**Evidence Table E-13. Summary of other outcomes reported in studies comparing IV sodium bicarbonate and IV saline for the prevention of contrast-induced nephropathy**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Author, year** | **Comparison** |  **Mortality, n/N (%)\*** | **Need for RRT,** **n/N (%)** | **Length of hospital stay, mean days (SD)** | **Cardiac events, n/N (%)** |
| Beyazal, 2014[15](#_ENREF_15) | NR | NR | NR | NR | NR |
| Boucek, 2013[19](#_ENREF_19) | Arm 1: 5.85 % Normal saline Arm 2: NaHCO3 | At 1 monthArm1: 0/59 (0)Arm2: 0/61 (0)P=NR | Post-procedure within 1 monthArm1: 0/59 (0)Arm2: 0/61 (0)P=NRAfter 1 monthArm1: 2/59 (3.39)Arm2: 1/61 (1.64)P=NR | Duration of hospitalizationArm1: 8.4 (12.9)Arm2: 8.0 (10.0)P=NR | NR |
| Brar, 2008[20](#_ENREF_20) | Arm1: IV normal salineArm 2: NaHCO3 | At 6 monthsArm1: 7/165 (3.9)Arm2: 4/158 (2.3)P=0.54 | At 1 monthArm1: 2/165(2)Arm2: 1/158 (1)P=NRAt 6 monthsArm1: 4/165 (2)Arm2: 2/158 (1)P=NR | NR | NR |
| Castini, 2010[28](#_ENREF_28) | Arm1: IV normal salineArm 2: NaHCO3 + dextrose | NR | NR | NR | NR |
| Gomes, 2012[40](#_ENREF_40) | Arm1: IV normal salineArm 2: NaHCO3 + dextrose | In-hospital mortality, short-term at 48 hoursArm1: 5/151 (3.4)Arm2: 7/150 (4.7)P=0.81 | At 48 hoursArm1: 0/151 (0)Arm2: 0/150 (0)P=NR | Arm1: 8.6 (9.7)Arm2: 7.5 (10)P=0.35 | NR |
| Kama, 2014[54](#_ENREF_54) | Arm1: IV Normal SalineArm2: IV NAC in Normal SalineArm3: IV NaHCO3 in Normal Saline | NR | Need for RRT1 monthArm1: 0 (0)Arm2: 3 (803)Arm3: 2 (5.6)p=NR | NR | NR |
| Koc, 2013[64](#_ENREF_64) | Arm1: IV normal salineArm 2: NaHCO3 | NR | NR | NR | NR |
| Kooiman, 2014[65](#_ENREF_65) | Arm1: IV Normal SalineArm2: IV NaHCO3 + IV Normal Saline | NR | NR | NR | Acute Heart Failure at 48-96 hoursArm1: 6/281 (2.1)Arm2: 0/267 (0)p=0.03 |

