

## Background

- OSA results in airway obstruction during sleep due to collapsing of the nasopharynx, resulting in airway compromise.
- Obstructive Sleep Apnoea (OSA) affects 7% of the UK population, and this figure is set to increase. It is a public health issue, associated with increased cardiovascular morbidity and mortality.
- A Mandibular Repositioning Appliance (MRA) is the first treatment modality offered to those with mild/moderate OSA.

## Aims

- To assess patient understanding of the aetiology OSA following their diagnosis from the referring Sleep Clinic.
- To determine whether more effective communication and education is required between the patient and the Sleep Clinic prior to provision of a MRA at the dental hospital

## Objectives

- Determine patient's knowledge of OSA and associated aetiology.
- Assess patients understanding of why they were referred to the dental hospital.
- Are patients aware snoring is associated?
- Do patients know how to prevent OSA?
- Knowledge of treatment options available.
- Are patients aware of the serious health risks of not controlling OSA?
- Are patients advised to see a GDP prior to fabrication of an MRA for a dental exam?

## Standards

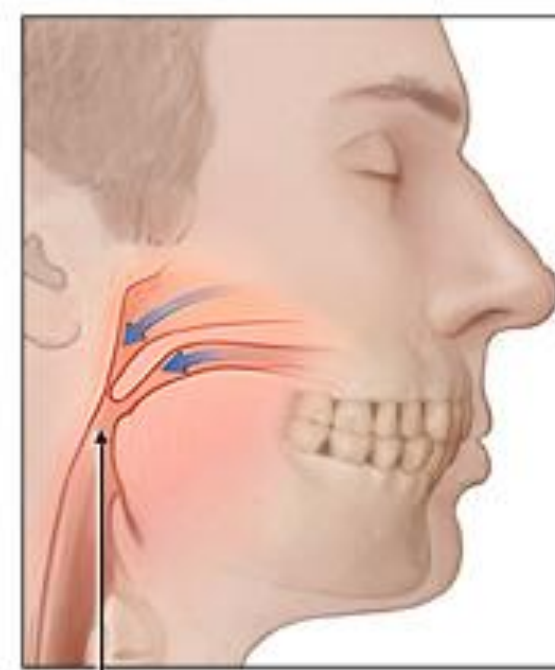
- The standard of this audit was that 100% of all patients should have full understanding of OSA, its management and the associated health risks.
- 100% of all patients to have had undertaken a full dental assessment prior to attending a MRA Restorative Clinic.

## Method

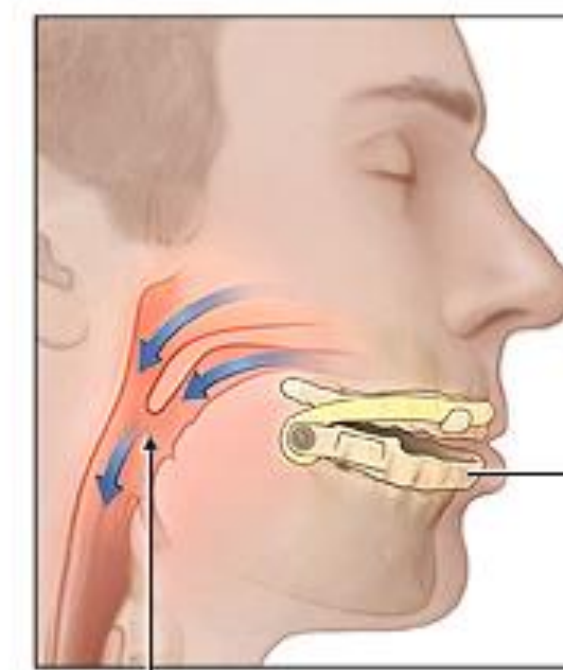
- Data was collected prospectively from 50 patients attending six restorative clinics over a six-week period.
- Patients were interviewed during their Restorative Consultant Clinic appointment using a set proforma.
- Inclusion criteria: only new patients who have not had previous experience of MRA use.

