4.2.1.3 Practical info

Mechanism of action

Understanding of the mechanism of action of paracetamol (acetaminophen) remains incomplete but appears to be derived mostly from action on the central nervous system. Hypotheses include: 1) inhibition of the cyclooxygenase (COX) enzyme because its analgesic and antipyretic effects are similar to those of nonsteroidal anti-inflammatory drugs (without anti-inflammatory anti-coagulation effects); 2) inhibition of the L-arginine-nitric oxide pathway and reinforcement of descending inhibitory serotonergic pain pathways; and 3) effect on cannabinoid receptors by active metabolites.

Potential indications and contraindications in arboviral infection

Pain and fever.

Route, dosage, and duration

Paracetamol (acetaminophen) is given orally as a dose, based on age and body weight, as below in Table 4.2. It is available in tablets of 500 mg and as oral powder for reconstitution and oral suspension. Indirect evidence from multiple systematic reviews shows it to be effective for pain (except for chronic lower back pain), and adverse events are not significantly higher than in placebo *(48)*.

Table 4-2. Dosing of Paracetamol (acetaminophen) for treatment

Age	Body weight	Dose and duration for non/severe, suspected or confirmed, arboviral diseases
Adults	> 50 kg	500 mg – 1 g every 4-6 hours (maximum daily dose: 4 g)
Paediatrics	10-15mg/kg	every 4-6 hours (maximum daily dose: 60 mg/kg)

Do not repeat the dose more frequently than every 4 hours.

Maximum daily dose to avoid hepatic toxicity is based on all routes of administration and all products containing paracetamol (acetaminophen) (49).

Dose adjustment

Renal impairment: It is recommended when giving paracetamol to patients with renal impairment, to reduce the dose and to increase the minimum interval between each administration to at least 6 hours unless directed otherwise by a physician (49), as below in Table 4.3.