



# emporiatics

News, views and reviews from the Faculty of Travel Medicine



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**Publish...  
and Prosper**

**To charge or  
not to charge...  
now there is  
no question!**

**Travel and  
sexual health**

**Travellers'  
diarrhoea**

**Community  
Pharmacy**

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Sandra Grieve

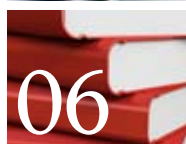


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# Change all round ...

A fresh look to *Emporiatics* heralds an overall rebranding of the Royal College of Physicians and Surgeons of Glasgow, alongside the revamped website and launch of the RCPSG app!

This issue marks two years for our newsy magazine and throughout this time Sandra Grieve's tireless work and enthusiasm have been central to its success. Sandra recently decided to make this edition her last, not least because of her demanding role as Chair of the Royal College of Nursing Public Health Forum. Leisure is rare these days, grandsons are growing and she needs to make more time. I understand but will miss her diligence and total professionalism. Heartfelt thanks, Sandra, for all you've done for the Faculty of Travel Medicine – and in advance for your continued participation in FTM life.

We've no particular theme this time, but rather a reminder of how diverse are our concerns as travel health specialists:

- Bernadette Carroll and Dr Ron Behrens on travellers' diarrhoea
- Dr Caroline Turner on sexual health – with a handy leaflet to photocopy for your travellers
- Clarification from myself on charging for travel vaccines in the UK
- Martin Brown on travel health in community pharmacy
- Fiona Marra on the school she helped set up in Ghana.

Eagle-eyed readers will notice our 'In Focus' section is missing this time. We intended to feature the new Director of the National Travel Health Network and Centre (NaTHNaC), but the appointment was announced too late for our production schedule. In the event NaTHNaC chose two people as joint directors so watch for a double whammy feature next time. Dr Vanessa Field and Dr Dipti Patel are both Fellows of the FTM and both trained on the Glasgow Travel Medicine Diploma course so this is extremely good news.

And finally, if you'd like a PDF version of *Emporiatics* to pass round your email network, it's available at [www.rcpsg.ac.uk](http://www.rcpsg.ac.uk) or email me directly. Do get involved in the Autumn/Winter edition - this is your magazine and it will only benefit from your input.

**Jane Chiodini**

## Our Sponsors



GSK is responsible for the printing and had no input into content of this newsletter. Sanofi Pasteur MSD have provided funding towards the production of this magazine.



# Advancing the science and practice of Travel Medicine.

## A letter from the Dean of the Faculty of Travel Medicine

Professor Peter Chiodini FTM RCPS(Glasg) issues a call for submissions to the faculties official Journal

### The Faculty attaches great importance to advancing the science and practice of Travel Medicine.

It was therefore with considerable pleasure that we linked with Elsevier and Travel Medicine and Infectious Disease (TMAID) became the Official Journal of the Faculty of Travel Medicine. As a sign of this collaboration, the Faculty is represented on the Editorial Board of TMAID and, in the modern equivalent of nailing one's colours to the mast, the RCPSG coat of arms appears on the front cover of the Journal. Here is the latest version which includes the updated College Crest.

Now comes the hard work we (i.e. you!) need to provide high-quality submissions for peer-review and hopefully publication in the Journal. Thus, I am highlighting the article on how to publish written from Elsevier's perspective by Fiona Macnab, Executive Publisher, which appears on page 5 of this issue.

Having published papers for three decades now I can tell you that her advice is spot on. I just wish it had been available to me in such succinct form all those years ago. So get writing, especially those just starting out. Advances in travel medicine depend upon your doing so.

As a reminder to all Fellows, Members and Associates, you have online subscription to TMAID as part of your membership package. This also applies to those Affiliates who opted in to pay for this access. However, you do need to ensure that you activate your subscription. If you haven't done so yet, please follow the instructions provided on this page.

We are now in a busy meetings season so I look forward to seeing you in College or at NECTM4.

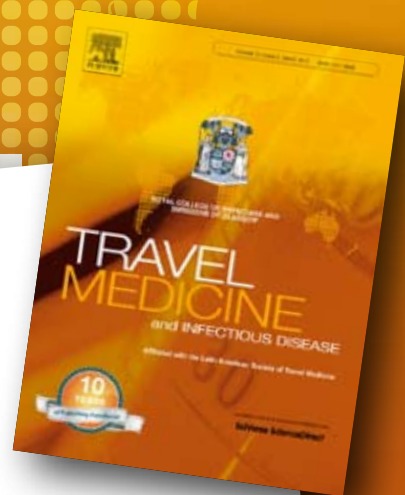
With all good wishes  
**Peter**

### ACTIVATE your online access to Travel Medicine and Infectious Disease.

- Go to <http://www.travelmedicinejournal.com/>
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- If you have already registered with Elsevier (for this Journal or another):
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  - Next, check Royal College of Physicians and Surgeons (RCPS)
  - Enter your FTM membership number <<number>> and your last name in CAPITAL LETTERS.
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You should now have access to the full-text content in the TMAID.

If you have any online access problems, please contact [EMEAsocieties@elsevier.com](mailto:EMEAsocieties@elsevier.com). For your convenience, we suggest signing up to get the Electronic Table of Contents (e-TOC).



## Mad monkeys

Since 2008 over 100 people have died of rabies in Bali, with confirmed cases in both dogs and humans near tourist areas. The outbreak continues despite strenuous efforts to control rabies in dogs, but now monkeys have taken the lead as the source of infection, according to a report based on travellers from Indonesia presenting to GeoSentinel clinics for rabies post-exposure prophylaxis (PEP). Monkey bites are common in the Monkey Forest in Ubud and other temples, but human rabies immune globulin (HRIG) is not available in Bali and travellers must seek PEP in other countries. More at: [www.istm.org/Documents/GeoS\\_MonkeyBiteRabiesPEPRise.pdf](http://www.istm.org/Documents/GeoS_MonkeyBiteRabiesPEPRise.pdf)



## Mozzies bite chooks

Watch out for mosquito-borne diseases in travellers returning with a febrile illness from New South Wales in Australia. Heavy rainfall towards the end of 2011 led to increased mosquito breeding, and Murray Valley encephalitis and other mosquito-borne diseases have been detected in chickens in some areas, heralding a warning for human infection. [www.health.nsw.gov.au/news/2011/20111229\\_00.html](http://www.health.nsw.gov.au/news/2011/20111229_00.html)

## Malaria in Europe

Following malaria cases in Greece, an expert working group convened by the European Centre for Disease Prevention and Control is formulating proposals to prevent transmission of *Plasmodium vivax* in Europe. Plans include surveillance, vector control, lab-based diagnosis, clinical management and communication.

