University of Kentucky / UK HealthCare Policy and Procedure	Policy # A03-020
Title/Description: Control of Varicella-Zoster (Chickenpox) Virus in Patient Care Setting	
Purpose: To establish guidelines to control introduction and spread of varicella-zoster virus.	

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Policy

Varicella (chickenpox) is characterized by generalized vesicular eruption -- mild to moderate in children, more severe in adults, serious disseminated disease in immunosuppressed patients. The virus becomes latent in the sensory nerve ganglia and may recur as zoster months to years later.

Zoster, sometimes called herpes zoster or shingles, occurs in patients who previously have had chickenpox, especially those who are immunosuppressed or stressed in other ways. The virus escapes from sensory nerve ganglia and affects the skin. When the natural immune system is inadequate, zoster disseminates from cutaneous sites.

Zoster may be:

1. Localized: Painful vesicular eruptions confined to a primary dermatome with occasional vesicles occurring in adjacent dermatomes.
2. Disseminated: Begins with localized zoster but progresses to systemic illness with wide-spread skin lesions in five to ten days.

To control the introduction and spread of varicella-zoster virus (VZV) in UK HealthCare facilities, each healthcare worker, as defined below, shall adhere to the following procedures.

Definition

Healthcare worker or *HCW* as used in this policy means a healthcare worker as defined in UK HealthCare Policy A03-005, UK HealthCare Employee Health Program.

Procedure

Prevention

1. All healthcare workers with direct patient contact shall demonstrate immunity to varicella –zoster virus either by history of the disease, demonstrated antibody titer, or varicella vaccine consisting of a completed series of two injections, one month apart.
2. Employee Health will determine and record the HCW's history of immunity to varicella-zoster virus at the initial HCW health screening upon commencement of employment in a UK HealthCare facility or matriculation or start of volunteer service.[1]
3. Elective admission of children or susceptible individuals who have been exposed to chickenpox or other illnesses associated with rash will be postponed until 21 days after the date of the exposure.

Control

If varicella-zoster virus is introduced into the UK HealthCare environment, the following measures shall be taken to minimize secondary spread of VZV to susceptible patients and staff:

1. The disease shall be diagnosed by recognition of characteristic vesicular rash or by Tzanck test or viral culture.
2. The registered nurse responsible for the patient shall immediately notify Infection Prevention and Control of any patient who is admitted with or who develops varicella zoster (shingles) or chickenpox while in the hospital. Each HCW who has been exposed to or develops chickenpox shall notify Infection Prevention and Control immediately upon exposure or development.
3. A list of patients and personnel exposed to the index case will be generated by Infection Prevention and Control.

Management of Patients with Herpes Zoster

Infection-control measures depend on whether the patient with herpes zoster is immuno-competent or immunocompromised and on whether the rash is localized or disseminated. In all cases, standard infection-control precautions shall be followed.

1. If the patient is immunocompetent with:
   (a) Localized herpes zoster, then standard precautions shall be followed and lesions are to be completely covered.
   (b) Disseminated herpes zoster (defined as appearance of lesions outside the primary or adjacent dermatomes), then standard precautions plus airborne and contact precautions shall be followed until lesions are dry and crusted.
2. If the patient is immunocompromised with:

[1] Any HCW who has not undergone a health screening shall schedule a health screening immediately upon determination that the person is a healthcare worker of UK HealthCare.

(a) Localized herpes zoster, then standard precautions plus airborne and contact precautions shall be followed until disseminated infection is ruled out. Then standard precautions shall be followed until lesions are dry and crusted.

(b) Disseminated herpes zoster, then standard precautions plus airborne and contact precautions shall be followed until lesions are dry and crusted.

Management of Healthcare Workers

The following steps shall be taken when healthcare workers are exposed to someone with varicella or herpes zoster:

1. An HCW who has received two doses of varicella vaccine shall be monitored daily during post exposure days eight through 21 for fever, skin lesions, and systemic symptoms suggestive of varicella. An exposed HCW may continue to work, but the HCW must be monitored directly by the supervisor and instructed to report fever, headache, or other constitutional symptoms and any atypical skin lesions immediately. If symptoms occur, the HCW shall be immediately removed from patient care areas and receive antiviral medication. Any HCW with varicella and disseminated herpes zoster shall be excluded from work until all lesions have dried and crusted or, in the absence of vesicular lesions, until no new lesions have appeared for 24 hours.

2. An HCW who has received one dose of varicella vaccine shall receive the second dose at any interval after exposure to someone with rash (provided four weeks have elapsed after the first dose). After vaccination, management is the same as that of an HCW who has received two doses of varicella vaccine.

3. Any unvaccinated, VZV-susceptible HCW is potentially infective from days eight to 21 days after exposure and will be furloughed or temporarily reassigned to locations remote from patient-care areas during this period. An exposed HCW without evidence of immunity will receive post exposure vaccination as soon as possible. Vaccination within three to five days of exposure to rash may modify the disease if infection occurred. Vaccination six or more days after exposure is still indicated to induce protection against subsequent exposures, provided the current exposure did not cause infection.

Persons and Sites Affected	
☒ Enterprise ☐ Chandler ☐ Good Samaritan ☐ Kentucky Children's ☐ Ambulatory ☐ Department	
Policies Replaced	
☒ Chandler HP03-07 ☐ Good Samaritan ☐ Kentucky Children's CH ☐ Ambulatory KC ☐ Other	
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