

# **Guidelines for Containment, Prophylaxis and Treatment of Chickenpox Patients among IDPs, Vavuniya**

Varicella is an acute, highly contagious viral disease caused by varicella-zoster virus (VZV) and is transmitted by droplets, aerosol or direct contact. The incubation period is usually 14 – 16 days (Range 10-21 days). The patients are usually contagious from few days before the onset of the rash until the rash has crusted over. Once a case has occurred in a susceptible population, it is very hard to prevent an outbreak especially in congested IDP setting. Sub clinical infection is rare and sometimes mild clinical infections may not recognize or may misdiagnose. While mild disorder in childhood, varicella tend to be more severe in neonates, adults and immune-compromised persons. Main complications are VZV induced pneumonia and encephalitis. Disfiguring scars may result from secondary bacterial infections of vesicles, necrotizing fasciitis or septicemia may occur from such infections.

Other complications are congenital varicella syndrome ( caused by varicella during the first 20 weeks of pregnancy ) and perinatal varicella of newborns whose mothers develop chickenpox from 5 days before to 48 hours after delivery.

Please follow the following guidelines for contain the outbreak and for prophylaxis and treatment of chickenpox cases.

## **1. Containment of the outbreak**

1. Regular health education activities should be commenced in every IDP camp informing IDPs the signs and symptoms of chickenpox, availability of antiviral drugs, importance of commencement of early treatment and prevention of complications.
2. Treatment with acyclovir should be commenced on within 24 hours of appearance of the rash or detection of chickenpox cases at the IDP camp itself, without waiting for transfer to isolation hospital.
3. Explore the possibility of isolating chickenpox cases and immediate contacts within the IDP camp until transfer to Poovarasakulam Hospital.
4. Try to segregate antenatal mothers from the rest of the IDPs with in the camps or in a separate camp.

## **2. Treatment of chickenpox patents with acyclovir**

Treatment with antiviral drugs commenced within 72 hours of appearance of vesicles, it may significantly reduce acute pain, the duration of the rash, viral shedding and ophthalmic complications. Intra venous acyclovir is indicated in following conditions.

- Patients suffering from malignant disorders.
- Patients on regular systemic steroids ( Refer Box 1 )
- Immuno-compromised patients \*

- Patients on immunosuppressant therapy.
- VZV infections with systemic complications.

Pneumonia

Encephalopathy

Hepatic failure

Thrombocytopenia

- Severe and progressive chickenpox

\*If oral acyclovir is used initially the patient must be closely monitored and switched to intra venous if complications are suspected.

### 3. Acyclovir dosage

Age	Oral dose	Intravenous dose
<b>Treatment of chickenpox (2,4,9)</b>		
0-3 months	only cutaneous vesicles in term neonate give orally 20mg/kg/6hourly	more than cutaneous or of any severity in a premature neonate give IV 10mg (base)/kg/ dose 8hourly Encephalitis 15mg/kg/dose
3 months -12 years Approximately 1-2 years 2-5 years 6- 12 years	20 mg/kg/6 hourly for 5 days (max.800 mg/dose) 200 mg 4 times daily for 5 days 400 mg 4 times daily for 5 days 800 mg 4 times daily for 5 days	250 mg/m <sup>2</sup> / dose 8hourly Immuno-compromised children or with complications - 500 mg/m <sup>2</sup> / dose or 20mgbase/kg/dose 8 hourly for minimum of 7 days followed by oral acyclovir 600 mg/m <sup>2</sup> / dose to complete 10days of treatment
13 years to adults	800 mg five times daily for 7 days <sup>3</sup>	5mg/kg/dose 8hourly doubled to 10mg/kg/dose in disseminated encephalitis for 14 - 21 days.
<b>Post exposure prophylaxis</b>		
Children  Adults	40mg/kg/day in 4 divided doses for 5 days  800mg five times daily for 7 days	

1. Duration depends on progress. The treatment has to be continued for 7 days or 48 hours after the cessation of new lesions whichever is longer.
2. Most sources recommend 5 times / day for adults, but the United States Pharmacopoeia recommends 800mg 4 times per day in adults.
3. For 5 times daily dosing take every 4 hours during waking hours
4. Maintain adequate fluid intake (at least 1.5 - 2l/ day) as acyclovir crystals precipitate in renal tubules and impair renal function
5. IV add 10 - 20 ml of sterile water to each 500mg or 1gm vial, shake well until solution is clear. Dilute further with standard electrolyte and glucose containing solution to at least 100ml. Final concentration of 7mg/ml or less is recommended. Administer at a constant rate over at least 1 hour
6. Renal impairment; oral dose 800mg every 8 (mild impairment) or 12hours (severe).  
IV adjusts dose according: 5 -10mg/kg every 12 (mild) or 24 (moderate) hours  
severe 2.5 - 5mg every 24hours and after haemodialysis.

#### **4. Management of pregnant women exposed to or has clinical varicella**

- **Post exposure prophylaxis**

1. If mother is exposed to chicken pox and is in the third trimester consider prophylactic oral acyclovir starting on day 7 of exposure.
2. In others close observation and initiation of acyclovir on suspicion of chicken pox is recommended. If acyclovir is not initiated within 24 hours of the rash, monitor (in hospital, if in the second half of pregnancy) and give IV acyclovir if disease is progressive or complications develop.
3. Dose - **Acyclovir** - Oral 800mg five times a day for 7 days

- **Treatment of chicken pox**

1. Mild infection - oral acyclovir: 800mg five times a day for 7 days or 48 hours after the cessation of new lesions whichever is longer.
2. Severe chickenpox with complications - Intravenous acyclovir 10 - 20 mg/kg every 8 hours for a minimum of 7 days followed by oral.
3. There is wide clinical experience with the use of acyclovir in pregnancy, hence it is considered safe for use.
4. A pregnant woman who has varicella can deliver vaginally. Expedited delivery should only be considered for foetal compromise or if the gravid uterus is considered to critically impair maternal ventilation.

#### **Reference:**

1. *Weekly Epidemiological Record*, 7<sup>th</sup> August 1998, World Health organization
2. *The Sri Lanka Prescriber*, Dr Rohini Fernandopulle MBBS, PhD, Senior Lecturer in Pharmacology, Faculty of Medicine Colombo and Dr Shalini Sri Ranganathan MBBS.MD, Lecturer in Pharmacology, Faculty of Medicine, Colombo