

Enclosed:

Form I: OPD form for screening of dengue patients

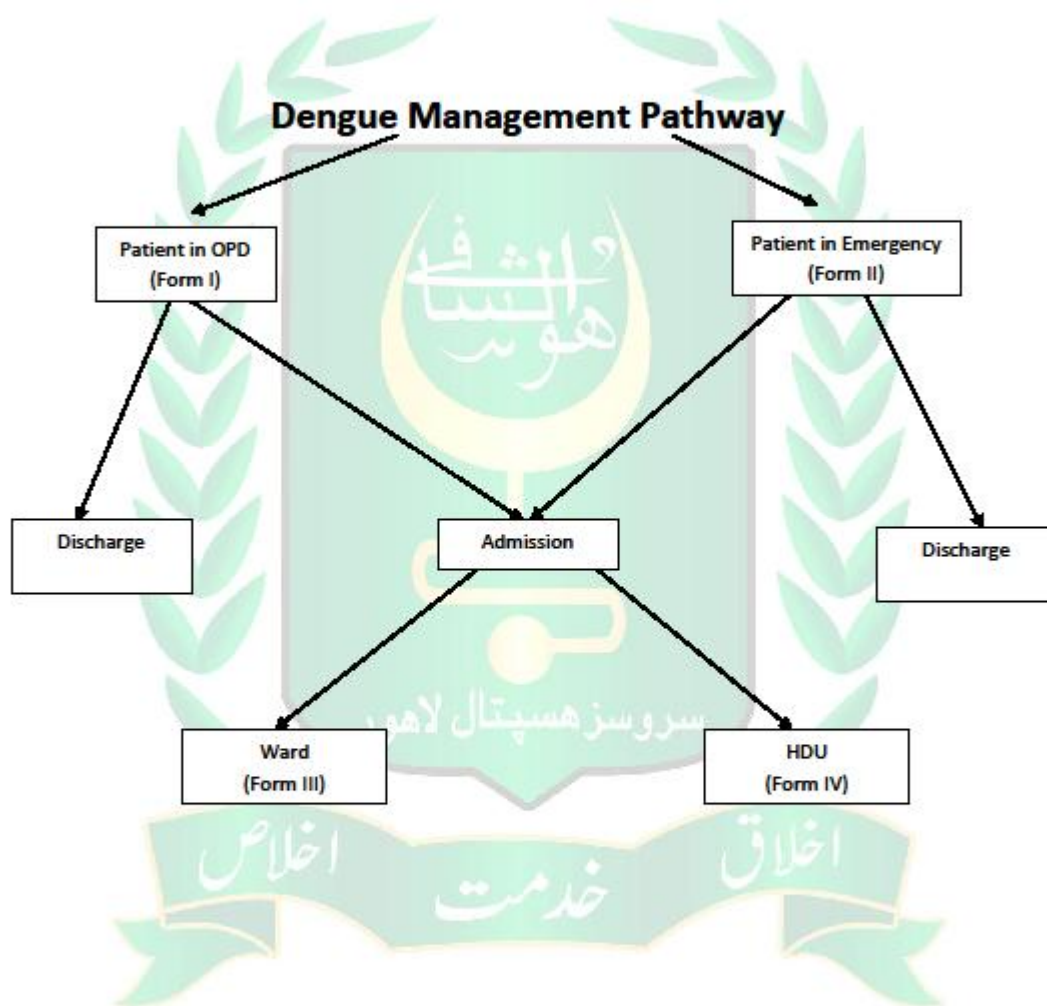
Form II: Suspect Dengue Fever Algorithm

Form III: Identification of Dengue Hemorrhagic Fever Algorithm

Form IV: Algorithm for Fluid Management in Critical Phase

(Including 6 monitoring charts)







Services Hospital Lahore

FORM - I

Name s/o d/o w/o Date:

Age Sex: M / F Receipt No:

MR #

Address & Telephone

Warning Signs (one or more)

- No clinical improvement / worsening clinical parameters on Form I
- Persistent vomiting
- Severe abdominal pain
- Lethargy and or restlessness
- Bleeding: severe epistaxis, black stools, hematemesis, extensive menstrual bleeding, hematuria
- Giddiness
- Pale cold clammy extremities
- Less / no urine output for 4 - 6 hours

If any of the above are present refer patient to emergency department (See Form - II)

