

## **ABSTRACT**

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Title of diploma thesis: Incidence of Methicillin-Resistant *Staphylococcus aureus* in University Hospital Hradec Králové 2008-2010

Strains of methicillin-resistant *Staphylococcus aureus* (MRSA) are a significant cause of nosocomial infections. Their epidemiology keeps changing and MRSA infections are increasingly more frequent also among common population, which trend has become most noticeable in the USA. *S. aureus* can be generally found on skin or mucosae of healthy people, however its drug-resistant strains constitute a serious global problem, as the treatment of such infections is complicated and expensive.

The practical part deals with the occurrence of MRSA at the University hospital in Hradec Králové in the years 2008 - 2010 and strives to verify the theory of a long-term or even life-long latent MRSA infections in patients that have already been diagnosed with MRSA. The analysis was focused on occurrence in various types of material, occurrence on particular hospital departments, age of the patients and diagnosis of MRSA in a time-scale. In the years 2008-2009 the most frequently positive material were samples from the respiratory tract (53% in both cases) in which materials from the upper respiratory tract prevailed: swab smears from nose and throat. The department with the highest prevalence of MRSA was the Department of Gerontology and Metabolism, and a higher occurrence of the bacterium was detected in standard departments. The risk factor of MRSA infection is a higher age and male sex.

It is essential to strictly adhere to correct healthcare procedures and principles of antibiotic therapy to prevent further transmission and spreading of MRSA.