Dengue Case Management

ASSESSMENT

Presumptive Diagnosis:

Live in / travel to endemic area plus Fever and two of the following:

- Anorexia and nausea
- Rash
- Aches and pains
- Warning signs
- Tourniquet test positive
- Leucopenia

CS 125085

Warning Signs:

- Abdominal pain or tenderness
- Persistent vomiting
- Mucosal bleed
- Liver enlargement >2cm
- Clinical fluid accumulation
- Lethargy; restlessness
- Laboratory: Increase in HCT concurrent with rapid decrease of platelet count

No warning signs	For patients with warning signs of severe dengue OR co-existing conditions	For patients with any of:
	• pregnancy • infancy • diabetes mellitus • poor social situation • old age • renal failure	• Severe plasma leakage with shock and/ or fluid accumulation with respiratory distress • Severe bleeding • Severe organ impairment
Group A	**Group B**	**Group C**

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
National Center for Zoonotic, Vector-Borne, and Enteric Diseases

Diagnostic Testing

- Virus detected for up to 5 days post onset
  - Viremia coincides with fever
  - Detection by PCR highest in first 3 days of illness
- ALWAYS SEND ACUTE AND CONVALESCENT SAMPLES
  - Unless 1st sample positive for dengue by PCR paired samples, acute (0-5 days) and convalescent (6-21 days), needed for diagnosis
- IgM detected for up to 3 months
  - No IgM in 20-30% of secondary infections

Normal Pediatric Vital Signs

Age	Estimated Weight	Normal Heart Rate Range	Average HR	Normal Respiratory Rate Range	Hypotension level (systolic BP)
1 month	4 kg	110-180	145	40-60	<70
6 months	8 kg	110-170	135	25-40	<70
12 months	10 kg	110-170	135	22-30	<72
2 years	12 kg	90-150	120	22-30	<74
3 years	14 kg	75-135	120	22-30	<76
4 years	16 kg	75-135	110	22-24	<78
5 years	18 kg	65-135	110	20-24	<80
6 years	20 kg	60-130	100	20-24	<82
8 years	26 kg	60-130	100	18-24	<86
10 years	32 kg	60-110	85	16-22	<90
12 years	42 kg	60-110	85	16-22	<90
14 years	50 kg	60-110	85	14-22	<90
≥15 years		60-100	80	12-18	<90

Hemodynamic Assessment

Parameters	*Stable Circulation*	*Compensated shock*	*Hypotensive shock*
Conscious level	Clear and lucid	Clear and lucid	Restless, combative
Capillary refill time	Brisk (<2 sec)	Prolonged (>2 sec)	Very prolonged, mottled skin
Extremities	Warm and pink	Cool peripheries	Cold, clammy
Peripheral pulse volume	Good volume	Weak & thready	Feeble or absent
Heart rate	Normal heart rate for age	Tachycardia	Severe tachycardia or bradycardia in late shock
Blood pressure	Normal blood pressure for age Normal pulse pressure for age	Normal systolic pressure but rising diastolic pressure Narrowing pulse pressure Postural hypotension	Narrowed pulse pressure (<20 mmHg) Hypotension (see definition) Unrecordable blood pressure
Respiratory rate	Normal respiratory rate for age	Tachypnoea	Hyperpnoea or Kussmaul's breathing (Metabolic acidosis)
Urine output	Normal	Reducing trend	Oliguria or anuria

Group A Outpatient Management

Obtain daily CBC
Follow patient daily for:

- ❖ defervescence (beginning of critical phase)
- ❖ warning signs (until out of critical phase)
- ❖ decreasing white blood cell level, increasing hematocrit and decreasing platelet level

Advise patient or their family to the the following:

Get adequate bed rest

- Let patient rest as much as they are able.

Control the fever

- Give Tylenol every 6 hours (maximum 4 doses per day). Do not give ibuprofen (Motrin, Alleve) aspirin, or aspirin containing drugs.
- Sponge patient's skin with tepid water when temperature is high despite Tylenol.

Prevent dehydration which occurs when a person loses too much fluid (from high fevers, vomiting, or diarrhea with poor oral intake). Give plenty of fluids and watch for signs of dehydration. Bring patient to clinic or emergency room if any of the following signs develop:

- Decrease in urination (check number of wet diapers or trips to the bathroom).
- Few or no tears when child cries
- Dry mouth, tongue or lips
- Sunken eyes
- Listlessness or overly agitated or confused
- Fast heart beat (more than 100/min)
- Cold or clammy fingers and toes
- Sunken fontanel in infant

Prevent spread of dengue within your house

- Place patient under bed net or have patient use insect repellent while febrile to avoid infecting mosquitoes that can infect others within 2 weeks.
- KILL all mosquitoes in house and empty containers that carry water on patio.
- Put screens on windows and doors to prevent mosquitoes from coming into house.

Watch for warning signs as temperature declines 3 to 7 days after symptoms began. Return IMMEDIATELY to clinic or emergency department if any of the following warning signs appear:

- Severe abdominal pain or persistent vomiting
- Red spots or patches on the skin
- Bleeding from nose or gums
- Vomiting blood
- Black, tarry stools
- Drowsiness or irritability
- Pale, cold, or clammy skin
- Difficulty breathing

Group B Inpatient Management

Group C Emergency Management