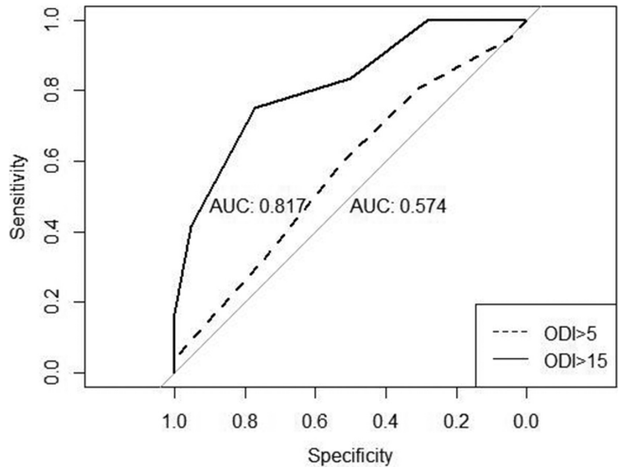

Abstract S27 Figure 1 ROC curves for STOPBANG to predict ODI ≥5 and ODI ≥15

Conclusion Predictive performance of STOPBANG in our patient cohort at the conventional cut off value was poor. The probable explanation is that the cardiac surgical population is preselected as male, older and most suffer with hypertension. Thus the majority will score as high risk for OSA. STOPBANG had no prognostic value on worse postoperative outcomes in our study, which again contrasts with the findings in general surgical cohorts.

S28 EFFECT OF SLEEP APNOEA ON POST-OPERATIVE OUTCOMES IN CARDIAC SURGERY

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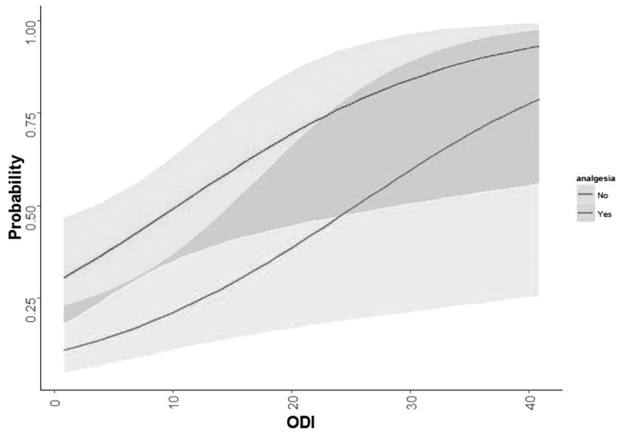
Introduction and objectives Obstructive sleep apnoea (OSA) is common and can be associated with adverse health outcomes. There are conflicting data for the impact of undiagnosed OSA on the outcome of surgical procedures but at least some results suggest an association with worse outcomes. EuroSCORE risk model was developed to calculate the risk of mortality after cardiac surgery. We evaluated the prevalence and impact of undiagnosed sleep apnoea (SA) on postoperative outcomes in cardiac surgery.

Methods Patients undergoing coronary artery bypass grafting with or without cardiac valve surgery were screened for the presence of SA, prior to surgery, with the STOPBANG questionnaire and overnight oximetry. SA was defined as a 4% oxygen desaturation index (ODI) of ≥5/hr. A Weibull model was used to analyse lengths of stay (LoS) in intensive care unit (ICU). Complications in ICU were dichotomised and analysed with binary logistic regressions. Parsimonious models were obtained using a combination of step-wise regression and manually removing predictors that did not reach the 5% significance level.

Results 122 subjects were included in final analysis of which 57 (47%) had a new diagnosis of SA. Of those, 45 (79%) had mild SA and 12 (21%) had moderate/severe SA. There was no simple relationship between OSA as measured by ODI and LoS in ICU. The most significant predictor for ICU LoS was developing complications at ICU ($p < 0.001$). The independent predictors associated with increasing likelihood of developing major organ complications following cardiac surgery were EuroSCORE, ODI and intravenous opioid analgesia (IOA). When patients with mild and moderate SA received IOA, predicted probability of complications rose 2.4 and 1.4 times respectively (Figure 1).



Abstract S28 Figure 1 Predicted probabilities and 95% CI of suffering a complication at ICU as ODI increases for individuals with average EuroSCORE (5) and with or without IOA

Conclusion We found a high prevalence of undiagnosed sleep apnoea in our cohort. EuroSCORE, SA and the administration of intravenous morphine were found to be independent risk factors for developing post-operative complications. This risk has increased when patients with SA received intravenous morphine.

S29 PREDICTORS OF CONTINUOUS POSITIVE AIRWAYS PRESSURE USAGE AT SIX MONTHS IN MINIMALLY SYMPTOMATIC PATIENTS. FURTHER DATA FROM THE MOSAIC TRIAL

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Introduction Severity of OSA and early patterns of CPAP usage have previously been shown to determine subsequent long term CPAP use in patients with symptomatic moderate-to-severe disease.[1] We wished to see if different factors influenced compliance in minimally symptomatic patients.

Methods Patients were randomised to 6-months of CPAP or standard care if they had an ODI of >7.5 h due to OSA on a baseline sleep study, but had insufficient daytime OSA symptoms to mandate CPAP.[2]

Baseline characteristics (Table 1), medical history, ESS, SAQLI and SF-36 were recorded. Repeat overnight pulse oximetry was performed after entry for uniformity of trial ODI across recruiting centres.