Comorbid Insomnia and Obstructive Sleep Apnea (COMISA)

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Alle kennis.
Alle aandacht.

Inhoud presentatie

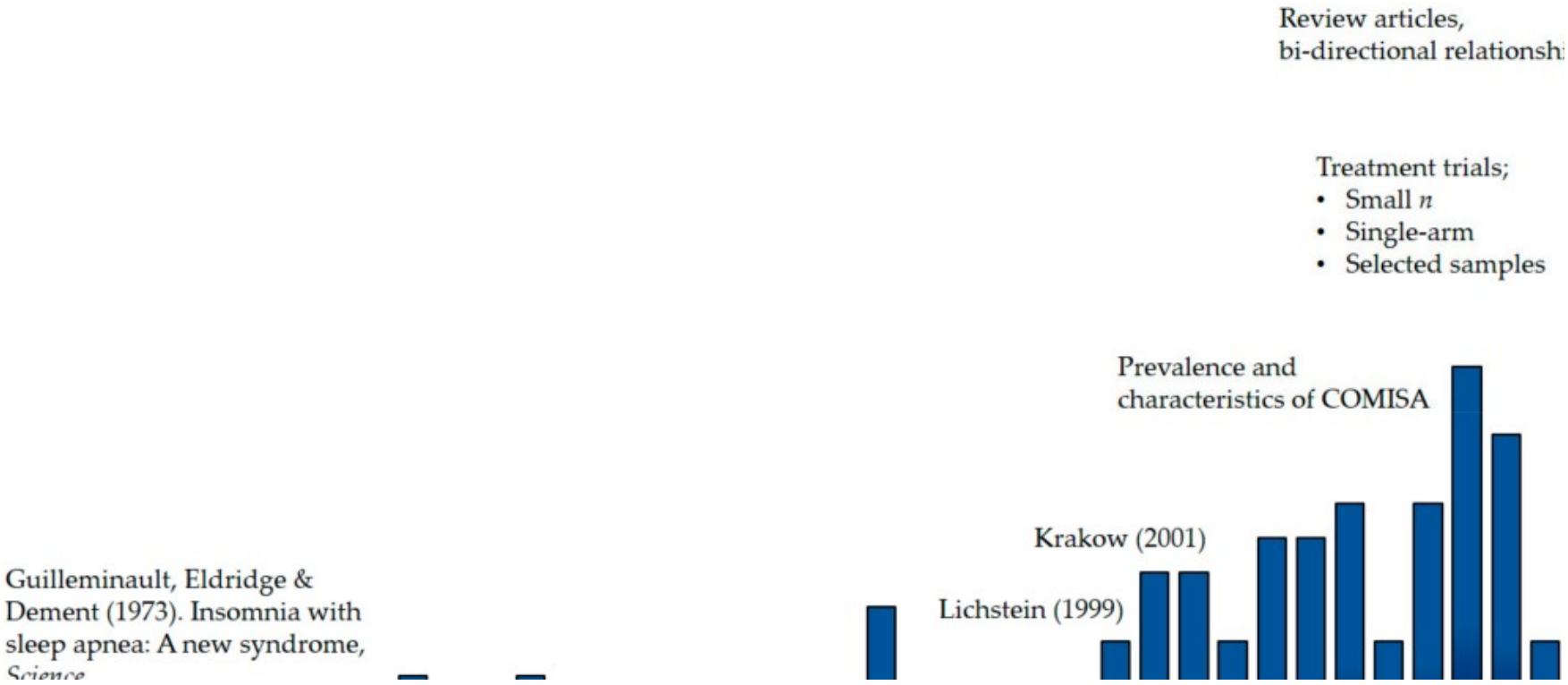
- Chronische insomnie
  Diagnose, pathofysiologie, prevalentie, behandeling

