STANDARD TREATMENT WORKFLOW (STW)

Varicella & Herpes Zoster

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VARICELLA (CHICKEN POX)

WHEN TO SUSPECT?
- Fever, malaise
- Generalized vesicular lesions on erythematous base (dew drop on a rose petal sign)
- Skin lesions in different stages of evolution: erythematous macules, papules, vesicles and crusted lesions

TAKE HISTORY OF
-Recent contact with a patient with varicella
-Past history of varicella/varicella vaccination
-Immunosuppression (especially if second episode of varicella): malignancy, HIV/AIDS, transplant recipient

PREGNANCY AND VARICELLA
- Infection in last 20 weeks may lead to congenital varicella syndrome
- Treat with acyclovir
- Maternal perinatal varicella may lead to neonatal varicella; initiate treatment and refer to a specialist

HERPES ZOSTER

WHEN TO SUSPECT?
- Acute, grouped, vesiculo-pustular eruption in a dermatomal distribution
- Dermatomal pain

TAKE HISTORY OF
- Previous varicella
- Previous episode of herpes zoster
- Immunosuppression: Diabetes mellitus, malignancy, transplant recipient, HIV

RED FLAG SIGN
- VI dermatomal involvement: forehead, periorbital, nose tip: risk of eye involvement - look for watering of eye, redness, photophobia
- Lesions on the ear or inside the ear canal: risk of facial/vestibulocochlear nerve palsy - look for vertigo, tinnitus, hearing loss, facial asymmetry/weakness
- Multidermal involvement
**VARICELLA (CHICKEN POX)**

**WHEN TO SUSPECT**
- Fever, malaise
- Generalized vesicular lesions on erythematous base (dew drop on a rose petal sign)
- Skin lesions in different stages of evolution: erythematous macules, papules, vesicles and crusted lesions

**TAKE HISTORY OF**
- Recent contact with a patient with varicella
- Prior history of chickenpox/varicella vaccination
- Immunocompromise (especially if second episode of varicella; malignancy, HIV/AIDS, transplant recipient)

**PREGNANCY AND VARICELLA**
- Infection in 1st 20 weeks may lead to congenital varicella syndrome
- Treat with acyclovir
- Maternal perinatal varicella may lead to neonatal varicella; initiate treatment and refer to a specialist

**RED FLAG SIGNS AND SYMPTOMS**
- Transaminitis
- Difficulty in swallowing
- Chest pain
- Abdominal pain
- Slurred or confused behaviour (CNS symptoms)

**INVESTIGATIONS**
- As per availability and need
- Transient ophthalmitis
- Multivariate techniques and antibodies
- Symptomatic chest x-ray, ECG, echo, transcranial Doppler, brain imaging

**TREATMENT**
- General measures
- Isolate the patient from high-risk contacts
- Daily bath with soap
- Antipyretics (Paracetamol; pedi aspirin as it is associated with Reyes syndrome in children)

- Specific treatment
  - Adult: oral Acyclovir 400 mg 3 times a day for 5-7 days
  - Children: 30 mg/kg 3 times a day for 5-7 days
  - Alternative (if available): Valacyclovir (adults 1g TDS, child 35mg/kg 3 times a day for 5-7 days)
  - Give intravenous Acyclovir if child <20 kg or if child is neutropenic
  - Systemic complications
  - Immune suppression

- Neuronal varicella (higher dose may be required)

**COMPLICATIONS**
- Secondary skin infections
- Pneumonia
- Encephalitis
- Metastatic disease
- Pancreatitis
- Myocarditis
- Preterm delivery

**WHEN TO REFER TO A HIGHER CENTRE**
- Diagnose in doubt
- Systemic complications
- Immunocompromised
- Not responding to oral Acyclovir
- Immune suppressed patient

**HERPES ZOSTER**

**WHEN TO SUSPECT**
- Acute, grouped, vesicular/pustular eruption in a dermatomal distribution
- Dermatomal pain

**TAKE HISTORY OF**
- Previous varicella
- Previous episode of herpes zoster
- Immunocompromise: Diabetes mellitus, malignancy, transplant recipient, HIV

**RED FLAG SIGNS**
- Demodermal involvement: forehead, periorbital, nose tip, risk of eye involvement - look for watering of eye, redness, photophobia
- Lesions on the ear or inside the air canal: risk of facial paralysis; tympanic membrane: painless - look for vertigo, tinnitus, hearing loss, facial asymmetry/weakness
- Multidematernal involvement
- Disseminated herpes zoster
- Meningoencephalic lesions

**INVESTIGATIONS**
- Diagnosis is usually clinical
- Transcutaneous from a fresh vesicle will show multivariate (giant cells and acantholysis)
- Optional
  - PCR from vesicular fluid

**TREATMENT**
- Antiepileptics: Acute pain relief with NSAIDs.
- If uncontrolled, add the following (loose wire):
  - Valacyclovir 1000 mg b.i.d. for 5 days
  - Prednisolone 60 mg daily
  - Corticosteroids (in decreasing dose)
  - Intravenous Acyclovir if child < 20 kg

**COMPLICATIONS**
- Secondary skin infections
- Herpes zoster ophthalmicus risk when lesions present over side/lop of nose (Hutchinson’s sign)
- Ramsay-Hunt syndrome: Facial nerve palsy (with vesicles in the ear canal)
- Acute (serogroup, encephalitis): In elderly and immunocompromised mostly
- Herpes zoster neuritis (pain persistent for more than three months, common in elderly)

**WHEN TO REFER TO A HIGHER CENTRE**
- Multi dermatomal dissemination/Herpes Zoster syndrome
- Systemic complications
- Facial nerve palsy
- Eye involvement
- Neurological involvement
- Post-herpetic neuralgia

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**PREVENTION**

**VARICELLA**
- Active immunization (live vaccine)
  - 15 years old 1st dose at 12-18 months, 2nd dose at 4-6 years
- Active immunization 12-15 years prior to pregnancy

**HERPES ZOSTER**
- Active immunization may be offered to patients 60 years old, irrespective of previous history of herpes zoster

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*This SWF has been prepared by the national bodies of India. Additional guidelines are available, and additional information is required for management of an individual patient based on his/her specific condition, as decided by the treating physician. There will be no indemnity for direct or indirect consequences. Kindly visit the website of CHF for more information: www.chf.org.in for more information.

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