Meningococcal B Vaccine: CDC Answers Your Questions

Experts from the National Center for Immunization and Respiratory Diseases at the Centers for Disease Control and Prevention answer your questions about meningococcal serogroup B (MenB) vaccine.

Which meningococcal vaccines are available in the United States?

Since 2005, two types of meningococcal vaccines have been available in the United States that protect against meningococcal serogroups A, C, W, and Y: 1) meningococcal polysaccharide vaccine (MPSV4, Menomune,* Sanofi Pasteur) which is made up of polysaccharide (sugar molecules) from the surface of the meningococcal bacteria; and 2) meningococcal conjugate vaccines (MenACWY, Menactra, Sanofi Pasteur; Menveo, GSK) in which the polysaccharide is chemically bonded (“conjugated”) to a protein to produce better protection.

More recently, two vaccines have become available that offer protection from meningococcal serogroup B disease (MenB, Bexsero, GSK; Trumenba, Pfizer). These vaccines are composed of proteins also found on the surface of the bacteria. Both MenB vaccines are approved by the Food and Drug Administration for use in persons 10 through 25 years of age.

MenACWY provides no protection against serogroup B disease and meningococcal serogroup B vaccines (MenB, Bexsero, GSK; Trumenba, Pfizer). These vaccines are composed of proteins also found on the surface of the bacteria. Both MenB vaccines are approved by the Food and Drug Administration for use in persons 10 through 25 years of age.

Which individuals in risk groups are recommended to be vaccinated against meningococcal serogroup B disease who are not in risk groups?

ACIP recommends that a MenB vaccine series may be administered to people 16 through 23 years of age with a preferred age of vaccination of 16 through 18 years. This Category B recommendation gives clinicians an opportunity to discuss the value of MenB vaccination with their patients. Clinicians may choose to use vaccines off-label if they believe it would be of benefit to their patients.

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What is the difference between a Category A and Category B recommendation?

A Category A recommendation is made for all persons in an age- or risk-factor-based group. The meningococcal conjugate vaccine recommendation for all preteens at 11–12 years of age is an example of a Category A recommendation. A Category B recommendation does not apply to everyone, but in the context of a clinician-patient interaction, vaccination may be found to be appropriate for a person as noted above for MenB vaccination of healthy adolescents.

Does the Affordable Care Act (ACA) require health plans (non-grandfathered) to provide benefit coverage on Category B recommended vaccines?

Yes. ACA requires coverage of vaccines with both Category A and B recommendations. The Vaccines for Children Program also includes vaccines with a Category A and B recommendations.

Should college students be vaccinated against meningococcal B disease?

Although several small meningococcal serogroup B disease outbreaks have occurred on college campuses since 2013, college students in general are not at higher risk of meningococcal B disease than persons of the same age who are not college students. Consequently, ACIP does not routinely recommend MenB vaccination for college students. However, college students may choose to receive MenB vaccine to reduce their risk of serogroup B meningococcal disease.

Should international travelers receive both meningococcal conjugate vaccine and meningococcal serogroup B vaccine?

Travelers are not considered to be a group at increased risk for serogroup B meningococcal disease and are not recommended to receive serogroup B vaccine. Meningococcal conjugate vaccine (MenACWY) continues to be recommended for certain international travelers (residents of and travelers to sub-Saharan Africa and the Hajj in Saudi Arabia).

What is the schedule for administering MenB vaccine?

Bexsero is a 2-dose series with dose #2 given at least 1 month after dose #1. Trumenba

*As of October 2017, MPSV4, Menomune, is no longer available in the U.S.
is either a 2-dose series with doses adminis-
tered at least 6 months apart or a 3-dose
series with dose #2 and dose #3 adminis-
tered 2 and 6 months after dose #1. The ACIP
recommends that persons at increased risk
of meningococcal serogroup B disease (com-
plement component deficiency, functional
or anatomic asplenia, at risk during an out-
break of meningococcal B disease and micro-
biologists) receive either the 2-dose Bexsero
series or the 3-dose Trumenba series. Per-
sons not at increased risk (such as healthy
adolescents and young adults) can receive
either the 2-dose Bexsero series or the 2-dose
Trumenba series.