- Obstructief slaapapneu
  Diagnose, pathofysiologie, prevalentie, behandeling

- COMISA
  Symptomen, prevalentie, pathofysiologie, diagnose, behandeling

- Take home message

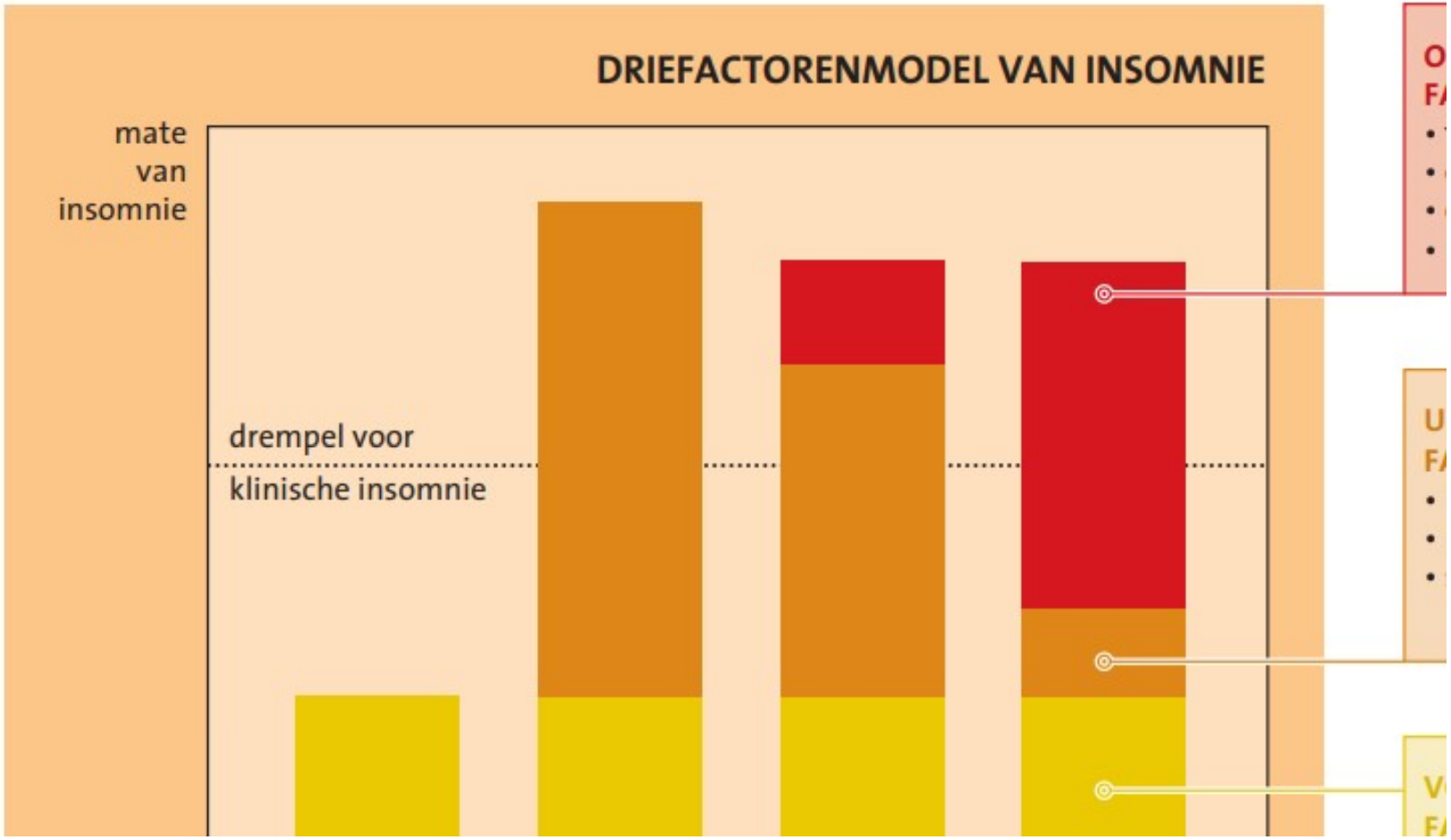
Historie COMISA



Sweetman A, Brain Sci. 2019

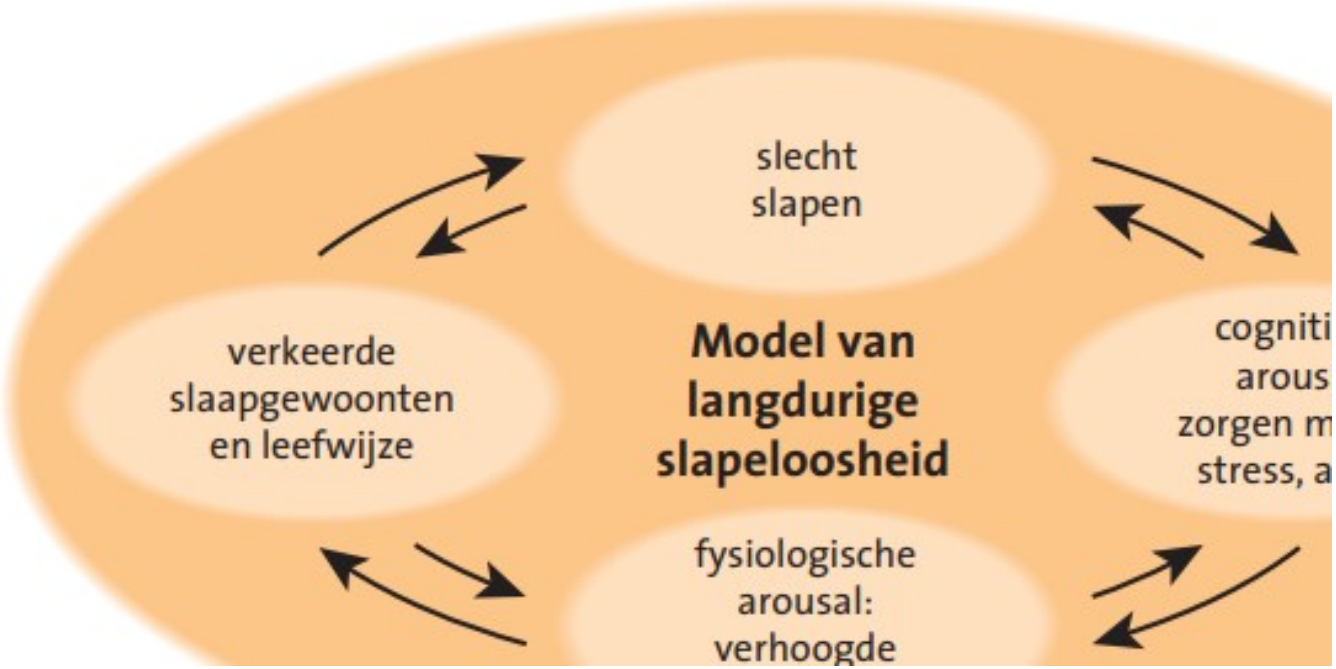
Chronische Insomnie, ICSD-3, criteria A-F

A. Inslaapklachten, doorslaapklachten, vroeg ontwaken, weerstand om naar bed te gaan of niet kunnen slapen zonder ouder. (minimaal 1)
B. Moeheid/malaise, geheugen/concentratieklachten, dysfunctioneren overdag, stemmingsklachten, slaperigheid, gedragsproblemen, energieverlies, ongevallen of zorgen om het slechte slapen. (minimaal 1)
C. Niet verklaarbaar door onvoldoende gelegenheid te slapen of door inadequate slaapomstandigheden
D. Frequentie minimaal 3x/week
E. Duur minimaal 3 maanden
F. Niet verklaarbaar door een andere slaapstoornis



Spielman & Glovinsky, 1991; Verbeek & Van de Laar, 2015; Stichting BWM,2021.Tijd voor slaap.

Chronische Insomnie



Verbeek & Van de Laar, 2015; Stichting BWM, 2021. Tijd voor slaap.

Cognitieve Gedragstherapie voor Insomnie (CGTi)

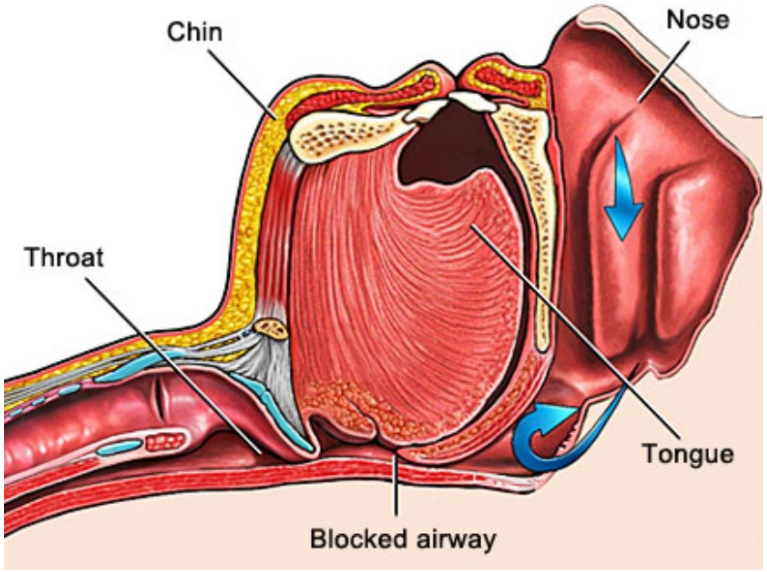
for total sleep time (Perlis et al., 2005). ment in evidence-based first-

TABLE 2 CBT-I ingredients

CBT-I strategy	Description
Sleep restriction	*Behavioural strategy*: A method which aims to strengthen homeostatic sleep pressure sleep and wakefulness, by decreasing the opportunity to sleep over successive nigh their time in bed to match their average (self-report in sleep diaries) total sleep dura increased until it reaches patients' optimal sleep need. An alternative method, calle constriction of time in bed, which is then similarly increased until reaching the optir
Stimulus control	*Behavioural strategy*: A set of instructions that aim to strengthen the bed as a cue for ties that might interfere with sleep, and helping the insomniac acquire a consistent ditioning model: (1) Lie down to go to sleep only when you are sleepy. (2) Do not use and sexual activity. (3) If you find yourself unable to fall asleep, get up and go to anc and come back to bed when you feel sleepy. (4) If you still cannot fall asleep, repeat throughout the night. (5) Set your alarm and get up at the same time every morning got during the night. (6) Do not nap during the daytime
Sleep hygiene education	*Behavioural and educational strategy*: General health instructions about internal and e sleep (e.g., sport, light, temperature, etc.)
Relaxation	*Behavioural and cognitive strategy*: A set of methods that aim to reduce somatic or cog muscle relaxation, autogenic training, imagery training, meditation)

Baglioni C et al. J Sleep Res 2019.

