

## **An updated review of the current medications used to treat REM sleep behaviour disorder**

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**Introduction:** REM sleep behaviour disorder (RBD) encompasses dream enactment behaviour (due to loss of skeletal muscle atonia). A link to neurodegenerative disorders including the Lewy Body dementias is now well recognised and RBD may provide predictive value. RBD may also be secondary to medications. The mainstay of therapy for RBD is currently environmental safety methods and Clonazepam, which is limited by a large adverse effect profile. More recently melatonin has been suggested as a safer alternative. We aimed to review the most frequently prescribed medications at a tertiary sleep centre, comparing Clonazepam, prolonged-release Melatonin (Circadin®) and Zopiclone.

**Methods:** A retrospective study of 307 patients with RBD was undertaken at the Guy's and St Thomas' Nuffield House Sleep Centre. Data was collected from the internal Electronic Patient Records system using key search terms surrounding "REM Sleep Behaviour Disorder" over a three year follow-up period (average 21 months). Cases were identified by diagnostic polysomnography inclusive of a convincing patient history and therapeutic outcomes of up to three medication trials recorded.

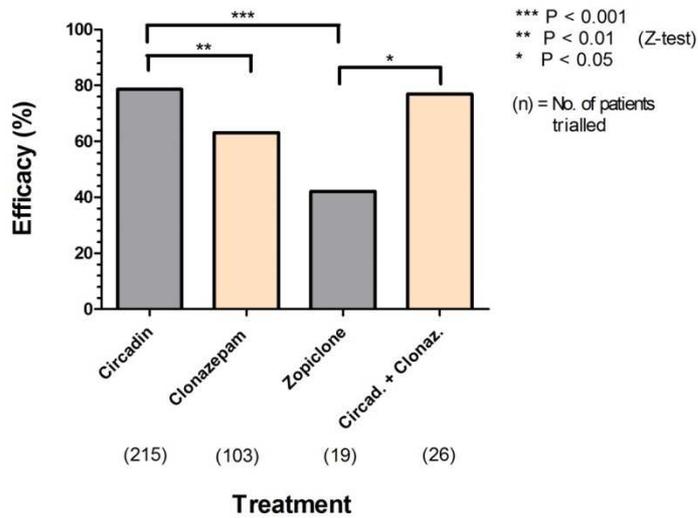
**Results:** Monotherapy Circadin lead to symptom resolution in 78.6% of trialed patients (n=215), with significantly higher efficacy than monotherapy Clonazepam (P=0.00338) or monotherapy Zopiclone (P=0.00038); which attenuated symptoms in 63.1% (n=103) and 42.1% (n=19) of patients respectively (Figure 1). No significant difference was found between monotherapy Circadin and combined Circadin and Clonazepam, though a greater adverse profile was present with the latter. Low dose Circadin (1-2mg) was significantly more efficacious than Clonazepam (0.25-0.5mg) (P=0.00024), with safe dose-dependent escalation up to 12mg (Figure 2).

**Discussion:** This study found prolonged release melatonin monotherapy to be very effective in RBD symptom control, with a more tolerable side effect profile than Clonazepam and Zopiclone, particularly for the elderly and those with neurodegenerative disease.

**Figure 1**

**Figure 1. Comparison of RBD treatment efficacies with:**

- a) Monotherapy Circadin (Melatonin analogue)
- b) Monotherapy Clonazepam
- c) Monotherapy Zopiclone
- d) Combined Circadin and Clonazepam therapy



**Figure 2**

**Figure 2. Comparison of dose-dependent efficacy in relieving the symptoms of RBD with:**

- a) Monotherapy Circadin (1-6mg+)
- b) Monotherapy Clonazepam (0.25-2mg)

