting	Nasiritide (intra-renal)	GFR by iothalamate clearance at 6, 12, 18, and 24 hours post-infusion, safety	10
NCT00839007	II	USA, Germany, Israel	Completed	IV CD-NP	Hypotensive events, symptoms, renal function change	77
NCT00953303	IV	China	Recruiting (2/2012)	Glucocorticoids	30 day cardiovascular mortality, renal function**	200
NCT01028170	Ш	USA	Recruiting (11/2011)	Hypertonic saline (2.4%) plus furosemide vs. furosemide	Renal function	92
Hepatorenal syr	ndrome					
NCT01133795	II	Spain	Recruiting (2/2013)	Midodrine plus albumin	GFR by isotopic methods	20
NCT01143246	Ш	USA, Canada	Recruiting (5/2012)	Terlipressin	HRS reversal	180
Multiple myelor	na (light cl	nain induced-AKI)				
NCT00902915	II	Austria, Czech Republic, Slovakia	Recruiting (5/2012)	Lenalidomide plus dexamethasone	Myeloma response and improvement in GFR	50
Septic AKI in the	ICU: Drug	intervention				
NCT00711789	II	Australia	Recruiting (2/2012)	Angiotensin II	Urine output and arterial blood pressure	12
-	_	volume hemofiltration				
NCT01213914	IV	USA	Not yet recruiting (10/2015)	70 mL/kg/hr	Vasopresser dependency index, PF ratio, mortality	120
NCT00241228		France, Belgium, Netherlands	Completed	70 mL/kg/hr vs. 35 mL/kg/hr	All cause mortality	139
NCT01191905	IV	South Korea	Recruiting (8/2012)	80 mL/kg/hr vd. 40 mL/kg/hr	Mortality, renal recovery, cytokine removal rate	218
NCT01251081	IV	China	Completed	85 mL/kg/hr vs. 50 mL/kg/hr	Mortality	280
Solid organ cand	er: cisplati	in induced AKI				
NCT01275612	1	Italy	Recruiting	Mesenchymal stem cells	AKI	9

Table 5. Current clinical trials regarding the management of acute kidney injury (AKI) in adults in specific settings. All interventions are versus placebo/standard of care unless otherwise specified. AKI: acute kidney injury; BNP: brain natriuretic factor; GFR: glomerular filtration rate; HRS: hepatorenal syndrome; ICU: intensive care unit; PF ratio: PaO₂/FiO₂.*If no estimated completion date is given, then the estimated completion date is prior to 11.15.2011; **secondary endpoint.

Identifier	Phase	Status (Estimated	Intervention	Primary kidney	Estimated
		completion date*)		outcome measures	enrollment
Prevention: Drug	treatment				
NCT01228305	П	Recruiting (12/2011)	Acetaminophen	Oxidative stress measured by F2-isoprostane	20
NCT01245595	Ш	Recruiting (11/2012)	Aminophylline	AKI measured by pRIFLE criteria	160
NCT00982527	Ш	Completed	Fenoldopam	Reduction in urinary/serum NGAL levels	80
Prevention: Remo	te ischemic p	reconditioning			
NCT01260259	NA	Recruiting (6/2012)	Remote ischemic preconditioning	AKI	100
NCT01316497	NA	Completed	Remote ischemic preconditioning	AKI by RIFLE	105
Prevention: Misce	llaneous				
NCT01398722	II	Not yet recruiting (7/2012)	Intensive glucose control	AKI	800
NCT01398709	II	Not yet recruiting (9/2012)	Rewarming rate	AKI	100
Management					
NCT01416298	I	Not yet recruiting (12/2012)	NGAL monitoring to determine fluid management, and CRRT initiation or discontinuation	Predictive value of NGAL	100

Table 6. Current clinic trials regarding the prevention or management of acute kidney injury (AKI) in children undergoing cardiopulmonary bypass requiring surgery. All interventions are versus placebo unless otherwise specified. AKI: acute kidney injury; CRRT: continuous renal replacement therapy; NGAL: NAC, N-acetylcysteine; NGAL: Neutrophil gelatinase-associated lipocalin; pRIFLE: pediatric risk, injury, failure, loss, end stage kidney disease; RIFLE: risk, injury, failure, loss, end stage kidney disease. *If no estimated completion date is given, then the estimated completion date is prior to 11.15.2011.