Obstructief slaapapneu



Snurken

Hypopneu
≥ 10 sec.
≥ 30% ⇓ flow
Desaturatie
of
Arousal

Apneu
≥ 10 sec.
≥ 90% ⇓ flow
Inspiratoire effort

AHI $\frac{\text{Aantal Apneu's en Hypopneu's}}{\text{uur slaap/registratie}}$

AASM scoring manual
Afbeelding: Nucleus Medical Media

Criteria Obstructive Sleep Apnea, ICSD-3

(A and B) or C satisfy the criteria

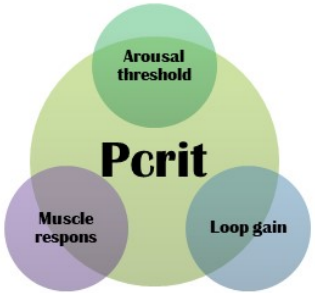
A. The presence of one or more of the following:
   - Sleepiness, non-restaurative sleep, fatigue or insomnia symptoms
   - Awakenings with breath holding, gasping or choking
   - Observered habitual snoring, breathing interruptions or both during the pts sleep
   - Diagnosis of hypertension, a mood disorder, cognitive dysfunction, coronary artery disease, stroke, congestive heart failure, atrial fibrillation or type 2 diabetes.

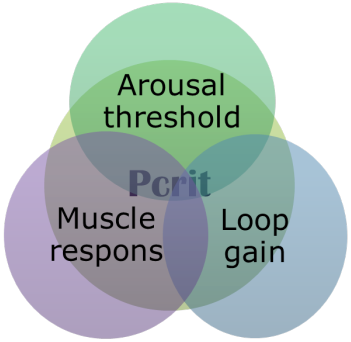
B. Polysomnography (PSG) or out-of-centre sleep testing (OCST) demonstrate:
   - Five or more predominantly obstructive respiratory events [obstructive and mixed apneas, hypopneas or respiratory effort-related arousals (RERAs)] per hour of sleep during a PSG or per hour of monitoring (OCST)

C. PSG or OCST demonstrates:
   - Fifteen or more predominantly obstructive respiratory events (apneas, hypopneas or RERAs) per hour of sleep during a PSG or per hour monitoring (OCST)

Pathofysiologie OSA, 4 factoren: endotypen

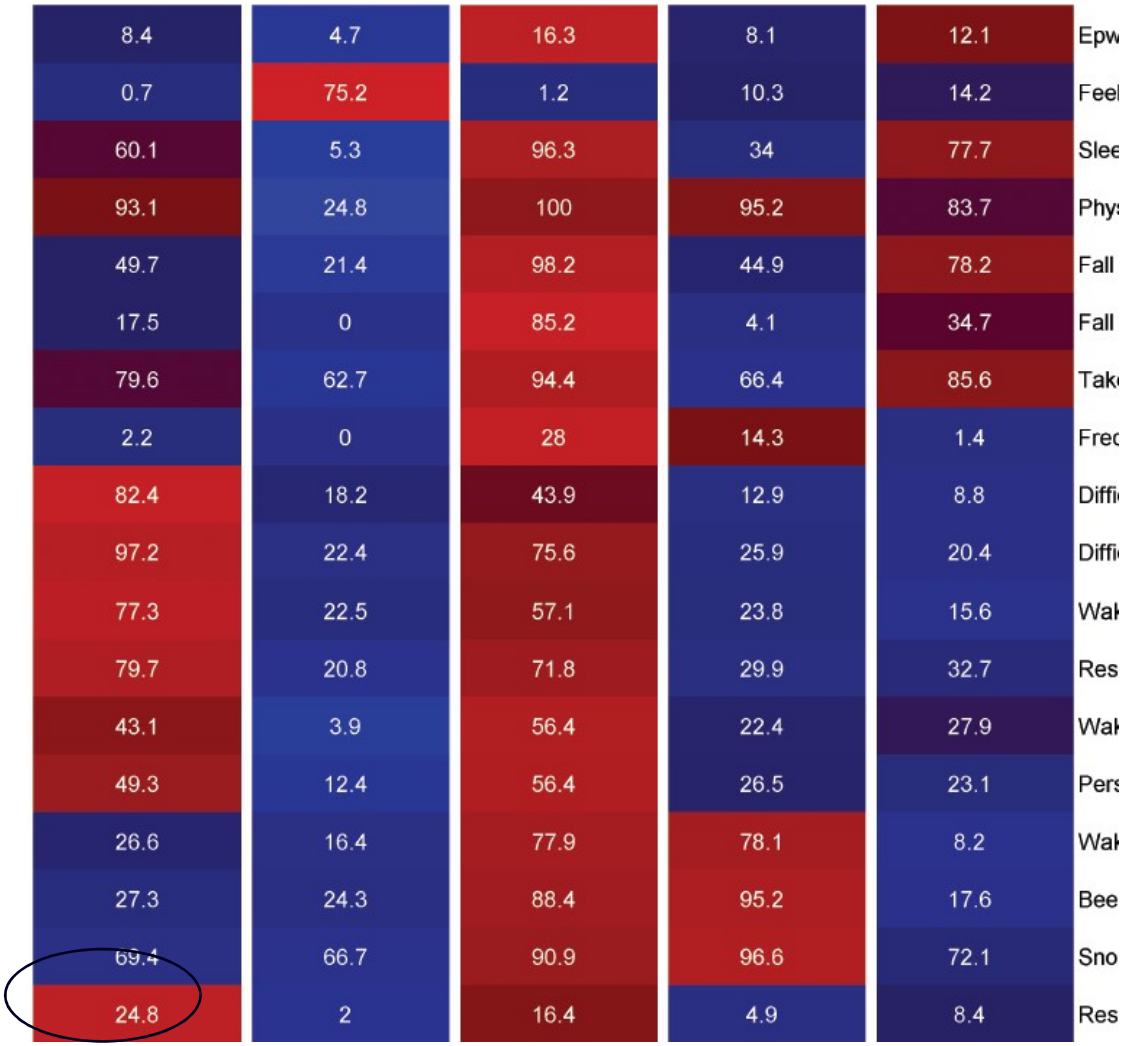
- Anatomie
- Lage arousaldrempel
- Hoge Loop gain
- Spierfunctie bovenste luchtweg





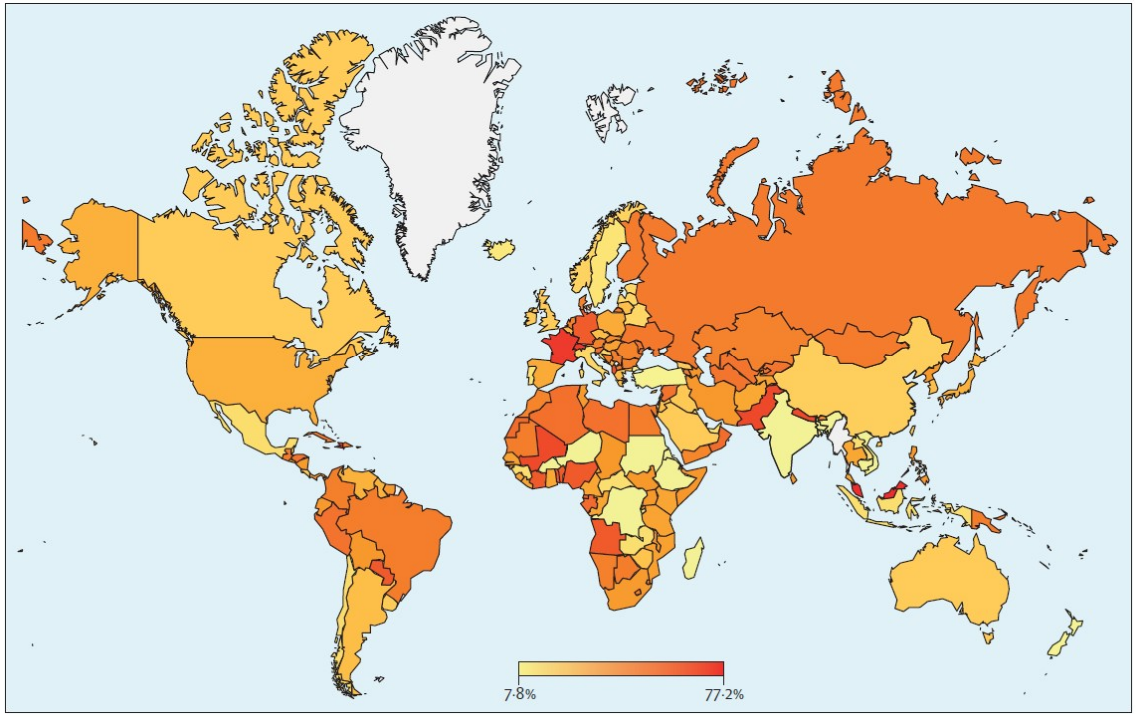
Eckert DJ, et al. Am J Respir Crit Care Med 2013;188:996-1004

