Travel Medicine/Expatriate Health

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FOM Trainee Conference
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• Typical overseas deployments
• Travel related illness in workers
• Employer duty of care
• Pre travel preparation
• Support while overseas
• On return to home base
A bit about the FCO

• Promotes UK interests overseas, supports UK citizens and businesses around the globe
• 270 diplomatic posts
• 160 countries
• 14,000 staff
• Short term visitors/long term assignees/rapid deployments/families
A typical week
Challenges

- Diverse group
- Individual factors
- Travel related hazards
- Occupational hazards
- Employer perspective
- Employee perspective
Research on those travelling for work

• Evidence lacking
• Specific occupations, disease, destinations
• Illness reporting may be different
• Healthy worker effect
• Similarities to general travellers.....but:
  • Psychological problems
  • Occupational conditions
  • Unusual/uncommon infections
  • Non-accidental injury
So what are the risks to travellers?

- Of 100,000 travellers to a developing country for 1 month:
  - 50,000 will develop some health problem
  - 8,000 will see a physician
  - 5,000 will be confined to bed
  - 1,100 will be incapacitated in their work
  - 300 will be admitted to hospital
  - 50 will be air evacuated
  - 1 will die

Short-term deployments: World Bank

• Insurance claims:
  • 80% higher for men, 18% higher for women
  • Highest for psychological disorders, but increased for infectious (especially GI) and respiratory disease
  • Rates for both infectious disease and psychological disorders increased with frequency of travel

Short-term deployments: impact

- **Staff**
  - 75% - high/very high stress due to business travel
  - Concern - negative impact on family and lack of control over travel, including inability to refuse travel.
  - More problems associated with last minute changes of travel dates
  - Greater impact if children under 18

- **Partners**
  - 50% - high/very high stress due to partner's work travel
  - Female, younger, those with children = greater stress

Short-term deployments: health and wellbeing

• International business travel significantly associated with:
  • Lower body mass index
  • Lower blood pressure
  • Excess alcohol
  • Sleep deprivation
  • Diminished confidence to keep up with pace of work

Expatriates: UK diplomats

- Health problems needing doctor consultation was 21%
- 4% admitted to hospital
- 2% repatriated
- Employment status, gender, marital status, and region of posting risk factors
- Staff at significantly increased risk
- Single staff at greater risk

Expatriates: UK diplomats

- Infectious diseases: 17%
- Mental health problems: 13%
- CVS conditions: 12%
- Respiratory conditions: 5%
- GIT conditions: 5%
- GUS conditions: 8%
- Neoplasms: 6%
- Accidents and Injuries: 9%
- Musculoskeletal disorders: 7%
- Other: 3%

Expatriates: aid workers

- **International Red Cross**
  - 35% reported illness - diarrhoea, fever, fatigue, skin
  - 10% injury/accidents, 16% violence
  - 36% reported worse health on return home
  - > 40% reported mission more stressful than expected

- **Voluntary Service Overseas**
  - Diarrhoea (80%), skin (40%), dental (23%)
  - 18% accidents, 24% aggression/violence
  - 12% smear positive malaria.
  - 25% medical/psychological problems on return

Malaria and overseas deployments

- **Short term:**
  - 6% experienced malaria
  - Well-informed but compliance poor

- **Long-term:**
  - Up to 30% develop malaria within two years
  - Challenges with compliance with prophylaxis

Psychological disorders

- US Foreign Service evacuations - depression and substance abuse
- Aid workers - almost half psychological difficulties, work stress symptoms, affective and adjustment disorders common
- Contributory factors - previous history, family history, work stress
- Better outcomes - family support, older age, previous experience, personality, coping skills

Dependents

- Non-working partner often considered more susceptible to psychological problems - not observed in study of Swedish and British expatriates

- Expatriate children pose particular challenges
  - Physical, mental and educational

Foyle M. Problems of Expatriate Children. In: Caring for Expatriates and Workers Abroad-Health Issues and Ethical Dilemmas. 1994
Deaths – longer deployments

Peace Corps
- Suicide: 1%
- Homicide: 14%
- Unintentional Injury: 17%
- Illness: 68%

Humanitarian workers
- Other: 17%
- Intentional violence: 8%
- Unintentional violence: 7%
- Motor vehicle: 68%

Employer considerations

- Moral and legal duty of care
- Managing Health and Safety overseas
- Good employment practice
- Financial consequences of illness of injury
- Corporate social responsibility and reputation
- What about dependants?
Employee’s considerations

- Career opportunities
- Financial benefits
- Impact on family
- Health and Safety
- Consequences of saying no
Case law

- Cawthorn v Freshfields 1997
- Palfrey v ARC Offshore Ltd and others, 2001
- Gizbert v ABC News Intercontinental Inc 2006
- Cordell v Foreign and Commonwealth Office 2011
Organisational challenges

- H&S and HR policy and procedures
- H&S risk assessment and management
- Fitness considerations
- Preventive measures
- Medical support arrangements
- Education/training/briefing
- Contingency/Major incident planning

Principle Seven
Health, safety and security

The security, good health and safety of our staff are a prime responsibility of our organisation.