☐ بچھلے دس دن میں بخار ہوا ہو جس کا دورانیہ دو دن سے زیادہ ہو

☐ سر میں شدید درد

☐ آنکھوں کے پیچھے درد

☐ ہڈیوں میں شدید درد

☐ جوڑوں یا کمر میں شدید درد

☐ جسم پر سرخی مائل رنگت

☐ ناک، مسوڑے، کھانسی، الٹی، پاخانے کے ساتھ خون

☐ معمول سے پہلے یا زیادہ ماہواری

☐ پیٹ میں شدید درد

☐ بچوں میں پیشاب کی کمی

☐ اگر تین سے زیادہ علامات ہوں تو CBC کراوائیں

Pulse Rate: / Minute

BP:

Pulse Pressure < 20 mm Hg ☐

Tourniquet test +ve ☐ -ve ☐

{ بلڈ پریشر چیک کرنے کے بعد بی بی کف کو 80mm Hg پر تین منٹ بھلا کر رکھیں }
{ اگر کف کے نیچے 1" x 1" میں دس یا زیادہ نشان ہو تو نوٹ کریں }

Advised

d # 3 of Fever ☐ HCT ☐ WBC ☐ Platelet

d # 4 of Fever ☐ HCT ☐ WBC ☐ Platelet

d # 5 of Fever ☐ HCT ☐ WBC ☐ Platelet

(یہ کاغذ اپنے ساتھ ہمیشہ لے کر آئیں)

Tab. Paracetamol

2+2+2

★ If epidemic no need for Dengue IgM and IgG

★ IgM and IgG to be done by Elisa in suspected cases only in a non epidemic setting

ایک یا دو گولیاں چار گھنٹے بعد (حسب ضرورت) چوبیس گھنٹے میں چھ سے زیادہ گولیاں نہ لیں

