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Screening-homes to prevent malaria

Submission date	Recruitment status	[_] Prospectively registered
27/06/2006	No longer recruiting	[_] Protocol
Registration date	**Overall study status**	[_] Statistical analysis plan
31/08/2006	Completed	[X] Results
Last Edited	**Condition category**	[_] Individual participant data
25/09/2009	Infections and Infestations	

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
G0400031

Study information

Scientific Title

Study objectives
A randomised-controlled trial will be conducted in Farafenni town in The Gambia to assess whether screening windows, doors and eaves or installing netting ceilings to local houses can

substantially reduce exposure to malaria vectors compared to homes with no screening. Risk of malaria transmission will be assessed in each house by routine collections of mosquitoes using light traps and identifying which of the vectors are carrying malaria parasites. The acceptability of the interventions will be assessed through focus groups and questionnaires. Experimental huts will be used to determine whether any additional benefit can be achieved by impregnating torn screens with insecticide.

Therefore, the aims of this study are to:
1. Determine whether house screening will reduce house-entry by malaria mosquitoes by 50% in Gambian homes
2. Assess whether the protection differs in the two types of screening by more than 17%
3. Determine whether house screening will reduce severe anaemia by 50% in children sleeping in these homes
4. Find out whether these interventions are comfortable, durable and acceptable to local communities
5. Assess whether insecticide-treatment of the screens prolong protection if the screens are torn

Ethics approval required
Old ethics approval format

Ethics approval(s)
House screening intervention reviewed and approved by Gambian Government and Medical Research Council Laboratories Joint Ethics Committee (30/10/2004) and Durham University Ethics Advisory Committee (18/05/2005).
The anaemia prevalence study was reviewed and approved by the same committees on 10/02 /2006 and 27/03/2006 respectively.

Study design
Randomised controlled trial

Primary study design
Interventional

Study type(s)
Prevention

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

Interventions
This is a three-armed trial comprising of two screening interventions (full screening of 200 homes and netting ceilings of 200 homes) and a control group without screening of 100 homes.

Intervention Type
Other

Phase
Not Specified

Primary outcome(s)

1. Number of female mosquitoes (Anopheles gambiae) s.l./light trap/night
2. Haemoglobin density (g/dl)

Key secondary outcome(s))
Added as of 22/02/2007:
1. Prevalence of severe anaemia (defined as haemoglobin less than or equal to 8 g/dL)
2. Proportion of children with maleria parasites (Plasmodium falciparum prevalence)
3. Prevalence of high parasitemia (defined as equal to or greater than 5000 parasites/ul
4. Sporozoite rate estimations in trapped mosquitoes
5. Estimated entomological inoculation rate (EIR) i.e. mean number of sporozoite infective mosquitoes/house/season
6. Acceptability
7. Average indoor nightly temprature
8. Average rate of evaportaion indoors at night
9. Qualitative data from focus group discussions with household members
10. Proportion of residents willing to contimue use of intervention
11. Proportion of residents willing to invest in intervention installation
12. Durability
13. Number of screens showing damage at 6 and 12 months after installation
14. Other
15. Number of Culex quinquefasciatus /light trap/night

Completion date
31/10/2008

Eligibility

Key inclusion criteria
Homes in Farafenni town and surrounding peri-urban villages in which at least one child sleeps.

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Not Specified

Sex
All

Key exclusion criteria
Houses that are:
1. More than a single storey
2. More than four rooms or that have a ceiling, screening or closed eaves

Date of first enrolment
01/05/2005

Date of final enrolment
31/10/2008

Locations

Countries of recruitment
United Kingdom

England

Gambia

Study participating centre
School of Biological and Biomedical Sciences
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Sponsor information

Organisation
Medical Research Council Laboratories (The Gambia)

ROR
https://ror.org/025wfj672

Funder(s)

Funder type
Research council

Funder Name
Medical Research Council (MRC) (UK)

Alternative Name(s)
Medical Research Council (United Kingdom), UK Medical Research Council, Medical Research Committee and Advisory Council, MRC

Funding Body Type
Government organisation

Funding Body Subtype

National government

Location
United Kingdom

Results and Publications

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?
Results article	results	19/09/2009		Yes	No