

BACKGROUND

- Obstructive sleep apnoea (OSA) is a sleep-related breathing disorder characterised by periodic, partial or complete airway obstruction during sleep. This airway obstruction may cause episodic sleep-associated oxygen desaturation, hypercarbia and cardiovascular dysfunction.⁽¹⁾
- The prevalence of OSA in the general population has been estimated to be between 5 and 9%.⁽²⁾ It is likely to be higher in the surgical population and particularly among certain patient groups such as those undergoing bariatric surgery.
- Chronic untreated OSA leads to multi-systemic adverse consequences and is an independent risk factor for increased mortality in the general population.⁽³⁾ The inherent collapsibility of the airway and the systemic effects of the disease also place surgical OSA patients at increased risk of serious perioperative complications. Studies have consistently shown that the incidence of postoperative oxygen desaturation, respiratory failure, cardiac events, length of hospital stay and unplanned intensive care unit transfer are all higher in subjects with OSA.⁽⁴⁾
- At Worcestershire Acute Hospitals NHS Trust we recognised that despite attending nurse led pre-operative assessment clinic (POAC), patients felt to be at high risk of OSA were not being identified or brought to the attention of the anaesthetic team prior to admission on the day of surgery.

METHODS

- Over a two-week period, all patients undergoing elective general, bariatric and gynaecological surgery were audited. Those with a BMI over 35 were included and their pre-op assessment documents reviewed to look for evidence of screening for OSA.
- Following the initial snapshot audit, a guideline was devised to guide the nursing staff working in POAC to screen eligible patients with a BMI >35 using the validated STOP-BANG questionnaire.
- As part of the guideline, a pathway was developed for those patients in the 'high risk' category which included referral guidelines for further investigations and some considerations for the anaesthetic and surgical teams in the perioperative period.

REFERENCES

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OSA 'HIGH-RISK' PATHWAY

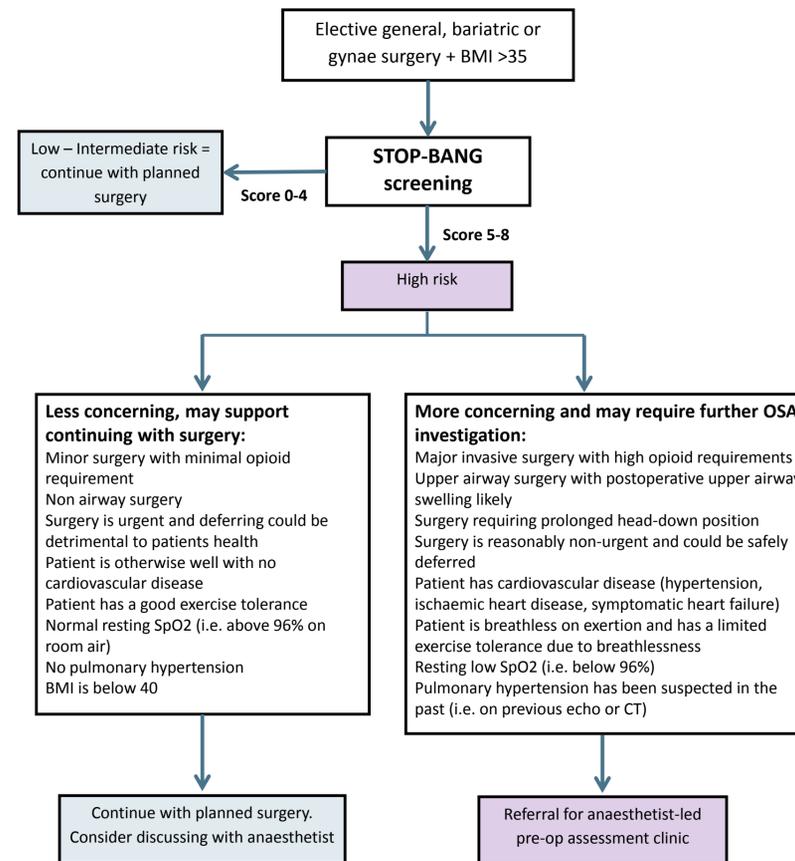


Figure 1: OSA 'High Risk' Pathway devised following initial audit

RESULTS OF SNAPSHOT AUDIT

- A total of 23 eligible patients were identified over a 2 week period in August 2018
- 3 Male, 20 Female
- Age range 28-74 years
- Median BMI = 41 (Range: 35 – 61.6)
- 2/23 patients had a pre-existing diagnosis of OSA
- A further 10 patients had documented 'snoring' as part of their pre-op assessment
- No patients had a STOP-BANG assessment, or Epworth Sleepiness Scale Score
- Of the 12 patients who had diagnosed OSA or who described symptoms of sleep-disordered breathing, 6 (50%) had an anaesthetic referral made

RESULTS - GRAPHS

Figure 2: Percentage of patients identified to have symptoms of sleep-disordered breathing in POAC

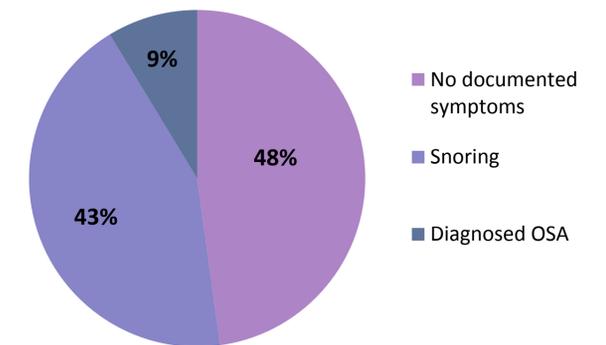
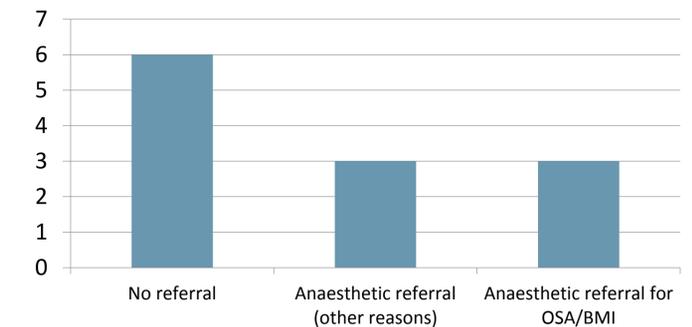


Figure 3: Number of 'high-risk' patients referred for anaesthetic review



CONCLUSIONS

- Following implementation of the guideline, screening rates for at-risk patients in POAC had increased
- On questioning, anaesthetic staff found it helpful to be notified of high risk patients at an earlier point in their perioperative journey, however it was noted that referrals to anaesthetist-led POAC had increased, therefore increasing workload
- Further data analysis is required to ascertain whether screening of these patients leads to reduced morbidity or better outcomes for patients presenting for elective surgery at Worcestershire Acute Hospitals NHS Trust