

中文題目：適用於亞洲門診病人之簡明 4 項中重度阻塞性睡眠呼吸中止症篩檢工具 (BASS 量表)

英文題目：A Concise 4-Item Screening Tool (BASS Score) for Moderate-to-Severe Obstructive Sleep Apnea in Asian Outpatients

作者：黃健祐^{*1,2}，薛佳芳¹，劉香君¹，滕涵樂¹

(報告者請以*表示，如許美鈴*)

服務單位：1.深呼吸診所, 2.衛生福利部嘉義醫院耳鼻喉科

Objective:

While standard questionnaires like STOP-Bang are widely used for obstructive sleep apnea (OSA), their calibration for Asian populations remains limited. This study aims to develop and validate a rapid 4-item clinical screening tool tailored for Asian outpatients to identify moderate-to-severe OSA.

Methods:

A retrospective analysis of adult outpatients evaluated for sleep-disordered breathing and rhinitis-related symptoms was conducted. Comprehensive clinical and diagnostic variables systematically analyzed included demographic and anthropometric parameters (sex, age, height, weight, and BMI), allergy biomarkers (total IgE and preoperative Phadiatop), subjective symptom and quality-of-life questionnaires (PSQI, ESS, SOS, ETDQ7, PHI, and RQLQ), as well as objective overnight sleep parameters (preoperative AHI, preoperative HI, and preoperative lowest oxygen saturation). Multivariable logistic regression, decision-tree algorithms, and receiver operating characteristic (ROC) curve analyses were used to evaluate predictive performance, determine optimal diagnostic cutoffs, and construct the BASS scoring system.

Results:

A total of 70 adult outpatients were analyzed. The cohort exhibited an overall OSA prevalence ($AHI \geq 5$) of 60.0% ($N=42$), with moderate-to-severe OSA ($AHI \geq 15$) diagnosed in 27.1% ($N=19$) of the patients. Four key predictors were integrated into the BASS score ($BMI > 27.7 \text{ kg/m}^2$, Age > 40 years, SOS score < 30 , and Male Sex; range 0–4). The BASS framework demonstrated exceptional stratification power: patients scoring 0 (24.3% of the cohort) achieved a 0% false-negative rate for moderate-to-severe OSA, serving as an optimal rule-out threshold. Conversely, patients in the high-risk tiers (scores 3–4) showed a positive predictive value (PPV) of up to 100%. Linear-by-Linear Chi-Square $X^2 = 25.827 (p < 0.0001)$

Conclusion:

The BASS score provides a rapid, intuitive, and localized outpatient screening tool. By effectively ruling out low-risk cases and prioritizing high-risk individuals, it optimizes clinical workflow and diagnostic resource allocation.