**Evidence Table I-14. Summary of the outcomes of studies comparing vasoactive agents versus other interventions for the prevention of contrast-induced nephropathy and other outcomes**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Author, year** | **Comparison** | **Incidence of CIN n/N (%)\*** | **Length of hospitalization , mean days** | **Mortality n/N (%)** | **Need for RRT n/N (%)** |
| Allaqaband, 2002[5](#_ENREF_5) | Arm 1: 0.45% saline  Arm 2: 0.45% saline + fenoldopam  Arm 3: 0.45% saline + NAC | Overall (N=20)  Arm1: 15.3%  Arm2: 15.7%  Arm3: 17.7%  P=0.919  CIN in diabetes (Y/N)  Arm1: 3/3  Arm2: 5/3  Arm3: 4/2  P=0.813 | NR | NR | 2 of the 20 patients developing CIN required HD (not reported by group) |
| Briguori, 2004[10](#_ENREF_10) | Arm 1: 0.45% saline + fenoldopam  Arm 2: 0.45% saline + NAC | Overall  Arm1: 13/95 (13.7%)  Arm2: 4/97 (4.1%)  P=0.019, OR=0.27 (0.08-0.85)  CIN in diabetic patients  Arm1: 5/11 (45%)  Arm2: 1/9 (11%)  P=0.095  CIN in patients with Cr >2.5  Arm1: 27/135 (20%)  Arm2: 11/140 (7.9%)  P=0.005 | Length of hospitalization  Arm1: 5.0 +/- 10  Arm2: 2.9 +/- 2.7  P=0.049 | Arm1: 1 (1.1%)  Arm2: 0 (-) | Arm1: 1 (1.1%)  Arm2: 0 (-) |
| Demir, 2008[16](#_ENREF_16) | Arm 1: Normal saline vs.  Arm 2: Normal saline + nifedipine  Arm 3: Normal saline + NAC  Arm 4: Normal saline + misoprostol  Arm 5: Normal saline + theophylline | Arm1: 0/20 (-)  Arm2: 0/17 (-)  Arm3: 1/20 (5%)  Arm4: 0/20 (-)  Arm5: 4/20 (20% | No difference in length of hospitalization | NR | Arm1: 0  Arm2: 0  Arm3: 0  Arm4: 0  Arm5: 0 |
| Gunebakmaz, 2012[21](#_ENREF_21) | Arm 1: Normal saline vs.  Arm 2: Normal saline+ nevibolol  Arm 3: Normal saline + NAC | Arm1: 11 (27.5%)  Arm2: 8 (20%)  Arm3: 9 (22.5%  P=0.72 | NR | NR | NR |
| Li, 2011[39](#_ENREF_39) | Arm 1: Normal saline  Arm 2: Normal saline+ benazepril | Arm1: 9.7%  Arm2: 3.5%  P=0.506 | NR | NR | NR |

**Evidence Table I-14. Summary of the outcomes of studies comparing vasoactive agents versus other interventions for the prevention of contrast-induced nephropathy and other outcomes (continued)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Author, year** | **Comparison** | **Incidence of CIN n/N (%)\*** | **Length of hospitalization , mean days** | **Mortality n/N (%)** | **Need for RRT n/N (%)** |
| Li, 2014 [40](#_ENREF_40) | Arm1: IV Normal Saline  Arm2: IV Normal Saline + IV Prostaglandin E1 | At 3 days  Arm1: 9/81 (11.1)  Arm2: 3/82 (3.7)  p<0.05  OR: 0.387 (95% CI: 0.212-0.787)  p=0.013 | NR | NR | NR |
| Liu, 2013[41](#_ENREF_41) | Arm1: Statin  Arm2: Statin + Alprostadil | At 48 hours  Arm1: 6/80 (7.5)  Arm2: 5/76 (6.6)  p=NS | NR | NR | NR |
| Ng, 2006[50](#_ENREF_50) | Arm 1: Normal saline + fenoldopam  Arm 2: Normal saline + NAC | Overall  Arm1: 8/40 (20%)  Arm2: 5/44 (11.4%)  P=0.4  No association after adjusting for diabetes, CHF and gender P=0.3 | Length of hospitalization + 4 days in CIN patients | NR | NR |
| Oguzhan, 2013[51](#_ENREF_51) | Arm 1: Normal saline  Arm 2: Normal saline + amlodipin-valsartan | Arm1: 3 (6.7%)  Arm2: 8 (17.8%)  P=0.197 | NR | NR | 0  0 |
| Talati, 2012[62](#_ENREF_62) | Arm 1: Intra renal fenoldopam +hydration (not specified)  Arm 2: matched control (NAC) + hydration (not specified) | Arm1: 6/52 (11.5%)  Arm: 16/52 (30%)  P=0.012  RR 0.38 95%CI 0.16-0.88) | Length of hospitalization in CIN patients  Arm1: 5.7 +/- 4.6  Arm2: 8.1 +/- 6.1  P=0.39 | Arm1: 0  Arm2: 1  P=0.52 | Arm1: 0  Arm2: 3  P=0.52 |
| Wolak, 2013[65](#_ENREF_65) | Arm1: Continued ACE/ARB  Arm2: Short delay ACE/ARB  Arm3: Long delay ACE/ARB | NR | NR | NR | NR |

CHF=congestive heart failure; CI=confidence interval; CIN=contrast induced nephropathy; Cr=creatinine; HD=hemodialysis; NAC=n-acetylcysteine; RRT=renal replacement therapy

\*n/N; number of events/population at risk (patients in arm)