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## EDITORIAL

The events of 11th September have had a huge effect on the world travel scene and on air travel in particular. Fear of flying has always been a common phobia which was addressed by Professor Bor in an article in the last issue of the journal. He concludes his presentation with an article on one form of treatment, with features which can be utilised by any interested health professional embarking on phobia therapy.

The fear of biological weapon use is now universal and anthrax contact now a consideration for those visiting the USA, however, the critical analysis item on food poisoning in the contents, is a reminder that covert dangers can affect travellers within the confines of the UK. Professor Cartwright also discusses measures adopted by the travel and hotel industry, to minimise the risk to travellers to the Caribbean of the scourge of gastroenteritis from ingestion of infected food. The end result of infection and trauma while abroad may mean hospitalisation and repatriation for a few, tackled in the piece on International Travel Assistance.

The BTHA Council commissioned a report on the association if any, of deep venous thrombosis and travellers thrombosis, and this is reported within.

It remains our hope that the journal can be produced more often than annually but this is dependent upon input from members and their colleagues. If members want it to continue, the active participation of every member who can put pen to paper is required. Your travel related case histories, critical events and research reports are solicited. They will be of interest to others and will have educational value meriting wider dissemination. Your contributions are needed to maintain and improve the publication. We have partial peer review of contents and it is the intention to have all the material peer reviewed but, the first priority is the submission of articles which lies with you.

Do not be a dormant member of the BTHA, lift your pen, input the word processor and participate – the publication is yours to develop and maintain.

IAIN B. MCINTOSH.

## **SAFER AND HEALTHIER HOLIDAYS: THE FEDERATION OF TOUR OPERATORS INITIATIVE**

R CARTWRIGHT

Chicken or egg? Traveller protection or environmental control? The majority of the sessions at the recent ISTM meeting in Innsbruck were concerned with the advice and protection that can be given to individual travellers, with little consideration of reducing the hazards to which tourists may be exposed. Public health preventative measures have never had the appeal of dealing directly with the patient or potential patient, yet many of the diseases discussed in travel clinics were common in the UK a century or more ago. Their relative absence has nothing to do with vaccines or antimicrobials but is due to safe potable water, efficient sewage disposal systems, effective solid waste disposal and active food hygiene programmes.

The Federation of Tour Operators, (FTO) a working association of the major UK package tour operators, has recognised that their role is not to give medical advice to intending travellers, but to provide encouragement to seek advice from their GP or a travel clinic. They can, however, influence the environment into which their clients will be entering. This approach is relatively new, as they believed in common with most public health practitioners, that water and food hygiene, sewage and solid waste disposal, building and fire safety, legionella control and swimming pool management, to name but a few public health and safety measures, were the responsibility of local and national authorities in holiday destinations. Indeed the formal responsibility may lie with the authorities but the priorities for implementation may differ greatly from the expectations of the tourist.

FTO members have a very active Health & Safety Committee that has been progressively working for a number of years to achieve common auditable standards in the accommodations that they use. This is no mean goal when they have contracts with around 10,000 units of accommodation in 135 different countries. The challenge could be approached in many different ways but from the very beginning it was recognised that co-operation with the hoteliers was likely to be the most productive. Training and encouragement is necessary for the hoteliers so that they appreciate that high standards of hygiene and safety are a financial benefit. 'Healthy tourists equal healthy profits', was a catch phrase that has more than an element of truth. The programmes that have been, and still are being, developed are complementary to any local or national legislation. They are not enforceable by law but may become a very important element in negotiations of future contracts. They also have strength in that all the FTO members are working together and sharing information. No longer can a hotelier play one tour operator against another.

The programmes that are being implemented this year are based on Codes of Practice developed by consultants and the health and safety officers of FTO members and are written so that they can be understood by hoteliers and help them in making any necessary improvements. The topics covered include fire safety, food and water hygiene, swimming pool safety, general safety,

legionella control, excursion safety, coach safety, children's clubs safety with interim guidance on the prevention of swimming pool associated cryptosporidiosis.

It is recognised that the tour operator must consider health and safety from their first visit to a hotel. The contracting team is provided with a check form to complete and return to their health and safety department. This should identify any major problems before a contract is signed. Properties that are used are subject to an ongoing audit that may involve the local representatives, health and safety officers and external consultants. Behind all this the hoteliers are encouraged to have their own audit programme and the necessary advice is given on how such a programme can be achieved. External consultants are recommended for training and for independent auditing. A hotelier actively providing a health and safety programme has little to fear from any inspection by local municipality health and safety inspectors. There may be minor differences in requirements but the tour operators always stress the importance of complying with local and national legislation. They are, however, mindful of a statement by an ambassador of a Caribbean country that they could pass any legislation that was necessary, it was implementing it that was the problem!

The information obtained from hotel audits will be kept in a common format and shared between members. Already hotels are improving their standards and reducing the hazards to which tourists may be exposed.

In order that the tour operators' health and safety staff have the necessary expertise to understand the technicalities of the programmes. It has been necessary for them to receive special training. Depending on the grade, they will hold the basic, intermediate or advanced food hygiene certificate of the Chartered Institute of Environmental Health. Many will also have attended a five-day course in fire safety. This is an ongoing commitment but is an essential part of the Health & Safety programme provided by FTO members.

All the hazards abroad are not just in hotels. The standard of the public health infrastructure can influence the health of tourists directly and indirectly through the health of hotel staff and the consumption of food and drink outside of the hotel. Information on tourist illnesses is collected and used in presentations to Ministers of Tourism and Civil Governors in persuading them of the importance of safe water supplies, efficient sewage and solid waste disposal systems and a reliable electricity supply to ensure the infrastructure operates. This may require major civil engineering and training investment but it is investment that benefit the indigenous population as well as the tourist.

Over the past few years a popular Mediterranean island has been the cause of much anxiety to tour operators. A gastrointestinal illness, probably of viral origin, has regularly affected tourists despite reassurance by local health officials that no problems can be identified and that there are no problems with the public health infrastructure. Investigations by FTO consultants have revealed a different scenario, the island having a water supply that in both quantity and quality fails to meet the requirements of the EU Drinking Water Directive to which the country concerned is bound. The results have been shared with both the local and National authorities. Improvements have been promised but action has not been forth coming. The information has been

passed to Brussels and on the evidence provided action against the government is under consideration.

Does the introduction of a food hygiene programme make any difference to illness levels? In the early 1990s the level of recorded illness in British tourists to the Dominican Republic was regularly over 50%. This information was shared with successive governments with many promises of action. In 1998, FTO members took the unusual step of taking combined action in agreeing to only use hotels that signed up to a food hygiene programme provided by Cristal International, a firm of consultants providing training for food handlers, chefs and managers based on HACCP principles. In the first year 13,500 food handlers were trained. The illness levels in tourist steadily fell over the next few years with an overall figure that now compares favourably with some Mediterranean destinations. There has been a corresponding fall in complaints received by the tour operators and the compensation paid out. The Vice Minister of Tourism for the country has declared that the action has helped turn round their tourist industry.

In spite of the huge amount of work and resource committed, this FTO initiative is only the beginning and it must be remembered it only affects those tourists who book their holidays with an FTO member, which is around one third of all UK travellers. Despite the common usage of hotels probably less than half of all U.K. travellers benefit directly from this work. Even in the destinations used by FTO members the training and ongoing encouragement and auditing cycle is a huge commitment that in many countries is regarded as the province of the public health departments. In very many destinations the tour operators are the de facto public health improvement agency bringing benefits to the local population as well as the tourist.

It is still fashionable to blame the tour operator or travel agent for not giving health advice to tourists. This is not a function for which they have the necessary medical training; they must continue to advise all travellers to consider seeking advice from a travel medicine specialist well before their journey. The tour operator can, however, influence the other end of the infection chain. The initiative of the FTO members demonstrates one-way of achieving this and reducing the hazards to which tourist may become exposed.

It is not a matter of the chicken or the egg but of tackling both for the benefit of the travellers and those serving them in the holiday destinations.

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*Medical Advisor*, Federation of Tour Operators,  
MicroDiagnostics (UK) Ltd.

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### **Travel**

I travel for travels sake. The greatest affair is to go. – *R.L. Stevenson.*

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## PRE-TRAVEL CLINICS-AND THEIR ROLE IN “PREVENTION”

(The International Emergency Medical Assistance Doctor’s perspective)

C. PEACH

For many the mere mention of ‘travel’ evokes images of sun sand, and sea in some exotic paradise. Perhaps for this reason when asked to give advice to the intending traveller, the most level headed of medical practitioners find themselves straying from their usual cautionary, medico-legally safe practical advice and colluding with their patients’ fantasies. General Practitioners rarely advise against travel. Reality is often very different from fantasy.

The situation is further complicated by the fact that courses on ‘travel medicine’ often concentrate on exotic and rare infectious diseases, rather than more mundane problems. The reality is that the most frequently occurring conditions amongst travellers abroad are the exact same conditions that would have occurred had they not travelled but stayed at home *ie* day to day routine medical problems. Whilst primary prevention in the form of immunisation and good advice undoubtedly has a role to play, the real gains in reducing adverse medical events amongst travellers are in secondary prevention.

**What actually happens to people when they travel?** International Emergency Medical Assistance companies have long been helping travellers who become ill or injured away from home. They can provide a wealth of information about the reality of incidence and prevalence of illness abroad. This will enable the practitioner in Travel Medicine to establish a sensible pre-travel screening programme which combines primary prevention through immunisation, with pragmatic advice on whether the proposed trip is appropriate given the pre-morbid state of the traveller.

**Incidence/Prevalence:** International Medical Assistance organisations deal with the ‘guarantee of medical expenses’ and provide assistance for approximately 0.3% of those covered by a travel insurance scheme. (The range is 0.15-0.6% depending upon the age skew of the target group to whom the insurance is marketed and whether or not dangerous sports are involved.)

- Approximately 100,000-150,000 people will require medical care and possibly repatriation each year.
- Just under 70% will require minimal intervention for minor illness or injury.
- 20% will require some form of assistance with repatriation
- 10% will need medical escorting home with either a doctor, nurse attendance.
- 0.1% will require expensive care with a specially modified air ambulance transfer home, in a plane with a specialist ‘air-ambulance’ transport team.

The strategy for deciding how a repatriation should be carried out will depend upon local medical facilities and how capable they are of coping with the problems concerned, as well as factors relating to the medical conditions.

#### **Analysis the Caseload:**

The *commonest category* is trauma reflecting the increased incidence, especially where travel is for winter skiing or other injury prone activities. The incidence of road traffic accidents is more common by a significant margin in many other countries, probably increased further by lack of familiarity of the traveller with motoring practices in these countries. The majority of trauma cases are minor injuries involving simple treatments such as dressings and minor suturing, but the more serious cases pose great difficulties when it comes to repatriation.

The *second highest category* is Gastro-Intestinal problems reflecting the high incidence of travellers' diarrhoea and usually results in simple treatment only. Over-treatment in some resorts constitutes a major management problem for travel insurance companies. The inappropriate use of IV fluids necessitating expensive hospital admission is known in the world of Medical Assistance as the 'ball and chain' routine, owing to patients being afraid or unable to escape from hospital until their drip has been taken down.

The *third highest category* is Cardiovascular disease which poses the biggest problem for Assistance organisations and Insurers. It perhaps reflects the high prevalence of risk factors for Coronary Heart Disease amongst the UK's population. There is some unproven evidence that first episode of adverse events associated with these risk factors, may be as much as three times higher amongst travellers than amongst their matched equivalents who choose to stay at home. This requires proper studies to evaluate further if a reliable evidence based conclusion is to be reached.

The incidence of DVT may well prove to be of some substance when fully investigated. The physiological conditions and stress (both physiological and psychological) associated with travel probably predispose to greater potential for vascular events, such as thrombus formation, be it venous or arterial.

Perhaps this is the single greatest area where the Pre-Travel clinic might be able to offer more effective preventative advice. *e.g.* Is the choice of destination appropriate given the physical state of the intending traveller? Should someone with major risk factors for Coronary Heart Disease go trekking in the Andes or Nepal? Should advice to take aspirin prior to flights over three hours be standard (assuming no contra-indication)?

Analysis of the caseload requiring medically assisted repatriation offers a clearer picture of the severity of different problems.

#### **MEDICAL ASSISTANCE CASES**

The single greatest problem for International Medical Assistance and Medical Repatriation organisations is cardiovascular disease which constitutes 35%+ of the workload and probably a much higher percentage of expenditure on claims. By comparison the trauma and gastro-intestinal problems are less of a problem since they usually involve minimal assistance and are far less costly.

Management of such cases has changed recently. Five years ago the strategy was to stabilise and then repatriate for definitive treatment in the UK. Now however one cannot guarantee access to such treatment in UK and the patient may end up on a waiting list. By contrast nearly all other European

countries now offer an immediate and effective service with no waiting for re-vascularisation procedures. This therefore makes recommending repatriation for treatment in the UK a dangerous decision, given the adverse consequences which may arise and the comparative risks when considering local treatment. For the most part standards in other European countries are at least as high as in the UK. The Assistance company medical officer may therefore face a difficult dilemma given that some insurers lean heavily on them to mitigate their costs by repatriating rather than covering treatment abroad. This is more of a problem in the US since most European destinations have some cover through reciprocal agreements using E111 etc.

From a preventative point of view the 'Travel Clinic' doctor or nurse has much to offer by seeing that high risk patients take good preventative action and do not travel to high risk destinations. Various strategies have been adopted within the industry and a nurse led pre-travel screening programme, first introduced in Australia succeeded in reducing the claims costs for insurers by one third thereby proving that good advice before travel reduces adverse medical events abroad. Similar experiences have resulted from introducing the service in the UK and there is no good reason why this should not also be part of the Travel Clinic pre-travel screening programme in General Practice. In our UK nurses pre-travel screening programme, any would-be traveller declaring a pre-existing medical condition was screened by a nurse using a simple basic decision support system. The results were that 63% were fully covered; 29% were not covered; 8% were part-covered. Of those covered 57% paid an additional insurance premium.

The 29% refused cover were turned down on the basis of factors relating to the stability of the chronic/pre-existing medical condition and their chosen destination. For example a patient with angina might be fully covered to go to France but turned down for the USA. If on the other hand the indicators were that their condition was likely to be stable during the period of cover then no restrictions would be imposed.

Insurance companies, who set the criteria for whom they will or will not cover, are not required by law to follow any rational evidence based policies when determining their screening requirements. They are however required by law to comply with the terms of the Disabilities Discrimination Act (DDA).

It is the 8% 'part covered' who are the result of this legal requirement for insurers to comply with the DDA (*ie* not to discriminate against someone with a medical condition). The consequence of this for practical purposes is that the individual with the pre-existing problem is likely to be covered for everything except the one thing most likely to give rise to a claim. In the case of Ischaemic Heart Disease in the USA this means that any personal disaster could also become a financial disaster for the person concerned and their families. Since the DDA clearly did not take account of this fact, taking a literal interpretation of it, as most insurers have done, is both dangerous and irresponsible. They should either cover fully or not at all. The traveller purchasing the insurance cannot be expected to understand the subtleties of the policy. The Travel Clinic doctor or nurse can pre-empt this situation by advising that their patient must have adequate medical insurance

cover and in particular it must fully cover any pre-existing conditions they may have. Part-cover should be avoided. Suggest a different insurer if necessary.

Other cases that pose a problem for assistance companies are patients travelling with terminal diseases. These cases are far less frequent, but when they arise they are most distressing for all concerned. The tragedy is made all the worse because they could easily have been avoided with just a modicum of forethought.

The illusion of 'rest and recuperation' associated with 'sun sand and sea' is all the more inappropriate for someone needing palliative care since they will cope badly with the travel, badly with the heat, and not adapt well to being in a different setting away from home. They will be cut off from their usual support networks of GP and community nurses and may well be faced with disastrous alternatives if needing medical care of any kind. Palliative care patients usually prefer to stay at home and the travel plans are frequently an attempt to offer a farewell parting gift which can easily backfire on all concerned. Doctors should advise against travel.

### **Summary**

It may be appropriate to immunise the would be traveller against exotic diseases, but one should never forget the mundane reality of secondary prevention for those patients with pre-existing medical conditions. If Pre-Travel Clinic doctors and nurses were more willing to extend their range of advice to include these matters, many untoward medical events might be avoided at great personal gain to patients and insurers.

### **Questions to be asked in clinics:**

*What problems does the patient have? What past medical conditions, chronic or recurrent or remitting ('pre-existing' in insurance terminology).*

*Why do they want to travel?* Is it to visit friends or relations or for an activity holiday.

*When are they going?* How soon? If they are well now, can we realistically expect them to remain so when they depart if the departure date is 6 months away.

*How will they be travelling?* By air, land or sea. Remember the additional risks from flying.

*Where are they going to?* Is it the USA where healthcare costs are prohibitive and they may not be covered by insurance. Will the local medical facilities be adequate?

*Who will be travelling with them?* Do they have a sensible supporter or are they on their own?

Dr Chris Peach works in association with a Medical Assistance Company.

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If you think nobody cares about you, try missing a couple of credit payments.

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## TRAVELLERS THROMBOSIS

(A literature review commissioned by the BTHA Council)

### The extent of the problem

Air travel related venous disease was first described by Homans in 1946. There have been individual case reports of deep vein thrombosis (DVT) and deaths from pulmonary emboli following airflights.<sup>1, 2, 3, 4, 5</sup> However the problem has also been noted following prolonged travel by train or car<sup>1, 6, 7, 8</sup> and even after sitting cramped up in air raid shelters during the London blitz<sup>9</sup>. The occurrence of associated pulmonary embolism (PE) during or following flights has also long been recognised.<sup>10, 11, 12, 13</sup>

A wide range of genetic haemostatic abnormalities is known to predispose to venous thrombosis. The commonest factor is factor V Leiden(FVL) genotype which is associated with an 8 fold increase in risk, which is considerably higher in those taking oestrogen containing contraceptives. Another is the G20210A mutation in prothrombin (PGM). Together FVL and PGM are present in 10% of the European population and might be considered risk factors in the development of DVT related to prolonged travel.<sup>10</sup>

Aggravating factors during air transportation could be pressure from the edge of seats on the popliteal fossa, haemo-concentration due to dehydration aggravated by diuresis caused by caffeine and alcohol and sedation which may encourage immobility.<sup>14</sup> Decreased air pressure and relative hypoxia may also increase markers of activated coagulation.<sup>15</sup> Fluid retention due to immobility may be confused with DVT if investigations are not carried out.<sup>16, 17, 18</sup>

### Research Investigations

- In a case controlled study in France of 160 patients admitted for DVT, 25% had a history of recent travel (2 by train, 9 by plane and 28 by car) – the odds ratio for travel related DVT was 4 (p<0.0001).<sup>19</sup>
- In another case controlled study in Netherlands 1911 patients with suspected DVT or pulmonary embolism, 32 patients with DVT and 104 controls had a history of prolonged travel. The odds ratio for travel related DVT was 0.96. Very few patients had travelled by plane although an extension of the study suggested there may be an association if the travel had been for more than 10 hours.<sup>20</sup>
- A retrospective study (with ‘bias kept to a minimum’) of 197 patients with proven DVT compared with 602 controls with similar symptoms suggested travel was not an associated risk factor, but an association for flights longer than 10 hours was not ruled out.<sup>21</sup>
- 25% of 134 patients with DVT (Honolulu Army Medical Centre) had travelled by air in the previous 4 weeks with some of the cases developing symptoms at least 2 weeks after travel. 36% had no obvious pre-disposing factors.
- In a study of sudden deaths among travellers pulmonary embolism was one, and probably the main, cause of sudden death among travellers.<sup>13</sup> In

another study 50% (33 of 66) of patients with thromboembolism admitted to hospital had flown in the previous 30 days<sup>22</sup> and Arfvidsson and colleagues reported the same for 23% of patients.<sup>23</sup>

It has been suggested in a recent editorial in the *British Medical Journal*<sup>24</sup> that some studies<sup>25</sup> were not adequately controlled.

