Incidence and risk factors for infectious diseases in long-term travelers: a prospective study.

Published: 18-08-2008
Last updated: 07-05-2024

What is the attack rate of symptomatic and asymptomatic (tropical) diseases in long-term travelers.Which behavioral risk factors are of influence on the attack rates? (compliance with preventive measures, other risk behaviour)Are certain groups of...

Ethical review	Approved WMO
Status	Pending
Health condition type	Viral infectious disorders
Study type	Observational invasive

Summary

ID

NL-OMON31962

Source
ToetsingOnline

Brief title
Incidence and riskfactors for infectious diseases in long-term travelers.

Condition

- Viral infectious disorders

Synonym
travel related infectious diseases

Research involving
Human

Sponsors and support

Primary sponsor: GGD Amsterdam
Source(s) of monetary or material Support: ZonMw

Intervention

Keyword: behavioral risk, infections, long-term travelers

Outcome measures

Primary outcome

The results of this study will give insight in the attack rate of infectious diseases in long-term travellers. In 2006-2007 the MHS Amsterdam conducted a similar study among short-term travellers. The results of both studies will be compared and analysed in order to find differences in attack rate of disease between long-term and short-term travellers, and to relate these to several risk factors.

In the Netherlands, the results will be implemented in the National guidelines for travellers health advice, as developed by the National Coordination Center for Travellers' Health Advice. The results will also be published internationally as also in other countries there is a need for evidence based guidelines for travellers' health advice.

Secondary outcome

The results of the study will also be used to develop post-travel screening policies: is post travel screening necessary, which type of long-term traveller should be screened, and for what infections.

Study description

Background summary

Guidelines for travellers' vaccinations, malaria prevention, and other (behavioural) health advices are based on a combination of theoretical risks,

prevalence of symptomatic disease in returned travellers, and surveillance data of notifiable diseases. These data mainly give insight in the prevalence of symptomatic infectious diseases in short-term travelers. From previous prospective studies conducted by the MHS Amsterdam in 1991/1992 among 600 short-term travellers, we know that the overall attack rate of diarrhoea was 52%. Certain groups of travellers were at significant higher risk of diarrhoea e.g., travellers to the Middle East and the Indian subcontinent, those with no history of previous long-term travel, with history of gastro-intestinal treatment, and self arranged travel (as opposed to organised travel). The attack rate of a falciparum malaria infection was 1.1%, with a significantly higher rate in West Africa than in East Africa. For dengue the overall attack rate in short-term travellers visiting areas where dengue is endemic was 3.6%, with a significantly lower risk in those with a history of travel to tropical countries. It is likely that long-term travelers in general are at higher risk of infection. Risks increase with duration of stay. Infection rates in long term travellers, however, might be influenced by other risk factors: for malaria e.g., long-term travellers tend to be less compliant with preventive measures than short-term travellers. Backpackers might be at higher risk than expatriates who live in their own house. Long-term travellers may be involved in different activities that can be of influence on infection risks, such as sexual or other close contacts with local populations (hepatitis B, TB, syphilis, hiv). For some infectious diseases, on the other hand, risks might be smaller because long-term travellers are adviced vaccinations against more diseases than short-term travellers (e.g. rabies, hepatitis B, meningitis). In long-term travelers, data on symptomatic and asymptomatic infections are scarce because data on hospital admissions and diagnoses abroad are not routinely collected, and often unreliable. Available data are estimates based on seroprevalence studies in returning travellers and a few prosprective studies in some specific groups, such as Peace Corps Volunteers or United Nation groups, are available. The currently given advices on vaccinations, malaria prophylaxis and general preventive measures are mostly based on theoretical risks and extrapolations of risks in short-term travelers, but not evidence based. There may be large differences between certain groups of long-term travellers such as backpackers and expatriates. The results of this study will also be used to develop post-travel screening policies: is post travel screening necessary, which type of long term traveller should be screened, and for which infections?

Study objective

What is the attack rate of symptomatic and asymptomatic (tropical) diseases in long-term travelers.
Which behavioral risk factors are of influence on the attack rates? (compliance with preventive measures, other risk behaviour)
Are certain groups of long-term travellers at higher risk than others? (e.g. to certain destinations, expatriates, backpackers)
Are attack rates for the infectious diseases under study different between

long-term and short-term travellers?
Is there a need for post-travel screening and if so, for which infections?

Study design

Prospective observational mono-centre study among long-term travellers who plan to travel to (sub)tropical countries for more than 13 weeks and less than 52 weeks. These countries include all countries where Plasmodium falciparum malaria is endemic according to the World Health Organization guidelines for travellers (see annex 1 of the protocol).
At the travel clinic of the MHS, during 24 months, all travellers of 18 years and older, who speak english or dutch, who are born in a Western country, and who intend to travel to a (sub) tropical area for more than 13 weeks and less than 52 weeks, will be asked to participate.
All travellers are asked to keep a diary while abroad. All travellers will provide a blood sample at inclusion (before departure) and one after travel (within 6 weeks after return).
To determine the attack rate of infections they are tested for seroconversion for falciparum malaria, dengue fever, schistosomiasis, filariasis, strongoloidiasis, toxocariasis, hepatitis E, syphilis, hiv and TB.
After an estimated 24 months of inclusion, 12 months are needed for follow up. The fouth year is used to perform laboratory tests, analyse data end write the results.

Study burden and risks

The only risk for the participant is the drawing of a bloodsample, which can cause local pain, fainting, haematoma or a mild inflammatory reaction. All these possible side effects are expected to be mild and not long-lasting.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

18 years and older, english or dutch speaking, born and raised in a Western country, intending to travel for 13 to 52 weeks to a tropical area.

Exclusion criteria

younger than 18 years old, traveling less than 13 weeks. Not willing to know the results of the tests for hiv, TB and syphilis.

Study design

Design

Study type: Observational invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Other

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-09-2008

Enrollment:	600
Type:	Anticipated

Ethics review

Approved WMO Application type:	First submission
Review commission:	METC Amsterdam UMC

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL21618.018.08