UK GUIDELINE FOR MANAGING MENINGOCOCCAL DISEASE IN UNIVERSITY SETTINGS MAY HAVE RELEVANCE FOR OTHER EUROPEAN COUNTRIES

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Practical guidelines on the management of meningococcal disease in universities have recently been published in the United Kingdom [1].

Universities in the UK are increasingly aware that cases of meningococcal disease cause great distress and disturbance on campuses. Living arrangements and student lifestyles pose particular problems in public health management: for example, many students in the UK study at universities far from their home towns, and live in one-person rooms within halls of residence that may accommodate several hundred students. Misinformation about incidents may spread quickly and panic can easily result. Students who have recently left home may feel vulnerable especially if they have not yet established good access to local primary care services.

A peak of incidence in meningococcal disease in late teenage years is well recognized, and this peak corresponds with the age at which most students start university and at which the prevalence of carriage is rising [2,3]. University students in the UK are at higher risk compared with non-students of the same age group [4]. The risk is highest among first year students [5]. Students starting university are likely to be exposed to a wide variety of meningococcal strains, many of which they may not have encountered previously, and in a setting where extensive social interaction occurs.

This publication provides advice on drawing up plans for universities and public health services with suggested action before and after cases occur. Preventive advice includes checking for immunisation with meningococcal conjugate C vaccine, recommended in the UK up to the age of 25 years. The guidelines propose that each university formulate a management protocol for dealing with cases and outbreaks. Prompt and accurate communication to raise awareness of symptoms in students and healthcare providers, and to provide reassurance to students, is essential. Effective systems are recommended for monitoring and supporting students during illness, and providing rapid medical assistance when necessary.

Although the UK guideline for students is a practical and complete document that addresses pathogenesis and transmission of *Neisseria meningitidis* and control strategies to limit mortality and morbidity of the disease among universities students in UK, this guideline has much less relevance in European countries such as France, because students tend to continue to live in the family home during their university education, or to share apartments with a handful of other students, and they tend to socialise in smaller groups. Therefore this group is not considered as a high risk group for meningococcal disease. In France, the rate of meningococcal disease in teenagers (15-19 years old) is higher than in older age groups [6] and is associated with social behaviour rather than any particular living conditions.

Although the pathogenicity of *N. meningitidis* is universal, large differences in incidence rates are observed in Europe, both between neighbouring countries and within the same country. This reflects differences in the epidemiology of the circulating clones, environmental factors such as living conditions, and perhaps also some genetic factors and the national control strategy policies. Vaccination programmes are the primary prevention tool for meningococcal disease, but rapid identification and medical care seeking to limit fatality and sequelae and to prevent secondary cases are very important, and countries that have already produced recommendations addressing these issues should share these with countries that do not have the benefit of expertise or capacity to establish national guidelines. Comparisons of guidelines, and of the impact of those guidelines, are crucial to better control the disease at national and European level [7].

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