Atlas of Common Clinical Presentations of Paediatric HIV Infections
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Over 2 million children worldwide are living with HIV infection and 95% reside in sub-Saharan Africa with the majority infected through mother-to-child transmission. Infected children have a high mortality with 50% dying by 2 years of age. Their clinical presentation includes common childhood infections, opportunistic infections and conditions associated with HIV/AIDS immune suppression.

When paediatric HIV infection is diagnosed early and antiretroviral treatment initiated, there is a significant reduction in morbidity and mortality, with improvement in the quality of life. This leads to fewer acute illnesses and opportunistic infections, delaying onset of AIDS and improving the children’s growth and development. Many infected children are only diagnosed when they present with an acute illness or AIDS defining illness. Therefore, it is important to recognize the common clinical conditions of HIV infected children so as to ensure referral for appropriate care and treatment.

Until recently, most clinicians from Africa have provided care for HIV infected children without access to antiretroviral therapy. Recognizing potentially HIV related conditions enabled the clinicians to provide the additional care and treatment required. This atlas covers decades of dedicated service by Dr. Israel Kalyesubula and colleagues, providing care and treatment for HIV infected children at Mulago Hospital, Uganda. The photographs provide an opportunity to see the wide clinical spectrum of paediatric HIV infection in Africa. I hope the atlas will assist health workers to identify the common clinical conditions and provide appropriate treatment for infected children.

The dream for the *Atlas of Common Clinical Presentations of Paediatric HIV Infections* started many years ago and it is exciting to finally see it in print. It provides an excellent resource for health workers in sub-Saharan Africa where the burden of paediatric HIV infection remains exceptionally high.

Dr. Nathan Kenya Mugisha
DIRECTOR GENERAL HEALTH SERVICES
MINISTRY OF HEALTH
We wish to acknowledge the following people and institutions for the invaluable contributions made towards development of the *Atlas of Common Clinical Presentations of Paediatric HIV Infections*.

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<tr>
<td>No symptoms or only:</td>
<td>• Unexplained persistent enlarged liver and/or spleen</td>
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<tr>
<td>• Persistent generalized lymphadenopathy</td>
<td>• Unexplained persistent parotid enlargement</td>
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<td></td>
<td>• <strong>Skin conditions</strong></td>
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<td></td>
<td>(e.g. chronic dermatitis, fungal infections or extensive molluscum contagiosum, extensive wart, seborrhoeic dermatitis, prurigo, herpes zoster)</td>
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<td>Start ART if:</td>
<td>• &lt;2 Years treat all, irrespective of CD4 % or count</td>
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**WHO Paediatrics HIV**

**Growth**

Treat common and opportunistic infections according to IMCI guidelines

**Prophylaxis**

- Cotrimoxazole prophylaxis
- INH prophylaxis, after excluding active TB

**ARV therapy**

- Start ART if:
  - <2 Years treat all, irrespective of CD4 % or count
  - 2 to <5 Years CD4 < 25% ( < 750 cells/mm3)
  - > 5 years CD4 < 350 cells/mm3

WHO Paediatrics HIV
## WHO Clinical Staging

### WHO Clinical Stage 3
**Advanced Disease**

Moderate unexplained malnutrition not adequately responding to standard therapy (very low weight for age, or low height for age, or low weight for height)

- Oral thrush (after the first six to eight weeks of age)
- Oral hairy leukoplakia
- Unexplained and unresponsive to standard therapy:
  - Diarrhoea >14 days
  - Fever >1 month (intermittent or constant, > 37.5°C)
  - Thrombocytopenia* (<50,000/mm³ for >1 mo)
  - Neutropenia* (<5000/mm³ for 1 mo)
  - Anaemia for >1 month (Hb < 8 gm)*
- Recurrent severe bacterial pneumonia
- Pulmonary TB
- TB Lymphadenopathy
- Chronic HIV-associated lung disease, including bronchiectasis
- Symptomatic LIP*
- Acute necrotizing ulcerative gingivitis/periodontitis

- Cotrimoxazole prophylaxis
- INH prophylaxis, after excluding active TB

- Start ART irrespective of the CD4 count
- TB infected start ART within 2-8 weeks of initiating TB treatment

### WHO Clinical Stage 4
**Severe Disease (AIDS)**

Severe refractory wasting or severe malnutrition unexplained and not adequately responding to standard therapy

