

Actigrafie bij bipolaire stoornis

Het meten van activiteit, slaap en stemming



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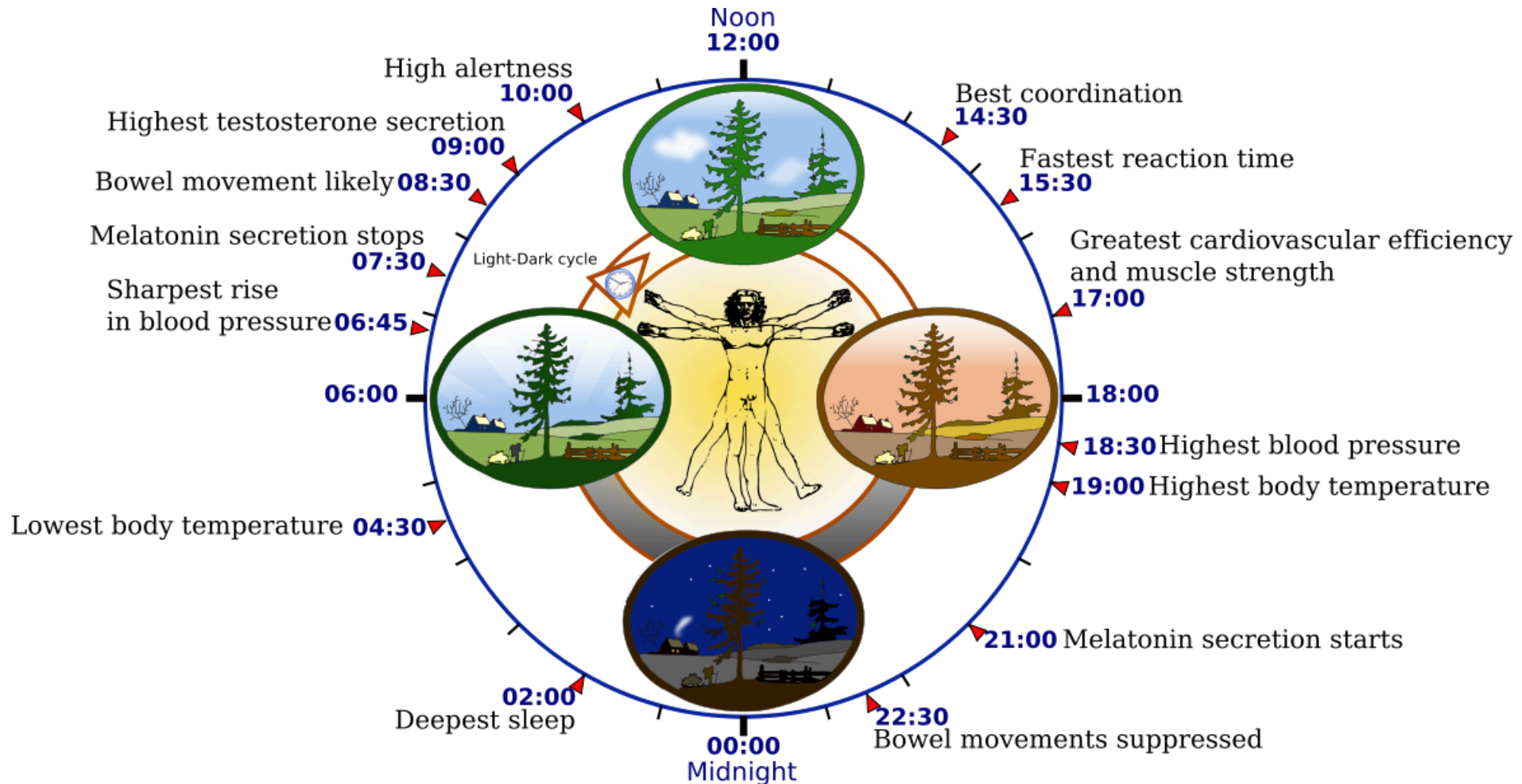
Disclosure belangenverstrengeling

