



Measles in Los Angeles County – Case update and clinical guidance

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Jordan Braunfeld, MD
Los Angeles County Department of Public Health
Vaccine Preventable Disease Control

Nava Yeganeh, MD MPH
Los Angeles County Department of Public Health
Vaccine Preventable Disease Control





Disclosures

There is no commercial support for today's webinar.

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Measles case investigation





Measles case timeline

- 1/24 – Patient's infectious period starts.
- 1/25 – Patient returns from Kazakhstan via the International terminal at LAX in the late afternoon. Fever onset.



Flight exposure status (surveillance period ends 2/15)

- 10 LA County contacts
 - 9 contacts cleared based on MMRs, positive IgG, or presumptive immunity
 - 1 contact unreachable, pending contact by public health investigator
- Unknown number of contacts within the LAX international terminal
 - Window of possible transmission 5 PM – 8 PM



Measles case timeline

- 1/24 – Patient's infectious period starts.
- 1/25 – Patient returns from Kazakhstan via the International terminal at LAX in the late afternoon. Fever onset.
 - Patient rides home in an Uber in the early evening.



Uber exposure status (surveillance period ends 2/15)

- 4 contacts
 - 3 riders (during transmission window) cleared based on history of MMR or presumptive immunity
 - Driver could not produce evidence of immunity and refused IgG testing
 - Under active surveillance, quarantined, and de-platformed through 2/15



Measles case timeline

- 1/24 – Patient's infectious period starts.
- 1/25 – Patient returns from Kazakhstan via the International terminal at LAX in the late afternoon. Fever onset.
 - Patient rides home in an Uber in the early evening.
 - Patient then visits a Chick-fil-A later in the evening, enters the establishment for about 20 minutes.



Chick-fil-A exposure status (surveillance period ends 2/15)

- 24 employee contacts
 - 23 cleared
 - 1 excluded from work until 2/16
- Unknown number of restaurant guests exposed
 - Window of possible transmission 9 PM – 10:30 PM



Measles case timeline

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 - Patient rides home in an Uber in the early evening.
 - Patient then visits a Chick-fil-A later in the evening, enters the establishment for about 20 minutes.
- 1/28 – Rash onset.
- 1/29 – Patient visits Valley Urgent Care in the early evening, stayed for 1.5 hours.



Urgent care exposure status (surveillance period ends 2/19)

- 11 contacts
 - 5 staff, all immune
 - 6 patients
 - 5 cleared based on MMRs or presumptive immunity
 - 1 awaiting IgG testing



Measles case timeline

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 - Patient rides home in an Uber in the early evening.
 - Patient then visits a Chick-fil-A later in the evening, enters the establishment for about 20 minutes
- 1/28 – Rash onset.
- 1/29 – Patient visits Valley Urgent Care in the early evening, stayed for 1.5 hours.
- 1/30 – Patient visits Northridge ER at midday, was in the waiting room for 1.5 hours, and left 9 hours after arrival.
 - Patient was seen in a private room and wore a mask for the entirety of the visit.



ER exposure status (surveillance period ends 2/20)

- AT LEAST 95 contacts
 - 66 patients
 - 57 cleared based on MMRs, presumptive immunity, or positive IgG testing
 - 2 non-immune patients received MMR from DPH clinic
 - 1 refused IgG and has no proof of MMR, has been self-quarantining
 - 2 resulted IgG negative, has been recommended to quarantine
 - 1 pending IgG draw on 2/12
 - 1 pending MMR documentation
 - 2 have been unreachable, pending contact by public health investigator
 - 17 visitors
 - 13 cleared based on MMRs, positive IgG, or presumptive immunity
 - 1 7-month-old who received IMIG for PEP
 - 1 resulted IgG negative and works in a high-risk setting, has been ordered to quarantine
 - 2 pending IgG results
 - 12 staff
 - 11 immune
 - 1 non-immune, placed on quarantine until 2/20



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- 1/30 – Patient visits Northridge ER at midday, was in the waiting room for 1.5 hours, and left 9 hours after arrival.
 - Patient was seen in a private room and wore a mask for the entirety of the visit.
- 1/31 – Urine and nasopharyngeal PCRs taken on 1/30 resulted positive.
- 2/1 – Patient's infectious period ends.



Measles clinical considerations





Clinical Disease : Measles in immunocompetent patients

- High fever (>102 F)
- 3 C's – cough, conjunctivitis, coryza (runny nose)
- MAY have Koplik spots – white or gray specks with erythematous base on the buccal mucosa – prior to rash onset

