

TAISTEAL



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NEWSLETTER

ed. A. Weidenhammer

FROM THE PRESIDENT: DR. SIMON COLLINS



I took on the role of President recently and will serve until April 2020. The TMSI, through its Executive Committee, works hard to promote a high standard of Travel Medicine in Ireland. We do this through our quarterly education meetings and through this newsletter. We have a seat at the HSE's National Immunisation Advisory Committee. We provide discounted access for our members to NHS Scotland's Travax website. In addition, we encourage medical students to become involved in this evolving area of medicine through the annual Dom Colbert essay prize.

TMSI has grown to the point where our activities extend beyond Ireland. We're now part of Travel Medicine internationally; TMSI is one of the national societies of Travel Medicine which organises the Northern European Conference of Travel Medicine (NECTM). We have a direct link to the International Society of Travel Medicine (ISTM; www.istm.org) through the membership of Gerard Flaherty in that organisation's Executive Board. These links keep the TMSI Executive Committee at the forefront of the latest developments in Travel Medicine and through our quarterly educational meetings and our newsletter, we work hard to keep our members updated. I'm very grateful to the consistent commitment of the Committee members and our long-standing Secretary, Anne Redmond, all of whom are committed to helping you, the membership.

If there are topics that you think should be covered either at our meetings or in the newsletter, don't hesitate to e-mail Anne or, in the case of the newsletter, the editor, Astrid Weidenhammer.

Our next educational meeting is in Cork on 22nd September – come along if you can to meet other health professionals working in Travel Medicine and to share your knowledge. I look forward to seeing you there.

COLBERT SCHOLAR



from left to right, Dr. Simon Collins (President, TMSI), Mr. Bryan Lim, and Dr. Dom Colbert

The winner of the 2018 Colbert Medal is Bryan Chang Wei Lim, a third year medical student from Malaysia who is studying at NUI Galway. This is the third year of the Colbert Medal essay competition which is open to all undergraduate medical students in the Republic of Ireland. Blinded submissions were reviewed by a panel of six assessors drawn from the TMSI Executive Committee. The title of this year's essay was "Leaving Light Footprints – How Can We Promote Responsible International Travel?". Bryan's essay was praised by the assessors for its maturity, insight and relevance. It was well supported by reference to the academic literature.

Bryan presented his essay eloquently to the delegates attending the most recent TMSI meeting in Stillorgan, Dublin and received a warm response from our members. He focused on the detrimental environmental effects of travel, the effects of medical tourism on indigenous health care provision, the unintended effects of so-called 'voluntourism', and the harsh realities of sex tourism and child trafficking. The essay included a helpful checklist of behaviours which should be encouraged during pre-travel consultations in order to promote responsible travel. Bryan's essay has been expanded and edited to make it suitable for publication in a peer-reviewed journal and it is currently at revision stage. If it is accepted for publication, we will provide a link to free full text access on the journal's website in a future 2018 issue of Taisteal.

Announcing the winner of this year's gold medal and framed certificate, Gerard Flaherty, on behalf of the TMSI Executive Committee, reflected on the outstanding contribution of Dr. Dom Colbert to travel medicine education and scholarship in Ireland and beyond. Pictured at the presentation of the prize were, from left to right, Dr. Simon Collins (President, TMSI), Mr. Bryan Lim, and Dr. Dom Colbert. Heartiest congratulations to Bryan from the Travel Medicine Society of Ireland. We wish him every success with his medical studies.

Prof. Gerard Flaherty

“ANTIMICROBIAL RESISTANCE: CONSEQUENCES FOR INTERNATIONAL TRAVELLERS”

(A summary of the most interesting talk I attended at NECTM)

Introduction

The biennial Northern European Conference on Travel Medicine was held in Stockholm in early May. I try to attend this meeting regularly; world leaders in Travel Medicine are invited to present the latest research and thinking in key areas and I find that I always come away with new insights. This article is written to share with you the key points from what I thought was the most thought-provoking presentation I attended at the conference.



The speaker:

Dominique Monnet of the European Centre for Disease Control (ECDC).

ECDC is the E.U. counterpart of the U.S. government’s Centres for Disease Control and Prevention (CDC). The agency was established shortly after the SARS outbreak of 2003 exposed deficiencies in the EU’s ability to rapidly respond to emerging disease risks. The agency is headquartered just outside Stockholm and a number of experts from among its staff of 300 were invited to speak at the conference.

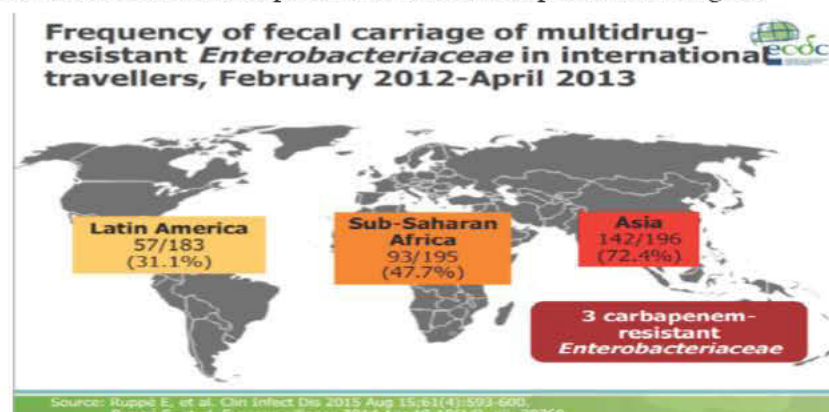
The problem:

Travellers to developing countries often return from holiday carrying bacteria in their digestive tracts that have multi-drug resistance (multi-drug resistant enterobacteriaceae or MRE). Travel acquired MRE is arising in developing countries due to multiple factors:

- Antibiotic-overprescribing in the developing country – leading to MREs being present in the community
- Sub-potent antibiotic use in the developing country
- The traveller acquiring MRE in the developing country either from food there or as a hospital-acquired infection, if the traveller is admitted to hospital while abroad

How common is it for the average traveller to acquire MRE?

