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Ministry of Health & Mass Media

Provincial Directors of Health Services

Regional Directors of Health Services

All Heads of Institutions

RE: Guidelines for Clinical Management of Chikungunya Through Disease Phases (Reviewed and Updated, June 2025)

Chikungunya fever continues to be a public health concern due to increased seasonal vector activity. Several districts including Colombo, Gampaha, Kandy, Matara and Galle, have reported patients presenting with chikungunya-like illness.

Although in the majority the illness is self-limiting, some individuals especially high-risk groups, have persistent symptoms, mostly with arthritis or arthralgia, that may persists for weeks or months. These sequelae can substantially impair quality of life and daily functioning, especially in older individuals and those with underlying conditions.

This updated guideline addresses the clinical approach to post-acute and chronic manifestations of Chikungunya. It is intended to support uniform, evidence-based care across all levels of the health system, minimize long-term disability, and ensure appropriate referral and rehabilitation. The guideline is directed at all healthcare professionals involved in the care of patients with arboviral infections, including those in primary care, outpatient settings, inpatient wards, and rehabilitation services. These guidelines are in addition to the Guideline for Laboratory Diagnosis and Clinical Management of Chikungunya issued in April 2025, (number EPID/379/2006 dated 22/04/2025).

All Heads of healthcare institutions are requested to take immediate steps to ensure that relevant clinical staff are made aware of these revised and updated guidelines on Chikungunya management through the disease phases.

Please arrange to bring the contents of this guideline annexed to this letter to the notice of all officers concerned in your Province / District / Institution / Unit / Ward and provide a copy of this circular to relevant primary care doctors in your administrative jurisdiction/institution.

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Guideline for Clinical Management of Chikungunya Infection through Disease Phases

June, 2025

Epidemiology Unit, Ministry of Health

Guideline for Clinical Management of Chikungunya Infection through Disease Phases

Introduction

This guideline provides a structured approach to the clinical management of Chikungunya virus (CHIKV) infection, which progresses through distinct phases: acute, sub-acute, and chronic. Each phase presents with specific clinical features and requires phase-specific management strategies.

Scope

The purpose of this guideline is to support clinicians in the diagnosis and management of patients with suspected or confirmed Chikungunya virus infection, across all clinical phases.

Target Audience

This guideline is intended for healthcare providers involved in the care of patients with arboviral infections. It is applicable at all levels of the health system, including community-based care, primary care, and secondary and tertiary care settings. It covers the management of acute, sub-acute, and chronic Chikungunya infection, including severe presentations.

Background

Chikungunya is a re-emerging vector-borne viral disease caused by the Chikungunya virus, an *alpha* virus of the *Togaviridae* family. The illness commonly presents with fever and severe joint pain, though symptoms can range in severity. While most patients recover, severe or even fatal outcomes may occur in neonates, older adults, and those with underlying medical conditions. No specific antiviral therapy exists; management is primarily supportive.

First identified in Tanzania in 1952, CHIKV caused sporadic outbreaks in Africa and Asia until the first recorded urban transmission in Thailand in 1958. Since 1960, disease outbreaks in South East Asia have been reported in India, Sri Lanka, Myanmar, Thailand, Indonesia, the Philippines, and Malaysia. Since 2004, Chikungunya outbreaks have become increasingly widespread, aided by viral adaptations that enhance transmission through *Aedes albopictus* mosquitoes. As of 2024, Chikungunya has been reported in 119 countries, with over 460,000 global cases—predominantly from the Americas, Eastern Mediterranean, and South-East Asia Regions.

In Sri Lanka, the first outbreak occurred in the early 1960s, followed by decades of epidemiological silence. A major resurgence occurred in 2006–2008, with tens of thousands affected. Since the latter part of 2024, Chikungunya and suspected Chikungunya-like cases

have been reported mostly from hospitals in the Western Province. Confirmed cases have been reported based on laboratory testing conducted at the Medical Research Institute (MRI), Colombo.

Chikungunya virus (CHIKV) infection progresses through distinct clinical stages—each characterized by specific features and requiring tailored management strategies. Clinically, the illness is classified into **acute, sub-acute, and chronic phases.**

Incubation period:

CHIK virus causes an acute febrile illness with an incubation period of 3-7 days (range 2-12 days). Viremia persists for up to 7 days from the onset of symptoms.

A. Progression of Chikungunya illness through disease phases

1. Acute Phase

(Includes Acute Febrile and Acute Arthritic Stages)

1.1. Acute febrile Phase

The febrile phase typically lasts up to 7 days but may extend beyond a week in some cases. It is characterized by the sudden onset of high-grade fever (>39°C/102°F), severe arthralgia or arthritis, and a maculopapular or erythematous rash—forming the classic triad. The rash usually appears between the 2^{nd} and 5^{th} day of fever and may involve the face, chest, abdomen, limbs, palms, and soles.