- Geen disclosures te melden

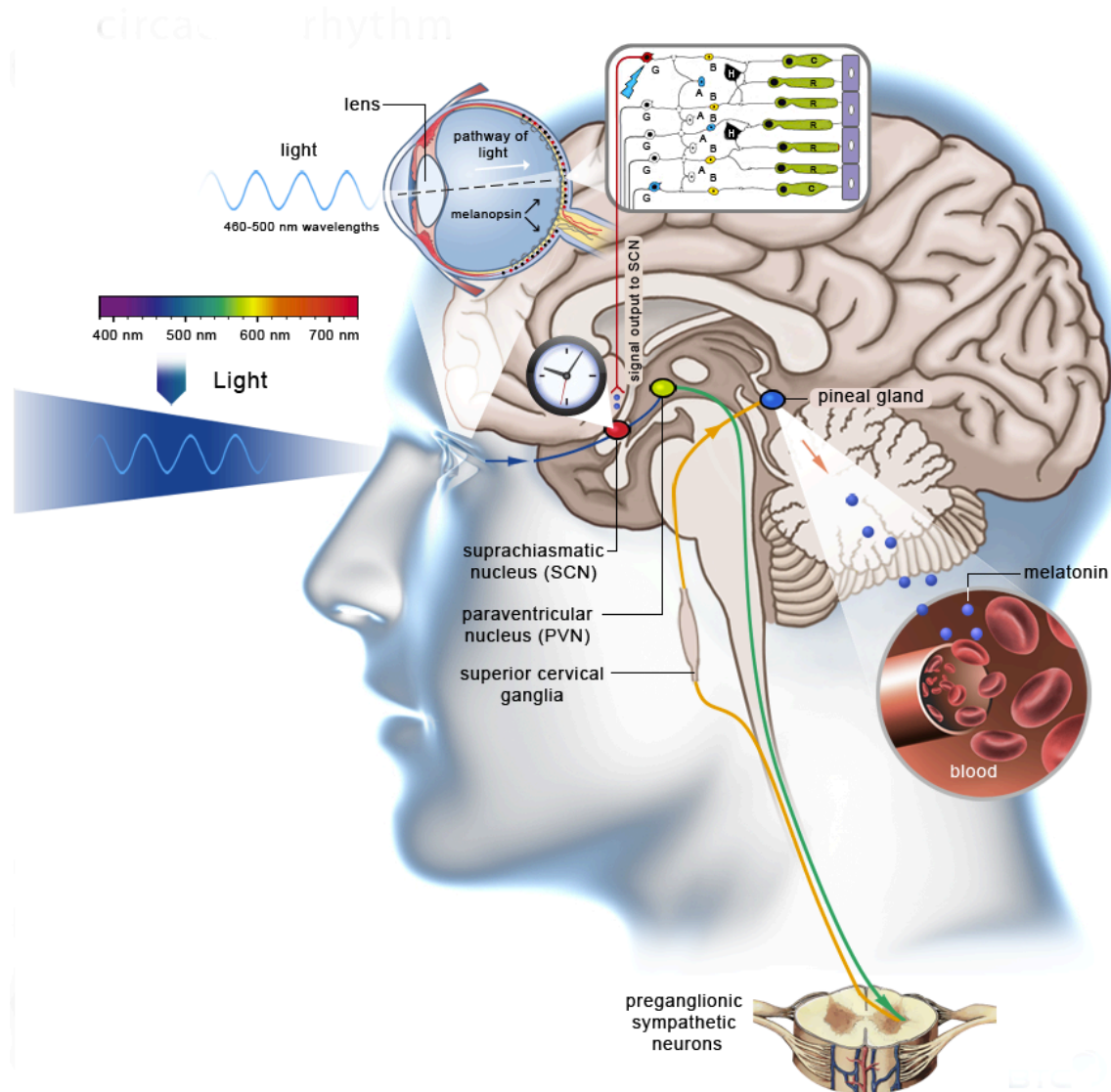
Inhoud

- De biologische klok
- De klok en de bipolaire stoornis
- Longitudinale studie naar relatie slaap-waakritme en stemmingsbeloop