OSA Fenotypen



Keenan BT, et al. SleepJ, 2018, 1-14

Prevalentie OSA/Prevalentie verhoogde AHI



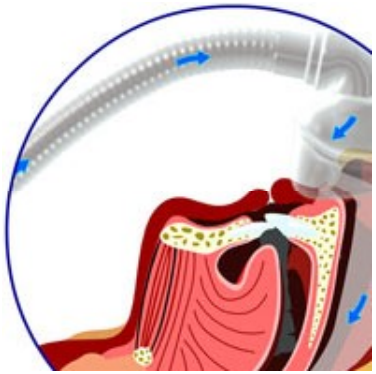
<u>Leeftijdscategorie</u>
30 – 69 jaar, M + V

<u>België</u>
AHI ≥ 15/u 16%
AHI ≥ 5/u 30%

<u>Nederland</u>
AHI ≥ 15/u 29%
AHI ≥ 5/u 49%

Benjafield et al. Lancet Respir Med 2019

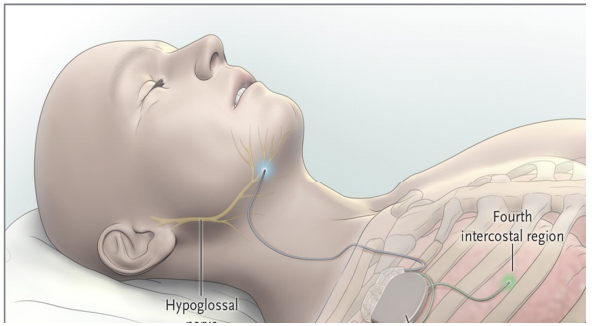
Behandeling OSA



Bron Resmed

MRA, SomnoDent

Lunoa SPT



N. Hyoglossusstimulator
Strollo et al, NEJM 2014

Cochrane Library

Myofunctional therapy (oropharyngeal exercises) for obs
sleep apnoea (Protocol)

SLEEP-DISORDERED BREATHING

The Combination of Supplemental Oxygen and a Hypnotic Mark
Obstructive Sleep Apnea in Patients with a Mild to Moderate Up
Collapsibility

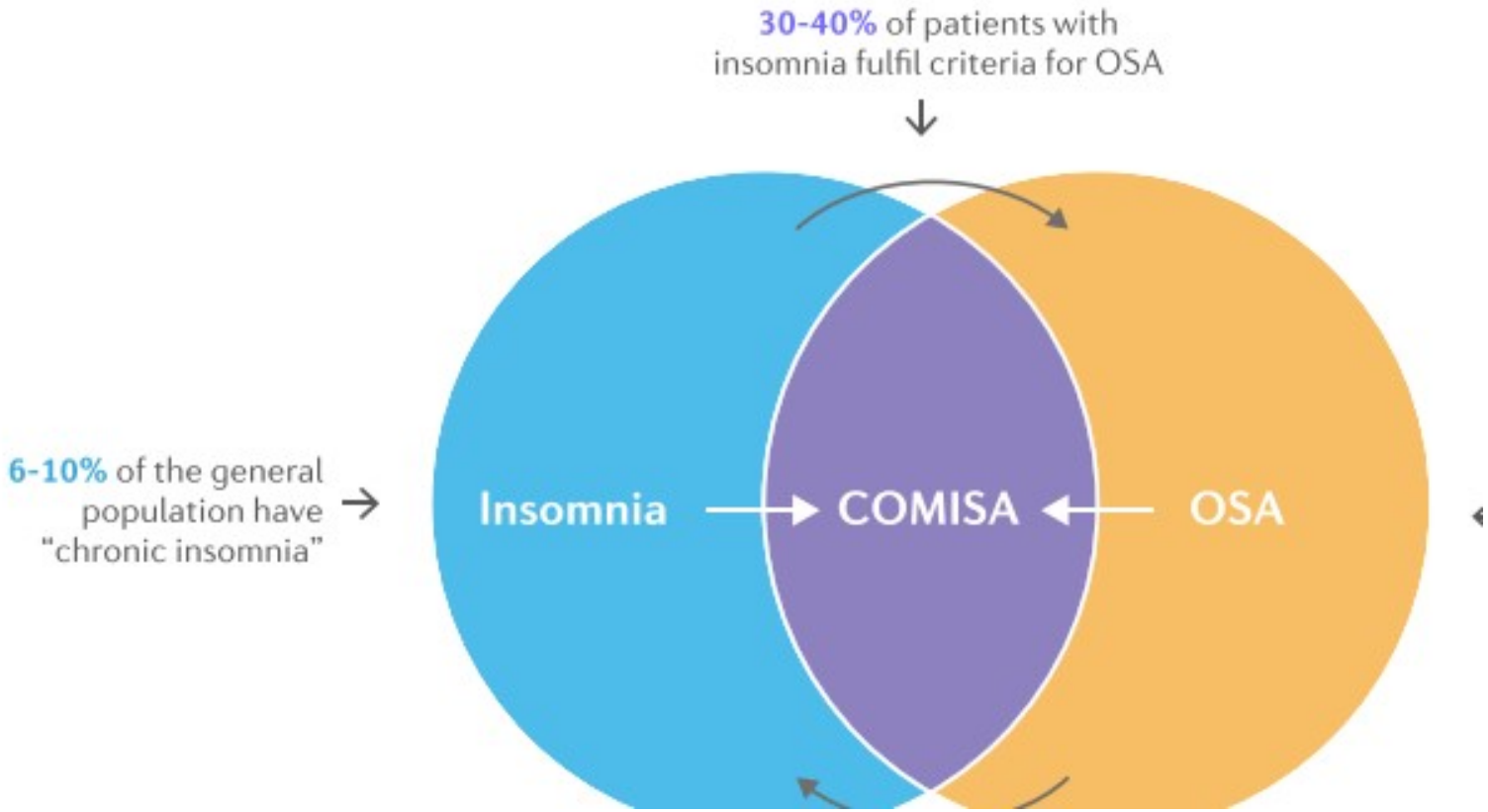
COMISA symptomen

TABLE 1 Interrelation between symptoms and clinical features as sleep apnoea (OSA) and insomnia

