



Health promotion in healing environments: the application of a sampling methodology for testing VOCs' annual values in inpatient rooms

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Abstract

Introduction. Indoor Air Quality is one the main issue in which governments is focusing. In healing spaces, several researches are reporting a growing number of data analysis and research works in order to better health of users and workers. Currently the main investigations are about biological and physical risks, otherwise chemical ones are less investigated. Several countries are carried out air quality monitoring in those professional workplaces in which chemicals are used, but also in some typically indoor spaces for the building hygiene evaluations. Therefore it determinated the definition and adoption of limits or guidelines and values, although the Italian context lacks of specific norms. Starting from these considerations, a research group has launched an investigation and detection of air quality in inpatient rooms. The analysis examines VOCs, and the relative influence of thermo-hygrometric, ventilation and concentration of pollutants' parameters. The paper reports the results obtained from the indoor air monitoring in some inpatient rooms. Each survey, done every month, lasted between 5 and 7 days in relation to the real function use of the rooms, which considers all the activities, users and processes that influence the indoor air quality. The analysis is work in progress on several inpatient rooms for controlling the indoor air values even during the year, and it is expanding to more health facilities. Those data will be useful for the definition of design guidelines for healthy inpatient wards.

Biography:

Marco Gola, Arch. Ph.D candidate at Department of Architecture, Built environment and Construction engineering, Politecnico di Milano. His research interests deal with hospital design issues, in particular his research activities are related to hygienic issues analyzing indoor air quality in healthcare facilities and hospital design. Gaetano Settimo Ph.D., Dr. Researcher at Health and Environment dept. of Istituto Superiore di Sanità in Rome. His research activity is strongly related to environmental issues and in particular the impact of chemical pollutants on the environment and on human health, on the assessment of exposure and risk assessment. This activity also included the study and development of analytical methods for the detection of particular pollutants that may affect industrial and urban areas, the assessment of emission sources and possible mitigation measures. He is currently the coordinator of the National Study Group on indoor pollution by Istituto Superiore di Sanità. Stefano Capolongo, Ph.D., Arch. Professor at Department of Architecture, Built environment and Construction engineering, Politecnico di Milano. He teaches at the Post-graduate Schools of Hygiene and Preventive Medicine at Università degli Studi di Parma and Milano and at Università Vita-Salute of San Raffaele hospital in Milan. He is the representative of Cluster "Design of healthcare facilities" of Politecnico di Milano and director of the joint Master in "Planning, Programming and Design for Health Buildings" Politecnico di Milano, Università degli Studi di Milano and Università Cattolica del Sacro Cuore in Rome.