

# **vScience Bites**

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

We will cover one vaccine per month in great detail.

May 30, 2019:  
Measles and the MMR

The format that we use for vScienceBites is:

In Week 1:

1. The Illness
2. The History of the Vaccine
3. The Vaccine ingredients.

We pointed out TWO studies that showed you CAN contract REAL measles from vaccine-strain measles after a vaccination. We also talked about problems with one of the ingredients: gelatin

In Week 2:

4. Vaccine Side effects
5. Vaccine failures

This week, we'll dive deep into a few of the published MMR side effects and demonstrate that vaccines don't work (protect).

....and if there's time, we'll answer a few burning questions

## Part 4: The Vaccine: side effects

November, 2012 –Journal: Vaccine (full text)

[Measles, mumps, and rubella virus vaccine \(M–M–R™II\): A review of 32 years of clinical and post-marketing experience](#)

The first article for today is a FULL TEXT article and it is really worth your time to read. But even the abstract tells so much about the problems with this vaccine – here’s what the abstract says:

**“Post-marketing surveillance has limitations (including incomplete reporting of case data),** but allows collection of real-world information on large numbers of individuals, who may have concurrent medical problems excluding them from clinical trials.

Over its 32-year history, 575 million doses of M–M–R™II have been distributed worldwide, with **17,536 AEs** voluntarily reported for an overall rate of 30.5 AEs/1,000,000 doses distributed. **This review provides evidence that the vaccine is safe and well-tolerated.**

**That’s from the abstract, but let’s dig a little deeper:**

Post marketing surveillance data found this – in the body of the article.

- 4,822 were considered to be serious - here are a few
  - **136 temporally-associated deaths** from the vaccine
  - 57 reports of viral meningitis
  - 120 reports of encephalitis/encephalopathy, 11 of which were fatal
  - 413 reports of autism – male:female was 4:1

There are lots of charts and tables in this paper....

Which concludes: “There are approximately **31 AEs per 1M doses**. Making the vaccines safety profile and well-established efficacy well tolerated.”

1. The bigger the denominator the more insignificant the numerator becomes
2. Why is 4,822 SERIOUS injuries – and 136 deaths – “acceptable collateral damage” to avoid a fever and a rash?

**May, 2015 -** Journal: Clinical Infectious Disease (full text)

[Adverse Events Following Measles, Mumps, and Rubella Vaccine in Adults Reported to the Vaccine Adverse Event Reporting System \(VAERS\), 2003–2013](#)

The next study, published in May, 2015, is from the Journal of Clinical Infectious Disease. The title is **Adverse Events Following Measles, Mumps, and Rubella Vaccine in Adults Reported to the Vaccine Adverse Event Reporting System (VAERS), 2003–2013** - The link is to the full text of the article

This is a very important review article. It is a 10-year, retrospective analysis of VAERS “to evaluate the safety of MMR in adults and inform potential catch-up vaccination programs, we reviewed reports to the Vaccine Adverse Event Reporting System (VAERS) following MMR for individuals aged  $\geq 19$  years.”

During this period, VAERS received 3175 US reports after MMR vaccine in adults. Nearly half of the reports – 49.6% - came when the MMR was given alone. The other half, the MMR was administered with various other vaccines. Of these:

- **7 reported deaths**
  - One death occurred in a patient receiving MMR vaccine alone. This was a 48-year-old man with a history of cardiovascular disease who died 2 days after vaccination from cardiovascular disease.
- 161 “non-death” serious reports were classified as serious.
  - 17 reports of GBS (Guillain Barre Syndrome)
  - 8 developed encephalitis,
  - 5 developed seizures,
- **Who reported?**
  - **212 reports were from US military personnel**
  - **77% of reports were in women**
  - **131 MMR given to pregnant women.** No AE was reported...but no follow up with baby

**Conclusions: In our review of VAERS data, we did not detect any new or unexpected safety concerns for MMR vaccination in adults.**

(additional studies)

## **Henoch–Schönlein is associated with the MMR vaccine.**

**June 18, 2016** – Journal: Italian Journal of Pediatrics (full text)

[Henoch-Schönlein purpura and drug and vaccine use in childhood: a case-control study](#)

