The Costs of OSA Treatments: Is OAT More Expensive?

Len Liptak, MBA¹

1. ProSomnus Sleep Technologies

Introduction

Does Oral Appliance Therapy (OAT) for the treatment of Obstructive Sleep Apnea (OSA) cost more than Continuous Positive Airway Pressure (CPAP) therapy?

This topic is salient. The prevalence, incidence and progression of OSA in the United States indicates a large and growing population of people with untreated OSA that is becoming more severe over time. Cost of care is one of several factors that shape policies that facilitate access to care.

Objectives

The purpose of this investigation is to quantify and compare the costs associated with two popular OSA treatment modalities: CPAP and OAT.

Method and Sample

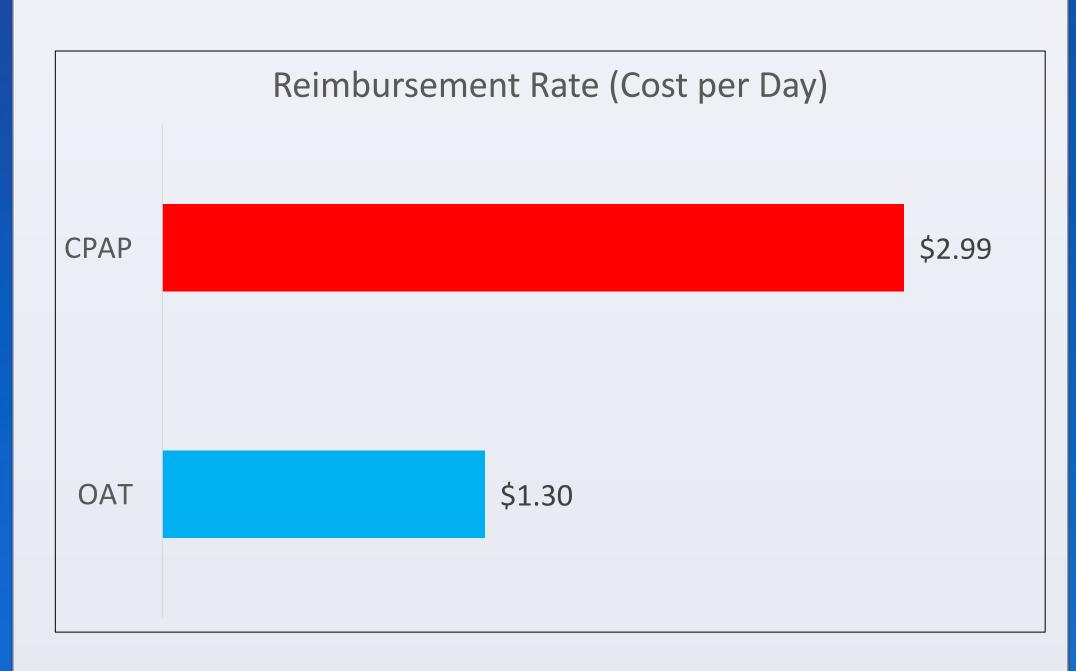
Reimbursement schedules were procured from the Centers for Medicare Services for CPAP and Oral Appliance Therapy treatment modalities.
Reimbursement amounts and replacement intervals were identified for each treatment modality. Mean values were used to account for regional, and other, differences in reimbursement amounts.

A daily reimbursement rate was calculated to standardize the comparison amongst the various components of CPAP and OAT. This rate was calculated as the quotient of the reimbursement fee for a given component divided by the reimbursement interval in days.

Publicly available device warranty durations were also used to quantify gaps, if any, between reimbursement intervals and the device warranty periods – the assumption being that gaps between the reimbursement interval and the device warranty might result in additional costs.

Results

The average reimbursement cost for CPAP was \$2.99 per day. The average reimbursement cost for OAT was \$1.30 per day.