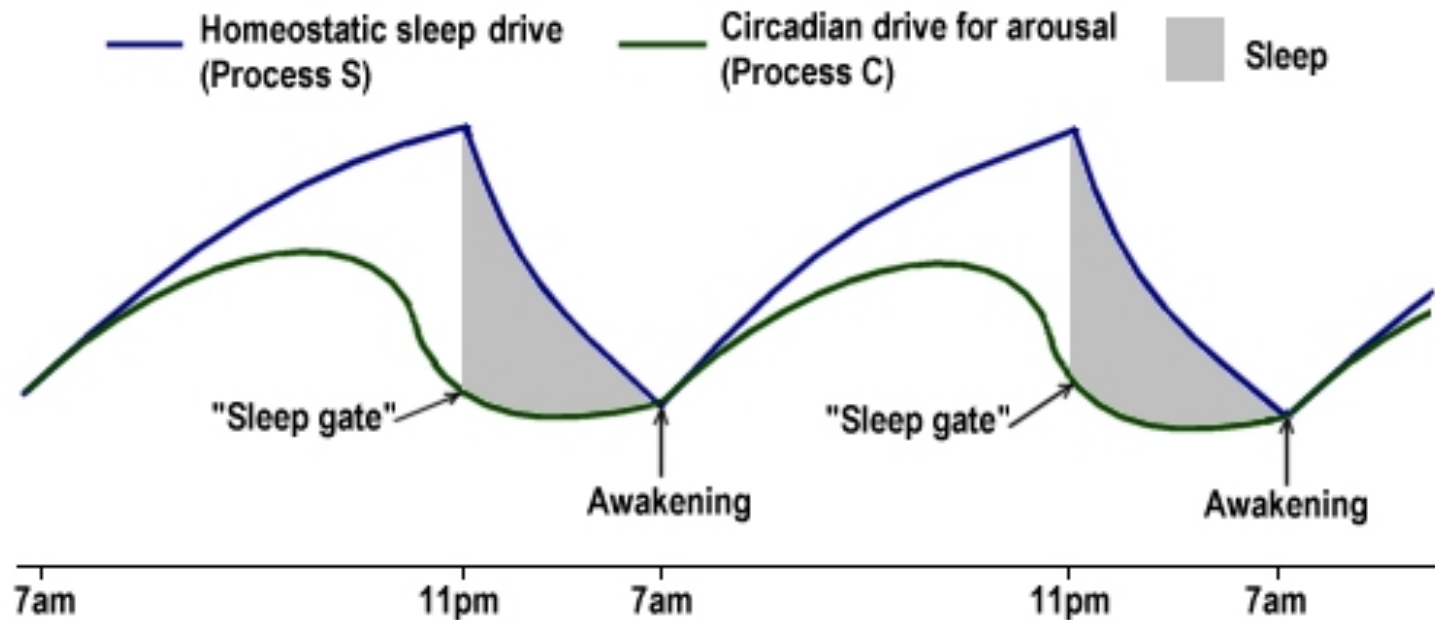
Het circadiane ritme



Licht en het biologische ritme



“Two-process model of sleep regulation”



Bipolaire stoornis

3. Bipolar Episode and Bipolar Disorder

Go to: ☒

Bipolar disorder is characterized by more than one bipolar episode. There are three types of bipolar disorder:

