

TRAVEL MEDICINE ASSIGNMENT TM5512

TITLE: Review of TROPIMED travel medicine software

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CONFLICT OF INTEREST - *The sources of support for this assignment have been from James Cook University, specifically Prof. Peter Leggat and the TROPIMED software Company who provided me with a trial version of the software to review. There are no business relationships between me and these parties. Tropimed have reviewed the assessment for accuracy – I have quoted their remarks at various points in the assessment.*

REVIEW

Purpose/Objectives: To provide practical information to the prospective client looking for a suitable travel medicine software package to assist their work in a travel clinic setting.

Background

There are over 230 generic infectious diseases distributed in a seemingly haphazard fashion among 200 countries. There are new diseases, reemerging diseases, disappearing diseases, outbreaks and epidemics. They are the disease patterns of India, and those of Peru, both of which change continually from year to year. The infectious diseases of southern India in summer are different to those of northern India in spring. Behind these diseases lurk over 1000 pathogens, each having its own ecology, disease association and phenotype. At least 240 generic drugs and vaccines are currently available to combat these pathogens, distributed under 2500 proprietary names. Pharmacology, dosage, drug interactions, contraindications, and toxicities vary widely from agent to agent. The literature of infectious diseases is diffuse and largely outdated, textbooks and journals cannot follow the evolution of diseases, pathogens and drugs in real time – all this said to make a strong case for the use of electronic software web based travel medicine programs an increasingly useful tool for the doctor who is managing traveler health.

Travelling to tropical and subtropical destinations is common among European citizens. Many of them consult their general practitioners (GPs) for pre travel advice. Little is known about the knowledge, the sources of information and the needs of physicians. One

hundred and fifty Swiss and 150 German GPs giving travel advice were interviewed using pretested telephone interviews and questionnaires to assess their knowledge about travel advice to be given for 2 frequent holiday destinations (Kenya and Thailand), and to ask which information sources were available to them. Ninety six per cent and 89%, respectively, of GPs in 2 neighbouring areas of Switzerland and Germany gave travel advice to their clients. In telephone interviews, standard recommendations on malaria medication, as approved by the national travel advice committees, were stated by 45 and 25% of Swiss GPs, and 22 and 9% of German GPs for Kenya and Thailand. The figures for correct advice on vaccination requirements were 23 and 47% for the Swiss GPs, and 2 and 25% for the German GPs. Half of the GPs wanted to consult their documents before giving advice. The main source of information used by Swiss GPs was the monthly updated *Bulletin of the Federal Office of Public Health (BFOPH)*. A variety of different sources was recorded among German practitioners. Regular, concise information on travel advice tops the list of requested information material in both countries. The extent of correct pre travel advice is unsatisfactory in both study groups. **Use of standardized, regularly updated and readily available sources of information on travel advice for the GP could avoid uncertainties of both the provider and the recipient of advice (2).**

I think it is clear that there is a strong need for up to date, easily accessible travel health information for medical practitioners, not only travel medicine clinics. There is a fairly large selection of software packages on the market to choose from. I have looked at TROPIMED for a number of reasons but mostly because they had such

an efficient response to my enquiry about trying out their package. A response which gave me confidence in their ability to update information, and manage changes such as NEWS alerts etc...efficiently and get these to the users in a timely fashion as well. The fact that the program offers German, French and English users access in their own languages is a huge bonus, and it is also cheaper than any others I looked at. Tropimed is provided in English, French and German language but the information provided is not the same. Sources and authors are not the same. Tropimed offers American recommendations (English), German recommendations (German) and Swiss recommendations (French and German).

Methodology: TROPIMED was accessed and utilized in a non clinical setting over a period of 3 weeks. TROPIMED single license costs US \$219 p.a., which is the cheapest of all the Travel Medicine packages I could get my hands onto.

I was very keen to try Exodus, and the International SOS options but the administrators could not get trial versions to me in a timely manner. TROPIMED were superb and had a trial access code available within 24 hrs.

Other software packages considered were:

International SOS Travel care	cost \$ 675 p.a.
no trial version available.	
Travax	cost \$ 675 p.a.
Exodus	cost \$ 1369 p.a.