- A literature review from UK<sup>26</sup> suggested that the association between DVT and air travel is real but most cases have other risk factors for DVT. Among patients presenting with DVT the incidence following travel was 3.2-17.3% while the incidence in the population at large was 0.4 cases/10,000 annually.

- In a report from Hawaii<sup>27</sup> 355 'low risk' and 389 'high-risk' travellers travelling in economy class for more than 10 hours were studied. None in the low risk categories whereas 2.7% in the high risk group developed DVT.

- There appears to be an age associated risk.<sup>28</sup> Case fatality is also age dependent.

- The risk of deep vein thrombosis in the general population in Netherlands is 1/100,000 for children and those under 20 years, 1/10,000 in those aged 20-50 years, 1/1000 in those aged 50-70 and higher in the very old.

#### **Conclusions of a WHO consultation of scientific experts on risk factors for DVT and any association with airflights 12-13 March 2001<sup>29</sup>**

Comprehensive literature searches showed no published meta-analysis or large prospective randomized studies confirming a possible association between DVT and long haul air flights.

Only case controlled, retrospective and expert opinion papers were available. Based on the weight of evidence a link probably (the chance of occurrence may be greater than 50%) exists between air travel and venous thrombosis. The link, if patent, will mainly affect passengers with additional risk factors for DVT.

Public Health recommendations were not possible.

More studies are needed to assess the role of preventive measures such as exercise, compression stockings, aspirin and heparin.

#### **Conclusions of a select committee on Science and technology Fifth Report on Air travel and Health 15 November 2000<sup>30</sup>**

- The term 'economy class syndrome' is misleading. Business and first class passengers may also be at risk. Travellers thrombosis has been suggested as an alternative.

- The report recognised that there was lack of data on possible associations between DVT and airflights while acknowledging that the problem may not be related to air travel alone.

- As an interim measure airlines, agents and others should provide precautionary advice on predisposing and risk factors to permit informed choice on precautions and possible prophylaxis.

- A recommendation that in every doctors surgery there should be a display card asking intending air passengers "are you fit to fly?" coupled with a note of guidance regarding risks and preventive measures.

**Possible Predisposing factors for DVT in long haul flight.**

Immobility, a factor common to all transportation modes leads to shifts of body fluids with haemoconcentration and stasis in the lower limbs. Other flight factors are:

- endothelial vascular lesions,
- hypercoagulability of the blood and thrombophilia (specifically including those over 60 years of age)
- smoking habit
- previous DVT or pulmonary embolus
- recent surgery or injury
- pregnancy or less than 2 months post-partum
- malignancy
- cardio-respiratory disease, other chronic illnesses
- oestrogen medication (contraceptive and hormone replacement)
- varicose veins
- dehydration

**Incidence of DVT**

Up to 20% of the general population is believed to have some degree of increased clotting tendency<sup>31</sup> from inherited acquired, metabolic or blood abnormalities suggesting that there will be a 'natural' incidence of DVT in the population associated with these factors alone. A certain number of people with these factors, without consideration of any additional factors relating to flight, could be expected therefore to experience DVT in travel. Those travelling by air might expect DVT to occur at an average rate of 1 per 1000 per year with a perhaps a lower rate in the young and a higher rate in older travellers.<sup>31</sup> The fundamental question is whether the incidence is greater in flyers, than in the equivalent population who would have developed DVT if they had not flown. Appropriate, scientifically rigorous epidemiological studies are required to establish this.

Currently, no authoritative data show a clear difference in incidence of DVT between those who have travelled and those who have not. The aircraft cabin with cramped seating, immobility, hypoxia and other environmental factors does however produce additional risk factors which make the occurrence of venous thrombosis more likely. Simple preventive measures ought to be considered by passengers embarking on long distance journeys.

**Possible preventive measures*****Antiplatelet therapy***

- There is evidence that a low dose of aspirin reduces the risk of DVT and Pulmonary embolism by more than 33% in those undergoing hip fracture surgery<sup>31</sup>. A meta-analysis similarly suggested aspirin helped in effective in preventing postoperative venous thrombosis.<sup>32</sup> Although well-conducted studies providing strong and equivocal evidence that aspirin reduces the frequency of symptomatic venous thromboembolism after major surgery, the prophylactic effect was apparent mainly after the first week of therapy and they do not confirm its value in the prevention of travel related thrombosis. Whether aspirin is as effective as low molecular weight heparin in preventing community occurring DVT is not known.<sup>33</sup>

### ***Compression stockings***

The use of compression hosiery has long been used to prevent the occurrence of venous leg ulceration<sup>34</sup> and may be useful for long haul air passengers.+

- In a prospective randomized study of 833 high-risk travellers 0.24% of those who used below knee stockings developed DVT whereas 4.5% of those using no support developed DVT.<sup>35</sup> In a prospective randomized study in UK of 200 passengers 10 % of those not wearing support stockings developed asymptomatic DVT whereas none of the controls did so although 4% of those with stockings developed superficial venous thrombosis.<sup>36</sup> This study has been criticised since only ultrasonography was used and interpretation is open to bias. 50% of DVTs are asymptomatic and Doppler ultrasound, venous plethysmography are necessary to make an accurate diagnosis

### ***Low molecular weight heparin***

- Low molecular weight heparin is generally considered to be more effective than aspirin in preventing venous as opposed to arterial thrombosis.<sup>37</sup> While less convenient to administer low molecular weight heparin could be considered by those over 40 with several risk factors such as long-distance travel with past thrombotic events, malignancy, thrombophilia, plaster casts or recent major surgery.<sup>38,39</sup> One study concludes however that, in elderly people with varicose veins prolonged sitting in a bus does not lead to an enhanced procoagulant state and propylactic heparin therapy was inappropriate for elderly people on prolonged bus journeys.<sup>40,41</sup>

### ***Omega 3 polyunsaturated fatty acids***

- Several studies have shown an inhibitory effect of fish oil rich in omega 3 polyunsaturated (PUFA) fatty acids on stimulated platelet adhesiveness.<sup>42,43,44</sup> A small intake of omega 3 PUFA intake appears to decrease the oxidative stress in elderly people and could be beneficial in decreasing thrombotic tendencies.<sup>45</sup> The long chain PUFA prolong template bleeding time and may have a beneficial effect on erythrocyte flexibility. Bleeding tests show both aspirin and fish oil increase bleeding time with additive effect.<sup>46</sup> Evidence of the value of preflight ingestion of PUFAs is limited and conflicting but they are not subject to the contraindications for aspirin use.

### ***Statins***

As well as their effect on lipid levels statins may have antithrombotic effects. 6 months treatment with pravastatin has shown significantly lowered levels of prothrombin fragments 1 and 2.<sup>47</sup> In a retrospective Canadian cohort, controlled study of 125,862 over-65 year olds, over an 8 year period, researchers demonstrated a decreased risk of DVT in female statin users. They had a lower rate of DVT (7.4/1000 person years) to controls (10.9/1000).<sup>48</sup> Evidence of benefit from statin therapy is suggestive and far from conclusive and randomised clinical trials are required.

### ***Other considerations***

Symptoms of DVT and PE can be delayed for several weeks after the flight.

Cases of DVT have on average 3 factors present and the risk of suffering a DVT probably increases with the number of factors present.<sup>17</sup>

According to Gianangrande smoking is not a risk factor for venous thromboembolism as evidence from surgical studies suggest that it may confer a degree of protection, possibly related to the vasoconstrictive effect mediated through nicotinic receptors on the surface of the smooth muscle cells. The hyperviscosity of the blood associated with smoking is however a consideration in long flights<sup>25</sup> especially if dehydration is also present.

The biochemical and physiological effects of dehydration in flight are well recognised.<sup>40</sup> The only prospective investigation available took no account of changes in air pressure and humidity and the dehydration factor in travellers DVT is not established.<sup>50</sup> Excessive alcohol and coffee ingestion before and during the flight will promote dehydration. The former promotes diuresis by suppression of the antidiuretic hormone. Paradoxically low to moderate consumption of alcohol is associated with with a decreased risk of DVT and PE in elderly people.<sup>51</sup>

*Presented on behalf of the BTHA from review of over 150 papers  
by Eric Walker and Iain McIntosh.*

*References available on request.*

• **RECOMMENDATIONS for travel health clinic personnel**

- Recognise that certain people are at risk of DVT
- Identify those in 'at risk' categories more likely to suffer DVT during prolonged travel.
- Advise travellers of simple measures which may diminish the risk and symptoms which merit the attention of a doctor en route or at the destination.
- Advise long distance travellers by car, coach and air that they may be at higher risk of dvt and the precautions they ought to consider during the journey.

**Advice for those at minimal risk (nil or one predisposing factor)**

- While further studies are being undertaken, preliminary advice for those at low risk should be to exercise the legs when possible and maintain hydration.

**Advice for those at low or moderate risk (eg 2 or 3 predisposing factors)**

- Exercise in the aircraft cabin wherever possible, avoid dehydration, consider using below knee compression stockings and taking a daily dose of aspirin while at risk (so long as aspirin is not contra-indicated). The effective dose is unclear – perhaps 75-300mg.

**Advice for those at high-risk (eg more than 3 predisposing factors)**

- Consider exercise, compression stockings and avoiding dehydration as above plus a subcutaneous injections of Minihep (sodium heparin 5000 IU twice daily) or low molecular weight heparin (eg dalteparin 2500 daily or enoxaparin 40mg daily) while at risk (so long as anticoagulation is not contra-indicated).

### **New manual of inflight medical care**

Earlier this year Sophy Roberts, a travel writer, described how she developed leg pains during a long-haul British Airways flight. These later proved to be symptoms of deep-vein thrombosis. She had asked a flight attendant for help, but found an unsympathetic ear.

British Airways new *Manual of Inflight Medical Care* – a guide to looking after passengers who develop medical problems while on board, is to be distributed to the airline's 14,000 flight attendants. The manual will be supplemented with staff training, a CD-ROM version, and further training and support through the company's internet.

Here DVT is accepted as a possible risk that staff need to know about.

There is also a very detailed examination of the effects of flying on the body.

The manual highlights the important differences between first aid on the ground and managing an emergency at 35,000 feet. It is designed to help staff make the most of expert help on the ground – provided by MedLink, a 24-hour telephone advice link. It is in full colour.

This handbook will help cabin crew not only to treat but to reassure passengers.

*Daily Telegraph*, 24 November 1991.

### **DVT claims against GPs set to rise**

Medical defence organisations are expecting a ‘flurry of claims’ against GPs who fail to diagnose deep vein thrombosis associated with flying.

The prediction came after two GPs admitted liability and agreed an out-of-court settlement amounting to £130,000 in damages and £10,000 costs following a patient’s death.

She died from a pulmonary embolism in 1998 after developing DVT associated with a long-haul flight.

DVT is one of the most commonly misdiagnosed conditions, and the MDU settles around five claims a year involving GP members.

*Pulse*, 2001, 61.46.

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### **Relocation**

Strange words, strange coins  
At the check-out till  
My brain is struggling up a hill  
I really need a quiet time  
To let my soul catch up my mind.

*Charmian Goldwyn.*

\* \* \* \* \*

### **The Phobic’s Prayer**

Be near us Lord. We know that flight  
Is but a challenge to Thy might  
A privilege and not a right.  
O Lord whose mercy we revere,  
We know we shouldn’t be up here.

# **BRIEF – SOLUTION-FOCUSED INITIAL TREATMENT SESSIONS FOR CLIENTS WITH A FEAR OF FLYING<sup>†</sup>**

R. BOR\*, J. PARKER\*\* L. PAPADOPOULOS\*\*\*<sup>1</sup>

## **Psychological Treatment of Fear of Flying:**

### **Abstract**

Cognitive behaviour therapy (CBT) for fear of flying is the most effective psychological treatment. Published research, however, suggests the approach is applied inflexibly to people seeking treatment. More than half of them do not require the full complement of CBT interventions (*eg* desensitisation, simulated or actual flights) and benefit sufficiently from core interventions (*eg* cognitive re-structuring, realistic threat appraisal and coping strategies for dealing with anxiety and panic disorder). This alternative approach may benefit fearful flyers, and can be offered in busy settings such as travel health clinics and GP surgeries.

### **Flying phobia**

Fear of flying can seriously affect a person's relationships and career. (Bor, Parker and Papadopoulos, 2001), reviewed psychological treatment approaches for this problem and highlighted the effectiveness of CBT. Success rates of 70 to 98% (Van Gerwen and Diekstra, 2000) are consistent with research into efficacy of CBT for anxiety disorders and panic attacks, confirming the problem responds to psychological treatment.

- Standard treatment comprises
  - (a) information about flight and flight safety
  - (b) exposure treatment in the context of a test flight.

Programmes include cognitive and behavioural interventions to help cope with symptoms of anxiety and panic, re-appraise dangers of flying and re-consider beliefs about coping with air travel.

This paper arose from treating fears of flying (Royal Free Travel Centre, London) over two years, while following standard CBT treatment protocols (Van Gerwen and Diekstra, 2000) requiring between 4-6 hours psychological therapy, not including a flight. We found half the clients treated did not arrange for follow up beyond the initial hour consultation. We were concerned they may have been opting out of treatment and we had failed to adequately engage them in treatment. Telephone calls to those on the 'attrition list' revealed, the opposite had occurred. Clients reported improvements in coping with their fear. Most had undertaken flights since initial treatment. This unexpected trend encouraged examination of core components of standard initial treatment sessions.

### **Overview**

Emphasis on brief, evidence-based treatment approaches in NHS, primary

care and travel clinic settings, coupled with clients' lifestyle pressures and expectations of treatment, requires health care professionals to be adept in assessing and treating in the shortest possible time. The structure of the initial session using a brief, solution-focused therapy approach (Quick, 1996), underpinned by CBT is described.

If therapy is to end properly, it must begin properly – by negotiating a solvable problem and discovering the social situation making the problem 'necessary' (Haley 1978). The initial interview sets the direction and tone of future therapy. Sometimes it is a 'one off' consultation session, and has potential to be therapeutic. Development of the therapeutic relationship between client and health care professional is dependent on many factors. Physical surroundings play some part in facilitating effective encounters.

Effective counselling needs clarity of purpose, defined by the context, issues surrounding referral, and objectives subsequently agreed between therapist and client. Whatever the context or theoretical stance, basic concepts and steps guide the first interview.

#### **Practice Guidelines: Five Stages**

1. Preparation for initial contact.
2. Meeting, engaging and starting the interview.
3. Definition, clarification and assessment of the problem.
4. Decision making and ending session.
5. Post-interview reflection and tasks (Weber *et al*, 1985).

Within each stage steps can be clarified which serve as a 'map' to guide the interview.

#### **Stage 1: Pre-interview considerations**

##### *Involves*

Pre-planning – Planning how first contact will be made.

The unique issues and problems for each client and making a hypothesis

The hypothesis accounts the client's:

- age; marital state, previous medical or psychiatric problems; social and cultural context (ethnic, cultural, religious) and treatment setting.  
*eg* a 35 year old married woman. Referred by work manager who felt that fear of flying prevented her more actively pursuing business abroad. A preliminary hypothesis might speculate about whether fear of flying is recent or long-standing. Causes or triggers, might include changes in family life-cycle, a recent bad incident when flying (*eg* turbulence or delays), psychological state (*eg* underlying depression, panic attacks), or pressure at work (fear of flying may be exacerbated by the manager subjecting pressure and exposing her to feelings associated with a fear of failure).

A hypothesis allows speculation about the problem, the possible cause(s) or trigger(s), its impact and why it presents now, Initial contact can explore and revise it.

#### **Stage 2: The interview**

The therapist needs to quickly build rapport – an important and basic tenet of

brief therapy (Quick, 1996). A useful opening remark, is:

*‘What most would you like to discuss today and what would you like to achieve?’*

*Aims:*

- Freedom to discuss any problem and recognition that fear of flying might not be uppermost in mind.
- An agenda is solicited early.
- Setting of goals for the session is implied.
- The client is actively engaged from the outset.

‘Problem-defining’ or ‘problem-clarifying’ questions can follow this opening question.

*‘Which problem would you most like to deal with today/now?’*, specially relevant where a client lists a series of problems. Prioritising is a psychotherapeutic intervention to reduce anxiety to manageable proportions; identify main and specific concerns and set achievable goals; Unrealistic goals or expectations can be addressed, setting the stage for a collaborative relationship. The professional needs to understand the specific nature of the fear of flying and its context rather than assume that this is similar for all. A suitable question:

*‘What is it specifically about flying that troubles you the most?’*

This recognises that fear of flying is experienced in different ways ranging from claustrophobia, agrophobia, and a fear of a loss of control, to separation anxiety and worries about aviation safety. Questions to be addressed:

What is the main problem?

How does it affect the client?

What might trigger/maintain the problem?

What can solve it?

### **Stage 3: Gathering information; making an assessment**

A different phase of the session to make connections that help in understanding the problem.

Work together on some small achievable goals by steps:

*Elicit more information in different ways about the problem: ‘How do you see the problem?’; ‘How does it affect you?’; ‘When did the problem start?’.*

- Helping the client to be specific and exemplify how fear of flying impacts upon life and lifestyle. Identifying critical events or changes that might have precipitated fear of flying. Questions about precipitating event or events should be woven into the conversation, not to distract from focus on the problem. Queries may give clues about possible life events influencing the presenting problem *eg: ‘What made you decide to seek help right now?’*

- Consider the impact of the problem on relationships, by describing how the problem shows itself; *eg: what happens when they begin to think about flying. What effect is there on other people?* It is important to determine whether reactions contribute to the problem or could be useful in the fear treatment. Determining what maintains the fear of flying; might include an exploration of coping behaviours (*eg* avoidance; or not seeking treatment), or attempted solutions to the problem.

- In brief, solution-focused therapy, attempted solutions may either cause, maintain or exacerbate symptoms. *eg* resort to sedatives or alcohol ingestion, may be linked to onset of panicky feelings .

- Mapping the ‘lifecycle’ of the fear of flying; encourages description of when fear begins, intensifies and abates. The client is prompted to link events or situations with feelings and behaviours and rank intensity of the symptoms on a scale of 1 to 10. Exceptions and unanticipated positive experiences are solicited in solution-focused therapy *eg* ‘when you board the aircraft you feel most vulnerable and distressed, and think about running off the plane. This ranks 9/10 on your scale. *Have there been times when it did not feel as high as that?*’ and ‘*What stops you from getting off the ‘plane?’*’

This acknowledges they sometimes cope with the problem.

