DENGUE FEVER MANAGEMENT GUIDELINES

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DEPARTMENT OF HEALTH AND FAMILY WELFARE

PRESUMPTIVE DIAGNOSIS OF DENGUE FEVER:
Fever and two of the following signs:
Anorexia and nausea
Rash
Aches and pains
Warning signs
Leucopenia
Positive Tourniquet test

TOURNIQUET TEST:
Apply BP cuff to upper arm
Raise the BP to a level between systolic and diastolic. Keep it for 5 minutes.
Mark an area of one inch square and look for and count the number of petechiae. >20 petechiae is diagnostic

WARNING SIGNS:
Abdominal pain and tenderness
Persistent vomiting
Clinical fluid accumulation
(edema, ascites and pleural effusion)
Mucosal bleeding
Lethargy or restlessness
Liver enlargement >2cm
Rapid decrease in platelet count and corresponding increase in Hematocrit

Group A
May be sent home
[Patients do not have warning signs]

Group Criteria:
Patients who do not have warning signs; able to drink adequate volumes of oral fluids; and pass urine at least once every 6 hours.

Laboratory Test:
White Cell count on day 3 of fever
Platelet count on day 3 and every third day there after [should be >1,00,000]
Hematocrit if facility is available

Treatment:
Adequate bed rest
Plenty of oral fluids
Oral rehydration solution or fruit juices
Or other fluids containing electrolytes
Paracetamol up to 4g in an adult not frequent than at 6 hour intervals
(10 mg/kg for children.)
Tepid sponging if high fever persists.

Caution:
Do not give aspirin, ibuprofen or NSAIDs (they aggravate gastritis and bleeding)
Fluids contaning sugar can exacerbate hyperglycemia in diabetic patients.

Monitoring
Daily review for disease progression
Defervescence
Look for warning signs
Strict advice to return to hospital if any warning signs develop.

Need for reassessment:
No clinical improvement
Deterioration at time of defervescence
Severe abdominal pain and vomiting
Cold and clammy extremities
Lethargy irritability/restlessness
Bleeding tendencies:
[petechiae, purpurae or ecchymoses]
[epistaxis or gum bleeding]
[menorrhagia in women]
[coffee ground vomitus/melena]

If any of above is present, **refer to Secondary Care Center for further management**

Group B
Admit in secondary care center
[Patients who have warning signs]

Group Criteria:
Patients with any of the following features: co-existing conditions like pregnancy, infancy, old age, diabetes mellitus chronic hemolytic disease and renal failure
Patients who are living alone or away from hospital.

Laboratory Test:
White Cell count/Platelet count
Get a basic Hematocrit value and look at reference value for age and sex.

Evidence for plasma leakage:
A rise in average HCT for age and sex by 20% or a >20% drop in HCT following volume replacement.
Presence of clinical signs of plasma leakage: ascites, pleural effusion

Treatment:
Give encouragement for oral fluids
If not tolerated start IV fluids
0.9% normal saline or
Ringer lactate
5-7ml/kg/hour for 1-2 hours
3-5ml/kg/hour for 2-4 hours
2-3ml/kg/hour as per clinical response
Run at maintenance slow rate only

Repeat the hematocrit and reassess the clinical status and review fluid infusion rate accordingly

Monitoring;
Monitor the patient till risk period is over for the following parameters:
Monitor temperature 4hrly
Maintain a fluid intake output chart

Look for warning signs frequently
Blood sugar, RFT, LFT, Chest X-ray and Coagulation parameters if indicated.
Discharge from hospital, if visible clinical improvement, return of appetite and platelet count >50,000

Refer to Tertiary Care Center if patient does not improve

Group C:
Admit in tertiary care center
[Severe cases of Dengue Fever]

Group Criteria:
Severe bleeding tendencies such as upper GI bleeding/clinical or ultra sound scan evidence of internal bleed.
Severe plasma leakage leading to dengue shock syndrome
Severe organ dysfunction in the form of hepatic dysfunction, renal dysfunction, myocarditis or encephalitis.

Laboratory Test:
White Cell count/Platelet count/HCT
Other tests for detecting organ dysfunction such as: LFT RFT INR

Treatment of DHF:
[Generally platelet transfusions are not advisable in the absence of bleeding]
Platelet count <10,000 without bleed
Platelet count <50,000 with bleeding
Give platelet transfusions
3-5 units of PRP (platelet rich plasma) per day or PC (platelet concentrate) in patients with high cardiovascular risk.

Treatment of compensated shock:
IV fluids: Normal saline or ringer lactate @5-10ml/kg/hr for first hour.
[In infants and children 10-20ml/kg/in the 1st hour]

If patient improves reduce dose to 5-7ml/kg/hr for 2 hour and then reduce further to 3-5ml/kg/hr
IV fluids to be maintained for not more than 24-48hrs

Check HCT after initial bolus and if HCT increases give IV fluid Normal saline @10-20ml/kg/hr. Consider treatment with colloids like IV dextran.
If HCT falls with unstable vital signs give blood transfusion (whole fresh blood /PRC

Treatment of hypotensive shock:
More vigorous IV fluid administration: Normal saline 20ml/kg administered as bolus for 15min. Gradually reduce as in case of compensated shock.