We recognise that the work of relief and development agencies often places great demands on staff in conditions of complexity and risk. We have a duty of care to ensure the physical and emotional well-being of our staff before, during and on completion of their period of work with us.

Indicators

1. Written policies are available to staff on security, individual health, care and support, health and safety.
2. Programme plans include written assessment of security, travel and health risks specific to the country or region, reviewed at appropriate intervals.
3. Before an international assignment all staff receive health clearance. In addition they and accompanying dependents receive verbal and written briefing on all risks relevant to the role to be undertaken, and the measures in place to mitigate those risks, including insurance. Agency obligations and individual responsibilities in relation to possible risks are clearly communicated. Briefings are updated when new equipment, procedures or risks are identified.
4. Security plans, with evacuation procedures, are reviewed regularly.
5. Records are maintained of work-related injuries, sickness, accidents and fatalities, and are monitored to help assess and reduce future risk to staff.
6. Workplans do not require more hours work than are set out in individual contracts. Time off and leave periods, based on written policies, are mandatory.
7. All staff have a debriefing or exit interview at the end of any contract or assignment. Health checks, personal counselling and careers advice are available. Managers are trained to ensure these services are provided.
8. In the case of staff on emergency rosters, managers should ensure that health clearance, vaccinations and procedures for obtaining the correct prophylaxes and other essential supplies are arranged well in advance.

Individual challenges

- Ensure that overseas work suits the individual’s (or their dependant’s) medical needs
- Immunisations, malaria prophylaxis, advice on other preventive measures
- Appropriate support while overseas
- Follow-up on return
Pre-travel Preparation

- Risk assessment
  - Destination
  - Individual
  - Occupational
  - Organisational
  - Fitness to travel and work overseas

- Risk Management
  - Preventive measures
  - Management of any issues identified
Destination related factors

- Environmental
- Endemic diseases
- Infrastructure
- Remote or rural
- Civil unrest
- Etc.
Destination related issues
www.nathnac.org
Keeping up with the news

Follow - https://twitter.com/NaTHNaC

http://nathnac.org/pro/clinical_updates/index.htm
Individual risks

- Less experienced
- Pre-existing diseases
- Immune compromise
- Pregnancy
- The extremes of age
Occupational hazards

- What does their job involve?
- Long hours
- Isolation
- Lack of normal infrastructure
- Frequent travel
- Security issues
- Occupational health and safety risks in overseas context
Fitness to travel and work overseas

• Degree of detail/how it should be done varies according to risk
• Employer may have requirements
• Destination may impose restrictions
• Job may have specific requirements
• Should take into account disability legislation
Pre-travel evaluation

- Little data on how this should be done
- Swiss study - history good predictor of need for evacuation
- Attention to both medical and psychological history
- Careful evaluation of risk factors
- Long-term assignments - dental health
Pre-existing conditions

- Effect of travel, environment, endemic diseases
- Adequacy of local/regional medical facilities
- Adequate supply of medication/equipment
- Efficacy of preventive measures
- Liaison with treating doctors
- What is the impact on their job
- For dependants – what should you do?
Managing the outcome

- Very few absolute contraindications
- Are there any enabling options?
- Custom and practice may lead to excessive caution
- Decision may have to be based on organisational needs
- Fitness threshold may be higher
Preventive measures

- Vaccines
- Malaria prophylaxis
- Food and water hygiene
- Bite prevention
- Safe sex
- Sun protection
- Accident prevention
- First aid training
- First aid kits
Support while overseas

- Support for general health problems
- Repatriation facilities
- Evacuation and disaster plans
- Occupational health
- Health and safety
- Employee assistance programme
- Social support
Healthcare Abroad
Support while overseas

- Support for general health problems
- Repatriation facilities
- Evacuation and disaster plans
- Occupational health
- Health and safety
- Employee assistance programme
- Do UK employment policies apply?
- Social support
Tour length

- Longer deployments were associated with poorer mental health
- Exceeding a threshold of 6–12 months within a 3 year period

Table 3. Vulnerability and protective factors found in the literature

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<thead>
<tr>
<th>Protective/resilience factors</th>
<th>Vulnerability factors</th>
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<tbody>
<tr>
<td>Having effective coping mechanisms [18]</td>
<td>Stressor novelty (first deployment) [10,18]</td>
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<td>Previous deployment to HTPs [18]</td>
<td>Deployment length [18]</td>
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<td>Social support [11,12]</td>
<td>Exposure to trauma [11,12,18]</td>
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Introduction

Many organizations, including military forces, humanitarian aid agencies, security and media companies and diplomatic organizations, routinely deploy staff to highly threatening environments. Their staff may be at risk of exposure to adversity, violence, abduction, death and sexual crimes among a wide range of atrocities, injustices and inequities while they are working in threatening locations. Traumatic exposure can be direct (e.g. seeing dead bodies at temporary mortuaries, attending the scenes of bombings or other terrorist or insurgent incidents) or indirect (e.g. dealing with a deceased person’s relatives or working in operational crisis response teams). There is a considerable body of evidence showing that direct or indirect traumatic exposure is clearly linked with subsequent development of a range of psychosocial problems including, but not limited to, post-traumatic stress disorder (PTSD) [1].

