**Table 1. Study design characteristics of included articles**

| **Author, Year** | **Design** | **Location**  **Setting** | **Enrollment**  **Followup** | **Sample Size** | **ACS information (if applicable)** | **CKD Stages**  **GFR Definition** | **Exclusion Criteria** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Abaci, 20041 | Prospective | Turkey  Hospital | Study date NR  Mean followup:  2 years | 129 | No ACS | Dialysis, ESRD  GFR equation NR | Angiographically proven stenosis, ACS, history of MI, ECG changes suggestive of ischemia, Chronic stable angina pectoris, previous coronary revascularization, regional wall motion abnormalities in ECG |
| Abbas, 20052 | Prospective | Europe  outpatient | Start: 2003  End: 2004  Mean followup: 19 months | Total: 227  CKD: 222 | No ACS | Stage 3, stage 4, stage 5, dialysis  MDRD | Age < 18, acute renal failure, functioning renal transplant, patients on dialysis, recent cardiac event |
| Acharji, 20123 | Post hoc | United States  Hospital | Study date NR  Mean followup:  1 year | 2179 | Patients with ACS included  Cardiologist adjudication NR  panel  Definition: Adjudication definition NR | Stage 3, stage 4, dialysis  Cockcroft-Gault formula | Other exclusions NR |
| Alcalai, 20074 | Prospective | Israel  Hospital | Start: 2003  End: 2003  Maximum followup:  2.5 years | 615 | Patients with ACS included  Adjudicated  Cardiologist adjudicated  panel adjudicator panel: 2 people  Definition: ESC/ACC | Dialysis, creatinine > 2.26 mg/dL  GFR equation NR | Age < 16, out-of hospital cardiac arrest who died within 48 hours of admission |
| Apple,19975 | Retrospective | United States  outpatient | Start: 1994  End: 1994  Mean followup:  12 months | 16 | No ACS | Dialysis  GFR equation NR | Other exclusions NR |
| Apple,19996 | Retrospective | United States  hospital | Study date NR  Followup NR | 1601 | Patients with ACS included  Adjudicated  Cardiologist adjudication NR  panel adjudicator  Definition: 2 of 3: chest pain, ECG changes, biomarkers | Dialysis, stage NR  GFR equation NR | Other exclusions NR |
| Apple, 20027 | Prospective | United States  outpatient; dialysis centers | Start: 1998  End: 1999  Median followup: 1.6 years | 733 | ACS NR | Stage 5, dialysis, ESRD  GFR equation NR | Other exclusions NR |
| Apple, 20048 | Prospective | United States  outpatient | Start: 1998  End: 1999  Median followup: 1.7 years | 399 | ACS NR | Dialysis, ESRD  GFR equation NR | Other exclusions NR |
| Apple, 20079 | Prospective | United States  emergency dept | Study date NR  Mean followup:  6 months | Total: 510  CKD: NS | Patients with ACS included  Definition: clinical features considered indicative of ACS  Cardiologist adjudication NR  Adjudicator NS  Definition: Adjudication definition NR | Stage 1, stage 2, stage 3, stage 4, dialysis  MDRD | Other exclusions NR |
| Artunc, 201210 | Prospective | Europe  outpatient; 4 hemodialysis centers | Start: 2009  End: 2011  Mean followup:  2 years | 239 | No ACS  Cardiologist adjudication NR  Adjudicator NS  Definition: Adjudication definition NR | Dialysis  GFR equation NR | Patients with cardiac diseases that elevated serum troponin, evidence of an acute illness |
| Assa, 201311 | Prospective | Europe  outpatient; | Start:2006  Maximum followup:  52 months | 90 | No ACS | Dialysis  GFR equation NR | Other exclusions NR |
| Aviles, 200212 | Post hoc | Worldwide  hospital | Start: 1998  End: 2000  Maximum followup:  30 days | Total: 7033  CKD: 1733 | Patients with ACS included  other dx: one or more episodes of angina while at rest that lasted at least five minutes and new ST-segment depression of at least 0.5 mm; or an abnormal result on a cardiac troponin  Cardiologist adjudication NR  Adjudicator NS  Definition: Adjudication definition NR | Stage 1, stage 2, stage 3, stage 4, stage 5, dialysis,  Cockcroft-Gault formula | Underwent early revascularization |
| Bagheri, 200913 | Prospective | Iran  hospital; dialysis center | Start: 2005  End: 2007  Mean followup: 30 months | 138 | ACS NR | Dialysis,  GFR equation NR | Systemic inflammation, ongoing ischemia or any revascularization procedure within past 8 weeks |
| Barthelemy, 201214 | Post hoc | Europe  hospital | Start: 2006  End: 2008  Mean followup:  1 month | Total: 345  CKD:  75 | Patients with ACS included  other dx: 2 out 3: symptoms of myocardial ischemia, ST segment abnormalities, elevated cTnI  Cardiologist adjudication NR  Adjudicator NS  Definition: Adjudication definition NR | Stage 3, stage 4, dialysis,  Cockcroft-Gault formula | Age < 18, refractory ischemia, major arrhythmias, or hemodynamic instability requiring immediate catheterization, ongoing treatment with warfarin, fibrinoloysis or GPIIb/IIIa inhibitors, contraindications to abciximab |
