

THE MATHEMATICAL ANALYSIS OF TRANSMISSION DYNAMICS OF VARICELLA

Rita Csuma-Kovács, János Dudás, János Karsai
University of Szeged, Szeged, Hungary

Varicella is a very contagious disease occurring mostly among children, which can be prevented. It is caused by the varicella-zoster virus just like the herpes-zoster. In Hungary, the vaccine is available for more than 15 years, but it became obligatory only in this year. Despite all of this, there has not been any studies neither on its impact nor on the effectiveness of the different vaccination strategies. In my presentation, I consider age-structured models of transmission dynamics of varicella including vaccination strategies considering the Hungarian specialities. We perform parameter estimation for the different models, do predictions and investigate the cost-effectiveness of the different vaccination strategies.

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