Generalized Vesicular or Pustular Rash Illness Protocol

**Conditions With Vesicular or Pustular Rashes**

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<th>Condition</th>
<th>Clinical Course</th>
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<td>Chickenpox (Varicella)</td>
<td>Is the most likely condition to be mistaken for Smallpox.</td>
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**MAJOR SMALLPOX CRITERIA**

**VESICULAR & PUSTULAR LESIONS:** occurring 3-4 days before rash onset; fever >102°F and at least one of the following: prostration, headache, backache, muscle, vomiting or severe abdominal pain. All smallpox patients have a fever. The fever may drop with rash onset.

**CLASSIC SMALLPOX LESIONS:** deep, erythematous, round, well-circumscribed, may be confluent or confluent.

**LESIONS IN SAME STAGE OF DEVELOPMENT:** on any one part of the body (i.e., the face, or arm) all the lesions are in the same stage of development (i.e., all are vesicles, or all are pustules).

**MINOR SMALLPOX CRITERIA**

**Centripetal distribution:** greatest concentration of lesions on face and distal extremities.

**Vesicles on the oral mucosa, palms, face, forearm.**

**Dilation of vessels:** no injection or accentuation.

**Fever and generalized rash:** no fever, rash appears on the trunk, or occasionally on face.

**Vesicles on the palms and soles:** majority of cases.

**CHEKENCPOX (VARICELLA) IS THE MOST LIKELY CONDITION TO BE MISSED FOR SMALLPox.**

How varicella (chickenpox) differs:

1. No or mild (1 day) prodrome
2. Vesicles are superficial; “develop on a nodule”
3. Lesions on all stages of development with no vesicles on the trunk, distal extremities may be involved. In the face, scalp, occasionally entire body equally affected.
4. Vesicles appear on the trunk, or occasionally on face.
5. Patients rarely toxic or moribund
6. Rapid evolution; lesions evolve from macules to vesicles to pustules quickly (24 hours)
7. Vesicles and pustules
8. Patient lacks history of varicella or varicella vaccination
9. 50-80% recall an exposure to chickenpox or shingles 10-21 days before rash onset.

**CRITERIA FOR DETERMINING RISK OF SMALLPOX**

**High Risk for Smallpox**

1. Foul-smelling vesicles, pus (see below) AND
2. Lesions in same stage of development (see below)

**Moderate Risk for Smallpox**

1. Foul-smelling vesicles (see below) AND
2. One MAJOR smallpox criterion (see below)

**Low Risk for Smallpox**

1. No vesicular rash OR
2. Foul-smelling vesicles and 5 MINOR smallpox criteria (no major criteria) (see below)

**VARIOUS FEVERS & REPORTING**

**Acute, Generalized Rash**

Report ALL suspected cases of smallpox immediately. Attend alert and infection control on admission.

**Questions?**

Centers for Disease Control and Prevention: (404) 639-3532 days; nights/weekends/holidays: (770) 488-7100

**DISSEMINATED HERPES ZOSTER**

**Alert Infection Control & Local and State Health Dept.**

**Varicella Testing**

Varicella diagnosis: laboratory evidence of chickenpox virus in either tissue or fluid. 

**Varicella Testing**

**Chick个人观点 (Varicella) IS THE MOST LIKELY CONDITION TO BE MISSED FOR SMALLPox.**

**How varicella (chickenpox) differs:**

1. No or mild (1 day) prodrome
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**Lab Results for Varicella:**

1. Direct fluorescent antibody (DFA) — rapid, depends on adequate specimen (see below)
2. Enzyme-linked immunosorbent assay (ELISA) — depends on adequate specimen (see below)
3. Polymerase chain reaction (PCR) — available for research labs, not routine clinical use
4. Smears / slides: at time of rash, provides evidence of varicella virus, and excludes material infection; culture does not rule out herpes in immunocompromised patient at risk of dissemination. Infection is not useful for diagnosis.
5. VZV culture: varicella-zoster virus, usually only done in immunocompromised patients
6. Skin testing/immunoblot: — usually done in varicella vaccination

**Testing at CDC**

**Varicella Diagnosis Confirmed Report Results to Infection Control**

**Response Team Advises on Management / Specimen Collection**

**Contact Local and State Health Depts**

**Testing at CDC**

**Cannot Rule Out Smallpox**

**Further Testing**

**Smallpox**

**Alert Infection Control & Local and State Health Depts**

**No Diagnosis Made**

Ensure adequacy of specimen ID or Derm Consultation

**Varicella Testing Optional**

History and Exam

Highly Suggestive of Varicella

Diagnosis Uncertain

Varicella Testing

Test for VZV and Other Conditions as indicated

Non-Smallpox Diagnosis Confirmed Report Results to Infection Control

No Diagnosis Made

Ensure Adequacy of Specimen ID or Derm Consultation

Re-evaluates Patient

**MAJOR SMALLPOX CRITERIA**

1. Foul-smelling vesicles (see below) AND
2. One MAJOR smallpox criterion (see below)

**MINOR SMALLPOX CRITERIA**

**Centripetal distribution:** greatest concentration of lesions on face and distal extremities.

**Vesicles on oral mucosa, palms, face, forearm.**

**Varicella testing optional.**

**Test for VZV and other conditions as indicated.**

**Non-Smallpox Diagnosis Confirmed Report Results to Infection Control.**

**No Diagnosis Made**

Ensure adequacy of specimen ID or Derm Consultation

**Re-evaluates Patient.**