نلکے کے پانی کی پٹیاں کریں

نمکول، جوس (اگر ذیابیطیس نہ ہو) پانی، بنجی دن میں آٹھ سے دس مرتبہ لیں

Dengue IgM and IgG

Reports

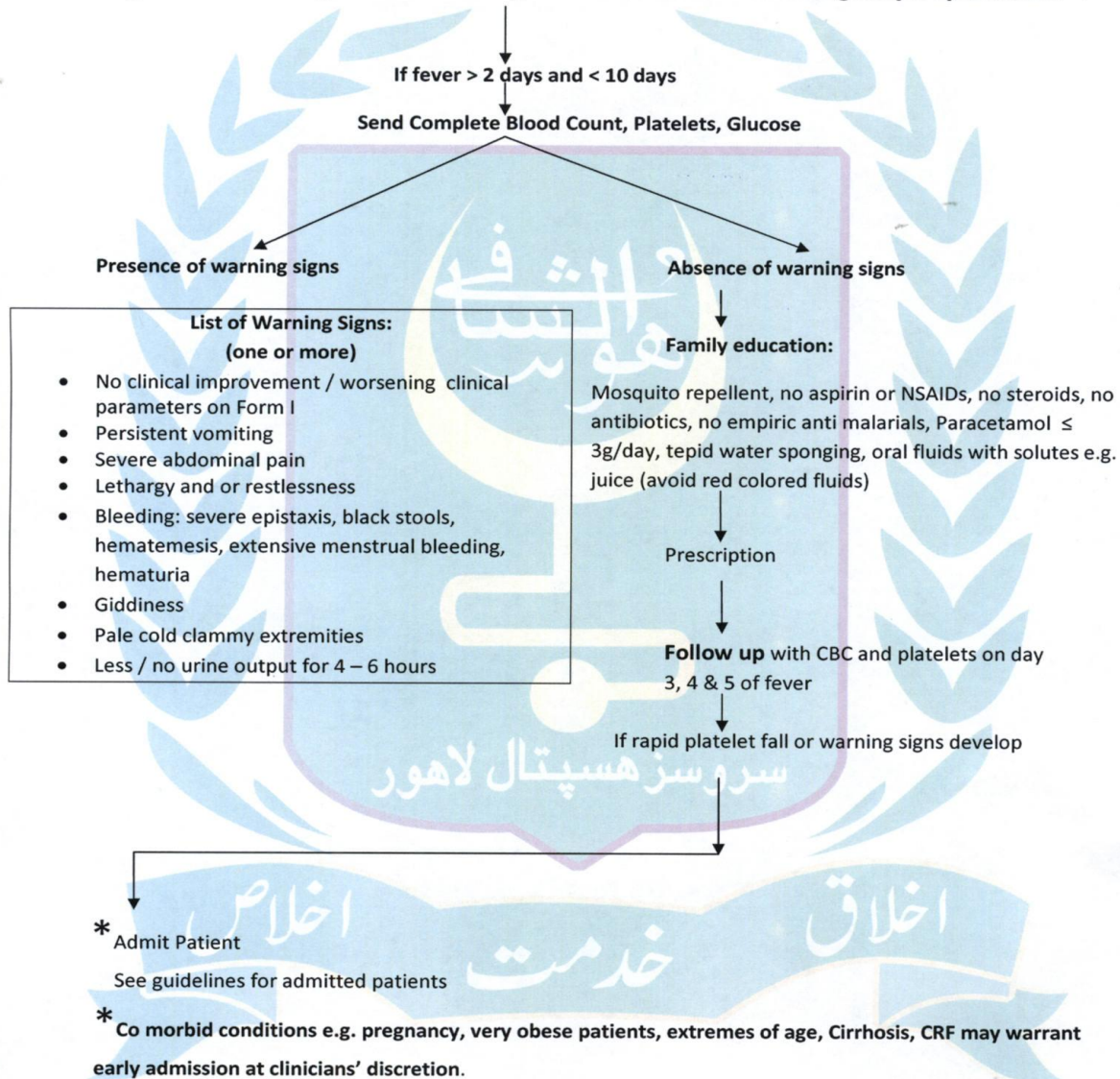
IgM ☐ IgG ☐

Name, Signature and Date

ڈینگی بخار کے متعلق ہدایات

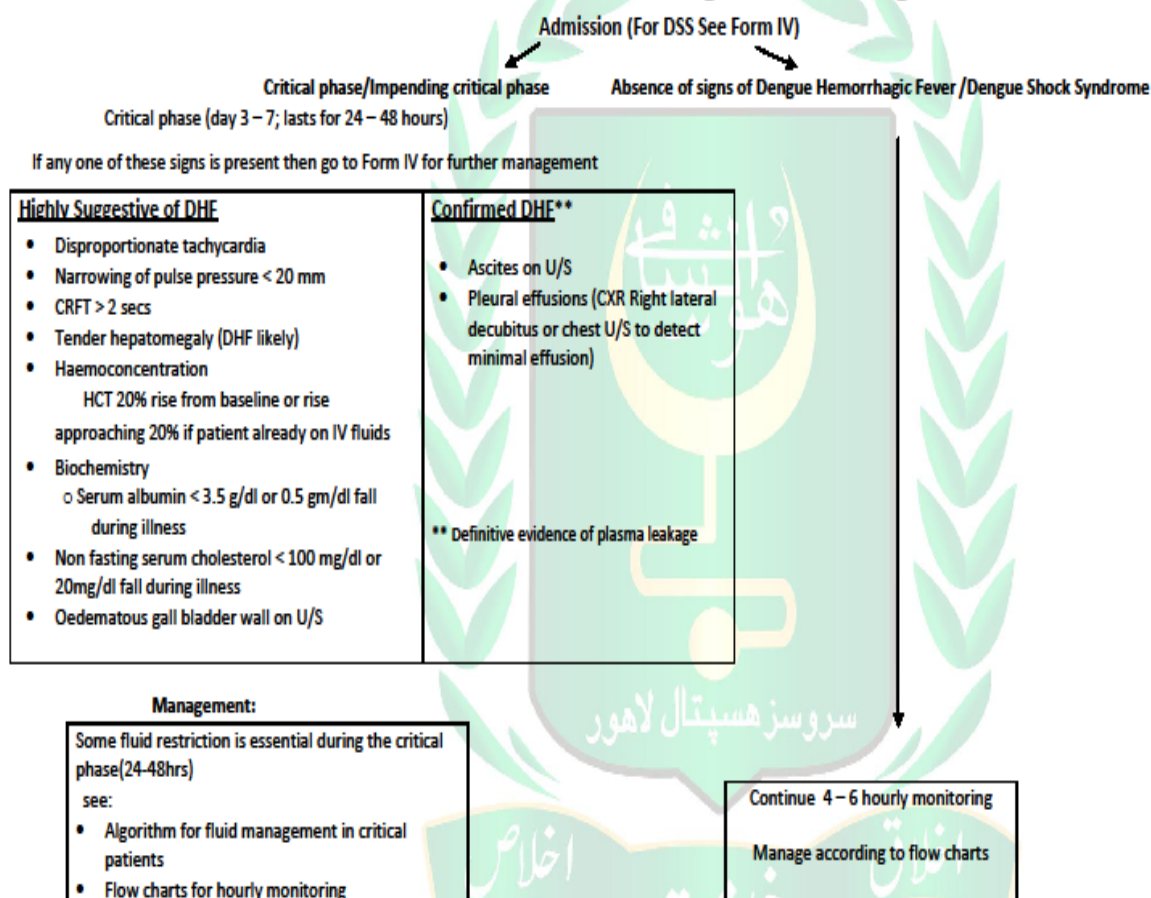
- ☆ مریض اور مریض کے گھر والے دن میں تین مرتبہ مچھر بھگاؤ لوشن کا استعمال کریں۔
- ☆ اپنے آپ کو مچھر کے کاٹنے سے بچائیں۔
- ☆ پانی اور نمکول کا استعمال زیادہ سے زیادہ کریں۔
- ☆ بخار کی صورت میں Paracetamol کی ایک یا دو گولیاں چار گھنٹے بعد (حسب ضرورت) چوبیس گھنٹے میں چھ سے زیادہ گولیاں نہ لیں
- ☆ نلکے کے پانی کی پٹیاں کریں
- ☆ Ibuprofen , Disprin اور درد کی دیگر ادویات سے پرہیز کریں۔
- ☆ 24 گھنٹے بعد CBC with Platelet Count کا ٹیسٹ کروا کر قریبی ڈاکٹر کو چیک کروائیں۔
- ☆ جسم کے کسی حصے سے خون آئے ، جسم پر خون کے دھبے پڑیں ، سانس لینے میں دشواری ہو، پیشاب میں کمی ، پیٹ میں شدید درد ، چکراور آنکھوں کے آگے اندھیرا آنے کی صورت میں فوراً ہسپتال تشریف لائیں۔
- ☆ لال رنگ کے مشروبات سے گریز کریں۔