<http://goo.gl/BpN6K>

## Spending boost on NTDs

"Neglected" tropical diseases are about to get some much needed attention in the form of £245 million from the UK government, coupled with free drugs from pharmaceutical companies.

The aim is to fight and eradicate parasitic diseases such as river blindness and bilharzia which kill and disfigure millions of people worldwide. A Department for International Development video is at:

<http://goo.gl/zEDk0>

## Let the Games begin

The Health Protection Agency (HPA) is working with around 200 other countries on a public health campaign to guard against infectious diseases during this summer's London Olympics. Surveillance advice lines are already in place for hospital intensive care units where medical staff can be alerted to the first signs of unusual illness. Follow plans in a quarterly e-newsletter leading up to the Games at: <http://goo.gl/mZrS6> The HPA will provide a daily public health report throughout the 16 days.

## Picture this

Sanitation, personal hygiene, domestic violence, maternal health, superstition ... unlikely subjects for fine art, but residents of Dharavi in Mumbai are working with health professionals and artists to express these concerns at an exhibition in one of India's poorest areas. <http://goo.gl/ZKGTH>

## Fake malaria drugs

Researchers from the Oxford University Tropical Medicine Research Collaboration have called for urgent action from African governments to tackle counterfeit anti-malarials. They examined fake and substandard drugs found on sale in 11 African countries between 2002 and 2010. Some originating in China contained pharmaceutical ingredients which could cause serious side-effects, especially when taken with other medication.

## Drug resistant TB in India – and the UK!

Totally drug resistant tuberculosis (TDR TB) is usually linked to impoverished areas, caused when interruption or reduction of antibiotics results in the bacteria mutating into a tougher strain. Doctors in Mumbai reported on 12 people with TDR TB, all living in slums, and blamed private doctors for prescribing inappropriate drug plans. Yet the 2011 HPA Annual TB Report said that one in 20 TB patients in the UK fail to complete the full treatment because they are lost to follow-up, risking TDR TB and putting close contacts at risk.

<http://goo.gl/ZKGTH>

The updated NaTHNaC TB Health Information Sheet is at:

<http://goo.gl/Vkwgv>

## Ticks and travellers

Immunisation against tick-borne encephalitis (TBE) should be part of the risk assessment for travellers planning spring/summer trips to TBE endemic areas. TBE is not endemic or notifiable in the UK so it is important to raise awareness here. Last year two cases were reported in Dutch travellers returning from Austria in July and August. <http://goo.gl/VoOBy> Chapter 32 of *Immunisation against Infectious Disease* (Green Book) gives further information on prevention.

<http://goo.gl/vU7rA>



Interested in having your work published, but not sure how to go about it? Fiona Macnab, Executive Publisher at Elsevier, knows the steps to take and shares some valuable advice.

# Publish... and prosper!

According to Wikipedia the term “publish or perish” first appeared in a non-academic context in the 1932 book *Archibald Cary Coolidge: life and letters* by Harold Jefferson Coolidge.<sup>1</sup> Today, when we hear this phrase, it is aligned to academia and the pressure to publish research. This can be incredibly daunting for individuals who are commencing their academic careers and I was very grateful to be given the opportunity, alongside Professor David Goldberg and Dr Eleanor Anderson, to host a “How to Publish” session at the 2nd RCPSG Triennial Conference in November 2011.

The objective was to provide guidance and tips on best practice for anyone considering publishing research in a journal.

## Getting started

What steps do you need to take before you submit a paper? First, you need to determine whether you are actually ready to publish. A good measure of this is if you feel that you have information that advances understanding in a specific research area. Second, you need to decide on the type of manuscript you will be writing, whether it will be an original research article, a review paper or perspective, a conference paper or a short communication, case report or letter.

Finally, if you are indeed ready to publish, then you will need a strong manuscript - one that has a clear, useful and exciting message. It should be presented and constructed in a logical manner, enabling reviewers and editors to easily grasp the significance.

## And then?

The next step is to select the right journal for your paper. To choose your target

journal you should investigate all candidates to find out their aims and scope, the types of articles published, the readership and the current hot topics. Read abstracts of recently published papers, ask your supervisor or colleagues for help and most importantly never submit your manuscript to more than one journal at a time.

The next question to ask yourself is what distinguishes a good manuscript from a bad one? Correct use of language, grammar and formatting is key so that editors and reviewers can easily understand your messages. Always refer to the journal's Guide for Authors for specifications. This will also contain information on publication ethics, conflicts of interest, changes to authorship, copyright and funding body agreements relevant to that journal. It is essential that you consult and follow these instructions in your target journal.

Be careful to use short sentences, correct tenses and correct grammar in your paper. If English is not your first language, ask a native English speaker to check your manuscript or use a language editing service

## A place for everything ...

Manuscripts contain many sections and each one has a definite purpose.

1. At the beginning are the title, abstract and keywords which play important roles in terms of allowing the article to be easily found, indexed and advertised to potential readers.
2. The main body of the article is summarised by the IMRAD acronym: Introduction, Methods, Results and Discussion. This is where you must present your work, and convey the main messages and findings effectively.
3. Following the discussion, the manuscript should end with the Conclusion, Acknowledgements, References, and Supporting Materials.

These are, however, flexible groupings and the order can change. Some journals require the Discussion to be combined with the Conclusion or Results. Some others need it to be an independent section. There are also other arrangements of the order (for example, Methods after Results and Discussion). Do remember to read the Guide for Authors for the specific criteria of your target journal.