When setting out to assess a travel software package one needs bare in mind that not all practices will be looking for the same elements. Some might want more emphasis on malaria if they deal with clients traveling into high malaria risk areas, others might be looking for more emphasis on software that facilitates clients making an appointment, and getting general health promotional information. I have looked at the broader picture and assessed the following aspects to be of importance in most travel clinic settings, I have then proceeded to assess these qualities of the software.

1. Source of information / reliable and authoritative up-to-date data is most desirable - Hatz et al.

conducted a study (2) amongst Swiss and German General Practitioners analyzing advice given to travelers and found that about 90% gave travel health advice in their practices. However only 11% of the Swiss and 1% of the German General Practitioners gave correct recommendations on malaria protection and vaccinations according to national standards- This TROPIMED software then is an ideal way to get around this with the latest updates made easily available. There is a strong argument in favour of use of such software if one is to manage travelers seeking health advise.

2. User friendliness of the software – Doctors and medical staff are often not that interested with getting to grips with intricate software bundles and are generally looking for something easy to use and food proof that requires little time spent on reading the manual.
3. Reliable customer support services
4. Hardware requirements – a basic PC with fast and reliable internet access is always desirable.
5. Information itself – updates (e-mail/web/CD/news letters/ brochures)
 - a. Prevention (Vaccines / Prophylaxis / information itself is updated by e –mail, web, CD, news letters/ malaria endemic maps / disease brochures)
«We make a big effort to maintain up-to-date all-inclusive information. For example, malaria/ disease endemic maps are continuously updated according to the last epidemiological data and infection cases» quote from Tropimed's D'Agostino Francesco.
 - b. Patient management (Patient records / diagnosis tools/ ..)
 - c. Follow up – post travel reminders to patients for checkup
 - d. Disease outbreaks and warnings
 - e. Security alerts
 - f. Latest news in regard to International Guidelines changes
6. Appointments – software which incorporates patient management as well is also useful. Some packages offer the patient an ability to make an

appointment at the clinic via the travel clinic website.

7. Accounting / Billing
8. Contacts
9. Extras

Explanation of the Travel Medicine Software Package

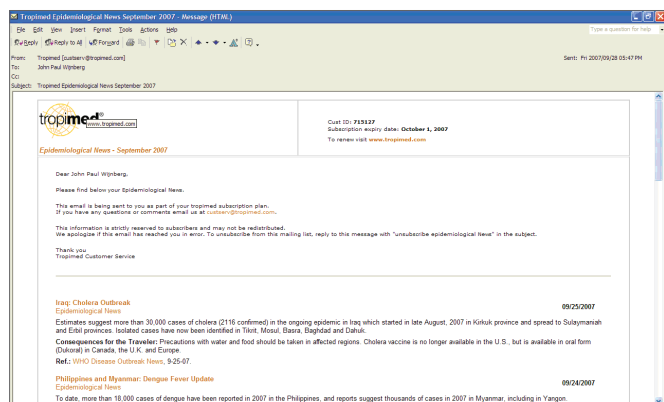
I try to take you through the program as you would if you were accessing the program via internet yourselves. You will be provided with an access code / password for week to use the program yourselves.

Comments on the product

In this section I comment on the product / what is good / what would be useful to change.

Conclusions

Tropimed News Updates come in form of an e-mail as and when there is news of significance e.g.



TROPIMED REVIEW

By Dr John Wijnberg

The program is accessed via the web, www.tropimed.com

System Requirements:

Online version

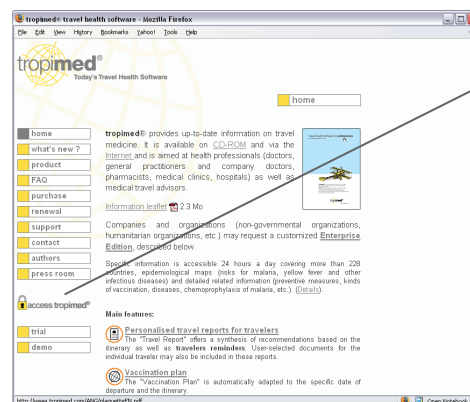
- For Web access and online updates: Internet connection

