

Quality Improvement:

Improving patient sleep quality on Intensive Care, Queen Alexandra Hospital, Portsmouth

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Introduction:

Sleep disruptions and poor sleep are common in ICU patients. Rest is important for physiological and psychological recovery, and poor sleep may contribute to prolonged hospital stay and delirium. Multiple studies have been carried out to assess the efficacy of sleep-promoting interventions in ICU with limited and non-sustained benefit.

Objective:

- To identify factors contributing to poor sleep quality.
- To improve patient-assessed quality of sleep in ICU using modified Richards-Campbell Sleep Questionnaire (RCSQ).
- To gather ideas and suggestions to improve sleep quality in ICU

Method:

- Modified Richards-Campbell Sleep Questionnaire (RCSQ) with 100mm visual analogue scale was used.
- Factors affecting patient sleep were identified by using open ended questions.
- Non-ventilated patients who were able to understand and complete the RCSQ were included.
- 2 cycles were performed with a total of 38 patients.
- 17 patients in 1<sup>st</sup> cycle, 21 patients in 2<sup>nd</sup> cycle.
- The QI project was carried out from 1<sup>st</sup> June 2021- 31<sup>st</sup> July 2021.

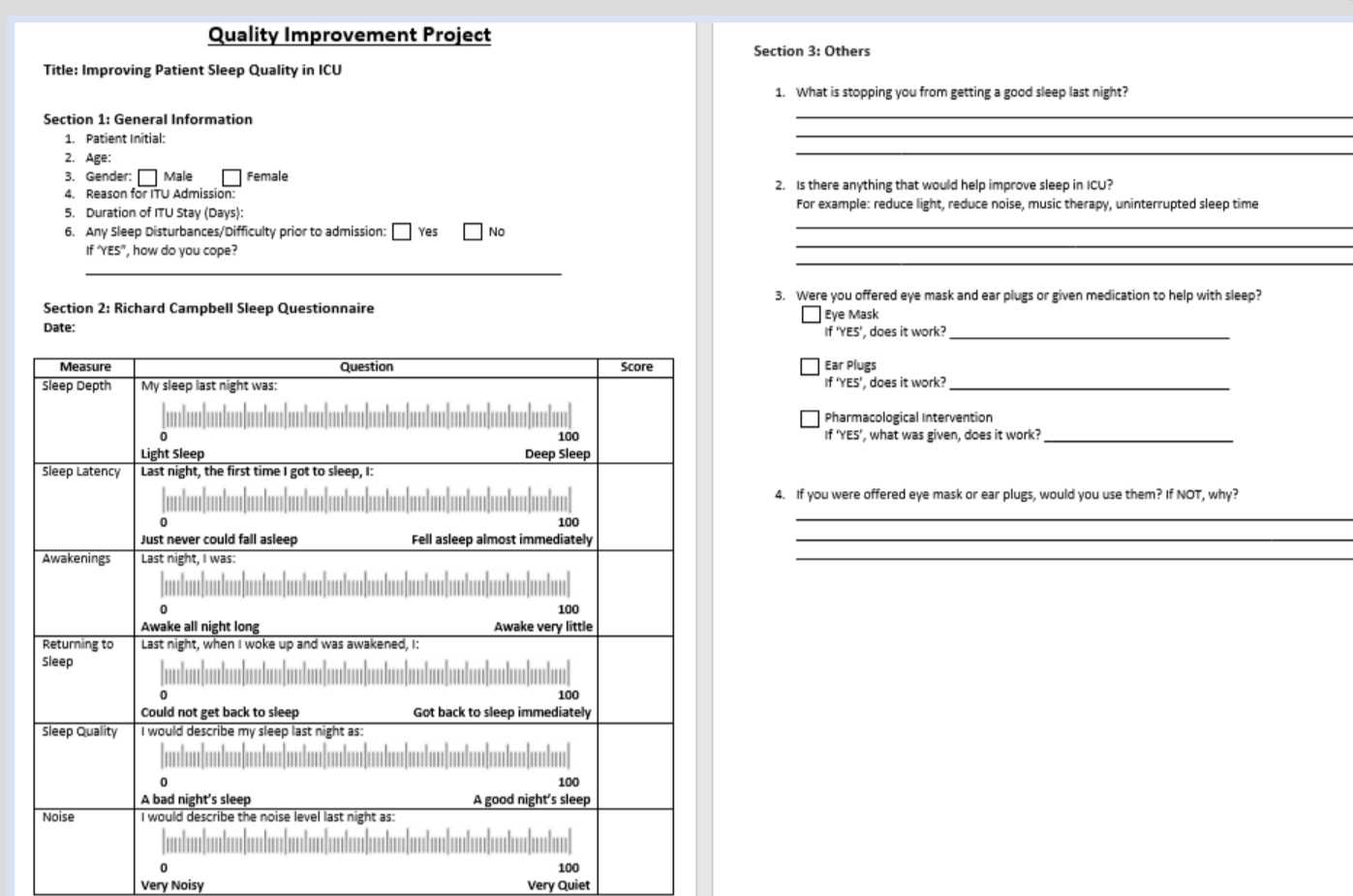


Figure 1: Questionnaire with RCSQ used for this project

Factors patients reporting that have affected sleep in ICU	Percentage of patients reporting issue as affecting sleep
Noise	43%
Pain and discomfort	27%
Other environmental	27%
Healthcare interventions	11%
Uncertain	29%
Lighting	8%

