1.0 PURPOSE

To prevent the spread of Varicella-zoster and herpes zoster to patients and staff.

2.0 DEFINITIONS

Varicella-zoster virus (VZV) – is the causative agent of two diseases:

- Varicella (chickenpox), the primary infection.
- Herpes zoster (shingles), a secondary infection due to a reactivation of latent varicella infection in the dorsal root ganglia.

Chickenpox – typically infects children under the age of 10 years.

- Transmitted from person to person by direct contact, droplet or airborne spread of vesicle fluid or sections of the respiratory tract and indirectly through articles freshly soiled by discharges from vesicles or mucous membranes of infected people.
- Incubation period between 10-21 days.
- Is most contagious from 2 days before onset of rash until all lesions have crusted.
- Susceptible persons should be considered potentially infectious 7 to 21 days following exposure.
- Scabs from the lesions are not infective.

Shingles – lifetime risk of reactivation as zoster/shingles is about 15-20%.

- Can occur any time, most often in the elderly population
- Vesicles with an erythematous base appear in crops in irregular fashion along nerve pathways.
- Severe pain and paresthesia are common.
- Transmitted from person to person by direct contact, droplet or airborne spread of vesicle fluid and indirectly through articles freshly soiled by discharges from vesicles or mucous membranes of infected people.
- Scabs from the lesions are not infective.

Localized Shingles – localized lesions (< 2 dermatomes).

Disseminated Shingles – must be diagnosed by physician; very rare

Immunocompromised patients – those with cancer, especially leukemia and lymphoma; those with HIV; those who have undergone bone marrow or solid organ transplantation; those who are taking immunosuppressive medications, including steroids, chemotherapy, or transplant – related immunosuppressive medications; patient status determined by the physician.

Healthcare Worker Exposure Contact – non immune staff that have had contact with a patient with varicella who is not on Airborne/Contact Precautions.
### 3.0 PROCEDURE

<table>
<thead>
<tr>
<th></th>
<th>Precautions</th>
<th>Infective material</th>
<th>Duration of Precautions</th>
<th>Notify/ Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>Chickenpox</strong> (Varicella Zoster)</td>
<td>Airborne Contact</td>
<td>Respiratory secretions + drainage from lesions</td>
<td>Until all lesions are crusted and dry</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>HCWs must be immune</td>
<td>Non-immune HCW that must enter room must wear N95 respirator</td>
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<tr>
<td>2.</td>
<td><strong>Shingles</strong> (Herpes Zoster)</td>
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<tr>
<td>2a.</td>
<td>Immunocompetent patient with: Localized lesions AND Lesions can be covered with clothing or dressing</td>
<td>Routine Practice</td>
<td>Drainage from lesions</td>
<td></td>
</tr>
<tr>
<td>2b.</td>
<td>Immunocompetent patient with: Localized lesions AND Lesions cannot be covered with a dressing</td>
<td>Contact</td>
<td>Drainage from lesions</td>
<td>Until all lesions are crusted and dry</td>
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<td></td>
<td><strong>HCW exposure</strong>: If non-immune individuals are exposed to vesicular fluid</td>
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<tr>
<td>2c.</td>
<td>Immunocompromised patient with localized shingles</td>
<td>Airborne Contact</td>
<td>Drainage from lesions and possibly respiratory secretions</td>
<td>Until 72 hours of effective antiviral treatment OR If untreated until all lesions are crusted &amp; dry</td>
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<td></td>
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<td></td>
<td>Non-immune HCW that must enter room must wear N95 respirator</td>
</tr>
</tbody>
</table>

**Note**: in this document the term "patient" is inclusive of patient, resident or client.
| 2d. | Patient with disseminated shingles | Airborne Contact | Drainage from lesions and possibly respiratory secretions | Discontinue precautions: 72 hours after start of effective antiviral therapy **AND** No new lesions appear **AND** Existing lesions are crusted and dried **OR** If untreated until all lesions are crusted and dry | HCWs must be immune  Non-immune HCW that must enter room **must** wear N95 respirator |

4.0 **Dermatomes** – for a diagram of the levels of principal dermatomes

5.0 **REFERENCES**


4.2. [Alberta Health Services Infection Prevention and Control Manual 2012](#).

4.3. [CDC Center for Disease Control and Prevention](#) – Shingles (Herpes Zoster); 2012.

**Note:** in this document the term “patient” is inclusive of patient, resident or client.