What is the least amount of time allowable
between doses (minimum intervals) when
administering either of the MenB vaccines?

Neither ACIP nor the CDC meningococcal
subject matter experts have addressed this
issue. So we must assume that the routinely
recommended intervals are also the mini-
mum intervals (see previous question). It
is important to use these intervals when
scheduling doses. In general, if these inter-
vals are violated, CDC recommends that the
dose can be counted and does not need to
be repeated. The 2-dose Trumenba series is
the one exception to that rule; if the second
dose is administered earlier than 6 months
after the first dose, an additional (third)
dose should be administered at least 4
months after the second dose.

Can the MenB series be completed with
a different MenB brand from the one the
series was begun with?

No. You may not switch MenB vaccines in
order to complete a series. The series must
be started and completed with the same
MenB brand.

I have a patient who was given Trumenba
in August. Two months later she was given
a dose of Bexsero. How should I proceed with
her MenB vaccination series? We stock both
vaccines.

Since the ACIP meningococcal serogroup B
vaccine recommendations state that the
same vaccine must be used for all doses in
the MenB series, the clinician needs to com-
plete a series with one or the other vaccine.
If a non-high risk person has already received
1 dose of Bexsero and 1 of Trumenba, then
pick a brand and finish a recommended
schedule with that brand. Ignore the extra dose
of the other product that was already admin-
istered. If you choose to use Bexsero, it
should be separated from the previous dose
of Bexsero by one month. If you choose to
use Trumenba, it should be separated from
the previous dose of Trumenba by 6 months.

We have a 1-year-old with congenital asple-
ia. He already received a series of meningo-
coccal conjugate vaccine. Should we also
give him MenB vaccine?

Use of either meningococcal serogroup B
vaccine in persons younger than age 10 years
is off-label in the U.S. There is currently no
ACIP recommendation for use of this vaccine
for this age group. However, Bexsero brand
meningococcal B vaccine has been studied
in children and is approved for children as
young as 2 months of age by the European
Medicines Agency (the European version of
the U.S. Food and Drug Administration).
It is routinely recommended for infants in
the United Kingdom (see www.nhs.uk/
conditions/vaccinations/pages/meningitis-
b-vaccine.aspx for details). A clinician may
choose to use a vaccine off-label if, in their
opinion, the benefit of the vaccine exceeds the
risk from the vaccine. Product information
for Bexsero can be found on the European Med-
eu/ema. These doses may not be covered by
insurance.

Can meningococcal conjugate (MenACWY)
and MenB vaccines be given at the same
visit?

Yes. Meningococcal conjugate and MenB
vaccines can be given at the same visit or at
any time before or after the other.

Which groups of patients should receive a
booster dose of MenB vaccine after comple-
tion of the series?

ACIP does not currently recommend booster
doses of MenB vaccine for any group.

By what route should meningococcal B vac-
cines be administered?

MenB vaccines are given by the intramuscu-
lar route.

What are the contraindications and precau-
tions to MenB vaccine?

As with all vaccines, a severe allergic reaction
to a vaccine component or a reaction follow-
ing a prior dose is a contraindication to sub-
sequent doses. The tip caps of the Bexsero
pre-filled syringes contain natural rubber latex
which may cause allergic reactions in latex-
sensitive individuals. The only precaution for
administering MenB vaccine is the presence
of a moderate or severe acute illness. Vaccina-
tion should be deferred until the illness
improves.

What adverse reactions have been reported
after MenB vaccine?

For both MenB vaccines, the most common
adverse reactions observed in clinical trials
were local reactions, including pain at the
injection site (83%-85%), erythema, and
swelling.

How should MenB vaccines be stored?

MenB vaccines should be stored refrigerated
at 2°C to 8°C (36°F to 46°F). Do not freeze
the vaccines. Discard any vaccine that has
been exposed to freezing temperature. Pro-
tect the vaccine from light.

REFERENCES


CDC. Use of Serogroup B Meningococcal Vaccines in Adolescents and Young Adults: Recommendations of the Advisory Committee on Immunization Practices, 2015. MMWR 2015;64(No.41):1171-6.