Table 1: Factors patients state affect sleep

Results:

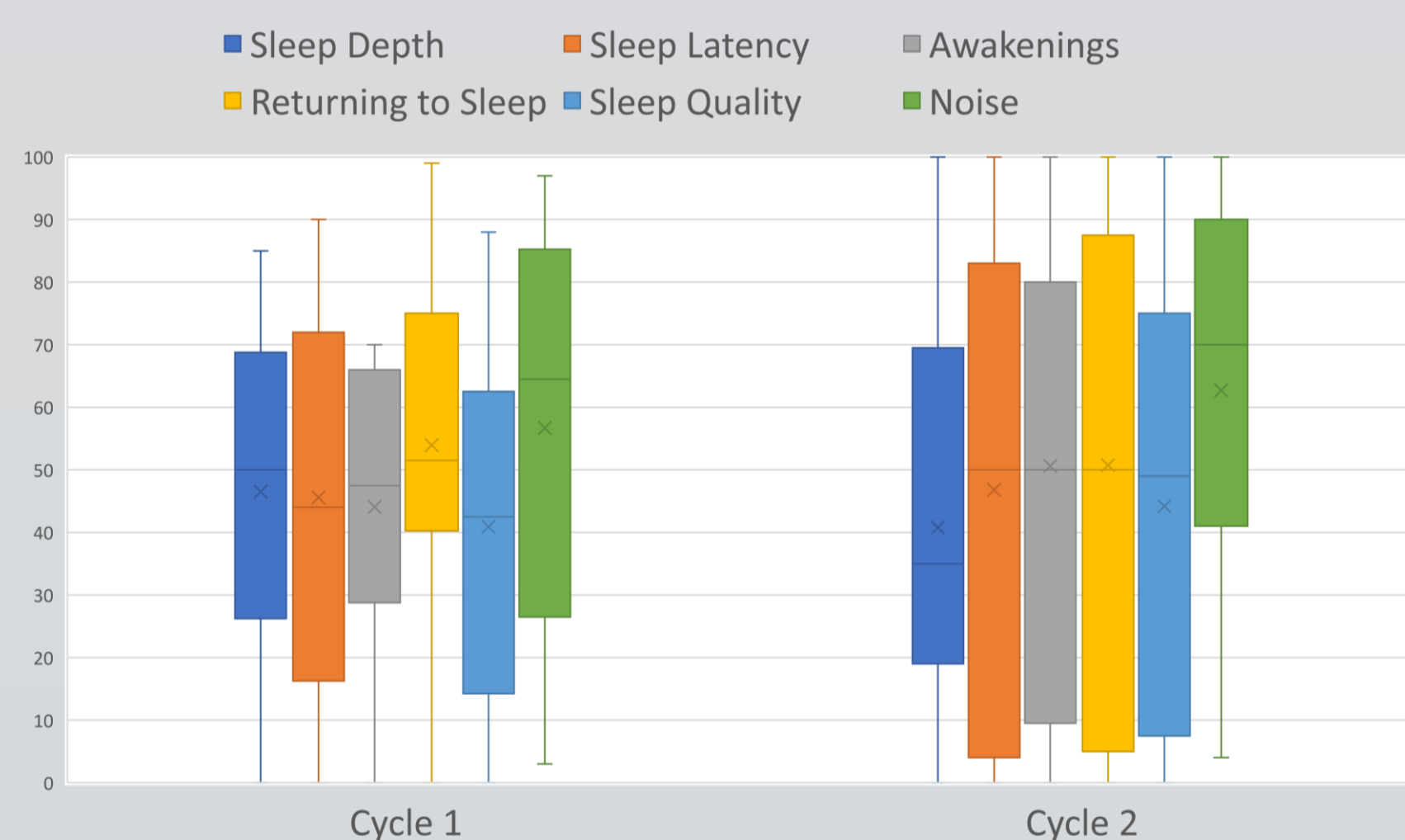


Figure 2: Box and whisker plots comparing RCSQ scores between cycles.

Overall, the median scores for patient rated sleep depth was 36, sleep latency 49, sleep awakenings 50, ease of return to sleep 51.5, sleep quality 45 and noise 69.

There were no significant differences between the two cycles shown in Figure 2.