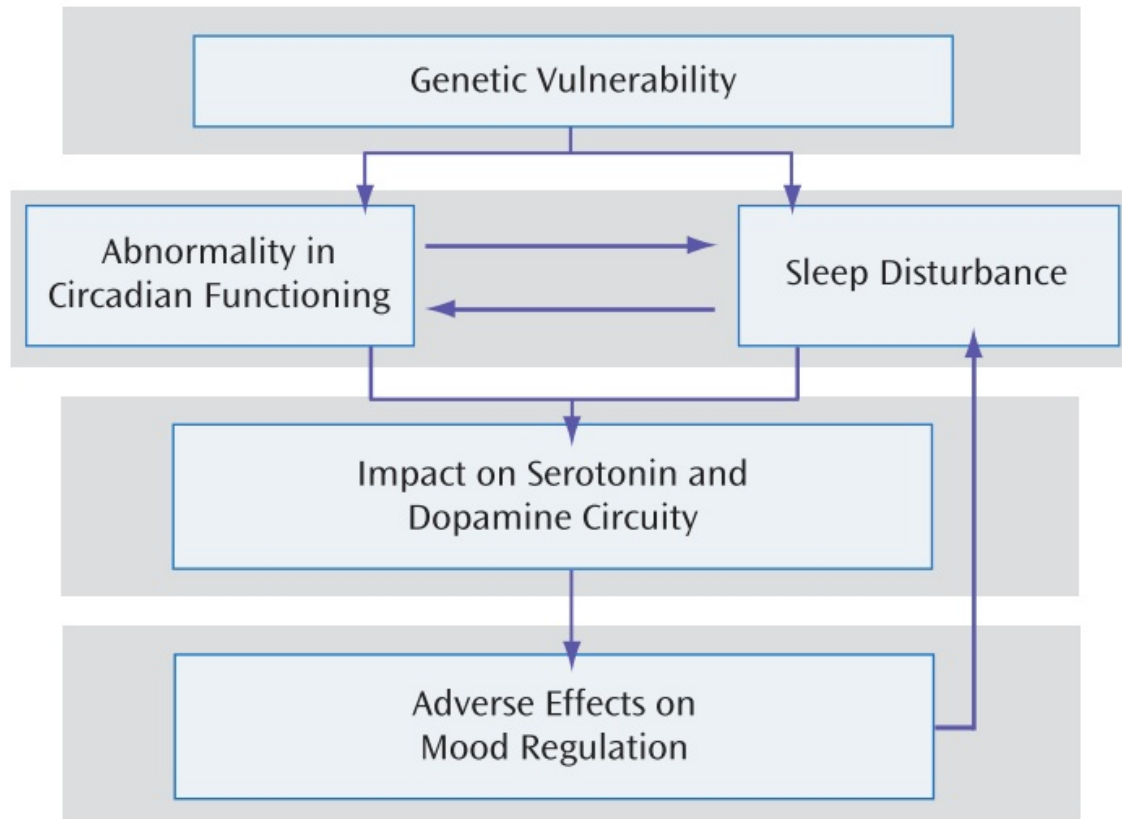
1. Bipolar 1 Disorder, in which the primary symptom presentation is manic, or rapid (daily) cycling episodes of mania and depression.
2. Bipolar 2 Disorder, in which the primary symptom presentation is recurrent depression accompanied by hypomanic episodes (a milder state of mania in which the symptoms are not severe enough to cause marked impairment in social or occupational functioning or need for hospitalization, but are sufficient to be observable by others).
3. Cyclothymic Disorder, a chronic state of cycling between hypomanic and depressive episodes that do not reach the diagnostic standard for bipolar disorder ([APA, 2000](#), pp. 388–392).

Manic episodes are characterized by:

- A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood, lasting at least 1 week (or any duration if hospitalization is necessary)
- B. During the period of mood disturbance, three (or more) of the following symptoms have persisted (4 if the mood is only irritable) and have been present to a significant degree:
 - (1) increased self-esteem or grandiosity
 - (2) decreased need for sleep (e.g., feels rested after only 3 hours of sleep)
 - (3) more talkative than usual or pressure to keep talking
 - (4) flight of ideas or subjective experience that thoughts are racing
 - (5) distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli)
 - (6) increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation
 - (7) excessive involvement in pleasurable activities that have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments)" ([APA, 2000](#), p. 362).

Depressive episodes are characterized by symptoms described above for Major Depressive Episode.

FIGURE 1. Bidirectional Relationships Between Sleep, Circadian Functioning, and Mood Regulation in Bipolar Disorder



Slaapproblemen – Tussen episodes

Gemeten:

- Meer verschillen in slaapduur
- Vaker wel of niet wakker worden 's nachts

Zelf-gerapporteerd:

- Langer wakker liggen
- Langer slapen
- Meer veranderingen tussen deze maten

Ritme veranderingen

	Bipolar (n = 19)		Control (n = 19)	
	Mean	SD	Mean	SD
<i>Circadian activity</i>				
Intradaily variability ^a	0.811	0.25	0.67	0.12
Interdaily stability ^b	0.57	0.10	0.63	0.09

