

**North Carolina Department of Health and Human Services
Division of Public Health • Epidemiology Section
Communicable Disease Branch**



ATTENTION HEALTH CARE PROVIDERS:

Please report relevant clinical findings about this disease event to the local health department.

**MUMPS
Confidential Communicable Disease Report—Part 2
NC DISEASE CODE: 28**

REMINDER to Local Health Department staff: If sending this form to the Health Care Provider, remember to attach a cover letter from your agency indicating the part(s) of the form the provider should complete.

Patient's Last Name	First	Middle	Suffix	Maiden/Other	Alias	Birthdate (mm/dd/yyyy) / /
						SSN

NC EDSS LAB RESULTS Verify if lab results for this event are in NC EDSS. If not present, enter results.

Was testing for mumps done? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
Date IgM specimen taken Month Day Year	IgM result <input type="checkbox"/> P—Positive <input type="checkbox"/> N—Negative <input type="checkbox"/> I—Indeterminate <input type="checkbox"/> E—Pending <input type="checkbox"/> X—Not done <input type="checkbox"/> U—Unknown
Date IgG acute specimen taken Month Day Year	IgG result <input type="checkbox"/> P—Significant rise in IgG <input type="checkbox"/> I—Indeterminate <input type="checkbox"/> X—Not done <input type="checkbox"/> N—No significant rise in IgG <input type="checkbox"/> E—Pending <input type="checkbox"/> U—Unknown
Date IgG convalescent specimen taken Month Day Year	IgG result <input type="checkbox"/> P—Significant rise in IgG <input type="checkbox"/> I—Indeterminate <input type="checkbox"/> X—Not done <input type="checkbox"/> N—No significant rise in IgG <input type="checkbox"/> E—Pending <input type="checkbox"/> U—Unknown
Specify other laboratory methods and results	Other results <input type="checkbox"/> P—Positive <input type="checkbox"/> N—Negative <input type="checkbox"/> I—Indeterminate <input type="checkbox"/> E—Pending <input type="checkbox"/> X—Not done <input type="checkbox"/> U—Unknown

NC EDSS PART 2 WIZARD COMMUNICABLE DISEASE

<p>Is/was patient symptomatic? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U If yes, please specify: Fever <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U <input type="checkbox"/> Yes, subjective <input type="checkbox"/> No <input type="checkbox"/> Yes, measured <input type="checkbox"/> Unknown Highest measured temperature _____ Fever onset date (mm/dd/yyyy): _____</p> <p>Swollen lymph nodes (lymphadenopathy or lymphadenitis) <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U Headache <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U Stiff neck <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U Eyes sensitive to light (photophobia) <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U Thrombocytopenia <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U Meningitis <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U Encephalitis <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U Arthritis <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U Parotitis <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U Onset date (mm/dd/yyyy): _____ Duration: _____ Unit: <input type="checkbox"/> Hours <input type="checkbox"/> Days <input type="checkbox"/> Weeks Sides <input type="checkbox"/> Right <input type="checkbox"/> Left <input type="checkbox"/> Bilateral <input type="checkbox"/> Unknown</p>	<p>Salivary gland involvement? <input type="checkbox"/> Pain <input type="checkbox"/> Tenderness <input type="checkbox"/> Swelling Can the patient be epidemiologically linked to anyone with the following clinically compatible illnesses? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U If yes, please specify: <input type="checkbox"/> Aseptic meningitis <input type="checkbox"/> Encephalitis <input type="checkbox"/> Hearing loss, <input type="checkbox"/> Orchitis <input type="checkbox"/> Oophoritis <input type="checkbox"/> Parotitis <input type="checkbox"/> Salivary gland swelling <input type="checkbox"/> Mastitis <input type="checkbox"/> Pancreatitis</p> <p>Partial hearing loss <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U Deafness <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U Cough <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U Onset date (mm/dd/yyyy): _____ Orchitis <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U Other symptoms, signs, clinical findings, or complications consistent with this illness? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U If yes, specify: _____ Was patient hospitalized for this illness >24 hours? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U</p>	<p>Hospital name: _____ City, State: _____ Hospital contact name: _____ Telephone: (____) _____ - _____ Admit date (mm/dd/yyyy): ____/____/____ Discharge date (mm/dd/yyyy): ____/____/____ Restrictions to movement or freedom of action? <input type="checkbox"/> Y <input type="checkbox"/> N Check all that apply: <input type="checkbox"/> Work <input type="checkbox"/> Sexual behavior <input type="checkbox"/> Child care <input type="checkbox"/> Blood and body fluid <input type="checkbox"/> School <input type="checkbox"/> Other, specify _____ Date control measures issued: _____ Date control measures ended: _____ Was patient compliant with control measures? <input type="checkbox"/> Y <input type="checkbox"/> N</p> <p>TRAVEL Did patient have a travel history during the 25 days prior to onset of symptoms until 5 days after onset of swelling? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> U Travel dates: From: _____ until _____ To city: _____ State: _____ To country: _____ (CONTINUED)</p>
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Patient's Last Name	First	Middle	Suffix	Maiden/Other	Alias	Birthdate (mm/dd/yyyy) / /
						SSN

