NOTE: For surviving hospitalized varicella cases, use Varicella Case Report, DHS 8299

For Local Use Only

VARICELLA DEATH INVESTIGATION WORKSHEET

Name _____ Hospital Record Number _____
LAST / FIRST / MIDDLE

Current Address _____
NUMBER / STREET / APT. NUMBER

_____
CITY / COUNTY / STATE ZIP CODE

Telephone: Home _____ Work _____
AREA CODE + 7 DIGITS AREA CODE + 7 DIGITS

Reporting Physician/ Nurse/Hospital/ Clinic/Lab _____
ADDRESS

Telephone Number _____
AREA CODE + 7 DIGITS

Detach here — Transmit only lower portion if sent to CDC

Send to: Immunization Branch, 850 Marina Bay Parkway, Bldg. P, 2nd Floor, Richmond, CA 94804

VARICELLA DEATH INVESTIGATION WORKSHEET

Form Approved
OMB No. 0920-0007
Exp. Date 7/31/2007

Reported by: State California **Case Number** _____

DEMOGRAPHIC DATA

1. **Date of Birth** ☐☐ ☐☐ ☐☐☐☐ (MONTH DAY YEAR)
2. **Current Age** ☐☐☐ (Unknown=999)
3. **Age Type** ☐ Years ☐ Days ☐ Hours ☐ Months ☐ Weeks ☐ Unknown
4. **Current Sex** ☐ Male ☐ Female ☐ Unknown
5. **Ethnicity** ☐ Hispanic ☐ Not Hispanic ☐ Unknown
6. **Race**
   - ☐ American Indian or Alaska Native
   - ☐ Asian ☐ Black or African-American
   - ☐ Native Hawaiian or Other Pacific Islander
   - ☐ White ☐ Other ☐ Unknown
7. **Date of Death** ☐☐ ☐☐ ☐☐☐☐ (MONTH DAY YEAR)
8. **Country of Birth** _____
9. **If not born in the U.S., case lived in U.S. for** ☐☐ **years.**
10. **Occupation**
    - ☐ Healthcare Worker
    - ☐ Teacher
    - ☐ Day Care Worker
    - ☐ Military Personnel
    - ☐ College Student
    - ☐ Staff in Institutional Setting (e.g., Correctional Facility)
    - ☐ Other *(specify)* _____

MEDICAL HISTORY

Y=Yes N=No U=Unknown

11. **History of varicella before this infection?** ☐ Y ☐ N ☐ U
12. **If yes, age at infection?** ☐☐☐ (Unknown=999)
13. **Age Type** ☐ Years ☐ Days ☐ Hours ☐ Months ☐ Weeks ☐ Unknown
14. **History of serologic evidence of immunity?** ☐ Y ☐ N ☐ U
15. **Varicella Vaccine History**
    - ☐ Vaccinated
    - ☐ Not Vaccinated
    - ☐ Unknown
16. **If vaccinated**
    - **Date Dose 1** ☐☐ ☐☐ ☐☐☐☐ (MONTH DAY YEAR)
    - **Date Dose 2** ☐☐ ☐☐ ☐☐☐☐ (MONTH DAY YEAR)
17. **If not vaccinated, was there a contraindication to vaccination?** ☐ Y ☐ N ☐ U

    If yes, specify _____
18. **Type of contraindication**
    - ☐ Medical ☐ Philosophical
    - ☐ Religious ☐ Other _____
19. **Pre-existing conditions?** ☐ Y ☐ N ☐ U *(Check all that apply)*
    - ☐ Cancer *Type:* _____
    - ☐ Transplant Recipient *Organ:* _____
    - ☐ Immune Deficiency *Type:* _____
    - ☐ Pregnancy
    - ☐ Chronic Renal Failure
    - ☐ Diabetes Mellitus
    - ☐ Tuberculosis
    - ☐ Asthma
    - ☐ Chronic Lung Disease *Specify:* _____
    - ☐ Chronic Dermatolgic Disorder *Specify:* _____
    - ☐ Chronic Autoimmune Disease (e.g., Lupus, Reumatoid Arthritis) *Specify:* _____
    - ☐ Other *Specify:* _____
20. **For a child <1 year old, did his/her mother have a history of varicella?** ☐ Y ☐ N ☐ U
21. **For a child <1 year old, did his/her mother have a history of receipt of varicella vaccine?** ☐ Y ☐ N ☐ U
22. **Is this death the result of congenital varicella infection?** ☐ Y ☐ N ☐ U
23. **In the month prior to rash onset, did the decedent take any of the following?**
    - **Systemic Steroids** ☐ Y ☐ N ☐ U
      Name of Steroid: _____
      Dose: ☐☐ mg/day
    - **Inhaled Steroids** ☐ Y ☐ N ☐ U
      Name of Steroid: _____
      Dose: ☐☐ mg/day
    - **Other Systemic Medication** ☐ Y ☐ N ☐ U
      List medication
      1) _____ 3) _____
      2) _____ 4) _____

continues

ILLNESS PRIOR TO DEATH

Y=Yes N=No U=Unknown

24. **Rash Onset Date** ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)

25. **Was the rash generalized?** ☐ Y ☐ N ☐ U

26. **When first noted, did rash lesions seem to cluster on one side of the body?** ☐ Y ☐ N ☐ U

If "yes," were lesions clustered on one limited area of the body nvolving no more than 3 dermatomes? ☐ Y ☐ N ☐ U

If "yes," which area? *(check all that apply)*

- ☐ Face/Head
- ☐ Arms
- ☐ Legs
- ☐ Trunk
- ☐ Inside Mouth
- ☐ Other *(Specify)* _____

27. **Was the case hospitalized?** ☐ Y ☐ N ☐ U

Admission Date ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)

If obtainable, please attach a copy of the hospital discharge summary.