Windows® version

- Microsoft Windows® 95 or later
- 32 MB of RAM
- 80 MB of available hard-disk space
- CD-ROM drive

One also has an option of using a CD alone and operating without web access. CD-ROM updates are available twice per year. If any changes of consequence are made to the information between the 6-monthly CD-ROM deliveries, an update can be downloaded by Internet. This is clearly a second choice, as web access provides one with daily NEWS updates, which is key if one hopes to be able to provide the latest NEWS and guidance to patients. Comments from Tropimed – “In order to be exact: we provide rapid “fresh” news as it occurs, if clinically important, on daily basis. It does not mean that new additions are made daily. The goal is to eliminate multiple reports on a single topic and condense the News on that topic into one item, making what we put on the web site less repetitious”.

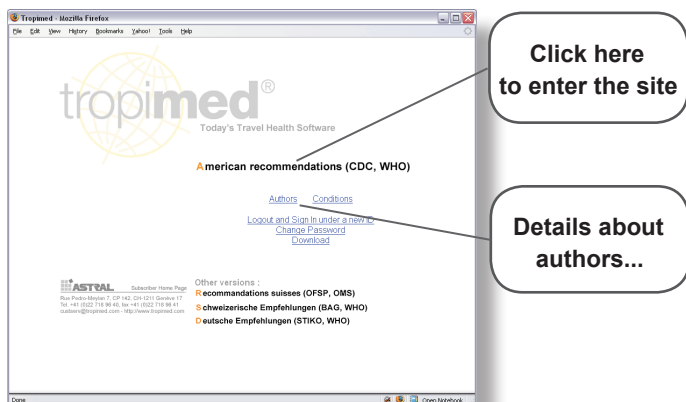
The PC requirements are straight forward, nothing too fancy is required, although a printer is needed to enable one to print off reports for patients, doctors travel letters and anything else that might be required.



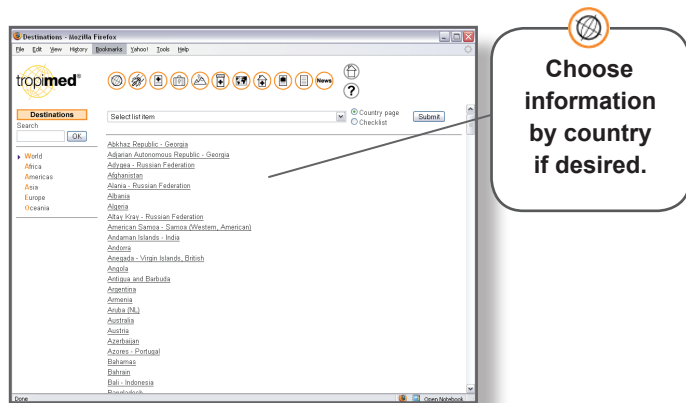
An annual access fee of \$219 is paid via secure website or post/fax. One then receives a password and user name and can access via the web address www.tropimed.com. One is offered the option of Swiss (French/German), German or American (English) recommendations.

Differences in advise between the different versions could not be assessed as I could not access all versions – I asked Tropimed for feedback on this, and I quote

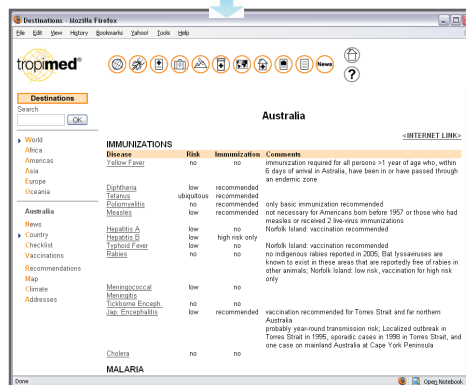
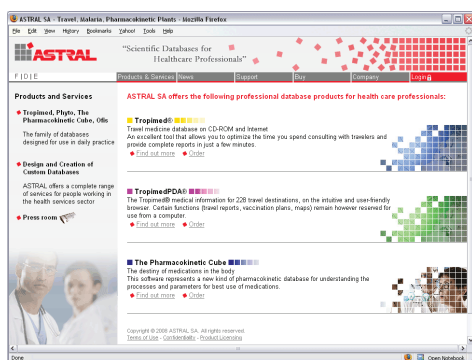
their response below.



