

# IMPROVING CPAP COMPLIANCE AND PATIENT COMFORT WITH THE MIRAGE ACTIVA™ SYSTEM

J. Chan, B.Com., LLB, I. Tedjasaputra, B.Eng., M.Eng.Sc., and C. S. Chan, PhD, FRACP  
Sleep & Chest Disorders Centre, Level 1, 23-25 O'Connell St., Sydney, NSW, Australia  
[www.sleepcentre.com.au](http://www.sleepcentre.com.au)

## ABSTRACT

### RATIONALE

Nasal CPAP is the treatment of choice for patients with Obstructive Sleep Apnoea (OSA). However, mask discomfort has been a primary reason why CPAP compliance remains low. ResMed has sought to address this problem by inventing the ACTIVECELL™, an expandable chamber that inflates during therapy, improving comfort and reducing leakage.

The objective of this study was to compare the ResMed Mirage Activa™ Mask with the ResMed Ultra Mirage™ Mask in terms of compliance, leak, and comfort.

### METHODS

Thirty (30) subjects currently on AutoSet™ CPAP treatment wearing the Ultra Mirage™ mask participated in the study. Subjects were randomly allocated either the Mirage Activa™ Mask or Ultra Mirage™ Mask for 2 weeks. Subjects then swapped over to the alternate mask for a further 2 weeks. The ResMed AutoSet™ Spirit™ with ResLink™ were used for treatment and monitoring.

ResMed software AutoScan™ was used to collect data on CPAP usage per night, Apnoea/Hypopnoea Index, pressures and mask leakage. Subjects were also required to complete questionnaires rating and comparing the 2 masks.

### RESULTS

At the end of the study, 87% (26 out of 30) of the subjects preferred the Mirage Activa™ to the Ultra Mirage™. The majority also reported better mask seal (21/30) and increased comfort (24/30). There was no significant difference in the median and maximum pressure generated by the AutoSet™ Spirit™ when using either mask. The apnea/hypopnea index (AHI) was also similar (UM vs ACT,  $4.41 \pm 2.27$  vs  $4.33 \pm 2.28$  events/hr).

### CONCLUSION

The Activa™ was chosen by subjects as the preferred mask of choice in terms of comfort and seal when compared with the Ultra Mirage™.

We anticipate that these benefits will lead to greater CPAP compliance amongst users and reduce the difficulties and complaints associated with adjusting to CPAP treatment, particularly for first-time users.

#### ***For more information contact:***

Name: Justin Chan  
Telephone: +61 2 9221 1211  
E-mail: [jchan@sleepcentre.com.au](mailto:jchan@sleepcentre.com.au)  
Address: Level 1, 23-25 O'Connell Street  
Sydney NSW Australia



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