Before submission, vet the manuscript as thoroughly as possible and ask colleagues and supervisors to review your manuscript.

Finally, submit your manuscript with a cover letter and await a response ... good luck!

The presentations from the “How to Publish” session are available at: [www.rcpsg.ac.uk/Triennial\\_Conference\\_November\\_2011/Pages/default.aspx](http://www.rcpsg.ac.uk/Triennial_Conference_November_2011/Pages/default.aspx)

You may also find these websites useful:

[www.elsevier.com/authors](http://www.elsevier.com/authors)  
[www.idadvance.com/](http://www.idadvance.com/)

Reference: 1 [http://en.wikipedia.org/wiki/Publish\\_or\\_perish](http://en.wikipedia.org/wiki/Publish_or_perish)



Dr Caroline G Turner, Specialist Registrar at the Ambrose King Centre, The Royal London Hospital's sexual health clinic, has some sage advice for you to offer clients – plus a handy factsheet you can photocopy for them to take along on their travels.

# Travel and sexual health

The statistics are stark:

- Sexually transmitted infections (STIs) are the most common reported infections worldwide.
- Some 340 million new cases of curable STIs are diagnosed annually in adults aged 15 to 49.
- In 2009 the World Health Organization estimated that 33.3 million individuals were living with human immunodeficiency virus (HIV) and 350 million were chronically infected with hepatitis B virus (HBV).

That adds up to a rather risky state of affairs for the traveller.

A person is three times more likely to acquire an STI when having sex abroad. The reasons are diverse, but can be explained by a perceived relaxation of social and moral constraints. This can cause some travellers to feel less inhibited, change their sexual behaviour and risk exposure to STIs.

The degree of risk depends on the type of sexual contact the traveller has and the prevalence of STIs in the contact population. STIs such as HIV and gonorrhoea are most prevalent in casual sex workers so sex tourism comes with a high risk of exposure.

A recent meta-analysis reveals that 20.4% of travellers have casual sex, almost half (49.4%) having unprotected sexual intercourse (UPI). Those more likely to have sex abroad are young single men travelling alone (for example, on a gap year) or with friends (for example, stag/hen parties) - and with a previous history of multiple sexual partners or an STI. The risk increases among those travelling for a longer period and men who have sex with men (MSM).

Two later studies highlight the contribution of alcohol (RR 1.59) and drug use (cannabis RR 1.26) to the risk of having casual sex abroad. Other individuals at increased risk are seafarers, long distance lorry drivers, and migrant and expatriate workers.

## Travellers and HIV

HIV infection can be transmitted through UPI, via contaminated blood or blood products, and

during procedures such as tattooing or body piercing if contaminated medical equipment is used. Co-existing STIs, especially ulcerative disease such as herpes simplex virus, increase the acquisition and transmission of HIV infection up to ten times.

In some individuals acute seroconversion illness (a non-specific, self-limiting viral illness) occurs within four-to-eight weeks of infection. The virus then enters the quiescent phase (lasting months to years) associated with immune destruction which is generally asymptomatic until the individual presents with illness associated with immune deficiency.

Antiretroviral drugs suppress viral replication, enabling the immune system to reconstitute itself. Travellers should be made aware that should they be exposed to HIV infection (needlestick, sexual assault, UPI with high risk partner) there are drugs available to reduce the likelihood of HIV seroconversion. Post exposure prophylaxis (PEP) should be taken within 48 hours of exposure and consist of three antiretroviral drugs taken for 30 days under specialist guidance by a physician with experience of HIV, genitourinary medicine or infectious diseases.

## STIs and their consequences

*Chlamydia trachomatis* is the most prevalent STI worldwide followed by *Neisseria gonorrhoeae*. Both can be asymptomatic, but may also cause urethral/vaginal/anal/penile discharge and post coital bleeding. If untreated, these may cause epididymo-orchitis in men and pelvic inflammatory disease in women, which can lead to infertility and increased risk of ectopic pregnancy. Treatment is with antibiotics and partner contact tracing.

Around half of travel-related HBV cases report heterosexual sex as the source of infection and are primarily contracted in Asia, in particular Thailand. Some 30-50% of those infected will become clinically unwell with fever and jaundice, 5-10% will become infectious asymptomatic chronic carriers of HBV and a further 20-25% will develop chronic active hepatitis with cirrhosis and risk of hepatocellular carcinoma.

For these reasons it would be prudent to offer HBV vaccination for travellers who intend on having sex abroad, MSM and the other high risk groups.

## Preventative strategies

A confidential sexual risk assessment should be undertaken, emphasising health promotion strategies:

- condoms (purchased in UK with BSI/CE kite mark)
- referral to the local GUM clinic
- emergency contraception, which is effective if taken within 72 hours of UPI and is available in many countries ([www.mariestopes.org.uk](http://www.mariestopes.org.uk))
- HBV vaccination, where appropriate.

Perhaps the best strategy is to empower our travellers through awareness of the risk of STIs. They must know they can be at an increased risk of sexual assault, especially if travelling alone and/or under the influence of drugs or alcohol. The Foreign and Commonwealth Office have recently published a leaflet with information on what to do in the event of a sexual assault abroad at: <http://goo.gl/lric7>

And finally, do encourage travellers to seek post exposure screening for STIs and HIV in their local GUM clinic on their return if they have had UPI while abroad.

References on request to the Editors.





## Travel and your sexual health

# Condoms: don't leave home without them!

### Before you go

It's very important to think about your sexual health and plan for contraception while you are away. Take a supply of condoms with the UK kite mark or European CE stamp mark to ensure quality. You may buy condoms abroad, but you can't always be sure they are fit for the job. Also take along a supply of emergency contraception. It's available in many countries, but it may not be as easy as you think to get it.

### Safe sex

Holidays are about enjoying yourself, relaxing, getting away from it all and doing things that you would not normally do at home. Even so, whether you are on holiday, a business trip or visiting friends and relatives, the fact that you are away contributes to that "anything goes" feeling that increase your chance of risky sexual relations - even if sex was the last thing you expected to be doing while abroad. Watch alcohol and drug consumption while travelling - the more you partake, the more likely you'll be to have unprotected sex.

