

Meningococcus

Procurement

Database ID 84_9

Year 2006

During the epidemic season in the African meningitis belt, vaccine from an international stockpile is made available to countries through the International Coordinating Group on Vaccine Provision for Epidemic Meningitis (ICG) set up in 1997 by WHO.

State of the art of new vaccines: research and development

WHO/IVB/06.01 Page 37

Vaccine Quality

Database ID 59_6

Year 2002

WHO recommendations for the production and quality control of meningococcal polysaccharide vaccines are published in the WHO Technical Report Series (No 658, 1981) and corresponding recommendations for the conjugate vaccines will appear shortly in this series.

Meningococcal vaccines: polysaccharide and polysaccharide conjugate vaccines (WHO position paper)

Weekly Epid. Record (2002, 77: 331-339) Page 337

Vaccine Handling

Database ID 81_1

Year 2006

The recommended conditions for storing vaccines used in immunization programmes are shown in Appendix 81_1. This diagram also indicates the maximum times and temperatures in each case. At the higher levels of the cold chain, i.e., at national (primary), and regional or province level, OPV must be kept frozen between -15oC and -25oC. Freeze-dried vaccines (i.e., BCG, measles, MMR and yellow fever) may also be kept frozen at -15oC to -25oC if cold chain space permits, but this is neither essential nor recommended. At other levels of the cold chain (intermediate vaccine stores and health facilities), these vaccines should be stored between +2oC and +8oC. All other vaccines should be stored at between +2oC and +8oC at all levels of the cold chain. Liquid formulations of vaccines containing diphtheria, pertussis, tetanus, hepatitis B, Haemophilus influenzae type b, IPV and their combinations should not be frozen.

Temperature sensitivity of vaccines

WHO/IVB/06.XX Page 2

Meningococcus

Database ID 81_6

Year 2006

Despite its relative stability, reconstituted (meningococcal vaccine) vaccine should be kept at refrigerator temperatures and should be discarded if not used during the day on which it is reconstituted

Temperature sensitivity of vaccines

WHO/IVB/06.XX Page 20

Database ID 14_33

Year 1998

Stabilized meningococcal vaccines in the lyophilized state can be stored at refrigerator temperatures for two years.

Thermostability of vaccines

WHO/GPV/98.07 Page 46

Database ID 14_34

Year 1998

Despite its relative stability, reconstituted meningococcal vaccine should be kept at refrigerator temperatures and should be discarded if not used during the day on which it is reconstituted

Thermostability of vaccines

WHO/GPV/98.07 Page 46

Schedule

Database ID 59_1

Year 2002

Current internationally marketed meningococcal vaccines are based either on combinations of group-specific capsular polysaccharides (A and C or A,C,Y, and W135) or on a conjugate between group C specific polysaccharide and a protein carrier. The polysaccharide vaccines are safe and highly immunogenic, although the group C component is ineffective in children under two years of age. On the other hand, the recently introduced serogroup C conjugate vaccine is safe and efficacious even in the youngest children.

Current internationally available meningococcal polysaccharide vaccines are safe and effective for individuals aged two years or more and are recommended for routine immunization of specific risk groups above this age.

Meningococcal vaccines: polysaccharide and polysaccharide conjugate vaccines (WHO position paper)

Weekly Epid. Record (2002, 77: 331-339) Page 330 & 332

Meningococcus

Database ID 59_10

Year 2002

In addition to their use in emergency mass campaigns, meningococcal vaccines are also recommended for groups in which a particularly high risk of disease has been documented. These include those attending army units, training camps, or boarding schools, travellers to epidemic areas, and persons with immunological predisposition to meningococcal disease (such as asplenia and inherited immunological deficiencies).

Meningococcal vaccines: polysaccharide and polysaccharide conjugate vaccines (WHO position paper)

Weekly Epid. Record (2002, 77: 331-339) Page 338

Database ID 59_13

Year 2002

In older children and adolescents group C disease may be prevented by a single dose of (group C conjugate meningococcal) vaccine. Where disease in children above two years of age is the main concern, or where resources are limited, several years of protection may be achieved by single injection of the combined groups A and C polysaccharide vaccine.

Meningococcal vaccines: polysaccharide and polysaccharide conjugate vaccines (WHO position paper)

Weekly Epid. Record (2002, 77: 331-339) Page 338

Vaccine Administration

Database ID 2_16

Year 2004

Administration summary: Meningococcal vaccine (see Appendix 2_16.)