**Evidence Table E-13. Summary of other outcomes reported in studies comparing IV sodium bicarbonate and IV saline for the prevention of contrast-induced nephropathy (continued)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Author, year** | **Comparison** |  **Mortality, n/N (%)\*** | **Need for RRT,** **n/N (%)** | **Length of hospital stay, mean days (SD)** | **Cardiac events, n/N (%)** |
| Lee, 2011[69](#_ENREF_69) | Arm1: IV normal salineArm 2: NaHCO3 | All-cause at 1 monthArm1: 0/189 (0)Arm2: 1/193 (0.5)P=1.0At 1-6 monthsArm1: 2/189 (1.1)Arm2: 5/193 (2.6)P=0.45Cumulative at 6 monthsArm1: 2/189 (1.1)Arm2: 6/193 (3.1)P=0.45 | At 1 monthArm1: 1/189 (0.5)Arm2: 1/193 (0.5)P=1.0At 1-6 monthArm1: 0/189(0)Arm2: 3/193 (1.6)P=0.25At 6 monthsArm1: 1/189 (0.5)Arm2: 4/193 (2.1)P=0.37 | NR | Myocardial infarction at 1 monthArm1: 0/189 (0)Arm2: 0/1193 (0)P=NRAt 1-6 monthArm1: 0/189 (0)Arm2: 0/1193 (0)P=NRAt 6 monthsArm1: 0/189 (0)Arm2: 0/193 (0)P=NR |
| Manari, 2014[76](#_ENREF_76) | Arm1: IV Normal SalineArm2: High dose IV Normal SalineArm3: IV NaHCO3 Arm4: High dose IV NaHCO3 | NR | Timepoint: NRArm1: 0/151 (0)Arm2: 0/142 (0)Arm3: 0/145 (0)Arm4: 0/154 (0)p=NR | NR | NR |
| Masuda, 2007[80](#_ENREF_80) | Arm 1: Normal saline Arm 2: IV NaHCO3 | At 48 hoursArm1: 2/29 (7)Arm2: 0/30 (0)P=0.24 | Time point: NRArm1: 3/29 (10)Arm2: 1/30 (3)P=0.35 | NR | NR |
| Merten, 2004[82](#_ENREF_82) | Arm 1: Normal saline + dextrose Arm 2: IV NaHCO3 + dextrose | NR | NR | NR | NR |
| Motohiro, 2011[84](#_ENREF_84) | Arm 1: IV normal saline Arm 2: IV NaHCO3 + IV normal saline | NR | Time point: NRArm1: 0/77 (0)Arm2: 0/78 (0)P=NR | NR | NR |
| Ozcan, 2007[87](#_ENREF_87) | Arm 1: Normal saline Arm 2: Normal saline + NACArm 2: IV NaHCO3 + dextrose | NR | At 48 hoursArm1: 1/88 (1)Arm2: 0/88 (0)Arm3: 1/88 (1)P=NR | NR | Congestive heart failureat 48 hoursArm1: 0/88Arm2: 0/88Arm3: 0/88P=NR |
| Ratcliffe, 2009 [93](#_ENREF_93) | Arm 1: Normal saline + dextrose Arm 2: IV NaHCO3 + dextrose | NR | NR | NR | NR |

**Evidence Table E-13. Summary of other outcomes reported in studies comparing IV sodium bicarbonate and IV saline for the prevention of contrast-induced nephropathy (continued)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Author, year** | **Comparison** |  **Mortality, n/N (%)\*** | **Need for RRT,** **n/N (%)** | **Length of hospital stay, mean days (SD)** | **Cardiac events, n/N (%)** |
| Tamura, 2009[124](#_ENREF_124) | Arm1: IV Normal SalineArm2: IV Normal Saline+ NaCHO3 | NR | Need for DialysisAt 7 daysArm1:1/72 (1.3)Arm2:0/72 (0)p=0.99 | NR | NR |
| Thayssen, 2014[107](#_ENREF_107) | Arm1: IV Normal Saline Arm2: IV Normal Saline + oral NAC Arm3: IV Normal Saline + IV NaHCO3 Arm4: IV Normal Saline + oral NAC + IV NaHCO3 | NR | 30 DaysArm1: 0/181 (0)Arm2: 0/176 (0)Arm3: 0/181 (0)Arm3: 0/177 (0)p=NR | NR | Cardiac major events, composite (cardiac death, myocardial infarction, target vessel revascularization)Arm1: 4/181 (2.2)Arm2: 0/176 (0)Arm3: 6/181 (3.6)Arm3: 3/177 (1.7)p=0.13 |
| Ueda, 2011[111](#_ENREF_111) | Arm 1: Normal saline Arm 2: IV NaHCO3 | Time point: NRArm1: 3/29(10)Arm2: 2/30P=NR | NR | Time point: NRArm1: 22.8 (17.9)Arm2: 21.4 (19.6)P=0.78 | NR |
| Vasheghani, 2009[125](#_ENREF_125) | Arm 1: IV normal saline Arm 2: IV NaHCO3 + IV normal saline | NR | NR | NR | NR |
| Vasheghani-Farahani, 2010[112](#_ENREF_112) | Arm 1: 0.45% saline Arm 2: IV NaHCO3 + 0.45% saline | NR | NR | NR | NR |
| Yeganehkhah, 2014[117](#_ENREF_117) | Arm 1: IV NSArm 2: IV NaHCO3 + IV NS | NR | NR | NR | NR |

%=percent; N=sample; NaCl=sodium chloride; NaHCO3=sodium bicarbonate; NR=not reported; NS=normal saline; P=p-value; RRT=renal replacement therapy; SD=standard deviation;