Melatonin treatment for sleep problems in children with autism: a randomised controlled crossover trial

Submission date Recruitment status Prospectively registered 23/04/2008 No longer recruiting [] Protocol [] Statistical analysis plan Registration date Overall study status 19/06/2008 Completed [X] Results [] Individual participant data Last Edited Condition category Mental and Behavioural Disorders 27/03/2012

Plain English summary of protocol

Not provided at time of registration

Contact information

Type(s)

Scientific

Contact name

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Contact details

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Additional identifiers

Protocol serial number N/A

Study information

Scientific Title

Study objectives

Melatonin will be better than placebo at improving time-to-onset of sleep (sleep latency) and total sleep time.

Ethics approval required

Old ethics approval format

Ethics approval(s)

York Research Ethics Committee. Date of Approval: 21/01/2004 (ref: 03/12/17)

Study design

Randomised controlled crossover trial.

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Sleep disorder in autism

Interventions

This is a crossover trial, with two arms: Melatonin medication vs placebo.

Group 1: One month no medication, 3 months melatonin, 1 month washout, 3 months placebo, 1 month no medication.

Group 2: One month no medication, 3 months placebo, 1 month washout, 3 months melatonin, 1 month no medication.

Melatonin (oral) started at 2 mg 30-40 minutes before planned sleep and increased every 3 nights by 2 mg to a maximum dose of 10 mg, titrating the dose to the response. If good sleep is achieved, the dose is kept at that level.

Intervention Type

Drug

Phase

Not Specified

Drug/device/biological/vaccine name(s)

Melatonin

Primary outcome(s)

The following are recorded by the family every day from the beginning of the study for 9 months:

- 1. Sleep latency (i.e. time to onset of sleep)
- 2. Number of hours sleep per night (as recorded in daily sleep diaries)

Key secondary outcome(s))

The following are carried out at baseline and after 4, 8 and 9 months:

- 1. General Health Questionnaire
- 2. Sleep Difficulties Questionnaire (Likert scale)

Completion date

01/11/2008

Eligibility

Key inclusion criteria

- 1. Both male and female children, aged 4-10 years
- 2. Diagnosis of typical or atypical childhood autism and sleep disorder (as defined by World Health Organization ICD-10 and sub-classified using the International Classification of Sleep Disorders)

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Child

Lower age limit

4 years

Upper age limit

10 years

Sex

Not Specified

Key exclusion criteria

- 1. Children on any other medication including anti-epileptic medication
- 2. Children previously on melatonin or having any other sleep disorder treatments
- 3. Any families who do not complete sleep diaries during the one month lead-in period

Date of first enrolment

01/04/2004

Date of final enrolment

01/11/2008

Locations

Countries of recruitment

United Kingdom

England

Study participating centre Lime Trees Child York United Kingdom YO30 5RF

Sponsor information

Organisation

North Yorkshire and York Primary Care Trust (UK)

Funder(s)

Funder type

Government

Funder Name

York Innovation Research Fund from the York and Selby Research and Development Committee, Selby and York Primary Care Trust. The Committee is currently represented by the North Yorkshire Research and Development Alliance (http://www.northyorksresearch.nhs.uk) (UK)

Funder Name

London Law Trust (UK) (ref: 10/1/04)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

Output type	Details	Date created Date added	Peer reviewed?	Patient-facing?
Results article	results	01/02/2011	Yes	No
Participant information sheet	Participant information sheet	11/11/2025 11/11/2025	No	Yes