

201 Reducing Noise Pollution on a Surgical Ward

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Noise pollution in surgical wards negatively influence the wellbeing of patients and healthcare professionals. In addition to disrupting sleep and impairing communication, recognised patient consequences include increased pain, increased re-admission rates and post-ICU psychosis. Ambient white-noise machines, sound-absorbing ceilings and retractable screens are purported as noise pollution reducing strategies (NPRS). These are expensive and impractical. We investigated the capacity of various low resource NPRSs.

Noise was measured using "Sound Meter" app at four sites on two identical surgical wards. Ward A and B were designated as study and control ward, respectively. Measurements were taken at three time points (9am, 11am, 3pm) every day during a week. NPRSs were then implemented in ward A and data collection repeated.

Prior to intervention there was no difference in noise between ward A and ward B (83dB and 87dB respectively, $p > 0.05$). After intervention, ward A was significantly quieter than ward B (64dB and 85dB respectively, $p < 0.05$).

Restructuring ward environments presents several challenges. However, low resource interventions can have a positive role in reducing noise pollution. As hospitals become busier with resumption of normal services post-COVID-19, staff should be considerate of noise pollution in order to create an environment conducive to high quality patient care.