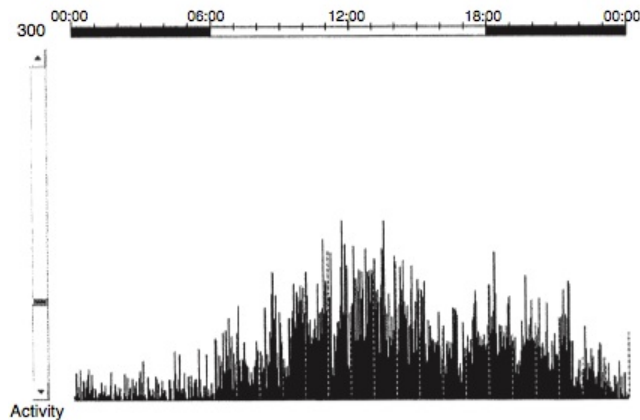
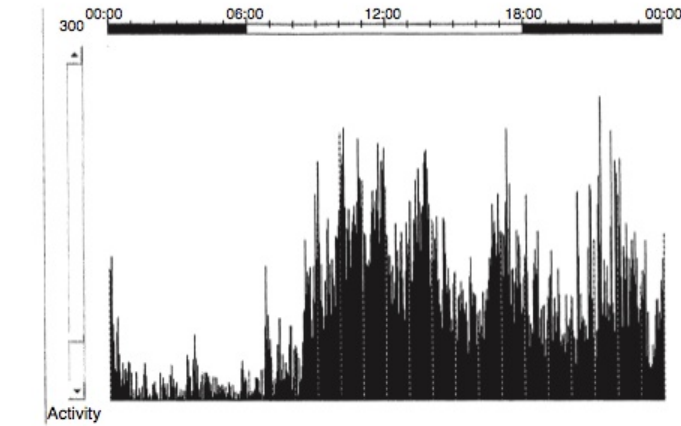
BD = bipolar; C = control

^aBD > C, $t(36) = 2.21$, $p < 0.03$

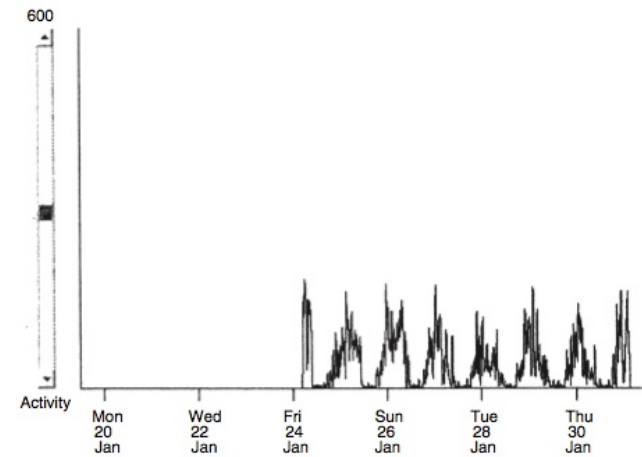
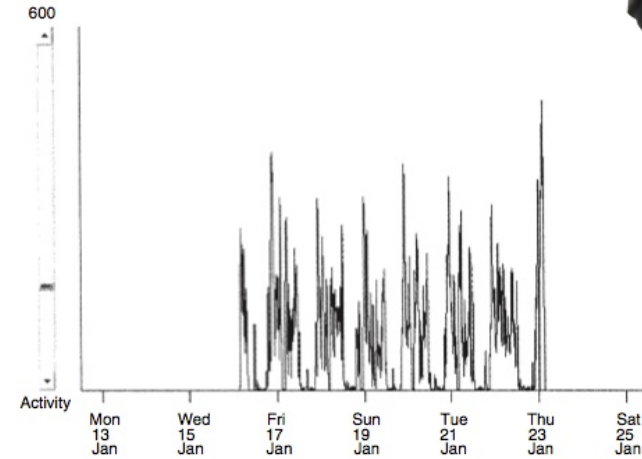
^bC > BD, $t(36) = 1.94$, $p < 0.03$

- Meer variabel binnen de dag
- Minder stabiel tussen dagen

Ritme veranderingen



IV=intradaily variability



IS=interdaily stability

BiG studie - Dutch Bipolar Cohort (DBC)

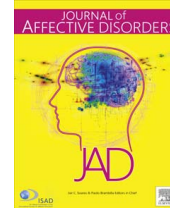
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An actigraphy study investigating sleep in bipolar I patients, unaffected siblings and controls



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107 patiënten

74 siblings

80 controles

Bevindingen:

- Langere *slaapduur* en latere *sleep-offset*
- Gerelateerd aan aanwezigheid depressieve symptomen
- Geen relatie met kenmerken ziekte beloop m.u.v.
 - Relatie WASO en suïcidaliteit