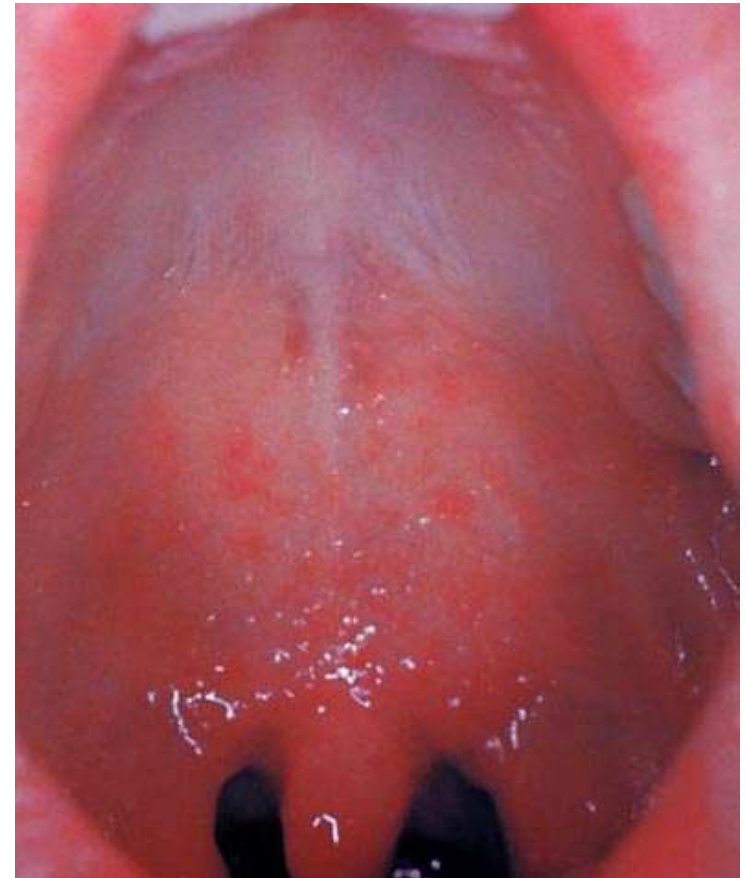


Image courtesy of CDC



Clinical Disease : Measles in immunocompetent patients

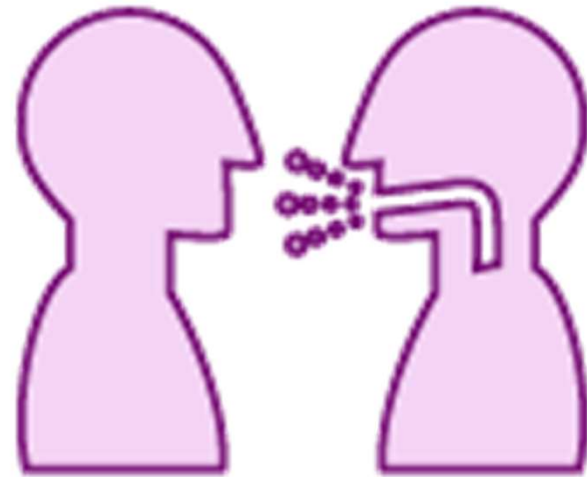
- Rash appears 2-4 days after initial symptoms
- USUALLY begins along face and hairline and spreads to trunk
 - Atypical rash presentation can be seen, especially in partially-immunized people
- Patients are considered infectious from 4 days prior to rash onset until 4 days after rash onset
- There is no treatment for measles



Image courtesy of CDC

How do people get measles?

- Measles is one of the most contagious diseases known
 - One person with measles can infect 9 out of 10 non-immune close contacts
- It can be spread via droplet AND airborne transmission
- Infected surfaces and airspace may remain infectious for up to 2 hours after the infected person has left





Measles infection can result in severe complications



Hospitalization. About 1 in 5 unvaccinated people in the U.S. who get measles is **hospitalized**.



Pneumonia. As many as 1 out of every 20 children with measles gets pneumonia, the most common cause of death from measles in young children.



Encephalitis. About 1 child out of every 1,000 who get measles will develop encephalitis (swelling of the brain) that can lead to convulsions and can **leave the child deaf or with intellectual disability**.



Death. Nearly 1 to 3 of every 1,000 children who become infected with measles will **die from respiratory and neurologic complications**.

