

Improving Inpatient Screening for Undiagnosed Obstructive Sleep Apnoea in High-Risk Respiratory Admissions

A Quality Improvement Audit
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1. Background & Problem

-  **High Disease Burden:** OSAHS affects 2.5 million in UK; up to 85% undiagnosed
-  **Impact of Missed OSA:** Recurrent admissions, persistent hypercapnia, increased CV morbidity, delayed diagnosis
-  **The Problem:** Inpatient screening inconsistent & clinician-dependent; high-risk patients not routinely screened, leading to missed referrals

2. Aims & Target Population

SMART Aim: Increase documented inpatient OSA screening using STOP-BANG in eligible admissions from baseline.



Target Population (High-risk admissions, meet ≥ 1):

- BMI ≥ 35
- Type 2 Respiratory Failure / COPD with hypercapnia
- Obesity Hypoventilation Syndrome
- Recurrent unexplained nocturnal desaturations



3. Methodology & PDSA Cycles

PDSA Cycle 1:
(Retrospective Baseline):
Evaluate 3 months data (>500 patients)
for screening rates, referral rates,
BMI/STOP-BANG documentation.



PDSA Cycle 2:
(System Integration):
Embed STOP-BANG in clerking proforma;
weekly prospective audits (e.g. BMI,
STOP-BANG, ESS scores, comorbidities).



Cycle 3 (Future Plan):
Standardise direct referral pathway
to sleep services.



Parameter	Retrospective Baseline (Cycle 1)	Prospective Follow-Up (Cycle 2)
Sample Size	>500 inpatients	Weekly sampling (200 pts)
High-Risk Identified	110 (22%) 	24 pts (12%) 
Key Demographics	-	Mean Age: 72.6, 65% Male
Clinical Metrics	Screening unstandardised	Mean STOP-BANG: 5.4, Mean ESS: 14.5
Sleep Study Referral Rate	3% 	All high risk referred to sleep clinic

5. Key Findings

Finding from data:

- **High Symptom Burden:** Frequent admissions (median 3/year) for somnolence & breathlessness.
- **The Implementation Gap:** Risk recognition alone insufficient; workflow barriers remain, improved referral processes crucial.

6. Conclusion & Sustainability Plan

Conclusion: Standardised screening with STOP-BANG/ESS effectively uncovers hidden OSAHS; strengthening direct referral workflows essential for diagnostic completion.

Sustainability Strategy:

- Permanent STOP-BANG in clerking proformas
- Incorporate in resident doctor induction
- Regular reporting at respiratory governance