



## Varicella Active Surveillance Project (VASP) Frequently Asked Questions

### Healthcare Provider Verification of Reported Chickenpox (Varicella) Histories as Evidence of Immunity

#### Is a reported history of disease based on self-report or parental recall acceptable evidence of immunity to the chickenpox virus?

A reported history of chickenpox disease alone is no longer acceptable evidence of immunity. Healthcare providers must interview the patient / parent to gather additional information regarding the clinical presentation of rash when screening for chickenpox immunity. Only those reporting typical chickenpox illness or atypical / mild illness with laboratory confirmation or a transmission link to another typical or laboratory-confirmed case should be considered immune to chickenpox. Patients with reported chickenpox histories not meeting the new criteria should be offered vaccine if eligible. For more information on this process including specific interview questions, see the VASP's *Guide for Verifying Chickenpox Histories Reported by Parents*.

#### What is the difference between typical and atypical chickenpox disease?

Typical chickenpox is characterized by a generalized vesicular rash consisting of  $\geq 250$  lesions, fever, and malaise, while atypical disease, commonly seen in previously vaccinated individuals, is mild with fewer lesions and vesicles.

#### What additional evidence is needed for those reporting atypical chickenpox?

For patients reporting a history of atypical chickenpox, healthcare providers should seek evidence of laboratory confirmation or a transmission link to another typical or laboratory confirmed chickenpox case. Patients with atypical rash lacking both laboratory confirmation and appropriate transmission links should be offered chickenpox vaccination if eligible.

#### Which laboratory test results confirm chickenpox?

Any of the following varicella-zoster virus (VZV)-specific test results can be considered confirmatory:

- Polymerase Chain Reaction (PCR) positive
- Direct Fluorescence Antibody (DFA) positive
- Viral culture positive
- $\geq 4$ -fold acute to convalescent IgG titer increase
- Positive IgM titer (CDC National VZV Laboratory test only)

#### Who can be considered a transmission-linked chickenpox case?

Transmission links (also called epidemiologic links) demonstrate spread of the chickenpox virus between the patient and someone s/he spends time with (e.g., sibling, other household member, classmate, neighbor, etc.). These links may include exposure sources who the patient had contact with prior to chickenpox onset or secondary cases who were exposed to the patient when s/he had rash and developed chickenpox after this contact. Transmission-linked chickenpox cases must have occurred within 3 weeks (1 incubation period) of the patient's rash.

#### Does this verification process also apply to single dose chickenpox vaccine recipients who have had mild breakthrough infections?

Yes. Dose 2 should be offered to those reporting mild (atypical) breakthrough chickenpox infections occurring  $>42$  days after vaccination and lacking laboratory confirmation or appropriate transmission links.

#### Where can I get more information on healthcare provider verification of chickenpox histories?

The new criteria for evidence of chickenpox immunity including healthcare provider verification of disease are discussed on page 16 of the *2007 Advisory Committee on Immunization Practices' (ACIP) Recommendations for the Prevention of Varicella*, which can be viewed online at: <http://www.cdc.gov/mmwr/PDF/rr/rr5604.pdf>. For further information on the clinical presentation of chickenpox, visit: <http://www.cdc.gov/vaccines/vpd-vac/varicella/default.htm>



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# Guide for Verifying Chickenpox Histories Reported by Parents

Determine whether the child's rash was typical or atypical chickenpox by asking or reviewing the medical record for the following details:

- Was the rash all over the body?
- Were there so many spots that you COULD NOT place your child's hand between the spots without touching a spot (about 250 or more spots)?
- Did the spots look like mostly fluid-filled blisters?
- Was the rash itchy?
- Did the rash scab over or crust as it was ending?
- Did your child have a fever or feel warm during the rash?
- Did your child feel tired or sickly during the rash?

Yes to All

Typical Chickenpox

Immune

No / Not Sure to  $\geq 1$  Question

Atypical Chickenpox

Did your child see a doctor or nurse for chickenpox?

Yes

No / Not Sure

Did the doctor or nurse take a sample from a spot or some blood to test for chickenpox?

Yes

No / Not Sure

Is there documentation of laboratory confirmation of chickenpox in the child's medical record?

Any of the following VZV-specific laboratory test results:

- Polymerase Chain Reaction (PCR) positive
- Direct Fluorescence Antibody (DFA) positive
- Viral culture positive
- $\geq 4$ -fold acute to convalescent IgG titer increase
- Positive IgM titer (CDC National VZV Laboratory test only)

Yes

No

Atypical Chickenpox with Laboratory Confirmation

Immune

Determine if the child had any virus exposure or transmission (epidemiologic) links?

- Did your child have chickenpox during an outbreak at daycare or school involving other attendees?
- In the 3 weeks before your child's rash started, did your child spend time with anyone who had chickenpox? This may include siblings, other household members, classmates, or neighbors who were sick with chickenpox.
- In the 3 weeks after your child's chickenpox rash started, did anyone s/he spent time with get chickenpox, too? This may include siblings, other household members, classmates, or neighbors who became sick with chickenpox.

Yes to Any

No / Not Sure to All

Determine if the linked case had typical varicella (Please use questions specified in the first box).

Yes

No / Not Sure

Atypical Chickenpox Linked to a Typical Case

Immune

Atypical Chickenpox without Laboratory Confirmation and Not Linked to Another Case

Vaccinate

Is there documentation of laboratory confirmation for the linked case who the child had contact with?

Yes

No

Atypical Chickenpox Linked to a Laboratory Confirmed Case

Immune

Atypical Chickenpox without Laboratory Confirmation and Lacking Appropriate Links

Vaccinate