In a large study quoted¹, 50% of travellers are affected. The figures vary by continent and by study. Evidence was presented that shows that Asia (and South Asia in particular) is the most problematic region:



What factors increase the chance of a traveller acquiring MREs?²

I find it amazing to see how easy it is for types of bacteria normally present in the traveller's digestive tract to become disrupted, displaced and colonised by multi-drug resistant bacteria present in the community of the destination country, not only if a diarrhoeal episode has occurred but particularly if the traveller has had to resort to antibiotic treatment:

Travel to India with:	Odds of MRE acquisition occurring:
No illness occurring during the trip	23%
Diarrhoea episode occurring but no antibiotic treatment for the illness taken by the traveller	47%
Diarrhoea episode occurring with antibiotic treatment for the illness taken by the traveller	80%

How long do MREs persist in the traveller following return from travel?

In 95% of cases, the MREs are gone three months post-travel. In 5%, they are persisting – this is most common in those returning from South Asia.

What problems can arise from travellers returning from developing countries while harbouring MRE's in their digestive tracts?

A number of concerns exist:

- o Treatment failures in UTI cases occurring immediately post-travel, where MRE acquired abroad are the accidental causative agent of the infection
- o MRE transmission from the traveller to vulnerable household contacts in the home country post-travel
- o MRE transmission from the traveller to other patients in the event of hospitalisation of the traveller in the home country post-travel
- o MRE infection in the traveller in the event of hospitalisation of the traveller in the home country post-travel, where hospitalisation is accompanied by invasive treatment e.g. catheterisation, bowel operation or trans-rectal prostate biopsy

The main take-away message:

We are coming to realise that antibiotic usage by our patients to self-treat travellers' diarrhoea (TD) comes with some significant potential downsides for the patient. There are some upsides (successful self-treatment may keep the patient out of hospital and free of the risk of nosocomial infection acquisition), but we may be unwittingly visiting an MRE infection upon the very person we are trying to help.

Antibiotics have no role in the prevention of TD and their use should be restricted for treatment only to the most severe cases. Most cases of TD self-resolve within three days. **If antibiotics are prescribed to patients, pre-travel, for 'standby' use, then they should be told to use the antibiotics only where they have bloody stools, fever or a deteriorating case unresponsive the three days of rehydration and loperamide use.**

There was an interesting discussion from the floor, at the end of the presentation, about the current advice in the 2018 U.S. CDC 'Yellow Book' relating to when travellers should self-treat for TD. Current CDC advice is more liberal, allowing antibiotic treatment in milder cases of TD. I gained the clear impression that current CDC advice is not sustainable and will have to follow the European consensus on more conservative antibiotic use.

Dr. Simon Collins

References:

¹Ruppé E et al, High Rate of Acquisition but Short Duration of Carriage of Multidrug-Resistant Enterobacteriaceae After Travel to the Tropics Clin Infect Dis 2015; 61: 593 – 600.

²Kantele A, Lääveri T, Mero S. et al. Antimicrobials increase travelers' risk of colonization by extended-spectrum betalactamase-producing Enterobacteriaceae. Clin Infect Dis 2015; 60: 837–46.

³Some examples of these cases can be seen in short video stories at <https://antibiotic.ecdc.europa.eu/en/patient-stories>

Foundation and Diploma Courses in Travel Medicine



ROYAL COLLEGE OF
PHYSICIANS AND
SURGEONS OF GLASGOW

TRAVEL MEDICINE

Foundation Course in Travel Medicine

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*)
- ⇒ Four e-learning units with assignments

Topics covered include:

- Pre-travel risk assessment
- Infections and epidemiology of infection
- Immunisation theory, practice and available vaccines
- Malaria

Diploma in Travel Medicine (DipTravMed)

The Diploma Course is suitable for healthcare practitioners working in the field of Travel Medicine. It is delivered through a blended e-learning approach over one full calendar year.

The course includes:

- ⇒ An introductory residential week in Glasgow
- ⇒ Module 1: ten e-learning units with assignments
- ⇒ A mid-session residential week in Glasgow including an objective structured clinical examination (OSCE)
- ⇒ Module 2: ten e-learning units of self study with practical exercises
- ⇒ 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.

Student support (applicable to both courses):

All students are allocated a personal advisor and access to the course website, TRAVAX and e-Library. Online staff/student communication is also provided.

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For more information and applications, please contact:

Applications and administration: Lesley Haldane

+44 (0)141 241 6217 | lesley.haldane@rcpsg.ac.uk

Course content and curriculum: Ann McDonald or Clare Henderson

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www.rcpsg.ac.uk/travel-medicine

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TEST YOUR KNOWLEDGE –**MULTIPLE CHOICES QUESTIONS IN TRAVEL MEDICINE: By Dr. Joseph Sim.****1. Ross River Fever:**

- (A) 60–75% of people who are infected are asymptomatic and majority of the symptomatic individuals usually recover within a few weeks.
- (B) Ross River Fever is caused by Ross River Virus (RRV) - one the arboviruses (arthropod-borne viruses), which are spread by infected mosquitoes including *Aedes* & *Culex* mosquitoes.
- (C) The RRV Vaccine is not easily accessible but offers very good protection.
- (D) Native animals such as wallabies and kangaroos but also larger animals such as horses are thought to be the main natural reservoir hosts for the virus.

2. Middle East Respiratory Syndrome (MERS):

- (A) MERS is a bacterial respiratory illness that was recently recognized in humans (first reported in Saudi Arabia in 2012).
- (B) Majority of people infected with MERS-CoV are asymptomatic and showed no symptoms.
- (C) Symptomatic patients frequently presented with clinical features of severe acute respiratory illness, including fever, cough, and shortness of breath with approx. up to 1/3 of the reported patients dying.
- (D) In addition to humans, MERS-CoV has been found in camels in several countries. It appears that some people became infected after contact with camels.

3. Crimes & tourism:

- (A) The most commonly diagnosed STIs after a sexual assault on women are trichomoniasis, chlamydia, gonorrhoea & bacterial vaginosis.
- (B) The World Economic Forum released their 2017 Travel & Tourism Competitiveness Report, part of which ranked Colombia as the Most Dangerous country to visit based on the extent to which the country exposes tourists and businesses to major violence / security risks, excluding petty crimes.
- (C) The Irish Tourists Assistance Service stated that 40% of the reported crimes it dealt with in 2017 occurred on the streets in Dublin and female tourists aged 17-25yo are said to be the most common victims of crimes.
- (D) Researchers failed to notice a statistical relationship between increased crime rates and tourism in resort destinations but showed a definitive association between the economic status of a country and the number of serious crimes.

