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POSC270: The impact of clinical and economic evidence on reimbursement decisions in narcolepsy?

Background

Narcolepsy is a chronic sleep disorder characterized by overwhelming daytime drowsiness and sudden attacks of sleep.[1] It is divided into two types: type 1 narcolepsy occurs with cataplexy (sudden loss of muscle tone) and type 2 narcolepsy occurs without cataplexy.

There is no cure for this chronic condition. Wakefulness-promoting medications and lifestyle change can help patients to manage the symptoms.[2,3,4] While support from family, friends, employers, and teachers can help with coping.

The research across health technology assessments (HTAs) suggests that the quality of clinical and economic data affects reimbursement decisions.

Objective

To evaluate the impact of clinical and economic evidence on HTA decisions in narcolepsy.

Methods

The HTA reimbursement decisions between July 2016 and April 2021 from SMC (Scotland), HAS (France), G-BA (Germany), TLV (Sweden), CADTH (Canada), and PBAC (Australia) for wakefulness-promoting agents used in the treatment of narcolepsy were included in the data set.

However, HTAs with deferred or no decisions were excluded from the analysis. Clinical and economic points from each review were identified and categorized as positive, negative, or neutral. Observations were made and results were reported.

Results

A total of 23 HTA reviews covering sodium oxybate, armodafinil, methylphenidate, modafinil, pitolisant, and solriamfetol were included in the analysis of which, 61% (n = 14) were recommended and 39% (n = 9) were not recommended. HAS recommended the most drugs (5) followed by G-BA (2) [Table 1].

Table 1: Agency recommendation

		Decision		
Agency	**Drug**	**Recommend**	**Do not recommend**	**Total**
CADTH	Sodium oxybate	0	1	1
G-BA	Pitolisant	1	0	3
	Solriamfetol	2	0	
HAS	Sodium oxybate	2	0	11
	Methylphenidate	3	0	
	Modafinil	3	0	
	Pitolisant	1	0	
	Solriamfetol	1	1	
PBAC	Armodafinil	1	1	2
TLV	Sodium oxybate	0	1	3
	Pitolisant	0	2	
SMC	Sodium oxybate	0	2	3
	Pitolisant	0	1	
Total		14	9	23

Methylphenidate and modafinil were the most recommended drugs, and sodium oxybate followed by pitolisant were the least recommended [Figure 1]. Sixty-four percent of recommended reviews included positive clinical evidence compared with only 33% of reviews that were not recommended [Figure 2].

For reviews that included economic evidence (n = 9), 100% of those recommended included positive economic evidence compared with none of the reviews that were not recommended [Figure 3]. Eighty-eight percent of reviews that were not recommended included negative economic evidence. Only one recommended review that showed both positive clinical and economic evidence was identified from PBAC.

Figure 1: Individual drug decision

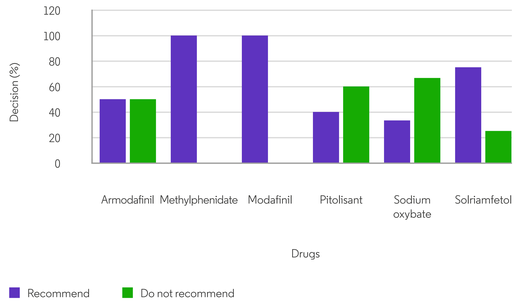


Figure 2: Clinical classification decision

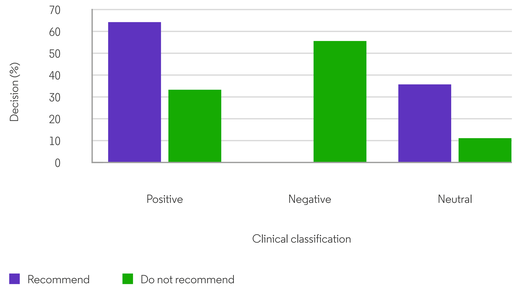
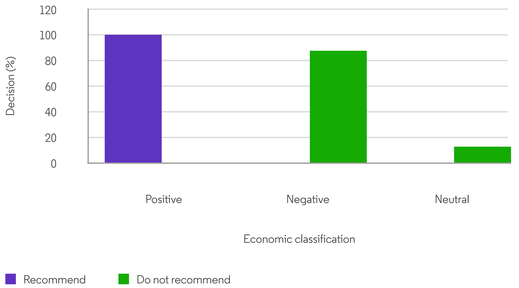


Figure 3: Economic classification decision



Conclusion

Most reviewed drugs were recommended by HTA agencies for use in narcolepsy. Drugs with positive clinical and economic evidence were more likely to be recommended, while those with negative evidence were not recommended. As narcolepsy can lead to potential disability, it deserves further attention and awareness from health care providers and researchers.

References

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