

Dengue fever is a mosquito-borne viral disease transmitted primarily by infected *Aedes* mosquitoes and remains one of the most significant public health challenges in Sri Lanka. In 2026, Sri Lanka has experienced a notable increase in dengue transmission, with over 30,000 cases and multiple dengue-related deaths reported during the first five months of the year. The Western Province continues to report the highest burden of disease, while several other districts have also recorded substantial case numbers. The ongoing monsoon rains, coupled with the widespread presence of mosquito breeding sites in domestic, peri-domestic, institutional, and public environments, may further intensify transmission.

Given the current outbreak situation and the endemic nature of dengue in Sri Lanka, this guideline has been developed to support effective prevention and control activities at the field level. This guideline aims to strengthen preparedness, enhance outbreak response, and promote coordinated vector control and community engagement measures to reduce dengue morbidity and mortality across the country.

1. Premise Inspection

Premise inspection activities should be carried out adhering to the following guide prepared by the National Dengue Control Unit.

Instructions for premise inspection teams in the field for Dengue prevention activities

1. Obtain permission from the residents before entering a premise/ house (for health workers, volunteers and forces personnel).
2. Get the cooperation and the participation of the residents when inspecting for the mosquito breeding places.
3. Both inside and outside of premises should be examined for mosquito breeding places.
4. Communicate with the owners/occupants with clear consistent message for sustainable behaviour.
5. Ensure removal of both potential and positive breeding places on site by residents or occupants.

2. Surveillance (Epidemiological, Entomological)

Epidemiological: Routine field investigation of notified patients should be carried out within three days of notification and surveillance system should be updated. Based on surveillance, immediate control activities should be initiated.



Entomological :Necessary focus investigation surveys should be carried out during outbreak situations in addition to routine and spot entomological surveillance activities to assess the vector densities (larval and adult), productivity of containers etc. focus investigations surveysshould be conducted targeting high risk premises such as schools, government or private instiutes, construction sites, public and religious places, fisheries harbours in addition to houses. Based on the entomological findings, appopriate vector control measures should be rapidly carried out in identified high risk areas. As the increase in vector density in a given area can predict a possible outbreak in the area in 4-8 weeks time, it is imperative that corrective action be taken in time to prevent an impending dengue outbreak (eg; Source reduction and application of larvicide).

Based on the integrated surveillance, map the high risk areas weekly, for resource mobilization and timely actions.

2. Vector Control

Following actions are recommended to mitigate a dengue outbreak within a short period and should be continued until the outbreak is controlled. Outbreak response action plans should commence with the high risk GN/ PHI areas.

1. Environmental management
 - 1.1. Source reduction
 - 1.2. Personal protection measures
2. Chemical control
 - 2.1. Application of larvicides
 - 2.2. Space spraying or fogging for adult vector control
3. Communication for behavioral change

1. Environmental Management

1.1. Source reduction

- Empower the residents/ community to remove mosquito breeding places both indoor and outdoor including discarded items, water storage items, ornamental items, tyres, temporary removed items, covering items, natural items, concrete slabs, gutters etc. from their premises.
- Village committees, community-based organizations, youth and religious groups and existing community groups (Eg: mother support groups) should be empowered for regular inspection and community mobilization.



- Educate responsible officers of government and private institutions, religious places, schools, and public places etc., to maintain “dengue free environment”.
- All relevant authorities of Government and Private institutions should engage in clean-up activities for at least 30 minutes on Fridays in addition to the above-mentioned activities.

1.2. Personal protection measures

- ✚ Personal protection methods which are used to prevent infected mosquito bites, include the use of:
 - Repellants - Advised to apply approved repellants over the exposed areas of the body.
 - Bed nets - people should be advised to use mosquito nets while sleeping. It is recommended to sleep under a mosquito net when having fever.
 - Protective clothing – Especially children should be advised regarding wearing loosely fitting long sleeved clothes and trousers during indoor/outdoor activities.

