**Evidence Table E-6. Changes in serum creatinine outcomes in studies comparing of N-acetylcysteine versus placebo or usual care**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author year** | **Measure** | **SG** | **Interven-tions** | **Arm** | **Base-line N anal-yzed** | **Mean base-line value (SD)** | **Time point 1** | **Time point 1 N anal-yzed** | **Mean (SD)** | **Comp-arison\* statistics at time point 1** | **Time point 2** | **Time point 2 N anal-yzed** | **Mean (SD)** | **Comp-arison statistics at time point 2** | **Time Point 3** | **Time point 3, N analyzed** | **Mean (SD)** | **Comp-arison statistics at time point 3** |
| Buyukhatipoglu, 2010[25](#_ENREF_25) | Change in serum creatinine, regression analysis | Contrast amount | Control | 1 |  |  | 24 hours |  |  | Beta coefficient: 0.213, p=0.712  T-test: 0.371 |  |  |  |  |  |  |  |  |
| Buyukhatipoglu, 2010[25](#_ENREF_25) | Change in serum creatinine, regression analysis | Contrast amount | NAC + saline | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Buyukhatipoglu, 2010[25](#_ENREF_25) | Change in serum creatinine, regression analysis | NAC use | Control | 1 |  |  | 24 hours |  |  | Beta-coefficient: 0.305, p=0.068  t-test: 1.877 |  |  |  |  |  |  |  |  |
| Buyukhatipoglu, 2010[25](#_ENREF_25) | Change in serum creatinine, regression analysis | NAC use | NAC + saline | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heng, 2008[122](#_ENREF_122) | Change in serum creatinine, umol/l, from baseline |  | Placebo | 1 |  |  | 2 days | 32 | -3 (28) | p=0.84 |  |  |  |  |  |  |  |  |
| Heng, 2008[122](#_ENREF_122) | Change in serum creatinine, umol/l, from baseline |  | NAC | 2 |  |  |  | 28 | -2 (25) |  |  |  |  |  |  |  |  |  |

**Evidence Table E-6. Changes in serum creatinine outcomes in studies comparing of N-acetylcysteine versus placebo or usual care (continued)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author year** | **Measure** | **SG** | **Interven-tions** | **Arm** | **Base-line N anal-yzed** | **Mean base-line value (SD)** | **Time point 1** | **Time point 1 N anal-yzed** | **Mean (SD)** | **Comp-arison\* statistics at time point 1** | **Time point 2** | **Time point 2 N anal-yzed** | **Mean (SD)** | **Comp-arison statistics at time point 2** | **Time Point 3** | **Time point 3, N analyzed** | **Mean (SD)** | **Comp-arison statistics at time point 3** |
| Kumar, 2014[67](#_ENREF_67) | Change in serum creatinine levels |  | IV NS | 1 | 90 |  | 1-3 days | 90 | Iohexanol: 0.15 (0.06)  Iodixanol: 0.18 (0.01) |  | 3-5 days | 90 | Iohexanol: -0.22 (0.10)  Iodixanol: -0.10 (0.02) |  |  |  |  |  |
| Kumar, 2014[67](#_ENREF_67) | Change in serum creatinine levels |  | Oral NAC + IV NS | 2 | 90 |  |  | 90 | Iohexanol: -0.10 (0.06)  Iodixanol: 0.09 (0.01) | P=0.01 |  | 90 | Iohexanol: --0.12 (0.06)  Iodixanol: -0.08 (0.01) | P=0.01 |  |  |  |  |
| Sar, 2010[99](#_ENREF_99) | mg/dL |  | Saline | 1 | 20 | 0.81 (0.17) | 48 hours | 20 | 0.94 (0.16) | p=0.03 |  |  |  |  |  |  |  |  |
| Sar, 2010[99](#_ENREF_99) | mg/dL |  | Saline + NAC | 2 | 25 | 0.83 (0.15) |  | 25 | 0.79 (0.21) |  |  |  |  |  |  |  |  |  |
| Staniloae, 2009[123](#_ENREF_123) |  |  | no NAC | 1 | 246 | 1.47 (0.36) | 48-72 hours | 246 | 1.57 (0.44) | p=0.12 |  |  |  |  |  |  |  |  |
| Staniloae, 2009[123](#_ENREF_123) |  |  | NAC | 2 | 168 | 1.43 (0.40) |  | 168 | 1.51 (0.42) |  |  |  |  |  |  |  |  |  |