Immunization in practice: a practical resource guide for Health workers – 2004 update _____ Module 2: The vaccines

WHO/IVB/04.06 Page 22

Adverse Event

Database ID 75_3

Year 2006

Although several cases of Guillain–Barré Syndrome (GBS) were recently reported in the United States following the introduction of a tetravalent conjugated meningococcal vaccine, the number of cases reported was similar to what would normally have been expected in this population. The GACVS recommended no change in vaccination policies based on these reports.

Global Advisory Committee on Vaccine Safety, 1–2 December 2005

Weekly Epid. Record (2006, 81: 15-19) Page 18

Outbreak Control

Database ID 59_2

Year 2002

Meningococcal polysaccharide vaccines are also recommended for use in controlling epidemics of meningococcal disease caused by serogroups included in the vaccine through large-scale emergency immunization of the population at risk. (As part of emergency immunization combined groups A and C vaccines may also be given to children below two years of age).

Meningococcal vaccines: polysaccharide and polysaccharide conjugate vaccines (WHO position paper)

Weekly Epid. Record (2002, 77: 331-339) Page 332

Database ID 59_3

Year 2002

Group C conjugate (meningococcal) vaccines are recommended for inclusion in national childhood immunization services, for protection of high-risk individuals, as well as for targeted vaccination during outbreaks, depending on the epidemiological situation, public health priorities and economy of the concerned countries.

Meningococcal vaccines: polysaccharide and polysaccharide conjugate vaccines (WHO position paper)

Weekly Epid. Record (2002, 77: 331-339) Page 332

Database ID 59_7

Year 2002

Emergency immunization using polysaccharide vaccines of groups A and C or A, C, Y and W135 are recommended to control outbreaks of meningococcal disease. Since meningococcal outbreaks tend to affect specific age groups, the precise target population for immunization may vary with the epidemiological situation. As emergency vaccination in most cases is in response to group A outbreaks, combined polysaccharide vaccines may also be offered to children below two years of age. However, during outbreaks of proven group-C aetiology, group C conjugate vaccines should be considered for protection of this age group, where possible.

Meningococcal vaccines: polysaccharide and polysaccharide conjugate vaccines (WHO position paper)

Weekly Epid. Record (2002, 77: 331-339) Page 338

Database ID 59_8

Year 2002

Recent experience has shown that during major meningococcal outbreaks, the (vaccine) production capacity may be insufficient. This underlines the importance of having adequate emergency stores of appropriate meningococcal vaccines in regions where major epidemics tend to occur.

Meningococcal vaccines: polysaccharide and polysaccharide conjugate vaccines (WHO position paper)

Weekly Epid. Record (2002, 77: 331-339) Page 338

Meningococcus

Database ID 59_9

Year 2002

With polysaccharide vaccines there is no convincing demonstration of a herd immunity effect mediated through substantial reduction of meningococcal carriage. Therefore, during an outbreak, efforts should be made to reach all persons in highrisk groups who may benefit from the vaccine.

Meningococcal vaccines: polysaccharide and polysaccharide conjugate vaccines (WHO position paper)

Weekly Epid. Record (2002, 77: 331-339) Page 338

Surveillance of Vaccine Preventable Disease

Database ID 41_5

Year 2003

Recommended types of surveillance for bacterial meningitis (including *Haemophilus influenzae* type b (Hib), *Neisseria meningitidis*, and *Streptococcus pneumoniae*):

1) Surveillance of suspected and confirmed cases:

A. Epidemic season: routine weekly reporting of surveillance data is recommended from the peripheral level to the intermediate and central levels. Note: During the epidemic season, it is important to have a well-functioning system for reporting cases and deaths of suspected meningitis in all provinces and to have laboratory confirmation of initial cases in every epidemic district.

B. Inter-epidemic season and throughout the year in countries without epidemic meningitis: routine monthly reporting of surveillance data is recommended from the peripheral level to the intermediate and central levels. Note: It is more important to have a well-functioning system in some areas than to have a national system that functions poorly.

C. Designated sites at all levels should report even if there are zero cases (referred to as “zero reporting”).

2) Probable cases should also be reported if laboratory performance indicator are to be monitored.