Algorithm for Dengue Fever Management in Accident & Emergency Department



(Made in collaboration with SriLankan Dengue Experts Dr. L Fernando, Dr. K Sallehewa, Dr.H Tissera, Dr. J Weeraman and WHO Guidelines 2011)

Identification of Dengue Hemorrhagic Fever



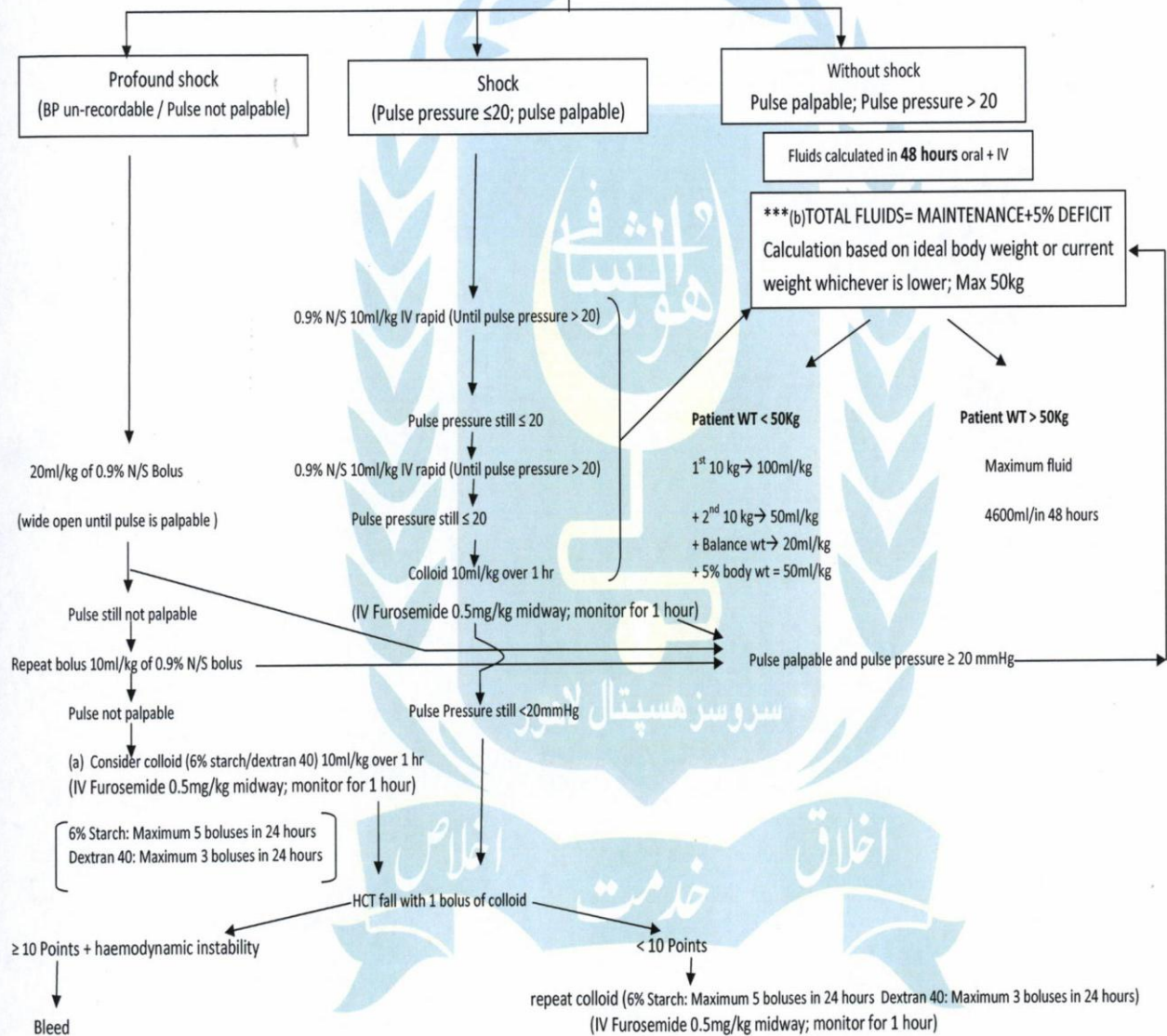
* Reversal of neutrophil / lymphocyte ratio or reactive lymphocytosis within next 24 hrs is indicative of increased chances of entering the critical phase

Convalescent phase: After the critical phase; lasts 5 – 7 days.

- Good appetite, Convalescent rash, Pruritus, Hemodynamic stability, Bradycardia, Diuresis, Stabilization of HCT, rise in WBC, Rise in platelet count. Management: maintain oral intake, antihistamine, rest, discharge

For DSS (Dengue Shock Syndrome) See the pertinent algorithm

(Made in collaboration with SriLankan Dengue Experts Dr. L Fernando, Dr. K Sallehewa, Dr.H Tissera, Dr. J Weeraman and WHO Guidelines 2011)

ALGORITHM FOR FLUID MANAGEMENT IN CRITICAL PHASE

Interim Guidelines for Management of Dengue Infection SHL/SIMS (To be reviewed after 6 months)

Form IV

Consider whole blood transfusion (10ml/kg) or packed cell volume (5ml/kg)
(IV Furosemide 0.5mg/kg midway; monitor for 1 hour)

Important:

- Boluses / blood / oral all included in total fluid calculation.
- Shock defined as pulse pressure ≤ 20 mmHg

Note:

*** Infusion rate should vary from 1.5 – 7 ml/kg/hr (IV+oral) keeping an eye on degree of plasma leakage.

Keep urine output 0.5 – 1.0 ml/Kg/hr and give fluid accordingly.

If heading towards fluid overload: switching to colloids can be needed as higher rate of crystalloids cannot be continued for longer hours

If patient is not improving consider complications: (c)

(Made in collaboration with SriLankan Dengue Experts Dr. L Fernando, Dr. K Sallehewa, Dr.H Tissera, Dr. J Weeraman and WHO Guidelines 2011)

(a)

Choice of fluids:

Crystalloids:

0.9% N/S

5% DW+0.9 %N/S

< 6 months of age: 5%DW+0.45% N/S

Colloids:

6% Starch

Dextran 40 (When available)

Rate of infusion of colloids 10ml/Kg/Hr

 $\frac{1}{2}$ bolus in 30 mins or full bolus in 60 mins

(b)

Calculation of Ideal Body Weight

- **Best Method:** Weight for height using a growth chart
- Weigh for age using a growth chart
- In an emergency situation use these formulae

<1 year	$\frac{\text{Age (in Months)} + 9}{2}$
< 7 years	$(\text{Age} \times 2) + 8$
> 7 years	$\text{Age} \times 3$
APLS	$(\text{Age} + 4) \times 2$

(b)

Ideal Body Weight (IBW)

When fluid requirement is calculated (both oral and IV), calculate only for IBW or actual body weight if it is lower than the IBW. The **maximum wt** for which fluid is calculated in any patient should not exceed **50 kg**. Accordingly M+5% should not exceed **4600 ml** in any patient.