| Beciani, 200315 | Prospective | Europe  hospital | Study date NR  Mean followup:  1 year | 101 | No ACS | Dialysis  GFR equation NR | Recent (3 month) acute CAD, recent chest pain, recent major cardiovascular surgery |
| Bhagavan, 199816 | Retrospective | United States  hospital | Study date NR  Followup NR | Total: 155  CKD:  31 | ACS NR | Dialysis  GFR equation NR | Other exclusions NR |
| Boulier, 200417 | Prospective | Europe  outpatient; hospital | Start: 2001  End: 2001  Median followup: 418 days | 191 | No ACS | Dialysis  GFR equation NR | Other exclusions NR |
| Bozbas, 200418 | Prospective | Turkey  hospital | Start: 2001  End: 2002  Mean followup: 30 days | 34 | ACS NR | Dialysis, kidney transplant    GFR equation NR | Other exclusions NR |
| Brunet, 200819 | Prospective | Europe  outpatient dialysis unit | Start: 2003  End: 2003  Mean followup: 2.5 years | 105 | No ACS | dialysis,  GFR equation NR | No ACS within 3 months, treated with different HD parameters |
| Bueti, 200620 | Prospective | Canada  emergency dept | Start: 2001  End: 2002  Mean followup: 30 days | 149 | Patients with ACS included  other dx: not defined  No cardiologist adjudication  Adjudicator NS  Definition: Adjudication definition NR | Dialysis  GFR equation NR | Other exclusions NR |
| Chenevier-Gobeaux, 2013127 | Prospective | Europe  emergency dept | Study date NR Followup NR | 375 | Patients with ACS included  Adjudicated Yes cardiologist panel adjudicator panel: 2 Definition: Global MI definition | Stage 3, stage 4, stage 5,  MDRD | Other exclusion NR |
| Chew, 200821 | Retrospective | Singapore  hospital | Start: 2002  End: 2005  Followup NR | 227 | Patients with ACS included  Adjudicated  Cardiologist adjudicated  panel adjudicator panel: 2  Definition: based on the clinical picture, serial ECG, cardiac enzymes, and cardiac catheter or noninvasive cardiac imaging | Stage 4, dialysis  GFR equation NR | Other exclusions NR |
| Choy, 200322 | Prospective | Canada  outpatient | Study date NR  Mean followup:  6 months | 113 | ACS NR | Stage 5, dialysis  GFR equation NR | Patients refusing to give consent |
| Chrysochou, 200923 | Prospective | Europe  dialysis center | Study date NR  Mean followup: 40.2 months | 82 | No ACS | Combined CKD, stage 1, stage 2, stage 3, stage 4, dialysis, kidney transplant  Cockcroft-Gault formula | Atrial Fibrillation, poor ECG Images |
| Claes, 201024 | Prospective | Europe  hospital | Start: 2005  End: 2008  Mean followup:  2 weeks | 331 | ACS NR | Dialysis, kidney transplant  GFR equation NR | Combined transplant other than renal/pancreatic |
| Codognotto, 201025 | Prospective | Europe  hospital | Study date NR  Maximum followup:  3 years | 50 | ACS NR | Dialysis    GFR equation NR | Atrial fibrillation, pacemakers, previous surgical heart procedures, valvular and congenital heart disorders |
| Connolly, 200826 | Prospective | Europe  hospital | Start: 2000  End: 2002  Mean followup: 1626 days  Median followup: 1739 days | 372 | No ACS | Dialysis, kidney transplant    MDRD | Chest pain - deferred until re-assessment, signs of sepsis - deferred until re-assessment |
| Conway, 200527 | Prospective | Europe  outpatient; hospital | Start: 2003  End: 2003  Mean followup: 18 months | 75 | No ACS  Definition: hospital admission with diagnostic code of ACS | Dialysis  GFR equation NR | Other exclusions NR |
| Deegan, 200128 | Prospective | Europe  hospital;  hemodialysis | Study date NR  Mean followup: 15 months | 73 | ACS NR | Dialysis    GFR equation NR | Other exclusions NR |
| deFilippi, 200329 | Prospective | United States  outpatient; dialysis | Start: 1998  End: 1998  Mean followup: 827 days | 224 | No ACS | Dialysis  GFR equation NR | Age < 18, on hemodialysis less than 30days, Acute coronary event less than 4 weeks |
| deFilippi, 201230 | Prospective | United States  outpatient | Start: 2006  End: 2007  Median followup: 4.8 years | 148 | No ACS | Combined CKD, dialysis  MDRD | Age < 30, stage V CKD, renal replacement therapy, history of MI or CABG within 90 days of enrollment, patients with symptoms greater than NY heart association class I HF, patients with symptoms greater than Canadian CV society class I angina |
