

## CDC/IDSA Clinician Call

### Focus on Measles

April 17, 2024

#### Q&A

This is the Q&A transcript from the Zoom webinar held on April 17, 2024. The views and opinions expressed here are those of the presenters and do not necessarily reflect the official policy or position of the CDC or IDSA. Involvement of CDC and IDSA should not be viewed as endorsement of any entity or individual involved.

- 1. If a person who needs a measles vaccine has a pregnant household member, is it safe to administer the vaccine to the person? or would that not be safe for the pregnant householder?**

Thomas (Dan) Filardo, MD: Yes, it is safe for household members of pregnant people to be vaccinated with MMR vaccine.

- 2. Can you please clarify recommendations for prenatal screening for measles immunity? Is written documentation of MMR vaccination x 2 sufficient, or should IgG be checked for every pregnant patient?**

Thomas (Dan) Filardo, MD: Written documentation of MMR vaccination is considered presumptive evidence of immunity for measles, and serology screening would not be required for all patients. Patients without documented MMR, therefore with unknown immunity, can receive IgG testing.

- 3. So, if you have been immunized and you were born in 1963 you should get an additional shot?**

Thomas (Dan) Filardo, MD: Adults born after 1957 have presumptive evidence of immunity if they have received 1 documented dose of MMR, unless they are in high-risk settings (e.g., healthcare workers, postsecondary education students, or international travelers). Some people who received measles vaccine during 1963-1967 may have received the inactivated vaccine, which was later shown to not be as effective; this vaccine was given to less than a million people in total. People who received the inactivated vaccine should receive MMR. There's some more information on our CDC measles FAQ site here:  
<https://www.cdc.gov/measles/about/faqs.html>

- 4. Why are adults born after 1957 with one documented MMR NOT recommended to have a 2nd dose before international travel? Is this basically a cost-benefit analysis?**

Thomas (Dan) Filardo, MD: Apologies for any confusion. The two-dose recommendation before international travel applies to children >12 months of age, and to adults.

**5. Excellent review by Dr. Filardo. Question. vaccine storage was a major barrier to distribution in remote areas. Improvements on the horizon for improved, easily transportable vaccines?**

Thomas (Dan) Filardo, MD: Certainly not an expert in this realm of measles, but our branch at CDC is actively involved in the development of microneedle patch formulations for delivery of measles vaccination, which could allow for delivery in places where there are logistical concerns (e.g., cold chain).

**6. If someone potentially had Measles before, how likely will they get measles again? If they get a titer, will it show immunity from previous infection?**

Thomas (Dan) Filardo, MD: People with measles are considered to have lifelong immunity; repeat infection with measles has been reported in a very rare instances in case reports. An IgG level would show immunity from previous infection. As I highlighted, presumptive evidence of immunity requires laboratory-confirmed measles infection, given that many other infections can mimic measles (e.g., parvovirus, HHV-6), so a self-reported measles infection history does not qualify here.

**7. How long is the Vitamin A treatment recommended for?**

Thomas (Dan) Filardo, MD: Vitamin A is administered on 2 days back-to-back; there is additional information on CDC's website here for dosing:  
<https://www.cdc.gov/measles/hcp/index.html>

**8. In addition to throat swab PCR- would you suggest blood sample PCR or urine PCR for higher sensitivity of diagnosis?**

Thomas (Dan) Filardo, MD: Recommendations differ a little bit by jurisdiction; in general, CDC recommends a throat swab or NP swab for PCR, and considering urine in addition to (but not replacing) the NP/OP. This can help improve sensitivity, especially if testing is after the optimal time frame for an NP/OP swab (within 3 days of rash onset). Blood sample PCR is generally limited to research settings; CDC does not perform it, and I don't know of state public health labs that perform it either.

**9. Is the definition of immunity in pregnant women 1 dose of measles vaccine after the 1st birthday or is it 2 doses of appropriately timed measles vaccines?**

Tina Tan, MD, FIDSA, FPIDS, FAAP: Immunity in pregnant women today is really 2 doses of measles vaccine after their first birthday that are appropriately timed. Two doses of vaccine have been recommended since 1990-1991 and is considered to be the definition of up to date.

**10. Can you please discuss IGIM (Intramuscular IG)? any caveats or limitations?**

Tina Tan, MD, FIDSA, FPIDS, FAAP: IGIM can be used however the volume that will need to administer usually prevents it from being given.

**11. Has a specific timeframe been defined for 'prolonged exposure' to a measles case? For example, if a vaccinated/immune individual is exposed to a measles case for a prolonged period of time, what is the timeframe for the prolonged period of time?**

Christopher Prestel, MD, FAAP: For healthcare settings, a specific timeframe is not defined for exposure to someone with measles. Instead, the recommendations discuss exposure as someone who is in a shared air space with an infectious measles patient at the same time or in a shared air space vacated by an infectious measles patient within the prior 2 hours.

More information on healthcare settings is available in the interim infection prevention and control recommendations for measles:

<https://www.cdc.gov/infectioncontrol/pdf/guidelines/Measles-Interim-IC-Recs-H.pdf>

**12. Can we get copies of the pictures of measles for health alerts to providers who mostly haven't seen it in their careers?**

Christopher Prestel, MD, FAAP: Many of the measles photos are publicly available through PHIL which can be accessed at this link:

<https://www.cdc.gov/measles/symptoms/photos.html>

**13. Would you recommend testing fully immunized children if there is no travel or known exposures, but the rash is suggestive and there is no alternative confirmed etiology?**

Thomas (Dan) Filardo, MD: Testing decisions are always challenging; CDC has published a testing flowsheet that could be considered here:

<https://www.cdc.gov/measles/toolkit/state-health-departments.html>. Generally, it's safe to say that measles is very unlikely in fully immunized people with known travel or exposures, but the decision to test is always in the hands of the provider if there still is concern (clinical characteristics, severity of illness), and contacting public health about the suspect case can also be helpful.

**14. Re: the efficacy slide - one of the lessons of the COVID-19 pandemic seems to have been to be very specific when referring to vaccine efficacy. In this case, do the figures refer to efficacy against infection? Symptomatic illness? Severe disease/hospitalization?**

Thomas (Dan) Filardo, MD: Great point. The general %s reported for MMR are vaccine effectiveness (not efficacy), and these are prevention against infection. 1 dose is considered 93% effective, 2 doses considered 97% effective.

**15. Face Mask- Is CDC recommending N95 or routine surgical mask for any suspected source?**

Christopher Prestel, MD, FAAP: I may be missing some of the question here. For healthcare personnel, they should use Airborne Precautions when caring for someone with known or suspected measles which would be respiratory protection using respiratory protection.

HCP should use respiratory protection (i.e., a respirator) that is at least as protective as a fit

tested, NIOSH-certified disposable N95 filtering facepiece respirator, regardless of presumptive evidence of immunity, upon entry to the room or care area of a patient with known or suspected measles.

More info ins in the interim recommendations:

<https://www.cdc.gov/infectioncontrol/pdf/guidelines/Measles-Interim-IC-Recs-H.pdf>

**16. If a HCW has had two documented MMR vaccines but has a negative measles IgG (presumably has waned), do they need to be revaccinated?**

Christopher Prestel, MD, FAAP: CDC considers individuals protected from measles if they have written documentation showing two doses of MMR/measles-containing vaccine (infants ages 6-11 months of age would only need documentation for one dose). Titers are not required to evaluate immunity, and additional doses are not required if titers are low.