OSA	Both
Snoring	Frequent awakenings
Breathing pauses	Difficulty falling asleep
Breath holding, gasping, choking	Unrefreshing sleep
Frequent arousals due to sleep disordered breathing events	Fatigue
	Daytime sleepiness
	Attention, concentration and memory impairment
	Social and occupational

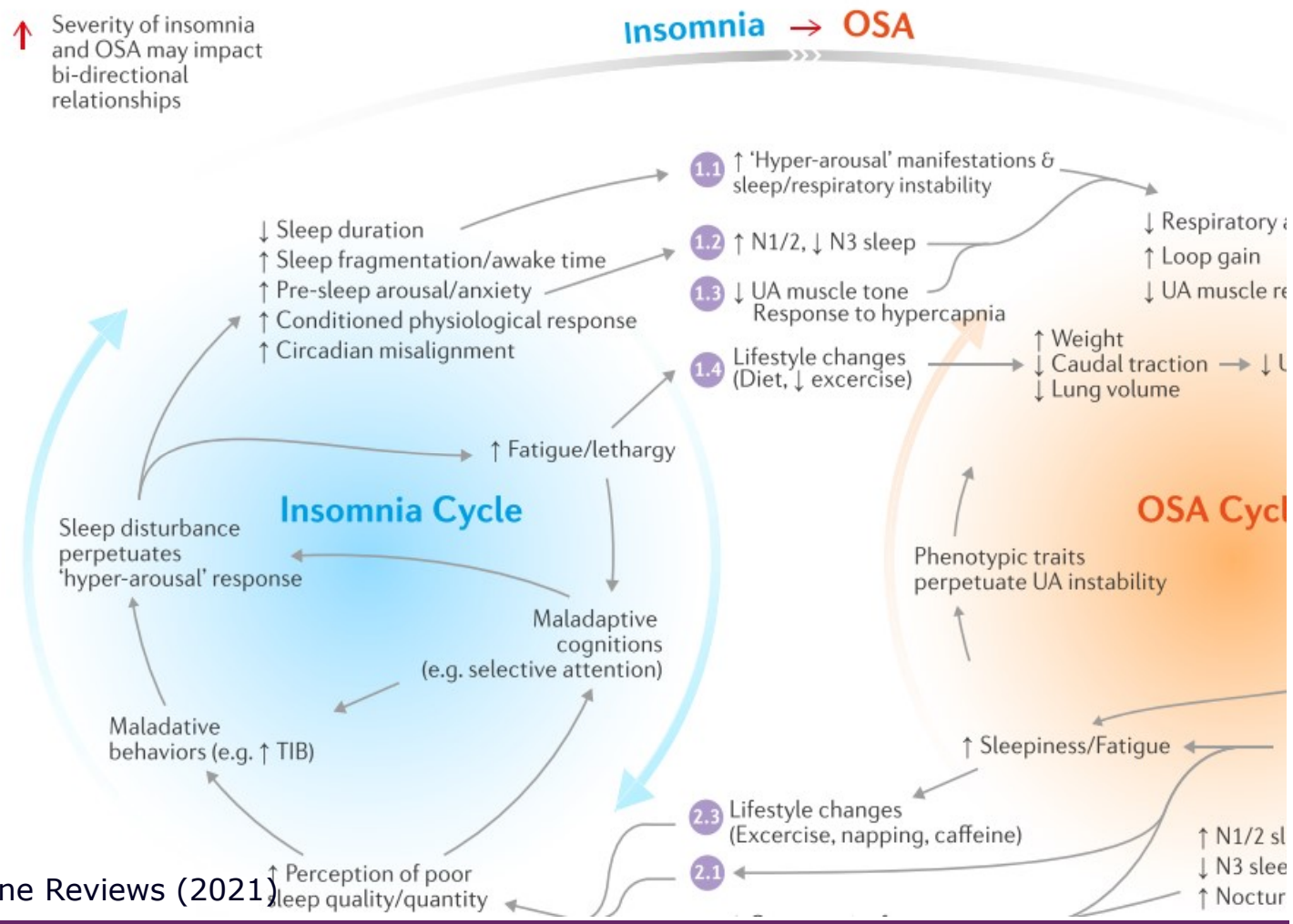
Luyster FS et al. J Clin Sleep Med 2010

COMISA prevalentie



Sweetman A, et al. Sleep Med Rev 2021

COMISA Conceptueel Model

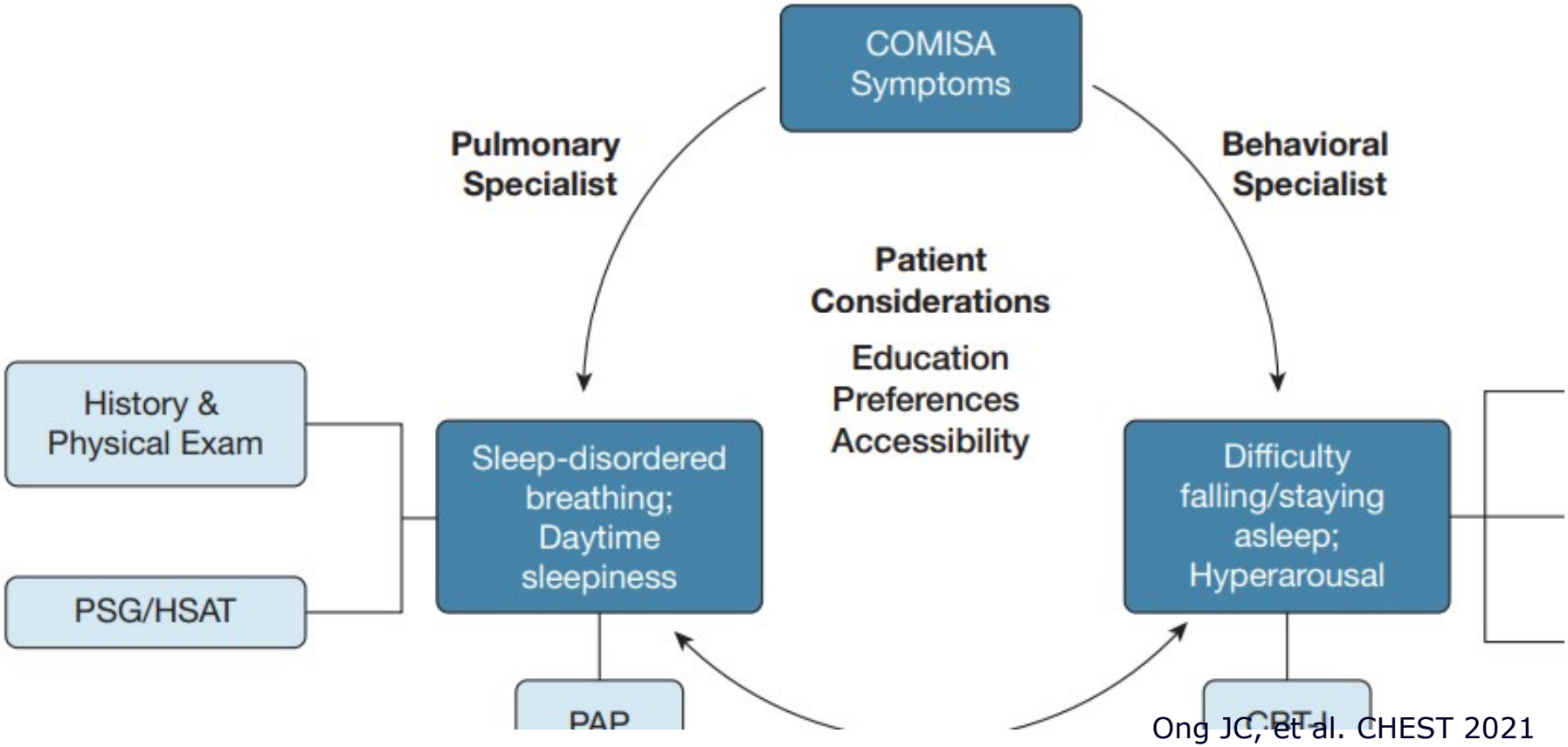


Sweetman A. Sleep Medicine Reviews (2021)

