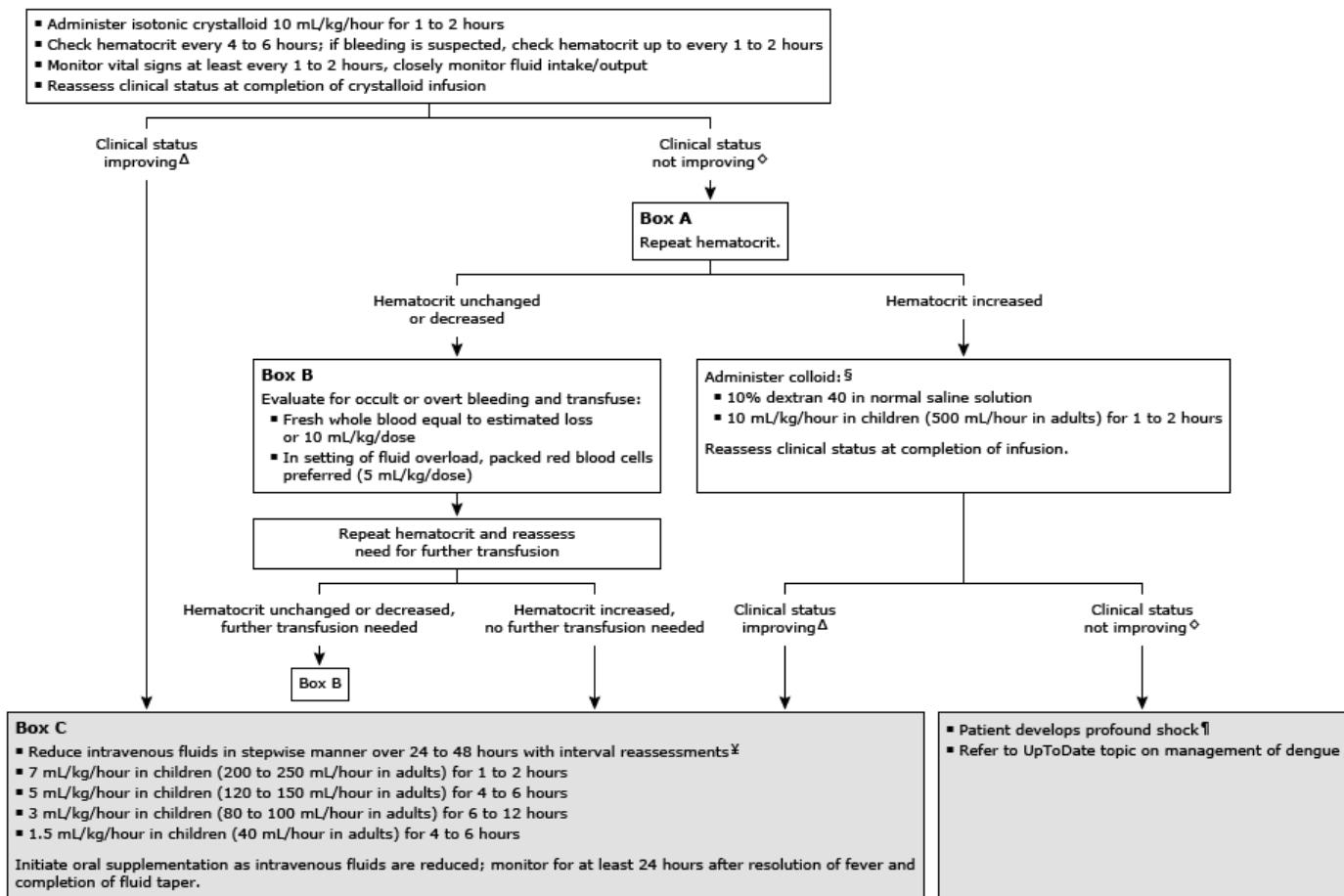




An approach to management of dengue infection in the setting of shock, narrowed pulse pressure, or hypotension (WHO DHF Grade III)*†



WHO: World Health Organization; DHF: dengue hemorrhagic fever.

* The WHO has established a grading for severity of dengue hemorrhagic fever:

- DHF Grade I – Fever, hemorrhagic manifestation (positive tourniquet test), and evidence of plasma leakage.
- DHF Grade II – DHF Grade I plus spontaneous bleeding.
- DHF Grade III – DHF Grade I or DHF Grade II plus circulatory failure.
- DHF Grade IV – DHF Grade III plus profound shock with undetectable blood pressure and pulse.

Dengue shock syndrome consists of DHF Grade III and DHF Grade IV.

¶ Shock refers to normal systolic pressure but rising diastolic pressure with narrowing pulse pressure. Profound shock refers to hypotension and narrow pulse pressure (systolic minus diastolic pressure ≤20 mmHg).

Δ Criteria for clinical improvement include blood pressure rising or normalized, heart rate decreasing, pulse pressure widening, respiratory rate decreasing, skin warm with turgor intact, or sensorium clear.

♦ Criteria for lack of clinical improvement include blood pressure decreasing, heart rate increasing, pulse pressure narrowing, respiratory rate increasing, skin cool and clammy with diminished turgor, mental confusion, or restlessness.

§ No other colloid formulations (such as albumin) should be used for management of dengue. If 10% dextran 40 in normal saline is not available, crystalloid should be used.

¥ The patient's clinical status (including vital signs, urine output, and hematocrit) should be evaluated prior to each infusion rate adjustment.

Data from:

1. World Health Organization. *Comprehensive Guidelines for Prevention and Control of Dengue and Dengue Haemorrhagic Fever*. WHO, New Delhi 2011.
2. World Health Organization. *Dengue: Guidelines for diagnosis, treatment, prevention and control*. WHO, Geneva 2009.