...with details on vaccination requirements, diseases, additional risks, recommendations, maps, climate details, useful addresses, checklists, etc...as well as the very useful latest NEWS section.

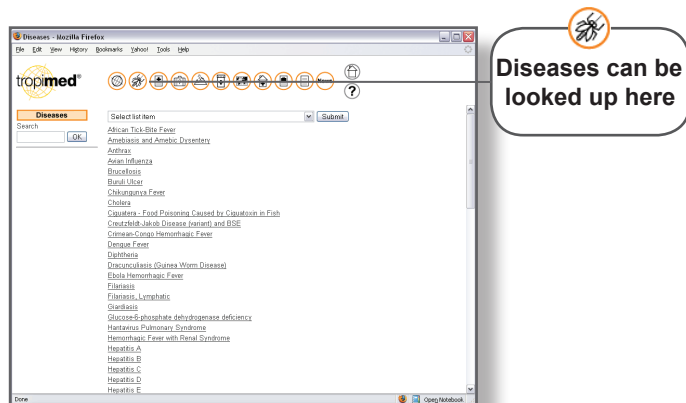
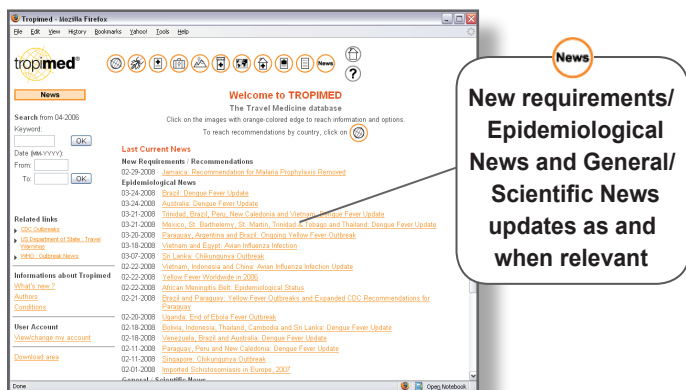


The first opening page then provides one with immediate information about authors, references and Astral are the folks that have put the program together and ensure that it stays updated and that clients get support, etc...



They appear very professional and replied to me with trail version access in less than 24 hrs.

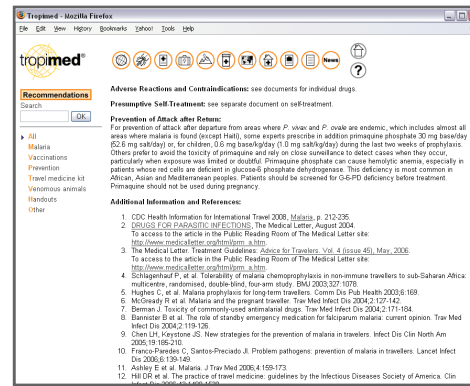
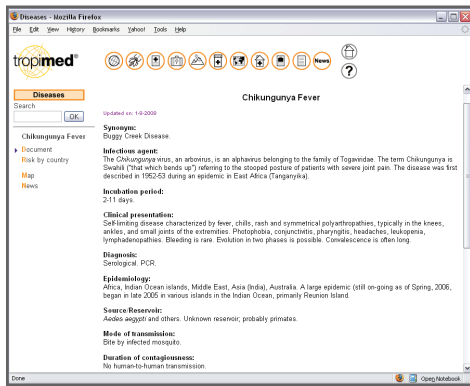
Once one enters the site one is first presented with a NEWS page



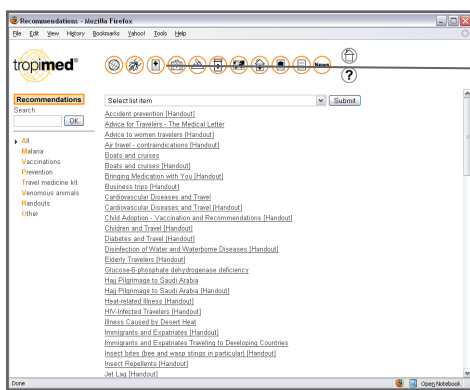
There are then detailed discussion of the various diseases, symptoms, signs, diagnosis and treatment advise...

