
Postoperative Delirium and Windows in the ICU



Delirium is characterised by a sudden onset of cognitive changes, often accompanied by either altered consciousness or disorganised thinking. It is commonly observed in the post-surgical ICU, affecting up to 50-70% of patients, depending on individual risk factors.

Several factors contribute to ICU delirium, including pre-existing and acute medical conditions, medications, and treatments like surgery. Despite ongoing research, there is no clear consensus on drug interventions for the prevention or treatment of delirium.

Although some evidence suggests that the ICU environment may influence the onset of delirium, further studies are needed to explore this link. In a recent study conducted by Mass General Brigham in collaboration with researchers from Boston University's Chobanian & Avedisian School of Medicine, an intriguing finding emerged: patients in rooms with windows had higher odds of developing delirium compared to those in windowless rooms.

The research team analysed electronic medical records to examine the relationship between room types—windowed versus non-windowed—and the occurrence of delirium. The results showed that 21% (460 out of 2,235) of patients in rooms with windows developed delirium, compared to 16% (206 out of 1,292) in rooms without windows.

Although these findings were unexpected, especially considering prior research highlighting the importance of circadian rhythms in the hospital setting, these results contribute to a growing body of evidence on how healthcare design influences patient outcomes and experience. The observed results reflect how patients at higher risk for delirium might be assigned to different room types by clinical teams.

The authors highlight the need for further research to explore how specific characteristics of windows could affect patient health. This study expands the understanding of the link between delirium and aspects of the built environment, but additional research is necessary to gain a clearer understanding of these results. For instance, the type of view—such as whether the window faces a landscape or another building—could provide important context. Moreover, factors like light and sound in the room might also play a role, and we plan to explore these variables in future studies.

Source: [Boston University School of Medicine](#)

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