Remember, many people with an STI or HIV look perfectly normal - indeed, they may not even be aware that they are infected so always insist on using a condom. It's the most effective protection you can use. It only takes one episode of unprotected sex to leave you with an unwanted pregnancy, STI, HIV or hepatitis B: don't risk it.

If you think you might have unprotected sex abroad, ask your travel health adviser about vaccination to protect against hepatitis B virus. HBV is spread through sex and blood contact. It is a common infection worldwide, but especially in Asia, sub-Saharan Africa, Eastern Europe and the Caribbean. It can cause a lifelong infection that destroys the liver (cirrhosis), causing liver failure. Many people don't know that they are carriers and so spread the virus unknowingly. Luckily condoms protect against it.

### HIV

HIV is predominantly transmitted through sex and is a lifelong infection, fatal if left untreated. Anyone having unprotected sex is at risk of HIV infection, but the risk increases if you have sex abroad, in particular countries in sub-Saharan Africa, Asia, Eastern Europe, and Central and South America. But no country is untouched by HIV so even if your destination is not listed here, the risk is real.

HIV can also be spread among drug users through infected blood on shared needles, as well as in tattoo, piercing and acupuncture equipment. More information on HIV and sexual health is at [www.tht.org.uk](http://www.tht.org.uk).

### Contraception

Used properly, condoms are your most effective ally for sexual health, but take care of them. Latex condoms are easily damaged by oil-based lubricants such as Vaseline, baby oil or suntan lotion. If you are travelling for a long period of time it's worth getting information from Marie Stopes International ([www.mariestopes.org.uk](http://www.mariestopes.org.uk)). They can advise on local clinics abroad that may be able to help you should you have an unwanted pregnancy or STI.

### Sexual assault

If you are the victim of a sexual assault contact the British Embassy, High Commission or Consulate in your host country immediately. They can assist you in confidence and refer you to local specialist doctors who speak English. The Foreign and Commonwealth Office (FCO) has recently published a leaflet you may find helpful: *Travel and living abroad; when things go wrong* is at [www.fco.gov.uk/en/travel-and-living-abroad/when-things-go-wrong/rape](http://www.fco.gov.uk/en/travel-and-living-abroad/when-things-go-wrong/rape).

### Back home

If you've had sex while away, it's worth visiting a sexual health clinic for a confidential check-up as soon as you return (find your local clinic at [www.fpa.org.uk](http://www.fpa.org.uk)). They can test for all the STIs including HIV. Untreated STIs can lead to serious problems such as infertility, but in the early stages they can be cleared up with a course of antibiotics. Remember, some STIs don't have any symptoms at all. And, on the other hand, some symptoms don't have anything to do with an STI. If you have an itch, don't panic - just get yourself checked out.

**Enjoy travelling and protect yourself: Give yourself a trip to remember for all the right reasons.**

*Written by Dr Caroline G. Turner BSc (Hons) MBBS MRCP  
DIPGUM (Dst)*

Published in *Emporiatrics* Spring/Summer 2012

# To charge or not to charge ... now there is no question!



Thanks to new guidance from the BMA, there is clarity – at last – on the financial aspects of travel vaccinations delivered in primary care. Jane Chiodini FFTM RCPS(Glasg) has the details.

**Historically in the UK, travel vaccines have been available on the National Health Service since the 1960s. The General Practitioner Statement of fees and allowances payable - commonly known as the Red Book - listed NHS vaccines given in the public health interest, thus protecting travellers from acquiring disease abroad and returning to the UK.**

Such protection included vaccination against smallpox, a disease now eradicated in the world, which illustrates the guidance was somewhat out-dated. When the General Medical Services (GMS) contract was negotiated in 2004, the hope was that information about charging would be reviewed to reflect current diseases and the modern vaccines, but unfortunately this did not happen.

The issue of charging for travel vaccines has always been a complex one, with many different interpretations of the guidance. The result was inequality of a service that should have been an NHS provision, with some using the guidance to charge when such practice was not allowed.

Therefore December 2011 saw the welcome publication of clear guidance for GPs from the General Practitioners Committee of the British Medical Association. The GPC, authorised to deal with all matters affecting NHS GPs, is recognised as the sole negotiating body for general practice by the Department of Health and represented in negotiations with ministers and civil servants by a team of eight GPs elected by the committee.

## Any questions?

This new document lays out comprehensively what can and cannot be charged for, so there should be no doubt in future.

Since 2004, travel immunisations have been an additional service within a primary care setting, be it GMS or PMS (private medical services). A surgery can opt out from providing this service, but then two per cent of the global sum or MPIG (minimum practice income guarantee) will be deducted and arrangements will need to be made for patients requiring travel advice to go to another provider who will then receive payment for that service.

Confusion over the charging of travel vaccines is thought to be rooted in the guidance available. The Green Book, which is regularly updated, advises what to give and when. The Red Book advised where services were funded by the NHS, but has not been updated. If an immunisation

is in the Green Book and not the Red Book, people have assumed they could charge. This is not the case.

## The three categories for travel vaccines

1. Vaccines that must always be given as part of NHS provision through GMS Additional Services are: hepatitis A (all doses), combination hepatitis A+B (all doses), typhoid (both injectable and oral preparations), combined hepatitis A and typhoid, polio (only available in the combined tetanus, polio and diphtheria vaccine) and cholera.
2. Vaccines that cannot be given as an NHS service are: yellow fever, Japanese encephalitis, tick borne encephalitis and rabies for travel purposes.
3. Those that can be given as either an NHS or private service are: hepatitis B and meningitis ACWY, and it is up to the individual practice as to whether to charge or not. The regulations do not impose any circumstances or conditions as to when these immunisations should be given either on the NHS or privately. However, an updated version of the guidance published in March 2012, acknowledged that in some areas, local policy had been agreed with the Local Medical Committee (LMC) to exclude these vaccines from NHS provision. The LMC is the link between the GPC and the GPs and each LMC has a regional GPC representative. However, while the GPC guidance document states such policy should be considered, it concluded that ultimately the decision still resides with the practice.

