

# Herpes Zoster: Medical and Nursing Management

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**H**erpes zoster (HZ), or shingles, is the reactivation of the latent varicella zoster virus (VZV), also known as chicken pox, in the dorsal root ganglia (Snoeck, Andrei, & De Clerq, 1999). An acute viral inflammation arising from multiple dorsal root ganglion in the peripheral nervous system, HZ can occur in patients of all ages and persists for the lifetime of the infected individual (Kleinschmidt-DeMasters & Gildea, 2001), but its incidence is increased in immunocompromised individuals and older adults. The incidence of reactivation with VZV is increased in patients aged 50 years or older, individuals infected with HIV, patients undergoing immunosuppressive therapy (e.g., bone marrow transplant, cytotoxic chemotherapy, prolonged intake of steroid therapy), and others in chronic disease states, including cancer. The likelihood of VZV reactivation is doubled every 10 years after age 50 and in individuals who are immunocompromised (Stankus, Dlugopolski, & Packer, 2000). According to Kleinschmidt-DeMasters and Gildea, the annual incidence of HZ is more than 300,000 individuals, and the infection is 8–10 times more likely to occur in older adults and those who are immunocompromised. Although immunization shows promise for decreasing VZV infection outbreaks, it increases the likelihood of future reactivation in individuals who are aged 50 years or older or in immunocompromised states (Brody & Moyer, 1997).

Early recognition of clinical symptoms of HZ and prompt treatment with antiviral therapy shortens viral shedding, accelerates

Herpes zoster, the latent descendent of the varicella zoster virus, commonly is seen in clinical practice. Healthcare providers must recognize and treat the virus to decrease the incidence of postherpetic neuralgic pain syndrome. Treatment with an antiviral medication regimen should be initiated rapidly for patients who have had lesions for up to 72 hours. Acyclovir has been the treatment of choice for herpes zoster in the past, but newer drugs, such as valacyclovir, a prodrug of acyclovir, and famciclovir, are as effective for treating the virus and have more convenient dosing regimens and decreased incidence of postherpetic neuralgia.

lesion healing, and may prevent chronic complications (Goh & Khoo, 1998). Complications of HZ may include postherpetic neuralgia (PHN) (i.e., the sensitization of nerve endings resulting in pain) and zoster ophthalmicus (ZO) (i.e., intraocular involvement of the fifth cranial nerve, trigeminal region, which can lead to blindness). Wood, Shukla, Fiddian, and Crooks (1998) reported that PHN is more likely to develop in older adult patients. The pain associated with PHN persists longer than one month after the onset of HZ, and its incidence is correlated to patients' ages. Other possible complications of HZ include encephalitis and peripheral nerve palsies (Gnann & Whitley, 2002).

## Presentation

Healthcare providers must recognize and initiate treatment of HZ immediately in patients. Classic symptoms include itching or burning pain and paresthesias or pruritis lasting from one to two days to three weeks,

followed by a maculopapular, vesicular rash on an erythematous base (Kleinschmidt-DeMasters & Gildea, 2001; Stankus et al., 2000). The rash most commonly is confined to the thoracic region at the fifth and sixth dermatome levels in a belt-like fashion (see Figure 1) and distributed in irregular groupings of vesicles that vary in size (see Figure 2) and do not cross the midline of the body. In addition to the thoracic dermatome regions, other frequently affected dermatomes are the cervical and sacral nerve roots. The rash usually heals in two to

four weeks and may cause scarring.

Prodromal symptoms may mimic other conditions, such as cardiac disease, pleurisy, and gastrointestinal or gynecologic disorders (Stankus et al., 2000), making the recognition of HZ difficult. Some individuals may present with complaints of viral exanthema-type symptoms, such as fever, malaise, and headache (Baldwin, 2002). Rarely, the viral episode can present as dermatomal pain without a rash, known as herpes sine herpette (Kleinschmidt-DeMasters & Gildea, 2001; Stankus et al.). Other rare presentations include duplex unilateris or bilateris, which are vesicular eruptions in two contiguous dermatomes (Vu, Radonich, & Heald, 1999). A rash eruption affecting bilateral dermatomes is considered to be disseminated disease and may progress to

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