Verschillen in IV en IS worden momenteel geanalyseerd

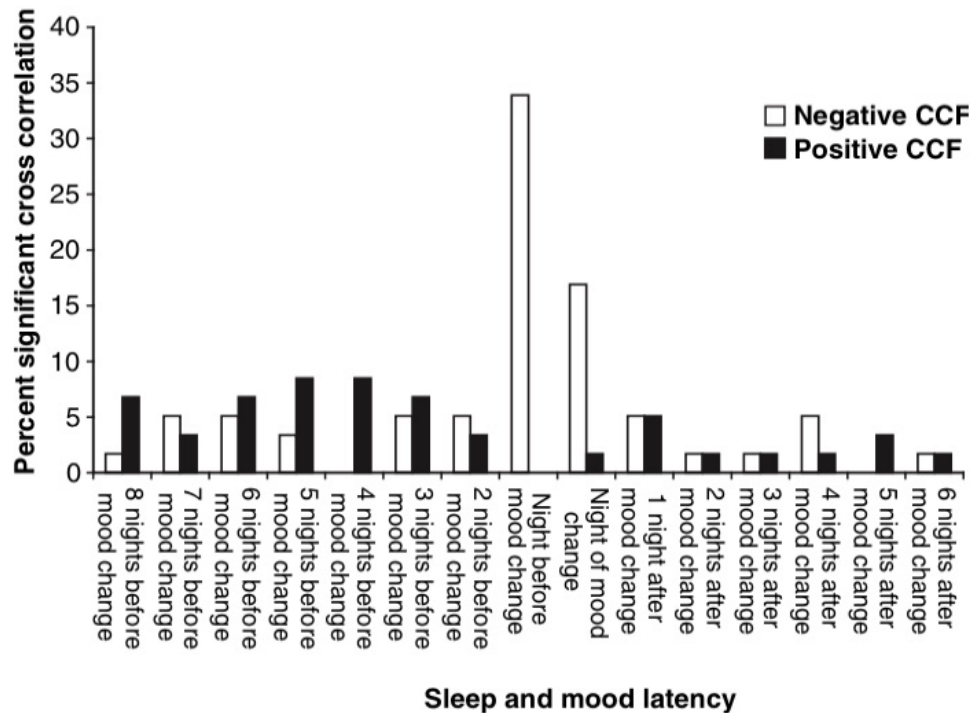
Slaapproblemen ook mogelijk voorspellend?

Table 3
Early symptoms identified in bipolar disorder

	Early symptoms	Range of sample size	% of individuals identifying this early symptom	Median (%)
Bipolar depression	Mood change	20–40	10–88	48
	Psychomotor symptoms	20–40	10–86	41
	Increased anxiety	20–40	18–59	36
	Appetite change	20–40	10–53	36
	Suicidal ideas/intent	20	29–64	29
	Sleep disturbance	20–40	17–57	24
	Other	20	14–29	22
Mania	Sleep disturbance	20–206	53–90	77
	Psychotic symptoms	20–206	7–80	47
	Mood change	20–206	14–100	43
	Psychomotor symptoms	20–206	10–100	34
	Other	20	20–35	30
	Appetite change	20–206	12–67	20
	Increased anxiety	20–40	11–20	16