COMISA diagnosestelling

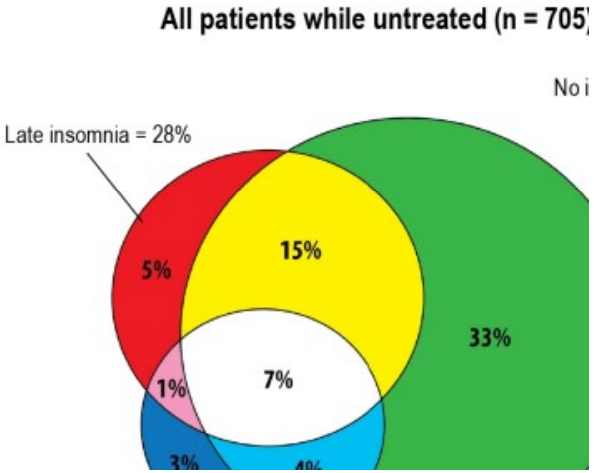
- Uitgebreide slaapanamnese, vragenlijsten (bv ISI, ESS, FSS)
- Slaapdagboek, evt actigrafie
- Polysomnografie

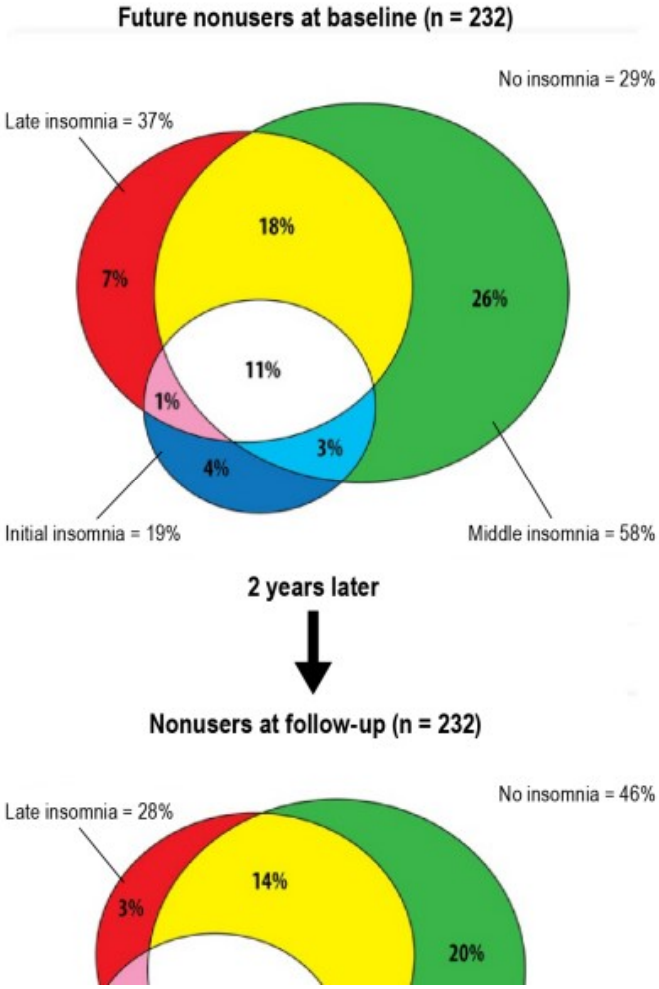
COMISA behandeling

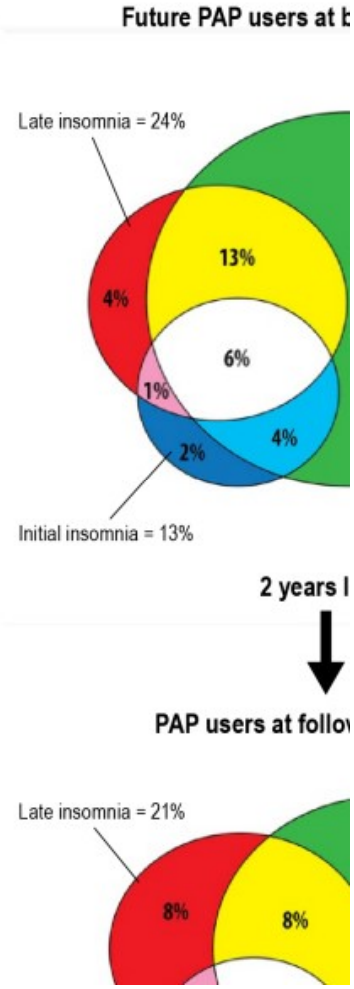


Ong JC, et al. CHEST 2021

CPAP effect op insomnie

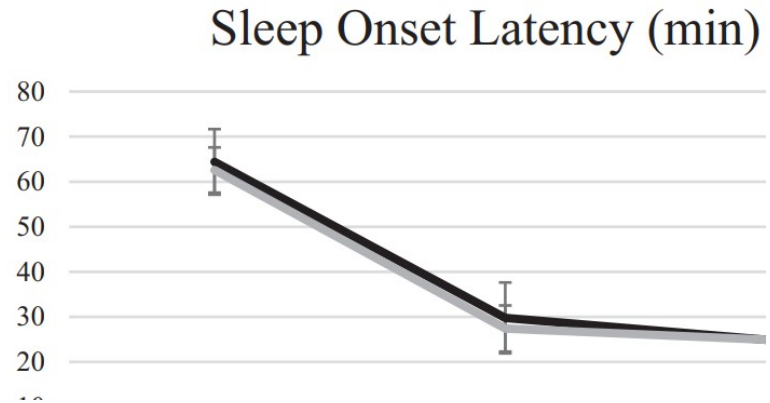


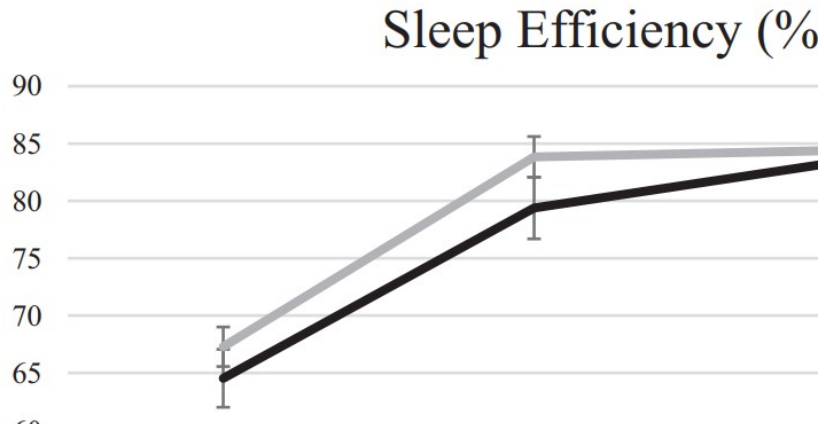


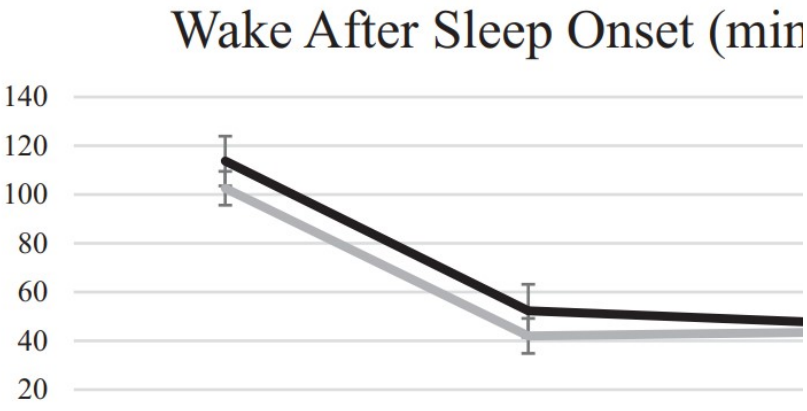


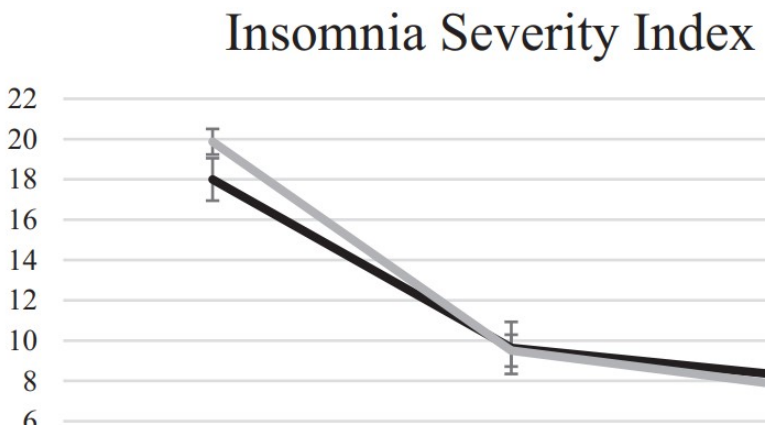
Björnsdóttir E, et al. SLEEP 2013

CGTi effect op insomnie in COMISA



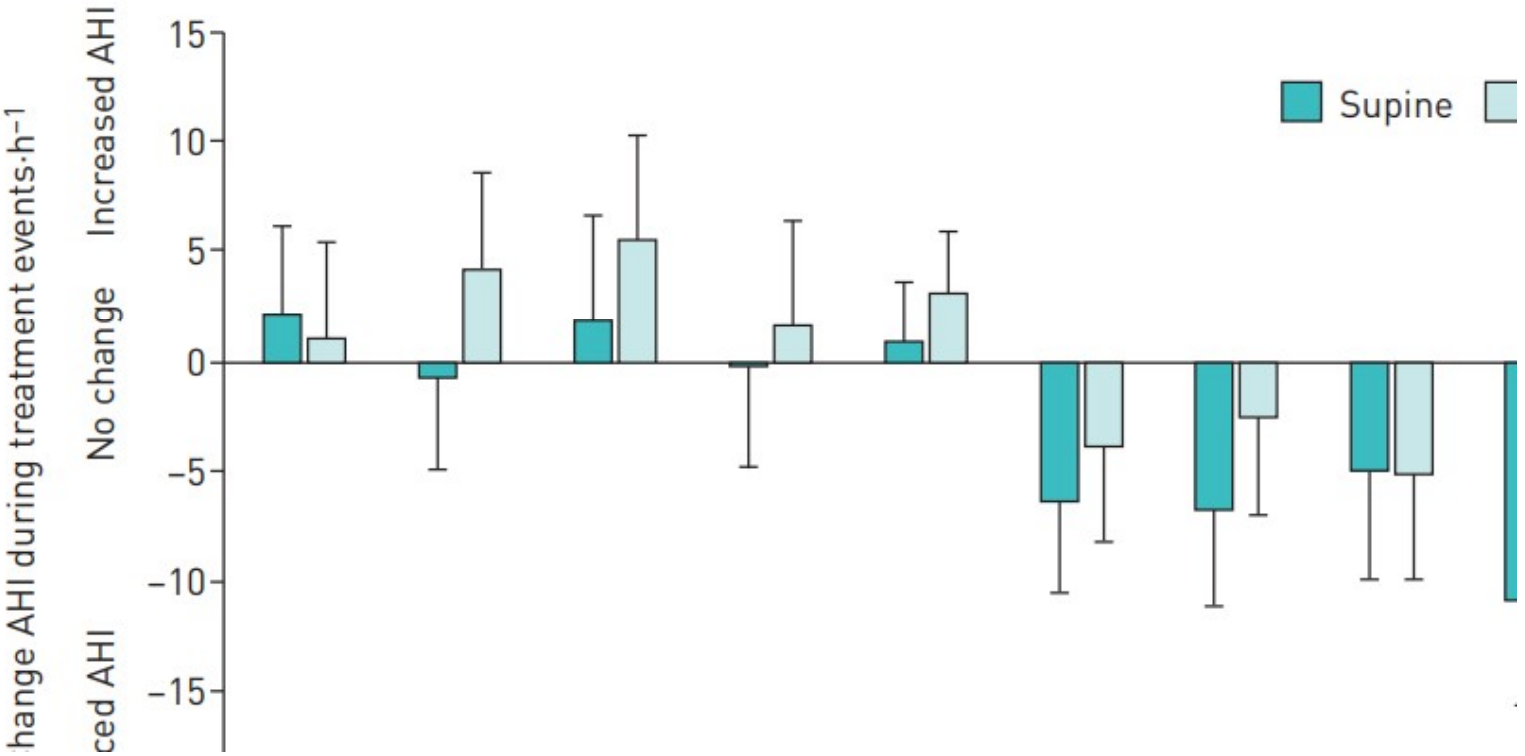






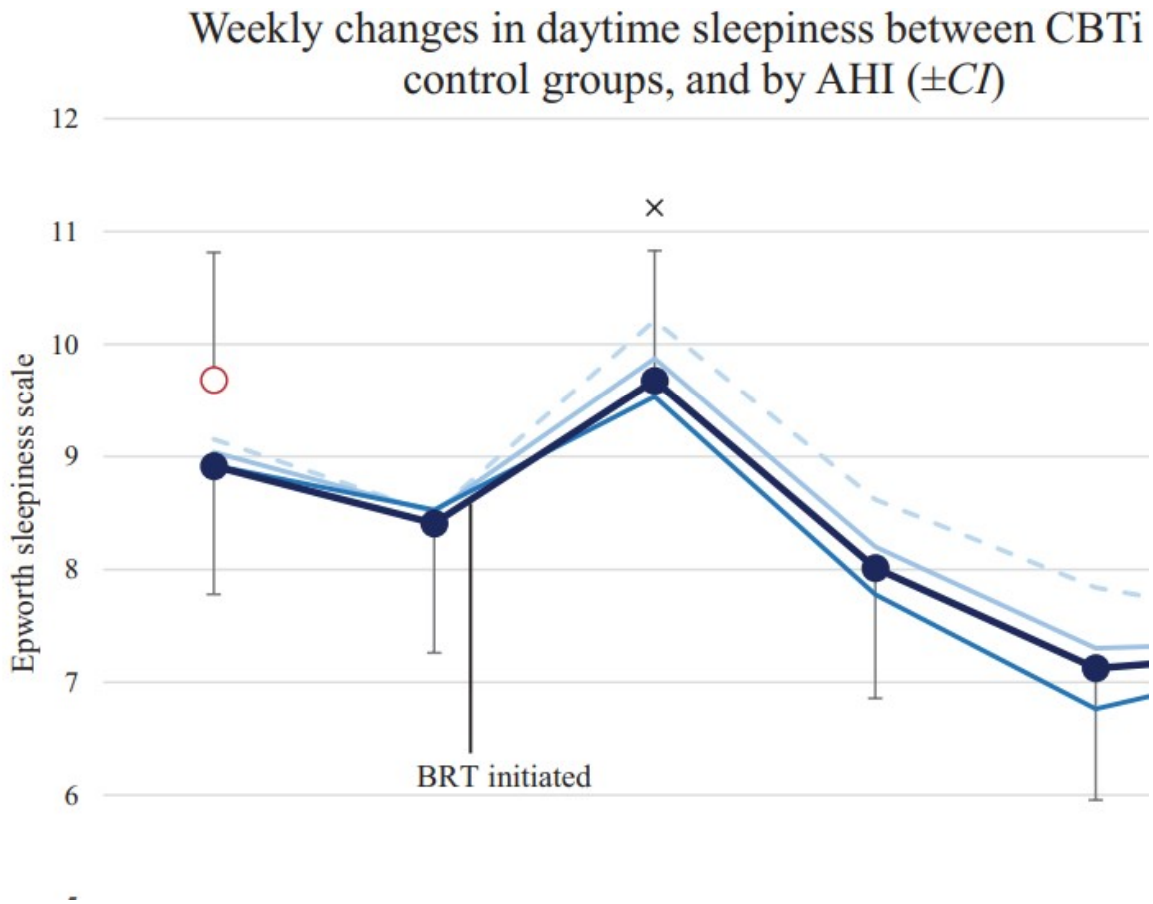
Sweetman A, et al. Sleep Medicine, 2017

