NEWSLETTER

Travel Medicine Society of Ireland

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BACK TO BASICS
THE PREGNANT & BREASTFEEDING TRAVELLER

Introduction

A Travel Medicine consultation involving a patient who is either pregnant or breastfeeding poses special challenges. Additional rules apply around both vaccines and anti-malarials. In addition, issues around safety of travel that would not apply to the non-pregnant traveller arise. In this, the fourth in a series of 'Back to Basics' articles aimed at addressing the foundation practice of Travel Medicine, Simon Collins examines the key issues to be borne in mind in the pregnant or breastfeeding traveller consultation.

Initial risk assessment

It may sound obvious, but it is worth reminding patients that pregnancy is a temporary state; it is usually preferable if travel to a developing country can be postponed until after pregnancy. If travel during pregnancy is unavoidable, the aims become those of:

(a) Steering the patient away from destinations that attract extra risk, as set out immediately below.
(b) Explaining the advantage of travel in the second trimester (less risk of complications) rather than the first or third.

Key issues to bear in mind for a pregnant traveller:

1. With 1st trimester travel, miscarriage risk needs to be borne in mind.
2. Travel to any destination requiring live vaccine (i.e. Yellow Fever) protection poses a problem, due to the usual (though not total) avoidance of YF vaccine use in pregnancy.
3. Travel to any destination where Chloroquine-resistant *falciparum* malaria is present carries a risk of the patient contracting malaria, even when prophylaxis is used. Malaria during pregnancy can be a catastrophic event.
4. Travel to developing countries which have no malaria risk and no Yellow Fever risk still leaves the problem of sub-optimal medical/surgical care in the event of an obstetric emergency.
5. With third trimester travel, late pregnancy complication risk (e.g. ante-partum haemorrhage) needs to be considered.
6. The importance of having Travel Health insurance and difficulty which can arise in obtaining it when the pregnancy is declared (as it must be – to do otherwise would surely invalidate the policy in the event of a pregnancy-related claim).

First trimester patients with holidays booked far in advance for a tropical destination have often not considered the risk of an 11th week miscarriage while abroad in a low-income setting. The prospect of an emergency ERPC in a low-income or middle-income

country medical setting carries risks that can include deficiencies in operator ability, anaesthetist skill, post-op care, medication availability and blood-borne virus acquisition.

Travel by air:

Flying is not contraindicated in most uncomplicated pregnancies. Although the cabin O2 is at a lower concentration relative to ground level, the foetus is relatively protected from this by the high affinity for oxygen of foetal haemoglobin. Support stockings later in pregnancy are well worth using as the mother is at a higher-than-average risk of thrombophlebitis due to the venous stasis effect of an enlarged uterus. Aisle seating with hourly mobilisation during a long flight are recommended for the same reason. Aspirin should not be used, due to the risk of adverse foetal effects.

The time limits up to which airlines will carry a pregnant passenger can be easily accessed by internet search. They vary by airline, as evidenced by the following examples:

Airline:	Single pregnancy:		Multiple pregnancy:
Aer Lingus	Ireland –UK route:	Routes outside Ireland-UK route:	
	>36 weeks 32 – 35 weeks: with 'Expectant Mothers Travel Advice Form' Up to 32 weeks: "with your doctor's written permission"	34 weeks or over 28 – 33 weeks: with 'Expectant Mothers Travel Advice Form' Up to 28 weeks: "with your doctor's written permission"	(Issue not addressed)

Airline:	Single pregnancy:	Multiple pregnancy:
British Airways	Beyond end 36th week (Doctor's letter from 28th week)	Beyond end 28th week
Emirates	After 36th week only on completion of form and acceptance by Emirates Medical Department (Doctor's letter from 29th week)	After 32nd week
Delta Airlines[1]	"Delta does not impose restrictions on flying for pregnant women"	

Vaccines:

As a rule of thumb, inactive vaccines can be used in pregnancy and breastfeeding. Live vaccines are usually not used in pregnancy, with Yellow Fever also not being used during breastfeeding. In practice, a more nuanced approach is used, with vaccines being divided into the categories described below. Many of the inactivated vaccines are not used unless disease risk is significant. On the one hand, one is trying to avoid administering medicinal products to a pregnant patient, lest a subsequent charge would be made about any birth defect and a vaccine administered during pregnancy. On the other hand, one is trying to protect both mother and foetus from the consequences of the mother contracting a significant illness during travel abroad. It is reassuring that evidence of adverse outcomes in the case of inadvertently administered vaccines to pregnant mothers is lacking.

A previous 'Back to Basics' article on disease risk calculation, which may be helpful when advising patients, can be found in Vol.13 Issue 2 newsletter.

Vaccines:

	Safe to use:	Can be given if risk of disease acquisition is substantial:	Avoid giving:
Pregnancy:	Influenza[2] Pertussis[3] Tetanus/Diphtheria Tetanus/Diphtheria/Polio Hep B	Hep A Typhoid injection Typhoid oral version[4] Hep A/Typhoid Hep A/B combined Meningitis ACYW-135 Cholera (oral – 'Dukoral') Rabies Mantoux Jap Encephalitis Pneumococcal (PPV 23) Tick Borne Enceph	Yellow Fever[5] MMR Varicella BCG
Breastfeeding:	Influenza Pertussis Tetanus/Diphtheria Hep A Typhoid injection Hep A/Typhoid Hep A/B combined Meningitis ACYW-135 Cholera (oral – 'Dukoral') Rabies Mantoux Jap Encephalitis Pneumococcal (PPV 23) Tick Borne Enceph MMR[6] Varicella[7] BCG[8]	Typhoid oral version	Yellow Fever[5]

Antimalarials

Pregnant women are advised to avoid travel to malarious areas.[9] Pregnant women are at an increased risk of developing severe malaria and of experiencing severe complications. Diagnosis can also be delayed due to parasite sequestration in the placenta.

