

Enhancement of Sleep Laboratory service : Set Up Home Sleep Service in Princess Margaret Hospital

Lam WC (1), Ho KH (1), Ruth Lau (1), Chu YM (1), Grace Chan (1), Yeung YC (1), Jessica Yik (1), Mak KM (1)

(1) Department of Medicine and Geriatrics, Princess Margaret Hospital

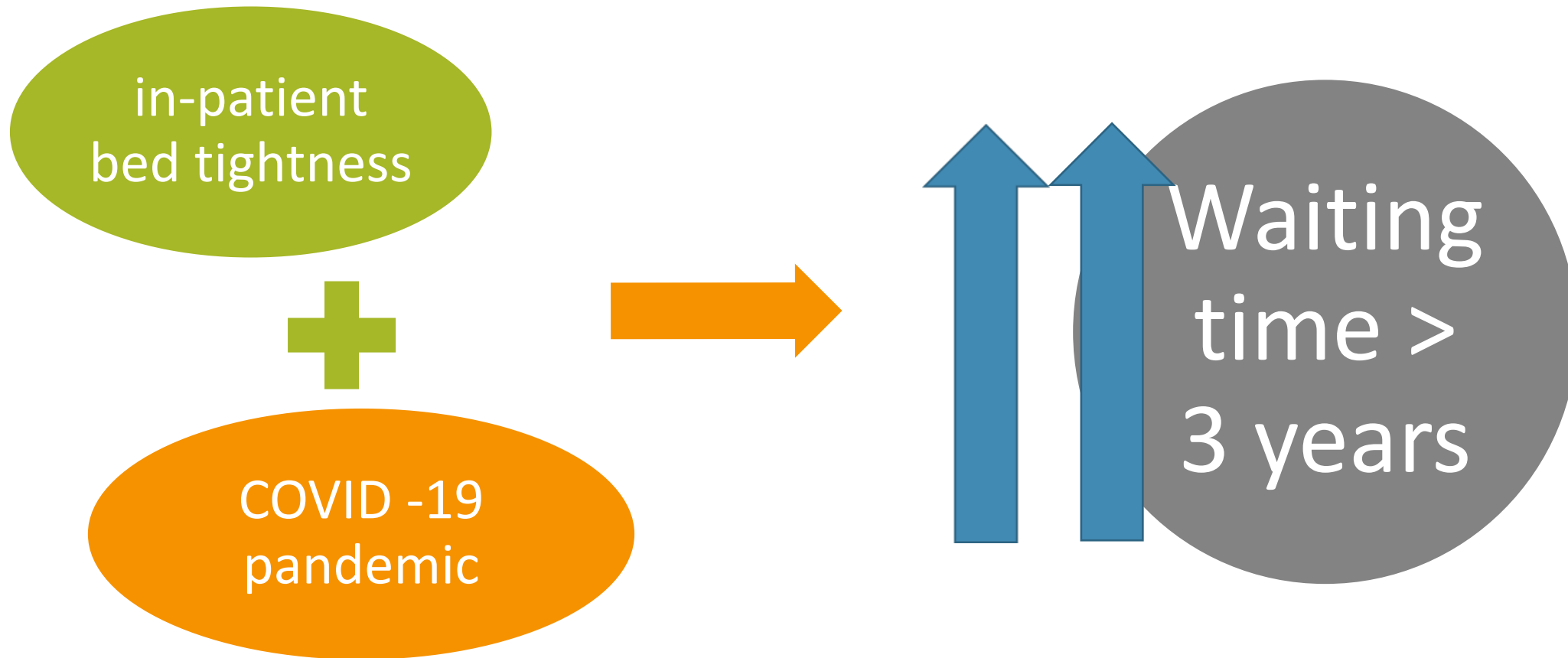
Background

- Obstructive sleep apnoea (OSA) is a breathing disorder known by recurring episodes of upper airway obstruction
- In Hong Kong, the prevalence of OSA is over 4% in male and over 2% in female (age from 30 to 60 years)

Background

- Polysomnography (PSG) is the gold standard for diagnosing obstructive sleep apnea (OSA) in patients
- Since 2000 , in- patient sleep study has provided in respiratory unit of PMH

Background



Home sleep apneas test (HSAT)

- A simplified version of sleep study (level 3 sleep study) to conduct testing for OSA at home.
- In 2024, home sleep service was set up in the respiratory unit.

Objective

- To reduce the waiting time of sleep study for OSA by using home sleep services
- To improve the effectiveness of home sleep service with initiative intervention.

