**Melatonin is a feasible, safe and acceptable intervention in doctors and nurses working nightshifts: the MIDNIGHT trial**

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**Supplementary data: Biochemistry and haematology results**

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| --- | --- | --- | --- | --- | --- | --- |
|  | Placebo | Melatonin | Treatment*P* value | Time*P* value | Period*P* value | Sequence*P* value |
|  | Start | End | Start | End |
| Na+ (mmol/L) | 141.0(1.7) | 141.5 (1.6) | 141.4 (1.9) | 141.3 (1.4) | 0.75 | 0.40 | 0.85 | 0.68 |
| K+ (mmol/L) | 3.73 (0.28) | 3.73 (0.29) | 3.67 (0.31) | 3.70 (0.29) | 0.50 | 0.70 | 0.01 | 0.79 |
| Cl- (mmol/L) | 104.8 (2.2) | 105.8 (2.2) | 104.4(2.9) | 105.7 (2.53) | 0.46 | 0.013 | 0.57 | 0.86 |
| Urea (mmol/L) | 4.22 (0.99) | 4.21 (1.05) | 4.32 (1.08) | 4.30 (1.05) | 0.52 | 0.94 | 0.049 | 0.88 |
| Creatinine (µmol/L) | 68.8 (12.1) | 66.7 (10.2) | 67.8 (10.9) | 66.6 (12.2) | 0.92 | 0.43 | 0.0056 | 0.91 |
| Albumin (g/L) | 43.4 (3.0) | 43.2 (2.3) | 43.4 (3.2) | 42.3(3.7) | 0.71 | 0.33 | 0.16 | 0.71 |
| Bilirubin (µmol/L) | 11.2 (5.2) | 12.3 (6.0) | 10.2 (4.5) | 10.7 (3.9) | 0.059 | 0.28 | 0.0074 | 0.90 |
| ALP (IU/L) | 68.4 (15.5) | 67.0 (17.4) | 67.8 (15.0) | 66.5 (15.4) | 0.75 | 0.55 | 0.0001 | 0.68 |
| ALT (IU/L) | 15.0 [11.0-33.0] | 13.5 [11.3-28.0] | 17.0 [12.5-31.5] | 18.5 [11.0-34.8] | 0.48 | 0.66 | 0.21 | 0.75 |
| γGT (iu L-1) | 16.0 [12.5-23.0] | 15.0 [12.0-20.8] | 17.0 [11.0-23.5] | 14.5 [10.3-23.8] | 0.85 | 0.99 | 0.18 | 0.66 |
| Hb (g/L) | 139.0 (11.5) | 134.7 (10.5) | 138.8 (13.1) | 134.3 (12.14) | 0.84 | 0.042 | 0.60 | 0.84 |
| WCC (x109/L) | 7.12 (1.59) | 6.07 (1.48) | 7.01 (1.77) | 5.85 (1.52) | 0.46 | 0.0001 | 0.15 | 0.70 |

Data are mean (SD) or median [interquartiles]. Alkaline phosphatase (ALP), alanine transaminase (ALT); γ-glutamyl transferase (γGT), haemoglobin (Hb), leucocyte count (WCC).