- Oesophageal thrush
- More than one month of herpes simplex infection
- Severe recurrent bacterial infections > 2 episodes in a year (e.g., muscle, bone or joint infection, not including pneumonia)
- Pneumocystis pneumonia (PCP)*
- Kaposi’s sarcoma
- Extrapulmonary tuberculosis
- Toxoplasma brain abscess*
- Cryptococcal meningitis*
- HIV encephalopathy*

- Cotrimoxazole prophylaxis
- INH prophylaxis, after excluding active TB

- Start ART irrespective of the CD4 count
- TB infected start ART within 2-8 weeks of initiating TB treatment

- HIV antibody positive AND one of the following:
  - AIDS defining condition OR
  - Symptomatic with two or more of:
    - Oral thrush
    - Severe pneumonia
    - Severe sepsis
SKIN MANIFESTATIONS
EXTENSIVE MOLLUSCUM CONTANGIOSUM

WHO Clinical Stage 2

Signs and Symptoms:
• Small flesh-colored, pearly or pink, dome shaped or umblicated growths ranging from 2-5 mm often involve the face or trunk
• May be inflamed or red
• Involving more than 5% of body surface area or disfiguring
• Giant facial lesions may be disfiguring and often indicate advanced immunodeficiency

Treatment:
• Start HAART if lesions are extensive and causing cosmetic problems

Alternatives:
• Curettage or surgical excision
EXTENSIVE VIRAL WART INFECTION

WHO Clinical Stage 2

Signs and Symptoms:
• Characteristic warty skin lesions: small fleshy grainy bumps, often rough, flat on sole of feet (plantar warts), face, or genitals in more than 5% of body area or disfiguring

Treatment:
• Topical: Podophyllin resin 25% 6 hourly for many months

Alternatives:
• Surgical excision, cryotherapy or laser ablation
VERRUCA PLANUS

WHO Clinical Stage 2

Signs and Symptoms:
- “Flat warts”, common on hands and face: Slightly elevated, flat-topped, usually hypo-pigmented or skin-colored

Treatment:
- If extensive and causing cosmetic problems, start HAART
- Will spontaneously regress once the patient starts treatment, however may take some time to regress
FUNGAL NAIL INFECTIONS

WHO Clinical Stage 2

Signs and Symptoms:
Paronychia
- Inflammation and infection involving folds of tissues surrounding finger nail
- Painful, red and swollen nail bed

Onycholysis
- Painless separation of the nail from the nail bed
- Proximal white subungual onychomycosis is uncommon without immunodeficiency

Treatment:
- Fluconazole 3-6 mg/kg once a day for 4-6 weeks
  OR
- Ketoconazole 3-6 mg/kg once a day for 4-6 weeks
  OR
- Oral Griseofulvin 20 mg/kg once a day for 4-6 weeks
- Keep lesions clean with water and soap
- Good hand washing to prevent spread of infection

If with super-imposed infection:
- Antibiotics (cream or Parenteral)
- Pus-I&D
HERPES ZOSTER

WHO Clinical Stage 2

Signs and Symptoms:
• Painful fluid-filled blisters—may become large and confluent
• Follow dermatome pattern
• Do not cross the midline
• If heals with scar can have burning pain in scar (post herpetic neuralgia)

Treatment:
• IV or Oral Acyclovir 10-20 mg/kg 6 hourly for 7 days

For post herpetic Neuralgia
• Carbamazepine 2 mg/kg 12 hourly OR
• Amitryptyline 0.5 mg/kg 12 hourly (until symptoms cease)
PRURITIC PAPULAR ERUPTIONS

WHO Clinical Stage 2

Signs and Symptoms:
- Symmetric and evenly distributed hyper-pigmented rash over the trunk and extremities with intense itching

Treatment:
- Antihistamine: Oral chlorpheniramine 0.05–0.10 mg/kg/day od or bd until symptoms cease
- Topical steroid: Betamethasone cream apply twice daily
CHRONIC HERPES SIMPLEX INFECTION

WHO Clinical Stage 2

Signs and Symptoms:
• Severe and progressive painful orolabial, genital or anorectal lesions (blisters) grouped together with reddening of the surrounding skin lasting for more than one month

Treatment:
• Oral or IV Acyclovir 10 - 20 mg/kg 6 hourly for 7 days
• Add an analgesic
• Give antibiotics if there is superinfection
ORAL MANIFESTATIONS
ANGULAR CHEILITIS

WHO Clinical Stage 2

Signs and Symptoms:
- Splits or cracks on the lips at the angle of the mouth with depigmentation
- Usually responding to antifungal treatment but may recur