- Asking ‘*what would need to be different to make that situation just a bit more tolerable?*’ dispels the wish for complete eradication of fear of flying. It introduces the concept of gradual, incremental change and improvement.

- Exploration and assessment of co-factors specifically related to a psychological problem. Depression, anxiety or obsessive compulsive disorder, may be related to fear of flying and treatment of underlying psychological problems might effect fear intensity Identification of beliefs about the fear of flying using carefully constructed questions, brings into focus client beliefs. This uncovers expectations and motivation to change. If at variance with the therapists views, this needs discussion *eg* a belief that fear of flying is ‘communicated’ to a foetus from its mother and cannot be reversed later, needs to be explored.

Psychotherapeutic interventions are constantly effected with the client in a solution-focused approach. Every utterance, question, statement or interpretation is designed to facilitate understanding and change. Specific interventions can be added to the conversation.

(a) understanding flight,

(b) coping with anxiety and panic,

(c) coping with psychological problems and adversity, more generally (Bor, Josse and Palmer, 2000).

(a) *Understanding flight*: listen to specific concerns about flying and address these and misunderstandings. Let the client set the agenda and list concerns. They talk about safety and airplane proximity fears, turbulence, air traffic control concerns, accidents, and dying in a ball of flame. They are knowledgeable about safety records, but are not convinced or highlight exceptions. Outmanoeuvring with further justifications is seldom effective and may require exploration of why objective data is not convincing. Respond to intense anxiety or distortions of evidence in a non-combative way to avoid rigid interaction along the lines of ‘these are the facts ...’ (therapist) ‘Yes, but ...’ (client). Examine a parallel problem (such as rail safety records, which the client may trust). Ask ‘*In coming here today how much did you think about and the chances of having an accident? What convinced you to come along anyway? How is this similar or different to your experience of flying?*’ or ‘*What has lead you to believe you don’t have the power to overcome these ideas/fears?*’

**Knowledge and understanding** about flight and airline safety is necessary.

**Refer** to a self-help book.

*Coping with stress and anxiety:* Present a condensed account of the reaction to stress. Reduce complex material to around ten sentences, accompanied by a diagram. Standard interventions in CBT can be described for controlling symptoms (e.g. deep breathing, distraction, non-avoidance, thought insertion and relaxation technique). to manage anticipatory anxiety and reduce the intensity of symptoms experienced on aircraft. Skills and techniques should be broken into manageable steps and rehearsed in session, and include any methods used for coping with their fear. Medication as an adjunct can be considered.

(b) *Solution-focused approach to therapy* offers additional interventions which address both beliefs and the emotional state. 'Miracle questions' (Quick, 1996) are used to project the client into a problem-free or problem-manageable future. They 'disturb' predictable catastrophising thoughts, e.g. 'If you were to wake up and not have this fear, what might be enjoyable about flying?'

1. 'What are the advantages of not being in control?'
2. 'Think of a time in your life where you felt anxious or panicky and tell how you coped? What skills did you learn then that you might apply to flying?'
3. 'Think of someone who copes well with flying. How do they cope? Can you try that?'
4. 'What would you notice about yourself if you got on a 'plane and found the experience less distressing than usual? What might somebody who knows you well notice?'

Exploring the ultimate fear, or negative core belief (Beck, 1995) often reveals a hierarchy of linked fears, which should be explored e.g.

*What is your main fear about getting on a 'plane?*

*Client:* "I will feel trapped and can't escape."

What is your fear about feeling trapped in a situation from which you can't escape?

*Client:* That I'll panic and go crazy!

*What is your main fear about panicking*

*Client:* That I'll scream, froth at the mouth and vomit ...

And if that were to happen?

*Client:* I'd feel ashamed and in the spotlight.

Talk about your fear of losing control and shaming yourself.

*The core belief emerged, that she would shame herself. This was successfully addressed.*

Work also with narratives or stories about fear of flying with a view to helping alter these. As they live by a story of non-flying: 'I avoid trips ... I go by car I won't fly because ... Help start a narrative of the possibility of flying and encourage talk about how life might be different if flying was possible.

Give the phobic a summary of hints for coping with fear of flying and a self-help book (Bor, Josse and Palmer, 2000).

Advice for PATIENTS WITH FEAR OF FLYING:

- Motivation – the key to change.

- Keep flying, don't avoid it.
- Stop the 'what ifs' and focus on 'what is'.
- Avoid caffeine, sugar, nicotine and self-medication on flights.
- Practice relaxation.
- Turbulence is uncomfortable, but safe when 'buckled up'.
- Drink plenty of water, avoid alcohol. Alcohol increases fear and causes dehydration.
- Breathe properly.
- Planes are designed and built to fly.
- Create personal coping cards with reminders of what works for you.
- Every small change helps in conquering fear.

#### **Stage 4: Decision making and ending the session**

Knowing when to stop in brief therapy develops over time with practice and increasing confidence.

Reflect on progress.

Summarise the session.

Reach decisions about future sessions.

Ask about further questions or comments without allowing reiteration and obtain feedback.

*'What ideas will you most be taking away from this meeting?'*

*'If we had some more time, what would you want to do?'*

**The summary**, identifies strengths and difficulties. If emphasis is placed only on the positive aspects of the client's situation, this may not be realistic and there may be concerns they have not been sufficiently understood. It includes decision making, the discussions and further steps *eg* reading about flying, visiting an airport, taking a flight, or practising relaxation methods. The summary should relate to what the client brought to the session. And allow opportunity for reflection on actions, responses and the future.

#### *Recommendations*

Avoid total reassurance.

Do not argue about airline safety statistics and specific cases.

Explore why the client is not easily reassured or is so easily disbelieving.

Teach the individual to assess the level of their anxiety and rate it before introducing coping techniques.

Learn about essential and important aspects of flying to answer questions.

Remain optimistic. Flying fear is amenable to psychological treatment.

#### **Conclusion**

Fear of flying can be treated by cognitive-behaviour therapy, in protracted course of treatment or in some cases single session. The approach described is a synthesis of cognitive-behaviour therapy combined with systemic and solution-focused therapy. It has structure but requires the therapist to address the unique and specific concerns of the client.

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Heathrow airport is the busiest in the world, handling 60 million passengers on 425,000 flights a year with 90 airlines flying to around 200 destinations.

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# INVESTIGATING TICK-BORNE DISEASE

## I. MACKAY

Tick bites can spread disease-causing micro-organisms to humans, from animal sources. Ticks are parasites, acquiring their nutrition from the blood of other animals, known as hosts.

They are small arachnids (a group of animals that also includes spiders). Their medical significance is as biological vectors – that is, their ability to transmit disease to humans by injecting infectious organisms through the skin when biting.

### SPREAD OF THE DISEASE

Ticks are responsible for spreading a number of pathogenic (disease-causing) micro-organisms, including viruses, rickettsiae (bacteria-like micro-organisms), bacteria and protozoa, to humans. In general, the reservoir for the infection is another animal, and spread occurs by the tick biting the animal before biting a human. In some cases the organism is transmitted from tick to tick via the eggs.

Ticks can be partly or solely responsible for the following diseases: viral encephalitis; the rickettsiae diseases – ehrlichiosis, Q fever, tick typhus and Rocky Mountain spotted fever; the bacterial infection Lyme disease, and tularaemia; and the protozoal infection babesiosis.

### TICK BITES

Ticks vary in size but become much larger once they have fed and are bloated with blood. Their bites are painless, and they are most active during the summer months. Ticks are found in the countryside especially in woods and long grass. They use their mouthparts to attach to people or animals who brush by them.

In certain parts of the world, prolonged bite invasion can lead to a condition known as tick paralysis, in which a toxin in the tick saliva affects the nerves controlling movement. If the respiratory muscles are involved, the paralysis can be fatal.

### SIGNS OF INFECTION

Most tick-borne infections cause non-specific flu-like symptoms including: cough, fever, chills, severe headaches, nausea, vomiting and muscles pains. The clinician must therefore use a process of elimination in making a diagnosis.

### SKIN INSPECTION

In a patient with high fever the first step of investigation is a skin examination. This may reveal a characteristic rash which aids diagnosis. In addition the black eschar (typical wound of a tick bite) may be evident.

### DISEASE CHARACTERISTICS

Each tick-borne disease has a number of characteristic clinical features:

- In viral encephalitis the brain is inflamed, which can, if severe, lead to epilepsy and coma. There may be permanent brain damage.
- Ehrlichiosis may produce a spotted rash. Complications including anaemia and damage to the kidneys, liver, lungs and nervous system may occur.
- Q fever may cause pneumonia, inflammation of the liver and heart-valve damage.
- Tick typhus may produce a rash that spreads to the palms and soles, and can cause conjunctivitis: various organs in the body may be affected.
- In Rocky Mountain spotted fever, there is a distinctive spreading pink rash. Acute kidney failure may be a complication.
- In Lyme disease, there is a spreading circular rash at the site of the tick bite. Complications affecting the heart, nervous system and joints may occur months or years after infection.
- In tularaemia, there is an ulcer at the site of infection, inflamed lymph nodes, headache, aching pains, weight loss and fever.
- Like malarial parasites, the protozoa that cause babesiosis invade red blood cells. The disease may cause anaemia and an enlarged liver and spleen, but it is usually a short-term illness without complication.
- In trench fever, there is often pain behind the eyes and in the back and legs. Symptoms tend to recur. Fatalities are most likely to occur in babies or elderly people.

### IDENTIFYING TICK-BORNE DISEASE

If a tick is found attached to the skin, a pair of forceps should be used to remove it, gently rocking it out from where its head is attached. Alternatively, smothering the tick in petroleum jelly (Vaseline) will cause the tick to release its hold after a few hours, so that it can be removed intact. The wound should then be cleaned. It is advisable to place the tick in a container of alcohol and take it to a doctor for identification.

### DIAGNOSING INFECTIONS

The doctor or nurse may suspect a tick infection from the distinctive symptoms, especially if a rash is present. Information about where the patient has been may also provide clues, for example a visit to a rural area inhabited by ticks to the parts of the world where the diseases are common.

Laboratory tests are then usually performed to confirm the diagnosis and to exclude other illnesses with similar symptom. Many of these diagnoses involve a blood test to look for antibodies to the micro-organism causing the illness. For some of the diseases, such as tick typhus and babesiosis, the micro-organism can be identified from a blood smear viewed under the microscope.

#### OTHER TECHNIQUES

A sample of skin may yield the bacterium responsible for Lyme disease. A lumbar puncture may be carried out to look for signs of infection in both viral encephalitis and Lyme disease. To diagnose viral encephalitis, CT scanning or MRI may be used to look for inflammation of the brain. In rare cases, a sample of the brain may be removed for examination. In addition, a chest x-ray may be performed to look for internal damage in typhus.

#### HAZARDS

In some of these diseases, particularly tularaemia and Rocky Mountain spotted fever, the pathology laboratory will not attempt to culture the micro-organisms as they are hazardous to personnel. This can create a dilemma for doctors as serological tests for antibodies take a few weeks to complete, during which time complications can develop if the condition is untreated. In such cases treatment will be started on clinical suspicion

#### TREATING INFECTIONS

Once diagnosed, most of the infections are cured with antibiotics. If symptoms are severe or there are complications, other drugs or treatments may be given; for example, drugs to relieve joint pain in Lyme disease.

For some of the infections such as Lyme disease and Q fever, there is a vaccine that offers some protection and is often given to people who may become infected, such as farm workers.

#### Prevention

Tick bites can be avoided by using suitable repellents. Locating the bite, however, is also important as the longer a tick is allowed to feed undetected, the greater the likelihood of disease transmission. A daily tick check when walking or living in known areas of risk is worthwhile preventative measure.

IAN MACKAY,  
*Expedition leader and medical officer.*

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For every 100,000 visitors to a developing country staying a month

Half will develop some type of illness  
8000 will visit a physician  
5000 will be confined to bed  
300 will be hospitalised on the trip or return  
500 will require air repatriation  
1 will die.

*ISTM 1999.*

## THE SENIOR CITIZEN ABROAD

### THE ELDERLY TRAVELLER

This review article analyses the health implications of travel specific to the elderly traveller and the role of the primary care team.

Travel, as defined by Steffen et al (1997) pervades our lives from daily 'commutes' in a private automobile to the enormously expanding world of tourism, vacation and business travel.

The primary objective of health care for travellers is to prevent health problems before they occur. Pre-travel efforts to accomplish this have traditionally focused mainly upon immunisation and malaria prophylaxis. While these are of undoubted importance, adequate attention also needs to be directed at information and education of preventive measures against tropical pathogens as well as prevention of the deterioration of existing medical conditions while abroad. The government, travel industry, health care professions and the media have a vital role to play in ensuring that appropriate information is disseminated and is made accessible.

Due to the expected increase in travel among the elderly it is paramount that more is done to provide information specific to their needs. Despite the many complexities that surround the elderly persons state of health, these should not deprive them of the right to undertake travel. Instead they should be encouraged to live their lives fully by being able to do whatever will enhance their quality of life. As health care professionals it is our role to provide information appropriate to enable the elderly travellers to make safe choices.

The *Collins Dictionary* defines 'the elderly' as being, 'quite old; past middle age.'

This of course is a very simplistic definition, which fails to take into account the physical, psychological and sociological aspects of being 'old'.

#### **Sociological Aspect of ageing**

Traditionally, old age has been perceived as the stage of life when decrements outweigh increments, when capacities and opportunities decline rather than expand (Aitken, 1995). Some societies define 'old' in functional terms such as physical decline others view the beginning of old age socially in terms of role transition (Aitken, 1995, Harris, 1990).

The transition period in European and American societies is influenced to a great extent by retirement legislation. This paper considers older travellers as those being 65 years of age and over.

#### **The Elderly Population in the UK**

The number of elderly people in the UK continues to rise. Twenty percent of the British population were expected to be 65 and up to 7.2 percent to be over 75 years of age (MacLennan, 1988) by the end of the twentieth century. Long-term projections indicate that the numbers aged 65 and over will peak at over 15 million during the 2030's. This will bring a marked increase in elderly travellers.

### **Physiology and Pathology of Ageing**

Being old is not a disease. But the aged are often seen as infirm, forgetful and dependent. Changes in the skin, muscles bones and the altered appearance of an individual represent old age (Aitken, 1995). Changes in the internal and external organs and the system of the body are also associated with ageing. These changes are due to general decrement in the cells and tissues of all internal organs, resulting in declines in functional efficiency of the cardiovascular, respiratory musculoskeletal, gastrointestinal and genitourinal system (Aitken, 1995, Coni et al, 1993).

There is an increase in the prevalence of many disorders (MacLennan, 1988). Multiple pathology becomes an increasing problem associated with physical incapacity and disability. Visual disorders such as presbyopia, cataracts and glaucoma are highly prevalent too. A gradual loss of sensitivity to high and middle auditory frequencies is common. Taste, smell, touch, pain, temperature sensitivity and the sense of balance also decline with age (Aitken). The reduction of brain neurones, blood flow to the brain and the speed of nerve impulses affect the capacity of the brain to process information.

Currently however there is a likelihood that the majority of the retired population will be fit and well until they reach their 70's. Time, relative affluence and intent encourage these people to participate in global travel (McIntosh, 1995).

Older people in western society now lead a satisfying social life after retirement, which includes travelling. According to the British Tourist Authority, three million of this group took a holiday abroad in 1996.

### **TRAVEL AND ITS IMPLICATIONS**

The growing ageing population has the highest disposable income and the highest propensity to travel. Early retirement results in a most mobile older generation, (Steffen et al 1997) which helps to fuel domestic and foreign travel, which reached 59 million people in the UK in 1995 (ONS 1998).

A study of one Scottish general practice showed that 45 per cent of people attending the surgery had travelled outside the UK in the previous year and 40 per cent of them became ill while abroad (McIntosh 1991, 1995). Eighteen per cent required consultation with a doctor abroad while 58% sought immediate attention of their GP's on return and 18% were admitted to hospital. In over 65 year olds, up to 33% revealed that they had travelled outside the UK within the past year and 35% of 75-80 year olds had travelled abroad within the previous three years (McIntosh 1991, 1996).

In 952 Scots who died while abroad between 1973 and 1988 cardiovascular disease was the most frequently recorded cause of death (69%). Most deaths occurred in the 50-59 years age range (50%), with the highest cardiovascular mortality (34%) in the 60-69 years range. This highlights the risk for older people with pre-existing cardiovascular problems (Cook, 1995)

### **HEALTH IMPLICATIONS for OLDER TRAVELLERS**

Due to the high prevalence of chronic diseases among the group, undertaking

long-distance travel can be quite hazardous. The conditions they suffer are more serious. The ageing process makes it more likely that older travellers may become unwell abroad due to reduction in immune, renal, cardiac and pulmonary function and declining glucose tolerance with physiological stress. Pre-existing disease plus just the effect of growing old, can make older people very vulnerable to ill health during travelling.

#### IMPLICATION FOR THE HEALTH CARE PROFESSIONALS

The primary care team should raise the awareness of the elderly to the hazards involved in travel and endeavour to minimise the risks and optimise protection by providing information and carrying out pre-travel screening.

Travel in old people has received little attention in the nursing or medical literature as a way of improving wellbeing after retirement. Despite the growing number of elderly people, there is no specific health initiative geared toward the promotion of healthy and safe travel among the group.

Not enough is done to promote health in the elderly Lauder (1993). In its widest context this includes social actions and suggests that the elderly themselves should be the focus of health promotion activity.

Developing appropriate surveillance systems, improving communication, qualifying risks, and facilitating targeted education are the keys to healthy travel (Porter 1992). There is little accessible written information to help elderly travellers should they wish to travel.

#### INFORMATION CURRENTLY AVAILABLE

##### *Health Advice for Traveller by the DOH*

Although not geared specifically for the elderly travellers it covers issues that affect them. It is hard for the elderly to read because of the small print.

##### *Age Concern – Holiday Fact Sheet*

A helpful guide for the older adult when deciding to go abroad. It covers a spectrum of information concerning travel, from locally organised holidays to holidays abroad, visa requirements, insurance, immunisation, treatment abroad and holiday for those with disabilities. It is not easily accessible.

##### *RADAR*

Disability of many sorts is prevalent among the elderly. RADAR is of great help in meeting their needs when it comes to travel. Published by a disabled person association. It is not easily accessible to the general public.

##### *British Airways Leaflet*

A very concise and informative leaflet. It details specific requirements for air travel for those with special needs. It is given to those who book a holiday directly with BA.

##### *British Heart Foundation*

A useful information sheet for those with heart problems. It covers all important issues affecting travel and heart disease.

#### *Information in Travel Brochures*

Travel brochures rarely give adequate information on health issues (Reid et al 1985). None cover all the aspects vital when dealing with elderly travellers.

#### PRE-TRAVEL PLANNING

Pre-travel planning is an integral and most important factor in travel medicine. It is important for travellers to seek advice prior to their trip abroad, particularly the elderly with chronic medical conditions.

They should seek advice on their fitness to travel and measures to limit the risk of exacerbation of existing medical conditions. The number of handicapped and ill persons using air transportation is steadily increasing. While doctors and airlines depend upon the intending traveller revealing medical or physical incapacity before flight booking, it is the responsibility of the health advisor to provide advice on medical aspects of air travel (Coralli 1985).

