**CASE DEFINITION / LAB DIAGNOSIS**

**Clinical Case Definition**
An illness with acute onset of diffuse (generalized) maculo-papulovesicular rash without other apparent cause.

**Laboratory Criteria for Diagnosis**
- Isolation of varicella virus from a clinical specimen; OR
- Direct fluorescent antibody (DFA); OR
- PCR polymerase chain reaction (PCR); OR
- Significant rise in serum varicella immunoglobulin (IgG) antibody level by any standard serologic assay. IgM poor S&S

**Other Lab:**
Single IgG titer (ELISA, FAMA, Latex) to determine immunity.
FAMA=Fluorescent Antibody Membrane Antigen; gold standard

**TREATMENT, PROPHYLAXIS**

**Immunization/Vaccine:**
Routine: For children 12 mos to 18 mos: 1 dose of 0.5mL live attenuated vaccine; Anyone <13 yrs not yet immunized
For persons 13 yrs and older: 2 doses of 0.5mL live attenuated vaccine separated by at least 4 - 8 weeks. Anytime after 8 wks still OK
Prophylaxis: within 5 days of exposure to prevent illness in susceptible. Cost effective to screen (90% adults are immune)
Newborns exposed to mother with active disease:
**LIVE attenuated vaccine:** subcutaneous; OK with MMR at different site; no testing necessary after 2 doses in adults
Store frozen at -15°C

**Antibodies are not good diagnostic tools among immunized persons**
IgG are expected in a patient who has been immunized
IgM may last after immunization

**Significant exposure for contact intervention:**
- Continuous household contact
- Playmate contact: 1 hour indoors
- Hospital contact: room 2-4 beds, ward neighbors, long face to face 1 hr

**Transmision:**
- Airborne: by droplet spread
- Direct contact: with vesicular fluid from persons with varicella
Most efficient if close contact
Casual contact not sufficient
Very labile: fomite unlikely

**Significant exposure for contact intervention:**
- Continuous household contact
- Hospital contact: room 2-4 beds, ward neighbors, long face to face 1 hr

**Clinical Description**
Prodrome 2 - 4 days minimal, mostly adults
Rash first appears on trunk
Rash distribution: centrifugal denser on trunk; Palms/Soles: very rare, but does occur
Lesions appear: new lesions every few days, not synchronized = different stages: appear in crops
Depth of lesion: superficial, dew drop on rose petal
Macules → Papules → Vesicles → Pustules in < 24 hours
Scab formation in 4-7 days
General condition: rarely toxic; Fever 102°F 2/3 days; itch

**Complications: (Preventable)**
- Severe in immuno-compromised
- Pneumonia & encephalitis
- Perinatal in mothers with recent infection (Mortality 30%)
- Congenital VZV

**Source:** Humans only
Skin lesions high titers of virus as lesion becomes pustular cultured from rash day 1-3
Room dust is not infectious

**Transmission:**
- Airborne: by droplet spread
- Direct contact: with vesicular fluid from persons with varicella
Most efficient if close contact
Casual contact not sufficient
Very labile: fomite unlikely

**Incubation Period:**
15 (10-21) days Longer for
--Immuno-comp
--VZIG recipient

**Communicability:**
1-2 days +5 days

**Eruptive phase - Rash:**
1 week

**Viremia:**
5 days

**IgM / IgG:**

**http://www.infectiousdisease.dhh.louisiana.gov (800)256-2748**
### Prophylaxis indicated for:

- **Household:** residing in same household
- **Playmate:** face to face indoor play
- **Hospital:**
  - Varicella: In same 2 to 4 bed room or adjacent beds in a large ward, face to face contact with an infected staff member or patient or visit by person deemed contagious.
  - Zoster: Intimate contact (touching, hugging) with a person deemed contagious
- **Newborn infant:** onset of varicella in the mother 5 days or less before delivery or within 48 hours after delivery; VarizIG or IGIV not indicated if the mother has zoster.

### HCF (Hospital) employees primary prevention

- Must be immune to varicella
- Definite Hx of varicella or Lab screening (cost effective)
- 2 doses; no testing after 2nd dose

### Postexposure immunization for exposed individuals

Administration of varicella vaccine to people without evidence of immunity 12 months of age or older, including adults, as soon as possible within 72 hours and possibly up to 120 hours (5 days) after varicella exposure may prevent or modify disease and should be considered in these circumstances if there are no contraindications to vaccine use.

### Varicella in NICU

Significant exposure within 96 hours (4 days) AND
- Immuno-deficient
- Early premature < 28wks
- Premature >28wks of susceptible mother
- Newborn of infected mother @ delivery
- VZIG or acyclovir
- Airborne isolation for 21 days

### Preventing complications

Significant exposure within 96 hours (4 days) AND
- Immuno-deficient
- Early premature < 28wks
- Premature >28wks of susceptible mother
- Newborn of infected mother @ delivery
- Susceptible adult >15 yrs
- VZIG or acyclovir

### Hospital Exposure (HCW)

If an inadvertent exposure in the hospital to an infected patient, health care professional or visitor occurs, the following control measure are recommended:
- Identify exposed, susceptible personnel
- Administer VarizIG to appropriate candidates. If not available, IGIV is recommended.
- All susceptible, exposed people should be furloughed or excused from patient contact from day 10 to day 21 after exposure.
- Serologic testing for immunity for people who have been immunized is not recommended.
- Immunized health care workers who develop breakthrough infection should be considered infectious.
- Varicella immunization is recommended for susceptible personnel if there are no contraindications to vaccine use.

### Hospital Exposure (Patients)

If an inadvertent exposure in the hospital to an infected patient, the following control measure are recommended:
- Identify exposed, susceptible patients.
- Administer VarizIG to appropriate candidates. If not available, IGIV is recommended.
- All exposed, susceptible patients should be discharged as soon as possible.
- For those that cannot be discharged, they should be placed in isolation from day 10 to day 21 after exposure to the index patient.
- For people who received VarizIG, isolation should continue until day 28.
- Serologic testing for immunity for people who have been immunized is not recommended.
- Varicella immunization is recommended for susceptible patients if there are no contraindications to vaccine use.

### Report immediately to OPH

[http://www.infectiousdisease.dhh.louisiana.gov](http://www.infectiousdisease.dhh.louisiana.gov) (800)256-2748