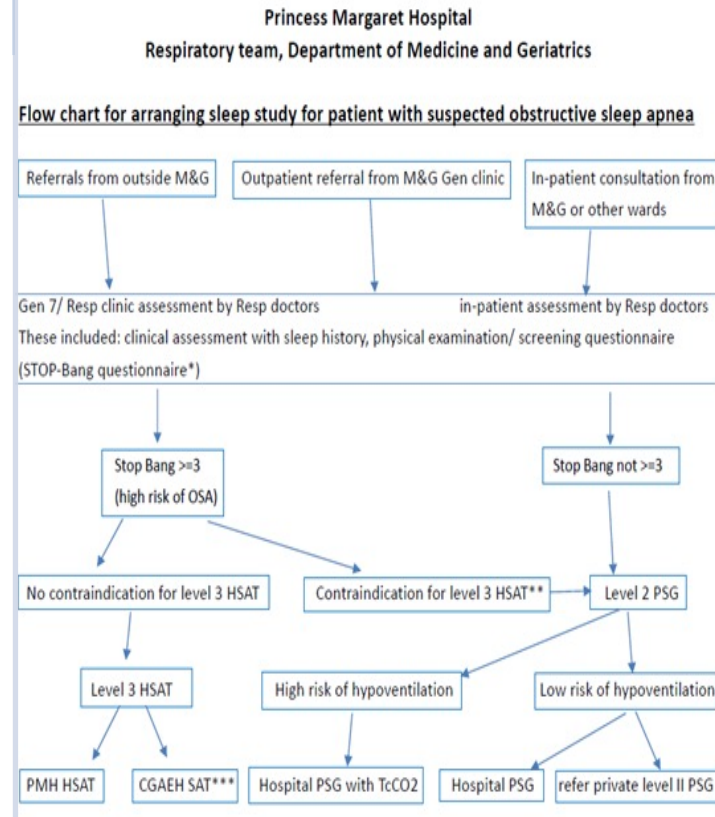
Methodology

1. Service workflow

Home Sleep study schedule

- 2 home sleep study /week
- Total 10 home sleep study / month

Flow Chart



Stop Bang Questionnaire

| STOP BANG Questionnaire yes=1; no=0 | | |
|--|---|-------------------|
| S | Snoring | |
| T | Tiredness | |
| O | Observed apnea | |
| P | High blood pressure | |
| B | BMI > 35kg/m ² | |
| A | Age > 50years | |
| N | Neck circumference > 40 cm (measured around Adams apple) | |
| G | Male Gender | |
| Scoring | 0-2 | Low risk |
| | 3-4 | Intermediate risk |
| | 5-8 | High Risk |

Home sleep report

Data
download

Reporting

2 weeks
Resp
clinic FU



Methodology

2. Patient education / educational materials

- Individual training (Half hour)
- Educational materials
- Evaluation



瑪嘉烈醫院呼吸科

家居睡眠測試指引

家居睡眠測試是利用放置在鼻孔，胸部，腹部的感應器和手指上的血氧測試儀，收集分析數據製成睡眠報告，協助醫生得知測試者有否出現缺氧和窒息的情況，從而診斷測試者有否患上睡眠窒息症。瑪嘉烈醫院呼吸科會外借家居睡眠測試儀器一套，使測試者可根據醫護人員指示在家中自行配戴儀器進行測試。

注意事項

1. 如需要定時服藥，請按照醫生指示服用。
2. 測試當日請勿飲用含酒精飲品及使用鎮靜劑。(如屬醫生處方每日必須的藥物，則可照常服用。)
3. 測試當日下午四時後請勿飲用咖啡或含咖啡因之飲品。(如屬每日習慣則例外)
4. 測試當日請勿睡午覺，以免影響測試結果。(如屬每日習慣則例外)
5. 當日應盡量保持平日活動及生活狀態，切勿刻意增加或減少運動及食量。
6. 使用儀器時請勿塗上指甲油。
7. 佩戴儀器後，避免弄濕及損壞儀器；亦要避免大幅度的肢體動作，以免令儀器及配件鬆脫。
8. 此測試儀器及配件乃醫管局財物，請小心保護。如有損壞或遺失，醫管局保留追究責任的權力。
9. 八號颱風或黑色暴雨警告訊號發出後，本部門將停止服務。所有約期將會通過電話更改。如有查詢請於辦公時間致電 29901636。
10. 辦公室地址：瑪嘉烈醫院 P 座 1 樓呼吸機組。