(c)

Complications: (consider when no improvement)

A: Acidosis Correct acidosis if pH is <7.35 and if HCO_3^- level <15 mmol/l, NaHCO_3 1ml/kg slow bolus Max. 10ml (can be repeated upto 50ml)

B: Bleeding Consider Whole blood (10 ml/kg) or packed cell (5 ml/kg)

C: Hypocalcemia Check serum calcium and QT intervals
Give 10% calcium gluconate. Dose 1ml/kg/min, max 10ml at one time, repeat 6 hourly if needed.

S: Sugar Levels Monitor Blood Sugar levels and manage accordingly.

Calculation of total fluids for critical period

M (Maintenance) 100ml/kg for 1st 10 kg
+50 ml/kg for next 10 kg
+20 ml/kg for balance wt

5% of body weight = +50ml x body wt (kg)
Eg: Body weight 22 kg (This is ideal or actual body weight, whichever is smaller)

M = $100 \times 10 + 50 \times 10 + 20 \times 2 = 1540 \text{ ml}$

5% = $50 \times 22 = 1100 \text{ ml}$

M + 5% = $1540 + 1100 = 2640 \text{ ml}$

This is the total fluid volume this patient will need over the entire critical period irrespective of its length.

(d)

Indications of Furosemide:

- Midway in the infusion of colloids in patients who are already in fluid overload or who are likely to be overloaded depending on the fluids already given.
- Midway between blood transfusions.
- In patients passing less than 0.5ml/kg/hr of urine despite receiving adequate fluids and having stable BP, pulse, Hct to improve the UOP.
- During recovery phase when there is pulmonary oedema or fluid overload.

With Permission From SriLankan Dengue Outbreak Response Team

DENGUE INVESTIGATION SUMMARY

Name: _____ Age: _____ Hospital: _____ Ward: _____

BHT: _____

Date						
Time						
WBC - Total						
N						
L						
HCT						
Platelet						

Date				Date		
Time				Time		
AST				Blood Urea		
ALT				Se. Creatinine		
PT / INR				Se. Na ⁺		
				Se. K ⁺		
				Se. Ca ²⁺ (Ionized)		

Date / Time			Date / Time			
CXR - R. Decubitus			Se. Albumin			
US Scan			Se. Cholesterol			

Date / Time						
pH						
HCO ₃ ⁻						

Other Investigations :

With Permission From Sri Lankan Dengue Outbreak Response Team

100

Monitoring Chart I - for Management of Dengue Patients – Febrile Phase (4 – 6 hourly)

Name of the patient:

Wt:

IBW:

MRN#

[illegible]

Patient to be monitored hourly
MDH

...ward -

Weight -	Height -	Ideal body weight -	M -	M + 5% =

Critical Phase Commencing date and time: **End date and time:**

[illegible]

Monitoring Chart II for Management of DHF Patients During Critical Phase – Page-2

[illegible]

1000

Patient to be monitored every 15 minis

-Maximum 3 per 24h / 6 per 48h

Maximum 5 per 24h / 10 per 48 h

M + 5% = ml for 24 hours

[illegible]

With Permission From Sri Lankan Dengue Outbreak
response team

I.V. Transfusion

[illegible]

Radiology Request Form

(For suspected Dengue Hemorrhagic Fever)

Name: _____ W/o, D/o, S/o: _____ Age: _____

Sex: _____ Date: _____ Ward: _____ MRN No: _____

History:

Ultrasound:

Abdomen and pelvis to detect ascites

☐

Chest to detect pleural effusion

☐

X-Ray Chest:

Right lateral decubitus to detect minimal pleural effusion

☐

PA view to assess pleural effusion

☐

Report by Radiologist:

Name & Signature _____