NC EDSS PART 2 WIZARD
COMMUNICABLE DISEASE (CONTINUED)

Reason(s) for travel:

- Vacation / tourism Airline / Ship crew
 Organized tour Missionary or dependent
 Business related, specify _____
 Military related Refugee / Immigrant
 Visit to family / friends Student / Teacher
 Peace corps Unknown
 Other _____

Mode(s) of transportation (check all that apply)

- Airplane
 Ship / boat / ferry
 Cruise ship? Y N U
 Specify cruise line _____
 Train / subway
 On foot
 Bus/taxi/shuttle
 Automobile / motorcycle
 Other, specify: _____

To country: _____
Does patient know anyone else with similar symptom(s) who had the same or similar travel history? Y N U
 List person(s): _____

Does the patient know anyone else with similar symptoms? Y N U
 If yes, list name(s) and relationship to person(s): _____

Is the patient part of an outbreak of this disease? Y N

VACCINE

Has patient/contact ever received mumps-containing vaccine? Y N U

If yes, date of vaccination #1

(mm/dd/yyyy) _____
 Vaccine type: _____
 Manufacturer: _____
 Product/trade name: _____
 Lot number: _____

If yes, date of vaccination #2

(mm/dd/yyyy) _____
 Vaccine type: _____
 Manufacturer: _____
 Product/trade name: _____
 Lot number: _____

Vaccine date unknown Y N

If no, reason for inadequate vaccination:

- Religious exemption
 Medical exemption
 Medical contraindication
 Philosophical exemption (outside NC only)
 Laboratory evidence of previous disease
 Physician diagnosis of previous disease
 Under age for vaccination
 Parental refusal
 Missed opportunities
 Unknown
 Other, specify: _____

(CONTINUED)

MATERNAL INFORMATION

Date of birth of biologic mother

(mm/dd/yyyy): _____
If date of birth is unknown, provide biologic mother's age in years: _____

Was the biologic mother born outside the US? Y N U

If yes, country: _____
 Date of biologic mother's arrival in the US

(mm/dd/yyyy): _____
Did the biologic mother ever have evidence of serological IgG immunity? Y N U

Test date (mm/dd/yyyy): _____

Result:

- Positive
 Negative
 Equivocal
 Unknown

Was the child's biologic mother immunized with vaccine against this specific disease? Y N U

Type of vaccine:

- Measles
 Mumps
 Rubella

Vaccine date (mm/dd/yyyy): _____

Source of vaccine information:

- Patient's or Parent's verbal report
 Physician
 Medical record
 Certificate of immunization record
 Patient vaccine record
 School record
 Other
 Unknown

CLINICAL FINDINGS

Was the mother of this infant/child case diagnosed with this disease? Y N U
If yes:

Date of diagnosis (mm/dd/yyyy): _____

Time frame of diagnosis:

- Prior to pregnancy
 During pregnancy
 At delivery
 After delivery
 Before birth - exact period unknown
 Time frame unknown

If no:

Was mother known not to have disease after the birth of this child? Y N U

REASON FOR TESTING

Why was the patient tested for this condition?

- Symptomatic of disease
 Screening of asymptomatic person with reported risk factor(s)
 Exposed to organism causing this disease (asymptomatic)
 Household / close contact to a person reported with this disease
 Other, specify _____
 Unknown

PREGNANCY

Is the patient currently pregnant? ... Y N U

Estimated delivery date (mm/dd/yyyy): _____

Give number of weeks gestation at onset of illness: _____

Did patient have prenatal care? Y N U

Setting of prenatal care

- Public sector
 Private sector
 Unknown

Prenatal provider name: _____

Did patient attend family planning clinic prior to conception? Y N U

Has the patient ever been pregnant? . Y N U
 Total number of previous pregnancies by the biologic mother _____

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PREDISPOSING CONDITIONS

Any immunosuppressive conditions? Y N U
Specify _____

Autoimmune disease Y N U
Specify _____

Other underlying illness Y N U
Please specify: _____

Was the patient receiving any of the following treatments or taking any medications?

