



MENINGOCOCCAL DISEASE IN SWITZERLAND: EPIDEMIOLOGY AND CURRENT MANAGEMENT POLICY

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Introduction

Meningococcal disease (MD) cases are reported to the Swiss Federal Office of Public Health (SFOPH) by physicians and laboratories. Furthermore, since 1990, most isolated strains are sent to the National Center for Meningococci in Geneva (1). Only samples with direct or indirect detection of meningococci (culture, PCR, immunoassay or Gram stain of a normally sterile body fluid) or cases with a Waterhouse-Friderichsen Syndrom or a polynuclear meningitis with coagulopathy are included in our database.

A peak in the number of reported cases of MD, mostly due to an increase in serogroup C (SC) strains (61% of all strains), was observed at the end of the year 2000 with an overall incidence rate of 2.5 cases/100'000 inhabitants (SC: 1.5/100'000).

An outbreak of 7 SC cases occurred in a close region with 40'000 inhabitants, during the same period. This represented an attack rate of 10.2 cases /100'000 inhabitants within 12 weeks. A local vaccination campaign was initiated for people <20 years with the polysaccharide vaccine, whereas the conjugated vaccine was given to the children <18 month of age. In the following year, 2 SC cases occurred in the same region among unvaccinated persons.

At the national level, a spontaneous decrease in the SC incidence rate was noticed during the spring 2001. Therefore, the introduction of the vaccination against SC meningococci into the national immunisation programme was postponed. However, following strategies were adopted:

- Persons with medical risk factors, microbiologic laboratory workers and military recruits: Vaccination with the new conjugated vaccine.
- Management of isolated cases: early antibiotic treatment for suspected cases and chemoprophylaxis and vaccination for close contacts: The latter only in presence of SC disease.
- Management of cases at school: chemoprophylaxis for classmates after the first case, vaccination of classmates only after 2 SC cases within 12 weeks.
- Management of clusters: inclusion of an epidemic threshold, as defined by the Centers for Disease Control (3 primary SC cases occurring within 12 weeks in a community, corresponding to an attack rate of 10 cases/100'000 inhabitants).
- Close surveillance with regular evaluation of our policy

Current situation

The incidence rate of MD and of SCMD has continued to decrease, with a proportion of SC down to 31% of all strains. The projected incidence rates of overall and SC cases for 2003 are currently around 1.2 and 0.3/100'000, respectively. This trend is attributed to a natural decrease. The number of sold conjugated vaccine doses is low (60'000 doses until the end of 2002).

Two areas receive special attention:

- In order to increase the precision of our surveillance system, the use and report of positive PCR, to detect the cases with sterile cultures, must be reinforced.
- The current immunisation strategies against meningococcal and pneumococcal infections are continuously evaluated by the SFOPH and the Swiss Advisory Board on Immunisation.

(1) Epi-Notiz: Entwicklung der Meningokokkeninfektionen in der Schweiz: Juli 1999-Juni 2002. Bulletin BAG 2003; 2003(4):48-50.