One can then address any number of areas than one would like to these include special areas on Countries

References can be accessed for further reading and verification

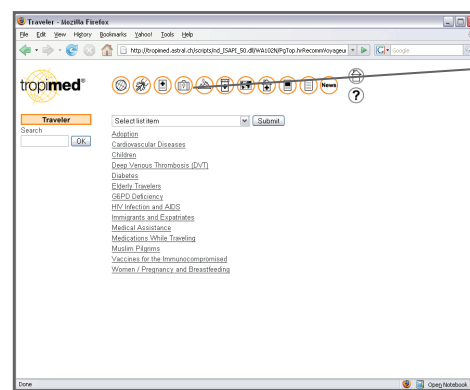


Recommendations regarding a number of potential hazards that the traveler might be exposed to, providing detailed advice and a list of references to refer to if one wishes to do so.



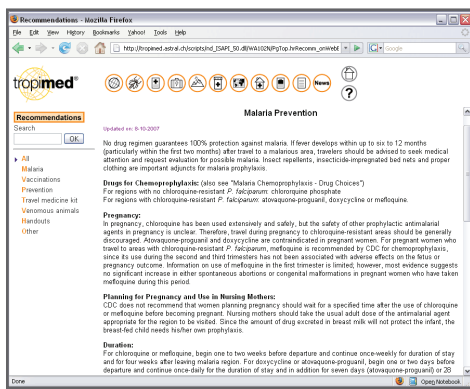
Recommendations can be looked up here

Traveler related risks allows one an opportunity to access specific information on a number of Travel related health topics e.g. DVT, etc...

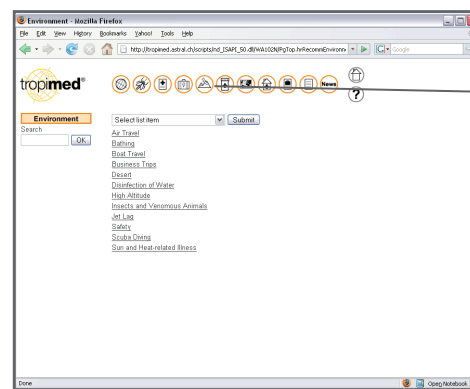


Traveler related risks can be looked up here

E.g. Malaria prevention – detailed and accurate prevention methods are described ...

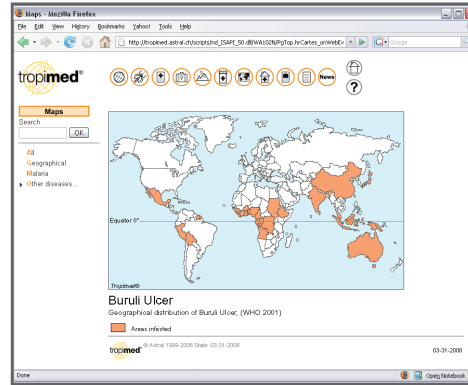
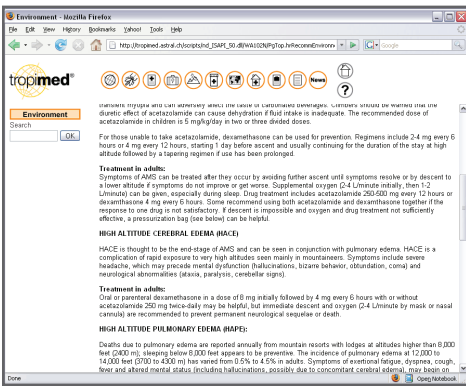


The next section deals specifically with special destinations and activities, and is named Environment.



