ISRCTN11717387 https://doi.org/10.1186/ISRCTN11717387

Does a free trial approach increase purchase and use of the water purification product Klorfasil in rural Haiti?

Submission date
19/04/2018

Recruitment status
No longer recruiting

Registration date
26/04/2018

Overall study status
Completed

Last Edited
13/08/2021

Condition category
Infections and Infestations

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
Access to clean water plays a vital role in preventing diarrheal diseases, especially in rural settings in developing countries. Because piped water may not be possible in these areas for many years, water purification products have been developed and tested in order to provide people with access to clean drinking water. Water purification products have been proven to be one of the most cost-effective methods to provide access to clean water. However, purchase and usage rates of these water purification products are much lower than expected. Water purification products have been distributed freely or sold at a highly subsidized price and each approach has its advantages and disadvantages. As a result, various social marketing approaches are being explored in order to increase purchase and usage rates of water purification products. This study aims to investigate whether or not a free trial approach will increase the number of users who will purchase and use Klorfasil, a chlorine-based water purification product, in rural communities in Haiti. It is plausible that users need to experiment with the product before being convinced of its usefulness.

Who can participate?
Men and women ages 18 and above are able to participate in our study. Participants will be excluded if they have bought Klorfasil and/or use any other water purification product besides Aquatabs, a chlorine tablet often distributed by the government or other non-governmental organizations.

What does the study involve?
Participants are randomly allocated to one of two groups. All participants will be surveyed about their knowledge, attitudes, and water treatment practices. Afterwards, they are given a brief information session about the benefits of using Klorfasil to make their water safe to drink. One group will be offered to try out Klorfasil for free for 1 month before deciding whether to purchase Klorfasil while the other group will not get the free trial. We randomly assigned which villages will receive a free trial of Klorfasil in order to prevent information leakage. Participants who purchased Klorfasil will be followed up 30, 60, and 180 days after their initial purchase to assess their experience using Klorfasil.

What are the possible benefits and risks of participating?
There are immediate and long-term benefits for the participants in that they all receive information about the importance of water purification and some participants will be able to purify their water for free for a month. The results of this study may be able to inform policy makers, researchers, and program managers of the strengths and weaknesses of using such a free-trial approach to increase purchase and usage rates of water purification products in resource-limited rural settings. There are no known risks to participate. The chemical compound in Klorfasil, sodium dichloroisocyanurate (NaDCC), is recognized by the World Health Organization as a safe and effective means of reducing diarrheal diseases. All participants are given an opportunity to purchase Klorfasil.

Where is the study run from?
This study is being run by Taipei Medical University with the assistance of Medical Missionaries, a local non-governmental organization. The study takes place among households living in 7 villages surrounding St. Joseph's Clinic in Thomassique, Haiti. The villages are approximately 90 minutes from the clinic by motorcycle.

When is the study starting and how long is it expected to run for?
May 2016 to December 2016

How long will the trial be recruiting participants for and who is funding the study?
This study was funded by Taipei Medical University. The recruiting process will take 1 month. The participants who purchased Klorfasil will be followed afterwards for 180 days.

Who is the main contact?
Prof. Feng-Jen Tsai, jeanfjtsai@tmu.edu.tw

Contact information

Type(s)
Scientific

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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
N201603084

Study information

Scientific Title
Does a free-trial approach increase purchase and use of a water purification product in rural Haiti? A cluster randomized control trial.

Study objectives
A free trial approach would increase purchase of Klorfasil and that users in the free-trial group would have better water treatment outcomes than the control group

Ethics approval required
Old ethics approval format

Ethics approval(s)
Taipei Medical University Joint Institutional Review Board, 20/04/2016, TMU IJIRB No. N201603084

Study design
Single-blinded cluster randomized control trial

Primary study design
Interventional

Secondary study design
Cluster randomised trial

Study setting(s)
Home

Study type(s)
Prevention

Participant information sheet
See additional files

Health condition(s) or problem(s) studied
Water purification using chlorination to prevent diarrhea

Interventions
We enrolled households from villages in Thomassique, Haiti, to evaluate purchase and water treatment outcomes over 6-months of follow-up. Clusters of households were randomized to free trial (intervention) or cost-sharing group (control). Households were surveyed and informed of the importance of treating their water and then offered to purchase Klorfasil. Households in the intervention group were given 30 days free use of Klorfasil before deciding to purchase. Households that purchased Klorfasil were followed up 30, 60, and 180 days after baseline survey.

Intervention Type

Other

Primary outcome measure
Decision to purchase Klorfasil at baseline and 180 days

Secondary outcome measures
Residual free chlorine (RFC) levels of stored drinking water at baseline and 30, 60, and 180 days after baseline. Water with RFC levels of 0.5 mg/l and above is deemed "treated" while water with RFC<0.5 mg/l is deemed "untreated"

Overall study start date
01/06/2015

Completion date
31/05/2017

Eligibility

Key inclusion criteria
1. Aged 18 years and over
2. Never used Klorfasil or another household water treatment product before (with the exception of Aquatabs)

Participant type(s)
Healthy volunteer

Age group
Adult

Lower age limit
18 Years

Sex
Both

Target number of participants
497 households in 7 clusters

Total final enrolment
497

Key exclusion criteria
1. Under the age of 18 years
2. Used Klorfasil or another water purification product before

Date of first enrolment
01/05/2016

Date of final enrolment
01/11/2016

Locations

Countries of recruitment
Haiti

Study participating centre
Saint Joseph Clinic
Thomassique
Haiti
5420

Sponsor information

Organisation
Taipei Medical University

Sponsor details
250 Wu-Hsing Street, Taipei City, 110, TAIWAN
Taipei
Taiwan
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Sponsor type
University/education

ROR
https://ror.org/05031qk94

Funder(s)

Funder type
Not defined

Funder Name
investigator initiated and funded

Results and Publications

Publication and dissemination plan

We plan to publish the result on SCI/SSCI journal in 2018.

Intention to publish date
31/12/2018

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study are available upon request.

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet		26/04/2018	02/04/2019	No	Yes
Results article		01/03/2020	13/08/2021	Yes	No