Dr Kate Sutherland

Dr Kate Sutherland is a research fellow at the Charles Perkins Centre, University of Sydney and Centre for Sleep Health and Research, Royal North Shore Hospital, Sydney Australia. Dr Sutherland has conducted research in the field of sleep medicine since 2008. The major focus of her research is Obstructive Sleep Apnea (OSA) to increase recognition and improve treatment outcomes. She has a specific interest in non-PAP therapies, oral appliances and weight loss. She has undertaken extensive work on phenotypic characterization of OSA, particularly of anatomic risk factors (craniofacial structure and obesity) using both sophisticated imaging and clinically-applicable surrogates. The overarching goal is identification of clinical predictors for non-PAP therapies, especially oral appliances, to enhance treatment options for OSA patients.

Lecture 1: Can we predict efficacy of oral appliance therapy?

- Oral appliances have limited impact on sleep apnoea in some patients
- Reliable clinical prediction tests are sought to avoid treatment implementation in non-responders
- Individual pathophysiology and anatomy influence treatment response
- A range of prediction methods, both clinical and sleep tests, have been explored with variable accuracy
- To date, a reliable routine clinical prediction test is still elusive

Lecture 2: Effectiveness of oral appliances: cardiovascular outcomes

- Oral appliance therapy is often considered second-line as sleep apnoea reduction is not complete in all
- Real world treatment effectiveness depends on both efficacy and adherence to treatment
- There is evidence of a beneficial effect of oral appliances on cardiovascular health, particularly blood pressure but also other intermediary markers of cardiovascular disease
- Despite inferior reduction in sleep apnoea severity compared to standard treatment CPAP, treatment effects on blood pressure are similar
- Long-term studies of the effect of oral appliances on cardiovascular health are needed