4. Vaccine Storage:

- (A) Vaccines must be stored within a specific temperature range between +2 & +8 degrees Celsius to ensure their potency and to comply with regulations.
- (B) All vaccine products have the same duration of stability and exposure to temperature deviations beyond the storage temperature range for more than 15min will render the vaccines unusable.
- (C) USB temperature logger that is independent of fridge power supply is recommended for use in addition to pharmaceutical fridges with thermometer.
- (D) The main elements of an effective cold chain include a well-trained staff, reliable storage, temperature monitoring equipment, and accurate vaccine inventory management.

5. Neglected tropical diseases (NTDs):

- (A) NTDs are a diverse group of communicable diseases caused by parasites, bacteria, viruses and other organisms & include diseases such as dengue, rabies, blinding trachoma, Chagas disease, human African trypanosomiasis, leishmaniasis, foodborne trematode infections, soil-transmitted helminth & schistosomiasis.
- (B) Affecting more than 1 billion people globally, NTDs are called “neglected” because they have been largely wiped out in the more developed parts of the world & persist predominantly in the poorest, most marginalized communities & conflict areas.
- (C) Pregnant women are most vulnerable to NTDs. Children are rarely affected by NTDs.
- (D) Non-medical personnels do not play important roles in the control of such diseases. The primary ways of managing NTDs are medical treatments & vaccinations.

6. What Country is this - Hints:



- 1). It is home to a huge variety of wildlife including the world’s largest butterfly (the Queen Alexandras Birdwing with a wingspan of 25cm); marsupials such as possums; the Raggiana bird of paradise (symbol of the nation’s flag) and a poisonous bird, the Hooded Pitohui.
- 2). Ross River Virus is endemic to this country and its surrounding region.
- 3). Even until the 1950’s cannibalism and headhunting were practised in many parts of this country.



Answers on page 13

HIGHLIGHTS OF THE TRAVEL MEDICINE LITERATURE, 2016-2018

At NECTM7 in Stockholm I had the honour of delivering the opening plenary presentation. This was based on a review of the highlights of the travel medicine literature since the previous NECTM conference in London. Many of these papers are available to you as open access articles on the respective journal homepages but some are only provided as free full text articles one year following their publication. If you are a member of ISTM or the Faculty of Travel Medicine you will enjoy full access to papers published in *Journal of Travel Medicine and Infectious Disease*, respectively.

Journal of Travel Medicine, 2017, 1-5
doi: 10.1093/jtm/taf024
Brief communication

Bibliometric analysis and curriculum mapping of travel medicine research

Gerard T. Flaherty, MD^{1,2*} and Keng Lim Yap, MB, BCH, BAO Candidate¹

¹School of Medicine, National University of Ireland Galway, Galway, Ireland and ²School of Medicine, International Medical University, Kuala Lumpur, Malaysia

Since the last NECTM in London, the first bibliometric analysis of travel medicine literature has been published. It highlighted gaps in research output. Indeed articles about infectious diseases acquired by the traveller outnumbered non-communicable diseases seven-fold and only about 2% of the research yield related to the two leading causes of death in travellers, road traffic collisions and cardiovascular disease.




Journal of Travel Medicine, 2017, 1-5
doi: 10.1093/jtm/taf027
Perspective

Global travel patterns: an overview

Dirk Glaesser*, John Kester, Hanna Paulose, Abbas Alizadeh, and Birka Valentin

Department of Sustainable Development of Tourism, World Tourism Organization (UNWTO), 28020 Madrid, Spain

This paper from the United Nations World Tourism Organization brought us up to date on the latest and projected global travel trends. It predicts that international tourist arrivals will increase from the current 1.2 billion to 1.8 billion by 2030, with the greatest increase into and out of Asia and other emerging economies.




Journal of Travel Medicine, 2017, 1-8
doi: 10.1093/jtm/taf040
Review

What proportion of international travellers acquire a travel-related illness? A review of the literature

Kristina M. Angelo, DO, MPH&TM^{1,*}, Phyllis E. Kozarsky, MD^{1,2}, Edward T. Ryan, MD^{3,4}, Lin H. Chen, MD^{4,5}, and Mark J. Sotir, PhD¹

¹Division of Global Migration and Quarantine, Centers for Disease Control and Prevention, 1600 Clifton Rd NE, Atlanta, GA 30329, USA, ²Department of Medicine, Emory University, 1384 Clifton Rd NE, Atlanta, GA 30322, USA, ³Massachusetts General Hospital Travelers' Advice and Immunization Center, 55 Fruit Street, Boston, MA 02114, USA, ⁴Harvard Medical School, 25 Shattuck St., Boston, MA 02115, USA and ⁵Mount Auburn Hospital, 330 Mt. Auburn St, Cambridge, MA, 02138, USA

This review of 9 high quality studies examining the proportion of international travellers who acquire a travel-related illness

found that between 43 and 79% of frequent visitors to developing countries became ill, with diarrhoea being the most frequently reported illness.



Travel Medicine and Infectious Disease 18 (2017) 41–45
Contents lists available at ScienceDirect
Travel Medicine and Infectious Disease
journal homepage: www.elsevier.com/locate/jtm

Original article

Pre-travel advice at a crossroad: Medical preparedness of travellers to South and Southeast-Asia - The Hamburg Airport Survey

Thierry Rolling^{A, B, *}, Melina Mühlenpfordt^A, Marylyn M. Addo^{A, C}, Jakob P. Cramer^{A, B, 1}, Christof D. Vinnemeier^{A, 3, 4}

^AMedical Department, Section Infectious Diseases and Tropical Medicine, University Medical Center Hamburg-Eppendorf (UKE), Hamburg, Germany
^BCentral Research Group, Bernhard Noche Institute for Tropical Medicine (BNI), Hamburg, Germany
^CGerman Center for Infection Research (GCI), Partner Site: Hamburg-Elbe-Becken, Germany

The Hamburg airport survey focused on whether travellers carried antidiarrhoeal and antimalarial medications with them for travel to South and Southeast Asia. 63% carried antidiarrhoeal medication and 19% antimalarial medication, mostly as stand-by emergency treatment (SBET). Attending a travel medicine specialist clinic was associated with better adherence to current recommendations concerning carriage of SBET of malaria.