CPAP Reimbursement Rate per Day Schedule

	Replacement		<u>Average</u>		
<u>Items</u>	Schedule (Days)	<u>Reimbu</u>	<u>irsement (\$)</u>	<u>Ar</u>	mount/Day
Mask	90	\$	89.67	\$	1.00
Mask Cushion	30	\$	34.48	\$	1.15
Mask Nasal Pillows	30	\$	15.15	\$	0.51
Tubing	90	\$	11.99	\$	0.13
Headgear	180	\$	18.18	\$	0.10
Disposible Filters	30	\$	2.11	\$	0.07
CPAP Machine	1,095	\$	42.46	\$	0.04
Total CPAP				\$	2.99

*Excludes additional covered items such as chinstraps, humidifiers, water chambers and other upgrades such as tubing with heating element.

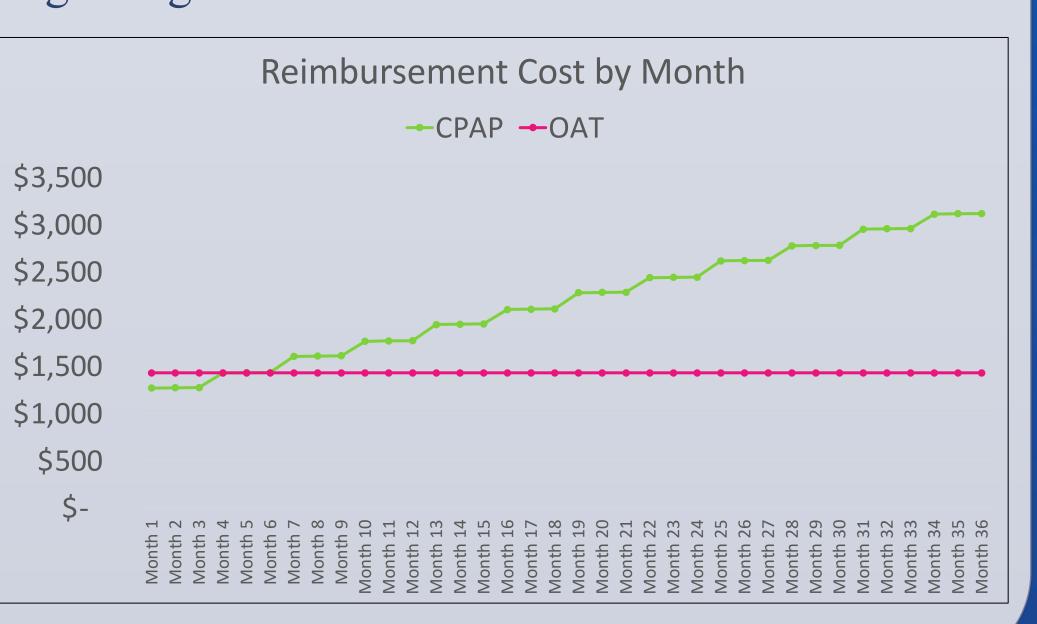
OAT Reimbursement Rate per Day

							
	Replacement	<u>Average</u>					
Key Item	Schedule (Days)	Reimbursement (\$)	Amount/Day				
Total OAT	1,825	<i>\$</i> 1,429	\$ 0.78				
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*Average reimbursement based on the ranges for jurisdictions A-D.

OAT Reimbursement by Month

CPAP becomes more expensive than OAT beginning in month 5.



Conclusions

This analysis concludes that CPAP costs 2.3x more per day than OAT.

Given the replacement intervals of CPAP components, it is useful to evaluate the accumulated costs of the two therapies over time. CPAP costs less than OAT in months 1-3. Costs are similar in month 4. CPAP costs more beginning in month 5. CPAP costs 2.3x more than OAT by month 36.

For Future Research

This research does not consider out of pocket expenses incurred by the patient for either CPAP or OAT. CPAP cleaning devices, for example, can cost the patient \$300-\$400. A future study may wish to include an estimate for these expenses.

Performance adjusted cost is another opportunity for future research. For example, it could be useful to compare costs for the two therapies with respect to Mean Disease Alleviation over a set period of time.

Support

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Contact

Len Liptak

LLiptak@ProSomnus.com