2. Chemical control

2.1. Application of larvicides

- In special situations (e.g.: cement tanks, wells and roof gutters etc. where water cannot be removed) Temephos 1% Sand Granules is recommended. However, it is not recommended to be applied to drinking water. (Refer to Guideline of National Guidelines for Aedes vector surveillance and control in Sri Lanka)
- Advice to be given to contractors to use general and domestic use larvicide (approved by the ROP) where water is stagnant places in the construction sites (Annexure 1).

2.2. Space spraying or fogging for adult vector control

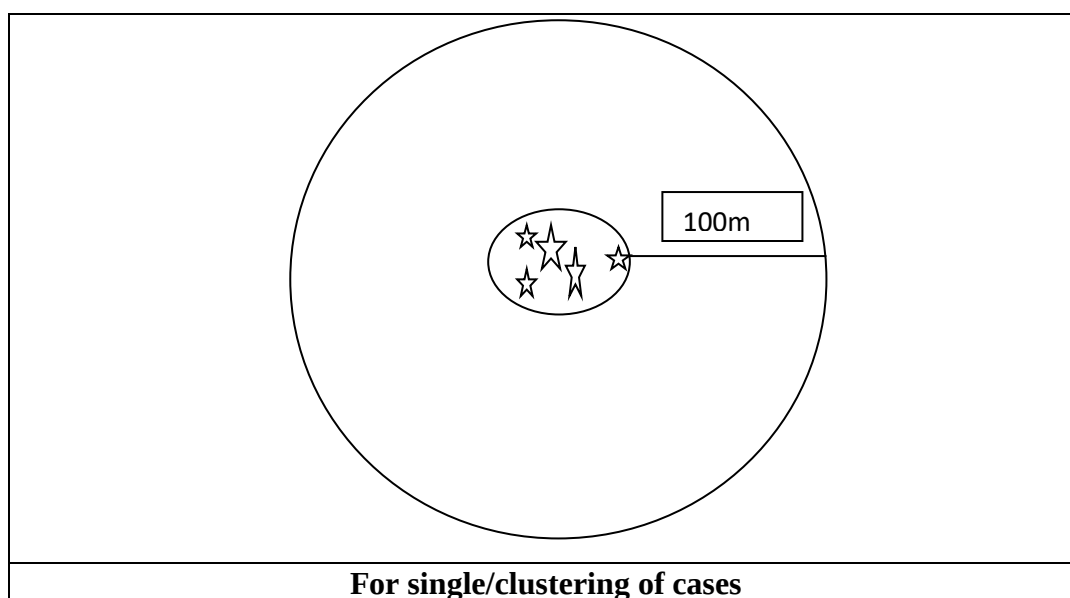
- Even though the **elimination of breeding places should be of high priority** in affected areas, *Ae. aegypti* and *Ae. albopictus* rest and bite indoors as well as outdoors. Thus, indoor and peri domestic fogging is recommended in outbreaks/epidemics situations and in areas with current dengue transmission that could lead to outbreaks.

Following aspects are to be considered when application of space spraying as an adult *Aedes* mosquito control measure, especially since all insecticides used in space spraying are classified under chemicals for restricted use.



Important points to consider in fogging operations (Indoor and peri domestic)

- Fogging is most effective if conducted as indoor and peri-domestic (surrounding the premises) rather than outdoor fogging along the street. Therefore, considering all aspects indoor and peri-domestic fogging is recommended as a vector control strategy.
- The street maps of the area marked with the reported cases must be studied carefully before the fogging operation begins.
- Space spraying should be carried out in identified high-risk locations within a 100 m radius (figure 1) from the dengue case or cluster. The second round of spraying, repeated at intervals of 3-5 days is advised.
- It is crucial to maintain continuous monitoring of entomological and epidemiological data in the aforementioned targeted areas. If the data indicates a necessity, additional space spraying cycles can be implemented for an extra two weeks. However, in such instances it is important to scrutinize whether the fogging process is followed according to the technical guidance.
- However, space spraying is not a standalone strategy; it should be linked with effective and targeted source reduction campaign.



