

220. MICROCLIMATE STATUS IN CITY HOSPITALS

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Introduction. The room microclimate is determined by the temperature and air humidity, air currents. All the factors microclimate acts both combined and concurrently on the human body. So, microclimate acts over the thermal comfort (TC). According to the British BS EN standard ISO 7730, TC is "condition of the mental state that expresses satisfaction with the surrounding environment". In the hospital there is a constant flow of people who are influenced by the inside of the microclimate. Legg (1971) has suggested that there are four categories of ward user to be considered. First, there are patients who are involved in a minimum activity. Secondly, there are the nursing and medical staff who carry out a little physical exertion. Thirdly, domestic staff who do a lot of physical work. Finally, are visitors and staff from other hospital who are only in the ward for a short time. The deviation of the microclimate indicators will influence all categories of people working inside the wards. At 21 °C, the influenza virus is least likely to survive between 40%- 60%rh. Bacteria will have a decreased growth rate at less than 25%rh but will have higher growth at 90%rh or above. Mold is most likely to reproduce at a rapid rate over 60%rh. Between 30%- 50%rh is ideal for controlling and reducing mold growth. Relative humidity can either hinder or help propagate infectious agents like viruses and bacteria. It can affect the spread of other irritants like mold that can trigger allergic reactions and asthma attacks.

Aim of the study. Determination of the microclimate status in the city hospitals.

Materials and methods. Microclimate assessment is performed on the basis of sanitary and hygienic norms. For maintaining a favorable microclimate in a hospital wards, have been elaborated „Regulament sanitar privind conditiile de igiena pentru institutiile medico-sanitare” HG nr. 663 from 23 July 2010. Compliance of these sanitary-hygienic conditions contributes to maintaining a thermal comfort of the patients in the different wards.

Results. According to HG nr. 663 from 23 July 2010 „Regulament sanitar privind conditiile de igiena pentru institutiile medico-sanitare”, Chapter 6 provides requirements for heating, ventilation, microclimate and room air quality. Paragraphs 148 provides „The heating, ventilation and air conditioning system must ensure optimal microclimate conditions and proper chemical component of the indoor air.” Paragraphs 149” The temperature, the multiple of the air exchange will correspond to the indications established by the sanitary regulations.” Paragraphs 155 provides „water in central heating systems is used with a maximum temperature in convectors of 85 °C.” Paragraphs 168 provides” The relative humidity of the air will not exceed 60%, the velocity of the air movement - 0.15 m / sec”.

Conclusions. The monitoring of the microclimatic regime in the hospital wards will be carried out.

Key words: hospital, microclimate, hygienic norms, monitoring