Travel Medicine and Infectious Disease 18 (2017) 402–408
Contents lists available at ScienceDirect
Travel Medicine and Infectious Disease
journal homepage: www.elsevier.com/locate/jtm

Destination specific risks of acquisition of notifiable food- and waterborne infections or sexually transmitted infections among Finnish international travellers, 1995–2015

Viktor Zöldi^{A, B, *}, Jussi Sane^A, Anu Kantele^{A, C}, Ruska Rimhanen-Finne^A, Saara Salmenlinna^A, Outi Lyytikäinen^A

^ADepartment of Health Science, National Institute for Health and Welfare (THL), Helsinki, Finland
^BAerogen Programme for International Epidemiology Training (AEPIT), Aerogen Centre for Disease Prevention and Control (ACDPC), Stockholm, Sweden
^CInfectious Diseases, University of Helsinki, Helsinki University Hospital, Finland

This Scandinavian paper examined cases notified as travel-related to the Finnish infectious disease register as numerators and overnight stays of Statistics Finland surveys as denominators. The highest risk of infections was found in Thailand, except for hepatitis A where Hungary was ranked first.




Journal of Travel Medicine, 2018, 1-8
doi: 10.1093/jtm/taf046
Original Article

Travel medicine and mHealth technology: a study using smartphones to collect health data during travel

Andrea Farnham, MPH^{1,*}, Ulf Blanke, PhD², Emily Stone, MPH¹, Milo A. Puhon, MD, PhD³, and Christoph Hatz, MD^{1,2}

¹Epidemiology, Biostatistics and Prevention Institute, University of Zurich, Zurich, Switzerland, ²Wearable Computing Laboratory, ETH Zurich, Swiss Federal Institute of Technology, Zurich, Switzerland and ³Swiss Tropical and Public Health Institute, Basel, Switzerland




Journal of Travel Medicine, 2017, 1-8
doi: 10.1093/jtm/taf020
Original Article

The quantified self during travel: mapping health in a prospective cohort of travellers

Andrea Farnham, MPH^{1,2}, Reinhard Furrer, PhD^{3,4}, Ulf Blanke, PhD⁵, Emily Stone, MPH¹, Christoph Hatz, MD^{1,2,6,7,*}, and Milo A. Puhon, MD, PhD¹

¹Epidemiology, Biostatistics and Prevention Institute, ²Travel Clinic, University of Zurich, Hirschengraben 84, 8001 Zurich, Switzerland, ³Department of Mathematics, ⁴Department of Computational Science, University of Zurich, 8057 Zurich, Switzerland, ⁵Wearable Computing Laboratory, ETH Zurich, Swiss Federal Institute of Technology, 8092 Zurich, Switzerland, ⁶Swiss Tropical and Public Health Institute, 4001 Basel, Switzerland and ⁷University of Basel, 4003 Basel, Switzerland

Travel Medicine and Infectious Disease 21 (2018) 26–42

Contents lists available at ScienceDirect

Travel Medicine and Infectious Disease

Journal homepage: www.elsevier.com/locate/tmaid

Streaming data from a smartphone application: A new approach to mapping health during travel

Andrea Farnham^{a,b,c}, Martin Rössl^d, Ulf Blanke^e, Emily Stone^e, Christoph Hatz^{a,b,f,g}, Milo A. Puhar^h

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^b Travel Clinic, University of Zurich, 8001 Zurich, Switzerland
^c Swiss Tropical and Public Health Institute, 4001 Basel, Switzerland
^d University of Basel, 4003 Basel, Switzerland
^e Wavestone Computing Laboratory, ETH Zurich, Swiss Federal Institute of Technology, 8090 Zurich, Switzerland

This series of articles from Christoph Hatz's group in Switzerland used a smartphone application to collect detailed information on health behaviours, symptoms, accidents and environmental factors during travel. They concluded that use of such mHealth technology was technically feasible, acceptable and less subject to recall bias. They also found that non-infectious disease events were relatively common and that certain subgroups of travellers would benefit from tailored advice based on their reported exposures. They did acknowledge the limitations which such technology may face in relation to data protection, however. This is clearly an area of travel medicine research which is going to expand in the future.

JOURNAL OF TRAVEL MEDICINE International Society of Travel Medicine Promoting healthy travel worldwide

Journal of Travel Medicine, 2017, 1-4
doi:10.1016/j.jtm.2017.09.009
Brief communication

Individual traveller health priorities and the pre-travel health consultation

Gerard T. Flaherty, MD^{1,2*}, Bingling Chen, BSc³ and Gloria Avalos, MSc¹

¹School of Medicine, National University of Ireland Galway, Galway, Ireland, ²School of Medicine, International Medical University, Kuala Lumpur, Malaysia and ³School of Biomedical Sciences, National University of Ireland Galway, Galway, Ireland

The most frequently declared travel health concerns of travellers in this study were accessing medical care abroad, dying overseas, insect bites, malaria, and personal safety and travel security threats. The travel health risks of least concern were culture shock, fear of flying, jet lag and sexually transmitted diseases.

JOURNAL OF TRAVEL MEDICINE International Society of Travel Medicine Promoting healthy travel worldwide

Journal of Travel Medicine, 2016, 1-3
doi:10.1016/j.jtm.2016.09.006
Perspective

Medico-legal risk, clinical negligence and the practice of travel medicine

Kieran M. Kennedy^{1,*} and Gerard T. Flaherty^{1,2}

¹Department of Medicine, School of Medicine, National University of Ireland Galway, Galway, Ireland and ²School of Medicine, International Medical University, Kuala Lumpur, Malaysia

Lest one were to assume that travel medicine is itself a low risk specialty, this paper reminds us that there are multiple medico-legal risks involved in giving pre-travel advice, vaccinations and dealing with the returned traveller.

Travel Medicine and Infectious Disease 21 (2018) 43–50

Contents lists available at ScienceDirect

Travel Medicine and Infectious Disease

Journal homepage: www.elsevier.com/locate/tmaid

An extra priming dose of hepatitis A vaccine to adult patients with rheumatoid arthritis and drug induced immunosuppression – A prospective, open-label, multi-center study

Anja Rosdahl^{a,b,c}, Christian Herzog^d, Gert Frösner^e, Torbjörn Norén^{f,g}, Lars Rombo^h, Helena H. Askling^{h,i}

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^b Dept. of Infectious Diseases, Örebro University Hospital, SE-701 85 Örebro, Sweden
^c Swiss Tropical and Public Health Institute, CH-4001 Basel, Switzerland
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^e Institute of Traveling, Technical University of Munich | Helmholtz Zentrum München, 85770 Munich, Germany
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^g Center for Clinical Research, Swedish Tropical University, SE-431 88 Västerås, Sweden
^h Karolinska Institutet, Dept. of Molecular Medicine, Unit for Infectious Diseases, SE-171 76 Stockholm, Sweden
ⁱ Dept. of Communicable Disease Control and Prevention, Stockholm, SE-431 88 Västerås, Sweden

This prospective, multi-centre study evaluated whether an extra dose of hepatitis A vaccine given shortly prior to travel produces seroconversion in immunocompromised travellers. They found that 2 months after initial vaccination, 84% of treated rheumatoid arthritis patients had protective antibodies, compared to 85% of healthy individuals. At 1 year, 99% of RA patients and 100% of healthy individuals had seroprotective antibodies.