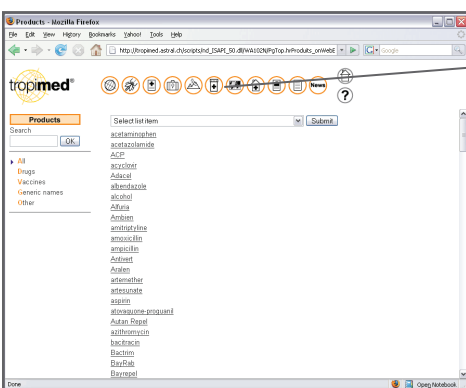
Environmental risks can be looked up here

For example high altitude adventures need specific information regarding Mountain Sickness etc....



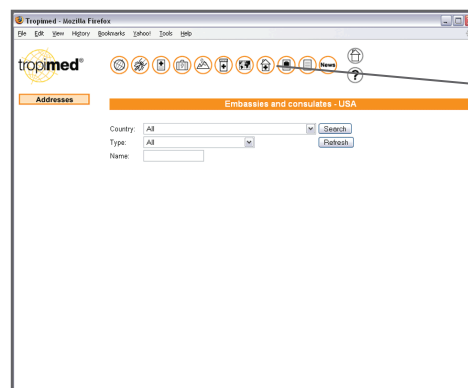
Above is an example of a map, showing the distribution of Buruli Ulcers around the world.

A section on PRODUCTS deals with a variety of products ranging from acetaminophen, DEET sprays, etc...



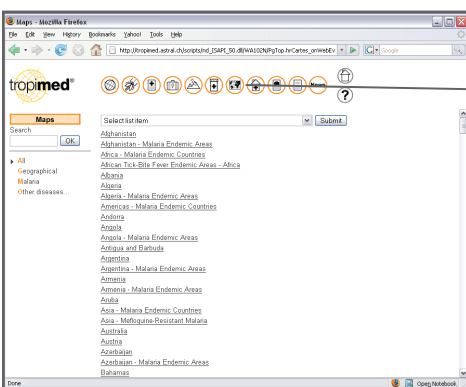
Products section can be looked up here

The following section provides useful contact addresses in each country – usually the US Embassy and not much more.



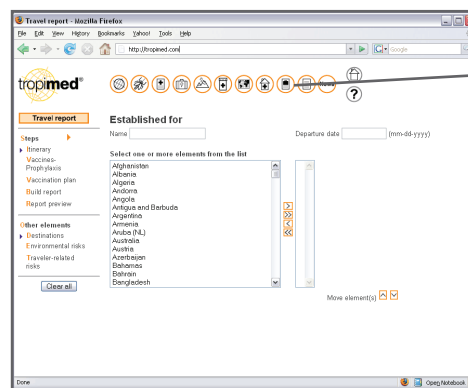
Addresses section can be looked up here

A section is available with MAPS of various countries, distribution of diseases according to their location in the world, etc...



Maps section can be looked up here

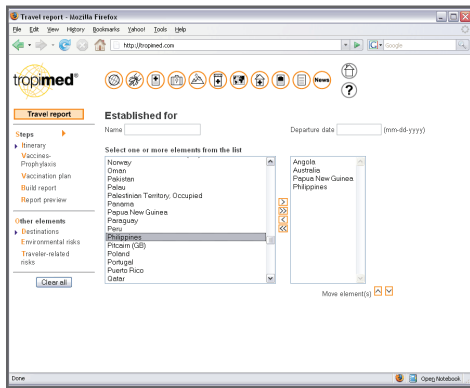
One can then build a travel report for a patient



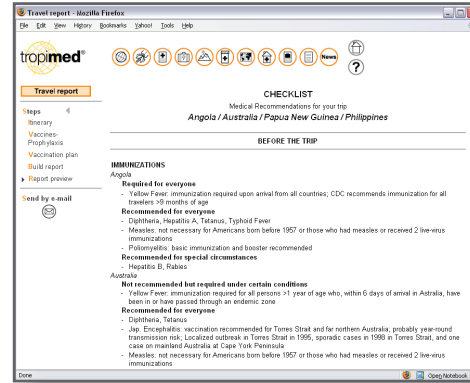
Click here to build the travel report

by inserting all the various destinations and choosing relevant topics to insert into the report