Another helpful guidance document from the BMA about PGDs and PSDs clearly states that such organisations cannot withhold a PGD to manage prescribing. A PCT does not have to write the PGD, but is still responsible for ratifying it.

Reading of these documents is highly recommended. For further details go to [www.bma.org.uk](http://www.bma.org.uk) and search under the topics "Focus on travel immunisations" and "Patient Group Directions and Patient Specific Directions in general practice".





# New approaches to the management of travellers' diarrhoea

.....  
**Montezuma's Revenge is one of the fanciful names that glosses over the seriousness of an infection that will wreck a holiday for up to one in six travellers. You may not be able to avoid it, but there are strategies for managing travellers' diarrhoea, say Bernadette Carroll FFTM RCPS(Glasg) and Dr Ron Behrens from the Department of Travel Medicine at the Hospital for Tropical Diseases in London.**  
.....

Up to half of all travellers from industrialised countries who visit developing areas might be affected by an episode of travellers' diarrhoea (TD) and around a third of them will be unable to pursue their planned daily activities.<sup>1</sup> This makes TD a frequent and important travel-associated problem.

Current approaches to the prevention of diarrhoea focus on food and water hygiene as the major preventative strategy, but the use of non-antibiotic agents such as anti-motility drugs and antibiotics for management and immunisations are infrequently advised alternatives.

Protection and benefit from food and water hygiene advice has not been shown and in fact this is quite probably ineffective at reducing the incidence of travellers' diarrhoea. More importantly, there is no evidence to show that travellers are able to follow or adhere to the standard recommendations effectively.

The preferred options to TD management are to either prevent infection through chemoprophylactic measures or, as more widely used, treat symptoms rapidly as they occur.

## FEATURE

### New approaches to the management of travellers' diarrhoea

#### Probiotics and Prebiotics

Several *Lactobacillus* species have been evaluated in travellers as chemoprophylactic agents, but the results in the prevention of diarrhoea have been disappointing, quite variable and geographically inconsistent.<sup>2</sup> Prebiotics have attracted interest for their ability to affect the colonic microbiota composition positively, thus increasing resistance to infection and diarrhoeal disease, and one placebo blinded controlled study of a daily sachet of galacto-oligosaccharide mixture found a significant reduction (36%) in TD.<sup>3</sup>

#### Antibiotic/antibacterial chemoprophylaxis

Chemoprophylaxis with antibiotics such as doxycycline, fluoroquinolones, trimethoprim-sulphamethoxazole and bismuth subsalicylate have been shown to be effective and reduce the incidence of TD between 58-100%.<sup>4</sup> Their use needs to be balanced with the risks of adverse events of systemically absorbed antibiotics, drug resistance and *Clostridium difficile*-associated diarrhoea.

The groups of travellers who are likely to benefit from this strategy include athletes, politicians, persons with underlying medical problems and those with reduced gastric acidity from surgery or drugs as well as immunocompromised individuals or those with underlying chronic gastrointestinal disease such as inflammatory bowel disease.

#### Self treatment of travellers' diarrhoea

The purpose of antibiotics/antibacterials and anti-motility agents in TD is to shorten the duration of illness. A significant number of studies have shown that a range of drugs including fluoroquinolones (ciprofloxacin), rifaximin, and azithromycin<sup>4</sup>, where there is no local resistance, is effective at reducing the duration of diarrhoea by more than 50% following an appropriate dose. Azithromycin can be used where quinolone resistance is widespread (Southeast Asia and the Indian subcontinent).

Rifaximin, recently licensed in the UK, is a drug with broad-spectrum in vitro activity against enteric bacteria and which, when administered orally, remains active in the gastrointestinal

tract with little systemic absorption (less than 0.4%). Rifaximin has been shown effective in the prevention of diarrhoea in travellers to Mexico<sup>2</sup> and a single daily dose is as effective as three times daily drug administration.<sup>2</sup> It is currently not licensed for prophylaxis; its indication is for treatment of uncomplicated non-invasive TD in adults. Rifaximin has little value for treatment of infections outside the intestine.

#### Anti-motility agents

Loperamide, the most widely-available anti-motility agent, provides effective relief of symptoms of mild-to-moderate diarrhoea when used alone, but it will not treat the underlying cause and so relapse of symptoms can occur.<sup>5</sup> It is contraindicated in young children and must be avoided where there is blood in the stools as it may delay clearance of enteropathogens.

#### Oral rehydration therapy (ORT)

Replacement therapy is important in vulnerable groups including infants and young children, those with pre-existing medical conditions and older travellers. Most healthy adults can replace fluid and salt loss through normal food and water intake, and supplemental ORT is usually unnecessary.

#### Vaccines

More recent approaches to the prevention of TD are the development of vaccines aimed at protecting against a limited range of bacterial pathogens, particularly *Escherichia coli* (ETEC) strains, which account for up to a third of cases of travellers' diarrhoea.<sup>6,7</sup>

#### *Vibrio cholerae* whole cell/B subunit vaccine

Similarities between the B subunits of cholera toxin and heat-labile ETEC, together with the reported immunological cross-reactivity, suggest that vaccination with the b subunit of cholera toxin can provide protection against ETEC infection. However, the level of protection in travellers has been very limited and it is estimated that as little as  $\leq 7\%$  of TD cases would be prevented by use of the vaccine.<sup>6</sup> Cholera is a very uncommon cause of TD and vaccine use is limited to individuals working in areas during cholera outbreaks.

