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Focusing on Measles Care in the Prenatal Population



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Current Policy Advisory Positions:

- **WHO Maternal Immunization Consultant**
- **American College of Obstetrics & Gynecology**
 - **Representative to ACIP**
 - **Immunization, Infectious Disease, and Public Health Preparedness Expert Workgroup**
- **WA State DOH Vaccine Advisory Committee**



Objectives: Measles in Pregnancy

- **Past Experience**
- **Current Recommendations:**
 - **Pre Conception**
 - **Measles During Pregnancy**
 - **Post partum and Breastfeeding**
 - **Travel During Pregnancy**
- **Future Thoughts**



Measles in Pregnancy: Past Experience

Measles infection during pregnancy can have a profound impact on the fetus.

- **Miscarriage**
- **Stillbirth**
- **Low Birthweight**
- **Preterm Delivery**

McClean, <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6204a1.htm>.

Rasmussen SA, Jamieson DJ, *Obstet Gynecol* 2015; 126(1): 163-170.



Measles in Pregnancy: Current Recommendations

Women Considering Pregnancy

- **Assess Measles Immune Status prior to Pregnancy** (*see consensus statement*)
- **Receive the MMR if non-immune**
- **Wait 4 weeks after MMR to attempt pregnancy**
- **Inadvertent MMR in periconception period or early pregnancy should not be considered an indication for termination**

Eckert LO, Riley LA, Kachikis A, **Practice Advisory: Management of Pregnant and Reproductive-Aged Women during a Measles Outbreak**, www.acog.org/Clinical-Guidance-and-Publications/Practice-Advisories/Management-of-Pregnant-and-Reproductive-Age-Women-during-a-Measles-Outbreak



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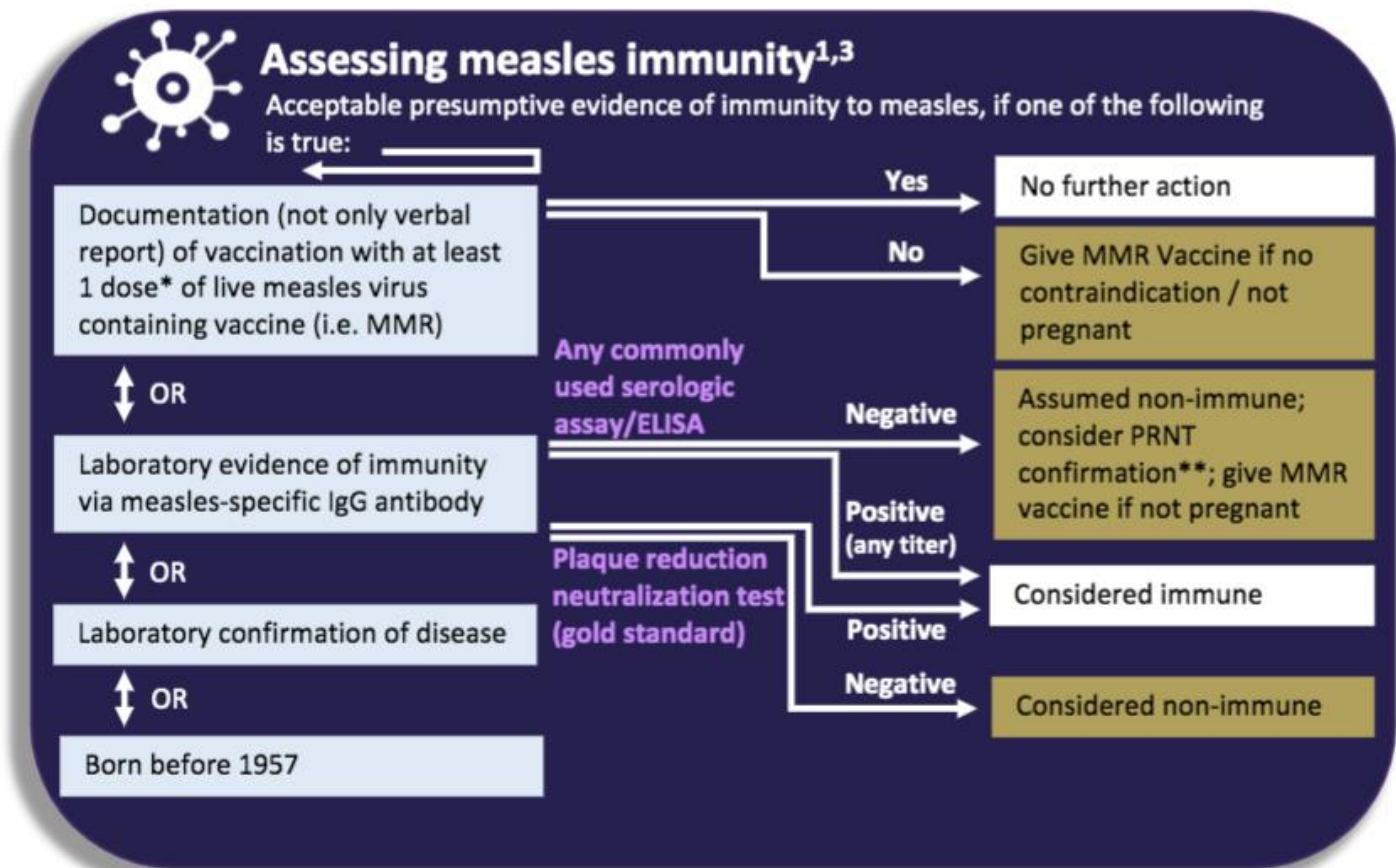
MEASLES & THE MMR VACCINE: RECOMMENDATIONS AROUND PREGNANCY, INCLUDING THE PERICONCEPTION AND POSTPARTUM PERIODS