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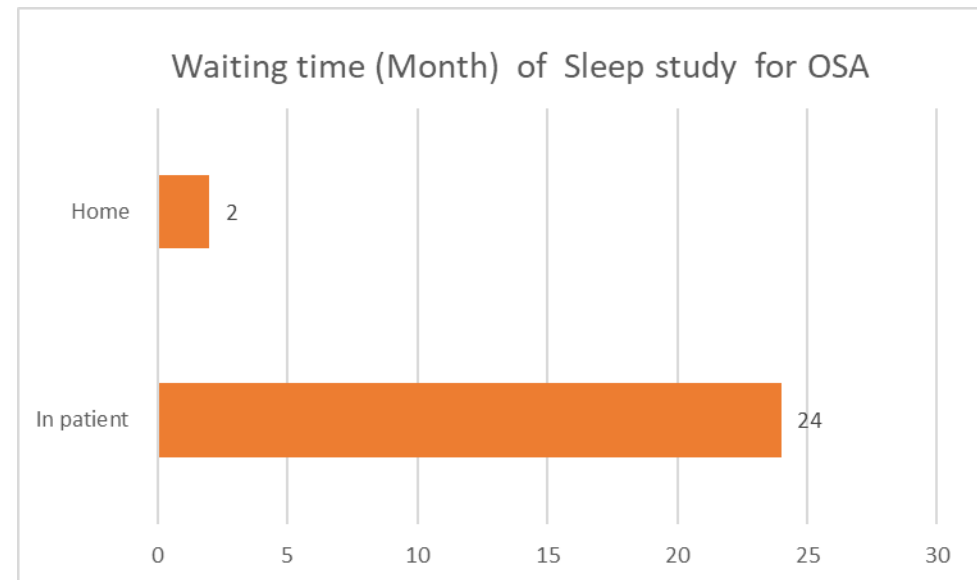
家居睡眠測試問卷調查

以下是一個針對病人家居睡眠測試操作的問卷調查。這份問卷旨在收集病人在進行家居睡眠測試過程中的經驗和感受。

- 年齡
☐ 18-30 ☐ 31-40 ☐ 41-50 ☐ 51-60 ☐ >60
- 性別
☐ 男 ☐ 女
- 你是職業司機
☐ 是 ☐ 否
1. 您對測試設備的指引清楚瞭解。
☐ 非常同意 ☐ 不同意 ☐ 同意 ☐ 非常不同意
 2. 您在家中進行睡眠測試時沒有感到不適。
☐ 非常同意 ☐ 不同意 ☐ 同意 ☐ 非常不同意
 3. 家居睡眠測試 短片教學、教導單張和護士講解 內容清晰易懂。
☐ 非常同意 ☐ 不同意 ☐ 同意 ☐ 非常不同意
 4. 透過短片教學和單張，能協助你在家中進行睡眠測試。
☐ 非常同意 ☐ 不同意 ☐ 同意 ☐ 非常不同意
 5. 家居睡眠測試安排比較方便。
☐ 非常同意 ☐ 不同意 ☐ 同意 ☐ 非常不同意
 6. 您對家居睡眠測試整體過程感到滿意。
☐ 非常同意 ☐ 不同意 ☐ 同意 ☐ 非常不同意
 7. 您對家居睡眠測試有什麼建議或意見?

Result and Outcome

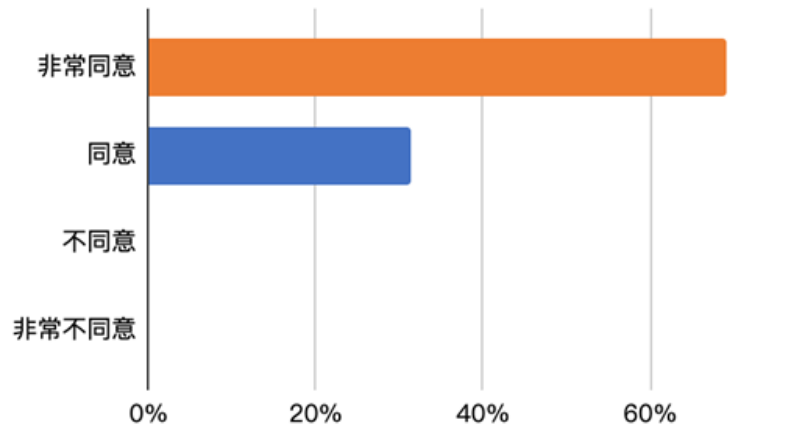
- Period : Apr – Dec 2024
- Nos. of home sleep study : 34 cases
- Result : 88.2% cases with OSA / 11.8% cases without OSA
- Waiting Time : 2 months