WHO-recommended standards for surveillance of selected vaccine-preventable diseases

WHO/V&B/03.01 Page 5 & 9

Database ID 59_4

Year 2002

There is a considerable need for improved bacteriological surveillance, including incidence by serogroup, of meningococcal disease, particularly in low-income countries.

Meningococcal vaccines: polysaccharide and polysaccharide conjugate vaccines (WHO position paper)

Weekly Epid. Record (2002, 77: 331-339) Page 333

Meningococcus

Database ID 74_2

Year 2002

(Regarding the introduction of meningitis vaccine, SAGE members) felt that surveillance for defining incidence and serogroup prevalence and ongoing surveillance for replacement were important because of concern about the possibility of replacement disease through capsular switching.

Longitudinal surveillance was needed because recent data suggested that, in some settings, meningococcal epidemics caused by different serogroups could overlap.

(. . . Although there were concerns about the promiscuity of meningococcus in exchanging genetic material, as yet there was no evidence that the meningococcal serogroup C conjugate vaccine had caused capsular switching. Nevertheless, it was) essential to have good follow-up of the molecular epidemiology of the disease in order to ensure that no serotype switching was occurring.

Report of the Strategic Advisory Group of Experts (SAGE) - Geneva, 14-15 June 2001

(WHO/V&B/02.07) Page 19

Research

Database ID 59_14

Year 2002

WHO encourages studies aiming at optimizing the currently available polysaccharide vaccines against meningococcal disease in different epidemiological settings.

Meningococcal vaccines: polysaccharide and polysaccharide conjugate vaccines (WHO position paper)

Weekly Epid. Record (2002, 77: 331-339) Page 339

Introduction of Vaccines

Database ID 39_22

Year 2005

Meningococcus A conjugate vaccine:

- A well planned and coordinated strategy for introduction will guarantee widespread use of this needed vaccine. This requires not only a sound plan, but the buying in of the user countries.
- Estimating local disease burden and vaccine cost-effectiveness should be integral components.

Vaccine introduction guidelines. Adding a vaccine to a national immunization programme: decision and implementation

WHO/IVB/05.18 Page 50

Meningococcus

Database ID 1_18

Year 2004

The (meningococcal) vaccine is not effective in young children and infants and so may not be part of routine childhood immunization programmes.

Immunization in practice: a practical resource guide for Health workers – 2004 update _____ *Module 1: Target diseases*

WHO/IVB/04.06 Page 31

Database ID 59_3

Year 2002

Group C conjugate (meningococcal) vaccines are recommended for inclusion in national childhood immunization services, for protection of high-risk individuals, as well as for targeted vaccination during outbreaks, depending on the epidemiological situation, public health priorities and economy of the concerned countries.

Meningococcal vaccines: polysaccharide and polysaccharide conjugate vaccines (WHO position paper)

Weekly Epid. Record (2002, 77: 331-339) Page 332

Database ID 59_5

Year 2002

Chemoprophylaxis may prevent secondary cases (of meningococcal disease) among close contacts, but since secondary cases comprise only 1%-2% of all meningococcal disease, chemoprophylaxis is of little value for the control of most endemic and epidemic disease. As 5%-15% of children and young adults carry meningococci in the nasopharynx, control of meningococcal disease based on chemo-therapeutic elimination of nasopharyngeal carriage is practically impossible except in small and relatively closed communities. Hence, immunization using safe and effective vaccines is the only rational approach to the control of meningococcal disease.

Meningococcal vaccines: polysaccharide and polysaccharide conjugate vaccines (WHO position paper)

Weekly Epid. Record (2002, 77: 331-339) Page 335

Database ID 59_12

Year 2002

By contrast to group C polysaccharides, the group C conjugate vaccine elicits adequate antibody responses and immunological memory even in infants who are vaccinated at two, three and four months of age. There is no evidence of tolerance in the youngest age group and no interference with concurrent vaccines. Immune responses are achieved regardless of previous immunization with group C polysaccharide vaccines and sufficient titres of protective antibodies are maintained for at least several years. For these reasons, inclusion of conjugated group C vaccine in the national immunization services should be considered in areas where group C meningococcal disease is a substantial public health problem among young children.

Meningococcal vaccines: polysaccharide and polysaccharide conjugate vaccines (WHO position paper)

Weekly Epid. Record (2002, 77: 331-339) Page 338
