

THEORETICAL MODEL FOR THE UV DISINFECTION SYSTEM IN THE OPERATING WARD OF PZU “FILIP VTORI”

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Abstract – Here we investigate the theoretical modeling of an UV disinfection system for the operating ward in PZU “FILIP VTORI”. As nosocomial infections pose a serious threat to patients everywhere in the world, here the disinfection of the air and the surfaces is modeled and discussed. The surfaces are disinfected with direct illumination of open UV after hours system, UV curtains, overhead disinfection, floor disinfection and disinfection of the incoming air through the ventilation/air-condition system. From the results it can be seen that the concentrations of bacteria, fungi and viruses drop significantly which in turn should give a significant drop in a number of hospital acquired infections.