Antibiotics Y N U
For what medical condition? _____

Chemotherapy Y N U
If yes, was therapy within the last 30 days before this illness? Y N U
For what medical condition? _____

Radiotherapy Y N U
If yes, was therapy within the last 30 days before this illness? Y N U
For what medical condition? _____

Systemic steroids/corticosteroids, including steroids taken by mouth or injection Y N U
If yes, was medication taken within the last 30 days before this illness? Y N U
For what medical condition? _____

Immunosuppressive therapy, including anti-rejection therapy Y N U
If yes, specify: _____
If yes, was medication taken within the last 30 days before this illness? Y N U
For what medical condition? _____

Aspirin or aspirin-containing product Y N U
If yes, was medication taken within the last 30 days before this illness? Y N U
For what medical condition? _____

CLINICAL OUTCOMES

Discharge/Final diagnosis: _____

Survived? Y N U
Died? Y N U
Died from this illness? Y N U
Patient died in North Carolina? Y N U
County of death: _____
Died outside NC? Y N U
Specify where: _____
Autopsy performed? Y N U
Facility where autopsy was performed: _____
Patient autopsied in NC? Y N U
County of autopsies: _____
 Autopsied outside NC, specify where: _____
Source of death information (select all that apply):
Note: The death certificate, autopsy report, hospital/physician discharge summary, and/or other documentation should be attached to this event.
 Death certificate
 Autopsy report final conclusions
 Hospital/physician discharge summary
 Other: _____
Cause of death: _____
Death date (mm/dd/yyyy): _____

TRAVEL/IMMIGRATION

The patient is:
 Resident North Carolina
 Resident of another state or US territory
 Foreign visitor
 Refugee
Refugee camp(s) Y N U
Name of camp _____
Location of camp _____
Country of birth _____
Last country prior to arrival in US _____
Date of entry to US _____
 Recent immigrant
Country of birth _____
Last country prior to arrival in US _____
Date of entry to US _____
 Foreign adoptee
Country of birth _____
Last country prior to arrival in US _____
Date of entry to US _____
 None of the above

ISOLATION/QUARANTINE/CONTROL MEASURES

Did local health director or designee implement additional control measures? (example: cohort classrooms, special cleaning, active surveillance, etc.) Y N
If yes, specify: _____

Were written isolation orders issued? Y N
If yes, where was the patient isolated? _____
Date isolation started? _____
Date isolation ended? _____
Was the patient compliant with isolation? Y N

Were written quarantine orders issued? Y N
If yes, where was the patient quarantined? _____
Date quarantine started? _____
Date quarantine ended? _____
Was the patient compliant with quarantine? Y N
Notes: _____

TREATMENT

Did patient take an antibiotic as treatment for this illness? Y N U
If yes, specify antibiotic name: _____
Dose _____
Date antibiotic began (mm/dd/yyyy): _____
Date antibiotic ended (mm/dd/yyyy): _____
Number of days taken: _____ Unknown

Has the patient ever received immune globulin? Y N U
When was the last dose received? (mm/dd/yyyy): _____

Did the patient receive medical care for this illness? Y N U
Specify level(s) of care (check all that apply):
 Outpatient
 Emergency department
 Inpatient
 ICU
 Other _____
 Unknown

TRAVEL/IMMIGRATION

Did patient have contact with a person with travel history during the period of interest? Y N U
Contact's name: _____
Travel dates: From: _____ until _____
To city: _____
To state: _____
To country: _____
Is contact a:
 Resident of another state or US territory
 Foreign visitor
 Recent immigrant
 Refugee
 Foreign adoptee
 Unknown
 Other, specify: _____

Notes: _____

CHILD CARE/SCHOOL/COLLEGE

Patient in child care? Y N U
Name of care provider: _____
Address: _____
City: _____ State: _____
Zip code: _____ County: _____
Contact name: _____
Telephone: (_____) _____

Patient a child care worker or volunteer in child care? Y N U
Name of child care provider: _____
Address: _____
City: _____ State: _____
Zip code: _____ County: _____
Contact name: _____
Telephone: (_____) _____

Patient a parent or primary caregiver of a child in child care? Y N U
Name of child care provider: _____
Address: _____
City: _____ State: _____
Zip code: _____ County: _____
Contact name: _____
Telephone: (_____) _____

Is patient a student? Y N U
Type of school:
 NC Public School (preK-12)
 NC Private School (preK-12)
 Other School (preK-12)
 Community College/College/University
 Other academic institution (i.e. trade school, professional school, etc)
Name: _____
Address: _____
City: _____ State: _____
Zip code: _____ County: _____
Contact name: _____
Telephone: (_____) _____
Specify grade: _____