| Dierkes, 200031 | Prospective | Europe  dialysis center | Study date NR  Mean followup:  2 years | 102 | No ACS | Dialysis, ESRD  GFR equation NR | Age > 85, unstable clinical status, no ACS within 4 weeks |
| Duman, 200532 | Prospective | Turkey  outpatient | Study date NR  Mean followup: 48 months | 65 | no ACS | Dialysis  GFR equation NR | Patients with CV disease within 4 weeks of study onset. |
| Farkouh, 200333 | Prospective | United States  outpatient; dialysis centers | Study date NR  Mean followup: 15 months | 137 | no ACS | Stage 5, dialysis    GFR equation NR | Refusal to participate, ACS within preceding 30 days |
| Fehr, 200334 | Retrospective | Europe  NR | Study date NR  Mean followup: 12 months | 31 | Patients with ACS included  other dx: NR  Cardiologist adjudication NR  Adjudicator NS  Definition: Adjudication definition NR | Dialysis  GFR equation NR | Other exclusions NR |
| Feringa, 200635 | Prospective | Europe  hospital | Start: 2000  End: 2006  Mean followup: 3.5 years | Total: 558  CKD: 240 | No ACS | Combined CKD, stage 1, stage 2, stage 3, stage 4, dialysis    MDRD | Patients who died during surgery, patients who died before hospital discharge |
| Fernandez-Reyes, 200436 | Prospective | Europe  hospital | Start: 2000  End: 2002  Mean followup: 2.5 years | 58 | ACS NR | Dialysis    GFR equation NR | Clinical signs of HF or ischemic heart disease during previous month |
| Flores, 200637 | Retrospective | Europe, Spain  ED (64%) ICU(10%) and IM-cardiology and nephrology services | Start: 2004  End: 2004  Followup NR | 467 | Patients with ACS included  Cardiologist adjudication NR  Adjudicator NS  Definition: Adjudication definition NR | Combined CKD, dialysis  MDRD |  |
| Flores-Solis, 201238 | Prospective | Europe  hospital | Start: 2009  End: 2010  Mean followup:  6 months | 484 | Patients with ACS included  other dx: ESC AMI definition  Cardiologist adjudication NR  Adjudicator NS  Definition: Adjudication definition NR | Stage 3, stage 4, dialysis,  MDRD | Patients transferred to another hospital, psychiatric patients, patients who refused to sign an informed consent, patients diagnosed with multiple conditions who could not be assigned to a group. |
| Gaiki, 201239 | Prospective | United States  hospital | Study date NR  Mean followup:  2 years | 51 | No ACS | Dialysis  GFR equation NR | Other exclusions NR |
| Geerse, 201240 | Prospective | Europe  hospital | Start: 2007  End: 2009  Median followup: 28 months | 206 | ACS NR | Dialysis    GFR equation NR | Age < 18 |
| Goicoechea, 200441 | Prospective | Europe  outpatient | Start: 2002  End: 2002  Mean followup: 12.9 months | 176 | No ACS  Definition: Joint ESC/ACC | Combined CKD, dialysis  Cockcroft-Gault formula | Other exclusions NR |
| Gruberg, 200242 | Prospective | United States  hospital | Start: 1994  End: 1999  Mean followup: 12 months | 116 | Patients with ACS included  Cardiologist adjudication NR  Adjudicator NS  Definition: Adjudication definition NR | Dialysis, creatinine > , chronic renal insufficiency,  Cockcroft-Gault formula | Patients on dialysis, patients with baseline increased cTnI >0.15 ng/mL, patients with AMI within previous 72 hrs |
| Haaf, 201343 | Prospective | Europe  hospital | Start: 2006  End: 2009  Mean followup:  2 years | 1117 | Patients with ACS included  Adjudicated Yes cardiologist panel adjudicator  panel:3  Definition: Global MI definition | Stage NR  MDRD | Other exclusion NR |
| Hallen, 201144 | Retrospective | Europe  hospital, dialysis | Start: 2002  End: 2003  Mean followup: 926 days | 107 | ACS NR | Dialysis, ESRD    GFR equation NR | Age < 18, failure to cooperate, hepatic disease, malignant disease, rhabdomyolysis, dermatomyositis, polymyositis, history of epilepsy or convulsions |
| Han, 200545 | Retrospective | United States  emergency dept | Start: 1999  End: 2003  Mean followup:  6 months | 90 | Patients with ACS included  other dx: medical record and social security death index  Cardiologist adjudication NR | Combined CKD, dialysis, CrCl <30 ml/min  GFR equation NR | Kidney transplant, died secondary to trauma, terminal cancer, trauma, terminal cancer |
| Han, 200946 | Prospective | South Korea  hospital | Study date NR  Mean followup:  3 years | 107 | ACS NR | Dialysis  GFR equation NR | CVD - AMI, PVD, cerebrovascular, angina, Infection within past 3 months, history of malignancy, chronic inflammatory disease |
| Hasegawa, 201247 | Prospective | Japan  outpatient | Start: 2009  End: 2010  Median followup: 22 months | 442 | ACS NR | Stage 3, stage 4, dialysis, stage 5  MDRD | CKD patients on dialysis. |
