

Expanding Rubella Surveillance Testing Using Measles Negative Specimens

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Purpose

Before the introduction of the measles, mumps and rubella (MMR) vaccination program, rubella was a common infection in the US. The US achieved rubella elimination in 2004; today, fewer than 10 people in the US are reported as having rubella each year. While rubella is rare, it can cause severe complications in pregnant people and children. Given that measles and rubella share symptoms and risk factors, we are suggesting increased screening of measles negative specimens for rubella.

Background

In 2025, the US experienced the largest number of measles cases since 1992. Most cases were linked to susceptible populations in under-vaccinated, close-knit communities with initial cases imported from international travels. Both populations affected by measles, under-vaccinated communities and international travelers, represent populations that would also be vulnerable to rubella infection, which often presents with similar, though milder symptoms. While testing for measles is conducted for all suspect cases, rubella testing is often not performed, likely because nearly half of all rubella cases are asymptomatic or present with mild symptoms. While the course of rubella illness can be milder than measles, rubella in pregnant woman can lead to congenital rubella syndrome with severe complications.

Previously, the Centers for Disease Control and Prevention (CDC), in collaboration with the Vaccine Preventable Diseases Reference Centers (VPD RCs) performed a retrospective analysis of measles negative samples submitted to the project between 2012 and 2023. Of the 1,282 specimens tested, only 3 wild-type rubella positives were confirmed. This result indicated that rubella had not been circulating undetected in the US. However, more recent testing of submitted measles negatives has produced a much higher percent positivity, which requires further study.

Specimen Request from Public Health Laboratories

To gain additional information on the possibility of undetected rubella introduction into vulnerable communities, CDC is requesting that specimens that meet the following criteria be sent to CDC for rubella testing:

Criteria for rubella reflex testing of measles negative specimens

1. Specimen was submitted for measles RT-PCR testing with a negative measles result.
2. Patient has had international travel within the last 30 days or has been in contact with someone with recent international travel.
3. Patient is unvaccinated or vaccination history is unknown.

CDC requests that laboratories ship these specimens on a quarterly basis. Please contact the CDC laboratory at CDCMeaslesLab@cdc.gov prior to shipment. Specimens should be shipped to:

Centers for Disease Control and Prevention
Viral Vaccine Preventable Diseases Branch
Mailstop H18-5
Atlanta, Georgia 30329
USA