Air travel does involve reduced ambient atmosphere in pressurised cabins, and travellers must be able to cope with reduced blood gas levels of oxygen. With significant cardiovascular or pulmonary diseases they may require supplemental in-flight oxygen. It may not be advisable for those who have recently had a heart attack or major surgery to travel (Coralli 1985). Those with a pacemaker should warn the airline security to avoid using magnetised equipment for personal search as this may interfere with the device.

#### VACCINATIONS

The pre-travel visit to the travel health advisor presents an opportunity to update the traveller's status for vaccinations.

The elderly may be more vulnerable to tropical diseases due to their reduced immunoprotection. It is therefore vital they are made aware of requirements for vaccines as well as anti-malarials. Due to the above reason as well as the possibility of transmission of airborne infection on the plane, the elderly travellers are also advised to have the influenza vaccination.

#### ANTI MALARIALS

Side effects are common and it is important that older travellers are made aware of these. Due to high prevalence of chronic diseases among the elderly, many of them are on some drug therapy which may interact with travel related medications. It is recommended that they take with them their prescription list so that if they do become ill the medical practitioner can prescribe the most appropriate treatment.

#### TRAVELLING WITH MEDICATION

To avoid problems with customs or security, it is advisable to have an official document detailing the medical need for drugs like narcotics, needles and syringes. People tend to pack medications in the suitcase instead of hand luggage. This leads to a high incidence of transit illness due to people omitting medication. Those on diuretics omit medication so that they do not have to go to the toilet on the plane. This may put extra strain on the heart and lead to heart

failure and swollen legs.

#### DIABETICS AND TRAVEL

There is a high incidence of diabetes among the elderly. While diabetes is not a contraindication for travel, newly diagnosed diabetics or diabetics whose blood glucose levels are temporarily uncontrolled should postpone travel until their blood sugars are stable (Steffen et al 1997). They should anticipate potential problems of hypo and hyperglycaemia and plan for increased blood glucose monitoring.

#### MEDICAL TREATMENT ABROAD

Travellers should be made aware that different countries have different health-care systems, not necessarily of the standard one would expect in this country.

#### INSURANCE

It is very expensive to have treatment in some countries and the old should have the right insurance to cover medical cost and repatriation.

Many insurance policies exclude those above 70 years of age and those with a medical condition. According to Hargreaves (1996) out of the 12 million travel insurance policies taken out annually in the UK at least one in 1000 involves medical repatriation. Elderly people should take repatriation insurance because of their physical fragility.

#### OTHER HEALTH CONSIDERATIONS

Over exertion: Too much exertion in carrying heavy luggage can exacerbate the stress of travelling and as a result, may cause other health problems such as angina attacks or cardiovascular accidents. The incidence of such events is much increased if there is known disease (Leon et al 1996).

#### MOTION SICKNESS

Many anti-motion sickness drugs are unsuitable for the elderly, it is advisable that they ask the GP for advice as opposed to buying the drug over the counter.

#### DIARRHOEA

Although traveller's diarrhoea may not be life threatening in most cases, elderly travellers who particularly suffer from cardiovascular disease or those taking diuretics may suffer dehydration and electrolyte depletion from diarrhoea (Patterson et al 1989). While in some cases treatment may be required, in all cases rehydration remains the most important therapy.

#### CONSTIPATION

Elderly persons can be prone to constipation, common among travellers too. It can be quite debilitating- from physical discomfort to causing confusion. Travellers should be advised on how to prevent and deal with constipation.

#### ACCIDENTS ABROAD

Almost 31% of those taken ill abroad were affected by trauma and the highest incidence of accidents occurred in those 20-29 and over 70 years of age Fairhurst (1994). It is therefore essential that accident safety and risk assessments are included in travel advice.

#### INCONTINENCE

Incontinence affects up to 15% of those over 65 years of age (O'Brien et al 1991). It remains a taboo subject amongst the sufferers and seen as a nuisance by health care workers (Brocklehurst 1993). It should not deter travel.

Treatment in incontinence clinics has been shown to cure 50% of patients, with significant improvement occurring in two-thirds of the remainder.

Advice on catheter care is also important and people with prostatic disease should perhaps be advised to carry a catheter with them in case they experience retention of urine during international travel.

#### ALCOHOL AND SMOKING

As there is high prevalence of cardiovascular and thrombotic diseases among the elderly, they should be advised to cut down on smoking and drinking before they travel as well as during their flight. Smoking is best avoided as it induces hypoxia and increased blood viscosity while alcohol leads to dehydration, confusion and even fall. Alcohol during flights does make jetlag worse.

#### IMMOBILITY AND DEEP VEIN THROMBOSIS

Less mobile travellers have a tendency to sit as much as possible. Long haul flights or lengthy coach journeys pose particular problems. Sitting for long hours may result in blood clots forming in the legs and lungs, which are potentially fatal. Exercising during the journey is vital in reducing the severity of oedema in the lower extremities and the likelihood of developing deep vein thrombosis (Cruickshank et al 1988). Advice on DVT stockings should be obtained from GP's or travel health clinics.

#### OTHER SAFETY ASPECTS

Elderly holidaymakers should leave a contact address with somebody in the UK in case a medical emergency arises. They should carry a spare set of spectacles, wear a medi-alert bracelet when appropriate and carry on their person a list of their medications and medical history. They should also be advised on safe storage of drugs while abroad. Resting for twenty-four hours after arrival will decrease the risk of confusion and disorientation due to time zone changes, which can particularly affect the elderly (McIntosh 1992).

Those with disability should make sure that their holiday resort is designed to accommodate their needs, especially where there are hearing, sight and mobility difficulties.

#### TEMPERATURE AND WEATHER

Over-exposure to sun may cause burns, dehydration, heat stroke and skin

cancer. Since ageing skin is more susceptible to the effects of ultraviolet rays and may cause solar keratosis, it is vital that they take the necessary precautions against sun exposure. Serious effects are caused by the impact of excess heat on the body's thermoregulating mechanism, water and electrolyte balance, and increased demands are imposed on the cardiovascular system (Salvage 1991). Arterio-sclerotic disease of the heart and brain is common in elderly people, they are less likely than younger people to have the capacity to increase cardiac output adequately and decrease systemic vascular resistance during hot weather. Declining sweat-gland efficiency also places them at higher risk in extreme weather. Rehydration and the avoidance of excessive heat are therefore vital. Temperature extremes may have harmful effects on the elderly, especially at high altitude. Those wishing to travel to high places should seek appropriate prophylactic advice.

#### SAFE SEX

HIV and other STDs are a problem worldwide. Increasing age does not preclude elderly tourists meeting a partner while abroad and indulging in sexual activities. It is important to remind them of safe sex procedures

#### RETURNED TRAVELLERS

Medical evaluation following return from a trip is an important aspect of providing health care to travellers. Older travellers should be aware of the symptoms to look for so that they do not mistake travel-related symptoms for other infections. Those who have been unwell or have had treatment abroad should inform their doctor. Frequently they turn up with wounds, particularly damaged shins and legs, which they have been trying to self-treat. Early intervention from the practice nurse is advisable.

#### CONCLUSION

Good pre-travel advice to older travellers can help reduce some of the post-travel health demand, thus reducing investigations and hospital admissions for returning travellers.

The use of a booklet directed to the elderly could improve on verbal information, with the aim of raising awareness of the elderly to the hazards of international travel and how they could make it safer for themselves by applying preventative measures.

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***A senior citizen ...***

... on this earth before the pill, tv, credit cards, frozen foods and the ball point pen, predating Batman, disposable nappies, instant coffee, 4x4s, MacDonalds and the man on the moon. With a life style where smoking was the norm, grass was for mowing, pot was a cooking pan, a gay person was happy and jolly and AIDS added to beauty. When 'time sharing' meant togetherness, a 'chip' was a french fry, 'hard ware' was hard wear and soft wear had not been invented. Around before panty-hose, drip dry clothes, dish washers clothes driers and electric blankets. Today's senior citizens are survivors – ***a hardy bunch.***

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## GUIDELINES FOR OLDER TRAVELLERS

Based on excerpts from *The Senior Citizen Abroad – a guide for healthy travel* a booklet produced by Sheila Nursimhulu

### **Step 1 – Planning the trip**

Choose your destination with health care in mind.

Consider the activities you will undertake abroad.

What are your personal health needs?.

What health risks may you be exposed to en route and while away.?

What health facilities, casualty evacuation and repatriation resources will be available at the foreign venue.

### **Step 2 – Pretravel arrangements**

Contact a travel health clinic run by your GP or independently.

Discuss with the consulting doctor or nurse your travel mode, destination and the need for a pretravel health check and review of your medications.

Obtain advice on vaccinations and prophylaxis tailored to your needs.

Ask about any possible potential problems with air travel. Are there medical reasons why you should not undertake air or sea travel?

Ask the airline about the need to complete a Medif. Preflight health form.

Check what health insurance will be required.

### **Step 3**

Buy appropriate health insurance and complete the forms to ensure you benefit from reciprocal EC health provisions.

Have the appropriate vaccinations administered.

Acquire appropriate prophylaxis *e.g.* for malaria.

Complete the MEDIF airline form if required. Concealing current ill health may put you at needless risk.

Obtain a list of current medications and a summary of past and current illness.

Contact Age Concern for useful information for the older traveller and the British Diabetic Association if you are a diabetic setting off on world travel.

### **Step 4**

On, long journeys and flights take the precautions advised by the travel health clinic staff.

Carry your medications list and medical history with you.

Take your medications with you in hand and cabin luggage.

Take the medications as prescribed at home time until arrival at the destination.

### **Step 5**

On arrival after crossing many time zones, rest up for 24 hours.

Avoid over exposure to extreme heat, cold and high altitude.

Remember immediate emergency health care may be hours away in remote places and your health insurance cover can only provide the best care available.

Enjoy your time abroad, travel is life enhancing and you are likely to enjoy good health while away and return home safely.

*Acknowledgement and thanks to Sheila Nursimhulu for permission to utilise her publication.*

## **PATIENT GROUP DIRECTIONS AND THE TRAVEL HEALTH CONSULTATION**

J. CHIODINI

A Patient Group Direction (PGD) is a written instruction to allow a nurse to supply or administer medicines to groups of patients who may not be individually identified before presentation for treatment. (1) Such action should be reserved for those limited situations where this offers an advantage for patient care. This is appropriate for a travel health consultation when a traveller presents but, until a thorough travel risk assessment is performed, it would be impossible to identify the type of treatment required.

PGDs have been a legal requirement throughout the United Kingdom since 9 August 2000. Guidance was issued on the subject in England on the same date and a more extensive document in Wales in December 2000 (2), and for Scotland in January 2001, (3) but at the time of writing no such guidance has been distributed in Northern Ireland.

### **The past**

Historically, in England and Wales, patients requiring travel vaccines used to be issued with a prescription which was dispensed by the local pharmacist. These were later placed in the surgery or home refrigerator for storage until the nurse was available to administer them at the next appointment. This method wasted time, and compromised maintenance of the cold chain with possible reduced potency of the vaccine. Then surgeries began to stock their own supply and travel vaccines were given directly from the refrigerator. This method involved the nurse effectively 'prescribing' when she was not legally permitted to do so. The Medicines Act (1968) allowed only doctors, dentists and vets to prescribe prescription only medicines, (POMS) but the Act allows others to administer these products in accordance with the written or verbal direction to address the issue. Surgeries began to manage travel vaccine administration under group protocols, although document provision was not universal. Many nurses continued to perform this procedure illegally leaving themselves vulnerable to litigation. The Crown Report, a Review of Prescribing, Supply and Administration of Medicines, was published in 1998. The first part of the review, 'A Report on the Supply and Administration of Medicines under Group Protocols'. (4) recommended that group protocols could be used as direction to administer POMs provided criteria for their development was met, but clarity regarding legality of group protocols remained uncertain. The Medicines Control Agency (MCA) and the Department of Health (DoH) consultations of 2000 brought amendments to section 5(1)(b) of the Medicines Act 1968 and the POM Order 1997. As a result, the NHS Executive Health Service Circular 2000/026 entitled Patient Group Directions (England Only) was issued. (1) The term 'Group Protocol' was replaced by 'Patient Group Direction'.

Whilst PGDs are to be welcomed in that they legalise work that nurses have performed for years, it remains the responsibility of the doctor to ensure the

nurse named within the PGD is able to perform the task to a reasonable standard. Nurses agreeing to the PGD must also be certain of their competence to do so and act in accordance with the UKCC's Code of Professional Conduct (5) and Standards of Administration of Medicines. (6)

The following list taken from the guidance describes the information that has to be included within the PGD.

*PGDs and legal requirements*

- The name of the business to which the direction applies.
- The date the direction comes into force and the date it expires.
- A description of the medicine(s) to which the direction applies.
- Class of health professional who may supply or administer the medicine.
- Signature of a senior doctor or dentist and a pharmacist.
- Signature by an appropriate health organisation.
- The clinical condition or situation to which the direction applies.
- A description of those patients excluded from treatment under the direction.
- A description of the circumstances in which further advice should be sought from a doctor (or dentist, as appropriate) and arrangements for referral.
- Details of the appropriate dosage and maximum total dosage, quantity, pharmaceutical form and strength, route and frequency of administration and minimum or maximum period over which the medicine should be administered.
- Relevant warnings including potential adverse reactions.
- Detail of any follow up necessary, follow up action and the circumstances.
- A statement of the records to be kept for audit purposes.

**The present**

Whilst some primary care organisations have been diligent about developing and disseminating PGDs other areas have not. Generic PGDs have often been written but this takes great thought, addressing the many small but important variations between similar products. For example, hepatitis B vaccine is available in five different presentations with currently thirteen different types of schedules. Unless all these differences are catered for within the PGD, the nurse will need to refer to other information sources and the usual source, the Green Book (7), whilst an excellent reference tool is now five years old and does not contain all the current schedule data. This will also place additional pressure on the limited time the nurse has within a travel consultation. PGDs written for specific vaccines would ultimately save considerable time within a travel consultation. It is easier to refer to all information within one resource for ease of use and simplicity. Whilst writing PGDs for individual vaccines is initially a challenge, once completed the specific PGD needs only updating with any Summary of Product Characteristic (SPC) change.

*Black triangle vaccines, out of product licenses and unlicensed vaccines*

PGDs may include black triangle drugs. All must be clearly identified and all suspected reactions that could conceivably be attributable to the drug should be reported to the CSM on the yellow cards. Travel vaccines may be utilised in

ways outside the SPC (7). Specifics should be included within the PGD when the product is being used outside the terms of the SPC and documentation should include the reasons why such use is necessary. (1) In travel health clinics protection against Japanese B encephalitis and tick borne encephalitis is given using unlicensed products. If the drugs are not licensed for UK use then they should not be included within a PGD. Administration of these preparations should be prescribed in advance by the doctor who takes responsibility for their use. These drugs need to be ordered from suppliers on a named patient basis.

Strategies to write necessary documentation have been developed in a variety of ways. In many cases, Health Authorities, PCTs and PCGs have formed committees to write appropriate PGDs within their area. Some have not undertaken this development and it has been left to individual practices, but this presents problems in that there should not only be a senior doctor involved in their development, but also a pharmacist and the documents must be ratified and signed by an appropriate health organisation. It would not be practical for one person to ratify individual practice PGDs – the work involved would be overwhelming. Of even greater concern is the fact that the guidance on PGDs did not reach all health professionals at general practice level. Some are still unaware of these important changes and the urgent need to implement them. A year has passed since the appearance of this directive and it may now be difficult to defend the absence of such legal requirements in practice. It is imperative, that those responsible for administration of not only travel vaccines, but all POMs work according to PGDs, not only to provide good standards of care but very importantly for their personal legal protection.

While patient group directions are a legal requirement, they only refer to the area of vaccines used within a travel health consultation. In addition, a document describing guidelines for the travel health consultation is essential, ensuring a thorough pre travel risk assessment is performed and appropriate advice given. This is needed so the adviser can decide which vaccines need to be selected for administration, thereby demonstrating evidence of best practice.

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**ARE DOCTORS HELPING TO EXTERMINATE  
THE CRUISE PASSENGER?  
(A ships doctor view)**

R. SCHRAMM

‘You have a cold Madam.’ The pronouncement from the ships doctor is met with stunned silence and shocked disbelief. The air conditioned environment, which cocoons passengers who have travelled to the ship from all over the world, is the ideal incubator and disseminator of the respiratory viruses they bring with them.

The common cold affects many passengers of every class on every cruise. With modern cruise ships sailing with 3500 passengers and 1500 crew many people can be affected on a single voyage and the affliction can blight a long anticipated vacation.

However health professionals who are consulted aboard ship are pressured to state that the condition rarely presents on board. A ‘cold’ is not a fashionable or acceptable diagnosis for the vacationer and cruiser.

The astonished patient recovers quickly and moves into the attack, secure in the knowledge that as a paying passenger they are in a strong bargaining position. Cossetted and coddled by the cruise line ,deck and cabin staff they expect their every need and demand to be met. Their expectations of a shipboard consultation may not accord with those of the physician.

It is revealed that in previous bouts of this recurrent condition, the patient has always been given by their doctor, or has demanded, the diagnosis of ‘sinusitis’ or ‘walking pneumonia’ and not the prosaic, realistic ‘running nose’ or ‘cough’. Over-burdened by inflated dignity and flaunted evidence of apparent wealth, their ego and self perceived status also influence the patient to presume that standard treatment regimes, for these simple illnesses are unacceptable. Prescription of a simple cough or sore throat remedy is deemed inappropriate.

The diagnostic criteria and therapies laid down for these common or garden variety ailments (recommended by WHO and health institutions) are perceived as unsuitable and out of place, when endeavouring to ‘keep up with the Joneses’ in the neighbouring cabin.

To the cruise ship doctor this means confrontation with a prejudiced patient, and a passenger- patient who according to company credo is always right.

The real blame for this impasse may however be sought in the medical profession. Doctors in hospital, private and state general practice are making a diagnosis that is social acceptable but incorrect in the case of sinusitis, and completely non-existent in the case of ‘walking’ pneumonia.

Why is the profession so insecure in itself? Do we have to make these diagnoses to justify prescription of antibiotics for each and every case of picornavirus that we see? The cruise ship doctor in this case is under even more pressure. He/she is under social pressure by a patient who has spent a lot of money to be able to enjoy the luxurious pleasures a cruise ship has to offer and

not to sit in a cabin nursing a cold. They want immediate relief of symptoms. The attending doctor has to keep the passenger happy at all times, never saying 'no.' for commercial reasons. The cruise line wants a happy, satisfied passenger who will return for future cruises. It is the stated aim of any industry, especially true of the cruise industry, to have contented and thus returning customers. The Doctor wants to provide the best professional, ethically sound service practicable, with a clear conscience. In this instance only a limited response is possible as the patient has already overdosed on every conceivable OTC remedy before presentation. There is however a professional desire to satisfy the patients perceived needs.

One option is available in the prescription of antibiotics, ideally of broad-spectrum variety. With this response the doctor appears to have done everything possible within conscience and diagnostic conviction, or its lack, and avoids a later demand on the medical defense union. The professional is absolved from all potential accusations of neglect and/or indifference to the passengers' plight.