Where travel is unavoidable, antimalarials may be considered as follows:

	Safe to use:	Avoid:
Pregnancy:	Chloroquine (all trimesters) Proguanil (all trimesters) Mefloquine[10]	Doxycycline[11] Atovaquone/Proguanil[12]
Breastfeeding:	Chloroquine Proguanil Mefloquine	Doxycycline[13] Atovaquone/Proguanil

Food/water precautions while abroad

Listeria, Toxoplasmosis and Hepatitis E all post additional risks in pregnancy. Hepatitis E is particularly linked to South Asia (India/Nepal/Pakistan) and Africa; severe disease occurs in 1% of non-pregnant women, 2% of first trimester pregnancies and 20% - 30% of third trimester pregnancies.

Pregnancy planning:

It is prudent to wait one month after live vaccine administration before conceiving, although evidence of problems following inadvertent administration of MMR and Varicella vaccines is lacking.

For patients who plan to become pregnant following the use of a malaria prevention medication and who wish to have minimal amount of the medication present in their system at the time of conception, the following time periods are suggested as points at which the respective medications have been fully excreted[14] :

- Doxycycline: 1 week
- Atovaquone/Proguanil: 2 weeks
- Mefloquine: 3 months (although since it is classed as safe to use during pregnancy, this advice is surprising).

Insect repellent:
50% DEET is safe to use during pregnancy and an important defensive measure against the acquisition of Dengue Fever, particularly in South/South-East Asia.

Scuba:
Considered unsafe at any stage of pregnancy. This is due to concerns around effect on the foetus in the event of decompression sickness occurring in the mother.

Altitude:
Travel to altitudes above 3,000m is inadvisable.[15] On the other hand, travel to moderate altitudes for short periods is not associated with significant risks.

Conclusion
Travel during pregnancy and while breastfeeding can be undertaken but usually add a higher-than-average level of complexity to the Travel Medicine consultation. Where travel cannot be postponed, careful patient counselling and adherence to the rules surrounding vaccines and malaria prophylaxis will greatly simplify matters for the practitioner.

References:

[1]Delta website: http://www.delta.com/content/www/en_US/traveling-with-us/special-travel-needs/disabilities.html
[2] Specifically recommended to be done at any stage of pregnancy (Immunisation Guidelines for Ireland chapter 11 p.5 see http://www.immunisation.ie/en/Downloads/NIACGuidelines/PDFFile_17361_en.pdf
[3]Specifically recommended to be given at any time during pregnancy, ideally between the 27th and 36th week (Immunisation Guidelines for Ireland chapter 15 p.8 see http://www.immunisation.ie/en/Downloads/NIACGuidelines/PDFFile_17364_en.pdf
[4]UK Department of Health Green Book chp.33 p.416
[5]Can be given in very exceptional circumstances but only where risk of disease is unavoidable and high (International Travel and Health 2012 p.136 WHO).
[6]Immunisation Guidelines for Ireland chp.12 p.7
[7]Immunisation Guidelines for Ireland chp.17 p.183
[8]Immunisation Guidelines for Ireland chp.16 p.162
[9]Public Health England Guidelines for malaria prevention in travellers from the UK p.61
[10]Caution in 1st trimester, safer in second and third trimesters (Public Health England Guidelines for malaria prevention in travellers from the UK p.62)
[11]Although allowed in exceptional circumstances, as long as the course can be completed before 15 weeks gestation (source as per ref.10)
[12]In exceptional cases, may be considered in 2nd/3rd trimesters (source as per ref.10)
[13](Author's note: conflicting evidence between U.K. and U.S. bodies with U.K. advice going against its use).
[14]Public Health England Guidelines for malaria prevention in travellers from the UK p.63
[15]International Travel and Health 2012 p.6 (WHO).

Dr. Simon Collins

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or
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1st Announcement

5th Northern European Conference on Travel Medicine

June 5th - 8th 2014 Bergen, Norway

www.nectm.com

Dear friends and colleagues,

On behalf of NECTM the local organising committee is delighted to invite you to the 5th Northern European Conference on Travel Medicine in Bergen from June 5 – 8, 2014.

The four previous successful biennial conferences, in Edinburgh, Helsinki, Hamburg and Dublin have increasingly gathered delegates from all over Europe and overseas – leading to an expectation that roughly 1000 delegates will come to Bergen. Physicians, nurses, researchers, pharmacists and students in travel medicine and related specialties will find a programme aimed at mirroring travel medicine as a comprehensive discipline encompassing controversies and dilemmas, particularly included in a "Speakers corner", in free communications and in interactive Objective Structured Knowledge Exchange (OSKE) sessions – successfully introduced at NECTM in Dublin.