JOURNAL OF TRAVEL MEDICINE International Society of Travel Medicine Promoting healthy travel worldwide

Journal of Travel Medicine, 2017, 1-8
doi:10.1016/j.jtm.2017.09.013
Original article

Single visit rabies pre-exposure priming induces a robust anamnestic antibody response after simulated post-exposure vaccination: results of a dose-finding study

Emile F.F. Jonker, MD, and Leonardus G. Visser, MD, PhD^{*}

Department of Infectious Diseases, Leiden University Medical Center (LUMC), Leiden, The Netherlands

Leo Visser's group in The Netherlands looked at the optimal rabies pre-exposure priming regimen that would require only a single visit to the clinic on order to produce an adequate memory response in subjects at 1 year. There were 4 study arms to which 30 volunteers were randomly assigned. Priming with a single dose of rabies vaccine was sufficient to induce an adequate anamnestic antibody response to rabies post-exposure prophylaxis at 1 year.

Travel Medicine and Infectious Disease, Volume 19 (2017) 51–60

Contents lists available at ScienceDirect

Travel Medicine and Infectious Disease

Journal homepage: www.elsevier.com/locate/tmaid

Travel-related acquisition of diarrhoeagenic bacteria, enteral viruses and parasites in a prospective cohort of 98 Dutch travellers

Jarne M. van Hattem^{a,c}, Maris S. Arcilla^b, Martin P. Grobusch^a, Aldert Bart^{a,d}, Martin C. Bootsma^{e,f}, Perry J. van Genderen^g, Tom van Gool^h, Abraham Goorhuisⁱ, Jaap J. van Hellemond^j, Richard Molenkamp^k, Nicky Molhoek^l, Astrid M. Oude Lashof^m, Ellen E. Stobberinghⁿ, Bob de Wever^o, Henri A. Verbruggen^p, Damian C. Melles^q, John Fenders^r, Constance Schultsz^s, Merno D. de Jong^t

^a Department of Medical Microbiology, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands
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^c Center of Tropical Medicine and Travel Medicine, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands
^d Department of Microbiology, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands
^e Public Health and Health Services Research, University Medical Center Groningen, Groningen, The Netherlands
^f Department of Microbiology, Faculty of Science, Radboud University of Nijmegen, Nijmegen, The Netherlands
^g Institute for Travel Medicine, Groningen, The Netherlands
^h School for Public Health and Primary Care (GROW), Department of Medical Microbiology, Radboud University Medical Center, Nijmegen, The Netherlands

This prospective Dutch study determined the frequency of travel associated acquisition of 19 pathogens in 98 intercontinental travellers, from faecal samples collected immediately before and after travel. There were high pre-travel carriage rates of Blastocystis spp. And Dientamoeba fragilis. Bacterial pathogens were found to be more likely than viruses as a cause of travellers' diarrhea but the high pre-travel carriage rates of Blastocystis and D. fragilis warrants cautious interpretation of positive samples in returning travellers.

JOURNAL OF TRAVEL MEDICINE International Society of Travel Medicine Promoting healthy travel worldwide


Journal of Travel Medicine, 2017, 1-6
doi:10.1016/j.jtm.2017.09.017
Original Article

Use of a multiplex DNA extraction PCR in the identification of pathogens in travelers' diarrhea

Bradley A. Connor, MD^{1,2*}, Marina Rogova, RN¹, and Olga Whyte, RN¹

¹The New York Center for Travel and Tropical Medicine, New York, NY, USA and ²Department of Medicine, Weill Cornell Medical College, New York, NY, USA

This study used multiplex DNA PCR technology to determine the aetiology of travellers' diarrhoea pathogens and found that a higher proportion of viral pathogens compared with historical assumptions was identified as well as mixed infections with multiple pathogens.

 **Journal of Travel Medicine**
International Society of Travel Medicine
Promoting healthy travel worldwide
Journal of Travel Medicine, 2011, Vol 24, Suppl 1, S83-S90
doi:10.1093/jtm/tar028
Original Article

Original Article

Guidelines for the prevention and treatment of travelers' diarrhoea: a graded expert panel report

Mark S. Riddle^{1,*}, Bradley A. Connor^{2,*}, Nicholas J. Beeching³, Herbert L. DuPont⁴, Davidson H. Hamer⁵, Phyllis Kozarsky⁶, Michael Libman⁷, Robert Steffen⁸, David Taylor⁹, David R. Tribble¹⁰, Jordi Vila¹¹, Philipp Zanger¹², and Charles D. Ericsson¹³

The graded expert panel report on travellers' diarrhoea pointed to strong evidence supporting the effectiveness of antimicrobial therapy in most cases of moderate to severe travellers' diarrhoea.

 **Journal of Travel Medicine**
International Society of Travel Medicine
Promoting healthy travel worldwide
Journal of Travel Medicine, 2011, 1-4
doi:10.1093/jtm/taq057
Original Article

Original Article

Can a galacto-oligosaccharide reduce the risk of traveller's diarrhoea? A placebo-controlled, randomized, double-blind study

Gunnar Hasle, MD, PhD^{1,*}, Ragnhild Raastad, MD¹, Gunnar Bjune, MD, PhD², Pål A. Jenum, MD, PhD³ and Lise Heier, MSc¹

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Gunnar Hasle and co-workers in Norway found that a galacto-oligosaccharide reduced the risk of diarrhea lasting 1 day in travellers to high/intermediate risk TD countries for 7-15 days. Protection seemed to commence after a week of treatment and strict compliance was essential. The number of travellers needed to treat to prevent a day of diarrhea was calculated at 7.4.

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journal homepage: www.elsevierhealth.com/journals/tmid

REVIEW

Systematic review of loperamide: No proof of antibiotics being superior to loperamide in treatment of mild/moderate travellers' diarrhoea

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This systematic review of the role of loperamide in the management of travellers' diarrhoea found that its use alone does not predispose to contracting MDR bacteria. Furthermore, the authors found no evidence that antibiotics were significantly more effective than loperamide in treating mild/moderate travellers' diarrhoea.