Passengers also remember their past medications. What was used last year is no longer good enough this year. Additionally, younger passengers, much more so than older ones, are easily influenced by advertisements, and therefore aware and demand the latest drugs which are shown on TV (especially American television) – these drugs have regimens often influenced by marketing objectives concerned with competitor agents, making their potential for creating resistance greater if used incorrectly. The end result is a passenger routinely and repetitively exposed to antibiotic therapy with no clinical justification, a passenger who often does not complete prescribed medication as the viral agent runs its natural course, and who belongs to a group which could with time develop a herd-immunity to antibiotic therapy. Ultimately, we could be working with passengers in whom we have created a high susceptibility to any resistant infection that could potentially develop in the enclosed environment of a large cruise ship.

The genetic contribution to death by infectious disease is known to be significantly greater than that of cardiovascular or malignant illness. Mutations in receptors used by infectious pathogens normally provide an effective means of avoiding infection, these pathogens therefore being part of the evolutionary process for genetic polymorphism and resistance to infection. Using antibiotics, especially broad-spectrum antibiotics, deprives man from this inherent protection mechanism. This holds true equally for normal flora. Superinfection by these bacteria in which resistance has been genetically acquired by the organism and genetically lost by the host in search of the holy grail of complete environmental sterility, are already beginning to have a much wider impact than the medical profession is willing to admit.

Regarding the respiratory afflicted cruise passenger, resistance has been increasing for some time amongst many community pathogens, notably *Haemophilus influenzae* and *Streptococcus pneumoniae*, necessitating increasing worldwide changes in the management of these organisms in serious infection. With higher concentration of for example penicillin achieved in the lung – often well above the MIC, the impact of resistance, in the case of respiratory infections is less clear, but that is no reason for complacency. We

are unfortunately using the new agents as they become available.

They are introduced early into the community, where most antibiotic prescriptions occur, and especially into the affluent element of the community whose members demand the new agents. The same demands are made on cruise ships where passengers perceive their negotiating power and can afford them. New agents are however variations on a theme, and the mutative mechanisms are not fooled for long. No major new class of anti-infective drugs has been developed. The demanding, affluent passenger may be pre-selecting themselves to be amongst the first to re-confront bacteria as in the pre-antibiotic era. Cruiseline passengers their family doctors and ships doctors should be aware, resist temptation and avoid antibiotic prescription where contraindicated. They should be prepared to diagnose a common cold, prescribe simple linctus and dodge the flak.

*Rudolph Schramm is a ship's Doctor.*



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***Cruising***

10 million people went cruising in 2000.  
7 million passengers holidayed on ICCL cruise ships  
mainly serving the Caribbean and American waters.

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## WHAT IS WILDERNESS MEDICINE?

G. WALKER

Wilderness medicine is a field of study and practice which has become increasingly well recognised in North America during the past 20 years, but as a concept is still in its infancy in the United Kingdom. No doubt this is due to our relative lack of such great expanses of wilderness in comparison to some other countries. However, our unfamiliarity with many of the immediate challenges of providing care in remote environments gives the field of wilderness medicine a special importance when advising people who travel to such areas.

In summary, wilderness medicine is about the medical problems that occur in remote environments and the management of those problems. It differs from travel medicine in that the actual provision of care in the wilderness, and the evacuation of casualties to definitive care, are central concerns. It shares with travel medicine a true multidisciplinary approach to care and an acknowledgement that the prevention of illness and accidents, and public education, are of prime importance.

An interesting observation about wilderness and travel medicine is that the fields are certainly distinct, and yet each to some degree encompasses the other. The risk assessment process of travel medicine, with its identification of unique health risks in travellers to varying geographic destinations, is a particularly important aspect of wilderness medicine. But at the same time, a proper understanding of the medical problems that occur in remote environments, the limitations of care and of the logistical difficulties of evacuation from such places, are an important part of travel medicine. The multidisciplinary nature of these two specialities thus precludes a clear boundary line being drawn between them, but this also is a part of what makes them such fascinating areas of work and study.

While most travel medicine practitioners will not be personally involved in the provision of care after the traveller has left the clinic, there are some aspects of wilderness medicine which are still very relevant to consider. If the person will be visiting remote areas, have they considered what medical provision will be available in the event of an accident? If they are on an expedition, will there be an expedition doctor present? What equipment and drugs will be carried? How will they manage if they are travelling independently in the wilderness? Have the local rescue services been researched? Are they familiar with principles of survival appropriate to the environment they will be visiting?

Wilderness medicine not only includes the special challenges of medical care when lacking the usual equipment and backup, but is also concerned specific environmental hazards such as the low air pressure of high altitude, the increased pressure under the sea and extremes of temperature. When people are remote from the comforts of civilisation, these physiological stresses on the body become very real health and survival issues. Travellers to wilderness areas need sound advice on the prevention and management of environmental illness.

Finally, while many aspects of wilderness medicine overlap with the field of

travel medicine, the fields are perhaps best distinguished by the location of the health professional: wilderness medicine practitioners work in the 'field', while travel medicine practitioners provide the pre- and post-travel care. In view of their joint concern for the health of the increasingly adventurous public, it is important that the specialities of wilderness and travel medicine should evolve together and understand each other.

In view of the rapidly expanding popularity of outdoor pursuits and adventure travel, wilderness medicine is likely to receive much greater recognition in the future. The principles of wilderness medicine apply not only on major expeditions to the Himalayas or the Amazon rainforest, but also at home in the UK, where hill walking, climbing, kayaking, caving and other adventurous pursuits are being done by many more people than in the past.

The Wilderness Medical Society (WMS) is the largest organisation in the world devoted to studying and advancing the field of wilderness medicine. While the majority of its members are currently from North America, an increasing proportion is from other countries. The WMS is very active in promoting increased awareness of the field, and one means by which they do this is in supporting a large and expanding network of Student Interest Groups. This concept has now arrived at medical schools in the United Kingdom, and the enthusiasm generated amongst students by the prospect of combining medicine with adventure can only be promising for the future advancement of wilderness medicine.

*Graham Walker has a special interest in wilderness medicine.*



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***Whether***

Whether the weather be cold  
Or whether the weather be hot  
We'll weather the weather  
Whatever the weather  
Whether we like it or not.

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## **SAND WITH EVERYTHING**

ANGELA ROBERTSON

A three-month stay in a North West African Sahara state involved a voluntary teaching programme. A previous visit to North Africa had ended in severe enteritis and left me vowing never to return. However, here I was, accompanied by my husband (a non medic), heading back to the 'Dark Continent' to live in the real desert and NOT on a package tour.

The learning curve was steep, almost vertical, as we had not spent time in a strict Islamic culture before. We prepared and departed the UK within five weeks with one a family holiday abroad. Major considerations included direct travel related issues such as immunisations, visas etc! The advice that we give to patients about allowing sufficient pretravel time and plan in advance, had new meaning!

We were responding to a call from friends who have lived in the Sahara for five years, to go and help them teach English for the summer term, a challenge to help them and experience a completely different lifestyle. We taught mainly adults, with some teenagers keen to learn more English than in the local Lycee school.

The evening teaching schedule meant we had some free day time to visit local families. Many live in cardboard and plywood shacks with several families sharing very basic cooking and washing facilities. The slower pace of African life, meant that life could be somewhat frustrating and fatiguing.

### **Environment**

Daytime temperatures were in the 30's Celsius with a strong constant coastal breeze, and cooler nights. The last rainfall was 4 years previous. Beautiful beaches abound with tropical sun and sand, sand and more sand with everything. Rubbish littered streets and goats and sheep roamed in chaotic traffic, consisting of battered, ancient vehicles and donkey carts. The one main tarmac road stretched 10 kms along the ramshackle strung out town of stone buildings and shanty dwellings. Vehicles and donkey carts go wherever they please, overtaking on any side, in any place. It is unnecessary to take a test before driving a vehicle, thus making road traffic accidents a very real hazard. Flies, fleas, cockroaches and scorpions were commonplace.

### **Health matters**

Life expectancy is 51.3 years. Maternal mortality rate 940 per 100,000 live births with haemorrhage (30%), obstructed labour (35%) and infections (7%) main contributors. Infant mortality rate is 118 per 1000 live births with child mortality rate of 182 per 1000. 44.1% of the population are under fifteen. The three main causes of morbidity in the country are upper respiratory infections (14%), malaria (12%) and enteritis/diarrhoea (8%).

Health care is provided via local hospitals and patients will often spend hours queuing to be seen by a doctor who may or may not turn up. Consultation is free but prescribed medicines must be purchased. Many cannot afford treatment or

medication Hospitals do not provide bed linen or cooking facilities for patients, so relatives bring in food and/or cooking equipment and cook in the ward. Some private clinics exist, although any major treatment for serious conditions requires a 300 km journey.

#### **Cultural aspects**

The strictly Islamic Republic is steeped in centuries of history and customs associated with the Muslim faith. *Dress* – no shorts for men, women modestly dressed (long skirts, no trousers, shoulders and tops of arms covered) and heads covered when in public. Women only greet women, men only men. It is disrespectful for a woman to look directly into the face of a man, which made communication quite difficult as we didn't speak the local Arabic language, and relied heavily on miming! Men and women should not come into physical contact with each other in public. So, in taxis (main form of transport) women were not supposed to sit next to men; this sometimes proved very tricky, as taxis are shared generally with others of mixed gender. The time-consuming and bizarre spectacle of men and women getting in and out of vehicles, jockeying for position, added an interesting dimension to the daily ritual of taxi rides.

#### **Security and crime rate**

Prepared to carry valuables and cash in 'body belts', in reality this was unnecessary. The crime rate is exceedingly low with only a 'rare murder' reported in five years. As in many African countries, corruption is a way of life and the laws of Islam, may deter would be offenders. Overt begging occurs everywhere and hassle (stone throwing and verbal abuse) from children happens, but is frowned upon by adults who will often intervene.

#### **Local customs**

Home entertaining is the main pastime and people start socialising about 9-10 pm and carry on until the early hours of the morning. One is usually offered a milk (goat or camel) drink, which may or may not be slightly rancid on arrival. It is passed around in a wooden bowl or enamel jug and you simply take your fill and pass it on. Meals are eaten sitting on the floor. A large dish of food, usually fish or lamb with rice or couscous, is placed on the floor and everyone sits round and eats with the fingers. Different ethnic groups have different ways of eating rice/couscous with the hands, therefore, it is essential to remember the community you are so in, to avoid offence.

Traditional mint tea is served in tiny glasses passed. The ritual of mint tea making is strictly observed and can take an hour to complete. You leave before start of tea making or after everyone has drunk the customary three glasses – never in the middle of the ceremony.

#### **Accommodation**

We rented a basic first floor flat, with working shower, sit down loo and modern cooker, of sorts which ran off bottled gas. Very small windows helped keep rooms cool and, the first floor situation, away from the myriad piles of rubbish at street level, helped reduce the fly population in the flat. However,

we had to contend with cockroaches. Ill-fitting doors and window frames meant a covering of sand and dust on everything and added an interesting dimension to the meaning of 'roughage' in the diet! Water for personal consumption was delivered in old bowsers ,a potential breeding ground for pathogens and stored in underground tanks before being pumped to the flat. Constant noise from shops blaring music day and night, mosques calling the faithful to prayer several times from sunrise to sunset, and the natural noisy exuberance of the indigenous people, meant that rest and relaxation were sometimes difficult to obtain.

### **Communication**

Communication was very frustrating! There are about 900 telephone lines in the entire country with communication linked to the capital 300 kms away. There are public telephone 'shops' but getting a connection can prove difficult. Few private houses have a telephone line and connections in cyber cafes take up to 2 hours to send or receive a simple e-mail. However, the sight of a local man ambling along a rough ,sandy road on a battered bicycle, answering his mobile phone gave us a chuckle! There are very few tarmac roads between scattered towns throughout the country and no passenger rail network. So it's flying, dirt road driving or camel riding for travel.

### **Shops**

Three 'supermarkets' provided goods imported from the Canary Islands and Spain. Visits to the local fish and meat markets were best undertaken early in the morning when fish had been freshly landed and meat fairly freshly slaughtered. Hygiene standards were non-existent, a multitude of flies (and rats in the fish market) covered everything. Camel and 'lamb' (more like mutton) were available and could taste reasonable if cooked long and slow! Fresh fish with rice is the staple diet. Dry goods and limited fruit and vegetables, were available in the market subject to haggling so shopping always took twice as long as in UK

### **Potential health hazards**

- Usual food and water borne diseases for a country in North West Africa.
- Enteric disorders.
- Malaria – present only in the south.
- Road traffic accidents.
- Injury to feet from littered broken glass and fragments of metal abundantly littering the streets.
- Aircraft accident, particularly travelling within the country.
- Tropical sun.
- Scorpions and desert spiders of the poisonous variety (the latter encountered on a trip 400 kms inland).
- Upper respiratory infections (primary cause of morbidity).

### **Survival techniques**

Immunisations including yellow fever. Malaria chemoprophylaxis.

A plentiful supply of ciprofloxacin, loperamide and oral rehydration sachets. The addition of a few drops of household bleach was a daily ritual to all dishwashing water straight from the tap. We washed fruit and salad foods in diluted iodine water (4 drops per litre) and kept to the maxim of peel, cook, boil or leave it.

We had a commercial size water filter and drank 4-5 litres a day.

When water supplies were interrupted (very common), we used a commercial hand sanitizer for washing.

A high factor sunscreen (25 UVA/UVB) was used.

### **Conclusion**

A fantastic experience, although hard work and we learned a great deal, not only about the country and people, but also about ourselves. We did not experience any gastroenteritis despite the less than perfect hygiene conditions or encounter any major accidents even though we rode camels with the locals and flew in 35-year-old Russian aircraft! We are now aware of the adventurous possibilities available for those of 'Golden Years' keen to combine a passion for travel with some sort of voluntary work.

Staying healthy in a third world country is possible with care and attention to detail and recognition that the simplest of measures can make the difference between misery and enjoyment.



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Whether the storm carries me, I go a willing guest.

*Prince Philip.*

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## PEOPLE WATCHING

JEN McWILLIAM

What a disparate lot we were! All strangers, initially, at the start of a six weeks' voyage across one of the emptiest oceans of the world.

We were drawn from all walks of life, occupations and professions. We had varying interests and many temperaments. Some were insouciant, some introspective but most were extroverts; some were hesitant at mixing with strangers, some absolutely self-satisfied, one or two truly unhappy. Only one couple was so 'mysterious' and self effacing that no address for any future contact with shipmates, as is customary, was forthcoming nor any statement, hint of occupation, past or present! At least they gave the rest of us something about which to speculate. It doesn't take long for shipboard gossip to get going!

In addition, we had varying degrees of physical fitness for such an odyssey. There were those active ones, trudging round the decks for a certain number of 'turns'. Others, with past health problems, found the going difficult at times but, with help from physically fit, struggled on to enjoy shore excursions, even those with difficult, slippery landings. Hats off to them!! – for they kept no one back.

We also had an artist, who, unobtrusively and without fuss, sat down to record on paper, what most of us viewed through a camera viewfinder. The onboard passenger cartoonist caused us, passengers and crew alike, to look eagerly on the big notice board, every morning and after a late night lecture to see ourselves, as he saw us. He made much of any humorous event causing much laughter or wry comment depending on who was the subject of his surveillance. The crew enjoyed it, as well. Among them, as well as the passengers, there were "characters" as befits seamen the world over. There were very efficient ones, able and willing to turn their hand to make or mend anything; there were others who gave only the occasional smile or nod, there were the 'jokers', mostly among younger men, who teased their fellows or, later in the journey, us passengers; some, but not many, ignored us and bustled about, pretending not see us. One, so very shy, retreated to his engine room, to escape trying to say even a single word.

A few passengers were keen business men almost reluctant to leave their occupation of 'getting and spending' and endeavouring to make contact by radio over the empty ocean with their world of business. Why had they come so far from their environment, unless it was for time to scheme in peace? They did not always seem to be happy, for sure.

For one woman, there was a constant anxiety about her marriage and a husband, who would not accompany her, being a poor sailor, and there had also been a possibility of 'the other woman' to add to her difficulty. Yet, he eventually became the more anxious, trying to contact her in mid-ocean and actually flying back to the UK to meet her on arrival.

Some kept themselves very much to themselves, not mixing much. Others, particularly the men, went off to join the crew in their 'mess' as an alternative from their fellow passengers. They tended to sleep late the next morning and miss breakfast. Some went to bed early to read or catch up with sleep lost

through rough weather. Others wandered the decks enjoying the huge sky with a myriad of stars not seen before in the southern hemisphere or leant over the rail looking at the moon on the water, dreaming, re-living the events of the day and listening to the swishing of the sea or in more southerly seas looking at – delight of delights! – King penguins ‘flipping’ silently around the ship, heads raised, looking at the huge apparition lighting up their sky.

Weeks went past. Most ‘voyagers’ becoming more acquainted, more relaxed with each other; little groups formed, were added to and subtracted from. Some people remained solitary and quiet throughout the journey. Some, solitary at the beginning of the journey, gradually gained confidence and ‘loosened up’ showing aspects of their personality and surprising the more ‘open’ of us with the intensity and variety of their past lives. One or two turned out to be ‘characters’ who gave us much pleasure with a sense of humour, hitherto concealed. In the evening there were ‘jigsaw’ fanatics; others lived for evening ‘scrabble’ competitions, some hated the game, since it called for too much mental effort while on holiday and read or talked quietly before the last night ‘turn’ round the deck. A few checked that there was ‘someone’ on the bridge – just in case! There’s nothing like ‘people watching’, either on land or sea to wonder at the variety of humankind.



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I was running a race with the Reaper.  
I hastened, he lingered, I won.  
Now strike, Death. You sluggard, you sleeper.  
You cannot undo what I have done.

*A. Toynbee.*

## HEALTH PROBLEMS OF TRAVELLERS IN POLAND

Travel medicine has developed in Poland during the recent decade, as a result of lifting of restrictions on travels of citizens of our country, following the political changes in 1989.

Previously, only seafarers, deep sea fishermen, groups of workers employed in the construction projects in countries of Asia and Africa, staff of our embassies and the government export/import companies travelled to neighbouring countries, and they were not exposed to exotic diseases. There were no special travel related health problems for them, except road accidents and injuries.

The health care for seafarers and deep-sea fishermen (professional travellers) was well organised. Shipping company doctors regularly examined them. On many ships particularly those going to the tropics, there were doctors employed, they cared for prevention, had a variety of drugs in the ships' medicine chests, including antimalarials. Chloroquine which was used 20-30 years ago was considered a safe drug, was effective in treatment and in prophylaxis. Still, we had malaria cases among crew members, because seafarers have not always taken tablets regularly.

There were rules on medical examinations of workers before they went to the tropics to work there and at the end of their contracts. Groups of hundreds of workers employed in Africa and Asia were accompanied by a medical practitioner from Poland. All other travelling government employees were also medically examined and they received advice on prevention.

At present, millions of Poles travel abroad every year, thousands of them go to the tropics, and some of them are later treated for exotic diseases at the Clinic of the Institute of Maritime and Tropical Medicine in Gdynia, and in infectious diseases clinics in other cities.