When NECTM returns to the Nordic region it presents an opportunity to address the problems of travelling in a cold climate. Since Norwegians engage extensively in industry travel worldwide facing threats and risks these aspects will be addressed in an own plenary. As travel medicine evolves it finds common ground with several other medical disciplines, one being global health that will be presented at NECTM for the first time.

Bergen commands the spectacular western edge of the Scandinavian Peninsula. The scenic set-up between the beautiful Hardangerfjord and the awe-inspiring Sognefjord is one of Bergen's biggest landmarks. Among several sites to visit is the architecturally unique Hanseatic Wharf ("Tyskebryggen"), a UNESCO World Heritage Site, where Hansa set up one of their four European offices back in the 13th century, and the famous Leprosy Museum (Hansen's Disease) at St. George's Hospital.

Delegates should also notice "Norway in a nutshell", the pré-conference tour into the Sognefjord and up the Flåm Valley back to Bergen on Wednesday June the 4th.

The conference venue is "Grieghallen", the famous concert hall situated in the city centre within walking distance from conference hotels.

We sincerely hope the 5th NECTM, the City of Bergen and the opportunities to visit surrounding fjords and mountains will give delegates a long lasting memory of extended value.

Yours sincerely,

Pål Voltersvik
Chair

Important Dates

1st Dec 2013	**Online registration opens**
15th Jan 2014	**2nd Announcement and call for papers**
15th Mar 2014	**Abstract submission**
4th June 2014	**Pre-conference tour "Norway in a nutshell"**
5th June 2014	**Conference registration and Opening Ceremony**




5th NECTM 2014
Northern European Conference on Travel Medicine

WHERE DO YOU GO TO.....SIMON COLLINS,

When did you first catch the travel bug?

I'm a late starter – I was nearly 31. I had completed GP training and been working as a partner in a rural practice in County Cavan for a few years. The chance to work with GOAL in Africa came up and I thought if I didn't try it out then, I'd never do it. I thought I was going away for a year. I ended up spending the majority of the next seven years in different parts of that continent.

What do you most like about travel?

Learning ten to twenty key phrases in the language of the country you're visiting and then, by being prepared to use them in shops, restaurants and taxis, getting to experience the local culture in a more profound way that a passing visitor might.

How extensively have you travelled?

Mostly central Africa, mostly for work reasons, initially with GOAL and later with Médecins sans Frontières. I avoided asking for specific postings and waited to see where I would be sent. I worked in South Sudan, then Democratic Republic of Congo, Republic of Congo-Brazzaville, Sudan (Darfur) and Central African Republic. Postings in those countries led to work-related trips or holidays to Chad, Eritrea, Kenya, Tanzania, Uganda, Rwanda, Zimbabwe and Madagascar.

Which country did you most enjoy visiting?

South Sudan. I worked in northern Bahr el Gazhal, a remote rural location, between 1999 and 2001. I was in a team of four aid workers. It was such a remote place that the only other foreigners we saw were the aircrew who came to re-supply us every two weeks. The civil war had been going since 1983 and the insecurity meant no trade or development, no roads in or out. The UN was using Hercules transport planes to air-drop food in bags from 1,000 feet to the local population. We were providing healthcare to Dinka tribespeople in huge need. Traditionally, they lived in mud huts. We lived in mud huts too. We were in the middle of huge swamp in the upper reaches of the Nile. The landscape was flat for hundreds of miles. I would wake to an incredible sunrise every morning and watched an amazing sunset every evening. I'll never forget the experience.

What was your favourite city to visit?

Asmara, the capital of Eritrea. It's a city with an amazing Art Deco architectural heritage, a legacy of the Italian colonial take-over in the 1930's. The city should have been flattened during wars on at least three occasions in the intervening decades but has survived untouched each time.

Are you an adventurous traveller?
Yes, if someone else has decided on the trip but not as often if it's left to myself.

Are there any aspects of travel which you don't enjoy?
Jet lag, the queue at airport security, and airport concourses (curiously in-between places, a modern type of limbo, where you're neither at home nor at the destination).

What can travel teach us about ourselves?

It reminds me how impatient we can be, especially about our own country. Everything here functions so well compared to most of the rest of the world.

Can you give us one useful travel tip?

Always pack wax earplugs and keep them in your daypack, where you can access them on long flights. They give a better chance of sleep in noisy hotels, suburban areas of Khartoum when the call to prayer blares from the multiple mosques at 5am and in downmarket areas of Brazzaville when the evangelical churches are broadcasting Gospel singing on outdoor P.A. systems all Sunday long.

Have you any interesting trips coming up?

With young children in my life now, the destinations are less risky for the foreseeable future. I should make it to Quebec City for the next International Society of Travel Medicine conference. When the kids reach the stage where they're ignoring me, I'll know I can recommence doing trips to far-away, hard-to-get-to places.