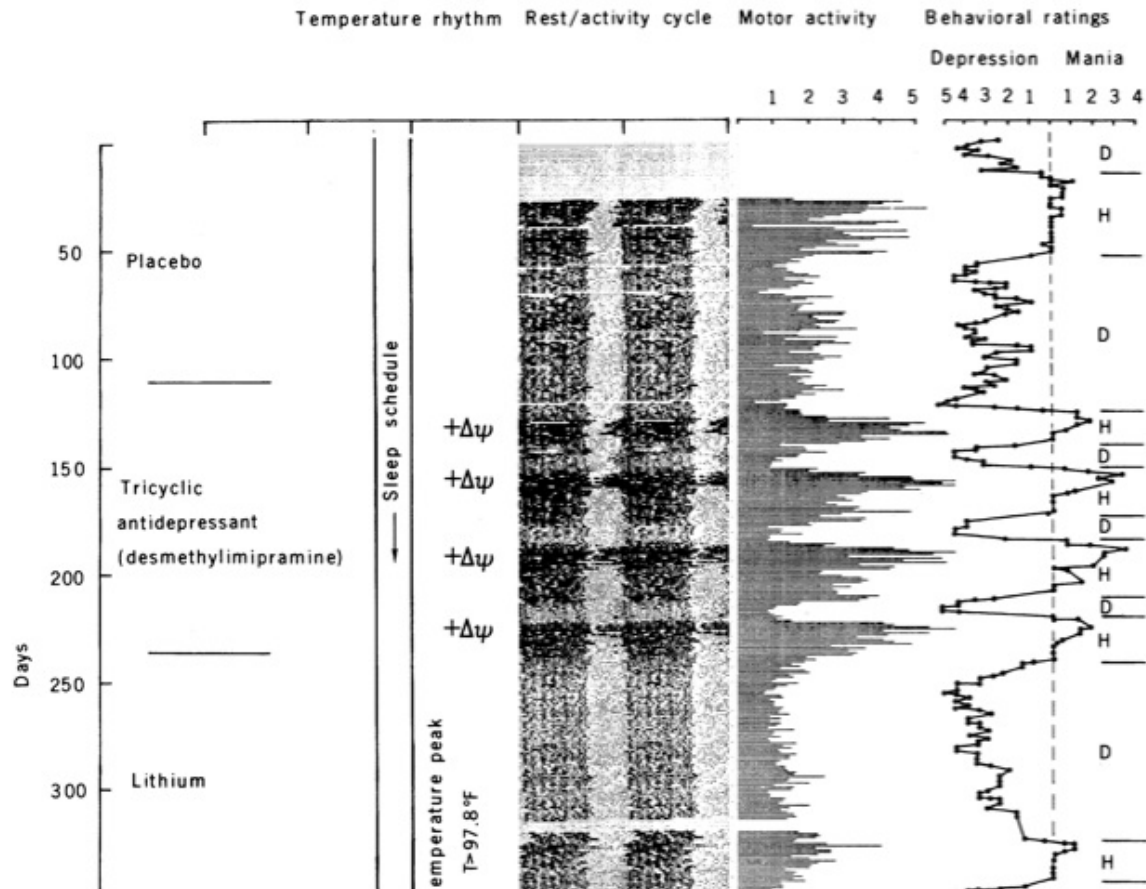
Data from Molnar et al. (1988), Sclaire and Creed (1990), Smith and Tarrier (1992), Lam and Wong (1997), Wong and Lam (1999).

Langdurig: dagboeken



- Nacht voor stemmingsverandering minder slapen!