| Havekes, 200648 | Prospective | Netherlands  outpatient | Start: 1997  End: 2001  Followup NR | 847 | No ACS | Dialysis, mean creatinine and urea clearances adjusted for body surface area | Age < 18 |
| Heeschen, 200049 | Prospective | Europe  outpatient | Start: 1994  End: 1998  Maximum followup:  30 days | 26 | No ACS | Dialysis    GFR equation NR | Other exclusion NR |
| Helleskov  Madsen, 200850 | Prospective | Europe  hospital  hemodialysis | Start: 2002  End: 2003  Mean followup: 712 days | 109 | No ACS | Dialysis    GFR equation NR | Age < 18, conditions giving falsely elevated troponins (liver disease, malignancy, rhabdomyolysis, dermatomyositis/polymyositis, epilepsy), patients unable to cooperate |
| Hickman, 200951 | Prospective | Australia  outpatient | Study date NR  Median followup: 30 months | 143 | No ACS | Dialysis  GFR equation NR | Other exclusions NR |
| Hickson, 200852 | Prospective | United States  outpatient | Start: 2004  End: 2006  Mean followup: 11.5 months  Median followup: 6.2 months | 644 | No ACS | Dialysis, kidney transplant candidates  GFR equation NR | Patients on kidney transplant waiting list |
| Hickson, 200953 | Prospective | United States  outpatient | Start: 2004  End: 2007  Mean followup: 28.4 months | 603 | No ACS | Dialysis, kidney transplant  GFR equation NR | Kidney transplant recipients |
| Hocher, 200354 | Prospective | Europe  hospital;  dialysis center | Start: 2000  Mean followup: 775 days | 245 | No ACS | Dialysis  GFR equation NR | Malignancies, chronic infections, conditions that affect serum parameters |
| Hocher, 200455 | Prospective | Europe  outpatient; dialysis Center | Start: 2000  Mean followup: 1140 days | 245 | No ACS | Dialysis, ESRD  GFR equation NR | Other exclusions NR |
| Hocher, 200856 | Prospective | Europe  outpatient | Start: 2000  End: 2000  Mean followup: 52 months | 230 | No ACS | Dialysis  GFR equation NR | Acute disease including unstable angina, acute MI, arterial embolism, acute neurological disorder, malignancy, chronic infection, other conditions that might affect the serum parameters |
| Hojs, 200557 | Prospective | Europe  outpatient | Study date NR  Mean followup: 21 months | 90 | No ACS | Dialysis    GFR equation NR | Other exclusions NR |
| Holden, 201258 | Prospective | Canada  dialysis Center | Start: 2002  Mean followup: 3.5 years | 103 | ACS NR | Dialysis  GFR equation NR | Other exclusions NR |
| Hung, 200459 | Prospective | Taiwan  outpatient | Study date NR  Mean followup: 12 months | 70 | No ACS | Dialysis  GFR equation NR | Age < 20, receiving HD for <6months, MI within 3 months, major vascular surgery within 3 months, acute chest pain, intramuscular injection/trauma, history of autoimmune disease |
| Hussein, 200460 | Prospective | Saudi Arabia  outpatient | Study date NR  Mean followup:  1 year | 93 | No ACS | Dialysis  GFR equation NR | Other exclusions NR |
| Ie, 200461 | Prospective | Europe  dialysis center | Study date NR  Mean followup:  2 years | 49 | No ACS | Dialysis    GFR equation NR | Other exclusions NR |
| Ikeda, 200262 | Retrospective | Japan  hospital | Study date NR  Followup NR | Total: 173  CKD:  28 | Patients with ACS included  NR cardiologist  adjudicator ns  Definition: Adjudication definition NR | Dialysis    GFR equation NR | Other exclusion NR |
| Iliou, 200363 | Prospective | Europe  outpatient; hospital; hemodialysis centers | Start: 1999  End: 1999  Mean followup:  2 years | 258 | No ACS | Dialysis  GFR equation NR | MI, revascularization, angina within 3 weeks of study, sever infection 8 days before study, hemoglobin <8 g/dl |
| Ilva, 200864 | Prospective | Europe  hospital | Start: 2004  End: 2004  Mean followup:  6 months | Total: 364  CKD: 163 | No ACS | Dialysis, renal failure defined as CysC above 1.2 for age <50 and 1.4 for age >50 | ACS, patients with missing troponin values |
| Ishii, 200165 | Prospective | Japan  outpatient; dialysis center | Start: 1997  End: 1997  Mean followup: 2 years | 100 | No ACS | Dialysis  GFR equation NR | Dialysis for <12months, acute coronary syndrome <3months |
| Jensen,201266 | Prospective | Europe  hospital | Start: 2003  End: 2004  Median followup: 4.4 years | 193 | No ACS | Dialysis  GFR equation NR | Unwillingness to participate, prior MI, symptoms of acute MI, unstable angina, pathological Q Waves upon admission, previous coronary angioplasty, atrial fibrillation, stroke-like symptoms >7 days prior to admission |