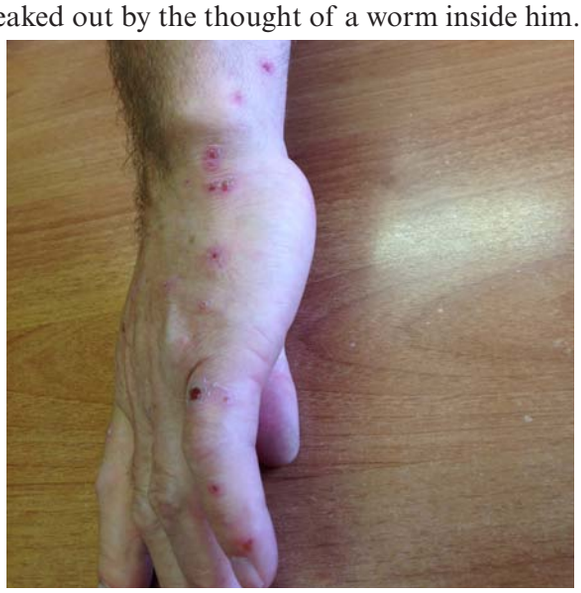
PHONE INQUIRIES IN A BUSY TRAVEL CENTRE

As the director of nursing in The Tropical Medical Bureau I am often asked to speak to patients who phone looking for medical advice and information. Some are ringing from here in Ireland after a trip away and some are ringing while still overseas, but they all have one thing in common: anxiety and fear. It is always nice to be in a position to help them.

Below are examples of a few such calls …..

A mother rang on behalf of her adult son who had been on holiday in Thailand. He had returned several weeks ago, and shortly after, attended his GP with a red itchy area on the outer edge of the palm of his hand. Treatment prescribed was Fucibet cream applied to the area three times a day, treating it as an infected mosquito bite. One day prior to the phone call he returned to the GP as there had been no improvement and now there appeared to be a worm trail spreading along the side of his hand! The GP did not know what it was and knew a referral to a dermatologist would take some time so he gave him a referral to the emergency department in a Dublin hospital. On arrival many medics had a look but nobody had a diagnosis. Not even with the benefit of an opinion from Google! Then a nurse contacted a friend who had experience working in the Congo. She advised contacting Dr Graham Fry in the Tropical Medical Bureau, so the phone call landed with me.

Thailand, skin and worm were enough to point fairly reliably to a diagnosis of a fairly common condition seen in patients returning from Thailand. With a clinic in progress I advised him to head straight into us. Within hours, mother and son had arrived, were seen, diagnosed and left with appropriate treatment. They had arrived very anxious after spending a night searching for a possible diagnosis on the internet; the patient confessed he genuinely considered taking a knife to cut the "worm "out of his hand! He was so freaked out by the thought of a worm inside him.



Have you guessed the diagnosis yet?

It was of course cutaneous larva migrans.

Cutaneous larva migrans is a roundworm, usually hookworm infection. The hosts are cats, dogs and other animals. Humans normally become infected with the hookworm larvae by walking barefoot on a beach, or by contact with soil that is contaminated with animal faeces. Infection occurs most commonly in tropical or subtropical areas. Increase in foreign travel means that it is becoming increasingly common to see cutaneous larva migrans in the Ireland.

In my experience it is more commonly seen on the soles of the feet or the buttocks from walking barefoot or sitting on the sand at the beach. After a careful history, the patient reported he had become separated from his friends one night and slept on the beach. This would have been an ideal opportunity to pick up the parasite on his hand. He was very relieved to hear a treatment with Albendazole would kill the parasite and the red tract was not a worm but the trail where the parasite had been.

Another phone call came from a young woman who has just returned from India. While there she was bitten by a dog. Prior to travel she had received a pre-exposure course of Rabies vaccine in our clinic and had been advised that if she was bitten by a warm blooded animal while in India she must wash out the wound (to remove any dirt and animal saliva) and attend a doctor for further treatment. The bite had occurred the day before she travelled home so she had not gotten any medical treatment. What should she do now? In this situation you must assume that the dog was infected with Rabies and she now needs to complete her post exposure immunisation with two further vaccines. This is a service available in any of our clinics or free of charge by appointment in Cherry Orchard Hospital in Dublin.

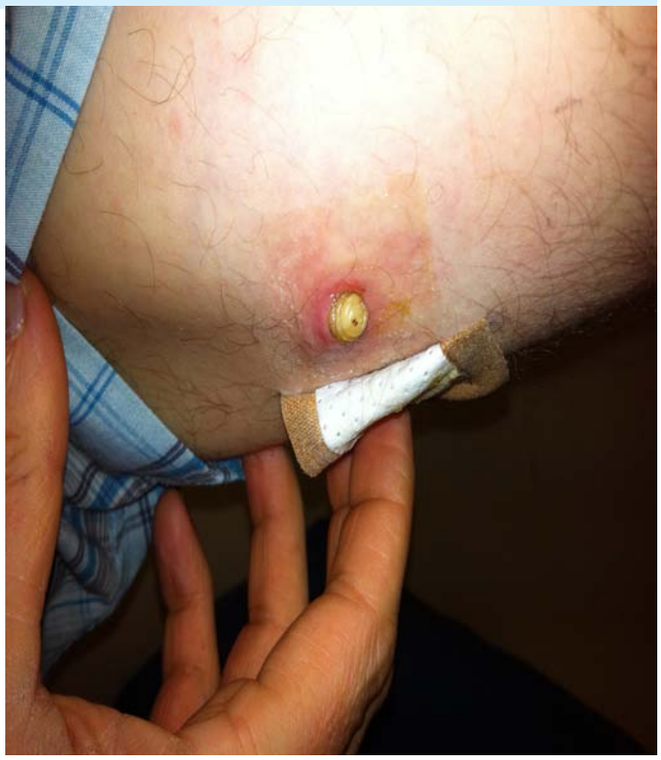
When a patient has completed a course of pre-exposure vaccine it is very important that the nurse or doctor ensures that the patient understands that they have a good level of circulating antibodies in their blood. These will act immediately to protect them if they are exposed to the virus by a bite, scratch or lick to broken skin from an infected animal, but they must get urgent medical attention to complete their vaccination protection. It is not good practice to be drawn into saying you have 48 or 72 hours to get to medical aid; this post exposure treatment should be sought immediately.