Is patient a school WORKER / VOLUNTEER in NC school setting? Y N U
Type of school:
 NC Public School (preK-12)
 NC Private School (preK-12)
 Other School (preK-12)
 Community College/College/University
 Other academic institution (i.e. trade school, professional school, etc)
Name: _____
Address: _____
City: _____ State: _____
Zip code: _____ County: _____
Telephone: (_____) _____

Notes: _____

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						SSN / /

BEHAVIORAL RISK & CONGREGATE LIVING

During the 25 days prior to onset of symptoms until 5 days after onset of swelling did the patient live in any congregate living facilities (correctional facility, barracks, shelter, commune, boarding school, camp, dormitory/sorority/fraternity)? Y N U

Name of facility: _____
Dates of contact: _____

During the 25 days prior to onset of symptoms until 5 days after onset of swelling, did the patient attend social gatherings or crowded settings? Y N U

If yes, specify: _____

In what setting was the patient most likely exposed?

- | | |
|---|--|
| <input type="checkbox"/> Restaurant | <input type="checkbox"/> Place of Worship |
| <input type="checkbox"/> Home | <input type="checkbox"/> Outdoors, including woods or wilderness |
| <input type="checkbox"/> Work | <input type="checkbox"/> Athletics |
| <input type="checkbox"/> Child Care | <input type="checkbox"/> Farm |
| <input type="checkbox"/> School | <input type="checkbox"/> Pool or spa |
| <input type="checkbox"/> University/College | <input type="checkbox"/> Pond, lake, river or other body of water |
| <input type="checkbox"/> Camp | <input type="checkbox"/> Hotel / motel |
| <input type="checkbox"/> Doctor's office/ Outpatient clinic | <input type="checkbox"/> Social gathering, other than listed above |
| <input type="checkbox"/> Hospital In-patient | <input type="checkbox"/> Travel conveyance (airplane, ship, etc.) |
| <input type="checkbox"/> Hospital Emergency Department | <input type="checkbox"/> International |
| <input type="checkbox"/> Laboratory | <input type="checkbox"/> Community |
| <input type="checkbox"/> Long-term care facility /Rest Home | <input type="checkbox"/> Other (specify) _____ |
| <input type="checkbox"/> Military | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Prison/Jail/Detention Center | |

Does the patient have any other risk factors for this disease? Y N U

Specify: _____

GEOGRAPHICAL SITE OF EXPOSURE

In what geographic location was the patient MOST LIKELY exposed?

Specify location:

In NC
City _____
County _____

Outside NC, but within US
City _____
State _____
County _____

Outside US
City _____
Country _____

Unknown

Notes:

HEALTH CARE FACILITY AND BLOOD & BODY FLUID EXPOSURE RISKS

During the 25 days prior to onset of symptoms until 5 days after onset of swelling, did the patient have any of the following health care exposures?

Emergency Dept. (not hospitalized)... Y N U

Visit/admit date (mm/dd/yyyy): _____

Facility name _____

City _____ State _____

Country _____

Was facility notified regarding ill patient?

Yes No Unknown

Not applicable

Name of person notified _____

Date notified (mm/dd/yyyy): _____

Hospital Y N U

Visit/admit date (mm/dd/yyyy): _____

Facility name _____

City _____ State _____

Country _____

Has patient been discharged? Y N U

Discharge date (mm/dd/yyyy): _____

Was facility notified regarding ill patient?

Yes No Unknown Not applicable

Name of person notified _____

Date notified (mm/dd/yyyy): _____

LTC facility—resident Y N U

Visit/admit date (mm/dd/yyyy): _____

Facility name _____

City _____ State _____

Country _____

Has patient been discharged? Y N U

Discharge date (mm/dd/yyyy): _____

Was facility notified regarding ill patient?

Yes No Unknown Not applicable

Name of person notified _____

Date notified (mm/dd/yyyy): _____

Outpatient facility—patient Y N U

Visit date (mm/dd/yyyy): _____

Facility name _____

City _____ State _____

Country _____

Was facility notified regarding ill patient?

Yes No Unknown Not applicable

Name of person notified _____

Date notified (mm/dd/yyyy): _____

Visitor to health care setting Y N U

Visit date (mm/dd/yyyy): _____

Until date (mm/dd/yyyy): _____

Frequency:

Once

Multiple times within this time period

Daily

Facility name _____

City _____ State _____

Country _____

Was facility notified regarding ill patient?