Treatment:
- Apply Nystatin or Clotrimazole cream bd for 2 weeks
- May add: Vitamin C, Bonjella gel—a local anesthetic before meals or cleaning with antiseptic solutions
LINEAL GINGIVAL ERYTHEMA

WHO Clinical Stage 2

Signs and Symptoms:
- It is a form of HIV associated periodontal (gum) disease characterized by presence of 2-3 mm linear band along the marginal gingival associated with diffuse erythema on the attached gingival and oral mucosa

Treatment:
- Good oral hygiene, flossing and use of mouthwash solutions such as 0.12% chlorhexidine gluconate twice daily (Rinse mouth with solution for about 30 seconds then spit)
RECURRENT ORAL ULCERATIONS

WHO Clinical Stage 2

Signs and Symptoms:
• Aphthous ulceration, typically with a halo of inflammation and yellow-grey pseudomembrane occurring twice or more times in a period of six months

Treatment:
• Clean lesions with saline, apply Oracure gel to control pain

Oral ulceration at the angle of the mouth
UNEXPLAINED PAROTID GLAND ENLARGEMENT

WHO Clinical Stage 2

**Signs and Symptoms:**
- Asymptomatic bilateral swelling that may spontaneously resolve and recur in the absence of any other known cause
- Usually painless

**Treatment:**
- Observe once other causes are excluded
- If there is pain, treat as Parotitis with analgesics and antibiotics
ACUTE NECROTIZING ULCERATIVE GINGIVITIS/PERIODONTITIS

WHO Clinical Stage 3

Signs and Symptoms:
• Presence of ulceration, necrosis and sloughing of one or more interdental papillae accompanied by pain, bleeding and halitosis
• May progress to extensive rapid loss of soft tissue and teeth (Periodontitis)

Treatment:
• Good oral hygiene, flossing and use of mouthwash solution eg 0.12% chlorhexidine gluconate twice daily— for older child; rinse mouth with solution for about 30 seconds then spit
• Add antibiotic
• Metronidazole 8-15 mg/kg 8 hourly and Amoxicillin-Clavulunate 15-25 mg/kg bd for 7 days
  OR
• Clindamycin 15-30 mg/kg 8 hourly for 7 days
• Refer child for proper dental examination

A thirteen year old girl who presented with severe necrotizing gingivitis. Note the sockets of the teeth remained in the maxilla while the roots fell out with the enamel.
PERSISTENT ORAL CANDIDIASIS

WHO Clinical Stage 3

Signs and Symptoms:
• May manifest as erythematous (small or large patches over the tongue or palate)
OR
• Pseudo-membranous candidiasis (multiple creamy white plaques over the buccal mucosa that can easily be wiped off revealing an erythematous base)

Treatment:
Topical antifungals:
• Oral Nystatin suspension 200,000 – 400,000IU/day 6 hourly for 2 weeks
OR
• Gentian violet 1% solution apply 8 hourly for 2 weeks

Alternative:
Systemic antifungals:
• Oral Ketoconazole 4-6 mg/kg once a day for 3-5 days
OR
• Fluconazole 6 mg/kg as a single dose
ORAL HAIRY LEUCOPLAKIA

WHO Clinical Stage 3

**Signs and Symptoms:**
- Characterized by white thick patches and may exhibit vertical corrugations with a hair like appearance
- Lesions usually first appear on the lateral margins of the tongue, inside the cheeks and lower lip
- May be unilateral or bilateral and are painless
- Less common among children

**Treatment:**
- Topical application of Podophyllin resin 25% once weekly 2-4 times—lesions respond to AZT based HAART regimens
- Conditions may be pre-cancerous and may require assessment by oral specialist
- Need for referral
OESOPHAGEAL CANDIDIASIS

WHO Clinical Stage 4

Signs and Symptoms:
• Difficulty in swallowing or pain on swallowing feeds
• In a young child suspect if has oral thrush and refuses to feed and/or difficulty or cries when feeding

Treatment:
• Fluconazole 3-6 mg/kg/ once a day for 2-3 weeks
  OR
• Ketoconazole 5-10 mg/kg/ in 1 or 2 divided doses for 2-3 weeks

Oesophageal candidiasis as seen during Oesophagoscopy
HIV ENCEPHALOPATHY

WHO Clinical Stage 4

Signs and Symptoms:
Child presents with at least one or more of the following, progressing over at least 2 months in the absence of another causative illness:

