

# Can insecticide treated window curtains in the household control dengue vectors in the community?

**Submission date**

17/03/2010

**Recruitment status**

No longer recruiting

☐ Prospectively registered

☐ Protocol

**Registration date**

25/03/2010

**Overall study status**

Completed

☐ Statistical analysis plan

☒ Results

**Last Edited**

19/02/2020

**Condition category**

Infections and Infestations

☐ Individual participant data

**Plain English summary of protocol**

Not provided at time of registration

## Contact information

**Type(s)**

Scientific

**Contact name**

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**Contact details**

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## Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

N/A

## Study information

**Scientific Title**

A cluster randomised controlled trial of household-based insecticide treated window curtains for control of the dengue vector *Aedes aegypti* in the community

**Acronym**

DENCO Thailand

**Study objectives**

We investigated whether window curtains made of long-lasting insecticide-treated netting and deployed in outer windows of houses could reduce populations of *Aedes aegypti*, the mosquito vector of dengue, to levels that might lead to reductions in dengue virus transmission in treated communities.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

1. UK: Research Ethics Committee of the Liverpool School of Tropical Medicine approved on the 2nd February 2006 (ref: 06/12)
2. Thailand: Ethics Committee of the Faculty of Tropical Medicine, Mahidol University, Bangkok, approved on the 1st December 2006 (ref: MUTM 2006-056)

**Study design**

Cluster randomised controlled trial

**Primary study design**

Interventional

**Secondary study design**

Randomised controlled trial

**Study setting(s)**

Other

**Study type(s)**

Prevention

**Participant information sheet**

Not available in web format, please use the contact details below to request a patient information sheet

**Health condition(s) or problem(s) studied**

Dengue (including Dengue Haemorrhagic Fever [DHF] and Dengue Shock Syndrome [DSS])

**Interventions**

Curtains made from deltamethrin-coated polyester netting (Long Lasting Impregnated netting; PermaNet® Vestergaard-Frandsen, Lausanne, Switzerland), hung in outer windows regardless of the presence or absence of other window coverings (World Health Organization Pesticide Evaluation Scheme [WHOPES], approved material for indoor use).

Control households received no treatment.

Following introduction of Insecticide-Treated Materials (ITMs), the total duration of both intervention and follow-up was 12 months.

**Intervention Type**

Other

**Phase**

Not Applicable

**Primary outcome measure**

Standard larval indices for the *Aedes aegypti* mosquito:

1. Breteau index: number of containers with immature stages per 100 houses
2. House index: number of houses containing immature stages per 100 houses
3. Container index: number of containers with immature stages per 100 containers with water
4. Pupal surveys were also undertaken to calculate the number of pupae per person index (number of pupae collected/human population in a sector)

Follow up surveys were made to all houses at 3, 6, 9 and 12 months post-intervention. Analyses to measure impact of the intervention on dengue vector populations will be undertaken according to intention to treat and per protocol (based on coverage levels recorded in follow-up surveys).

**Secondary outcome measures**

Interviews used to determine:

1. Household characteristics
2. Previous vector control intervention
3. Better understanding of the local population's knowledge, attitudes and practice about previous methods of dengue prevention and control, and about ITMs for the same purpose
4. Insecticide-susceptibility assays undertaken before and after intervention

Each house was also georeferenced with a handheld global positioning system receiver to permit subsequent overspill effects between adjacent treated and control clusters to be quantified.

**Overall study start date**

01/03/2008

**Completion date**

30/04/2009

**Eligibility****Key inclusion criteria**

All occupied households

**Participant type(s)**

Patient

**Age group**

Other

**Sex**

Both

**Target number of participants**

2000 households

**Total final enrolment**

2037

**Key exclusion criteria**

1. Business-only premises
2. Multi-storey buildings

**Date of first enrolment**

01/03/2008

**Date of final enrolment**

30/04/2009

## **Locations**

**Countries of recruitment**

England

Thailand

United Kingdom

**Study participating centre**

**Liverpool School of Tropical Medicine**

Liverpool

United Kingdom

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## **Sponsor information**

**Organisation**

Liverpool School of Tropical Medicine (UK)

**Sponsor details**

Pembroke Place  
Liverpool  
United Kingdom  
L19 0NB

**Sponsor type**

Research organisation

**Website**

<http://www.lstmliverpool.ac.uk/index.htm>

**ROR**

<https://ror.org/03svjbs84>

## Funder(s)

**Funder type**

Government

**Funder Name**

European Union (EU) (Belgium) - Sixth Framework Programme (FP6): INCO-DEV-2 (ref: PL 517708)

## Results and Publications

**Publication and dissemination plan**

Not provided at time of registration

**Intention to publish date****Individual participant data (IPD) sharing plan****IPD sharing plan summary**

Not provided at time of registration

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	01/02/2013	19/02/2020	Yes	No