The awareness of travel related health problems among people in our country is rather low. Tourists are not interested in tropical diseases, and they do not like to be lectured on hazardous exposures. They pay for pleasure of going to exotic destinations, seeing places, enjoying good food and having fun. Tour operators and travel agencies make good business, and it is not in their best interest to tell tourists stories about mosquitoes, malaria, traveller's diarrhoea etc.

Regarding malaria, we have our own experiences. Immediately before the Second World War, in the late 1930s, as the result of malaria control operations, there were only 200-300 cases of local *P.vivax* infections reported annually, in the eastern part of the country. Local transmission was resumed on a large scale during the war. In 1945-46 many malaria transmission foci were detected (*P.vivax* only), and the number of reported cases was from about 5000 to about 13000 annually, in 1945-1948. Doctors knew the problems of malaria from their practice. But as the result of the intensive malaria control operations, the local transmission was interrupted. After 1960, there were no indigenous cases reported in this country. But every year after that, from a few to about 40 imported cases were recorded.

Doctors forgot about malaria. Diagnosing an imported infection is not easy nowadays, if the patient will not tell the doctor about his travel to a country in the tropics. Fatal malaria infections have occurred among travellers from Poland, because the diagnosis and treatment were delayed.

To remedy this situation, at our Institute in Gdynia we conduct training courses on tropical and travel medicine for doctors, and we publish popular health guides for travellers. Also, some studies on diseases among travellers were conducted (1). Regarding our seafarers, the great majority of them have now been employed on foreign flag ships, and the government maritime health services have disintegrated during recent years.

These few words will allow the British doctors, readers of your journal, to compare the situation in the United Kingdom and in Poland, regarding travel medicine.

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***Tourists beware***

Every day about 3000 people die and 30,000 are seriously injured on world roads. Most casualties are in countries of low and middle income and the most vulnerable are pedestrians, cyclists, scooter and motor cycle users.

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## RESEARCH REPORTS

### LEPTOSPIROSIS OUTBREAK, SABAH, BORNEO

C. EASMON

#### **Introduction**

Extreme sports are tests of physical fitness in difficult conditions and locations. A generation of young, fit adventurers are continually seeking new challenges. The Eco-Challenge aims to serve some of these interests. The Eco-Challenge is a team competition, with each team representing a country or state. Various physical skills are put to the test, ideally in a challenging environmental setting. Physical skills include: jungle trekking, paddling, canyoneering [1] with fixed ropes, scuba diving, mountain biking and caving. Previous Eco-Challenge locations prior to 2000, were New England (1995), British Columbia (1996), Australia (1997), Morocco (1998) and Argentina (1999). In August of 2000 the last Eco-Challenge was held in Sabah, Borneo. Within minutes of the application forms being made on the Internet all places were taken up (David Freedman, personal communication). The Sabah Eco-Challenge attracted a total of 308 participants representing 26 Countries and 29 States [2]. This report is of an outbreak of leptospirosis amongst the August 2000 Eco-Challenge participants.

#### **Background**

Sabah is located in the northeast corner of Borneo, the island which is part of Malaysia. Sabah lies beneath the typhoon belt, has a rugged terrain and one of the world's largest rain forests. Interestingly the local people believe that you are changed forever once you have travelled through the jungles of Sabah. Competitors of the August Eco-Challenge were able to judge this for themselves as shown below.

Leptospirosis is a bacterial disease that affects humans and animals. It is caused by bacteria of the genus *Leptospira*. In humans it causes a wide range of symptoms, and some infected persons may have no symptoms at all. Symptoms of leptospirosis include high fever, severe headache, chills, muscle aches, and vomiting, and may include jaundice (yellow skin and eyes), red eyes, abdominal pain, diarrhoea, or a rash. If the disease is not treated, the patient could develop kidney damage, meningitis (inflammation of the membrane around the brain and spinal cord), liver failure, and respiratory distress. In rare cases death occurs.

Outbreaks of leptospirosis are usually caused by exposure to water contaminated with the urine of infected animals. Many different kinds of animals carry the bacterium; they may become sick but sometimes have no symptoms. *Leptospira* organisms have been found in cattle, pigs, horses, dogs, rodents, and wild animals. Humans become infected through contact with water, food, or soil containing urine from these infected animals. This may happen by swallowing contaminated food or water or through skin contact, especially with

mucosal surfaces, such as the eyes or nose, or with broken skin. The disease is not known to be spread from person to person [2, 3].

The time between a person's exposure to a contaminated source and becoming sick is 2 days to 4 weeks. Illness usually begins abruptly with fever and other symptoms. Leptospirosis may occur in two phases; after the first phase, with fever, chills, headache, muscle aches, vomiting, or diarrhoea, the patient may recover for a time but become ill again. If a second phase occurs, it is more severe; the person may have kidney or liver failure or meningitis. This phase is also called Weil's disease. The illness lasts from a few days to three weeks or longer. Without treatment, recovery may take several months. Diagnosis is confirmed by rising titres of serological tests and by isolation of leptospire from blood or CSF.

Leptospira species are known to be endemic in Malaysian Borneo but were not a recognised cause of large scale disease at the time of the Eco-Challenge, Sabah.

#### **Post-script to the Eco-Challenge Sabah**

On September 7, 2000, Communicable Disease Control, Atlanta was notified by Idaho Department of Health about a case of acute febrile illness in a 35-year-old man; the illness was characterized by acute onset of high fever, chills, headache, and myalgias (David Freedman, personal communication). The patient had participated in the Eco-Challenge Sabah 2000 Expedition Race. At the time this information was not known to doctors at the Hospital for Tropical Disease (HTD) in London. However on 11/9/00 the HTD doctors became aware of illness in 4 (2 admitted, 2 telephone queries) British participants of the race. The 4 cases had finished in Malaysia around the 27th August having swum through unclean rivers, been bitten by various insects and had stayed in bat infested caves. On behalf of HTD, I reported our cases to the GeoSentinel[4] network by e-mail the same day[5]. It became clear that New York had 1 report of a case of a tropical febrile illness with dehydration, anaemia, myositis and diarrhoea in a returning Borneo Eco-Challenge participant. As per HTD cases, there was no definitive diagnosis at this point but leptospirosis was certainly high up on the list. It was known at the time that rains in Thailand had led to a large numbers of leptospirosis cases there and it was feasible that the situation had extended down the Malay Peninsula. Jay Keystone (Canada) reported 4 cases in Toronto, which clinically were very clearly leptospirosis. One of the Canadian patients was a 24 year old man who presented with fever, headache, painful eyes and myalgia, especially back pain, which began on September 7 2000, approximately nine days after his exposure in Borneo. His liver function tests (LFT's) were mildly elevated as was his white count to 11,000/cu mm. The participant said that there were many rodents seen on one of the small islands where they were staying during the Eco-Challenge.

The other case in London Ontario presented with similar symptoms with the addition of marked conjunctivitis and severe limb myalgia.

The Internet was used to inform the following groups: All of the GeoSentinel network, ProMed, TravelMed (400 International Society of Travel Medicine – ISTM subscribers), TropMed (200 ASTMH subscribers), ISTM membership

(1200 people in 55 countries) and 800 US ID specialists<sup>4</sup>. The speed of information dissemination is illustrated by the fact that within 48 hours of 11/9/00 Health Authorities in Canada (19 [6]), Australia (12) and the UK (22) had participant lists to begin contact tracing.

The USA led the way in the epidemiological and laboratory investigation of this outbreak. UK work is still ongoing undertaken by the PHLS and Drs Meirion Evans and Mark Evans. On September 12, serum specimens obtained from two hospitalized athletes from Los Angeles were tested at CDC for leptospirosis using the Dip-S-Ticks\* assay (Leptospira INDX Dip-S-Ticks; Integrated Diagnostics, Baltimore, Maryland) and the Pan-Bio\* enzyme-linked immunosorbent assay (ELISA) IgM test (PanBio, Brisbane, Australia) 2. One athlete tested positive with both tests on an acute-phase serum specimen obtained 4 days following onset of fever. The second athlete tested negative with both tests on the acute-phase specimen but positive with both tests on a follow-up specimen obtained 4 and 6 days following onset of fever. As of September 13 2000, 82 (53%) of 155 U.S.-based athletes had been contacted; 37 (45%) reported having fever and 12 (15%) were hospitalized. No deaths had been reported. Cases were defined as 'the acute onset of fever occurring on or after August 21, and at least two of the following symptoms: chills, myalgias, headache, diarrhoea, or conjunctivitis, in and Eco-Challenge athlete 2.' By September 23rd 2000 the case definition had been applied to 153 of 308 participants contacted. (68) 44% met the case definition. The cases had a median age 35.5 years, 74% were male, the mean duration of illness was 6.7 days and 37% cases had been hospitalised.

The symptoms are listed in Table 1.

Further analysis (Table 2) implicates the Segama river as the point source of the outbreak.

<i>Symptoms</i>	<i>% of Cases with symptom</i>
Chills	99%
Myalgias	85%
Headache	88%
Diarrhoea	52%
Arthralgia	52%
Dark Urine	52%
Calf/leg pain	46%

**Source:** Update: Outbreak of Acute Febrile Illness Among Athletes Participating in Eco-Challenge-Sabah 2000. Borneo, Malaysia, 2000. MMWR weekly 2001; 50 (02): 21-24 (accessed from [www.cdc.gov/mmwr/preview/mmwrhtml/mm5002a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5002a1.htm) on 19/2/01).

**Table 2: Statistically significant risk factors**

<i>Activity</i>	<i>Risk Ratio</i>
Kayaking	(RR=3.1, 95% CI 1.5-6.4)
Swimming in Segama river	(RR=2.5, 95% CI 1.7-3.5)
Spelunking (pot-holing)	(RR=2.3, 95% CI 1.4-3.7)
Swallowing river water	(RR=2.1, 95% CI 1.1-4.0)

**Source:** Update: Outbreak of Acute Febrile Illness Among Athletes Participating in Eco-Challenge-Sabah 2000..Borneo, Malaysia, 2000. *MMWR* weekly 2001; 50 (02): 21-24 (accessed from [www.cdc.gov/mmwr/preview/mmwrhtml/mm5002a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5002a1.htm) on

### Summary

This was effectively a point source outbreak, wherein Eco-Challenge participants had collected at the source (the Segama river), become infected and then dispersed back to their various countries during the incubation period. This is the classical pattern for other travel related outbreaks such as that of Meningitis W135 in the last pilgrimage to Mecca. Medical personnel need early warning systems and heightened awareness of these problems. This outbreak showed the great utility and effectiveness of the Internet as a way of sharing data, disseminating it and collating data for further analysis. The Internet provided fast, efficient access to international networks. Core epidemiological investigation was aided by the internet and networks such as GeoSentinel. Geosentinel is a network of clinics around the world that treat returned travellers. It allows fast Internet access to pooled information and as a resource was invaluable in helping to track an international epidemic that might not have been recognised as such by any one member state or country.

### Acknowledgements

The Consultants at HTD, David Freedman (GeoSentinel), Marty Cetron (CDC).

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## **PERSISTENT LYMPHADENOPATHY FOLLOWING TICK BITES IN NEPAL**

J. WILSON-HOWARTH

Despite the scale of the mountains, trekkers in Nepal are often forced to camp in less-than-ideal sites. While walking through the 'middle hills', flat ground for camping can be at a terrific premium (especially before the rice harvest) and even at higher altitudes any scrap of approximately level ground is used if it can be. Often fallow terraces or 'Alps' are used to contain cattle over night, and cattle-herders build rough shelters against the weather. Trekkers on camping treks may also use these ghoats, since porters can also shelter in these places.

There will often be significant numbers of cattle ticks in these habitats and it is here that trekkers may acquire a tick. Alternatively they can be picked up while brushing through the vegetation overhanging paths that have also been used by cattle.

The climate in the mountains of Nepal is cold, the water often icy and washing facilities primitive so that personal hygiene practices can be perfunctory and a feeding tick may not be discovered for many days. Fortunately though, the range of tick-borne infections in Nepal is more limited than in the Americas and in Europe, and symptoms are usually restricted to local effects.

This paper presents two cases of persistent lymphadenopathy in children aged seven and six who both carried feeding ticks with them for some time between several days and three weeks. Engorged cattle ticks were discovered in one case within the pinna of the external ear and the other in a post auricular position. The reaction to the tick saliva provoked local lymphadenopathy even in the absence of tick-borne infection. The lymph nodes were firm and somewhat tender and for a full calendar month. They were still palpable, although non-tender, for more than two months after the tick bite.

Lymphadenopathy is recorded secondary to louse infestation, but I would be interested to know whether members have observed this phenomenon after tick bite too and whether this symptom might ever be confused with a tick-borne infection?

### **Case One**

Seven-year-old English male child went on a month-long trek to the Kanchenjunga Base Camp in Eastern Nepal. The maximum altitude achieved was about 13,500ft. The family were camping and poor weather kept them lower than they had planned so that much of the trek was through agricultural land or land used for seasonal grazing by cattle and goats.

On arriving back in Kathmandu after the trek, the boy enjoyed a hot bath and whilst washing his hair his mother discovered a fully engorged cattle tick attached behind the left ear. This was easily removed between finger and thumb, and the wound was doused in Mirnov Nepali vodka.

Lymphadenopathy was apparent that day in the left posterior triangle of the neck. The nodes were mildly tender on palpation and remained tender for about

a month. Two months later the nodes were still palpable although somewhat smaller and they had become non-tender.

There were no other symptoms and the child has remained well since the tick bite in 1998.

#### **Case Two**

A six-year-old English boy went trekking in Helambu in central Nepal. The family kept below about 12,000 ft; nearly all of the land that they walked through was used for marginal agriculture or grazing of cattle or goats.

The child had been complaining – on and off – of pain in the left ear that he himself attributed to a fall earlier in the holiday. Mother – a physician – told the child not to worry. Finally the father – a civil engineer – looked inside and saw movement. A partially engorged cattle tick was crawling about, trying to escape from the folds of the child’s external ear. Stretching the pinna allowed the tick to fall out onto the path. At this point the boy had been in Nepal for about three weeks, having already been in tick habitat in the Royal Bardiya National Park. The boy remained well except for mild discomfort at the bite site and from the tender lymphadenopathy in the left posterior triangle of the neck. The nodes remained mildly tender for about a month. Five months later the nodes were non-tender but still just palpable. There were no other symptoms and the child has remained well since the tick bite in Christmas 2000.

#### **Experience of tick-bites in Nepal**

Tick bites are common in Nepal and although local symptoms are well recognised (Schwartz and Shlim 1988) systemic illness seems rare. Doctors who see many tourists at the CIWEC Clinic and Travel Medicine Centre in Kathmandu often note lymphadenopathy following tick-bites (Dr Pravita Pandey, pers. com. 2001), but this seems to be the first report of such very long-standing although mild lymphadenopathy following uncomplicated bites.

Rickettsial infections are increasingly recognised as a complication of tick-bites in many geographical regions and it may be that these cases are an indication of infection that can be so mild as to be almost sub-clinical in healthy children.

Health advisors to travellers to Nepal might usefully highlight the following points:

- Tick attachment is common amongst trekkers to Nepal and also in visitors to lowland wildlife reserves who go on ‘walking safaris’.
- Tick-borne infections are uncommon in Nepal.
- The commonest complication of tick bite in Nepal is retained tick mouth-parts after clumsy removal of the parasite.
- Lymphadenopathy after a tick bite needs medical assessment but may be benign.
- Ticks are amazingly clever ‘cat-burglars’ and usually climb over skin under the clothes without being noticed by the victim. The tick then settles down to feed in some cosy corner like the scrotum, axilla or beneath the breast.
- Long loose clothes with trousers tucked into socks, plus repellents or permethrin help keep ticks off.

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## HEALTH WORKERS' ATTITUDE TOWARDS THE PROVISION OF A TRAVEL CLINIC SERVICE WITHIN AN ACUTE NHS TRUST

P. SEETULSING

### Summary

The aim was to assess the need for a Travel Clinic service within the West Hertfordshire Hospitals NHS Trust for hospital staff travelling outside the United Kingdom on work related business or holiday. An anonymous questionnaire was sent to 200 members of staff, selected by using computer-generated random numbers from the total staff complement of 3729.

109 completed questionnaires were returned, a response rate of 55%. 68% of the respondents had travelled to a total of 42 countries in the past year and had made a total of 130 trips (110 trips were for holiday purposes), an average of 1.8 trips each per year. Countries visited were broken into broader geographical areas categorised as areas of low, medium or high risk in terms of the risk to health: 96 visits were to the low risk area, seventeen to the medium risk area and seventeen to the high risk area.

Fifteen (20%) of the 74 respondents who had travelled received immunisation prior to travel and had travelled to medium risk and high risk areas. A total of 16 (22%) of the 74 respondents who had travelled received travel health advice prior to travel. Only 2 respondents needed to seek medical attention on return. Comments for using the service centred mainly on convenience, availability of "specialist" or "expert" and relevant advice.

A sizeable number of respondents (82%) would use a Travel Clinic Service if one were provided within the Trust and 87% would be willing to pay for the cost of the vaccines.

There does seem to be a need for a travel clinic service to be provided

within the West Hertfordshire Hospitals NHS trust but further study is required to determine the manpower and resources needed and the cost of providing such a service.

### **Introduction**

As the recognition of the discipline of Travel Medicine increases, there are calls for further examination of the pre-travel health advisory services, which are available to provide pre-travel care to the international traveller. The composition and practice of these services however, have not been defined on either a regional or a global basis. Several questions arise pertaining to these services:

- how many patients are seen,
- what advice and preventive measures are being discussed
- which immunisations and other services are available?
- what is the background training of those who are providing the advice?

A survey of travel clinics was conducted in 1996 (1) on behalf of the Education Committee of the International Society of Travel Medicine to assess the current practice of travel medicine by examining travel clinic services, operational details, advice and personnel. Information was obtained on 341 clinics worldwide. Most of the clinics (41%) were private, 20% were affiliated with schools of medicine, 10% were located within hospitals, 10% were part of corporate occupational medicine or student health practices and 8% were associated with public health facilities.

The amount of literature published relating to Travel Medicine services within Occupational Health or in hospitals settings is very limited. Of the available literature relating Travel Medicine and Occupational Health, most tends to focus on the general health advice required by business travellers (2) rather than specifically studying the unique position that Occupational Health Advisers are in when it comes to advising employees who are travelling.

This project was devised in order to assess the need for a Travel Clinic Service to be provided for hospital staff working within the West Hertfordshire Hospitals NHS Trust. The number of staff currently employed as of April 2000 is 3729: approximately 80% of which are females and 20% are males. With such a staff total there must be large numbers of staff travelling on work related business and holiday, many of whom may require specialist travel health advice.

This study was therefore set up in order to assess whether there is actually a need for such a travel service to be provided.

### **Objectives**

1. To estimate the number of hospital staff who travelled abroad on work related business or holiday in the past year.
2. To ascertain whether those staff who have travelled received pre-travel health advice and immunisations.
3. To ascertain whether those staff who have travelled required any post-travel follow-up because of illness acquired abroad.
4. To determine whether hospital staff would utilise a Travel Clinic Service if

one were available within this Trust and whether they would be willing to pay a discounted fee to cover the cost of travel vaccines not covered by the NHS.