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Promoting healthy travel worldwide
Journal of Travel Medicine, 2011, 1-4
doi:10.1093/jtm/taq057
Original Article

Original Article

Previous exposure in a high-risk area for travellers' diarrhoea within the past year is associated with a significant protective effect for travellers' diarrhoea: a prospective observational cohort study in travellers to South Asia

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Having stayed in a high-risk area for travellers' diarrhoea within the past year was associated in this prospective multicenter study with a significantly decreased risk of developing travellers' diarrhoea. Interestingly, no association was found between consumption of high risk food (tap water, ice cream, raw meat and hamburgers) and travellers' diarrhoea.

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Prevalence and risk factors for Extended-Spectrum Beta-Lactamase-producing-Enterobacteriaceae in French military and civilian travelers: A cross-sectional analysis

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This cross-sectional study of 166 travellers in France found that antibiotic treatment in the two previous months was strongly predictive of colonisation with extended-spectrum beta-lactamase-producing Enterobacteriaceae.

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The role of 'filth flies' in the spread of antimicrobial resistance

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^f Institut für Tropenmedizin, Robert-Koch-Universität, Tübingen, Deutsche Zentrum für Infektionsforschung, Tübingen, Deutschland, Germany
^g Julia Kühn Institute, Federal Research Centre for Cultural Heritage, Katernaher, Germany
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Filth flies feed and develop in excrement and decaying matter and can transmit enteropathogens to humans. This literature review found that they can bio-enhance the transmission of antimicrobial resistance as bacteria multiply in the digestive tract, mouthparts and regurgitation spots. They recommended that quantitative risk assessment models should be refined and fed with additional data before definitive conclusions can be drawn.

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Original Article

Original article

Malaria prevention strategies and recommendations, from chemoprophylaxis to stand-by emergency treatment: a 10-year prospective study in a Swiss Travel Clinic

Rim Boubaker, MD, MSc Emerg Med^{1,*}, Annie Hérard Fossati, BNurs¹, Pierrette Meige, BNurs¹, Catherine Mialot, BNurs¹, Chantal Ngarambe Buffat, BNurs¹, Jacynthe Rochat, BNurs¹, Marilène Souvannaraj-Bischoff, BNurs¹, Mediatrix Uwanyiligira, BNurs¹, Françoise Widmer, BNurs¹, Sylvie Payot, BSc¹, Laurence Rochat, MD¹, Serge de Vallière, MD, MSc^{1,2}, Valérie D'Acremont, MD, PhD^{1,3}, and Blaise Genton, MD, PhD^{1,2,3}

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This prospective study from Switzerland documented the considerable decline in antimalarial prescription for chemoprophylaxis in favour of SBET over a 10-year period.

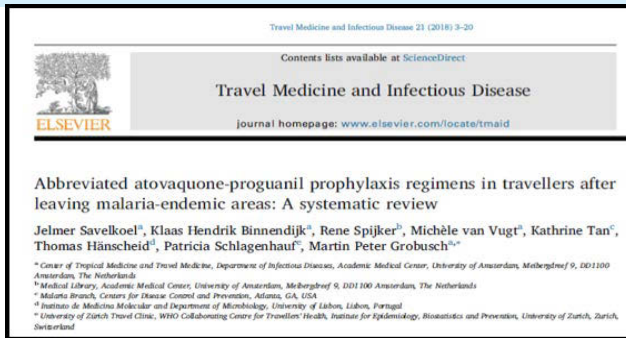
 **Journal of Travel Medicine**
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Journal of Travel Medicine, 2016, 1-5
doi:10.1093/jtm/taq058
Original Article

Original Article

Effectiveness of twice a week prophylaxis with atovaquone-proguanil (Malarone®) in long-term travellers to West Africa

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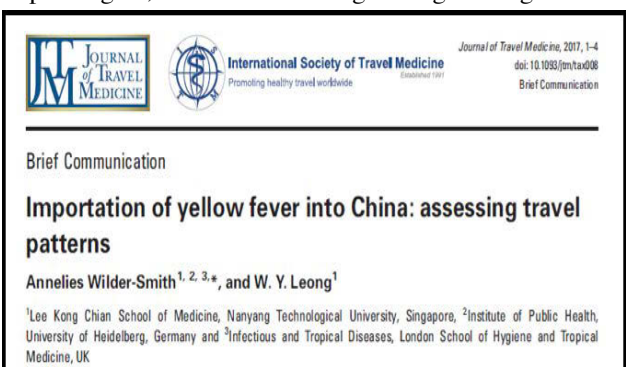
Two studies looked at alternative regimens for atovaquone-proguanil, one using twice weekly prophylaxis in long-term travellers to West Africa.



This systematic review highlighted the risk of stopping Malarone on the day of return from a malaria-endemic area, in terms of possibly selecting for atovaquone-resistant parasites given that proguanil has a short half-life. Patricia Schlagenhauf's group surveyed European travel medicine experts in relation to 11 malaria prevention scenarios and found that contraindications are not always observed and there are no uniform recommendations for high-risk travellers. Discordance in recommendations and few chemoprophylaxis options limit choices for travel health practitioners.



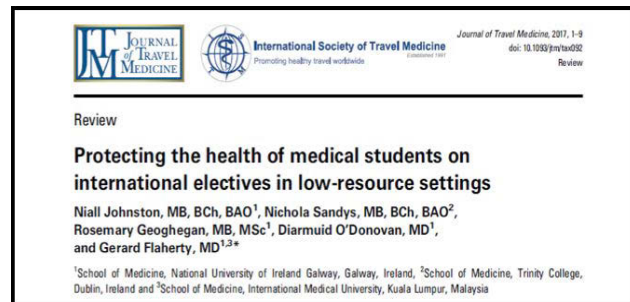
This review of travel-related influenza infection recommended seasonal influenza vaccination for any traveller wishing to reduce the risk of incapacitation, particularly cruise ship crew and passengers, and those attending mass gatherings.



