# Supplementary Material

| Study or Subgroup | Bicarbonate Mean | SD | Total | Control Mean | SD | Total | Weight | Mean Difference IV, Random, 95% CI | Year |
|---|---|---|---|---|---|---|---|---|---|
| Mathur 2006 | 2.86 | 1.21 | 20 | 3.62 | 1.18 | 20 | 7.7% | -0.76 [-1.50, -0.02] | 2006 |
| Mahajan 2010 | 1.06 | 0.05 | 37 | 1.12 | 0.1 | 34 | 47.9% | -0.06 [-0.10, -0.02] | 2010 |
| Jeong 2014 | 1.4 | 1.73 | 37 | 1.4 | 1.47 | 36 | 7.8% | 0.00 [-0.74, 0.74] | 2014 |
| Dubey 2018 | 2.3 | 0.74 | 88 | 2.6 | 0.49 | 89 | 36.5% | -0.30 [-0.49, -0.11] | 2018 |
| **Total (95% CI)** | | | 182 | | | 179 | 100.0% | -0.20 [-0.42, 0.03] | |

Heterogeneity: Tau² = 0.03; Chi² = 9.57, df = 3 (P = 0.02); I² = 69%
Test for overall effect: Z = 1.72 (P = 0.09)

Favours [bicarbonate]  Favours [control]
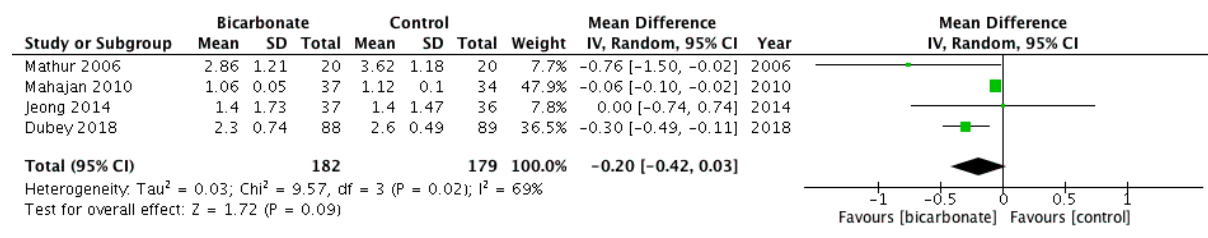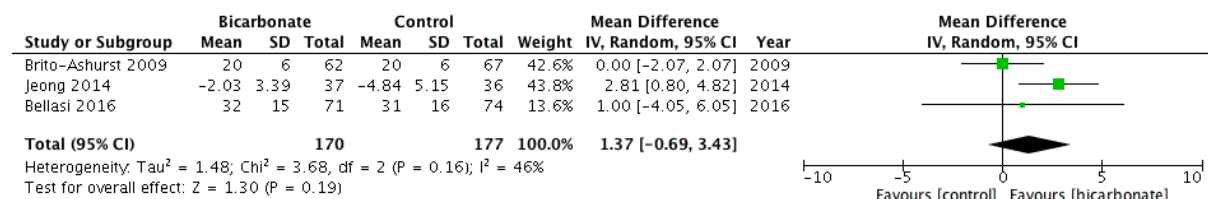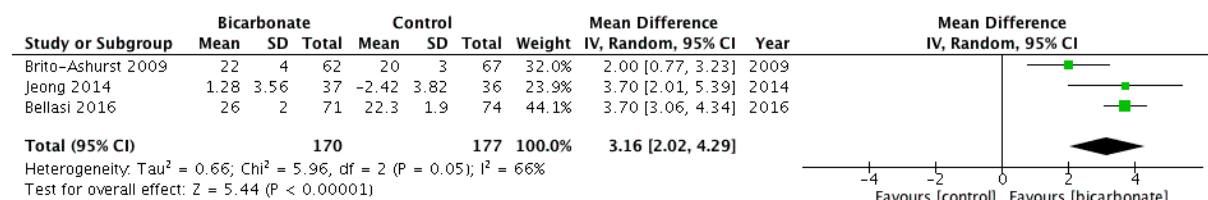
**Supplementary Figure S1.** Forest plot comparing the effects of oral bicarbonate therapy and control on serum creatinine levels.

| Study or Subgroup | Bicarbonate Mean | SD | Total | Control Mean | SD | Total | Weight | Mean Difference IV, Random, 95% CI | Year |
|---|---|---|---|---|---|---|---|---|---|
| Brito–Ashurst 2009 | 20 | 6 | 62 | 20 | 6 | 67 | 42.6% | 0.00 [-2.07, 2.07] | 2009 |
| Jeong 2014 | -2.03 | 3.39 | 37 | -4.84 | 5.15 | 36 | 43.8% | 2.81 [0.80, 4.82] | 2014 |
| Bellasi 2016 | 32 | 15 | 71 | 31 | 16 | 74 | 13.6% | 1.00 [-4.05, 6.05] | 2016 |
| **Total (95% CI)** | | | 170 | | | 177 | 100.0% | 1.37 [-0.69, 3.43] | |

Heterogeneity: Tau² = 1.48; Chi² = 3.68, df = 2 (P = 0.16); I² = 46%
Test for overall effect: Z = 1.30 (P = 0.19)

Favours [control]  Favours [bicarbonate]

**Supplementary Figure S2.** Forest plot comparing the effects of oral bicarbonate therapy and control on eGFR at one year.

| Study or Subgroup | Bicarbonate Mean | SD | Total | Control Mean | SD | Total | Weight | Mean Difference IV, Random, 95% CI | Year |
|---|---|---|---|---|---|---|---|---|---|
| Brito–Ashurst 2009 | 22 | 4 | 62 | 20 | 3 | 67 | 32.0% | 2.00 [0.77, 3.23] | 2009 |
| Jeong 2014 | 1.28 | 3.56 | 37 | -2.42 | 3.82 | 36 | 23.9% | 3.70 [2.01, 5.39] | 2014 |
| Bellasi 2016 | 26 | 2 | 71 | 22.3 | 1.9 | 74 | 44.1% | 3.70 [3.06, 4.34] | 2016 |
| **Total (95% CI)** | | | 170 | | | 177 | 100.0% | 3.16 [2.02, 4.29] | |

Heterogeneity: Tau² = 0.66; Chi² = 5.96, df = 2 (P = 0.05); I² = 66%
Test for overall effect: Z = 5.44 (P < 0.00001)

Favours [control]  Favours [bicarbonate]

**Supplementary Figure S3.** Forest plot comparing the effects of oral bicarbonate therapy and control on serum bicarbonate levels at one year.