#### Heat-labile enterotoxin transcutaneous patch vaccine

The use of a novel antigen delivery system using a skin patch containing heat-labile (LT) toxin from ETEC produced promising results when tested in 2006 in a phase II field trial of travellers to Mexico and Guatemala. The vaccine proved safe and immunogenic in reducing rates of moderate-to-severe diarrhoea and severe diarrhoea from any cause of diarrhoea.<sup>7</sup> However, the protective efficacy of the vaccine was not confirmed, despite good levels of anti-LT antibodies in a recent phase II and III study of the patch in travellers and no further development of the vaccine will be undertaken.<sup>8</sup>

Vaccines are undergoing human studies to prevent *Shigella*, *Campylobacter*, ETEC and *Norovirus* infections. In reality vaccines will only be successful as a preventive strategy if they are able to provide protection against a range of pathogens responsible for travellers' diarrhoea.

#### Conclusion

Self-treatment with single dose fluoroquinolones (for example, ciprofloxacin 500mg) has become the most practical intervention in the management of TD. Behavioural interventions have not been shown to be effective and have a minimal role in preventing diarrhoea.

Innovative research is needed to define the risks predisposing to TD and look at public health interventions in tourist resorts, particularly improved food handling in kitchens.<sup>9</sup> Studies are also needed to determine if self-treatment will prevent the long term sequelae of TD such as new onset irritable bowel syndrome which is reported to affect up to 10% of travellers.

Further studies are also needed on the efficacy of pre- and probiotics and, ideally, multi-antigen vaccines against a wider range of pathogens, but these are unlikely to be available in the near future.

# Montezuma's Revenge is one of the fanciful names that glosses over the seriousness of an infection that will wreck a holiday for up to one in six travellers.



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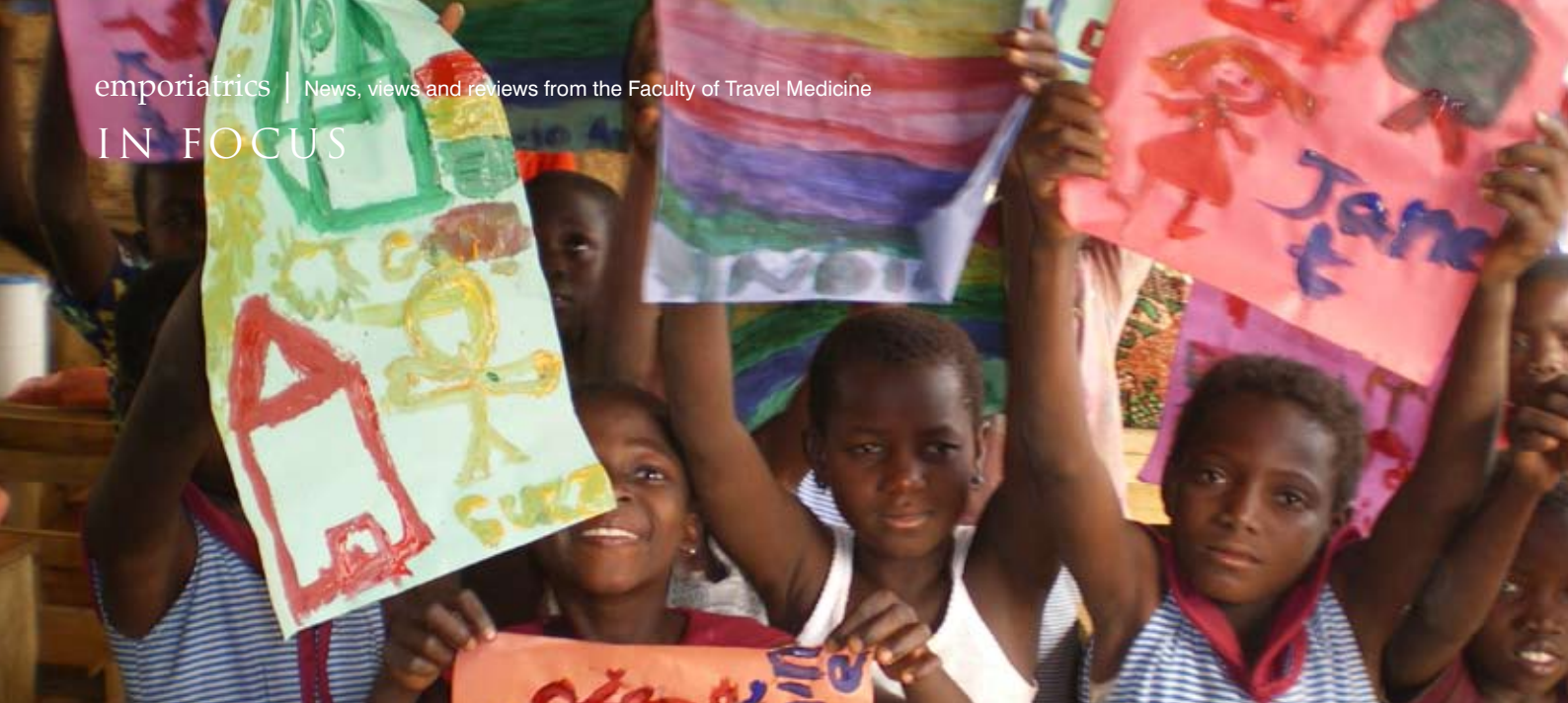
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## Declaration of interest statement

Dr R H Behrens is on the advisory board of Norgine, the distributor of Rifaximin.







Fiona Marra AFTM RCPS(Glasg), newly appointed Associate Board Member of the Faculty of Travel Medicine, tells of a recent trip to Ghana to visit the school she helped set up which has transformed life for hundreds of girls.

# A traveller's tale

**There is something really nice about that last day of work before a two week holiday - something that helps you through, no matter what the chaos of the day. But in reality I knew the two weeks ahead of me wouldn't be much of a break. Despite this I couldn't wait to get on the plane.**

My husband and I were going back to Ghana for a fortnight to visit family and look in on the projects I set up when I lived there from 2004 to 2007. We usually make the trip twice a year, visiting family and friends in the capital Accra before embarking on a nine hour journey to a small rural village called Kpandai in the north east of Ghana. It was there in 2006 I received funds to build a small classroom to teach 30 impoverished girls aged 6-12. To my delight - and with a phenomenal amount of help from some extra special supporters - this has transformed into a fully funded boarding primary school for the most vulnerable and needy girls in the area.