Other symptoms include myalgia, headache, and possible oral ulcers. Neuropathic pain (burning, tingling, or numbness), especially in the elderly, may also occur early in this phase. Patients with chikungunya fever are mostly symptomatic; however, asymptomatic infections have been reported in 3% to 25% of cases.

Manifestations such as abdominal pain, diarrhea, vomiting, may also be found. If a patient with suspected Chikungunya presents with prominent diarrhoea, it's important to assess for co-infections like dengue or bacterial gastroenteritis.

1.2. Acute Arthritic Phase (up to 2 weeks)

This stage occurs within the first two weeks of illness and may overlap with the febrile stage. It is characterized by the abrupt onset of arthritis or arthralgia involving multiple joints—

most commonly the small joints of the hands, wrists, ankles, and feet—accompanied by joint swelling, stiffness, and pain.

2. Sub-acute Arthritic Phase (>2 weeks to 3 months)

The sub-acute arthritic phase, persisting or developing arthritis 2 weeks after fever resolution, and persists up to 3 months is characterized by arthralgia and arthritis, joint stiffness, tenosynovitis, bursitis, fatigue, and a pigmented rash may appear during the second week and typically resolves within 6 weeks. In some cases it is possible to experience arthritis without the initial febrile phase.

3. Chronic Arthritic Phase (> 3months)

The chronic arthritic phase, arthritis persisting more **than 3 months after fever resolution**, may last from several months to years and is characterized by chronic or recurrent inflammatory arthritis, tendinopathies, enthesopathies, persistent fatigue, and symptoms that may mimic chronic rheumatic diseases such as rheumatoid arthritis or spondyloarthritis.

Long-Term effects

- 50% of patients may experience prolonged symptoms
- Risk factors: older age, female gender, severe acute illness, inadequate rest during the acute phase, and pre-existing musculoskeletal conditions

The table 1 illustrates the timeline-based categorization of Chikungunya infection.

Table 1. Timeline-Based Categorization of Chikungunya Infection

Phase	Time Frame
Acute	
o Acute Febrile phase	Up to Day 7
o Acute Arthritic phase	Up to 2 weeks
Sub-Acute	> 2 weeks to 3 months
Chronic	> 3 months

B. Laboratory diagnosis

In an epidemic, diagnosis of the disease is mainly clinical, while laboratory investigations will help in diagnosis, differentiation from other conditions, and the monitoring of disease progression and complications.

1. Confirmation of Diagnosis

Definitive diagnosis in the acute phase can be achieved through **reverse transcription polymerase chain reaction (RT-PCR)**, which detects viral RNA typically within the first seven days of illness.

Following this period, **serological testing** becomes more relevant. Detection of **IgM antibodies**—which usually become detectable around day seven of illness, indicates recent infection, while the presence of **IgG antibodies** suggests past exposure or late-phase infection. The table 3 illustrates preferred laboratory investigations for Chikungunya based on the time since symptom onset.

Table 3. Laboratory Investigations for Chikungunya

Time since symptom onset	Preferred test	Sample
0–7 days	RT-PCR (molecular)	Serum
>7 days	IgM/IgG (serology)	Serum

2. Exclusion of Differential Diagnoses

Given the clinical similarity between Chikungunya and other febrile illnesses such as dengue, leptospirosis, and bacterial infections, laboratory investigations are essential for accurate differentiation. The **NS1 antigen test** is particularly useful in identifying dengue in the early phase, while a **full blood count (FBC)** can reveal hematological patterns that aid in distinguishing between these infections.

3. Supporting Ongoing Management and Complication Monitoring

In patients experiencing prolonged symptoms, particularly persistent joint pain or stiffness, investigations continue to play a supportive role. These may include the assessment of **renal and hepatic function** to evaluate possible organ involvement. I**nflammatory markers** such as erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) values are highly variable in chikungunya and can be normal. When it is high, it assists in monitoring disease activity and guiding anti-inflammatory or analgesic therapy

Note: In cases of classical chikungunya, elevated C-reactive protein (CRP) reflects the severity of the inflammatory response. It should not be used as an indicator of bacterial

infection. Therefore, routine initiation of antibiotics is not recommended and should be discouraged unless there is clear clinical or laboratory evidence of a secondary bacterial infection

Differential diagnosis

Fever with or without arthralgia is a very common manifestation of several other diseases. Some of the diseases which can be considered as close differential diagnoses are: Dengue fever, Leptospirosis, Enteric fever, Rheumatic fever, Reactive arthritis, COVID-19

Due to the overlapping symptoms, particularly during co-circulation with dengue, clinicians should be cautious and use available diagnostic tests to differentiate among these conditions.

