STANDARD OPERATING PROCEDURE

Diagnosis and Treatment of Herpes Zoster

Special Region (1)

Union of Myanmar

Version: **1.3**

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Approved by: **Internal Medicine**

1. Purpose

To provide a standardized clinical approach for diagnosis, treatment, prevention, and management of complications of herpes zoster (shingles) in healthcare facilities of Special Region (1).

2. Scope

Applicable to Internal Medicine Units, Outpatient Departments, Emergency Departments, and Dermatology Clinics. Diagnosis in SR-1 settings is primarily clinical without routine laboratory confirmation.

3. Background

Herpes zoster is caused by reactivation of varicella-zoster virus (VZV) latent in sensory ganglia following primary infection (chickenpox). The disease presents with painful unilateral vesicular eruptions in a dermatomal distribution. The most common complication is post-herpetic neuralgia (PHN).

4. Underlying Conditions Associated with Herpes Zoster

- Age >50 years
- HIV infection
- Malignancy
- Chemotherapy
- Organ transplantation
- Long-term corticosteroid therapy
- Immunosuppressive drugs
- Diabetes mellitus
- Chronic kidney disease
- Malnutrition
- Psychological stress

5. Clinical Features

5.1 Prodromal Phase (1-5 days before rash)

Burning pain, tingling, hyperesthesia, itching, fever, malaise.

5.2 Acute Rash Phase

Unilateral dermatomal rash with grouped vesicles on erythematous base that do not cross the midline. Lesion progression: macule → papule → vesicle → pustule → crust. Common dermatomes: Thoracic (most common), trigeminal, cervical, lumbar.

5.3 Herpes Zoster Ophthalmicus (HZO)

Occurs when V1 division of trigeminal nerve is involved (10-20% of cases). Rash distribution: forehead, upper eyelid, scalp, tip of nose. **Hutchinson Sign:** Vesicles on tip of nose indicate nasociliary involvement and higher risk of ocular complications.

5.4 Eye Involvement

Possible complications: Conjunctivitis, Keratitis, Episcleritis / scleritis, Uveitis, Optic neuritis, Acute retinal necrosis, Cranial nerve palsy. Symptoms: Eye pain, red eye, photophobia, blurred vision, reduced visual acuity. Urgent ophthalmology referral is recommended.

6. Diagnosis

Diagnosis is usually clinical based on:

1. Dermatomal pain
2. Unilateral vesicular rash
3. Dermatomal distribution

7. Treatment

Management includes antiviral therapy, acute pain control, and neuropathic pain treatment. Early treatment reduces complications.

7.1 Antiviral Therapy

Antiviral options
Acyclovir 800 mg orally five times daily for 7-10 days
Valacyclovir 1 g orally three times daily for 7 days
Famciclovir 500 mg orally three times daily for 7 days

Severe or immunocompromised cases need IV Acyclovir 10 mg/kg every 8 hours.

7.2 Acute Pain Control

- Mild pain: Paracetamol or NSAIDs
- Moderate pain: Tramadol
- Severe pain: Short-course opioid (e.g., morphine)

Supportive measures: Cool compress, Calamine lotion, Loose clothing.

7.3 Neuropathic Pain Management

Drug	Starting Dose	Titration Schedule	Typical Effective Dose	Maximum Dose
Gabapentin	300 mg at night	Day 2: 300 mg twice daily → Day 3: 300 mg three times daily → increase by 300 mg/day every 1-3 days depending on pain	900-1800 mg/day	3600 mg/day
Pregabalin	75 mg twice daily	After 3-5 days, increase to 150 mg twice daily if pain persists	150-300 mg/day	600 mg/day
Amitriptyline (TCA)	10-25 mg at night	Increase by 10-25 mg every 5-7 days depending on tolerance	25-75 mg/day	100 mg/day (rarely needed for zoster pain)

Combination therapy may be required for severe pain. The effective dose in neuropathic pain is 50% reduction of pain score (VAS-visual analogue scale). Tapering can be considered when: Pain score ≤2-3/10, Pain stable for 1-2 weeks, Rash healed, No progression to PHN. In most herpes zoster cases this occurs after 2-4 weeks of treatment.

Tapering Regimens

Gabapentin tapering regimen: Reduce 300 mg every 5 days.
Pregabalin tapering regimen: Reduce ½ of the previous dose every 7 days.
Amitriptyline tapering regimen: Reduce ½ of the previous dose every 7 days.

Neuropathic drugs should **not be stopped abruptly** because this may cause rebound neuropathic pain and withdrawal symptoms (especially gabapentin/pregabalin).

8. Post-Herpetic Neuralgia

Defined as pain persisting ≥3 months after rash healing. Occurs in approximately 10-20% of patients. Risk increases with older age, severe rash, severe acute pain, and ophthalmic involvement. Treat with neuropathic pain treatment mentioned above.

9. Transmission and Infectivity

Transmission occurs through direct contact with vesicle fluid. Exposure causes chickenpox (varicella) in susceptible individuals rather than shingles.

9.1 Infectivity Period

Patients are infectious from vesicle appearance until lesions crust. Phase 2 (vesicular) and 3 (pustular) of herpes zoster are likely infectious to susceptible people. Lesions usually crust within 7-10 days.

10. Persons at Risk from Exposure

- Pregnant women without immunity
- Newborn infants
- Immunocompromised individuals
- Persons without previous chickenpox infection or vaccination

11. Prevention

- Cover lesions
- Avoid scratching
- Maintain hand hygiene
- Avoid contact with high-risk persons
- Vaccination recommended for adults ≥50 years

12. Complications

- Postherpetic neuralgia
- Herpes zoster ophthalmicus
- Vision loss
- Secondary bacterial infection
- Disseminated zoster

- Meningitis
- Encephalitis

13. Follow-Up

- 1 week - assess rash healing
- 1 month - assess pain
- 3 months - evaluate for PHN

14. References

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