**Methodology**

Two hundred members of staff staff were randomly selected using computer generated random numbers from the total total staff complement of 3729 – all categories of staff employed by the West Hertfordshire Hospitals NHS Trust and all departments were included in the study. The questionnaires were sent out in the internal post with a return envelope enclosed.

The format of the questionnaire consisted of basic details of post held within the Trust, sex and age selected from an age bracket. Seven other questions were asked, mainly taking the format of Yes/No tick boxes. Respondents were asked about countries travelled to, the reason for visit and reasons why the respondent would or would not use a Travel Clinic Service if one was provided within the Trust for future work related travel or holiday.

**Results:**

**Sample Composition**

The respondents were 88% female and 12% male. The different age brackets were also generally representative of the different age groups of staff within the Trust : 21% in the 18-30, 24% in the 31-40, 32% in the 41-50, 21% in the 51-60 years age groups and 2% in the over 60s’. Forty four per cent of the respondents were nurses, 11% were doctors and 45 % had other occupations.

**Countries travelled to and purpose of visit**

68% (74) of the respondents had travelled abroad to a total of 42 countries in the past year (1 had not specified the European country visited) with a total of 130 trips, an average of 1.8 trips each per year.

The countries travelled to have been grouped into broader geographical areas, and the number of visits to each area is shown in figure 1. These destinations and visits to each category have been categorised by the author as areas of low, medium or high risk, in terms of the risk to health, and they are displayed as such in Table 1.

<b>Table 1 – Relative health risks of geographical areas</b>		
<i>Low Risk (n= 96)</i>	<i>Medium Risk (n=17)</i>	<i>High Risk (n=17)</i>
Europe	Middle East	Asia/Far East
USA/Canada	Caribbean	Indian Subcontinent
Australia	North Africa	South America
	Central/South Africa	

**Reasons for travel**

The reasons given for travel for 110 trips out of the total of 130 was holidays. 1 trip had a dual purpose: ‘Visit family and holidays’.

### **Immunisation and travel health advice prior to travel**

20% (15) of 74 respondents who had travelled received immunisation prior to travel and they had travelled to medium and high risk areas.

22% (16) of the 74 respondents who had travelled had received travel health advice prior to travel.

7 had received this advice from the General Practice, 4 had received this advice from their travel agent, 3 had received advice from both their General Practice and their travel agent, one had consulted Masta database and one was given an information leaflet from the Red Cross.

27% (4) of the respondents who indicated that they had received immunisation had not received pre-travel health advice.

### **Incidence of illness post travel**

Only 2 respondents needed to seek medical attention on return, and on these 2 occasions the travellers contacted their GP and Pharmacy for advice (travel destinations were Spain and Egypt respectively for holidays).

### **Attitude towards using a Travel Clinic Service**

82% (89) of respondents, 77% (27) of the non-travellers and 84% (62) of the travellers would use a Travel Clinic Service if one were provided (table 2).

### **Attitude towards payment for vaccines.**

87% (94) of the respondents, 71% (25) of the non-travellers and 94% (69) of the travellers would be willing to pay a fee to cover the cost of the vaccines (table 2).

## **Discussion**

### **Age and sex**

When the age characteristics of travellers were compared to the non-travellers (data not shown), a significant proportion of staff (82% ) in the 18-30 range (18 out of 22) had travelled. Similarly a significant proportion of staff (86%) in the 51-60 group had travelled (19 out of 22). This high incidence of travellers among the 18-30 age range may reflect the eager and adventurous nature of the younger traveller. A similar high incidence of travellers among the older age group 51-60 may be related to the fact that large numbers of staff in this age range may be free from family commitments and may want to seize the opportunity to travel abroad to make long anticipated journeys of a lifetime.

### **Position within the Trust**

The majority of respondents who had described their position within the Trust were nurses (44%) followed by doctors (11%) and are generally representative of the workforce within the Trust (13% doctors, 32% qualified nurses).

### **Countries travelled to**

Sixty eight per cent of the respondents had travelled in the past year

A total of 130 trips were made. Europe, the USA, Canada and Australia can

**Table 2: Attitude towards using a Travel Clinic and payment for vaccines**

	<i>Respondents</i> Total = 109	<i>Non-travellers</i> Total = 35	<i>Travellers</i> Total = 74
<i>Attitude towards using a Travel Clinic</i>			
Yes	89 (82%)	27 (77%)	62 (84%)
No	17 (15%)	8 (23%)	9 (12%)
Don't know/other	3 (3%)	–	3 (4%)
<i>Attitude towards payment for Vaccine</i>			
Yes	94 (86%)	25 (71%)	69 (94%)
No	14 (13%)	10 (29%)	4 (5%)
Don't know/other	1 (1%)	–	1 (1%)

all be classed as ‘low risk destinations’ although in some parts of Eastern Europe communicable diseases such as diphtheria are on the increase and there may also be increased risks from food and water borne diseases such as hepatitis A (3). The Middle East, the Caribbean and North Africa could be classed as ‘medium risk destinations’ in terms of health risks and hazards. Diseases such as hepatitis A and typhoid occur more commonly and there are increased risks from other diseases such as rabies, hepatitis B, HIV and in some areas there is also the risk of malaria (3). Asia, the Far East, the Indian Subcontinent, South America, Central and South Africa could all be classed as ‘high risk destinations’. In some parts of Asia and the Far East the risks are variable and may be classed only as ‘medium risk’ depending on local conditions; however throughout all these countries there is generally an increased risk of malaria, food and water borne diseases, rabies, blood borne viruses and diseases of close contact including tuberculosis, diphtheria and meningitis (3). In South East Asia there may also be the risk of Japanese B encephalitis and in South America there is the risk of yellow fever (3).

From the results obtained 74% of the trips were made to ‘low risk’ areas, 13% were made to ‘medium risk’ destinations and 13% were made to ‘high risk’ areas although the total level of risk is obviously not only dependent on the country itself but is also related to the proposed activities of the traveller while away (4).

A travel clinic service could possibly be targeted at those travelling to ‘high risk’ or ‘medium risk’ areas- 34% (25) of respondents who had travelled.

If this figure is used to predict the number of travellers who may require pre-travel health advice most and those at which the service may be aimed, it comes to 857 travellers per year or approximately 16 travellers per week.

#### **Purpose of visit**

85% of trips were for holidays, 8% were for visiting family and relatives and 7% were for work, study, business and conferences. Some reasons may be ‘higher risk’ than others depending on the specific activities which are planned.

### **Immunisation and travel health advice prior to travel**

Twenty two per cent (16) of the respondents who had travelled had received some pre-travel advice and if this figure is used to predict the number of travellers who may require pre-travel health advice, it comes to 558 travellers per year or roughly 11 travellers per week.

Forty four per cent (11) of the 25 respondents who had travelled to 'medium' and 'high risk' areas had received pre-travel health advice. As previously pointed out, the total level of health risk is not only related to the country itself but is also related to the proposed activities of the traveller while away. If knowledge of these specific activities were known, it could be argued that still more than 44% of the respondents travelling to 'medium risk' and 'high risk' areas should have received some form of pre-travel health advice.

Twenty per cent (15) of respondents who had travelled received immunisation prior to travel. If this figure is used to predict possible numbers of travellers who would require immunisation prior to travel, it comes to 507 travellers per year or 10 travellers per week.

### **Incidence of illness post-travel**

Only 3% of travellers actually needed to seek medical attention on their return. There may be under reporting of such cases but even if the figure of 3% is used to predict the possible number of travellers who may need to seek medical advice, it means that 76 travellers or approximately 1-2 travellers per week may have to seek some sort of medical advice on their return which is a considerable number.

### **Attitude towards using a Travel Clinic Service**

A total of 82% of respondents would use a Travel Clinic Service and if this figure is used to predict the total number of travellers who may use the service, a possible 2079 travellers per year or approximately 40 travellers per week would be interested in using a Travel Clinic Service.

When the comments against using the service were analysed they focused mostly on the availability of alternate sources of advice or on the fact that respondents are unlikely to travel abroad or to high-risk areas.

The comments for using the service centred mainly on convenience, availability of 'specialist' or 'expert' and relevant advice. The location and ease of access of the practice is often one of the key factors in determining the success of a travel clinic.

### **Attitude towards payment for vaccines**

A total of 87% of the respondents would pay a fee for some of the travel vaccines. The level of income that can be generated from a travel clinic service depends upon numerous factors including the following:

1. Whether the clinic is NHS, private or fundholding.
2. Whether NHS reimbursement or 'item of service' payments can be claimed for administration of certain vaccines as in general practice.
3. The types of services provided.

Currently there is no national legislation that outlines the vaccines and other

provisions travel clinics should charge for. This has led to a tremendous variation in practice throughout the UK that is unlikely to change until legislation is made. There are guidelines however on claiming for certain immunisation in the general practice setting (5).

### Conclusions

The results obtained in this study do suggest that there does seem to be a need for a Travel Clinic Service to be provided within the Trust.

If this service is aimed at those travelling to 'high risk' or 'medium risk' areas and if one takes into account the predicted figures for those requiring pre-travel health advice and those requiring immunisation prior to travel an average of 10-16 travellers are likely to be seen per week.

The travel clinic may offer a comprehensive service on aspects of travel health including carrying out an individual pre-travel health risk assessment, immunisation, offering advice (verbal and written) tailored to the individual's needs on areas such as malaria (including anti-malarial prophylaxis), insect avoidance, traveller's diarrhoea, risks from blood borne viruses and other illnesses.

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## TOURISTS' KNOWLEDGE OF LEISHMANIASIS

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### Background

Cutaneous leishmaniasis is a parasitic disease transmitted by infected sand flies. An ulcerous skin lesion develops at the bite site which, after a number of weeks, is usually self-healing leaving a scar the size of the ulcer. Many overseas tourism destinations are located in leishmaniasis endemic areas and numerous tourists have returned home with a scar reminding them of their infection.

One parasite species, *Leishmania braziliensis*, can progress to a mucocutaneous stage of the disease where infected individuals develop mucosal lesions in nose and mouth. Without treatment, these lesions can lead to disfiguring tissue destruction. *L. braziliensis* is endemic in Central and South American

rainforests, coinciding with the geographical location of many national parks and hence tourism destinations (1,2). While leishmaniasis is a disease of the local population, tourists can be infected, even if they have been in the region for only a very short time (1-7). The only prevention from infection is not to be bitten. Therefore, travellers to endemic areas need to be advised of the existence of the disease and the preventive measures. However, the lack of inclusion of such information in travel health advice has been deplored in the literature (1, 8).

In 1999, an intervention study commenced investigating knowledge and preventive behaviour of tourists to Manu National Park in Peru in relation to leishmaniasis while testing an information leaflet (9). Data were collected using a pre and post visit questionnaire (n = 373, experimental and control group). However, there was a considerable number of tourists visiting Manu during the time of the study who completed only one of the two questionnaires and were, therefore, excluded from the intervention study. Nevertheless, the questions posed in the pre travel questionnaire are of interest on their own because they cover responses to knowledge on leishmaniasis and preventive measures.

#### **Method**

Therefore, all pre travel questionnaires (n = 552; 373 from the intervention study and an additional 179 from those only completing this form) were re-analysed to take advantage of the now larger sample. The descriptive analysis was conducted with SPSS.

#### **Results**

The demographic data of this sample are presented in Table 1.

TABLE 1

Of 492 participants, 472 (95.9%) claimed to have sought travel health advice for this trip. However, 455 (93.4%, n = 487) did not recall being advised of cutaneous leishmaniasis. Of the remaining 32 (6.6%) who knew about the disease, 20 (62.5%) offered further information relating to their knowledge (Table 2). The responses relied on recall, no triggering forced-choice questions were used.

TABLE 2

Some clearly confused the disease with Chagas or schistosomiasis. When asked about the tourists' knowledge of preventive measures, 17 (63%) out of 27 tourists were aware of correct procedures (Table 3).

TABLE 3

The wrong answers given emphasise the need for comprehensive advice. Drinking clean water and eating cooked food was seen as a measure against leishmaniasis, as was not walking barefoot and staying away from sandbanks. Again, the responses are based knowledge recall. Interestingly, when correlating the responses on disease and prevention with the individual occupational groups a) doctors, health professionals, scientists and b) all other occupations, there was no significant difference in the accuracy of the accounts.

### Discussion

The majority of participants had sought travel health advice before their trip but few were aware of leishmaniasis, fewer could provide correct information on disease and prevention. While not every Peru traveller will plan a visit to the rainforest, the possibility should be considered when giving health advice on a destination in an endemic region.

The preventive measures against sandfly bites are the same as for other insects. Therefore, it can be assumed that knowledge about yet another arthropod transmitted disease may not alter the generally accepted practices of preventing insect bites. However, knowledge of the disease may make a big difference when tourists develop a skin ulcer and can then advise their physician about the possibility of an infection. The unfamiliarity of physicians with leishmaniasis has been discussed (1, 10) and could lead to misdiagnosis and delayed treatment.

### Conclusion

Information on leishmaniasis should be included in travel health advice to clients travelling to endemic areas so that they are aware of the disease and the preventive measures, and that returning travellers can alert their physicians about the possibility of an infection.

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	<i>N</i>	%
Gender (n = 547)		
Female	280	51.2
Male	267	46.8
Age (n = 487) (mean/mode/median)	37/28/33 years	
Occupation (n = 526)		
Doctor	26	4.9
Nurse	16	3.0
Other health professional	14	2.7
Biologist	7	1.3
Other scientist	13	2.5
Veterinarian	6	1.1
Other occupations	444	84.4
First visit to Manu (n = 492)		
Yes	487	99.0
Visited other tropical rainforests (n = 492)		
Yes	163	33.1
No	329	66.9

	<i>Count</i>	<i>% of responses</i>	<i>% of cases</i>
Sandfly transmits disease	11	36.7	55.0
Other insect	2	6.7	10.0
Only knows disease exists	10	33.3	50.0
Incubation period	1	3.3	5.0
Bites don't heal	3	10.0	15.0
Tissue destruction	3	10.0	15.0
Total responses	30	100.0	150.0

	<i>N</i>	%
Protective clothes	2	7.7
Repellent	6	23.1
Protective clothes + repellent	9	34.6
Wrong answer	9	34.6
Total	26	100.0

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## CASE HISTORIES

### BEWARE THE TRAVELLER'S HIDDEN AGENDA

Jim (not his real name) was 64 years old, fit and active and had climbed all the Scottish Munros (mountains over 3,000 feet) not only once, but twice, a feat accomplished by relatively few mountaineers. He had been widowed about two years earlier when he joined the trek I was leading round the Annapurna Circuit, a strenuous three week trek around the Annapurna range rising to 17,500 feet at the Thorong La pass. This was to be the highlight of his hill walking career.

For over a week, Tom was among the strongest members of the group, and I recorded in my diary that his performance had given me hope for a long and active life in the mountains. After an acclimatisation and rest day, his pace became a little slower as we approached our next camp at about 14,000 feet He assured me that all was well, and that he would have no problems if he could go at his own pace, and refused point blank to let me carry any of his load. It was a cold and cheerless night as snow fell,

At 03.00 we set off under a clear and starlit sky for the Thorong La. I put Jim at the front so that we could all go at his pace, but as we wound slowly up the dark mountain side by the flickering light of head torches it became clear that all was not well with Jim. Approaching an altitude where the atmospheric pressure, and therefore the oxygen pressure, is only 50% of that at sea level we were all going slowly, breathing heavily and needing to stop from time to time. Jim's pace became progressively slower and his rests more frequent. He was suffering from the altitude, but refused to accept that there was a problem. We had gained only 500 of the 3,500 feet to the pass, and were being passed by those who had set off much later. By now, Jim was less footsure than usual, and it was time for me to intervene, as I was afraid that he was developing incipient cerebral oedema. Over-ruling his protests I eventually had to order him to go down for his own safety, accompanied by a member of our Sherpa team; as leader I had to go on with the rest of the party. As we were on a circular route, he would have to go back to Kathmandu to await our return at the end of the trek. I had little doubt that at soon as he had lost 1,000 feet or more in altitude he would be out of danger.

When we returned to Kathmandu we met a broken man. Jim looked old and ill, much more ill than I would have expected from the relatively mild diarrhoea that he had. Gone were the brightness of the eye and the sprightly step, and during the journey home he clung to my arm through each airport, begging me not to leave him. At Gatwick I had to buy him a ticket, put him on the train and ask someone to make sure he got off at the right station.

I attributed his condition to the fact that, in his eyes, he had failed for the first time in his mountaineering career and was unable to cope with failure. In part I was right, but later another member of the group told me that he had been carrying a photograph of his late wife, intending to place it in the cairn at the summit of the pass, the highest point he had ever reached as a mountaineer. In failing to reach that point, he had failed not only himself but also his late wife.

Did I do the right thing by Jim? In my eyes I did, as sending him down probably saved his life. He may have failed his late wife, but did I in my turn fail him by not discovering the true reason for his determination to press on at all costs?

M. TOWNEND.

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### A SALUTARY TALE

Uzbekistan and Tajikistan, far provinces of the old Russian empire are in the news as military access routes to Afghanistan, but they have long been travelled by tourists on the old Silk Road, en route the fabled Bokhara and Samarkand.

As a fellow traveller in Tashkent. I was wakened at 2am by a telephone call from a worried husband, his wife had diarrhoea and vomiting. She was ill with gastro enteritis – probably from unwise ingestion of local ice cream the previous day – but the usual tenets about fluids and electrolyte replacement seemed adequate and I returned to bed after examining her.

Four hours later an agitated husband phoned to say his wife had been taken to the hospital. Apparently the hotel telephonist had independently called a local doctor who had dispatched the lady alone in a van to Communicable Disease Unit No.1. The distraught husband was aware that his wife had gone off in her night dress with no other belongings, to an unknown hospital. She later had a salutary tale to tell.

She had been admitted to a unit surrounded by a high wall topped by an electric wire fence, with barred electronic entry gates. Unable to converse with the staff and semi prostrated with enteritis she was taken to a ward in which there was a bed and a chair. Divested of her night wear she was taken into an adjacent sluice room in which there was a large steel bath. Forced to stand naked in the bath, she was vigorously sprayed from a cold water hose by a nurse, then dressed in hospital pyjamas.

Bereft of local lingo, money, passport and clothing, she was seen by a doctor who indicated that her husband and the group had proceeded on with their tour and were now in the next city. (The husband had stayed in the hotel but did not know her location.)

She was treated with fluids and Pulv. Mag. trisil. This was administered by the attending nurse indicating that she should open her mouth, when she complied, the dose of powder held in the nurse's hand was rammed into her mouth and her chin forcibly closed. She stayed a week in the unit where attendants had to be bribed to empty bedpans by the husband, who ultimately managed to visit her. Staff were not actively unkind but cultural and linguistic difficulties ensured a difficult patient-staff relationship and the patient felt that she had survived incarceration in a prison rather than a hospital unit.

It is wise for travellers and advising health professionals to remember that medical insurance can only provide access to the best available local health facilities, which may be very different from those prevailing within the NHS.