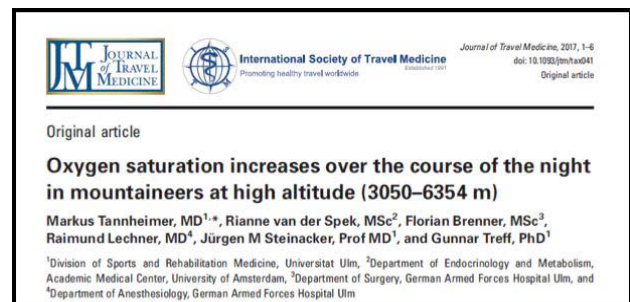
The importation of yellow fever into China by 11 Chinese workers infected during the 2016 YF outbreak in Angola prompted this paper by Annelies Wilder-Smith. In it, the low YF vaccination coverage among Chinese travellers and workers to Angola, despite International Health Regulations, is discussed.



I quite enjoyed this systematic review article on infections associated with adventure travel, including leptospirosis, schistosomiasis, viral haemorrhagic fevers, rickettsial diseases and endemic mycosis. The authors recommend doxycycline prophylaxis for travellers susceptible to leptospirosis from high-risk sports such as whitewater rafting or caving.



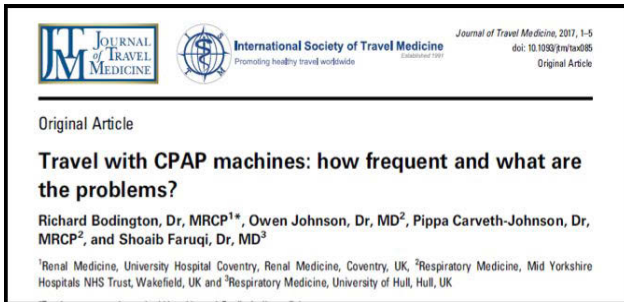
We reviewed the health risks faced by medical students completing electives in developing countries and presented a set of recommendations for students and their health educators alike. Further original studies in this area are required however.



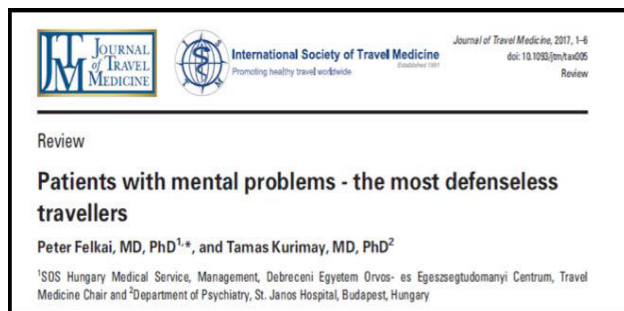
Little has been previously known about the nocturnal time course of blood oxygen saturation in mountaineers at high-extreme altitude. This study was the first to demonstrate an increase in SpO₂ using continuous measurement in 10 male mountaineers on a 3-week expedition to Peru. The authors concluded that these changes in oxygenation might be a valuable indicator of individual acclimatisation.



Multi-drug bacterial resistance has become an important topic in travel medicine in recent years. This study from Philippe Gautret's group reviewed the issue in Hajj pilgrims to Saudi Arabia and recommended that pilgrims be educated by healthcare practitioners about hygiene practices aimed at reducing travellers' diarrhea and limiting use of antibiotics in order to reduce the risk of MDR bacterial transmission.



There were some interesting papers dealing with special groups of travellers, including this one from the UK which surveyed travellers with obstructive sleep apnoea using CPAP machines. Of those taking overnight flights, half did not sleep and none used their CPAP machines in flight. Overall, despite minor technical problems, CPAP usage did not differ to usage at home.



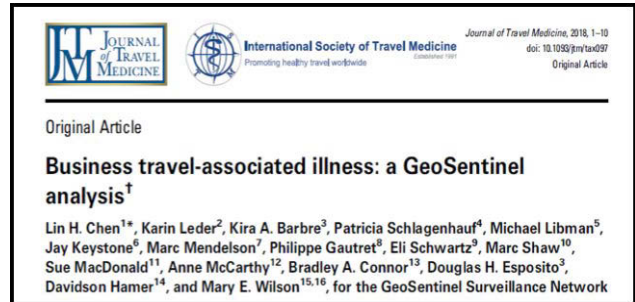
Patients with mental illness face unique problems during travel but this is a neglected area of travel medicine research. This review by Peter Felkai was very welcome and it covered many aspects of this issue, including the challenges of repatriating psychotic travellers. I commend this paper to anybody who provides pre-travel health advice or is involved in aeromedical evacuation of travellers.



We reflected on the challenges faced by obese travellers in this perspective article and we presented the findings of a follow-up qualitative study at the Free Communications session at the NECTM7 conference.



Irmgard Bauer from Australia gives us pause for reflection in this excellent review article published earlier this year on the challenges faced by disabled travellers. It is well worth reading.



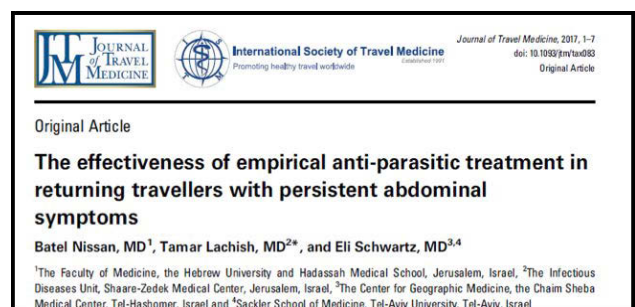
The GeoSentinel Surveillance Network continues to publish interesting reports. This analysis of travel-related health problems in over 12,000 business travellers found that fewer than half had seen a pre-travel health practitioner prior to travel. The most frequent region of exposure was sub-Saharan Africa and malaria and diarrhea were the most common diagnoses. Thirteen deaths were reported, mostly due to malaria.



Jane Chiodini's reflection on the phenomenon of female genital mutilation coincided with the publication of an authoritative guidance document from the RCN together with the FTM in Glasgow on this subject. All travel health practitioners who work with VFRs should be familiar with its contents.



This Swedish survey of 2751 men who have sex with men (MSM) explored factors associated with unprotected anal intercourse (UAI) in MSM travellers. Factors associated with casual UAI abroad included visiting a gay sauna or bar, experience of UAI with a gay visitor, living with HIV, poor overall health and being born outside Sweden.



Persistent abdominal symptoms in returning travellers with negative stool tests was the subject of this retrospective study from Israel. Empirical anti-parasitic treatment with oral Tinidazole and Albendazole produced improvement in GI symptoms in 69% of patients and improvement in energy levels in 68%.