- Failure to attain developmental milestones or loss of developmental milestones or intellectual ability
- Progressive impaired brain growth
- Acquired symmetric motor deficit accompanied by paresis, pathological reflexes, ataxia and/or gait disturbances

Treatment:
- Initiate ART—child often regains the milestones after some time
RESPIRATORY SYSTEM
PULMONARY TB

WHO Clinical Stage 3

Signs and Symptoms:
- Cough for 2 weeks or more
- Fever for 2 weeks or more
- Unexplained weight loss or failure to gain weight
- Reduced energy or activity
- Reduced appetite
- History of contact with an adult with TB or chronic cough
- Otherwise a well child but with a largely abnormal chest X ray

Treatment:
- Smear Negative PTB: 2 RHZ/ 4RH
- Smear Positive PTB: 2 RHZE/ 4RH
- Relapses, defaults and treatment failures: 2 SRHZE/ 1RHZE/5RHE

CXR with extensive or significant lung tissue destruction: has consolidation in the right mid zone and heterogeneous opacities on the left lung field
LYMPHOID INTERSTITIAL PNEUMONITIS (LIP)

WHO Clinical Stage 3

Signs and Symptoms:
- Triad of finger clubbing, parotid enlargement and chronic cough, persistent hypoxaemia
- Child often has chronic cough, episodic respiratory distress, cyanosis and an abnormal chest x-ray

Treatment:
- Start HAART
- Steroids indicated in severe symptomatic patients: Prednisolone 1-2 mg/kg/day bd
- Exclude TB before giving steroids
- Treatment for cor pulmonale may be required
RETICULO ENDOTHELIAL SYSTEM
LYMPHNODE TB

WHO Clinical Stage 3

Signs and Symptoms:
- Non-acute, painless “cold” enlargement of lymph nodes
- Usually matted and unilateral
- Localized in one region commonly cervical
- May have draining sinuses

Treatment:
- Start anti-TB treatment: 2RHZ/4RH
- Rifampicin R 15 (10-20) mg/kg od
- Isoniazid H 10 (10-15) mg/kg od
- Pyrazinamide Z 35 (30-40) mg/kg od
- Consider starting ARVs two weeks later
MALIGNANCIES
KAPOSI’S SARCOMA

WHO Clinical Stage 4

Signs and Symptoms:
- Lymphadenopathic disease is more common in children and presents as generalized lymphadenopathy
- Cutaneous lesions are purple or brown initially flat later developing into nodules appearing as dark plaques, may occur anywhere on the body
- May be disseminated to involve visceral organs like lungs, brain or gastrointestinal tract

Treatment:
The goal of treatment is palliation of symptoms:
- Localised disease: Often regresses with the initiation of HAART
- Diffuse disease: Systemic chemotherapy is often required—Doxorubicin, vincristine and bleomycin may be used
- Referral to specialized centers
  - Diagnosis
  - Treatment and follow up

Oral KS lesion seen in the hard palate

Cutaneous KS lesions
GASTROINTESTINAL MANIFESTATIONS
UNEXPLAINED PERSISTENT HEPATOSPLENOMEGALY

WHO Clinical Stage 2

**Signs and Symptoms:**

- Persistent enlargement of the liver and spleen with no known cause

*Baby with an enlarged spleen and liver*
UNEXPLAINED PERSISTENT DIARRHOEA (14 DAYS OR MORE)

WHO Clinical Stage 3

Signs and Symptoms:
- Unexplained persistent (14 days or more) diarrhoea (loose or watery stool, three or more times daily) not responding to standard treatment
- May have “no dehydration”, “some dehydration” or “severe dehydration”

Treatment:
- Need to assess and classify the dehydration
- Dehydration can be classified as: “no dehydration”, some dehydration” and “severe dehydration”

ASSESSING OF LEVEL OF DEHYDRATION IN A CHILD WITH DIARRHOEA

<table>
<thead>
<tr>
<th>ASSESS</th>
<th>NO DEHYDRATION</th>
<th>SOME DEHYDRATION</th>
<th>SEVERE DEHYDRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>General condition</td>
<td>Alert</td>
<td>Restless, irritable</td>
<td>Lethargic, unconscious</td>
</tr>
<tr>
<td>Eyes</td>
<td>Normal</td>
<td>Sunken</td>
<td>Sunken</td>
</tr>
<tr>
<td>Ability to drink</td>
<td>Drinks normally, not thirsty</td>
<td>Thirsty, drinks eagerly</td>
<td>Drinks poorly or unable to drink</td>
</tr>
<tr>
<td>Skin pinch</td>
<td>Goes back quickly</td>
<td>Goes back slowly (&lt;2s)</td>
<td>Goes back slowly (&gt;2s)</td>
</tr>
</tbody>
</table>