C. Phase-Specific Management

There is no specific antiviral drug against CHIK virus. Treatment is entirely symptomatic and management should be tailored to the clinical phase.

1. Management in Acute Febrile Phase

In the febrile phase, the focus is primarily on alleviating fever and pain, ensuring adequate hydration, encourage rest and activity as tolerated, managing other acute symptoms, and preventing immediate complications

- Rest: Adequate physical rest is crucial during the acute phase to aid recovery and may play a role in reducing the likelihood of developing chronic sequelae. Patients should be advised to limit physical activity.
- Hydration: Patients should be encouraged to consume plentiful oral fluids, such as water, fruit juices, or oral rehydration solutions (ORS), to prevent dehydration, especially during the febrile period. A target urine output of more than one liter in 24 hours is a useful indicator of adequate hydration.

- Strongly discourage self-medication, especially with NSAIDs, steroids, or antibiotics
- Analgesics (First-line): Paracetamol (Acetaminophen) is the analgesic and antipyretic of choice for managing fever and joint pain. It is particularly preferred in dengue-endemic areas until dengue fever can be definitively ruled out, owing to the risk of hemorrhagic manifestations associated with other analgesics like NSAIDs.

- Dosage (Paracetamol): For adults weighing more than 50 kg, the usual dose is 500 mg to 1 g every 4 to 6 hours, not exceeding 4 doses per 24 hours and with a maximum daily dose not exceeding 3 to 4 grams. For pediatric patients, the dose is 10-15 mg/kg of body weight every 6 hours, with a maximum daily dose of 60 mg/kg.
- Paracetamol can be combined with codeine for moderate pain (PCM + codeine preparation).
- Nonsteroidal Anti-inflammatory Drugs (NSAIDs): NSAIDS are strongly advised against during the febrile phase.
- Corticosteroids: The use of corticosteroids in the febrile phase of Chikungunya is generally not recommended for managing musculoskeletal symptoms. This is due to the potential for adverse effects, lack of proven long-term benefits for arthralgia, and the risk of rebound arthritis upon withdrawal.

2. Management of Acute Arthritic Phase

- **Paracetamol** (same doses as above); may be combined with codeine for moderate pain, and gabapentin if neuropathic pain is suspected.

- NSAIDs (e.g., ibuprofen, naproxen) can be considered after 7–10 days of the illness when patient is afebrile. In a dengue-endemic setting dengue needs to be excluded due to bleeding risk. Co-prescribe PPIs or H2 blockers to reduce GI side effects.
    - *Examples: Ibuprofen (e.g., 200-400 mg three times daily) Naproxen, Diclofenac.*
    - *Combination of different NSAIDS should not be used due to increased GI adverse effects*
- Corticosteroids are not advised in the acute arthritic phase.

    - Assess for neuropathic pain and consider gabapentin, initiated at a low dose (*e.g., 100-300 mg at bedtime)* if indicated.
      Features of neuropathic pain are burning sensation especially in the soles and hands, cold or heat sensation in the legs, tingling or electric shock like sensations, itching

- **Outpatient care using the above guide is usually sufficient for the acute febrile and acute arthritic phases; only severe or complicated cases may be referred to a specialist or admitted**

Indications for Referral/Admission

- Fever persisting for more than 5 days.
- Intractable joint pain unresponsive to recommended analgesia.
- Altered sensorium, confusion, or severe lethargy.
- Postural dizziness, cold extremities, or signs of hemodynamic instability.
- Decreased urine output (oliguria).
- Any bleeding manifestations (e.g., petechiae, purpura, epistaxis, gum bleeding).
- Incessant vomiting or inability to tolerate oral fluids.
- Jaundice.

***High risk groups:**

Patients with certain conditions are considered high-risk. Chikungunya infection in these individuals is likely to lead to severe manifestations and adverse outcomes. High-risk conditions include hypertension, diabetes, coronary artery disease (CAD), cardiovascular disease (CVD), and chronic obstructive pulmonary disease (COPD). Patients below one year of age, above 65 years, and pregnant females are also at greater risk for complications. Clinicians must closely monitor them.