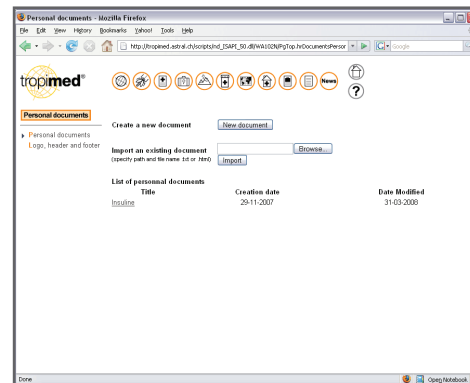
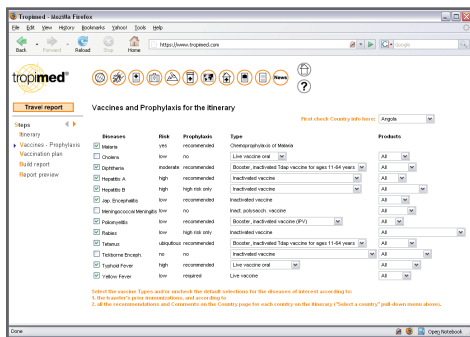
to take along with them



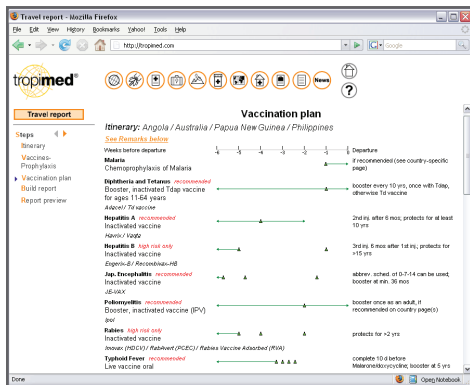
One creates a list of recommended vaccines



One can import documents and build up your own reference documents into the program as well.

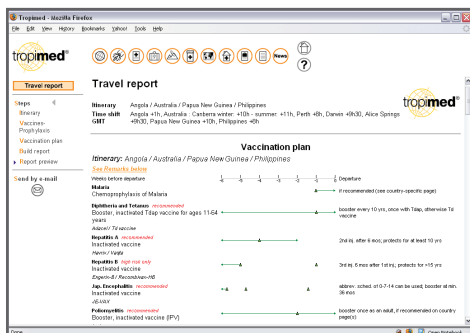
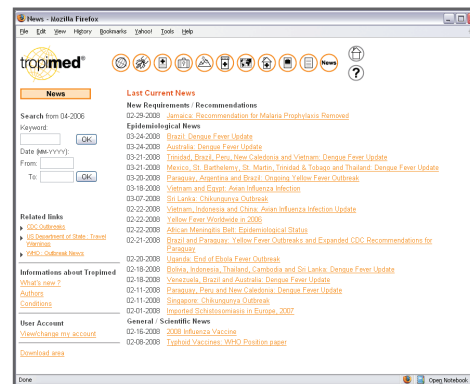


with a suggested time table for their administration



The daily NEWS update is excellent and provides one with the latest Health related travel news – divided into New requirements, Epidemiological news and General/Scientific news.

One can then email or print out the report to the client



the patient then has a detailed report to use as guidance

This gives one a fairly complete overview of the program and what it can do. It is an excellent source of up to date information, has an excellent support service and relies on authorities with clout (CDC, WHO, etc.)

for it's information.

There are several differences between each version of Tropimed – The American recommendations refer exclusively to the CDCs; Swiss and German recommendations refer especially to the WHO but also to the CDCs and the respective national authority.

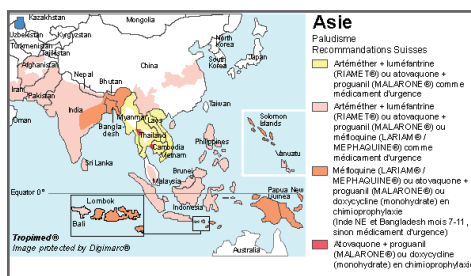
A major difference between «European» and American recommendations is that Europe is generally more cautious about the drug administration. They give more details and differences.