Langdurig: gemeten

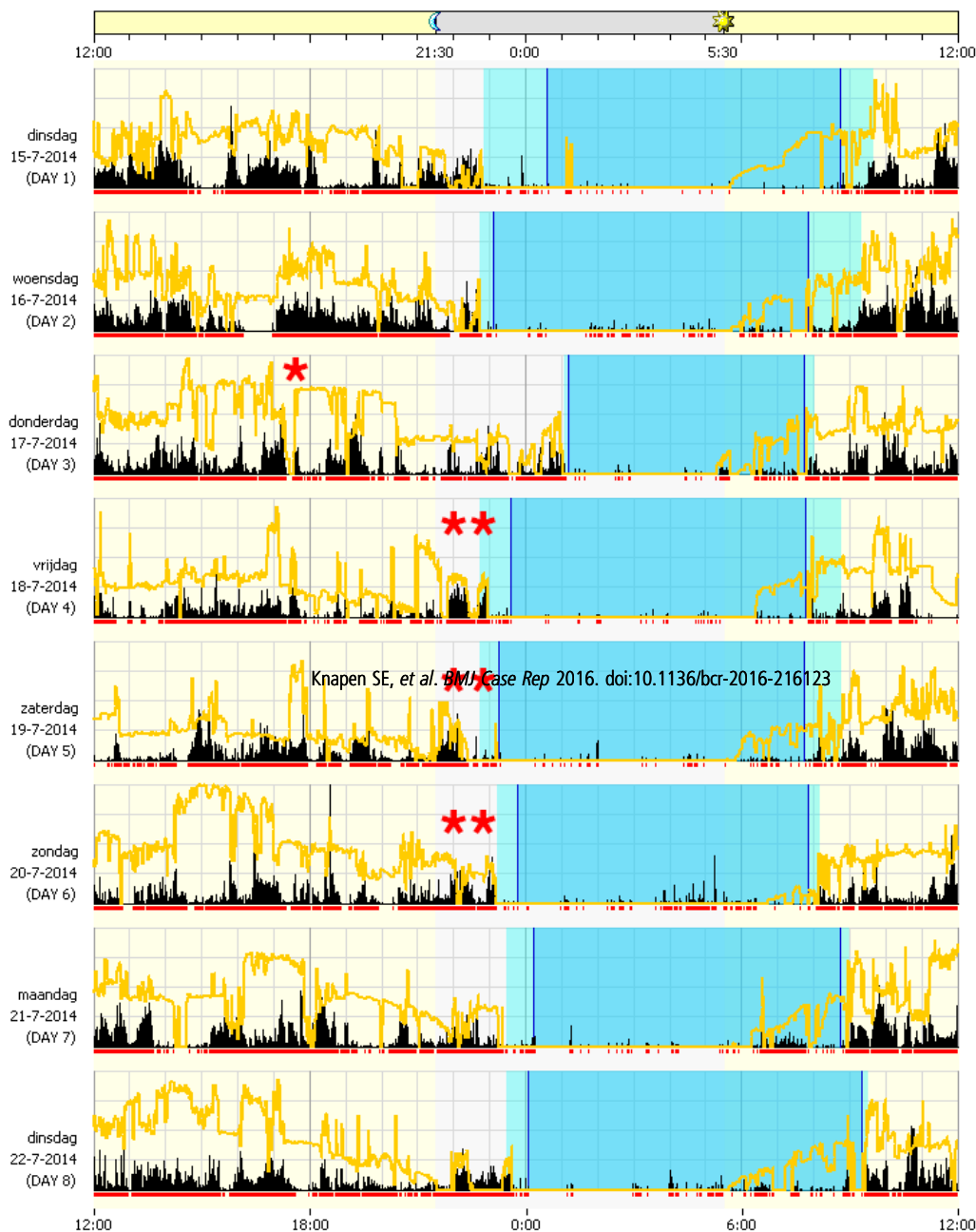


Terug naar de kliniek

- Pt D, 36j m
- Bipolaire stoornis I, sinds 2003
- Opname 2003, 19 maanden
- Maandag goed nieuws (goede sollicitatie, gezondheid goed)
- 4 nachten weinig tot geen slaap
- Vrijdag presentatie met manische klachten
- *Je holt er altijd achteraan*

- Pt H,
- Bipo
- Life €

- Adec
- 1 r



←end mee

Studie protocol

- 2x10 patiënten met bipolaire stoornis type I
- 180 dagen actigrafie (slaap en circadiaan ritme) en dagelijks lifechart en stemmingsmeting



Wat vragen we van de deelnemers:

- 5x bezoek aan UMCG
- 1^e bezoek:
 - Demografie: Leeftijd, werk, gezondheidsvragenlijst, BMI wordt berekend en roken / drugsgebruik wordt uitgevraagd.
 - MINI - diagnostiek
 - MCTQ Munich Chronotype Questionnaire.
 - SPAQ Seizoensgebonden stemmingsklachten

Wat vragen we van de deelnemers:

- Wekelijks via RoQua:
 - De IDS
 - De Altman Mania Rating Scale
 - Sociale Ritme Meter

Wat vragen we van de deelnemers:

- Dagelijks via RoQua:
 - Ochtend: Slaapdagboek
 - Avond: Lifechart, sociale ritme meter
 - Avond: VAS van stemmingskenmerken (standaard en individueel)

Wat vragen we van de deelnemers:

- 2^e bezoek na 2 weken, controle of actometer werkt en praktische kant studiebeloop
- 3^e en 4^e bezoek resp 2 en 4 maanden na de start
- 5^e bezoek 6 maanden na de start tevens einde deelname

Stand van zaken

- Eerste 10 deelnemers 5 maanden bezig
 - Geen uitval, helft heeft stemmingsepisode doorgemaakt
- Tweede groep van 10 deelnemers start in april
 - Er zijn nog enkele proefpersonen nodig!
 - Inclusie criterium: bipolaire I stoornis, 1 episode in het afgelopen jaar, gemotiveerd tot dagelijkse stemmingsmeting

Vragen?

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