On another occasion I took a call from a male patient who had been home several weeks from Ghana. He had a red lump on his upper arm that was growing a

bit bigger each day. He had treated it with the Fucibet cream which we had prescribed before his trip but it had no effect. His wife was studying it closely when she told him she thought she could see something inside the lump. I advised him to cover it with a dressing and come in to be seen the following day. He arrived at the clinic and the larva of a Botfly was removed by exerting gentle pressure around the lesion using aseptic technique to encourage the larva out. This one was alive and moving! If care is not taken at this point the larva will be ruptured and this may lead to severe inflammation.

In many of the hotter regions of the world a fly can actually lay her eggs on damp clothing which has been left outside to dry. This usually happens when the clothes are drying in shaded areas but less so if they are left in the direct sunlight. The unsuspecting traveller may then put on his clothes when they dry and get an irritating skin infection known as Tissue Myiasis. Ironing prevents this by killing the eggs, so patients should be warned about the need to iron their clothes as part of their travel consultation.

Nr. Siobhan Grehan



Foundation and Diploma Courses in **Travel Medicine**

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS OF GLASGOW
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The Foundation Course in Travel Medicine is a **six month e-learning course** suitable for those working in the field of Travel Medicine.
The course includes:

- Introductory educational training session in Glasgow (*two days, attendance required)*
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Malaria

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- Module 3: a project chosen by the student
- A final written examination in Glasgow.
  Overseas students can opt to sit this examination in their own country by arrangement.

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For more information and applications, please contact:
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WHAT'S IN THE PAPERS? – A REVIEW OF THE RECENT LITERATURE IN TRAVEL MEDICINE

Health hazards and medical treatment of volunteers aged 18-30 years working in international social projects of non-governmental organizations (NGO)

Küpper T, Rieke B, Neppach K, Morrison A, Martin J

Travel Med Infect Dis. 2013 Nov 20. pii: S1477-8939(13)00190-7. doi: 10.1016/j.tmaid.2013.11.004. [Epub ahead of print]

The specific health risk profile and diversity of treatments sought by young volunteers participating in international social projects should differ from those of their older colleagues. In the absence of any data to identify whether this was correct, a retrospective analysis was performed using a standardised questionnaire. Questions included what diseases occurred, and details of the frequency and types of treatment sought during their stay - (e.g. self-treatment, medical/dental intervention, or local healer). The 153 participants were aged 18-30 years and worked in a non-governmental organisation for >6 months. The participants were: 53% female, mean age 20 years, and mean duration of stay was 11.2 months. Their NGO placement abroad was in Latin America 65.4%, 14.4% in Africa, and 9.8% in Asia. 83% of the young volunteers had received some advice regarding travel medicine before their departure. However, they suffered from more injuries compared to private travellers, and febrile infections were more common when compared to older studies. 21.2% suffered from dental problems and 50% of them sought medical treatment. This study highlights a previously unreported higher risk profile of specific health problems occurring in young NGO volunteers, including some potentially life-threatening diagnoses that differed from their older colleagues and normal travellers. It is recommended that young volunteers should receive age specific, comprehensive pre-departure training in health and safety, first aid, and management of common health problems. A medical check-up upon returning home should be mandatory. The provision of a basic first aid kit to each volunteer before departure is also recommended.

The efficacy of repellents against Aedes, Anopheles, Culex and Ixodes spp. - A literature review

Lupi E, Hatz C, Schlagenhauf P.

Travel Med Infect Dis. 2013 Nov-Dec;11(6):374-411.

Travellers are confronted with a variety of vector-borne threats. Is one type of repellent effective against all biting vectors? The aim of this review was to examine the literature, up to December 31st, 2012, regarding repellent efficacy. The authors searched PubMed for relevant papers. Repellents of interest were DEET, Icaridin as well as other piperidine-derived products (SS220), Insect Repellent (IR) 3535 (ethyl-butylacetyl-amino-propionat, EBAAP) and plant-derived products, including Citriodora (para-menthane-3,8-diol). As vectors, they considered the mosquito species Anopheles, Aedes and Culex as well as the tick species Ixodes. They selected only studies evaluating the protective efficacy of repellents on human skin.

A total of 102 publications were reviewed. Repellents were evaluated regarding complete protection time or as percentage efficacy [%] in a time interval. The authors found no standardised study for tick bite prevention. Regarding Aedes, DEET at concentration of 20% or more, showed the best efficacy providing up to 10 h protection. Citriodora repellency against this mosquito genus was lower compared to the other products. Also between subspecies a difference could be observed: Ae. aegypti proved more difficult to repel than Ae. albopictus. Fewer studies have been conducted on mosquito species Anopheles and Culex. The repellency profile against Anopheles species was similar for the four principal repellents of interest, providing on average 4-10 h of protection. Culex mosquitoes are easier to repel and all four repellents provided good protection. Few studies have been conducted on the tick species Ixodes. According to the results, the longest protection against Ixodes scapularis was provided by repellents containing IR3535, while DEET and commercial products containing Icaridin or PMD showed a better response than IR3535 against Ixodes ricinus. Many plant-based repellents provide only short duration protection. Adding vanillin 5% to plant-based repellents and to DEET repellents increased the protection by about 2 h.