10 patients were offered eye mask and ear plugs during their stay in ICU, which increased marginally between cycle 1 to cycle 2 from 24% to 29%. Only 1 patient felt that eye mask and ear plugs helped improve their sleep in ICU, however 9/11 (82%) of those not offered simple interventions would have considered using these.

Conclusion:

The current patient rated sleep quality on our intensive care is similar to published reports using the RCSQ. However, given this low baseline, there are areas for improvement. The overall noise rating of ICU was better than expected, although 43% still stated it as a factor.

The initial cycles have tested feasibility and allowed finetuning of our methodology. The eventual aim will be for the bedside nurse to perform the questionnaire daily.

The project has allowed identification of factors patients believe are affecting their sleep. We plan on doing further cycles to tackle this multifactorial and complex problem.

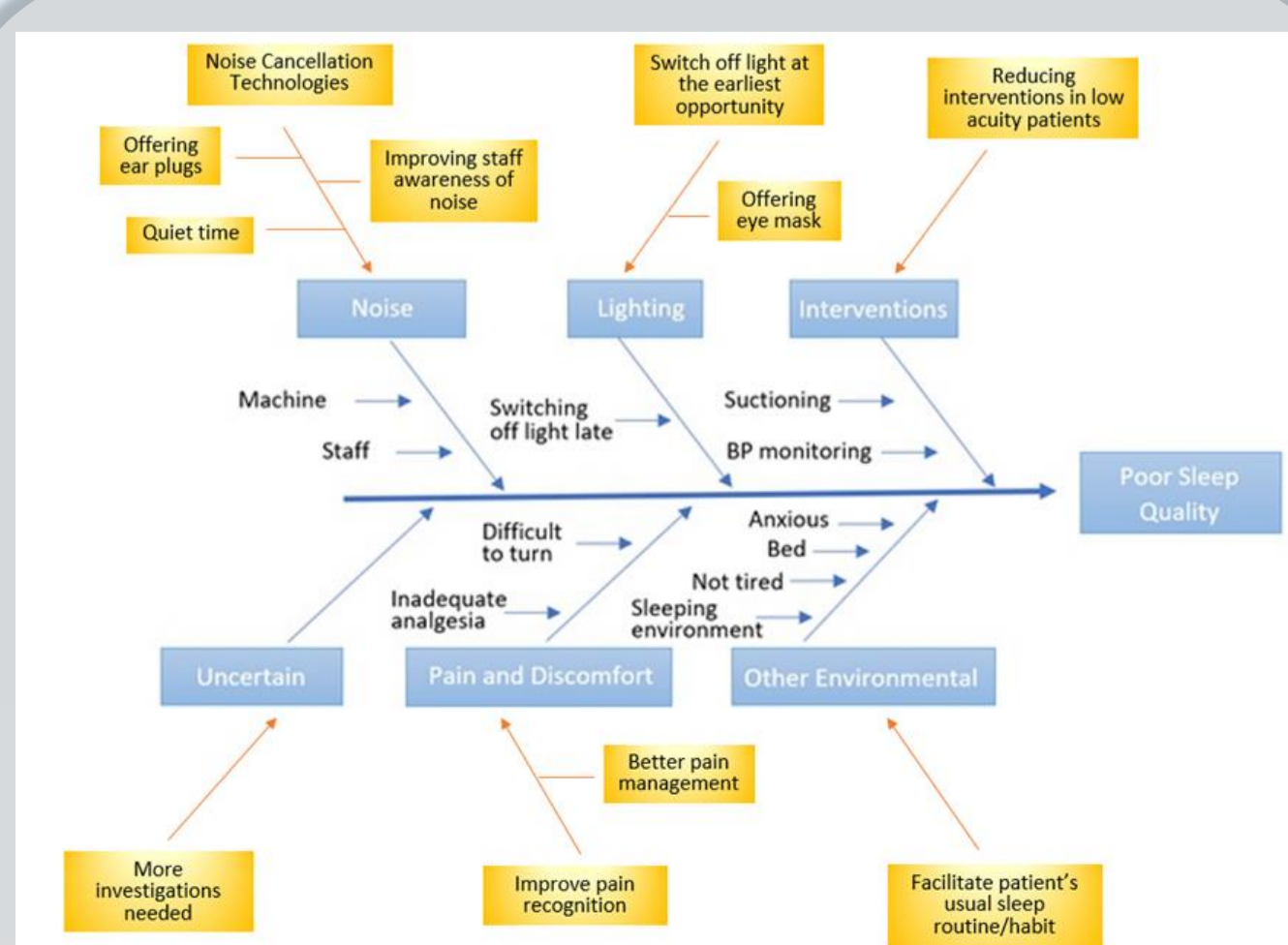


Figure 3: Intended interventions (in yellow boxes) to tackle factors affecting sleep quality reported by patients