COMPLICATIONS *(check all that apply)*

28. ☐ **Secondary Infection**

From

- ☐ Strep
  - ☐ Group A beta-hemolytic
  - ☐ Other type
  - ☐ Unknown type
- ☐ Staph
  - ☐ MRSA
  - ☐ Other *(Specify)* _____
- ☐ Mixed
- ☐ Other *(Specify)* _____

Type of Infection

- ☐ Cellulitis
- ☐ Osteomyelitis
- ☐ Impetigo/Infected Skin Lesions
- ☐ Necrotizing Fasciitis
- ☐ Lymphadenitis
- ☐ Toxic Shock Syndrome
- ☐ Abscess
- ☐ Sepsis/Septicemia
- ☐ Septic Arthritis
- ☐ Other *(Specify)* _____

29. ☐ **Pneumonia/Pneumonitis**

Etiology, if known _____

30. ☐ **Neurologic Complications**

- ☐ Cerebellitis/Ataxia
- ☐ Encephalitis
- ☐ Other *(Specify)* _____

31. ☐ **Reye's Syndrome**

32. ☐ **Other** *(Specify)* _____

TREATMENT – MEDICATIONS *(check all that apply)*

33. ☐ **Acyclovir**

☐ **Oral** Dose ☐☐☐☐ mg/day
Start Date ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)
Duration ☐☐☐ days

☐ **IV** Dose ☐☐☐☐ mg/day
Start Date ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)
Duration ☐☐☐ days

34. ☐ **Famciclovir**

Dose ☐☐☐☐ mg/day
Start Date ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)
Duration ☐☐☐ days

35. ☐ **Valacyclovir**

Dose ☐☐☐☐ mg/day
Start Date ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)
Duration ☐☐☐ days

36. ☐ **Varicella Zoster Immune Globulin (VZIG)**

Dose ☐☐☐☐ U's
Date Admin'd ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)

37. ☐ **Aspirin**

38. ☐ **Non-Steroidal Anti-Inflammatory Drugs (i.e., ibuprofen)**

continues

LABORATORY

Y=Yes N=No U=Unknown

39. **Was laboratory testing done for varicella? If "yes":** ☐ Y ☐ N ☐ U

40. **Direct fluorescent antibody (DFA) technique?** ☐ Y ☐ N ☐ U

Date of DFA ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)

DFA Result
- ☐ Positive
- ☐ Negative
- ☐ Indeterminate
- ☐ Pending
- ☐ Not Done
- ☐ Unknown

41. **PCR specimen?** ☐ Y ☐ N ☐ U

Date of PCR Specimen ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)

Source of PCR specimen: *(check all that apply)*
- ☐ Vesicular Swab
- ☐ Saliva
- ☐ Scab
- ☐ Blood
- ☐ Tissue Culture
- ☐ Urine
- ☐ Buccal Swab
- ☐ Macular Scraping
- ☐ Other _____

PCR Result
- ☐ Varicella Positive
- ☐ Not Done
- ☐ Varicella Negative
- ☐ Pending
- ☐ Indeterminate
- ☐ Unknown
- ☐ Other _____

Was the PCR specimen adequate (i.e., was it actin positive)? ☐ Y ☐ N ☐ U

42. **Culture performed?** ☐ Y ☐ N ☐ U

Date of Culture Specimen ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)

Culture Result
- ☐ Positive
- ☐ Pending
- ☐ Negative
- ☐ Not Done
- ☐ Indeterminate
- ☐ Unknown

43. **Was other laboratory testing done? If "yes":** ☐ Y ☐ N ☐ U

Specify Other Test
- ☐ Tzanck smear
- ☐ Electron microscopy

Date of Other Test ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)

Other Lab Test Result
- ☐ Positive (results consistent with varicella infection)
- ☐ Negative
- ☐ Indeterminate
- ☐ Not Done
- ☐ Pending
- ☐ Unknown

Test Result Value _____

44. **Serology performed?** ☐ Y ☐ N ☐ U

45. **IgM performed? If "yes":** ☐ Y ☐ N ☐ U

Type of IgMTest
- ☐ Capture ELISA
- ☐ Unknown
- ☐ Indirect ELISA
- ☐ Other _____

Date IgM Specimen Taken ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)

IgM Test Result
- ☐ Positive
- ☐ Pending
- ☐ Negative
- ☐ Not Done
- ☐ Indeterminate
- ☐ Unknown