| Kalaji, 201267 | Prospective | Syria  hospital | Start: 2008  End: 2008  Median followup: 551 days | 145 | No ACS | Dialysis, Stage V CKD  GFR equation NR | Age < 18, Acute coronary event within 1 month, undergoing dialysis for less than 1 month, refusal to participate in the study. |
| Kang, 200968 | Prospective | South Korea  hospital | Start: 2003  End: 2005  Mean followup: 90 days | 121 | No ACS | Dialysis    GFR equation NR | Age < 18, dialysis <3 months |
| Kanwar, 200669 | Prospective | United States  dialysis center | Start: 2001  End: 2002  Mean followup: 27 months | 173 | No ACS | Dialysis  GFR equation NR | Any evidence of ongoing ischemia, PCI or revascularization 6 weeks before evaluation, systemic inflammatory disorders |
| Katerinis, 200870 | Prospective | Switzerland  dialysis center | Study date NR  Mean followup: 12 months | 50 | No ACS | Dialysis  GFR equation NR | ACS within four weeks |
| Kertai, 200471 | Prospective | Europe  outpatient; hospital | Start: 1996  End: 2000  Median followup: 4 years | Total: 393  CKD:  58 | No ACS | Dialysis    GFR equation NR | Mortality or MI within 30 days of their vascular surgery |
| Khan, 200172 | Prospective | United States  hospital | Study date NR  Mean followup:  2 years | 128 | No ACS | Dialysis, CRF    GFR equation NR | ACS within 3 months, chronic stable angina pectoris, chest pain in peridialysis period, recent major CV surgery, ECG changes suggesting MI / EKG changes-ishcemia |
| Kontos, 200573 | Prospective | United States  hospital | Start: 1996  End: 2000  Mean followup:  1 year | 3774 | Patients with ACS included  other dx: NR  Cardiologist adjudication NR  Adjudicator NS  Definition: Adjudication definition NR | Stage 2, stage 3, stage 4, dialysis  Cockcroft-Gault formula | ST-segment elevation that met criteria for fibrinolytic therapy, did not have 8-hour cTnI determined |
| Kontos, 200574 | Prospective | United States  emergency dept | Start: 1996  End: 2000  Followup NR | 3074 | Patients with ACS included  other dx: ECG changes, known coronary disease w/ typical symtpoms, or MPI with positive results  Cardiologist adjudication NR  Adjudicator NS  Definition: Adjudication definition NR | Stage 1, stage 2, stage 3, stage 4, dialysis  Cockcroft-Gault formula | ST-segment elevation, no 8-hour cardiac isoform of cTnI obtained, no EF obtained |
| Kontos, 200875 | Retrospective | United States  hospital | Start: 1996  End: 2000  Mean followup:  1 year | Total: 4343  CKD: NS | Patients with ACS included  other dx: NS  Cardiologist adjudication NR  Adjudicator NS  Definition: Adjudication definition NR | Stage 1, stage 2, stage 3, stage 4, dialysis, no kidney disease    MDRD; Cockcroft-Gault formula | STEMI, did not have 8-hour troponin measured, did not have weight measurement available |
| Kostrubiec, 201076 | Prospective | Europe  hospital | Start: 2006  End: 2009  Mean followup: 30 days | 220 | ACS NR | Combined CKD, dialysis, acute pulmonary embolism,  MDRD | Other exclusions NR |
| Lamb, 200777 | Prospective | England  outpatient | Start: 2003  End: 2004  Maximum followup:  32 months | 227 | No ACS | Stage 3, stage 4, stage 5, dialysis  MDRD | Age < 18, functioning renal transplant, receiving dialysis; recent (< 1 month) cardiac event, acute renal failure, cardiac event <1 month |
| Lang, 200178 | Prospective | Europe  hospital | Study date NR  Mean followup:  2 years | 100 | No ACS | Dialysis, ESRD,  GFR equation NR | History of angina pectoris within 3 mos., MI within 2 years, malignancies, systemic autoimmune disease, inflammatory or hereditary muscle disease, trauma in previous 6 mos., known myocarditis, idiopathic dilated cardiomyopathy, hypertrophic or restrictive cardiomyopathy |
| Le Goff, 200779 | Prospective | Europe  outpatient; | Study date NR  Mean followup: 3 years | 86 | ACS NR | Dialysis    GFR equation NR | Other exclusions NR |
| Lowbeer, 200280 | Prospective | Europe  outpatient; dialysis center | Study date NR  Mean followup: 48 months | 26 | No ACS | Dialysis, chronic ambulator peritoneal dialysis  GFR equation NR | AMI 3 weeks prior to study enrollment, clinical symptoms of inflammation |
| Lowbeer, 200381 | Prospective | Europe  outpatient | Study date NR  Mean followup: 2.7 months | 115 | ACS NR | Dialysis, ESRD  GFR equation NR | Age > 70, unwillingness to participate |
| Mallamaci, 200282 | Prospective | Europe  outpatient | Study date NR  Mean followup: 35 months | 199 | No ACS | Dialysis, ESRD  GFR equation NR | Other exclusions NR |