**Evidence Table E-6. Changes in serum creatinine outcomes in studies comparing of N-acetylcysteine versus placebo or usual care (continued)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author year** | **Measure** | **SG** | **Interven-tions** | **Arm** | **Base-line N anal-yzed** | **Mean base-line value (SD)** | **Time point 1** | **Time point 1 N anal-yzed** | **Mean (SD)** | **Comp-arison\* statistics at time point 1** | **Time point 2** | **Time point 2 N anal-yzed** | **Mean (SD)** | **Comp-arison statistics at time point 2** | **Time Point 3** | **Time point 3, N analyzed** | **Mean (SD)** | **Comp-arison statistics at time point 3** |
| Traub, 2013[110](#_ENREF_110) | Change in SCr |  | IV Normal Saline | 1 |  |  | 48-72 hours | 172 | -0.025 (0.227)  Median: 0 (Range: -1.0-1.3) | Mean Difference: 0.025 (95% CI: -0.025-0.075)  p=NR |  |  |  |  |  |  |  |  |
| Traub, 2013[110](#_ENREF_110) | Change in SCr |  | IV NAC | 2 |  |  |  | 185 | -0.05 (0.252)  Median: 0 (Range: -1.1-1.7) |  |  |  |  |  |  |  |  |  |
| Traub, 2013[110](#_ENREF_110) | Percentage change |  | IV Normal Saline | 1 |  |  | 48-72 hours | 172 | -1.3 (19.8)  (-58.9 to 81.3) | Mean difference: 1.5 (95% CI: -3.0-6.0)  p=NR |  |  |  |  |  |  |  |  |
| Traub, 2013[110](#_ENREF_110) | Percentage change |  | IV NAC | 2 |  |  |  | 185 | -2.7 (23.4)  (-61.1 to 154.5) |  |  |  |  |  |  |  |  |  |

**Evidence Table E-6. Changes in serum creatinine outcomes in studies comparing of N-acetylcysteine versus placebo or usual care (continued)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author year** | **Measure** | **SG** | **Interven-tions** | **Arm** | **Base-line N anal-yzed** | **Mean base-line value (SD)** | **Time point 1** | **Time point 1 N anal-yzed** | **Mean (SD)** | **Comp-arison\* statistics at time point 1** | **Time point 2** | **Time point 2 N anal-yzed** | **Mean (SD)** | **Comp-arison statistics at time point 2** | **Time Point 3** | **Time point 3, N analyzed** | **Mean (SD)** | **Comp-arison statistics at time point 3** |
| Wang, 2008[114](#_ENREF_114) | Serum creatinine levels at baseline and follow-up |  | Saline | 1 | 23 | 1.18 (0.50) | 24 hours | 23 | 1.09 (0.50) | p=0.27 |  |  |  |  |  |  |  |  |
| Wang, 2008[114](#_ENREF_114) | Serum creatinine levels at baseline and follow-up |  | Saline + NAC | 2 | 23 | 1.48 (0.81) |  | 23 | 1.30 (0.74) |  |  |  |  |  |  |  |  |  |
| Yeganehkhah, 2014[117](#_ENREF_117) | Serum Creatinine levels |  | IV NS | 1 | 50 | 1.08 (0.32) | 48 | 50 | 1.13 (0.28) | 0.039 |  |  |  |  |  |  |  |  |
| Yeganehkhah, 2014[117](#_ENREF_117) | Serum Creatinine levels |  | Oral NAC + IV NS | 2 | 50 | 1.17(0.43) |  | 50 | 1.11 (0.35) | 0.195 |  |  |  |  |  |  |  |  |

CI=confidence interval; H=hours; Hrs=hours; IQR=interquartile range; IV=intravenous; LVEF=left ventricular ejection fraction; Mg/dl=milligram per deciliter; Mg=milligram; Ml=milliliter; N=sample size; NAC=N-acetylcysteine; NR=not reported; NS=non-significant; NS=non-significant; P=p-value; SCr=serum creatinine; SG=subgroups; Umol/l=micromole per liter; V=versus; Yrs=years;