Yellow fever vaccination: is one dose always enough?

Patel D, Simons H

Travel Med Infect Dis. 2013 Sep-Oct;11(5):266-73.

In March 2013, the World Health Organization (WHO) Strategic Advisory Group of Experts on Immunisation (SAGE) considered a number of issues in order to update the WHO Position Paper on Yellow Fever (2003). A key conclusion of this review was that a single dose of yellow fever (YF) vaccine appears to confer life-long protection against YF disease, and that a booster dose of YF vaccine is not needed to maintain immunity. While the efficacy of YF vaccine in the majority of vaccine recipients is not in doubt, the WHO announcement is somewhat surprising as there are some limitations in the evidence base, but more importantly, this announcement is not accompanied by any imminent change in the International Health Regulations 2005. The tension between what is considered best clinical practice and the law will be difficult to reconcile for many health professionals, travellers, and the travel industry, in an area of travel medicine that is already subject to debate and confusion. This commentary reviews the recent WHO announcement, and considers the practical implications for health professionals providing YF vaccine to international travellers.

Chikungunya and dengue autochthonous cases in Europe, 2007-2012

Tomasello D, Schlagenhauf P

Travel Med Infect Dis. 2013 Sep-Oct;11(5):274-84.

A large number of autochthonous cases of dengue fever (2237) and chikungunya fever (231) occurred in Europe (Italy, France, Croatia, Madeira) during the period covered by this analysis (2007-2012). In all dengue outbreaks, the circulating strain, identified by means of molecular analysis, was the DENV-1 strain. Dengue and chikungunya are infectious diseases that often result in hospitalisations and are associated with high public health costs. The dengue epidemic on the island of Madeira resulted in 122 hospitalisations. Only one death (from chikungunya) occurred but long-term sequelae were described after the chikungunya outbreak in Emilia-Romagna, Italy. Vector control is key to reducing the impact of these diseases. During the chikungunya outbreak in Italy and the dengue outbreak in Madeira, appropriate measures for the control of mosquitoes (Aedes aegypti and Aedes albopictus) were effectively implemented. The effectiveness of these measures (reducing the number of breeding sites, application of pesticides and insecticides, public health education) was shown in the context of these real-life outbreaks. All the pre-requisites for autochthonous transmission of both dengue virus and chikungunya virus (vectors, viraemic returned travellers, climatic conditions) are present in Europe. Constant surveillance is therefore imperative.

The Impact of Injection Anxiety on Education of Travellers About Common Travel Risks

Noble LM, Farquharson L, O'Dwyer NA, Behrens RH.

J Travel Med. 2013 Nov 19. doi: 10.1111/jtm.12081 [epub].

Despite many travelers receiving at least one vaccination during the pre-travel consultation, little is known about travellers' fear of injections and the impact this may have on educating travellers about health risks associated with their trip. This study aimed to investigate: (1) the prevalence of injection anxiety in travellers attending a pre-travel consultation, (2) whether anxiety due to anticipating a vaccination adversely affects recall of information and advice, and (3) whether clinicians can recognise travellers' anxiety, and how they respond to anxious travellers. Consecutive adult travellers (N = 105)

attending one of two inner-city travel clinics completed self-report measures of state anxiety, injection anxiety, and symptoms of needle phobia immediately before and after their pre-travel consultation. Clinicians were also asked to rate travellers' anxiety and report any anxiety management strategies. Standardised information was presented during the consultation and recall of information and advice was assessed immediately post-consultation. Delayed recall (24 hours) was assessed for a subsample (20%) of participants. More than one third of travellers reported feeling nervous or afraid when having an injection (39%). Travellers state anxiety was related to their psychological and physiological reactions to needles, and reduced significantly post-consultation. Recall of information and advice varied, with failure of recall ranging from 2 to 70% across 15 items, and delayed recall being significantly lower. No relationship was found between recall and anxiety. Clinician-rated anxiety moderately correlated with travellers' self-reported anxiety. A significant proportion of travellers experienced injection anxiety when attending the pre-travel consultation, with some travelers reporting symptoms consistent with criteria for Blood Injection Injury phobia. There were important gaps in recall of information and advice about common travel risks. Although no relationship was found between recall and anxiety, this may have been due to the sample and setting.

Acute Schistosomiasis in European students returning from fieldwork at Lake Tanganyika, Tanzania

Steiner F, Ignatius R, Friedrich-Jaenicke B, Dieckmann S, Harms G, Poppert S, Mockenhaupt FP.