High-Risk Populations (Need close monitoring or early referral)

- **Pregnant women:** Paracetamol is recommended for the symptomatic patient and NSAIDs are to be avoided. Especially near term; obstetric consultation is essential. C-section does not prevent transmission.
- **Children: Use paracetamol only; avoid opioids.** *Pediatric dose of PCM - 10-15 mg/kg per dose 6 hrly not to exceed 3gm/24 hrs*
- **Older adults/comorbidities:** Monitor for decompensation. Adjust chronic medications, avoid over-aggressive BP control, consider early insulin in diabetics, avoid beta-blockers that mask tachycardia

Secondary and tertiary Care: Provide individualized clinic and inpatient care for complications or comorbidities

3. Management in Sub Acute Arthritic Phase

Management during the sub-acute arthritis phase focuses on controlling pain, reducing inflammation, and preventing progression to chronic arthritis, with treatment tailored to the severity of symptoms and close monitoring for recurrence during medication tapering.

A thorough assessment is critical and should include:

• Standardized Assessment Tool: Regular use of validated patient-reported outcome measures is essential for quantifying pain, functional disability, and overall disease impact. The Visual Analogue Scale (VAS) for pain is recommended for this purpose.

Pharmacological Management

- Start with paracetamol; may combine weak opioids for moderate pain. Make sure to prescribe routinely, not on as needed basis
- Consider gabapentin for neuropathic symptoms
- Corticosteroids are indicated for severe polyarthritis with synovitis or tenosynovitis and for moderate to severe pain (VAS 4–10), and should be initiated after two weeks from fever onset, during the subacute phase.
    - *The preferred regimen is prednisolone 10–15 mg/day, tapered gradually over 8–12 weeks by reducing the dose every two weeks, with close monitoring for flare-ups or recurrence during tapering.*

- Intra-articular steroids may be considered for resistant localized synovitis or bursitis. NSAIDs are not recommended due to gastrointestinal risks and limited efficacy, and concurrent use of NSAIDs and steroids should be avoided to prevent GI bleeding.
- Disease-modifying antirheumatic drugs (DMARDs) are not recommended at this stage and should only be considered after 8 -12 weeks if arthritis persists, with input from a rheumatologist.

4. Management in Chronic Phase

Management in the chronic phase aims to prevent joint damage, minimize functional limitations, and improve overall quality of life in patients with persistent joint symptoms following CHIKV infection.

4.1 Specialist Involvement

- The chronic phase should be managed by a **rheumatologist**, particularly when symptoms are prolonged or worsening

4.2 Criteria for Rheumatology Referral

- Joint symptoms persisting >3 months, or
- Recurrence of arthritis following steroid tapering

4.3 Pharmacological Management (By Rheumatologist)

- DMARDs: **Hydroxychloroquine (HCQ), Methotrexate (MTX),** or **Leflunomide (Lef)**, are the preferred agents with or without **low-dose corticosteroids**

Note: HCQ monotherapy is generally inadequate; **combination therapy** is typically required for effective disease control

4.4 Non- Pharmacological Management (for Rehabilitation)

- **Physiotherapy** to maintain joint mobility and reduce stiffness
- **Occupational therapy** to support daily functional independence
- **Psychological support** for individuals experiencing emotional distress or disability related to chronic symptoms

Following link is to be used by the treating clinicians to report suspected/ confirmed cases of Chikungunya: https://bit.ly/Epid-cgCRF

Annexure:

1. Synopsis of Management

Phase	Time Frame	Main Clinical Features	Management Strategy
Acute Febrile Phase	Day 0–7	High-grade fever, severe arthralgia, rash, myalgia, headache	○ Rest, hydration, Paracetamol (avoid NSAIDs and steroids) ○ Monitor for complications ○ Avoid antibiotics unless clear bacterial infection
Acute Arthritic Phase	Day 0–14 (may overlap with febrile phase)	Symmetrical polyarthritis/arthralgia, joint swelling, stiffness	○ Paracetamol ± codeine ○ Consider gabapentin for neuropathic pain ○ NSAIDs after 7–10 days if afebrile and dengue excluded
Sub-Acute Phase	>2 weeks to 3 months	Persistent arthralgia, arthritis, tenosynovitis, fatigue, pigmented rash	○ Consider short course of corticosteroids in selected cases (with caution)
Chronic Phase	>3 months	Chronic/recurrent arthritis, tendinopathy, fatigue, mimics rheumatoid/spondyloarthritis	○ Rheumatology referral ○ DMARDs if indicated ○ Individualized physical rehab plan ○ Rule out differential diagnoses
Laboratory Diagnosis	Throughout illness	RT-PCR (0–7 days), IgM/IgG (>7 days), exclude dengue/leptospirosis, monitor organ functions, CRP variable	○ Use diagnostics to confirm Differentiate from other conditions, and monitor prolonged symptoms ○ Avoid routine antibiotics unless clear secondary bacterial infection

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