Yes No Unknown Not applicable

Name of person notified _____

Date notified (mm/dd/yyyy): _____

Worked or volunteered in health care or clinical setting Y N U

Facility name _____

City _____ State _____

Country _____

Occupation:
 Physician
 Physician's assistant or nurse practitioner
 Nurse
 Laboratory
 Other
 Unknown

Specify work setting or volunteer duties: _____

Was facility notified regarding ill patient?
 Yes No Unknown N/A

Name of person notified _____

Date notified (mm/dd/yyyy): _____

Other, specify _____

Was patient employed in a laboratory? Y N U

If yes, specify and give details: _____

CASE INTERVIEWS/INVESTIGATIONS

Was the patient interviewed? Y N U

Date of interview (mm/dd/yyyy): ____/____/____

Were interviews conducted with others? Y N U

Who was interviewed? _____

Were health care providers consulted? Y N U

Who was consulted? _____

Medical records reviewed (including telephone review with provider/office staff)? Y N U

Specify reason if medical records were not reviewed: _____

Notes on medical record verification:

Mumps

2012 Case Definition

CSTE Position Statement Number: 11-ID-18

Case Classification

Suspect

- Parotitis, acute salivary gland swelling, orchitis, or oophoritis unexplained by another more likely diagnosis, OR
- A positive lab result with no mumps clinical symptoms (with or without epidemiological-linkage to a confirmed or probable case).

Probable

Acute parotitis or other salivary gland swelling lasting at least 2 days, or orchitis or oophoritis unexplained by another more likely diagnosis, in:

- A person with a positive test for serum anti-mumps immunoglobulin M (IgM) antibody, OR
- A person with epidemiologic linkage to another probable or confirmed case or linkage to a group/community defined by public health during an outbreak of mumps.

Confirmed

A positive mumps laboratory confirmation for mumps virus with reverse transcription polymerase chain reaction (RT-PCR) or culture in a patient with an acute illness characterized by any of the following:

- Acute parotitis or other salivary gland swelling, lasting at least 2 days
- Aseptic meningitis
- Encephalitis
- Hearing loss
- Orchitis
- Oophoritis
- Mastitis
- Pancreatitis

Epidemiologic Classification

Internationally imported case

An internationally imported case is defined as a case in which mumps results from exposure to mumps virus outside the United States as evidenced by at least some of the exposure period (12–25 days before onset of parotitis or other mumps-associated complications) occurring outside the United States and the onset of parotitis or other mumps-associated complications within 25 days of entering the United States and no known exposure to mumps in the U.S. during that time. All other cases are considered U.S.-acquired cases.

U.S.-acquired case

A U.S.-acquired case is defined as a case in which the patient had not been outside the United States during the 25 days before onset of parotitis or other mumps-associated complications or was known to have been exposed to mumps within the United States..

U.S.-acquired cases are sub-classified into four mutually exclusive groups:

- **Import-linked case:** Any case in a chain of transmission that is epidemiologically linked to an internationally imported case.
- **Imported-virus case:** A case for which an epidemiologic link to an internationally imported case was not identified but for which viral genetic evidence indicates an imported mumps genotype, i.e., a genotype that is not occurring within the United States in a pattern indicative of endemic transmission. An endemic genotype is the genotype of any mumps virus that occurs in an endemic chain of transmission (i.e., lasting ≥ 12 months). Any genotype that is found repeatedly in U.S.-acquired cases should be thoroughly investigated as a potential endemic genotype, especially if the cases are closely related in time or location.

Epidemiologic Classification (cont.)

- **Endemic case:** A case for which epidemiological or virological evidence indicates an endemic chain of transmission. Endemic transmission is defined as a chain of mumps virus transmission continuous for ≥ 12 months within the United States.
- **Unknown source case:** A case for which an epidemiological or virological link to importation or to endemic transmission within the U.S. cannot be established after a thorough investigation. These cases must be carefully assessed epidemiologically to assure that they do not represent a sustained U.S.-acquired chain of transmission or an endemic chain of transmission within the U.S.

Note: Internationally imported, import-linked, and imported-virus cases are considered collectively to be import-associated cases.

Comment

With previous contact with mumps virus either through vaccination (particularly with 2 doses) or natural infection, serum mumps IgM test results may be negative; immunoglobulin G (IgG) test results may be positive at initial blood draw; and viral detection in RT-PCR or culture may have low yield if the buccal swab is collected too long after parotitis onset.

Therefore, mumps cases should not be ruled out by negative laboratory results. Serologic tests should be interpreted with caution, as false positive and false negative results are possible with IgM tests.

States may also choose to classify cases as "out-of-state-imported" when imported from another state in the United States. For national reporting, however, cases will be classified as either internationally imported or U.S.-acquired.