

P-7**EXTREMELY LOW FREQUENCY
ELECTROMAGNETIC FIELD FROM
CONVECTIVE AIR WARMING
SYSTEM ON TEMPERATURE
SELECTION AND DISTANCE**

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Hypothermia generates potentially severe complications. Forced air warmer is effective to prevent hypothermia in operating room or ICU. Extremely low frequency electromagnetic field (ELF-EMF) is harmful to human body and causes various diseases like cancer. ELF-EMF is mainly produced by electronic equipment including convective air warming system.

Yöntem: Convective air warming unit (WarmTouch™, Covidien) was operated in empty operating room. The intensity of ELF-EMF was measured as two-second interval for four temperature selection (high, medium, low and ambient) and five different distances (0.1, 0.2, 0.3, 0.5 and 1 meter). All of electrical devices were off including lamp, computer and air conditioner. Groups were compared using one-way ANOVA. $P < 0.05$ was considered significant.

Bulgular:

Mean values of ELF-EMF on the distance of 30 cm were 18.63, 18.44, 18.23 and 17.92 respectively (high, medium, low and ambient temperature set). ELF-EMF of high temperature set was higher than data of medium, low and ambient set in all the distances ($P < 0.05$). ELF-EMF of high

temperature were 134.70, 41.51, 18.63, 5.34 and 0.78 respectively (0.1, 0.2, 0.3, 0.5 and 1 meter).

Sonuç:

ELF-EMF from convective air warming system is higher in condition of more close location and higher temperature. ELF-EMF within fifty centimeters exceeds Swedish TCO standard.