Guidelines for Management of Adults Diagnosed with Dengue Fever in the Emergency Department

Dengue fever management — SCGH ED

Majority of patients have non-severe, self-limiting illness

- 'Break bone' fever / retro-orbital headache / myalgia are common symptoms
- Macular rash in 50% of patients, some have petechiae
- Thrombocytopaenia, leucopaenia (neutropaenia) and transaminitis typical (CRP relatively low)
- 2–7 day febrile course with viral clearance with defervescence

Minority progress to severe dengue: triphasic illness

- **Initial febrile phase**
- **Critical (vascular leak) phase** — usually 24–48 hrs post defervescence, i.e. day 4–7; lasting 48–72 hrs
  - Immune activation syndrome
  - Reversible capillary leak syndrome with progressive thrombocytopaenia / complex coagulopathy, rising haematocrit (>10% from baseline), shock ± respiratory distress/ARDS ± MOF ± clinically significant bleeding
  - Haemophagocytic syndrome sometimes seen
- **Recovery phase** over second week

Risk factors for severe dengue: pregnancy, age > 65 years, significant comorbidities (e.g. renal failure, diabetes)

Spectrum of syndromes

Probable dengue

- Endemic area
- Fever PLUS 2 of the following:
  - Nausea, vomiting
  - Rash
  - Aches & pains
  - Tourniquet test positive
  - Leukopaenia

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Dengue with warning signs

- Abdominal pain
- Persistent vomiting
- Clinically fluid overloaded
- Mucosal bleeding
- Lethargy, restlessness
- Liver enlargement > 2 cm
- Increased Hct concurrent with rapid decrease in platelet count

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Severe dengue

- Severe plasma leakage
- Shock
- Fluid accumulation with respiratory distress
- Severe bleeding
- Severe organ involvement
- Liver: AST or ALT ≥ 1000
- Altered mental state
- Other organ failure

Treatment of dengue fever: 3 groups based on disease severity

GROUP A

No warning signs

- Can tolerate adequate oral fluids and pass urine every 6 hours
- Near normal blood counts
- No patient risk factors

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- Can be managed at home
- **Avoid aspirin and NSAIDs due to the risk of bleeding complications**
- Follow up by own GP *OR* in the ID outpatient clinic (referral to be sent only after discussion with the on-call ID Registrar or Consultant)
- Patients should have daily clinical review and FBC + LFTs to monitor haematocrit, platelet count and liver function during the critical phase of the illness (days 3 to 7)
- Discharge letter to include any treatments given or started and follow-up requirements

GROUP B

Developing warning signs

- Risk factors: diabetes, obesity, pregnancy, renal failure
- Poor social support
- Increasing haematocrit or rapidly declining platelets

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- Should be admitted to hospital (MAU) for observation
- Supportive treatment
- Careful fluid replacement in view of risk of capillary leak syndrome in severe dengue

GROUP C

Severe dengue

- Plasma leakage with shock ± fluid accumulation causing respiratory distress
- Severe bleeding
- Severe organ impairment

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- Require emergency treatment with access to ICU and blood products — refer to ICU early
- Supportive treatment
- Careful fluid replacement in view of risk of capillary leak syndrome in severe dengue

References: Therapeutic Guidelines 2025. Antibiotic. Dengue.

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