We examined the morbid subject of death in overseas travellers and the process of repatriation of human remains. We recommended that death and repatriation be discussed during the pre-travel consultation.



Chronic inflammatory rheumatism is increasingly reported as a complication of Chikungunya infection in Latin America. This retrospective cohort study of 128 patients with pCHIK-CIR after 59-68 weeks found that nearly half had at least one rheumatologic symptom that persisted beyond a year and a third of them met the criteria for pCHIK-chronic polyarthralgia.



This Danish study found that travel-related diseases were common among patients admitted to an infectious disease ward. Malaria was the most common disease among travellers and immigrants. Only 18% of VFRs had received pre-travel health information.



This systematic review examined diagnostic delay in relation to malaria in travellers returning to non-endemic countries

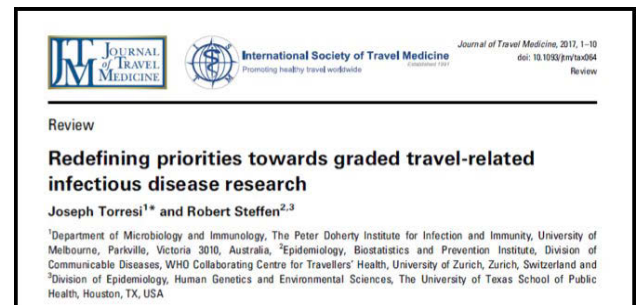
and showed that patient delays in seeking care accounted for a large proportion of the overall delay.



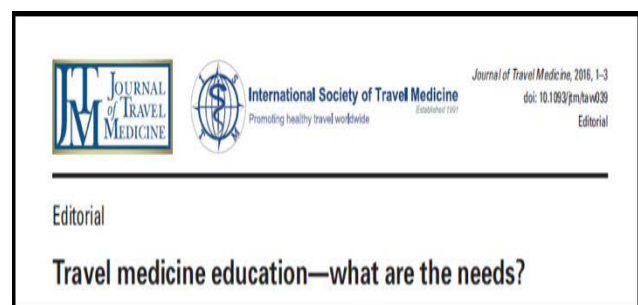
Although the authors failed to isolate the fungus, *Histoplasma capsulatum*, from a sample of volcanic sand, they attributed the presence of histoplasmosis in a 25-year old Dutch woman to the activity of volcano boarding in Nicaragua.



The special "Closing the Gap" issue of JTM last year contained some interesting material, not least this review article which discussed travel medicine research priorities and how publications have responded to the research questions posed. Gaps remain and new questions have emerged. The authors recommend that key research questions be reframed to accommodate the needs of travellers from emerging economies.



The limitations of data from large surveillance networks was highlighted in this review by Joe Torresi and Robert Steffen. In it they imagine the future role of vaccinomics, personalised medicine and translational medicine in travel medicine.



Finally, Robert Steffen's editorial on the educational needs of travel medicine advisers points to the fragmented nature of education and training in travel medicine across the globe, although better examples are emerging in certain countries.

Prof. G. Flaherty

TEST YOUR KNOWLEDGE – ANSWERS FROM PAGE 6

Question	A	B	C	D
1. Ross River Fever	True	True	False	True
2. Middle East Respiratory Syndrome (MERS)	False	False	True	True
3. Crimes & tourism	True	True	True	False
4. Vaccine Storage	True	False	True	True
5. NTDs	True	True	False	False
6. Country:	Papua New Guinea			

NOTICE BOARD

To all our members who have paid their membership subscription, a big Thank You.

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If you are unsure if you have paid your subscription email Anne and she will check it out for you.

Can you help with a query?

A cheque was received drawn on Ulster Bank in Portlaoise, cheque number 002269 unfortunately the remittance advice with the members name on it was not returned. This membership subscription could be for any of 6 members from the Co. Laois area.

Note: When paying membership subscription direct to the bank, please give the members name as a reference and not the practice name. As electronic payments now are originated from office computers and not from the bank, the only information is what our bank receive, and they cannot identify what part of the country the payment was made. The members name is important to make sure the payment is credited to the correct person.

THE ROYAL COLLEGE OF NURSING (RCN) TRAVEL HEALTH COMPETENCIES 3RD EDITION



The RCN published the first guidelines and standards for nurses in travel health medicine in 2007, updating them in 2012. Following an audit and evaluation (RCN 2017) a revised version has been published.

Travel health services have changed since 2012. The 3rd edition (RCN 2018) builds on previous versions, retaining elements considered most useful and expanding information on e.g. Governance, current resources and standards for best practice.

Online learning courses for practitioners and access to the internet and social media has affected the delivery of travel health training and advice. Current guidelines and standards of care for travellers by appropriately registered practitioners, remains focused on the work of a registered nurse:

- competent nurse (level 5)
- experienced/proficient nurse (level 6)
- senior practitioner/expert nurse (level 7).

Guidance is applicable to other qualified practitioners, including doctors and pharmacists.

Information on recommended appointment times was retained, clarified, and expanded, e.g. managing children or groups of travellers.

The risk assessment section is comprehensive. Expanded information in the pre-travel consultation includes e.g. FGM, Forced Marriage and LGBT travellers. Appendices include downloadable risk assessment/management forms, with standalone versions available on the RCN

website. <https://www.rcn.org.uk/clinical-topics/public-health/specialist-areas/travel-health>

Healthcare professionals are reminded of their personal responsibility in developing a portfolio of evidence of competence. Individuals can determine the scope of their current level of practice, future development needs and prepare themselves to progress into future roles within the field of travel health.

This publication is online with direct links to resources. The authors hope that this guidance continues to support and meet the needs of practitioners delivering travel health services in this challenging area of practice. 265

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<https://www.rcn.org.uk/professionaldevelopment/publications/pub-006506>

S. Grieve

‘Sandra is the travel health lead for the Royal College of Nursing (RCN) Public Health Forum (PHF), representing the RCN on travel health related issues both nationally and internationally.

She is Chair of the Northern European Conference on Travel Medicine (NECTM) Steering Group. She is a Fellow of the Faculty of Travel Medicine (FTM), Royal College of Physicians and Surgeons of Glasgow (RCPSG), and editor of their magazine *Emporiatics*. She is actively involved in nurse education, enjoys writing, attending conferences, gathering and disseminating travel health information and forging links with nurses around the world.

Sandra was our guest speaker at the TMSI meeting April last year, so some of you might remember her expertise in Travel Medicine.’