Obstetric Consensus Statement

Kachikis A, Oler E, Shree RS, Waldorf KA, Hitti J, Eckert L. *Obstetric consensus statement. Seattle (WA): University of Washington; 2019.* Available at: <https://www.uwmedicine.org/provider-resource/measles-mmr-vaccine-recommendations-around-pregnancy-including-periconception-and>



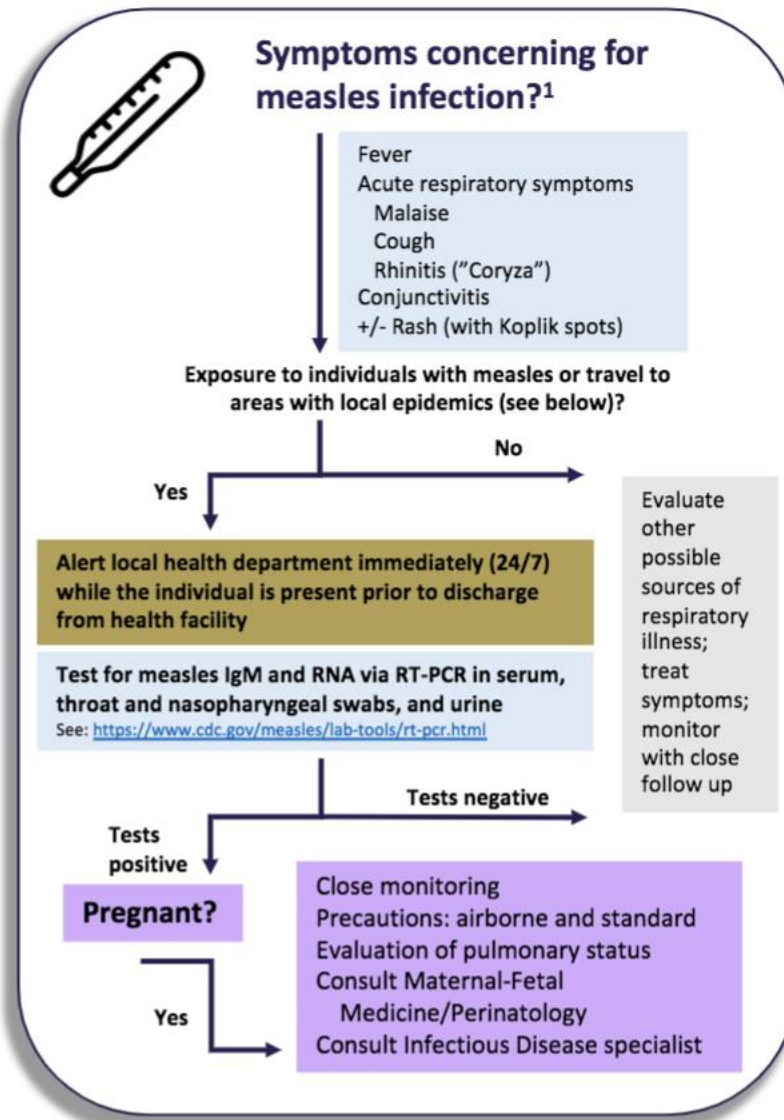
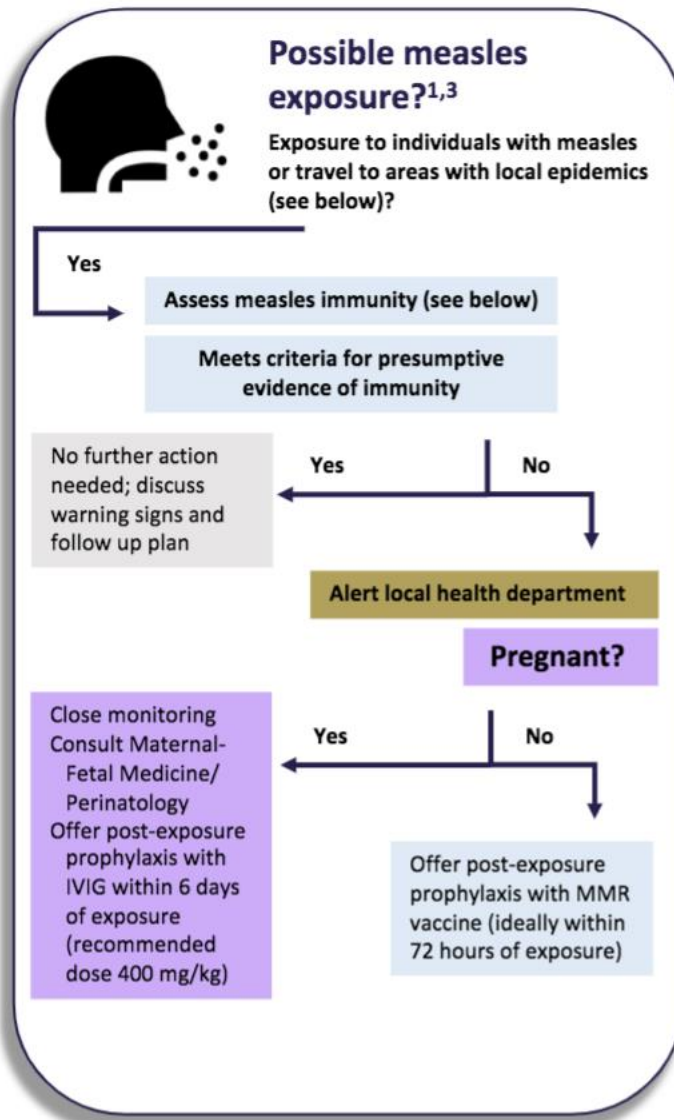
Assessing Measles Immune Status



Obstetric consensus statement. Seattle (WA): University of Washington; 2019.
Available at: <https://www.uwmedicine.org/provider-resource/measles-mmr-vaccine-recommendations-around-pregnancy-including-periconception-and>



Evaluation of Measles Risk Around Pregnancy



Obstetric consensus statement. Seattle (WA): University of Washington; 2019



Pregnancy

One dose of MMR sufficient for low risk individuals (including pregnant women)

- **If high risk for contracting measles, two doses (consult local health authority)**
- **When ongoing outbreaks, and close community ties, consider testing IgG in pregnant women**
- **Pregnant women with suspected exposure without immunity: receive IGIV within 6 days of exposure**
- **If serology not available, and suspected non-immune, and measles exposure: IGIV**