CGTi effect op AHI in COMISA



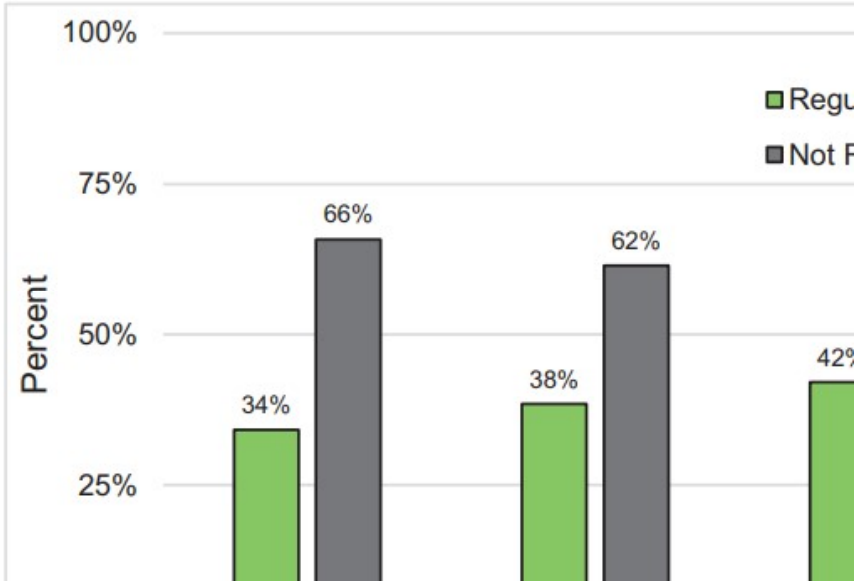
Sweetman A, et al. ERJ Open Res 2020

CGTi effect op ESS in COMISA

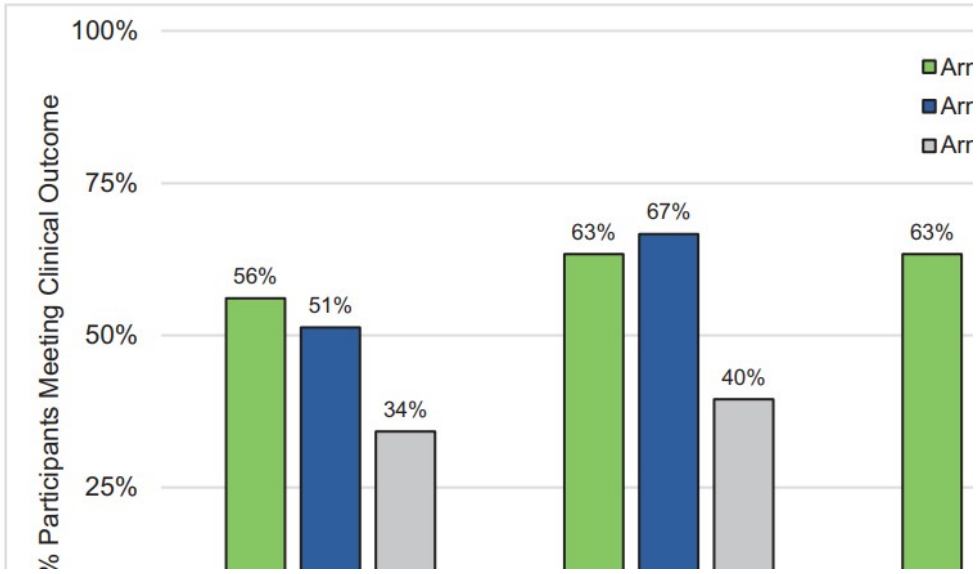


Sweetman A, et al. SLEEPJ 2020

CGTi/CPAP> Compliance en insomnie



CPAP compliance



Insomnie

Ong JC, et al. SLEEPJ 2020

CGTi/CPAP> compliance

Outcome	Group	Baseline Mean (95% CI)	3 months Mean (95% CI)	6 months Mean (95% CI)	Differ each f (95% C p-valu effect 3 mon
PAP use per night (in hours, over the past 30 days)	Intervention	NA	3.0 (2.3, 3.7)	2.4 (1.7, 3.1)	1.1 (2.
	Control	NA	1.9 (1.3, 2.5)	1.5 (.85, 2.0)	p = 0.0 d = 0.4
PAP use per night (in hours, over the past 90 days)	Intervention	NA	3.2 (2.5, 3.8)	2.5 (1.9, 3.2)	1.3 (2.
	Control	NA	1.9 (1.4, 2.4)	1.7 (1.1, 2.2)	p = 0.0 d = 0.5
Number of nights with PAP used ≥ 4 h (over the past 30 days)	Intervention	NA	12.1 (9.2, 15.0)	9.9 (7.1, 12.6)	4.7 (8.
	Control	NA	7.4 (5.0, 9.8)	5.6 (3.1, 8.1)	p = 0.0 d = 0.4

Alessi CA, et al. SLEEPJ 2021

Take home message COMISA

- Bi-directionele relatie insomnie en OSA

- Uitgebreide slaapanamnese, vragenlijsten (bv ISI, ESS, FSS), slaapdagboek, evt actigrafie, polysomnografie.

- Multidisciplinaire begeleiding
  - *OSAbehandeling (+ Slaapwaak hygiëne)*
  - *CGTi en nadien evaluatie noodzaak OSA behandeling*
  - *Gecombineerde aanpak (CGTi + OSA behandeling)*