| Martin, 199883 | Prospective case-series | United States  hospital | Study date NR  Mean followup:  6 months | 56 | ACS NR | Dialysis, ESRD, chronic renal failure, or acute renal failure,  GFR equation NR | Other exclusions NR |
| McCullough, 200284 | Prospective | United States  hospital | Start: 1999  End: 1999  Mean followup: 30 days | 1024 | Patients with ACS included  Adjudicated  Cardiologist adjudicated  panel adjudicator panel: 2 people  Definition: Thrombolysis in Myocardial Infarction Study Group | Dialysis, corrected CrCl,  GFR equation NR | Patients with ST-elevation AMI receiving thrombolytic therapy or immediate angioplasty |
| McGill, 201085 | Retrospective | Australia  hospital | Study date NR  Mean followup: 3.9 years | 143 | ACS NR | Dialysis  GFR equation NR | Other exclusions NR |
| McMurray, 201186 | Post hoc | Worldwide  hospital | Start: 2004  End: 2007  Median followup: 2.4 years | 955 | No ACS | Dialysis, eGFR 20 - 60 mL/min  MDRD | Uncontrolled hypertension, previous kidney transplant or scheduled transplant, use of antibiotics, use of chemotherapy or radiation therapy, cancer (excluding basal- or squamous-cell carcinoma of skin), active bleeding, hematologic disease or pregnancy |
| Melloni, 200887 | Post hoc | United States  hospital | Start: 2003  End: 2005  Followup NR | 31586 | Patients with ACS included  Cardiologist adjudication NR  Adjudicator NS  Definition: Adjudication definition NR | Stage 1, stage 2, stage 3, stage 4, stage 5, dialysis  MDRD | Patients transferring in or out of the hospital, inadequate troponin data, missing data for age, sex, creatinine, etc needed for MDRD to calculate eGFR |
| Mockel, 199988 | Prospective | Europe  dialysis center | Study date NR  Median followup: 9 months | 40 | No ACS | Stage 4, stage 5, dialysis  GFR equation NR | Age > 80, neoplasia, ARF, ACS in the last 4 weeks |
| Morton, 199889 | Prospective | Canada  hospital dialysis center | Study date NR  Mean followup:  1 year | 112 | No ACS | Dialysis  GFR equation NR | Other exclusions NR |
| Musso, 199990 | Prospective | Europe  outpatient | Study date NR  Maximum followup:  18 months | Total: 166  CKD:  49 | ACS NR | Stage 5, dialysis  GFR equation NR | History of CAD or angina symptoms, ischemic changes or segmental wall abnormality on ECG, cardiomegaly on CXR, diabetes, muscular disease |
| Noeller, 200391 | Prospective | United States  hospital | Study date NR  Mean followup: 14 months | 695 | Patients with ACS included  other dx: STEMI: ECG changes plus chest pain or CK-MB increase; NSTEMI: EKG changes and either CP or EkG changes; UA: angina change/at rest/EKG changes  Cardiologist adjudication NR  Adjudicator NS  Definition: definition as above | Dialysis  GFR equation NR | cardiopulmonary resuscitation within 7 days of presentation, PCI or thrombolytic therapy within 3 weeks before presentation, vasopressors before enrollment, major abdominal/thoracic/orthopedic surgery within 7 days of presentation |
| Ooi, 199992 | Prospective | Canada  hospital | Start: 1997  End: 1997  Maximum followup:  1 year | 172 | No ACS | Dialysis  GFR equation NR | Other exclusions NR |
| Ooi, 200193 | Prospective | Canada  dialysis center | Start: 1997  End: 1999  Mean followup: 34 months | 244 | No ACS | Dialysis  GFR equation NR | Increased cTnT values that were collected during an acute coronary event were excluded |
| Orea-Tejeda, 201094 | Prospective | Mexico  hospital | Study date NR  Mean followup: 42 months | 152 | ACS NR | Dialysis, Patients with eGFR <60 mL/min were included, but it did not specify ranges  Cockcroft-Gault formula | Age < 18, myopericarditis, cardiac trauma, neoplastic and infiltrative processes, chemotherapy, pulmnoary embolism, end stage kidney failure, terminal liver failure |
| Peetz, 200395 | Prospective | Europe  outpatient; hospital | Study date NR  Mean followup:  6 months | 104 | ACS NR | Dialysis  GFR equation NR | Patients with acute myocardial infarction within 3 months, patients with acute symptoms of angina pectoris within 3 months, on dialysis less than one year, on dialysis less than three times a week |
| Petrovic, 200996 | Prospective | Europe  hospital | Study date NR  Mean followup:  2 years | 115 | No ACS | Dialysis    GFR equation NR | Other exclusions NR |
| Porter, 199897 | Prospective | United States  Hospital; dialysis center | Study date NR  Mean followup: 12 months | 30 | ACS NR | Dialysis  GFR equation NR | Other exclusions NR |
| Porter, 200098 | Prospective | United States  outpatient; dialysis center | Start: 1996  End: 1996  Maximum followup:  24 months | 30 | No ACS | Dialysis  GFR equation NR | Other exclusions NR |