Eckert LO, Riley LA, Kachikis A, **Practice Advisory: Management of Pregnant and Reproductive-Aged Women during a Measles Outbreak**, www.acog.org/Clinical-Guidance-and-Publications/Practice-Advisories/Management-of-Pregnant-and-Reproductive-Age-Women-during-a-Measles-Outbreak



Postpartum

MMR vaccine should be administered post partum to women who lack evidence of measles immunity

- **Breastfeeding has not been shown to affect the immune response to MMR**
- **MMR vaccine is safe in breastfeeding women and has not been shown to have adverse effects in neonates**

Centers for Disease Control and Prevention. Measles, mumps, and rubella (MMR) vaccination: what everyone should know. Atlanta (GA): CDC; 2019. Available at: <https://www.cdc.gov/vaccines/vpd/mmr/public/index.html>.

National Library of Medicine. Measles-mumps-rubella-varicella vaccine. In: Drugs and Lactation Database (LactMed). Bethesda (MD): NLM; 2018. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK501687/>.



Travelling During Pregnancy

Talk with your provider about your measles immunity and risk



THINKING ABOUT TRAVELING?

Refer to the following website for updated news and locations of measles outbreaks:

<https://www.cdc.gov/measles/cases-outbreaks.html>

- In area where new cases ongoing, discuss likelihood of exposure
- Decision and comfort with travel is a risk/benefit ratio
- CDC has not/did not issue a travel advisory
- Some individual providers may choose to advise pregnant women about travel

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Future Thoughts: Become Advocates for the Next Generation of Women

Editorial

The Return of Measles

Call to Action for the Obstetrician–Gynecologist



Alisa Kachikis, MD



Linda O. Eckert, MD

On January 25, 2019, the Governor of Washington declared a public health emergency as a result of a rapidly spreading measles outbreak within the state.¹ Similarly, on April 9, 2019, a public health emergency was declared in New York City.² Measles outbreaks have increased over the past decade, not only in the United States but also globally, in France, Ukraine, and Israel, and measles infection is still common in low-resource settings in Asia, the Pacific Islands, and Africa. Individuals are infectious 4 days before a rash develops, so travelers from areas with measles who are infected but still asymptomatic are often associated with outbreaks, with the highest number of imported cases so far reported in 2018.^{3,4} Since January 1, 2019, at least 20 U.S. states have reported cases, and, with this trend, the number of measles cases in 2019 will surpass all annual reported cases over the past decade.⁴

WHAT DO MEASLES OUTBREAKS HAVE TO DO WITH OBSTETRICS AND GYNECOLOGY?

Pregnant Women With Measles Infection Are at High Risk for Complications

Although measles mainly affects young children, immunocompromised individuals, and the undervaccinated population, it has enormous potential to affect pregnancy as well as the postpartum period in women who have not been vaccinated or who have waning immunity. Before the introduction of the measles vaccine in the 1960s, measles was widespread—so widespread that, if you were born before 1957, you are assumed to have measles immunity.³ After the measles–mumps–rubella (MMR) vaccine became part of the routine vaccination schedule, the disease was considered eliminated in the United States by 2000. Hence, much of our information about measles and its effects on pregnancy comes from older literature.

Importance of
discussing
vaccines with our
patients

Obstet
Gynecol
2019;
134(1): 4-6



References: measles in pregnancy

Centers for Disease Control and Prevention. Measles, mumps, and rubella (MMR) vaccination: what everyone should know. Atlanta (GA): CDC; 2019. <https://www.cdc.gov/vaccines/vpd/mmr/public/index.html>.

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Rasmussen SA, Jamieson DJ. What obstetric health care providers need to know about measles and pregnancy. *Obstet Gynecol*. 2015;126(1):163-170.

McLean HQ, Fiebelkorn AP, Temte JL, Wallace GS. Prevention of measles, rubella, congenital rubella syndrome, and mumps, 2013: summary recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 2013;61(Rr-04):1-34.

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Kachikis A, Eckert LO. The return of measles: call to action for the Obstetrician-Gynecologist. *Obstet Gynecol*. 2019;134(1): 4-6.

THANK YOU!

