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| **Table 1: Sensitivity analyses for pain reactivity – Random effects MTC estimate of effect versus topical anesthetic** | | | | | | | | | | | | | | |
| Analysis | DIC | SD | β | TA +  sweet mult | TA + phys | TA + sweet | Placebo | TA + ebm mult | TA + acetaminophen | TA + WFDRI | TA + N20 + sweet | Sweet alone | Sweet repeated | Sweet + singing |
| Consistency vs inconsistency model | | | | | | | | | | | | | | |
| Random effect Consistency | 76.5 | 1.62 | NA | -3.41  (-5.25 to -1.45) | -1.83  (-3.94 to 0.32) | -2.16  (-3.65 to -0.43) | 2.21  (-0.77 to 5.15) | -2.43  (-5.05 to 0.26) | -0.63  (-2.96 to 1.79) | -0.22  (-3.8 to 3.28) | -2.05  (-6.05 to 2.14) | -1.29  (-5.11 to 2.53) | -0.16  (-4.96 to 4.5) | 0.04  (-4.85 to 4.9) |
| Random effect Inconsistency | 76.7 | 1.62 | NA | -2.64  (-4.78 to -0.34) | -3.08  (-6.96 to 0.95) | -2.22  (-3.77 to -0.46) | -2.19  (-0.67 to 5.05) | -2.58  (-6.17 to 1.01) | -1.38  (-3.87 to 1.07) | -0.21  (3.68 to 3.25) | - | -1.31  (-4.98 to 2.49) | - | - |
| Sensitivity analyses with removal of | | | | | | | | | | | |  |  |  |
| Imputed means | - a | 1.67 | - | -4.23  (-6.79 to -1.74) | -2.75  (-5.66 to 0.05) | -2.66  (-4.8 to -0.4) | 2.19  (-0.9 to 5.17) | -2.58  (-6.45 to 1.22) | 0.2  (-3.33 to 3.71) | -0.19  (-4.01 to 3.58) | -2.57  (-7.09 to 2.13) | -1.29  (-5.25 to 2.72) | - | - |
| Scaled scores | - a | 1.67 | - | -3.41  (-5.24 to -1.45) | -1.83  (-3.94 to 0.32) | -2.16  (-3.65 to -0.43) | 2.21  (-0.77 to 5.15) | -2.43  (-5.05 to 0.26) | -0.63  (-2.96 to 1.79) | -0.22  (-3.8 to 3.28) | -2.05  (-6.05 to 2.14) | -1.29  (-5.11 to 2.53) | -0.16  (-4.96 to 4.5) | -0.04  (-4.85 to 4.9) |
| Posters | - a | 1.67 | - | -3.33  (-5.28 to -1.29) | -1.98  (-4.21 to 0.32) | -2.16  (-3.76 to -0.34) | 2.21  (-0.9 to 5.18) | -2.44  (-5.11 to 0.29) | -0.61  (-3.05 to 1.89) | -0.21  (-3.84 to 3.47) | -2.06  (-6.25 to 2.31) | -1.29  (-5.25 to 2.74) | - | - |
| Sensitivity analysis with | | | | | | | | | | | | | | |
| Informative priors on sigmab | 79.4 | 1.6 | - | -3.32  (-5.1 to -1.51) | -1.76  (-3.75 to 0.19) | -2.17  (-3.67 to -0.51) | 2.15  (-0.82 to 5.14) | -2.37  (-4.87 to 0.13) | -0.62  (-2.86 to 1.71) | -0.2  (-3.55 to 3.14) | -2.06  (-5.92 to 2) | -1.29  (-4.97 to 2.36) | -0.25  (-4.91 to 4.38) | -0.04  (4.77 to 4.66) |
| Weakly informative priors on effects | 77 | 1.59 | - | -2.96  (-4.58 to -1.16) | -1.38  (-3.22 to 0.6) | -1.93  (-3.36 to -0.28) | 1.91  (-3.36 to -0.28) | -1.96  (-4.22 to 0.48) | -0.51  (-2.64 to 1.72) | -0.16  (-3.17 to 2.87) | -1.45  (-4.75 to 2.1) | -1.03  (-4.21 to 2.28) | -0.36  (-3.92 to 3.17) | -0.19  (-3.75 to 3.39) |
| Meta-regression on high risk of bias | 76.5 | 1.68 | 0.36 | -3.66  (-5.91 to -1.24) | -2.09  (-4.59 to 0.5) | -2.34  (-4.18 to -0.24) | 2.22  (-0.87 to 5.15) | -2.55  (-5.35 to 0.31) | -0.88  (-3.68 to 2.05) | -0.57  (-4.69 to 3.58) | -2.25  (-6.53 to 2.26) | -1.29  (-5.2 to 2.67) | -0.2  (-5.31 to 4.72) | -0.04  (-5.03 to 4.96) |
| Meta-regression on control risk | 109.5 | 1.6 | -0.35 | -3.18  (-4.99 to -1.27) | -1.55  (-3.57 to 0.58) | -2.12  (-3.69 to -0.49) | 1.44  (-1.64 to 4.54) | -1.87  (-4.56 to 0.77) | -0.34  (-2.7 to 2.04) | 0.63  (-3 to 4.32) | -2.03  (-6.11 to 2.18) | -0.35  (-4.21 to 3.52) | -0.97  (-5.77 to 3.88) | -0.79  (-5.67 to 4.01) |
| TA = topical anesthetic  SD = Between trial standard deviation  DIC = Deviance information criteria (lower is better)  a: DIC not meaningful when studies removed  b: half normal(0,2)  c: normal(0,3.5) | | | | | | | | | | | | | | |