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131 Sleeping It Off - Are Hospital Wards Too Noisy to Allow Patient Recovery?

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Aim: Increased overnight noise levels are known to stimulate the release of multiple stress hormones and negatively impact upon objective and subjective sleep quality. Increasing levels of noise impairs physical and psychological recovery, and has been shown to slow wound healing, increase complication rates, and lengthen hospital admissions. Noise levels are therefore an important component of post-operative care and recovery. The purpose of this study is to document the actual noise levels experienced by patients overnight and analyse the sources of noise.

Method: Firstly, five-minute recordings were made during four separate hours throughout the night on two wards - one paediatric and one adult. Secondly, researchers described and categorised the sources of noise.

Results: The World Health Organisation (WHO) has recommended that average overnight noise levels in hospitals should not exceed 35 dB. The average recorded on the paediatric and elderly ward was 42.27 dB and 43.91 dB, with peak noise levels of 93.65 dB and 97.01 dB respectively. In every five-minute recording, there was at least one sound louder than 67 dB. Researchers identified multiple avoidable and non-avoidable causes.

Conclusions: The average noise level was significantly greater than the WHO recommendations. Every five-minute recording contained peak sounds of significance. Such noise levels have been linked to poor sleep, increased stress hormone release, delayed wound healing, and an increased post-operative recovery time. Many feasible solutions to address the avoidable causes of these sounds are identified. Addressing this issue is important for both medical and surgical units and is likely to improve patient outcomes.