## References

- Steier, J. et al. (2014) Predicted relevant prevalence estimates for obstructive sleep apnoea and the associated healthcare provision across the UK. *British Medical Journal*, 69-390—392
- Motamedi, K et al. (2009) Obstructive Sleep Apnoea: A Growing Problem. *The Oschner Journal* 9(3), 149-153
- British Lung Foundation(2012) *Obstructive Sleep Apnoea*. London



During sleep there is restricted airway space



Mandibular repositioning device (MRA) increases airway space

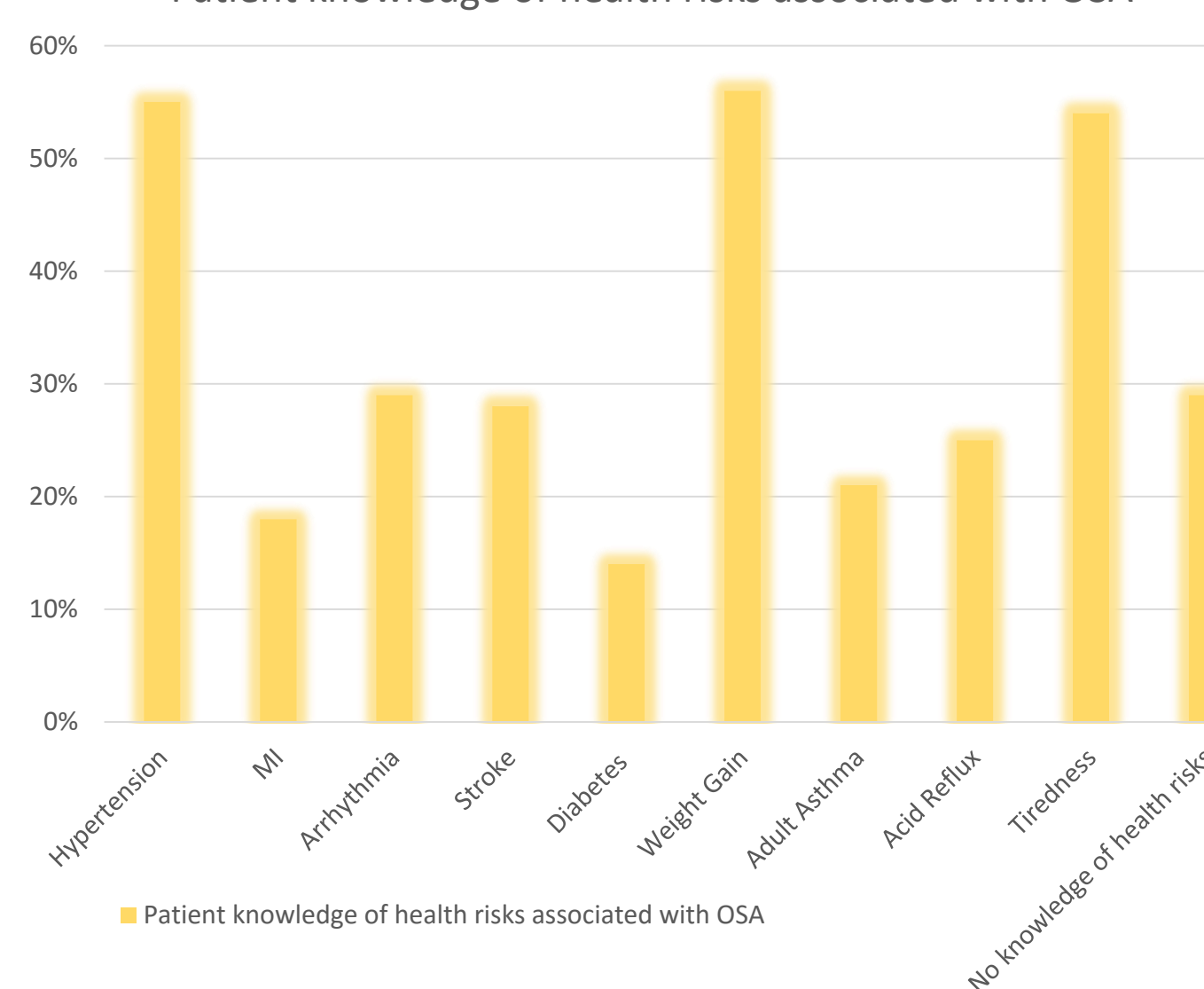


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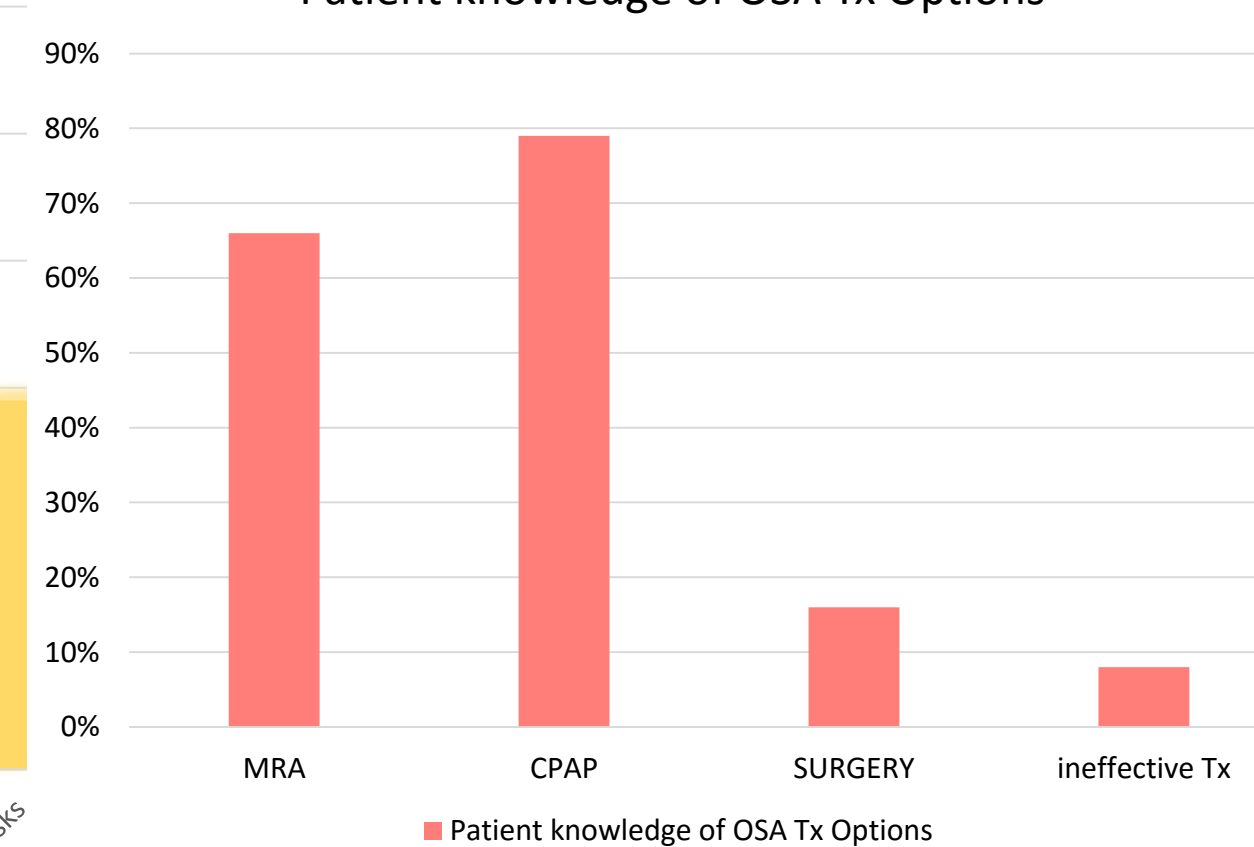
## Results

- 96% (n=48) thought they knew what OSA was
  - Only 20 of these patients had an understanding of the role of airway obstruction and stopping breathing during sleep.
- 82% (n=41) understood why they had been referred to the OSA clinic
- 72% (n=36) believed they understood the causes of OSA
  - Of those patients, 30 understood the role of excess weight, soft tissues and airway obstruction.
- 100% (n=50) knew that snoring was an implication of OSA
- 70% (n=35) believed they knew how to prevent OSA
  - Of those patients, 19 actually understood the role of lifestyle, weight management, sleep position and alcohol use in prevention of OSA.
  - 15 of these patients quoted treatment options as a method of prevention, highlighting lack of full understanding of the aetiology of OSA
- 84% (n= 42) mentioned at least one treatment modality for OSA
- Patients had a poor recall of health risks associated with uncontrolled OSA
- 64% (n=32) had seen a dentist within the previous 12 months prior to their appointment.
- 6% (n=3) were advised by the referring Sleep clinic to have a dental assessment prior to fabrication of MRA.

Patient knowledge of health risks associated with OSA



Patient knowledge of OSA Tx Options



## Recommendations and Dissemination of Findings

- Presented findings to Guys and St Thomas's Sleep Clinic and Trust Audit Meeting
- Staff awareness – reinforce to patients verbally and in writing on appointment letter the importance of pre-dental exam prior to MRA provision and provide each patient with the OSA leaflet.
- Edited Patient OSA/MRA Leaflet to include health risks of OSA

## Conclusion

- Following analysis, it was clear improvements needed to be made with regards to patient education and understanding of OSA, along with patients being aware they must have a dental assessment prior to a MRA. Patients must be aware of the serious health risks to improve compliance and prevent mortality and morbidity. Time pressures, large and ever increasing patient numbers and lack of awareness all contribute to the poor initial results. Intervention has been undertaken to improve patient awareness of the issues addressed and support staff members. A second cycle is currently being undertaken to establish if improvement has been made to the service and potential further intervention if required.