Child should have at least 2 symptoms to be classified for a level dehydration

Diarrhoea with “no dehydration” is managed using Plan A (see Appendix 1)
Diarrhoea with “some dehydration” is managed using Plan B (see Appendix 2)
Diarrhoea with “severe dehydration” is managed using Plan C (see Appendix 3)
APPENDIX 1:
DIARRHOEA TREATMENT PLAN A: TREAT DIARRHOEA AT HOME

COUNSEL THE CAREGIVER ON THE 4 RULES OF HOME TREATMENT OF DEHYDRATION

Rule 1: Give the child more fluids than usual to prevent dehydration

- Instruct the caregiver to do the following:
  - Breastfeed frequently and for longer at each feed
  - If the child is exclusively breastfed, give ORS or clean water in addition to breastfeeding
  - If the child is not exclusively breastfeeding, give ORS or clean water (if ORS is not available, soup, rice water or yogurt drinks may be used)
  - Avoid inappropriate fluids: commercial carbonated beverages, commercial fruit juices, sweetened tea, coffee, medicinal teas
- Teach the caregiver how to mix the ORS and make sure that he or she has at least 2 sachets.
- Tell the caregiver to give as much water as the child wants, but as a guide he or she should give the following in addition to the usual intake:
  - Younger than 2 years—give 50–100 ml with each watery stool
  - Older than 2 years—give 100–200 ml with each watery stool
- Teach the mother how to give the ORS:
  - Give frequent small sips from a cup or spoon
  - If the child vomits, wait 10 min. and then continue, but more slowly
- Continue giving the fluids as above until diarrhoea resolves

Rule 2: Give zinc supplements

- Tell the caregiver how much zinc to give:
  - Younger than 6 months—1/2 tab (10 mg) once daily for 10–14 days
  - 6 months and older—1 tab (20 mg) once daily for 10–14 days
- Instruct caregiver how to give the zinc—if child cannot chew tablet, crush or dissolve in small amount of clean water, ORS or expressed breast milk and give with a cup or spoon.
- Remind the caregiver to give the zinc for the full 10–14 days, regardless of whether the diarrhoea resolves.
## Rule 3: Continue feeding

- Instruct the caregiver what food to give:
  - Infants who are breastfed should continue to breastfeed as often and as much as they want. During diarrhoeal illness infants may want to breastfeed more than usual; this should be encouraged.
  - Infants who are not breastfed should continue to be given their usual milk feeds at least every 3 hours. Special commercial formulas are unnecessary and should not be routinely given.
  - If the child is taking soft foods he or she should continue taking these in addition to milk.
- Instruct the caregiver how much food to give and how often:
  - Offer the child foods every 3–4 hours (at least 6 times per day).
  - Frequent, small feeds may be better tolerated than large feeds.
  - The child may need extra food for at least 2 weeks after an episode.

## Rule 4: When to return

- Instruct the caregiver to return to a health worker if the child:
  - Begins passing frequent, watery stools
  - Has repeated vomiting
  - Becomes very thirsty
  - Is eating or drinking poorly
  - Develops a fever
  - Has blood in the stool
  - Does not get better in 3 days
APPENDIX 2:
DIARRHOEA TREATMENT PLAN B: TREAT SOME DEHYDRATION WITH ORS

GIVE RECOMMENDED AMOUNT OF ORS IN THE CLINIC OVER 4 HRS

Give ORS

- Determine the amount of ORS to give over 4 hours—see table below:
  - Use the age only when the weight cannot be determined. The approximate amount of ORS can be calculated by multiplying the weight by 75 (75 ml of ORS per kg).
  - If the child wants more ORS than shown, give it.

