

S35. Forming the Electromagnetic Fields Map of Cukurova University Balcalı Hospital and Evaluation of Possible Health Effects in Health Care Workers

Mehmet Gökdeniz, Muhsin Akbaba, Ersin Nazlıcan, Hakan Demirhindi
Cukurova University Faculty of Medicine Public Health Department, Adana

Purpose: Although the facilitating effect of increasing use of technology in our daily and occupational life, health problems related to technology are not very clear. As a result of the scientific and technological revolution and providing easiness to us, electrical equipments have a permanent place in our lives and they have harmful effects additional to the benefits. This research aims to measure the electromagnetic fields load of Balcalı Hospital and determine the situation of the diseases and symptoms of hospital employees caused by electronic medical device usage.

Materials-Method: It is a descriptive study aims to determine the health status of Balcalı Hospital employees due to electromagnetic fields exposure. The number of employees participated in the research is 259. Socio-demographic features, diagnosed diseases and present symptoms of health workers' are interrogated and collected as data. SPSS 20 for Windows is used for statistical analyses and Chi-Square test, t-test, ANOVA and Mann-Whitney U test are used to analyze data. p value<0,05 is evaluated as significant.

Results: There is no difference in health status between the groups when they are divided to EMF and control groups. But Total Risk Score which is calculated including total working time is found to be related with hypertension, lung diseases, allergic diseases; fatigue, irritability, forgetfulness, ear disorder, hearing impairment, stomach discomfort, palpitations and shortness of breath.

Conclusion: Results of the electromagnetic fields measurement values and health effects are similar to the literature in general. The results of the research showed that required protective and preventive measures should be provided. Detailed assessment of working conditions of those who have diseases and symptoms and new arrangements would be appropriate

Keywords: Electromagnetic Fields, employee health, occupational disease