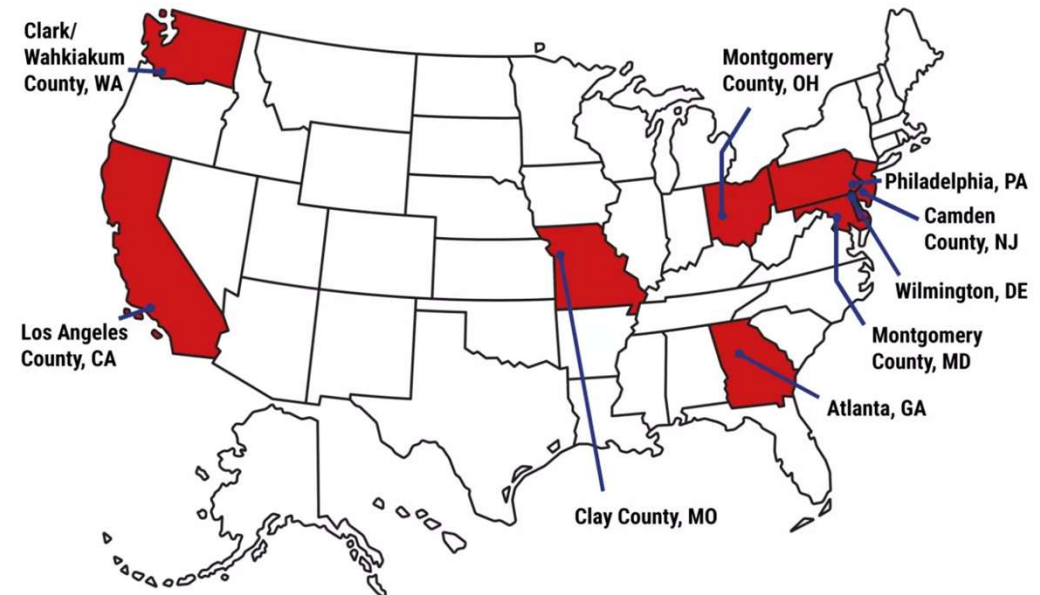


Complications during pregnancy. Measles may cause [pregnant women who have not had the MMR vaccine](#) to give birth prematurely, or have a low-birth-weight baby.

Measles cases are on the rise

- 26 confirmed US cases of measles since December 1, 2023
 - 7 direct importations by international travelers
 - 2 outbreaks of more than 5 cases each
- As is typical with measles cases in the US, most were among people who had not received a measles vaccine

States with measles cases confirmed





Measles prevention

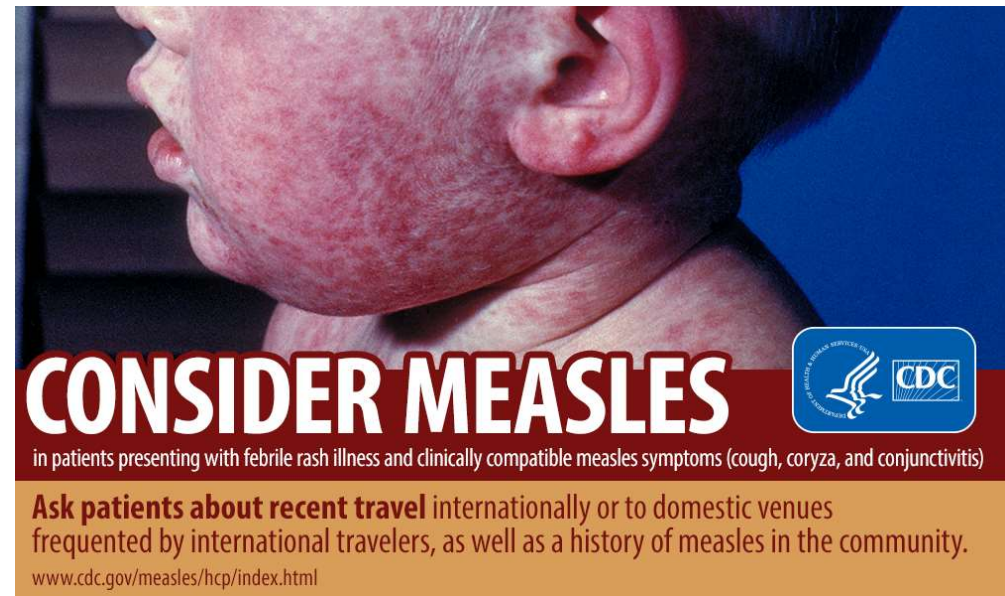
- Ensure all patients and healthcare staff have documented vaccination or immunity to measles
- For those who do not, vaccinate, vaccinate, vaccinate
 - One dose is 93% effective in preventing measles; effectiveness of two doses is 97%
 - 95% population immunity is required to interrupt transmission
 - Anybody age > 6 months planning for international travel should be protected prior to departure
 - Any dose administered prior to 12 months DOES NOT COUNT as part of MMR series
 - patient will require another 2 doses after they reach 12 months





When to suspect measles

- Any patient with fever and rash with cough, runny nose, and conjunctivitis who:
 - Is unvaccinated or under-vaccinated
 - Has recent travel, especially internationally or through a US international airport
 - Had contact with another person with a febrile rash illness
 - Was exposed to a known or possible measles case



What to do if you suspect measles

- **ISOLATE**

- Ideally prior to entering the facility
- Have the patient don a well-fitting medical mask
- Place in private room with a closed door immediately
- Observe airborne precautions
- Do not reuse rooms until at least 2 hours after suspect case has left
- Do not send to the ER unless they require higher level of care

DO YOU HAVE:

Fever? Rash? Cough?



**CALL _____
DO NOT ENTER!**

MEASLES WARNING

Los Angeles County Department of Public Health
publichealth.lacounty.gov

 **County of Los Angeles
Public Health**
A22019

What to do if you suspect measles

- **NOTIFY**

- Contact Public Health ***IMMEDIATELY***, while the patient is still at the facility
 - Weekdays 7:30 AM – 5 PM: 213-351-7800
 - Non-business hours/weekends: 213-974-1234
- Public Health will provide guidance on:
 - Specimen collection for testing
 - Management of the suspect case
 - Management of asymptomatic contacts of a suspected or confirmed case





Thank you!

For additional questions, please contact:

LacipInfo@ph.lacounty.gov

For additional information, visit:

<http://ph.lacounty.gov/ip/diseases/measles/index.htm>

<http://publichealth.lacounty.gov/ip/index.htm>

