

# "Management and Treatment of REM Sleep Behavior Disorder and Other Disorders With Dream Enactment"

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# Disclosure

Consultant, Axovant Sciences  
(not relevant to this presentation)

# Learning Objectives

- 1) Present the diagnostic criteria for REM sleep behavior disorder (RBD).
- 2) Present the RBD patient demographics.
- 3) Discuss the increased risk for Parkinson's disease/ Dementia with Lewy bodies with RBD.
- 4) Present a validated RBD screening question.
- 5) Discuss the management of RBD.
- 6) Discuss the differential diagnosis of Dream Enacting Behaviors, and discuss management considerations.

## Key Message

RBD and other dream-enacting disorders can be objectively diagnosed and effectively managed.

# RBD Diagnostic Criteria

*International Classification of Sleep Disorders, 3<sup>rd</sup> Edition, 2014 (ICSD-3)*

American Academy of Sleep Medicine

N.B.: RBD is the only parasomnia for which video-Polysomnography is required.

# RBD Diagnostic Criteria: ICSD-3 (2013)

- A. Repeated episodes of sleep-related vocalization and/or complex motor behaviors.
- B. These behaviors are documented by PSG to occur during REM sleep, or based on clinical history of dream enactment, are presumed to occur during REM sleep.

C. Polysomnographic recording demonstrates  
REM sleep without atonia (RWA).

D. The disturbance is not better explained by  
another sleep disorder, mental disorder,  
medication or substance use.

## Comments (ICSD-3 Text)

1. The observed vocalizations or behaviors often correlate with simultaneously occurring dream mentation, leading to the frequent report of “acting out one’s dreams.”
2. The most current evidence-based data that are in accordance with AASM 30 sec epoch scoring guidelines should be utilized.

# Traditional RBD Clinical Profile

## RBD—Sleep Related Injury

### First two large series

- Schenck CH, Hurwitz TD, Mahowald MW.  
REM sleep behaviour disorder: an update on a series of 96 patients and a review of the world literature. *J Sleep Res* 1993;2:224-31.
- Olson EJ, Boeve BF, Silber MH. Rapid eye movement sleep behaviour disorder: demographic, clinical and laboratory findings in 93 cases. *Brain* 2000;123:331<sup>8</sup>-9.

## *J Sleep Res* 1993 (N=96) [Minneapolis]

- Males: 87.5%
- Mean age of RBD onset: 52.0 years (9-81 yrs)
- Dream-Enacting Behaviors: 87%
- Sleep Related Injury (chief complaint): 79.0%

## *Brain* 2000 (N=93) [Mayo Clinic]

- Males: 87.0%
- Mean age of RBD onset: 61.0 years (36-84 yrs)
- Dream-Enacting Behaviors: 93%
- Sleep Related injury (chief complaint): 97%

# RBD Prevalence: Important New Data

## First Community-Based, PSG-Confirmed Study

“Prevalence and determinants of REM sleep behavior disorder in the general population”

*Sleep* 2017; 41(2): doi: 10.1093/sleep/zsx197.

Haba-Rubio J, Frauscher B, Marques-Vidal P, et al.

“HypnoLaus” Research Program, Lausanne

- N=1,997 subjects (mean age, 59  $\pm$ 11 yrs)
- 53.6% women.
- N=368: endorsed dream-enacting behaviors—  
positive response to Munich Parasomnia  
Screening questionnaire, a validated self-rating  
instrument.

- N=21: fulfilled PSG criteria (ICSD-3) for RBD
- RBD prevalence: 1.06% (middle-age to older population)
- Equal male-female frequency.
- Implications: when neuroprotection trials become available (to slow down or halt the progression from idiopathic RBD to parkinsonism—with 90% probability within 10-15 years), then the females with RBD (who generally have milder RBD) need to be found in primary care and geriatric clinics, since they also have an increased risk for parkinsonism.

“A single-question screen for Rapid Eye  
Movement Sleep Behavior Disorder: a  
multicentre validation study.”

*Mov Disord* 2012; 27: 913-916.

Postuma RB, Arnulf I, Hogl B, et al.

# RBD Screening Questionnaires

## 1. RBD single-question screen:

“Have you ever been told, or suspected yourself, that you seem to ‘act out your dreams’ while asleep (for example, punching, flailing your arms in the air, making running movements, etc.)?”

- N=242 patients with vPSG-confirmed Idiopathic RBD. N=243 healthy controls.
- Multi-centre study
- Patient, spouse, caregiver: informants.
- Yes/No dichotomous responses
- Results: 93.8% sensitivity; 87.2% specificity
- For RBD patients living alone: comparable sensitivity (93.5%) and specificity (92.2%).
- Conclusion: Excellent potential for screening in many clinical settings.

# Treatment of RBD

1. Protect the bedside environment.
2. Pharmacotherapy:  
Two Co-First Line Medications:  
(>80%-90% published efficacy)
  - 1) Clonazepam, 0.25– 2.0 mg HS (suppresses REM phasic motor-behavioral activity)
  - 2) Melatonin, 3-15 mg HS (partially restores REM-atonía)
  - 3) Clonazepam-melatonin combined therapy

# RBD—Treatment

“Best Practice Guide for the Treatment of REM Sleep Behavior Disorder (RBD)”

*J Clin Sleep Med* 2010; 6 (1): 85-95.

Standards of Practice Committee:

Aurora RN, Zak, RS, Maganti RK, et al.

# RBD—Novel Management Approach: Physical Therapy & Occupational Therapy

“Link between Parkinson disease and rapid eye movement sleep behavior disorder with dream enactment: possible implications for early rehabilitation.”

*Arch Phys Med Rehabil* 2018;99:411-415.

Johnson BP, Westlake KP

Rationale for PT/OT: RBD is early PD/DLB

# RBD—Novel Management Approach:

## Exercise

“Neuroprotection in Idiopathic REM Sleep Behavior Disorder: A Role for Exercise?”

*Sleep* 2019; 42(6). doi: 10.1093/sleep/zsz064.

McCarter SJ, Boeve B, Graff-Radford NR, et al.

Rationale for Exercise: Possible neuroprotection in idiopathic/isolated RBD as being early PD/DLB.

# Differential Diagnosis of RBD (Dream-Enacting Behaviors)

- Non-REM Sleep Parasomnias (SW, ST)
- Nocturnal Seizures
- Obstructive Sleep Apnea
- Periodic Limb Movement Disorder

[Controlling the underlying disorder will also control the Dream-Enacting Behaviors.] <sup>20</sup>

# OSA Pseudo-RBD

“Severe Obstructive Sleep Apnea/Hypopnea  
Mimicking REM Sleep Behavior Disorder”

*Sleep* 2005; 28: 203-6

Iranzo A & Santamaria J.

# PLMD Pseudo-RBD

“Periodic limb movements during sleep mimicking REM sleep behavior disorder: a new form of periodic limb movement disorder”

*Sleep* 2017; March 1;40(3).

doi: 10.1093/sleep/zsw063

Gaig C, Iranzo A, Pujol M, et al.

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[Individual chapters are also available as e-chapters].

<https://www.springer.com/gp/book/9783319901510>

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