| Quiroga, 201399 | Prospective | Europe  outpatient; | Study date NR  Mean followup: 38 months | 218 | No ACS  Cardiologist NR  Adjudicator NS  Definition: Adjudication definition NR | Stage 1, stage 2, stage 3, stage 4,  CKD-EPI formula | Other exclusions NR |
| Roberts, 2004100 | Prospective | Australia  outpatient; hospital | Study date NR  Mean followup:  9 months  Maximum followup:  9 months | 88 | ACS NR | Dialysis  GFR equation NR | Poor life expectancy (<6 months) |
| Roberts, 2009101 | Prospective | Australia  hospital | Start: 2003  End: 2004  Mean followup: 1.8 years | 81 | ACS NR | Combined CKD, dialysis  GFR equation NR | Began dialysis in past 6 months, had CV event in past 3 months, expected to survive less than 3 months |
| Roppolo, 1999102 | Prospective | United States  hospital | Study date NR  Maximum followup:  6 months | 134 | ACS NR | Dialysis, chronic renal failure, but not on dialysis    GFR equation NR | Other exclusions NR |
| Sahinarslan, 2008103 | Prospective | Europe  hospital | Study date NR  Mean followup:  5 years | 78 | No ACS | Dialysis  GFR equation NR | CVD - CAD, revascularization, HF, stroke, malignancy, any systemic disease other than RF |
| Satyan, 2007104 | Prospective | United States  hospital | Start: 2003  End: 2005  Median followup: 24 months | 150 | ACS NR | Dialysis  GFR equation NR | Age < 18, Active drug abuse, Chronic atrial fibrillation, BMI ≥ 40 kg/m2, expected survival <6 mos, active cancer or known HIV, recent change in antihypertensive drugs, inability to learn/perform BP monitoring |
| Scheven, 2012105 | Prospective | Europe  hospital | Start: 1997  Followup NR | Total: 8121  CKD: 1805 | ACS NR | Combined CKD, stage 1, stage 2, stage 3, stage 4, dialysis  CKD-EPI formula | Type I Diabetics, pregnancy, failure to sign consent form, no baseline troponin information. |
| Scott, 2003106 | Prospective | Europe  dialysis centers | Study date NR  Mean followup:  1 year | 71 | ACS NR | Dialysis  GFR equation NR | Other exclusions NR |
| Sharma, 2005107 | Prospective | Europe  outpatient; hospital | Study date NR  Mean followup: 1.32 years | 118 | No ACS | Dialysis, stage 5, pre-dialysis  GFR equation NR | Age < 18, severe aortic stenosis, unstable angina, inability to consent |
| Sharma, 2006108 | Prospective | Europe  hospital | Start: 2002  End: 2003  Mean followup: 2.25 years | 114 | No ACS | Dialysis, renal transplant candidates  Cockcroft-Gault formula | Age < 18, severe aortic stenosis, unstable angina, inability to consent, unstable angina |
| Sharma, 2006109 | Prospective | Europe  outpatient; hospital | Study date NR  Followup NR | 126 | No ACS | Dialysis, stage 5, pre-dialysis,  Cockcroft-Gault formula | Age < 18, severe aortic stenosis, unstable angina |
| Shroff, 2012110 | Retrospective | United States  hospital | Start: 2005  End: 2007  Mean followup:  1 year | 376 | ACS NR | Dialysis, kidney transplant  GFR equation NR | Other exclusions NR |
| Sommerer, 2007111 | Prospective | Germany  outpatient; chronic dialysis center | Start: 2001  End: 2003  Maximum followup:  36 months | 134 | No ACS | Dialysis  GFR equation NR | Age < 18, on hemodialysis < 6 months, < 3 hemodialysis sessions for four hours per week, acute infections, malignancy, acute myocardial ischemia, cardiomyopathy, and amyloidosis |
| Stolear, 1999112 | Prospective | Europe  in-hospital dialysis unit | Study date NR  Mean followup: 12 months | 94 | No ACS | Dialysis  GFR equation NR | Other exclusions NR |
| Sukonthasarn, 2007113 | Cross-sectional | Thailand  hospital | Start: 2005  End: 2006  Mean followup: NR | 53 | Patients with ACS included  other dx: European Society of Cardiology AMI definition  Cardiologist adjudication NR  Adjudicator NS  Definition: Adjudication definition NR | Dialysis  GFR equation NR | Patients with suspected ACS do not match symptoms of AMI, pulmonary embolism, muscle diseases, acute stroke, renal dysfunction less than 3 months, recent ACS other than at admission |
| Svensson, 2009114 | Post hoc | Europe  dialysis | Study date NR  Mean followup:  2 years | 206 | ACS NR | Dialysis  GFR equation NR | Other exclusions NR |
| Trape, 2008115 | Prospective | Europe  hospital | Start: 2002  End: 2004  Mean followup:  3 years | 52 | ACS NR | Dialysis, ESRD    GFR equation NR | Dialysis less than three months. |