I. MCINTOSH.

## **FATALITY OF EXPATRIATE EMPLOYEE FROM RABIES**

A male employee was transferred with his wife and two children to a position in China. In August the family purchased a five-week-old puppy from a Shanghai market. The dog was taken to a vet the following day and was presumed to be given standard vaccinations required including Rabies vaccination. Four weeks later it became unwell. It became aggressive as part of the illness and subsequently bit all members of the family. Three days later it died.

The family took the dog to the treating vet and were assured the dog did not die of Rabies. It was buried at the family home.

In mid May next year the employee developed an illness, which initially involved nausea and vomiting. He was diagnosed as having a gastric flu by a doctor at an approved expatriate clinic in Shanghai and was treated symptomatically. Two days later he was still unwell, presented to a local hospital and was admitted with a presumed diagnosis of Rabies. At this stage he was having difficulty swallowing and had developed apprehension, anxiety and hiccoughing. He was evacuated to Singapore which occurred on the morning of Sunday. His clinical condition had settled in Singapore which led treating doctors to believe that a diagnosis of Rabies may be incorrect. Then he collapsed in his room and could not be resuscitated.

The immediate cause of death from autopsy was given as rupture of the oesophagus (gullet) complicated by an infection in the associated body cavity (mediastinitis) which caused a fatal arrhythmia of the heart. It was presumed that the rupture of the oesophagus was due to the vomiting component of his illness. It is however reported that individuals with acute Rabies may collapse and die in a similar manner without the presence of other complications. Tissue and blood samples were analysed.

A report was received from the Shanghai hospital of original attendance that a blood test had proved positive for Rabies. As members of the employee's family were also bitten by the same dog full post exposure treatment was given to all as a matter of urgency. All staff members and family had appropriate counselling regarding the situation and ongoing counselling assistance was organised for family members.

Test results received from tissue studies in Atlanta, USA confirmed the diagnosis as Rabies.

### **Pertinent Issues relating to the case**

- The family did not receive all the recommended pretravel vaccinations for long term expatriation to China which includes pre-exposure Rabies vaccination.
- The initial cause of the dog's death was missed by the vet. and rabies vaccination of the family was not recommended.
- There can be a considerable time lapse between the time of exposure to rabies and its clinical manifestation.

J. REED.

## **CRITICAL EVENT ANALYSIS – WHAT IS IT?**

Critical event or significant event analysis (CEA or SEA) is recognised as a useful element in continuing professional education. Reports can be used to acquire post graduate educational points and revalidation status. A structured approach to reports submitted such as the format below, will find favour with assessment authorities.

The educational value to the health professional depends upon the recognition of a clinical or administrative event in which they have been personally involved, which has threatened or harmed the patient as a result of clinical or system failure. Analysis of the associated problems, their causes, changes needed to prevent recurrence, change made and what has been learned in the process is a valuable educational exercise. It is commended to travel health professionals who often work in relative isolation and have difficulty accessing conventional education courses. CEA is a relatively painless method of learning, but an effective one acceptable for addition to the continuing professional development and personal learning portfolio.

In some parts of the country, submission of critical event incidents with their analysis, to the local post graduate educational institution can bring the award of PGEA points. Assessors consider the following to determine a satisfactory analysis of the Significant event.

### **Description of the significant event**

- Has personal impact
- Is important to individual or institution
- Causes reflection

### **Why did it happen?**

- Clear reason sought

### **Was change considered?**

- Yes. With implementation?
- No. Risk of similar event unlikely.
- No. Unable to influence change

### **Was insight demonstrated?**

- Aware of sub optimal care.
- Decision-making process altered
- Assessment of 'risk' demonstrated
- Level of personal responsibility linked to the circumstances.

(Ed.)

## FOOD POISONING IN VACATIONERS

### **Description of the event:**

A group of English students on holiday collected what they believed to be water parsnips from a stream. The roots were cleaned, chopped up and added to a stew for their evening meal. All ate the meal in varying amounts although some ate little because of its bitter taste.

Ten hours after ingestion one person had a grand mal seizure and was taken to a small community hospital staffed by family doctors. The patient was seen in the post ictal state and no connection was made at this point with the evening meal.

Over the next few hours many members of the group became unwell with nausea and vomiting. One more had a grand mal seizure and ultimately several ended up in the hospital where it was recognised that some form of food poisoning had occurred – identity of source unknown. In due course the police were informed and took an asymptomatic member of the group to the stream to acquire a sample of the plant. A local botanist was then approached and definitive recognition of the offending plant was made.

All the patients were discharged after 48 hours and symptomatic treatment, after biochemical and haematological tests were found within normal limits.

### **Why did it happen**

Hemlock water dropwort – perhaps the most poisonous indigenous plant in the UK was mistaken for water parsnip and accidental poisoning occurred.

### **What created the problem?**

Failure to initially recognise a poisonous plant and its ingestion and initial medical failure to diagnose a case of accidental poisoning.

### **What changes were instigated?**

A poisonous plant book was added to the hospital library. A list of local experts in poisons has been created and circulated locally. The need to educate the public and health professionals on some of the dangers of 'natural' foods has been recognised.

### **What has been learned?**

The dangers of poisonous plants and the need to keep accidental poisoning in mind. The need for suitable reference material and access to experts in specific fields. The need to educate health professionals and people about the dangers of an indigenous poisonous plant which can be mistaken for water parsnip.

## AN UNNECESSARY DEATH

### **Description of the event:**

A Nepalese porter became ill with acute mountain sickness while trekking with a commercial group over the Thorong La pass (5,000 plus m.) near Annapurna. He was paid off and left behind. In the next few days, unable to

pay for his descent by donkey, he drifted in and out of coma. Eventually he was carried down on a donkey hired by a passing group of western trekkers. He died of AMS just outside the first village encountered, in which there was a British doctor with a high altitude decompression chamber which could have saved his life. This is not an isolated incident.

**Why did it happen?**

Failure of the climbing group to take responsibility for the paid and safe descent of the ill porter. A large percentage of these tragedies are the result of neglect of their porters by employers, either trekking companies or independent trekkers.

**What happens?**

Usually the neglect is not due to malice or heartlessness but failure to appreciate the nature of adverse conditions that can affect porters at high altitude and their personal economic inability to purchase the clothing and foot wear to protect themselves, or the ability to pay for their treatment or evacuation.

**What needs to be done?**

Education of trekking groups about their responsibilities to porters.  
Education of the porters about the risks they run and protective measures.

**What changes have occurred?**

The International Porter Protection Group has been set up by Dr. Jim Duff and has created 5 guidelines to be followed by anyone employing a high altitude porter. Clothing Banks have been set up in Kathmandu and Lukla where trekkers can donate spare clothing and boots to be provided to impoverished porters. [www.ippg.net](http://www.ippg.net)

MALARIA PROPHYLAXIS

**The event**

A business man attended the travel clinic in preparation for a trip to South America. At that stage he was sure he would not be travelling to any areas where malaria could be contracted, mainly staying in cities.

**What was the problem?**

Unfortunately his itinerary changed at a late stage and he ended up travelling in a malarious region. He caught malaria, although was treated successfully on return to the UK.

**Why did it happen?**

Failure to anticipate need for malaria prophylaxis.

**Changes brought about**

Increased emphasis at pretravel health consultation on advice re prophylaxis.

**What has been learned?**

This highlights the need for the potential traveller to think through every possible contingency when travelling and the need to seek further medical advice if the itinerary changes subsequent to an initial travel health consultation. Travel health advice is dynamic, and may need constant updating to account for changes in disease patterns or travel patterns.

JR.

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**Description of event**

A 42 year old male, oil worker, rotating out of Angola (1 month in Angola, one month in UK). On Mefloquine (Lariam) for malaria chemoprophylaxis. Took Mefloquine for 6 trips without any problems.

He ran out of drug during one trip and decided to let his cover lapse, partly due to the fact that colleagues were generally becoming relaxed about the need for prophylaxis.

**What happened**

Ten days after return to UK began to feel unwell. *Friday*: Headache, nausea, 'like a 'flu coming on'. *Saturday*: General malaise, sweats began that night – 'drenching'. *Sunday*: Aches and pains, backache, nausea, headache, sweats. *Monday*: the same, but travelled up to Aberdeen from Liverpool. *Tuesday*: Presented self to infectious disease unit at local hospital after discussion with his GP on the telephone.

Falciparum malaria diagnosed immediately, being confirmed later by initial tests. Treated successfully as an in-patient over a one week period.

Out of hospital within 1 week, fully recovered, although was told by medical staff that had he presented even a day later he would have been at risk of fatal complications.

**Why did it happen?**

Failure to take prophylaxis and recognise symptoms of malaria.

**What changes were brought about?**

More pretravel emphasis on taking and maintaining malaria prophylaxis at clinic.

**What was learned?**

This case highlights the common problem of complacency that can set in among frequent travellers to high risk destinations. In addition, it is common for employees to get confusing and contradictory information from colleagues once abroad.

JR.

## FROM THE JOURNALS

### GOOD SAMARITAN ACTS

GMC guidance stipulates that GPs are required to provide medical help anywhere in the world if they are present in an emergency situation. The Medical Defence Union is warning gps that they should have appropriate contractual insurance and has adapted its policy to provide world wide cover. Terrorist attacks in USA demonstrate that doctors can be called upon at any time.

*Pulse*, Oct 6. 2001.

### GREATER AWARENESS AND EDUCATION NEEDED TO HELP PREVENT ACUTE MOUNTAIN SICKNESS (AMS)

Aconcagua (6962m) is the highest mountain in S. America. It attracted 4197 climbers in 2000-1 season. In the main climbing months 3 base doctors were seeing up to 40 patients per day, many with symptoms of AMS. 839 mountaineers given permits for the more exacting climbing route attended the medical post 33 had symptoms of acute mountain sickness warranting treatment and descent. A further 14 had high altitude pulmonary oedema, three had high altitude cerebral oedema requiring helicopter evacuation.

Climbers and trekkers must be made aware of the need for acclimatisation and the problems of AMS. Only by improving awareness and education of health professionals and people visiting mountainous regions can the inherent dangers of high altitude be avoided.

Winsor J. Montgomery H, *BMJ* 2001 323 514.

### COMING CLEAN OVER CRUISING

Sixteen of the world's largest cruise lines have adopted new environmental standards regarding waste disposal at sea. A large cruise ship can produce eight tons of rubbish a day and 350000 gallons of waste water. Ports can suffer pollution from cruise ships. The new standards set by the International Council of Cruise Ships – a non profit trade association-govern disposal of waste water from showers and sinks and aim to make the cruising industry more environmentally friendly. They stipulate that this water be discharged at sea.

*Daily Telegraph*, 16 June, 2001.

### CUTANEOUS LARVA MIGRANS (CLM)

Cutaneous larva migrans (CLM) is on the increase with lesions often on the buttocks and trunk the result of sun worshippers becoming more prepared to lie directly on the sand or soil. It is a pruritic, nematode borne skin condition which can be diagnosed clinically. Lesions persist for several weeks before the larvae die. Tourists are often infected on Caribbean islands. The most effective treat-

ment is topical application of 10% thiobendazole cream (not available in the UK) The relative efficacy of other effective remedies *eg* oral abendazole is not certain and randomised control trials are required.

*BJ Dermatol*, 2001, 145, 434-7.

#### REFUGE FOR THE SELECTED FEW

Mass population movements have been a major feature of the 20th century provoking some of the starkest examples of interaction between human rights and health. No area of the world has been spared and the direct and indirect human toll of war remains a global health priority. Population displacement is a substantial global concern.

Extremely high death rates occur in refugees and displaced people. Most deaths are due to preventable conditions such as measles, diarrhoeal disease, pneumonia, malnutrition and malaria especially in women and young children. The impact of extensive sexual violence has compounded the rapid spread of AIDS and HIV infection. The response to these emergencies depends upon the perceived self interests of western nations.

The international response must address the root causes- poverty, inequality, loss of basic freedoms and environmental degradation and be more consistent and proactive.

M J Toole. *Lancet* 2001.357.1426-7.

#### VACCINE WARNING

Last year ten of the 50,000 pilgrims undertaking the Hajj pilgrimage to Mecca, who travelled from England to Saudi Arabia, died of an unusual form of meningitis. GPs are urged to remind Muslims planning to undertake the pilgrimage to ensure they are vaccinated against meningitis.

*BMA News Review* 2001 Nov. 10.

#### SUN PROTECTION

Sun worshippers are aware that they should avoid exposure to the midday sun to minimise sun burn there is evidence to support this behaviour. Data from the 1996 national survey of sun exposure and protective behavior of Canadian adults confirm that those who follow this advice suffer less adverse sun effects. Seeking shade while outdoors and the wearing of protective clothing did not however seem to produce significant protection.

*Preventive Medicine*. 2001.33.305-12.

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Borrow money from pessimists they are less likely to expect it back.

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## BOOK REVIEWS

### SHITTING PRETTY

Jane Wilson-Howarth

Pub. Travellers Tales Inc. San Francisco. [www.travellers-tales.com](http://www.travellers-tales.com)

This title will either delight or disgust the reader but the book is aimed primarily at the American market where it is less likely to cause offence. The author has another eye catching title in a previous book *Bugs, Bites, and Bowels*.

In this latest publication, a small paper-back, she meets the aims spelled out in the sub title – ‘how to stay clean and healthy while travelling’ and manages to cover the rather unappealing although important subject of travellers diarrhoea in depth but in an amusing, attention holding way. The conventional topics of enteric disease, infected foods and contaminated water are covered in simple language to satisfy lay readers. They are presented in easily assimilated fashion with summary lists of tips and recommendations on maintaining good bowel health in travel through exotic countries. The use of personal case histories, often amusing and always illustrative, encourages the reader to read on. There are useful chapters on the hazards of squat loos, being caught short and coping without paper in out-back situations.

This book deserves a place in every loo and is commended in particular for the first time traveller to developing countries, the back packer and expeditioner. The author through her own and others experiences has brought humour to health promotion and readers, adopting the tips and management measures she mentions, are likely to reduce the likelihood of succumbing to illness accounting for much travel related morbidity.

A surprisingly enjoyable read. My only regret is that she did not give more consideration to the toilet problems met by the elderly and the disabled in coping with use of the squat loo and the hole in the ground, manoeuvres testing the agility of the young and able and a major challenge for the less spry. A missed opportunity to fill a notable gap in the literature

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### WEATHER TO TRAVEL

E. Rowlands

Pub. Tomorrows Guides Ltd. 2001. Hungerford

A beautifully presented paper-back country by country review of the world's weather. It takes into account temperature and humidity levels and is designed to advise on how comfortable (or uncomfortable) the visitor will find a specific visit to any of the countries included in the contents at specific times in the year. Countries are presented alphabetically for easy reference with each having a colour map, and graded coloured rainfall and comfort scales and details of the meteorological environment on a month by month basis with categories of comfort from extremely cold to danger of heat stroke. It advises

on suitable clothing for the visitor and draws attention to temperature and humidity extremes where there is health risk to the unacclimatised short term traveller. This is a very useful reference book with its individual weather profiles for 205 separate countries, which at a glance can inform the health professional of likely environmental health risk to the intending traveller. It merits a place in the travel clinic library.

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TRAVEL HEALTH – A GUIDE FOR THE INDIAN SUB-CONTINENT

Kimberley Chawla

Pub. Penguin Books

This book does not pretend to be a medical text book but it does address potential health problems for travellers to the Indian sub-continent. It is specifically intended for visitors to Afghanistan, Bangladesh, Bhutan, India, Nepal and Pakistan areas of current news interest where travellers are likely to succumb to conventional and exotic travel related illness.

It offers much standard information in easily assimilated form and is comprehensive in its coverage. It ranges across the usual travel associated disorders with each chapter tackling topics in alphabetical order, which aids their discovery, but does not necessarily assist the novice reader in prioritising their importance. There are useful information boxes *eg* altitudes of common tourist destinations in the Himalayas, which will draw tourist attention to the possible hazards of high altitude exposure and acute mountain sickness. The provision of conversion scales will be a boon for those, often elderly, not too conversant with metric measure. The script is interspersed with highlighted gems of travel wisdom.

The content is not referenced but there is a sizeable list of reference articles and books in the appendix. The chapter on chronic illness and disabled travel is inadequate and there is no mention of travel phobia but otherwise advice is basic but sound. The book addresses health problems found the world over but it will appeal to those travelling to undeveloped countries and more adventurous destinations.

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TRAVEL MEDICINE

Edited E. Walker, L. Boyne, F. Genasi

Pub. Churchill Livingstone, 2001

This is a paperback, presented in user friendly format of ideal size for the pocket and thus easily accessible to the practicing clinician and student. There are many high quality colour photographs on right hand pages with the opposite page offering concise precis of the travel related disorders depicted. The main problem with a small book of this nature is determining what topics to include and what to leave out, but the editors have found a good balance and

the contents provide a useful introduction to the discipline of travel medicine.

It covers preparations for travel, immunoprophylaxis, fitness to travel, special needs, trauma, illness in travellers and those returning with travel associated illness. The photographs are well chosen to illustrate the script. The book whets the appetite to read more and the success of the presentation suggests there may be merit in a larger production ranging over a wider number of topics relating to travellers health. It will certainly encourage readers to plumb some of the topics mentioned in greater depth. A good picture can replace a host of words in learning and this little volume will aid those intent on learning more about the travel health scene. There is a niche in the market for such a publication.

A list of books for further reading and useful websites to access for further browsing would have added to its value.



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*In Committee*

*EVERYBODY, SOMEBODY, ANYBODY, NOBODY*

There was an important job to be done  
Everybody was sure that somebody would do it  
Anybody could have done it but nobody did.  
Somebody got very angry because it was  
Everybody's job  
Everybody thought that anybody could do it  
But nobody realised that everybody would not do it  
It ended up that everybody blamed somebody  
When nobody did what anybody could have done.

### **Foreign Office Campaign**

The Foreign Office has launched a campaign to warn backpackers and independent travellers to prepare properly for their trips after research showed that nearly a third suffered a 'major problem' while abroad.

A Mori poll carried out for the FO showed that 13% of independent travellers fell ill, 9% missed flights, 6% were robbed, and one in five had no travel health insurance cover.

A significant amount of the FO's workload is being taken up with independent travellers and backpackers.

Last year British residents made 56.7 million trips abroad, with the Foreign Office having to assist in 52,000 cases.

For further information, see [www.fco.gov.uk/knowbeforeyougo](http://www.fco.gov.uk/knowbeforeyougo)

### **Malaria Protection – Standby Emergency Treatment (SET) may be considered for:**

- travellers to remote areas
- late presenters for starting prophylaxis
- refusers of chemoprophylaxis
- travellers in whom chemoprophylaxis is contraindicated
- business travellers
- the military
- air crews who make frequent, short notice visits to endemic countries.

### **Safe tanning**

The concept of 'safe tanning' remains controversial. Repeated exposure to ultraviolet irradiation is known to increase tolerance for erythema, but does this lead to protection against DNA damage in the skin's epidermis? Using ultraviolet lights that simulate solar irradiation, 25 healthy volunteers were irradiated three times a week for three weeks. The resultant skin adaptations (increased skin pigmentation and skin thickness) provided important protection against DNA damage mediated by ultraviolet light.

*Journal of Investigative Dermatology* 2001; 117: 678-82.

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