<table>
<thead>
<tr>
<th>Age</th>
<th>&lt;4 mo</th>
<th>4-11mo</th>
<th>12mo-12yrs</th>
<th>2-4 yrs</th>
<th>5-14yrs</th>
<th>&gt;15yrs</th>
</tr>
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<tbody>
<tr>
<td>Weight (kg)</td>
<td>&lt;6</td>
<td>6-7.9</td>
<td>8-10.9</td>
<td>11-15.9</td>
<td>16-29.9</td>
<td>&gt;30</td>
</tr>
<tr>
<td>ORS (mls)</td>
<td>200-400</td>
<td>400-600</td>
<td>600-800</td>
<td>800-1200</td>
<td>1200-2200</td>
<td>2200-4000</td>
</tr>
</tbody>
</table>

- Instruct caregiver on how to give ORS:
  - Give frequent, small sips with a cup, spoon, or syringe.
  - Vomiting is not unusual in the first 1–2 hours, especially if the child drinks too fast. This rarely prevents successful rehydration and usually stops. If the child vomits, wait 10 min and then continue, but more slowly.
  - Continue breastfeeding whenever the child wants.
  - Children can also be offered as much clean water they want in addition to the ORS as above.

- Monitor during the 4 hours to ensure that the child is taking the ORS appropriately.
- If the child develops signs of dehydration at any time switch to Treatment Plan C.

Reassess after 4 hours

- Assess and classify the level of dehydration after 4 hours of rehydration and select the appropriate treatment plan based on the new hydration assessment.
  - If now the child has “no dehydration”, switch to Treatment Plan A for home treatment.
  - If the child still has “some dehydration”, repeat Treatment Plan B.
  - If the child has “severe dehydration”, start Treatment Plan C immediately.
- Begin feeding the child in clinic if able—see next page.
Give zinc

- After first 4 hours of rehydration, begin supplemental zinc:
  - Younger than 6 months—1/2 tab (10 mg) once daily for 10–14 days
  - 6 months and older—1 tab (20 mg) once daily for 10–14 days

Begin giving food

- Except for breast milk, food should not be given during the first 3–4 hours of rehydration
- After the first 4 hours of rehydration, children should begin receiving food as described in Treatment Plan A and should be fed every 3–4 hours.

If caregiver must leave before completing treatment

- Show the caregiver how to mix ORS.
- Instruct him/her on how much ORS to give to complete the 4 hours of rehydration.
- Give him/her enough ORS to complete the rehydration and at least 2 packets for home treatment.
- Explain the 4 rules of home treatment—see Treatment Plan A.
APPENDIX 3: DIARRHOEA TREATMENT PLAN C: FOR PATIENTS WITH SEVERE DEHYDRATION

### Guidelines for IV treatment

<table>
<thead>
<tr>
<th>Age</th>
<th>First give 30 ml/kg in:</th>
<th>Then give 70 ml/kg in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infants (&lt;1yr)</td>
<td>1 hour*</td>
<td>5 hours</td>
</tr>
<tr>
<td>Children (12 mo-5 yrs)</td>
<td>30 min*</td>
<td>2.5 hours</td>
</tr>
</tbody>
</table>

*Repeat once if radial pulse is still very weak or undetectable.

- Rapid IV hydration is the preferred—start IV fluid immediately
  - If child can drink, give ORS by mouth while drip is set up
  - Give 100 ml/kg Ringer’s lacate (RL) (or Normal Saline if RL not available) divided as below:

- Reassess every 15 – 30 min until strong radial pulse is present and then at least every hour.
  - If the hydration status is not improving, give the IV drip more quickly.
  - As soon as the child can drink, usually after 3-4 hours for infants or 1-2 hours for children, all children should be given ORS (5 ml/kg/h) (may provide base and potassium not in the IVF)

- Reassess an infant after 6 hours and a child after 3 hours
  - Classify dehydration
  - Choose the appropriate treatment plan – A, B or C

### What to do if IV treatment not available

- Refer urgently to hospital for IV treatment
- If the child can drink, provide the caregiver with ORS solution and show him/her how to give frequent sips during the trip

- Start rehydration orally or by NGT with ORS
  - Give 20 ml/kg/h for 6 hours (total of 120 ml/kg)

- Reassess the child every 1-2 hours
  - If there is repeated vomiting or increasing abdominal distention, give the fluid more slowly.
  - If hydration status is not improving after 3 hours, send the child for IV therapy.

- Reassess the child after 6 hours
  - Classify dehydration
  - Choose the appropriate treatment plan – A, B or C

The enclosed photographs provide an opportunity to see the wide clinical spectrum of paediatric HIV infection in Africa. Thanks to the willingness of caregivers/patients to have their conditions photographed, and Dr. Israel Kalyesubula who took time during his practice to take these photographs, more health workers should be able to provide appropriate treatment and referrals for children living with HIV.