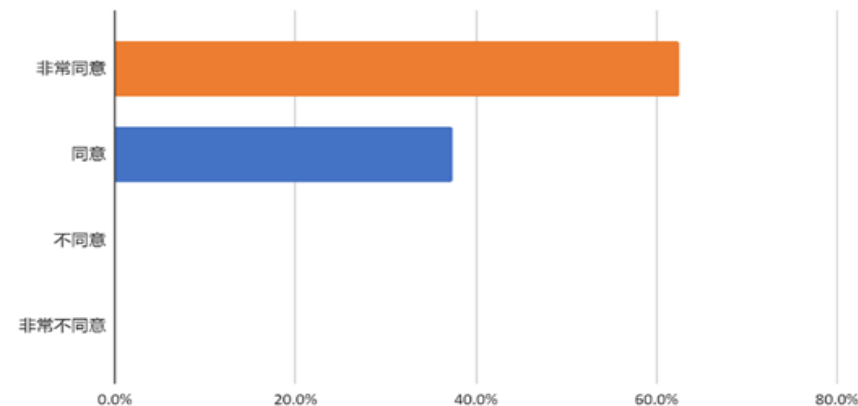
Result and Outcome

- Home sleep study
 - 69% of patients totally agreed that the home sleep study is more comfortable, as patients sleep well in their home sleep environment
 - 62.5% of patients totally agreed that the home sleep study is more accessible.

2. 您在家中進行睡眠測試時沒有感到不適



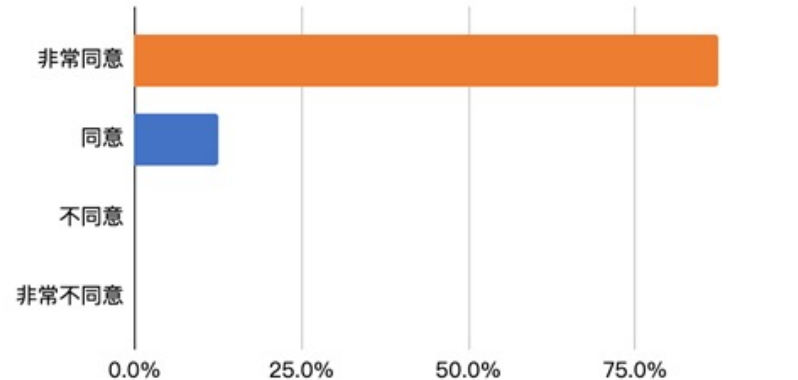
5. 家居睡眠測試安排比較方便



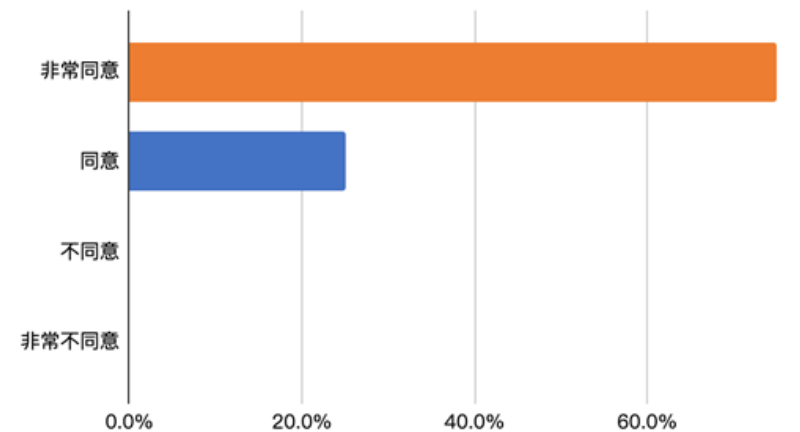
Result and Outcome

- Nursing Education / Material
 - 87.5% of patients totally agreed that the educational materials provided were clear and comprehensible
 - 75% found the accompanying video guides and leaflets useful in facilitating their understanding of the home sleep study process.

3. 家居睡眠測試 短片教學, 教導 單張和護士講解
內容清晰易懂



4. 透過短片教學和單張，能協助你在家居進行睡眠測試



Conclusion

Home sleep study

- Less expensive
- Less staff
- cost-effective and efficient
- Early diagnosis

Acknowledge

Dr. Y C Yeung (Consultant /Resp/ PMH)

Ms. Jessica Yik (DOM/ M&G/PMH)

Ms. Ruth Lau (NC / Resp/PMH)

Respiratory Day Service Team



thank
you