• **Fig 1. Area to be covered by space spraying for a single/cluster of cases**

- Prior announcement to the community about the date and time of fogging activity and important preparatory actions to be taken.
- The residents should leave the premises prior to the commencement of fogging and should not enter for half an hour after fogging.
- It is required for residents to keep all doors and windows in their houses closed at the time of indoor fogging and half an hour after fogging.



- Vector control officers should deploy hand-held fogging machines and follow the Guideline of National Guidelines for Aedes vector surveillance and control in Sri Lanka
- Following insecticides should be used accordingly in given concentration.

Table 1: Insecticides and their relevant concentration used in thermal fogging

Insecticide	Mixing proportion		Required amounts for 5 L liter capacity hand-held fogging machine	
	Insecticide	Oil/water	Insecticide	water
Pesguard® FG 161 (Indoor+peridomestic)	1	160	31ml	4969ml
Gokilahts® 5 EC (Indoor+Peridomestic)	1	99	50ml	4950ml

Table 2 Dilution factors of different insecticides that are used for dengue vector control by ULV application

Insecticide	Mixing proportion		Required insecticide amount for 4 litre capacity hand held fogging machine
	Insecticide	Water	
Pesguard	1	16	235ml (total volume of the mixture 3765ml)
Gokilaht	1	49	80ml (total with water 3920ml)

3. Monitoring

- Each activity should be monitored and supervised to get the expected result of the control activities.
- Cases should be updated in spot maps daily to identify the clusters and disease spread and act promptly.
- Regular review meetings at village and sub-divisional levels should be organized.
- Weekly meetings of divisional (MOH) outbreak response team need to be conducted
- Review district and divisional level dengue situation, vector surveillance and control measures, and logistics each week
- Ensure preparation of brief reports on district dengue situation and vector control measures and send copies to PDHS, RDHS and NDCU weekly



5. Communication and community engagement

- Communication of the risk of dengue infection is an essential component of disease prevention. Health promotion at community level including clinics, institutions/schools and gatherings etc. to educate healthy sustainable actions related to the local community.
- Use public health addressing systems, at community gatherings and institutional visits etc. to communicate dengue related health messages to general public and high risk target groups (construction sites, schools, public and religious places etc.).
- Strengthen/activate intersectoral collaboration with relevant stakeholders including government (department of education, local government, district secretariat etc.) and non-governmental organizations and community based organizations (youth and religious groups etc.) at district, divisional and village levels. Since the intersectoral coordination is crucial for outbreak control, these meetings should be held weekly.

Following health messages are recommended

1. Preventive activities
 - a. Clean the premises, both indoor and outdoor, to ensure that there are no potential and positive breeding sites
 - b. Segregate solid waste and keep them covered until collection
 - c. Ensure that temporarily disposed items are covered and sheltered from rain
2. Management of a febrile patient
 - a. If fever persists for more than 48 hours, get advice from a qualified doctor or the nearest hospital. However high risk groups such as pregnant mothers and infants should seek health advice on the first day of fever.
 - b. To control fever and pain take only PARACETAMOL in recommended dose.
 - c. Get adequate rest and fluid intake as advised by the medical officer
 - d. Avoid exertion.
 - e. Inform about warning signs i.e. persistent vomiting, abdominal pain/ right hypochondrial pain lethargy and/or restlessness, less/no urine output for 4-6 hours, bleeding manifestations (bleeding from the nose or gums, black stools etc.) or if no clinical improvement or worsening of the symptoms/signs. Please contact a medical doctor if you're having above symptoms.

Please bring the content of this document to the attention of all Medical Officers of Health, General practitioners and primary health care units under your purview/ in your area.

Date: 08 June 2026