It is clear from published literature [1] that most people who are affected directly or indirectly by traumatic events experience pressure and stress. The spectrum of psychosocial impact is wide and may range from enhancing resilience and personal skills (sometimes described as post-traumatic growth) through to precipitating new mental disorders (2,3) or provoking episodes of previous
OH follow up on return to home base

• Significant illness, injury or exposure
• Caution for long-term assignees:
  • 75% reported difficulty adjusting on return
  • 33% disorientated, and 73% felt inadequately supported
  • 46% psychological difficulties (87% depression, 7% chronic fatigue, 4% PTSD)
• Screening of well travellers controversial

Lovell DM. Psychological adjustment among returned overseas aid workers. DClinPsy Thesis 1997
Travel medicine in practice
Risk assessment

- Process by which you
  - identify hazards
  - evaluate risk associated with hazard
  - determine how to manage that risk
I keep six honest serving-men:
(They taught me all I knew)
Their names are What and Where and When
And How and Why and Who.

(Rudyard Kipling)
Outcome

- Used to guide risk management advice:
  - Vaccines
  - Malaria
  - General advice
  - Specific advice
- Signposting information
- Traveller choice
Challenges – the evidence

• Precise risk for disease in a specific location has proved elusive
• Expert opinion
• Aggregation of data
Challenges - balancing risks

Adverse event reports following yellow fever vaccination

Nicole P. Lindsey‡, Betsy A. Schreuder‡, Elaine R. Miller‡, M. Miles Braun‡, Alison F. Hinckley‡, Nina Marano,B Barbara A. Slade, Elizabeth D. Barnett, Gary W. Brunecker, Katherine Hearst, and Erin Staple‡, Phyllis E. Kozarsky§, and Edward B. Hayes‡

1 Introduction

Yellow fever (YF) vaccine is a live attenuated vaccine that has been used for over seven decades. The U.S. Centers for Disease Control and Prevention (CDC) and the Advisory Committee on Immunization Practices (ACIP) recommend vaccination for travelers aged 2 months and older who are at risk for yellow fever because of trip destination or activity. The YF vaccine currently licensed for use in the United States is YF-VAX, manufactured by GlaxoSmithKline (Mennen, Pennsylvania).

Adverse reactions to YF vaccine, which are typically reported within 6 months following vaccination, include headache, myalgia, back-pain, arthralgia, rash, and diarrhea. However, several reports of severe adverse events following vaccination, including seizures and death, have been reported. In a recent study, adverse events reported after YF vaccination (2001-2006) were analyzed using the Vaccine Safety Datalink (VSD) database. The study included 18 million vaccine doses administered to approximately 1.5 million recipients. The study found that the incidence of adverse events was low, with a vaccine-associated adverse event rate of 0.02 events per 100,000 doses. The most common adverse events were local reactions at the injection site, such as pain, redness, and swelling. The study also identified a higher risk of adverse events in recipients aged 65 years and older, with a vaccine-associated adverse event rate of 0.05 events per 100,000 doses.

LARIAM: THE STORY IN THE UK

Lariam (also known as mefloquine) was licensed for use in the UK in 1990. In 1993, it became the main prophylaxis (i.e., preventive drug) for people travelling to areas known to be resistant to chloroquine, including parts of Africa. Since then, the guidelines on its use have been revised several times (see below).

Why isn’t there a Lariam Action in the UK?

Since the mid-1990s there has been public concern in the UK about the possible side effects of the drug. A self-help support group, Lariam Action, was set up in 1995, but it now disbanded.

Lariam Action (Lariam Action)
Bird flu 'could mutate to cause deadly human pandemic'

By Pallab Ghosh
Science correspondent, BBC News

The H5N1 bird flu virus could change into a form able to spread rapidly between humans, scientists have warned.

Researchers have identified five genetic changes that could allow the virus to start a deadly pandemic.

Writing in the journal Science, they say it would be theoretically possible for these changes to occur in nature.

A US agency has tried unsuccessfully to ban publication of parts of the research fearing it could be used by terrorists to create a bioweapon.

According to Prof Ron Fouchier from the Erasmus Medical Centre in the Netherlands, who led the research, publication of the work in full will give the wider scientific community the best possible chance to combat future flu pandemics.

"We hope to learn which viruses can cause pandemics and by knowing that we might be able to prevent them by enforcing strict eradication programmes," he told BBC News.

He added that his work might also speed the development of vaccines and anti-viral drugs against a lethal form of bird flu that could spread rapidly among people.
A typical week
Summary

• Supporting a global workforce has its challenges

• Adequate preparation and support can reduce risk

• Requires:
  • Careful risk assessment
  • Appropriate and effective risk management
  • Clear risk communication
  • Education
And finally.....
Thank you

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Monday to Friday:
08.30 – 11.45 hrs
13.00 – 15.15 hrs