**Evidence Table I-11. Summary of studies comparing diuretics versus other interventions for the prevention of contrast-induced nephropathy and other outcomes**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Comparison** | **N** | **Population** | **Age, Range of means**§ | **Mean followup** | **Procedure** | **CM** | **Definition of CIN\*** | **Study limitations†** |
| Marenzi, 2012[47](#_ENREF_47) | Normal saline vs.  Normal saline + furosemide  (furosemide bolus up to 50mg) | 170 | Inclusion eGFR <60 ml/min/1.73 m2  CKD stages 3-4  NYHA < IV | 61-90 | 72 hours | Urgent or elective coronary angiography w/ or w/o PCI | LOCM Iomeprol | A3 | M |
| Pakfetrat, 2009[53](#_ENREF_53) | Normal saline vs.  bicarbonate vs.  Normal saline + acetazolamide | 286 | All patients undergoing coronary intervention | 46–68 | 48 hours | Coronary angiography w/ or w/o PCI | IOCM Iodixanol | Rifle criteria | M |
| Solomon, 1994[60](#_ENREF_60) | 0.45% saline vs.  0.45% saline + furosemide vs.  0.45% saline + mannitol (furosemide infusion up to 80mg) | 78 | Cr >1.6 mg/dl/ eGFR <60 ml/min/1.73 m2 | 50-78 | 48 hours | Coronary angiography | LOCM Iopentol | A2 | L |

CKD=Chronic Kidney Disease; CIM=Contrast induced nephropathy; CM=Contrast media; Cr=creatinine; CrCl=Creatinine Clearance; eGFR=estimated glomular filtration rate; HOCM=high-osmolar contrast media; IOCM=iso-osmolar contrast media; LOCM=low-osmolar contrast media; NYHA=New York health association; PCI=Percutaneous coronary intervention; RCT=Randomized Controlled Trial

\* CIN definitions: rise in serum creatinine relative to baseline: ≥25% (A1); ≥0.5 mg/dl (A2); ≥25% or ≥0.5 mg/dl (A3); ≥50% (A4), B: >25% reduction in creatinine clearance

† Study limitations: L=low risk of bias; M=moderate risk of bias; H=high risk of bias

‡RIFLE criteria: (at 48 hours), Scr increase x 1.5 or GFR decrease > 25% from baseline + urine output <5ml/kg/h x 6h

§ Some studies only reported mean age per arm, not one mean for whole population. This column shows range of the means across all arms.