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Schistosomiasis is common in many African regions and poses a risk for travellers and the local population. So far, schistosomiasis in travellers or expatriates returning from the Tanzanian bank of Lake Tanganyika has not been reported. The authors report a group of students who sought treatment with signs of acute schistosomiasis after having returned from Lake Tanganyika, Tanzania. Information as to travel and exposure as well as clinical and laboratory data were collected. Schistosomiasis was diagnosed in 8 of 16 students from Berlin, Germany, who had returned from a 2- to 3-month stay of fieldwork in Kigoma District at Lake Tanganyika, Tanzania. All 16 students reported frequent freshwater exposure at the lake. Six patients showed signs of acute schistosomiasis and had fever, and some of them also had cough, weakness, headache, or abdominal pain. Eosinophilia was present in five of the six symptomatic individuals. Notably, two serologically enzyme-linked immunosorbent assay (ELISA)-positive individuals did not report or present with symptoms or abnormal laboratory parameters. Schistosoma mansoni eggs were found in one symptomatic and one asymptomatic individual each. Blood and stool samples from the other eight individuals who were equally exposed to freshwater yielded negative results. This is the first report of an outbreak of acute schistosomiasis imported from the Tanzanian shore of Lake Tanganyika and highlights the risk for travellers and the local population of acquiring the infection in that part of Tanzania. It provides arguments for routine serological screening for schistosomiasis in individuals who had prior freshwater contact in endemic areas, irrespective of symptoms or other laboratory findings.

Dr. Gerard Flaherty

The Travel Medicine Society of Ireland
would like to congratulate
Dr. John Gibbons, President Elect T.M.S.I. and Dr. Astrid Weidenhammer, member T.M.S.I.
who recently passed and are now Members of the Faculty of Travel Medicine
of the Royal College of Physcians and Surgeons of Glasgow.

GLOBAL ROUND-UP

Dengue Fever: Nationally, as of 10 December 2013, 1964 cases of dengue fever have been reported in Panama. Herrera province has reported 137 cases and San Miguelito district of Panama province has reported 199 cases. *Source: ProMED*

As of 12 December 2013, 220 cases of dengue fever have been reported in Saint Lucia. *Source: ProMED*

As of 9 December 2013, 3095 cases of dengue fever have been reported on the island of Saint Martin, Netherland Antilles in the Caribbean.. *Source: ProMED*

As of 3 December 2013, the Federal District of Brazil has recorded 11 618 cases of dengue fever. Cases continue to be reported from other states of the country:

Litoral area of Sao Paulo state, 36 153 cases and 7 deaths. Belo Horizonte, Minas Gerais state, 96 397 confirmed cases. Para state, 16 868 cases; municipalities most affected include: (cases reported/cases confirmed): Santarem 2708/863 cases, Belem 1473/392 cases, Parauapebas 945/558 cases, (susp. only) Maraba 547 cases, Ananindeua 489 cases, (conf. only) Oriximina 382 cases, Ruropolis 292 cases. Mato Grosso state, 44 600 cases, municipalities most affected: Cuiaba 3593 cases, Rondonopolis 3217 cases, Sinop 8429 cases, Varzea Grande 787 cases. *Source: ProMED*

Pakistan: As of 13 December 2013, Sindh province has recorded 5430 cases with 33 deaths. Karachi is the municipality worst affected with more than 4700 cases. Punjab province has recorded 2589 cases and 26 deaths from dengue fever. *Source: ProMED*

Bubonic Plague: Madagascar: An outbreak of bubonic plague has been reported by the media in a village close to the northwestern town of Mandritsara in Madagascar. The health ministry has now recorded 84 cases and 42 deaths from plague since September 2013. The affected districts are quite remote and include: Ikongo in the southwest, Mandritsara in the north, Soanierana Ivongo in the northwest and Tsiroanomandidy in the central highlands. In 2012, Madagascar had 60 deaths from plague, the world's highest recorded number. Around 200 cases are reported annually in Madagascar, accouning for 45% of all cases of plague in Africa. *Source: ProMED*

Pneumonic Plague: 20 Dec 2013 - Peru. An outbreak of pneumonic plage has been reported from La Libertad region in northwestern Peru. Six confirmed cases including one death have been recorded. Of the confirmed cases, four were located in the province of Ascope. Laboratory results are awaited for six suspected cases. *Source: ProMED*

Measles: The Indonesian Health Ministry has issued a statement in response to a travel warning issued by the US Centers for Disease Control and Prevention (CDC) for Americans travelling to Indonesia on a possible measles outbreak. The Health Ministry has cooperated with the World Health Organization (WHO) and the CDC to monitor the spread of measles in Indonesia.

Health Ministry data shows that almost 100% of children across the archipelago have received measles vaccination up to 2013. The data also show that the number of deaths caused by measles has dropped by 87%, from 10 300 cases in 2000 to less than 2000 in 2012.

Following the report of measles in 5 Australian tourists returning from Bali in November 2013, an investigation was conducted in several community health centers in Bali, close to where the Australian tourists had stayed. The investigation found nothing remarkable with regard to measles cases; data showed no measles outbreaks recorded throughout September or October 2013. The investigation also showed that the Australian tourists had no contact with measles cases during their stay in Bali.

Although no cases of measles were found in the area, the local authorities have taken precautionary measures. The surveillance programme will continue, and Bali's health agency has been advised to take precautionary measures and report to the ministry should there be anything unusual in the area. *Source: ProMED*

Men B Vaccine now available.