| Troyanov, 2005116 | Prospective | Canada  hospital | Start: 2001  End: 2001  Mean followup:  3 years | 101 | No ACS | Dialysis  GFR equation NR | Patients with angina within previous 14 days of admission or dx of ACS within previous 4 weeks, pericarditis, documented left ventricular ejection fraction <25%, pulmonary embolism 14 days prior |
| Van Lente, 1999117 | Prospective | United States  emergency dept | Start: 1995  End: 1997  Maximum followup:  6 months | Total: 153  CKD:  51 | Patients with ACS included  other dx: not specified  Cardiologist adjudication NR  single adjudicator  Definition: WHO criteria of at least 2 of the following: chest pain c/w cardiac origin, ECG changes or changes in CK and CK-MB | Dialysis | Cardiopulmonary resuscitation within 7 days of presentation, angiography or thrombolytic therapy within 3 weeks of presentation, those given vasopressors |
| Vichairuangthum, 2006118 | Prospective | Thailand  hospital; dialysis center | Study date NR  Mean followup: 18 months | 63 | No ACS | Dialysis  GFR equation NR | ACS within 3 mos., chronic stable angina pectoris, chest pain in peridialysis period or 4 weeks before enrollment, recent major CV surgery, significant EEG changes suggestive of myocardial ischemia, refusal to participate |
| Wang, 2006119 | Prospective | Hong Kong  outpatient; | Study date NR  Mean followup:  3 years | 222 | No ACS | Dialysis    GFR equation NR | Acute heart failure, underlying malignancy, chronic liver disease, SLE, rheumatic HD, congenital HD, those on automated PD, those with incomplete data |
| Wang, 2007120 | Prospective | China  hospital; dialysis center | Start: 1999  End: 2000  Mean followup:  3 years | 238 | No ACS | Dialysis, ESRD  GFR equation NR | ACS, malignancy, chronic liver disease, systemic lupus erhthematosus, chronic rheumatic heart disease, congenital heart disease, refusal to give consent |
| Wang, 2010121 | Prospective | Hong Kong  outpatient; outpatient dialysis center | Start: 1999  End: 2005  Maximum followup:  5 years | 230 | No ACS | Dialysis  Residual GFR calculated as average of 24 hour urine area and creatinine clearances | Underlying malignancy, COPD, chronic rheumatic heart disease, congenital heart disease |
| Wang, 2010122 | Prospective | China  dialysis center | Start: 1999  End: 2005  Mean followup:  5 years | 230 | ACS NR | Dialysis, ESRD  GFR equation NR | Underlying malignancy, COPD, chronic rheumatic heart disease, congenital heart disease, refusal to provide consent |
| Wayand, 2000123 | Prospective | Europe  dialysis center | Study date NR  Mean followup:  2 years | 59 | Patients with ACS included  Cardiologist adjudication NR  Adjudicator NS  Definition: Adjudication definition NR | Dialysis, ESRD    GFR equation NR | Other exclusions NR |
| Wolley, 2013124 | Prospective | New Zealand  dialysis center | Start: 2011  End: 2011  Mean followup:  6 months | 238 | No ACS  Cardiologist NR  Adjudicator NS  Definition: Adjudication definition NR | Dialysis  GFR equation NR | Other exclusions NR |
| Wood, 2003125 | Prospective | Europe  outpatient | Study date NR  Mean followup:  2 years | 96 | ACS NR | Stage 5, dialysis, advanced Renal Impairment, planning to receive dialysis  GFR equation NR | Acute Renal Failure, acute on CRF |
| Yakupoglu, 2002126 | Prospective | Turkey  outpatient; dialysis center | Study date NR  Mean followup: 48 months | 38 | ACS NR | Dialysis  GFR equation NR | Other exclusions NR |

ACS=acute coronary syndrome; AMI=acute myocardial infarction; ARF=acute renal failure; BMI=body mass index; CABG=coronary artery bypass graft; CAD=coronary artery disease; CK=creatine kinase; CKD=chronic kidney disease; COPD=chronic obstructive pulmonary disease; CRF=chronic renal failure; cTnI=cardiac troponin I; cTnT=cardian troponin T; CV=cardiovascular; CXR=chest xray; CysC=cystatin C ECG=electrocardiography; dx=disease; ED=emergency department; EEG=electroencephalography; EF=ejection fraction; ESC/ACC= European Society of Cardiology/American College of Cardiology; ESRD=end stage renal disease; eGFR=estimated glomerular filteration rate; GP=glycoprotein; HD=hemodialysis; HF=heart failure; HIV=human immunodeficiency syndrome; ICU=intensive care unit; IM=internal medicine; MDRD=modification of diet in renal disease; mg/dL=milligrams per deciliter; MI=myocardial infarction; ml/min=milliliters per minute; mos=months; NR=not reported; NS=not specified; PCI=percutaneous coronary intervention; PD=peritoneal dialysis; PVD=peripheral vascular disease; RF=renal failure; SLE=systemic lupus erythematosus; STEMI=ST elevation myocardial infarction; WHO=world health organization