“The risk estimated for HSP **within 12 weeks** after vaccination resulted higher, **more than 3 times, for MMR vaccines** with an OR of 3.4 (95 % CI 1.2–10.0) while no significant increased risks were observed for diphtheria, tetanus, acellular pertussis (DTaP) and any vaccine..... The association between MMR vaccination and HSP confirms previous published findings and adds a risk estimate. “

**March 13, 2017:** Journal – Vaccine (abstract)

[IgA vasculitis \(Henoch–Schönlein\): Case definition and guidelines for data collection, analysis, and presentation of immunisation safety data](#)

“**Skin manifestations affect virtually all of the patients** and often precipitate clinical presentation. They are distributed symmetrically over the lower limbs, commonly extensor surfaces and buttocks. The arms, ears and face can also be involved, whereas the trunk is usually spared. **The most frequent lesions are palpable purpura, but larger bruises, maculo-papular rash, and urticarial exanthema are also common.**

Haemorrhagic bullae and skin necrosis leading to ulcers are rare. Severity of skin lesions has no influence on prognosis. **Swelling and joint pain (in 60–80% of cases an arthralgia**, rather than frank arthritis) usually affect the ankles and knees, but other joints may also be involved, especially hands and feet. **Abdominal symptoms occur in approximately 60% of patients, usually abdominal pain and bloody stool.** However, major **gastrointestinal complications develop in about 5% of patients, with intussusception being the most common.**”

**March 10, 2015** – Journal: Vaccine (abstract)

[Febrile seizures following measles and varicella vaccines in young children in Australia](#)

**“There were 2,013 febrile seizure episodes in 1,761 children. The peak age at febrile seizure was 18 months. The risk of febrile seizure was significantly increased 5-12 days after receiving one dose of MMR** at 12 months, but not after varicella at 18 months.

**The estimated excess annual number of febrile seizures after the MMR vaccine was 240 per 1,000,000 vaccinated children aged 11-23 months or 1 seizure per 4,167 doses.”**

**January 8, 2018** – Journal: Vaccine (abstract)

[Building capacity for active surveillance of vaccine adverse events in the Americas: A hospital-based multi-country network](#)

**“The study evaluated the associations between measles-mumps-rubella vaccines and two well-recognized adverse events: Immune thrombocytopenic purpura (ITP) and aseptic meningitis.**

The regional network contributed **63 confirmed ITP and 16 confirmed aseptic meningitis** eligible cases to the global study, representing, respectively, 33% and 19% of the total cases.

To ensure long-term sustainability and usefulness to investigate adverse events following new vaccine introductions in low and middle-income countries, **the network needs to be strengthened with additional sites and integrated into national health systems.”**

*Comment: This surveillance is through South America. What if children are vaccinated and develop serious complications, but have no access to advanced medical care?*

## 5. Vaccine failure

March 26, 2014 – Journal: Clinical Infectious Disease (abstract)

[Outbreak of Measles Among Persons With Prior Evidence of Immunity, New York City 2011](#)

From the full article:

“Vaccination with 2 doses of MMR vaccine is highly effective and is a **proxy for immunity to measles.**”

This is a report on an outbreak of measles in NYC in 2011 where a fully vaccinated index patient transmitted measles infection to 4 contacts WHO ALSO had “presumptive evidence of measles immunity” (meaning they had had 2 MMR vaccines.)

Conclusion: This outbreak underscores the need for thorough epidemiologic and laboratory investigation of suspected cases of **measles regardless of vaccination status.**

December 30, 2015 – Journal: Clinical Infectious Disease (full text)

[Measles Virus Neutralizing Antibody Response, Cell-Mediated Immunity, and Immunoglobulin G Antibody Avidity Before and After Receipt of a Third Dose of Measles, Mumps, and Rubella Vaccine in Young Adults](#)

“**Most subjects were seropositive before receipt of the third MMR**, and very few had a secondary immune response after the third MMR. Similarly, additional analysis showed minimal qualitative improvement in the immune response after the third MMR injections. **We did not find compelling data to support a routine third dose of MMR vaccine.**”

*Comment: And yet, they are now advocating for a third dose – AND if your child got a dose of MMR before 1yr, it “doesn’t count” and must be given another.*