Supplementary Material

Melatonin Prescription in Children and Adolescents in Relation to Body Weight and Age

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Supplementary tables

Table S1. Linear regression models for prediction of dose and dose per kg

Covariates First prescription (n=1007)	Age		Weight	
Dose	BETA	R^2	BETA	R^2
- Base model	0.03	0.001	-	-
- Adjusted model 1	0.03	0.002	-	-
- Adjusted model 2	0.03	0.002	-	-
- Adjusted model 3	0.02	0.003	-	-
- Base model	-	-	0.05	0.003
- Adjusted model 1	-	-	0.05	0.003
- Adjusted model 2	-	-	0.05	0.003
- Adjusted model 3	-	-	0.05	0.004
- Adjusted model 4	-0.03	-	0.07	0.005
Dose per kg				
- Base model	-0.42	0.18	-	-
- Adjusted model 1	-0.43	0.18	-	-
- Adjusted model 2	-0.43	0.18	-	-
- Adjusted model 3	-0.44	0.18	-	-
- Base model	-	-	-0.45	0.20
- Adjusted model 1	-	-	-0.45	0.20
- Adjusted model 2	-	-	-0.45	0.20
- Adjusted model 3	-	-	-0.45	0.20
- Adjusted model 4	-0.19	-	-0.31	0.22
Iterated prescription (n=547)				
Dose				
- Base model	-0.12	0.01	-	-
- Adjusted model 1	-0.12	0.01	-	-
- Adjusted model 2	-0.12	0.03	-	-
- Adjusted model 3	-0.13	0.04	-	-
- Base model	-	-	-0.08	0.006
- Adjusted model 1	-	-	-0.08	0.006
- Adjusted model 2	-	-	-0.07	0.02
- Adjusted model 3	-	-	-0.08	0.03
- Adjusted model 4	-0.16	-	0.05	0.04
Dose per kg				
- Base model	-0.44	0.20	-	-
- Adjusted model 1	-0.45	0.20	-	-
- Adjusted model 2	-0.46	0.23	-	-
- Adjusted model 3	-0.47	0.24	-	-
- Base model	-	-	-0.44	0.19
- Adjusted model 1	-	-	-0.44	0.19
- Adjusted model 2	-	-	-0.44	0.21
- Adjusted model 3	-	-	-0.44	0.23
- Adjusted model 4	-0.29		-0.22	0.26

Linear regression model for dose and dose per kg, for first and iterated prescriptions, respectively. Base model includes either weight or age, and adjusted models include the subsequent addition of 1) sex, 2) sex and neuropsychiatric disorders, 3) sex, neuropsychiatric disorders and psychiatric comorbidity. In model 4, sex, neuropsychiatric disorders and psychiatric comorbidity are added together with both age and weight. The upper panels are the first prescriptions, the lower panels for iterated prescriptions. The data are standardized BETA and variance (R^2).

Table S2. Dosing of melatonin according to body weight in individuals with obesity

	Individuals without obesity (=normal weight and overweight)		Individuals with obesity	
	Girls (n=534) Mean (SD)	Boys (n=898) Mean (SD)	Girls (n=44) Mean (SD)	Boys (n=75) Mean (SD)
Age	12.6 (3.4)	11.1 (3.4)	11.9 (3.5)	11.4 (3.4)
Height (m)	1.51 (0.2)	1.49 (0.2)	1.51 (0.2)	1.55 (0.2)
Weight (kg)	45.3 (15.7)	42.6 (17.6)	67.7 (20.7)	71.9 (26.7)
Ideal body weight (kg)	NA	NA	41	44
Maximum dose (mg)	3.81 (2.7)	3.90 (2.5)	4.07 (2.3)	4.35 (2.8)
Dose per kg (mg/kg)	0.10 (0.11)	0.11 (0.11)	0.07 (0.06)	0.07 (0.05)
Dose per ideal body weight (mg/kg)	NA	NA	0.10	0.11

Descriptive data for the individuals in the cohort categorized according to sex and obesity. The ideal body weight was estimated based on Swedish reference growth charts [22]. We used the Moore method [21]to calculate the ideal body weight for an average girl and boy according to mean in age and height (41 kg for a girl of 12 years and 1.51 m and 44 kg for a boy of 11 years and 1.55 m). The dose and dose per weight did not differ statistically (p>0.05) between girls and boys with obesity.