To date we have six classes of 30 girls on a 14 acre plot of land where our wonderful staff see that they are fed, educated, clothed, vaccinated and nurtured as children should be. We have 17 members of Ghanaian staff, from development managers and head teachers to house mothers and cooks, and we are indebted to them all.

Our land now contains six classrooms, an IT centre/library, accommodation for over 200 girls, volunteer accommodation, a bath house and toilets, kitchen, store and an eight acre farm where we grow as much of our own food as we can. Near the end of the land is a building site which will become the girls high school in 2013.

## **Now back to the journey...**

Nine hours north in a land cruiser....that sounds not bad, but the road disappears after four hours and thereafter it's red dirt road until arrival at the school. We travel in two convoys as we are joined by a medical student, a retired GP, a teacher and a development student wanting to volunteer.

Goats, market days, waving children and more goats make the journey slow, but we arrive before sunset to 170 smiling faces as the girls perform a cultural dance to greet us. Despite feeling like we have reached the other side of the universe, there's a definite sensation of being home and I am delighted to introduce the youngest member of our party, my nine month old son who has made the journey with us!

## **Joshua and his hundred 'mums'**

I always have a lot of business to sort out upon arrival, from building budgets and medical problems to broken lights and pencil shortages. But this time I'm a mother too. I needn't have worried though because I have well over 100 volunteers to help with the "mummy" side of things. In fact, as I finish my bucket shower on the first day there's a queue of girls at least 40 deep, waiting on their turn to hold Joshua.



Image credit: Fiona Marra - [www.letusshine.org](http://www.letusshine.org)



What's even funnier is how the older girls are timing 30 seconds each "shot" before passing him to the next smiling Ghanaian 10-year-old! Lucky for me he seems to love the whole experience.

For being so rural we are fortunate to have a newly-built hospital bordering our land. Built by the Austrian government the facilities are sparkling clean, but like many rural facilities they have yet to be assigned a doctor. The facility is run by two very experienced nurses and midwives, and a pharmacy assistant.

### Pass the paracetamol!

Having not long given birth myself the first question I ask the local midwife is about pain relief in labour- she proudly tells me that although it is not used in the village they always supply paracetamol for the labouring mothers!

Being a pharmacist I always top up our own school medicines dispensary and carry out training with Hawa, our house mother, on what minor ailments can be treated by our supplies and which require referral.

With baby, husband and most of the school asleep (at 9pm!) I've now begun an inventory of our medicine store next to the girls' bedrooms. Over the next ten minutes I hear what sounds like two thuds and some giggles and with the third one, I go to investigate. It turns out that only a week ago a new class settled at the school and they were now spending their first week ever in a bed.

So these thuds are just the new girls tumbling out the top bunks, apparently a common occurrence when they first move in and one of great amusement to everyone else. After checking there were no injuries I admit to having a quick giggle too, but redeem myself by asking the carpenter the next day to put up some extra bars.

### Back on the red dirt road

All too soon it's our last day there and the teachers have organised a football tournament with another local school. The girls wake up an hour early in excitement and have already changed into their donated strips and begun to prepare. The singing at our goal line is worthy of any premiership terrace and the newly measured out football pitch has over 300 people round the perimeter.

It would have been like any other local derby if not for the large tree that has to be dribbled around as the girls run up the wing - and the goats and chickens which have joined the girls having to be thrown off the pitch every few minutes by a squad of local four-or-five-year-old boys!

In no time at all, we are on the red dirt road home, a little more tired than before we left but richer in all the new experiences the girls have given us. I am thankful for my small luxuries now as a UK salary enables us to hire a four-wheel drive for which I am eternally grateful.

I still remember vividly the early days when I drove a Peugeot 206 that took around 14 hours to make the trip - and one particular trip where the exhaust fell off, two tyres blew and I got stuck in a flood overnight. I'm now saving up for a helicopter ...



## FEATURE

Martin Brown MFTM RCPS(Glasg) outlines recent discussions held by leading pharmacy groups on this fast growing area of practice

# Travel health services in community pharmacy

**At the end of 2011 an ad hoc group of pharmacists and GPs met under the joint auspices of the International Society of Travel Medicine (ISTM) and the British Global and Travel Health Association (BGTHA) to discuss the recent and rapid development of pharmacy and Internet-based travel health services in the UK.**

The meeting, sponsored by ISTM, featured a panel chaired by myself, as Honorary Treasurer BGTHA, with ISTM President Fiona Genasi and Professor Larry Goodyer, Dean of the De Montfort School of Pharmacy and Deputy Chair of BGTHA. Fiona and Larry are current Fellows and I am a Member of the Faculty of Travel Medicine (FTM) at the Royal College of Physicians and Surgeons of Glasgow.

Many of the large multiples and supermarket pharmacy professional departments were represented along with the National Pharmacy Association, other stakeholders providing patient group directions (PGDs) to pharmacists, a specialist health care independent pharmacy and the medical director of an independent medical agency.

The meeting identified a wide range of modes of delivery of service, including:

- GP-led remote assessment via the Internet of a traveller's risks, with delivery of the appropriate vaccines and prescription-only medicines (POMs) through a nominated pharmacy
- Internet-based nurse-led assessments with recommendations fed back through a branch network
- pharmacist-led travel clinics providing vaccinations and POMs under patient group directions (PGDs)

- an online service where pharmacists can register and receive training to supply antimalarial chemoprophylaxis to travellers under private PGDs
- nurse-led travel clinics located in pharmacies.

The meeting was asked to consider the impact of direct regulation by the Care Quality Commission (CQC) on clinical services involving vaccination in the pharmacy setting. However, following a joint FTM/RPS (Royal Pharmaceutical Society) conference in March 2011, no clear plans were revealed by the CQC to initiate this process.

### Ensuring standards and competency

The meeting also considered whether the standard of consulting rooms in many community pharmacies would be considered fit for purpose for the delivery of travel vaccinations following the proposed review of premises standards by the General Pharmaceutical Council (GPhC). The group then agreed to work towards providing guidance to pharmacists ahead of any initiative to regulate clinical facilities by the CQC.

