

**ACOUSTICS2008/2582**  
**Improved perception of sound environments through room  
acoustic interventions**

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Noise in hospitals is apparently among the top complaints of patients, visitors, and staff. An increasing amount of evidence shows the negative effects of sound within health care environments, affecting the quality of care in the end. Very few hospitals have actually been able to characterize hospital noise and to find effective noise control approaches. This paper will show international results of room acoustic interventions on the patients and staff perception of the sound environment. Next to that the suggestions will be presented on the use of relevant acoustical parameters to support the performance and well-being of staff and patients. One specific example will deal with a case study at the Thorax ICU at the Karolinska University Hospital in Stockholm. The purpose of the study has been to clarify how room acoustics in a patient ward affect the staff's perception of the noise situation in that ward. Another purpose has been to develop a better understanding of how a set of requirements for room acoustics should be formulated in order to obtain a supportive health care environment. It is possible to conclude that, by adding more absorption to the room, the noise situation has been positively influenced and perceived.

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Keywords:

Technical area: Noise (NS) - Euronoise

Session: NS15 - Noise, vibration and acoustics for medical and research facilities and their occupants

PACS #1: 43.50.Qp Effects of noise on man and society (see also 43.66.Ed, and 43.80.Nd)

PACS #2:

PACS #3:

Presentation: Oral presentation preferred (Invited paper)

Special facility: Overhead projector & audio equipment

Best student paper competition: no

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