The fight against Meningococcal meningitis has a new weapon. Novartis announced the availability of Bexsero a new Meningococcal type B vaccine. Neiseria menigitidis is a bacterium which causes septicaemia and meningitis with devastating effect. Five serotypes are known A,B,C,Y and W135. In Ireland two age cohorts are particularly at risk: early infancy and 15 to 19 year olds. Nasal carriage in Ireland is common and can be completely asymptomatic. Research is concentrating on why the bacteria can exist as a nasal commensally and what provokes the spread with devastating effects. Everyone by now is familiar with the illness, headache, fever, photophobia, neck stiffness and purpuric rash. Prior to the introduction of MenC national campaign in 2000, type B and C were responsible for 99% of Irish cases. Notifications of type C in Ireland has dropped to single figures between 2000 and 2012 and type B is now the pre-eminent strain. We continue to see serogroups W135 and Y, in Ireland, which are more usually associated with the meningitis belt of Sub-Sahara Africa. ACW135Y vaccines are in common use in the travel setting and I refer you to Simon Collins excellent review of the Haji in the previous newsletters (spring 2012 and autumn 2013). The new vaccine appears to confer immunity but fever is a common side effect. Co-administration of paracetamol reduces post vaccination pyrexia considerably. Bexsero is now available for infants and adolescents for purchase through distributors Alphar. We wait with interest to see how this vaccine will be integrated into the routine childhood vaccine schedule or its role in protection of travellers.

References:
www.bexsero.ie
Health protection surveillance Ireland on www.hpsc.ie

Appendix 1. IMD Cases by Serogroup & Year, Q1-4, 1999-2012

Serogroup	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Serogroup B	292	258	245	199	206	163	169	168	157	149	119	93	84	58
Serogroup C	135	139	35	14	5	5	5	4	2	4	5	4	2	0
Serogroup W135	4	3	3	6	3	1	3	1	2	2	2	1	1	0
Serogroup Y	2	4	1	2	2	2	3	4	0	1	4	0	1	2
Non-groupable (NG)	12	6	7	1	4	1	2	1	0	1	0	0	0	0
No organism detected	90	105	39	31	17	26	20	31	18	11	17	16	6	6
Total	**535**	**515**	**330**	**253**	**237**	**198**	**202**	**209**	**179**	**168**	**147**	**114**	**94**	**66**

Appendix 5. Deaths associated with IMD by Serogroup & Year, Q1-4, 1999-2012

Serogroup	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Serogroup B	12	13	8	8	11	7	5	5	6	6	6	4	2	1
Serogroup C	5	11	3	0	1	1	0	0	0	1	0	0	0	0
Serogroup W135	0	0	1	0	0	0	0	0	0	1	0	0	0	0
Serogroup Y	0	1	0	0	0	0	1	0	0	0	0	0	0	1
Non-groupable (NG)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No organism detected	0	0	0	0	0	2	0	0	1	0	0	1	0	0
Total	**17**	**25**	**12**	**8**	**12**	**10**	**6**	**5**	**7**	**8**	**6**	**5**	**2**	**2**

Dr. Conor Maguire.

Travel Medicine Conference Calendar

Travel Medicine Society of Ireland ***Date:*** 1st February 2014
Location: Ardilaun Hotel, Taylor's Hill, Galway
Time: 9:00 am – 1:00 pm
Contact: Anne Redmond, Tel: 045 890 127, E-mail: annehredmond@eircom.net

Tanzania - 6th Tropical Medicine Excursion - February 02 – 14, 2014 In collaboration with various teaching hospitals in Tanzania and Kay Schaefer (MD, PhD, MSc, DTM&H), Cologne, Germany. Two-week round-trip training course (800 km by road and 580 km by air) for healthcare professionals on clinical tropical medicine and travellers' health. Includes individual on-site bedside teaching, laboratory manuals (hands-on microscopy on parasites in the blood, stool, urine and skin), field excursions and lectures. Accreditation: 60 CME contact hours. Official language: English. Phone: +49-(0)-221-3404905 contact@tropmedex.com Website: www.tropmedex.com

Uganda - 19th Tropical Medicine Excursion - March 02 – 14, 2014 In collaboration with various teaching hospitals in Uganda and Kay Schaefer (MD, PhD, MSc, DTM&H), Cologne, Germany. Two-week round-trip training course (1400 km by road) for healthcare professionals on clinical tropical medicine and travellers'health. Includes individual on-site bedside teaching, laboratory manuals (hands-on microscopy on parasites in the blood, stool, urine and skin), field excursions and lectures. Accreditation: 60 CME contact hours. Official language: English. Phone: +49-(0)-221-3404905 contact@tropmedex.com Website: www.tropmedex.com

Travel Medicine Society of Ireland, A.G.M. & Lecture ***Date:*** 12 April 2014
Location: Stillorgan Park Hotel, Stillorgan, Co. Dublin
Time: 9:15 am – 1:00 pm
Contact: Anne Redmond, Tel: 045 890 127, E-mail: annehredmond@eircom.net

5th Northern European Conference of Travel Medicine ***Date:*** 5th - 8th June 2014
Location: Bergen, Norway
It is our great pleasure to invite you to attend the 5th Northern European Conference on Travel Medicine, to be held on June 5 – 8, 2014 in Bergen, Norway. We are sure this conference will provide a valuable opportunity to engage with experts as they present the latest information in the field of Travel Medicine. The target audience includes travel medicine practitioners, primary care physicians, infectious disease and tropical medicine specialists, researchers, nurses, pharmacists and students involved in this field. The conference will also meet the needs of the travel media and industry including manufacturers of travel health-related products, drugs and vaccines. Visit www.nectm.com for more information. More details in future newsletters.