For example – The American recommendations advise malaria prophylaxis in more than 100 countries and they never advise for the presumptive self-treatment.

Swiss and German recommendations advise malaria prophylaxis in 58 countries and they often advise for a presumptive self-treatment (especially Asia or south-America).

In the maps below «Asia - Malaria Endemic Countries», you may see that

The «American map» shows only the regions of resistance in order to choose the drug for prophylaxis. The Swiss map indicates the drug of choice and the type of administration (yellow and pink for presumptive self-treatment, orange and red for prophylaxis). It also indicates that in Bangladesh the prophylaxis is required only from July to November.



1. Source of information / reliable and authoritative up-to-date data is most desirable -
2. User friendliness of the software – Tropimed is very user friendly and easy to use, much of the processes are simply point and click and proceed.
3. Reliable customer support services - Excellent telephone and e mail support.
4. Hardware requirements – basic PC with CD rom drive, but to get full advantage one needs internet access to use the web version and get the daily updates. CD is useful as well if one considers that internet access is not always that reliable and the backup of a hard copy CD can be very useful.
5. Information itself – updates (e-mail/web/CD/news letters/ brochures)
 - a. Prevention (Vaccines / Prophylaxis / Others) – The information on the CDC website was compared with that on the Tropimed website and the advise was identical.
 - b. Patient management (Patient records / diagnosis tools/ ..) Tropimed has a useful tool which enables one to create reports for patients with which to travel, these reports contain information about the various health hazards which could be encountered, how to avoid them, manage the diseases/problems should they occur / as well as vaccination schedules etc...this can all be e mailed directly to the patient from within Tropimed or printed and handed to the patient as a hard copy.
 - c. Follow up – post travel reminders to patients for checkup – – this is not available.
 - d. Disease outbreaks and warnings - Excellent facility.
 - e. Security alerts - Excellent facility.
 - f. Latest news in regard to International Guidelines changes - All updated as and when required.

6. Appointments – – no system available for patient management itself / no appointment facility.
7. Accounting / Billing – no facility for this either.

Tropimed is far from complete in terms of providing

everything a travel medicine program is looking for, but it would appear to be great value for money, with its main areas of strength being an excellent source for the doctor to up-to-date travel health advice, together with some limited report writing extras. These are additions which CDC and WHO references sites do not offer, and the value of which needs to be assessed by the end user.

It lacks patient management tools such as appointment/billing facilities, and does not provide enough detail with regard to useful contacts in all countries.

Perhaps it would also be useful to add in a section on Myths and Common misunderstanding to help travelers get a better understanding of correct procedures and facts. A study conducted by Rosa Teodosio et al (3) in Portugal concluded that travel medicine consultations increase the knowledge base of travelers but do not achieve 100% correct answers when questioned afterwards. Their results suggest that during a travel health consultation, critical information is assimilated about the prevention of malaria, but myths and misunderstandings that are held by travelers are not completely dispelled. I do believe that the fact that Tropimed clients can carry reports helps reinforce the facts and reduces the above issue.

I would like to combine this program with one like GIDEON which provides an excellent tool to assist in rapid and accurate diagnosis of illness when a traveler returns from their travels with some acquired medical complaint.

Conclusion: All in all I believe that Tropimed is an excellent value for money clinical tool to assist doctors who provide travel health advice, provide up to date advice, with individualized reports for clients to take away on their travels, and all from what would appear to be a reliable and credible sources.

References

1. Stephen A Berger, MD, *Inf Dis Clin Prac* 1998; 7:383-386 mberger@post.tau.ac.il
2. Christoph Hatz, Erik Krause, Hajo Grundmann

(1997)

Travel advice: a study among Swiss and German general practitioners

Tropical Medicine & International Health 2 (1), 6–12. doi:10.1046/j.1365-3156.1997.d01-130.x

3. Rosa Teodósio MD, PhD, Luzia Gonçalves PhD, Jorge Atouguia MDPhD, Emilio Imperatori MD, PhD (2006) Quality Assessment in a Travel Clinic: A Study of Travelers' Knowledge About Malaria. doi:10.1111/j.1708-8305.2006.00060.x