We also discussed a proposal to introduce a standards framework for pharmacists providing travel health services. These could be based on existing competency frameworks such as those developed by the Royal College of Nursing (RCN) and the FTM. Given the diversity of roles and current levels of travel health training attained by pharmacists, two levels of practitioner competency were proposed to reflect individual experience and practice capabilities. Prof Goodyer and I will undertake further work on these competencies and the group will work to develop partnerships with other national organisations.

Subsequent discussions with Catherine Duggan and Ruth Wakeman at the RPS showed interest in working with the group to establish guidelines for practice in community pharmacies based on these standards.

### Reaching out

Closer ties with the wider travel health community in the form of the BGTHA and ISTM were proposed after short presentations on the benefits of membership by myself and Fiona Genasi, including access to the *BGTHA Journal* and *Journal of Travel Medicine* (ISTM). It was noted that the Pharmacy Professional Group (PPG) is the fastest growing interest group at the ISTM and will provide an ideal opportunity to develop links and standards in pharmacy travel health practice across international boundaries.

The meeting concluded with an agreement to build on the progress achieved and to invite other key pharmacy service providers to work towards establishing high quality pharmacy-based travel health services in the UK.





## From the Journals

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## On the web

### HIV and global travel

Click on the Global Database Map at [www.hivtravel.org/](http://www.hivtravel.org/) for local HIV-specific travel and residence restrictions.

### New enteric fever policy

Public health operational guidelines for typhoid and paratyphoid (enteric fever), published jointly by the HPA and the Chartered Institute of Environmental Health, supports public health practitioners in identifying sources of infection and reducing secondary transmission. Use the guidance with the accompanying template letter/factsheet and the enteric fever enhanced surveillance questionnaire. [www.hpa.org.uk/webc/HPAwebFile/HPAweb\\_C/1317132464189](http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317132464189)

### Multilingual typhoid advice

*Typhoid – health advice for travellers* is a patient information factsheet published in Bengali, Gujarati, Punjabi and Urdu as well as English by the HPA's Travel and Migrant Health section. The incidence of typhoid and paratyphoid in UK residents is mostly associated with travellers visiting friends and relatives, in particular in India, Pakistan, Bangladesh and African countries. [www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb\\_C/1274087137471](http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1274087137471)  
More on enteric infections in Health Protection Report 5 (45) 14 November 2011. [www.hpa.org.uk/hpr/infections/enteric.htm](http://www.hpa.org.uk/hpr/infections/enteric.htm)

### Migrant health

*Migrant health: Infectious diseases in non-UK born populations in the UK* (December 2011) shows an increase of UK-residents born abroad from 8% to 12% since the Health Protection Agency's first report in 2001. Although only a small proportion of the total population, this group bear the greatest burden of infectious disease - 73% of TB cases and almost 60% of new HIV cases, while 80% of hepatitis B-infected UK blood donors were born abroad.

UK residents travelling "home" to visit friends and relatives are the major risk group for travel-associated diseases such as malaria (61% of UK and Northern Ireland cases) and enteric fever (87% between 2007 and 2010). [www.hpa.org.uk/Publications/InfectiousDiseases/TravelHealth/1112Migranthealth/](http://www.hpa.org.uk/Publications/InfectiousDiseases/TravelHealth/1112Migranthealth/)

## Around the World



6-8 June 2012

### NECTM4

#### Northern European Conference on Travel Medicine

Burlington Hotel  
Dublin  
[www.nectm.com](http://www.nectm.com)

11 September 2012

#### Should they stay or should they go?: the duties for employers and health professionals for workers abroad.

Joint meeting Faculty of Occupational Medicine and Faculty of Travel Medicine SOAS, London.  
For further information email [travelmedicine@rcpsg.ac.uk](mailto:travelmedicine@rcpsg.ac.uk)

13-16 September 2012

#### Travel Health Africa: The Past, Present and Future

South African Society of Travel Medicine (SASTM)  
Santon Convention Centre, Johannesburg  
Optional extra: "Medifari" to Kruger National Park  
[www.sastm.org.za](http://www.sastm.org.za)

6 October 2012

#### BGTHA Annual Meeting in Bristol

Theme: the younger traveller  
[www.bgtha.org](http://www.bgtha.org)

19-23 May 2013

### CISTM 13

**13th Conference of the ISTM**  
Maastricht, The Netherlands  
[www.istm.org](http://www.istm.org)

18 October 2012

#### Annual Symposium of the Faculty of Travel Medicine, RCPSCG.

For more information visit <http://rcp.sg/travelmedicine>





# Travel Medicine in Olympic Year

## *Citius Altius Fortius*

### Faculty of Travel Medicine Annual Symposium

*Date & Time: 18 October 2012, 09:00*

*Venue: Royal College of Physicians and Surgeons of Glasgow*

*Topics covered include:*

#### **Undertaking Clinical Research in Travel Medicine**

*Bernadette Carroll, Senior Research Nurse, Travel Unit, Hospital for Tropical Diseases, London*

#### **Public Health Microbiology from the London Olympics**

*Dr Meera Chand, Specialist Registrar in Microbiology,  
Health Protection Agency, Colindale/University College London Hospitals*

#### **UK Travel Medicine 2012**

*Dr Vanessa Field and Dr Dipti Patel  
Joint Directors of the National Travel Health Network and Centre (NaTHNaC)*

#### **The Work of the World Health Organization Travel Unit**

*Dr Gilles Pomerol, Medical Officer at the World Health Organization, Switzerland*

#### **Routes of Vaccination**

*Dr Leo G. Visser, Department of Infectious Diseases and Head of the Centre for Travel  
Medicine and Vaccination at the Leiden University Medical Centre, The Netherlands*

For a complete programme and registration information, contact Donna Johnston:  
E [donna.johnston@rcpsg.ac.uk](mailto:donna.johnston@rcpsg.ac.uk) | T +44 (0)141 227 3212 | [www.rcpsg.ac.uk](http://www.rcpsg.ac.uk)



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