

**vScience Bites Radio**  
*small bites you can remember  
to bite them in the behind*

## **Meningitis B and the Meningitis B Vaccines, Part 2**

Date: August 21, 2019

[www.Courses4Mastery.com](http://www.Courses4Mastery.com)

[Courses4MasteryEDU@gmail.com](mailto:Courses4MasteryEDU@gmail.com)

Text MVI to 555888 to join our email list

### **Recap Part 1**

1. The Illness
2. The incidence of infection – rare!
3. History of the vaccines – and current use
4. The Push for College Students

### **Part 2: Meningitis Serotype B**

Today, we're going to discuss the two newest meningitis vaccines specifically for serogroup B: Trumenba and Bexsero.

Recall that the meningitis vaccines generate antibodies against four of the most common *Neisseria meningitidis* serotypes that have been found to cause meningitis: A/C/Y/WI-135. However, the most common serotype showed to cause the infection about 52% of the time in the US and about 90% of the time in Europe is serotype B.

Why was serotype B not included in the original vaccines? Because the surface antigens on the serotype B bacteria cross-react with brain tissue, increasing the risk of brain inflammation and brain autoimmunity.

**REFERENCE: 1983 Lancet – full text**

Finne J, et al. "Antigenic similarities between brain components and bacteria causing meningitis. Implications for vaccine development and pathogenesis."

**Lancet**. 1983 Aug 13;2(8346):355-7.

<https://www.ncbi.nlm.nih.gov/pubmed/6135869>

Here's an article from 2012, confirming the same findings from 1983:

“Development of conjugate vaccines against group B strains, however, has been hampered **by cross-reactivity of the group B polysaccharide with host molecules** and safety concerns about the potential to elicit **[brain] auto-reactive antibodies**.

**REFERENCE: 2012 – PLOS – Full text**

Beernink PT, et al. “The Effect of Human Factor H on Immunogenicity of Meningococcal Native Outer Membrane Vesicle Vaccines with Over-Expressed Factor H Binding Protein.” PLOS Pathogens 8(5): e1002688.

<https://journals.plos.org/plospathogens/article?id=10.1371/journal.ppat.1002688#ppat.1002688-Finne1>

## **Trumenba and Bexsero**

In 2014, the first meningococcal serogroup B vaccine was released. Pfizer received FDA approval for TRUMENBA through an “accelerated” or fast track, approval process. It was only studied for 5 months and the trials included less than 4600 healthy individuals who were **11 to 18yrs** – even though it was approved for use in individuals from 10 to 25 yrs.

TRUMENBA can be administered as a two- or three-dose schedule to adolescents and young adults, depending on “an individual’s risk of exposure and susceptibility to MenB.” It is not given routinely.

The following year, in 2015, GSK received approval for its serogroup B vaccine, BEXSERO. GSK got the benefit of an unapproved clinical trial when several students at Princeton University contracted meningococcal serogroup B infection. Even though the vaccine application had been denied approval in Europe **three times**, the FDA allowed Princeton students to receive the vaccine – and when there were no reported side effects, this unofficial “trail” allowed the FDA to give the vaccine a fast-track pass for approval within 10 months.

In 2015, ACIP refused to approve the men B vaccines for routine use, stating that at best, **it would only prevent approximately 9 cases and 1 death among college students**.

In February of 2017, Sanofi Pasteur announced the discontinuation of the Menomune tetravalent meningococcal polysaccharide vaccine which is now replaced by Menactra and Menevo. Recall the Menomune was the first meningitis vaccine approved and has long contained 25mcg of Thimerosal per dose. If you review the VAERS database on meningitis

vaccines, the vast number of reported adverse events that have been reported on the meningitis vaccines were reported about Menomune.

At around the same time, In response, the CDC announced that persons 56 years of age and older recommended to receive meningococcal vaccination be administered meningococcal conjugate vaccine. This recommendation was made despite acknowledging that neither available meningococcal conjugate vaccine is FDA approved for use in persons older than 55 years of age.

In 2018, Trumenba was approved for use in children ages 1 through 9 yrs.

## Men B vaccine ingredients

<b>BEXSERO</b> <ul style="list-style-type: none"><li>• 0.519 mg Aluminum hydroxide = 500mcg</li><li>• 3,125 mg - Sodium chloride</li><li>• 0.776 mg - Histidine</li><li>• 10 mg Sucrose</li><li>• 0.01 mcg Kanamycin</li></ul>	<b>TRUMENBA</b> <ul style="list-style-type: none"><li>• 0.018 mg - Polysorbate</li><li>• 0.250 mg aluminum</li><li>• 10 mM - Histidine</li></ul>
--	--

## Meningitis Vaccine Side effects

The CDC reported that by February, 2008, **26 confirmed cases of GBS** following Menactra had been reported to the Vaccine Adverse Event Reporting System (VAERS). Guillian-Barre is a type of paralysis with potentially long term complications.

Of course, TPTB pulled out all stops to maneuver the data – such as making very large numbers in the numerator – to disprove any connection between the vaccine and GBS.

Wouldn't they be further off to just acknowledge that adverse reactions CAN AND DO occur?

Since the approval of the two meningitis B vaccines, there have been 7,205 adverse events reported from VAERS. Now, some of these reports show multiple vaccines were given at the same time, but some serious events were reported with the Men B vaccine was given alone. Perhaps the big dose of aluminum had something to do with it...

If you want to take a deeper dive into the specifics of this information, I wrote and posted an article called , “**18 little known facts about College Meningitis Vaccines**” that you can find by going to [www.Vaxxter.com](http://www.Vaxxter.com) and putting “meningitis” in the search.

## **A Note about the New Vaxxter.com**

We are working hard at [Vaxxter.com](http://Vaxxter.com) to bring readers evidence-based, in-depth information and we have no intention of slowing down. I’ve attracted a stable of strong writers and we have some edgy topics lined up for the future.

While Vaxxter’s primary focus will always remain on vaccines, we plan to also delve into medical and humanitarian topics that expose problems in our healthcare system, our government, and our world.

***If we don’t push the envelope to discuss difficult topics,  
nothing will ever change.***

We know some of our readers are not going to be pleased with some of our upcoming information about vaccines and other topics, but that makes the information no less true. We don’t aim to be “politically correct” – we’re aiming at exposing the truth with facts and references you won’t hear about anywhere else.

We realize we can never please everyone, but we hope you’ll stay with us. Expand your thinking and stretch your views as we expose and explore the facts with you.

Links: AS OF NEXT WEEK – GO TO [www.Courses4Mastery.com](http://www.Courses4Mastery.com)

Boot Camp Early notification – go to [www.MasteringVaccineInfo.com](http://www.MasteringVaccineInfo.com)

The New Vaxxter: - go to [www.Vaxxter.com](http://www.Vaxxter.com)