Test Result Value _____

46. **IgG performed? If "yes":** ☐ Y ☐ N ☐ U

Type of IgG Test:
- ☐ Whole Cell ELISA (specify manufacturer): _____
- ☐ gp ELISA (specify manufacturer): _____
- ☐ FAMA
- ☐ Latex Bead Agglutination
- ☐ Other _____

Date of IgG-Acute ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)

IgG-Acute Result
- ☐ Positive
- ☐ Pending
- ☐ Negative
- ☐ Not Done
- ☐ Indeterminate
- ☐ Unknown

Test Result Value _____

Date of IgG-Convalescent ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)

IgG-Conv. Result
- ☐ Positive
- ☐ Pending
- ☐ Negative
- ☐ Not Done
- ☐ Indeterminate
- ☐ Unknown

Test Result Value _____

47. **Were the clinical specimens sent to CDC for genotyping (molecular typing)? If "yes":** ☐ Y ☐ N ☐ U

Date sent for genotyping ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)

48. **Was specimen sent for strain (wild- or vaccine-type) identification?** ☐ Y ☐ N ☐ U

Strain Type
- ☐ Wild Type Strain
- ☐ Vaccine Type Strain
- ☐ Unknown

49. **Any herpes simplex virus testing performed? If "yes":** ☐ Y ☐ N ☐ U

Type of Test _____

Date of Other Test ☐☐ (MONTH) ☐☐ (DAY) ☐☐☐☐ (YEAR)

Test Result
- ☐ Positive
- ☐ Pending
- ☐ Negative
- ☐ Unknown
- ☐ Indeterminate

It can be difficult to distinguish varicella from disseminated herpes zoster (shingles). Serum or blood obtained from the decedent prior to or early in illness (i.e., weeks before to ~4 days after rash onset) could be used to test for evidence of prior varicella infection, which could sometimes help distinguish these two conditions. **If there is doubt whether the cause of death was related to varicella or to disseminated herpes zoster, an effort should be made as soon as possible to determine whether any such blood or serum specimens may be available.** For instance, serum specimens at hospital laboratories or a blood banks may be retained for many weeks.

continues

HOSPITAL DISCHARGE

Y=Yes N=No U=Unknown

50. **Discharge summary information available?** ☐Y ☐N ☐U

51. **Varicella included among diagnoses?** ☐Y ☐N ☐U

52. **Discharge Diagnoses** — **ICD-9 Code**

a. _____ ☐☐☐.☐

b. _____ ☐☐☐.☐

c. _____ ☐☐☐.☐

d. _____ ☐☐☐.☐

e. _____ ☐☐☐.☐

f. _____ ☐☐☐.☐

g. _____ ☐☐☐.☐

h. _____ ☐☐☐.☐

i. _____ ☐☐☐.☐

j. _____ ☐☐☐.☐

POST-MORTEM EXAM

Y=Yes N=No U=Unknown

53. **Post-mortem exam done?** ☐Y ☐N ☐U

54. **Varicella included among diagnoses?** ☐Y ☐N ☐U

55. **If evidence of varicella, significant findings related to varicella-zoster virus infection, by organ system:**

a. Organ _____

Findings _____

b. Organ _____

Findings _____

c. Organ _____

Findings _____

d. Organ _____

Findings _____

e. Organ _____

Findings _____

f. Other _____

_____

DEATH CERTIFICATE

Y=Yes N=No U=Unknown

56. **Death certificate available?** ☐Y ☐N ☐U

57. **Varicella included as one cause of death?** ☐Y ☐N ☐U

58. **Cause of Death** — **ICD-9 Code**

a. _____ ☐☐☐.☐

b. _____ ☐☐☐.☐

c. _____ ☐☐☐.☐

d. _____ ☐☐☐.☐

Contributing Conditions — **ICD-9 Code**

a. _____ ☐☐☐.☐

b. _____ ☐☐☐.☐

c. _____ ☐☐☐.☐

d. _____ ☐☐☐.☐

SOURCE

Y=Yes N=No U=Unknown

59. **Case had close contact with a person with known or suspected infection 10-21 days before rash onset?** ☐Y ☐N ☐U

60. **Source had** ☐Shingles ☐Varicella ☐Unknown

61. **Current Age** ☐☐☐ (Unknown=999)

62. **Age Type** ☐Years ☐Days ☐Hours ☐Months ☐Weeks ☐Unknown

63. **Varicella vaccine history of source** ☐Source vaccinated ☐Source not vaccinated

64. **If not vaccinated, source had contraindication to vaccination?** ☐Y ☐N ☐U

If yes, specify _____

65. **Transmission Setting (Setting of Exposure)**

☐Athletics
☐College
☐Community
☐Correctional Facility
☐Daycare
☐Doctor's Office
☐Home
☐Hospital ER
☐Other _____
☐Hospital Outpatient Clinic
☐Hospital Ward
☐International Travel
☐Military
☐Place of Worship
☐School
☐Work
☐Unknown

66. **If transmission was in the home**

☐Transmission from family member by adoption
☐Transmission from family member biologically related

67. **Any international travel in the 4 weeks prior to illness?** ☐Y ☐N ☐U

If yes, what dates? _____

What country(ies)? _____