Symposium on Dengue Fever 26 - 27 May 2015

Local Strategies on Vector Control and Monitoring

Pest Control Advisory Section Food and Environmental Hygiene Department Hong Kong Special Administrative Region Local Strategies on Vector Control and Monitoring

To prevent local transmission of dengue fever by:

- 1. Controlling the vector population with:
- a) regular vector control programmes
- b) vector surveillance
- 2. Prompt intensive vector control in response to dengue fever cases.

Regular Vector Control Programmes

Venue Management Policy

- Vector control work in a venue taken up by the responsible management
- 19 district environmental hygiene offices of Food and Environmental Hygiene Department
 - \sim 2,600 pest control staff
- Inter-departmental Working Group
 - ~ 20 departments
 - e.g. Housing Department, Leisure and Cultural Services Department, Hospital Authority, etc.

Regular Vector Control Programmes

Weekly Inspection Programme

 Inspect venues on a weekly basis to effectively prevent and control vector breeding

> As mosquito eggs develop into adults in seven days, we should inspect our household /workplace and surrounding areas every week. During the inspection, the

Anti-Mosculto Weekly Inspection Programme							following Anti-mosquito Weekly Inspection Programme can be used for record purpose (each premises may devise its own Anti-mosquito Weekly Inspection Programme according to our advice as appropriate). Carrying out the inspection on a fixed day (e.g. Saturday) of each week can facilitate the inspection to be made habitually and not to be missed.					
	Week/Date	1 st Week	2 nd Week	3 rd Week	4 th Week	5 th Week	6 th Week	7 th Week	8 th Week	9 th Week	10 th Week	
١	Weekly Inspection Item	Date/Month /	Date/Month /	Date/Month /	Date/Month /	Date/Month /	Date/Month /	Date/Month /	Date/Month /	Date/Month /	Date/Month /	
1.	Water accumulated underneath potted plants has been deared											
2.	Water inside vases and flower pots has been changed											
3.	Water accumulated in trays under air- conditioning units or refrigerators has been cleared											
4	Glass bottles, empty containers or lunch boxes which may collect water have been disposed of into covered dustbin											
5.	Stagnant water in containers has been cleared											
6.	Anti-bumping tyres have been punctured to prevent water trapping											
7.	Drains and surface channels have been cleared											
8.	Defective ground surfaces have been topped up											
9.	Hollow parts of bamboo stumps have been filled up with sand or soil											
10). Others											
11	I. Others											
	Inspected by:											
	Signature:											

Note:

Adding a "√" in the box indicates that the condition is satisfactory.

Adding a "X" in the box indicates that irregularity is detected and rectifying action should be taken immediately. After rectifying work has been taken, please confirm by countersigning on the corresponding box.

- Aedes albopictus (common in HK)
- Oviposition trap (Ovitrap)
 - Surveillance tool
 - To monitor the distribution of Aedes sp. in selected areas
 - Community surveillance
 - (44 areas, ~2300 ovitraps)
 - Port surveillance
 - (30 ports, ~1500 ovitraps)
 - Each area/port: surveyed monthly
 - International airport: surveyed weekly





- Community Surveillance
 - Locales recommended by W.H.O.
 - local cases
 - hospitals
 - high human concentration (e.g. housing estates, schools)
 - Parks
- Port Surveillance 6 groups
 - HK International Airport
 - Cross Boundary Check Points on Land
 - Cross Boundary Ferry Terminals
 - Container Terminals
 - Public Cargoes Working Areas
 - Private Cargoes Working Areas









Monthly Ovitrap Index for Aedes albopictus of February 2015 - Islands



- Ovitraps set in field for one week
- Incubate in laboratory for one week before taking final results on Aedes breeding in the ovitraps

Ovitrap Index

- = <u>No. of Aedes +ve traps</u> X 100% Total no. of traps retrieved
 - Area Ovitrap Index (AOI)
 - Monthly Ovitrap Index (MOI)

Interpretation of Results

Classification	Ovitrap Index (OI)
Level 1	OI < 5%
Level 2	5% ≤ OI < 20%
Level 3	20% ≤ OI < 40%
Level 4	OI ≥ 40%

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OvitrapIndex (%)

Comparison of Monthly Ovitrap Index for Aedes albopictus



Comparison of Port Monthly Ovitrap Index for Aedes albopictus: 2009 - 2013 and 2014

Month

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- Responses to AOIs
 - Inter-departmental Working Group and 19 district offices are regularly informed of the survey results
 - Immediate control work by parties concerned
 - Set up task force for coordination of mosquito control work at district level when AOI ≥20%
- Results are publicized through FEHD website and press release regularly
- Public are advised to take part in mosquito prevention and control via various promotion channels

Responses to Dengue Fever Cases

- Cases notified by Department of Health
- PCAS of FEHD carries out first round survey and control *within 24 hours*
- 500 m around reported locations
 - Imported case
 - Visited 2 days before and 7 days after onset
 - Local case
 - Visited during incubation period
 - Visited 2 days before and 7 days after onset

Response to Dengue Fever Cases

- Follow up by concerned departments and district offices
- Source reduction
- Larviciding
 - Imported: 6 weeks
 - Local: 7 weeks
- Adulticiding (Fogging)
 - Imported: 38 day-programme
 - Local: 46 day-programme
- Health Education and Publicity



THANK YOU

