

## Introduction

OSA prevalence in Spain is 26-28% of adult population, but only 25% patients receive treatment. However, non-treated patients cost 5,2x more to the Health care system.

During COVID, access to Sleep Labs was limited, resulting in increased waiting lists for diagnostics and follow-up, thus alternative solutions to assure quality of care to this growing population and health care burden was key<sup>3</sup>.

In Hospital Marqués de Valdecilla (Santander, Spain) telemonitoring was already in use for monitoring purposes. Its use was expanded as a process change enabler to continue OSA patient care, from treatment initiation and titration to ongoing patient's therapy follow-up remotely.

Our aim was to measure the impact of expanded Telemonitoring (TM) use on Obstructive Sleep Apnea (OSA) Patient Pathway.

## Methods

The **Time-Driven Activity-Based Costing (TDABC)**<sup>5</sup> was implemented, requiring to map previous (standard) and actual (digital) full patient hospital pathway over a complete care cycle (1 year), from patient referral to hospital until discharge after treatment and follow-up.

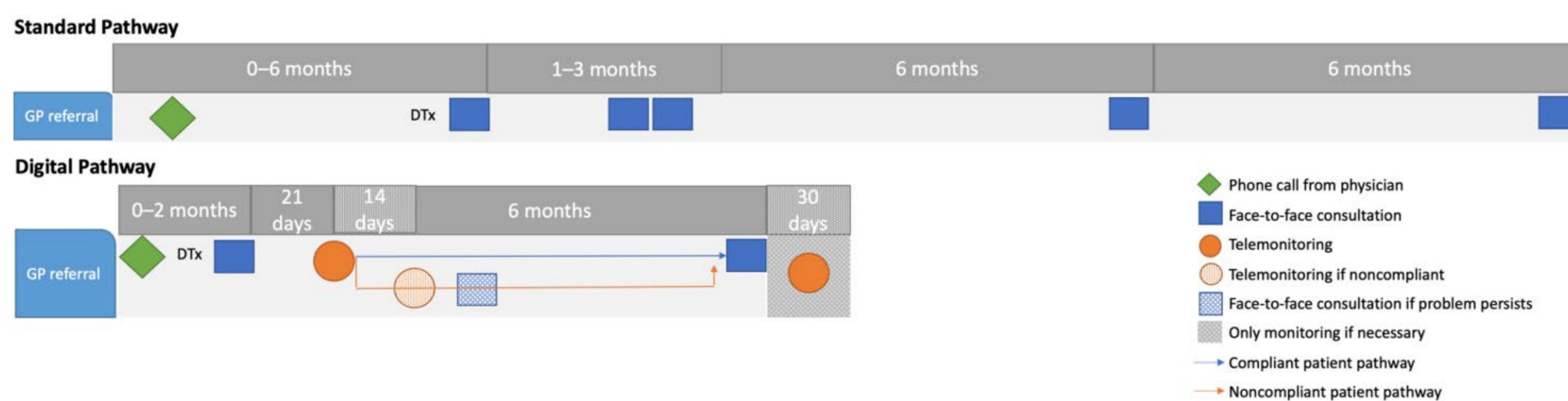
Due to lack of standardized core set available for OSA patients through the *International Consortium for Health Outcome Measurement (ICHOM)*, the most valuable patient's outcome were selected based on clinical team, data collected in clinical records and patient interviews during the process. All these indicators were summarized in a score card grouped by patient outcomes, process and cost indicators, allowing cost comparison between both pathways.

## Results

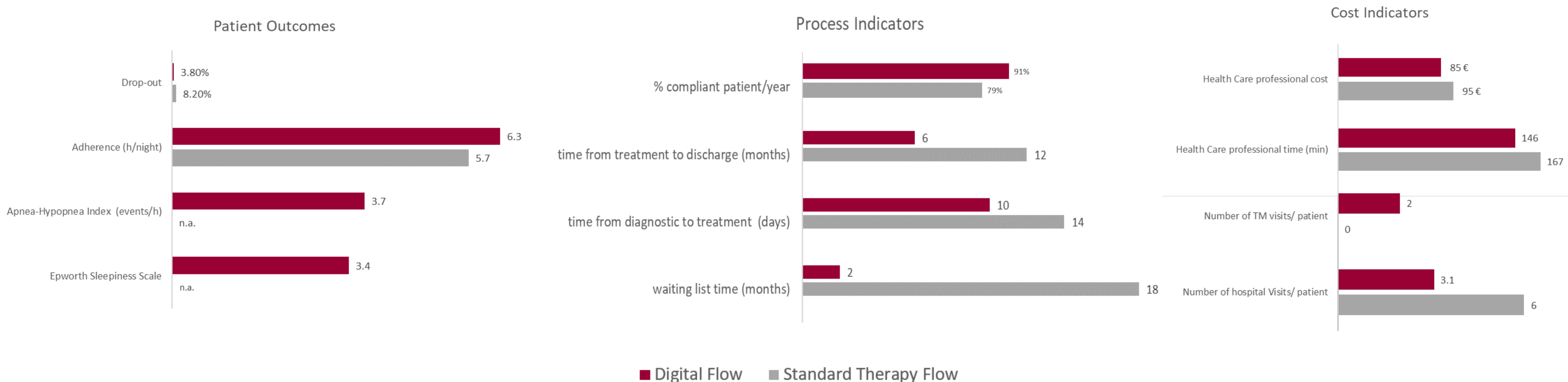
Health care professionals time decreased 13% (146min vs 167min), translating into 10€ cost saving per patient (85€ vs 95€).

Processes improved with a waiting list decrease by 16 months enabling faster access to therapy, with a full patient pathway (diagnostic to discharged) decreasing from 12 to 6 months.

Quality of care improved with a 10% increase on therapy adherence (6.3h/day vs 5.7h/day), 53% drop-out reduction and 12% improvement in long term compliance (79% vs 91%), above the overall 40% noncompliance rate in Spain.<sup>6</sup>



Scan me  
for additional information



## Conclusion

The TDABC approach has resulted in objectively measured costs and patient outcomes improvement in both pathways, indicating additional value in digital pathway for OSA patients compared to standard pathway. This process might support measurement of success of the OSA treatment from volume towards value, building ground for Value Based Health Care (VBHC) implementation.

## References

1. Benjafield, A. et al., 2018.
2. González Mangado N. et al. 2021;
3. Garmendia O. et al. 2021
4. Català R et al., 2016
5. Kaplan et al. 2023
6. Campos-Rodriguez F, et al. 2016

Contact: Sara.correia@resmed.com



<https://esleepeurope.eu/>