PHARMAC 2016 TRAVEL MEDICINE
The Pre-Travel Consultation

Jenny Visser
• Providing a Travel Medicine Service
• The Pre-Travel Consultation
• Risk Assessment
Providing a Travel Medicine Service

• Internationally many different models
  – Stand alone Travel Medicine clinics
  – Primary Health Care/General Practice Clinic
  – Community Pharmacy Clinic
  – Secondary care/Hospital based
Advantages & Disadvantages

• **Travel Medicine Clinic**
  – Focussed
    • TM less likely to be an “add on”
  – Resources on hand
  – All clinical staff have training
  – Clinicians see lots of travellers
  – “One Stop Shop”

• **PHC/GP Clinic**
  – Access to full medical records
  – Continuity of care
    • Ongoing medical conditions
  – Accessible to traveller

• **Community Pharmacy Clinic**
  – Accessible to traveller
  – More likely to have travel accessories (repellents, kits) on site
  – In NZ currently cannot prescribe antimalarials, antibiotics or travel vaccines other than Dukoral

• **Secondary care/Hospital based**
  – Moved away from this model in NZ
Not WHERE but WHO

• Primary care providers & Travel Medicine specialists who held ISTM CTH or ASTMH CT more likely to
  – Be familiar with travel vaccines
  – Be familiar with antimalarial drugs and malaria resistance patterns
  – Provide written educational material
  – Have higher TM knowledge scores

Ref: Kogelman et al
Knowledge, Attitudes, and Practices of US Practitioners Who Provide Pre-Travel Advice.
Providing a Travel Medicine Service

• Many different models
  – Type of practice & resourcing
    • Large vs Small
    • Urban vs Rural
    • Stand alone clinic vs embedded within Primary Health Care clinic
  – All are needed because populations differ
  – All can provide excellent travel medicine
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The Pre-Travel Consultation

- Comprehensive
- Takes time
  - 30 min
  - Multiple visits
- Involves the inter-professional team
- Requires continuous professional development
  - Resources
  - Societies
  - Peer review group
  - Conferences
Scenario

• 24 year old about to embark on a 12 month backpacking trip through Asia, Europe and Africa.

• What more do you need to know?

• What topics do you need to cover in the pre-travel consultation?
Pre-Travel Consultation: What information do you need?

• About them
  – Demographics
  – Travel experience
  – Health
    • Recent illnesses/operations/hospitalisations
    • Ongoing & specific medical conditions
    • Regular & intermittent medications
    • Allergies (general and specific)
    • Past DVT/VTE
    • Pregnancy/Contraception
    • Previous vaccinations
      – Routine
      – Travel

• About the trip
  – When do they leave?
  – Destinations
    • Specifics: macro & micro
    • “Exact” itinerary. Order countries visited in
  – Fixed or flexible itinerary
  – Who are they travelling with?
  – How long?
  – Mode of transport?
  – Planned accommodation?
  – Planned activities?
Pre-Travel Consultation: Range of topics to covered

• Fitness to Fly
• Safety & Security issues/Insurance
• Vaccine preventable illnesses and vaccinations
• Preventing food and water borne illnesses
• Preventing vector borne illnesses
  – Malaria
  – Dengue
  – Chikungunya
  – Zika
• Other infectious diseases
  – Schistosomiasis
  – Leptospirosis
• Sexual & Reproductive health issues
• Activity specific advice
  – Altitude
  – Trekking
  – Scuba diving
  – Boating
• Management of ongoing medical conditions
• Psychological preparedness
• Medical Kit & Self Management
• Post Travel visit
How are you going to fit this into your busy practice?

- Refer some/all
  - Yellow Fever
    - Nearest approved vaccinator
  - Rabies/Japanese Encephalitis
- Within your practice
  - Patient education
  - Identify pre-travel consultations
    - Book dedicated consultation
    - 30 minutes
      - Doctor or Nurse or Both
  - Submit itinerary before?
  - Pre-travel questionnaire filled in advance?
- Multiple visits
- Team approach
- Written material/online and electronic traveller resources
• Providing a Travel Medicine Service
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• **Risk Assessment**
Risk assessment:

- Is an integral part of the pre travel consultation
- It determines what health and safety advice interventions are given
- Needs up to date information
- Takes time
- Must be documented

– Leggat, P. Risk assessment in travel medicine. Trave Med Inf Dis 2006;4:127-134
Travel Medicine: Assessing Risk

1. Hazard + Exposure + Susceptibility
2. Individualised Risk Assessment
3. Risk Management/Health Promotion
Assessing & Mitigating Risk

• Risk Assessment
  – Individualised
  – For each hazard

• Risk minimisation strategies
  – Behavioural
  – Immunoprophylaxis
  – Chemoprophylaxis
Example: Malaria and Travel to India

- “I’m going to India, do I need antimalarials?”
- What do you need to know?
  - Where exactly are they going?
  - Accommodation?
  - Length of travel?
Example: Malaria and Travel to India

- Traveller 1: 3 day conference in New Delhi with day trip to Agra
- Traveller 2: 6 weeks rural Gujarat visiting family & friends
- Traveller 3: 6 weeks rural Gujarat visiting family & friends and 11 weeks pregnant
Scottish NSH “Fit for Travel”

Malaria precautions

- Malaria Map

- Risk is highest in north-eastern states including Assam and Orissa. In the Andaman and Nicobar islands, Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Madhya Pradesh, Maharashtra and West Bengal risk is not high enough to warrant antimalarial tablets for most travellers, however, it may be considered for certain groups who may be at higher risk e.g. longer stay in rural areas, visiting friends or relatives, those with medical conditions, immunosuppression or those without a spleen.

- There is low to no risk in parts of the states of Himachel Pradesh, Jammu and Kashmir and Sikkim, and also in the cities of Bangalore, Kolkata, Mumbai, Nagpur, Nasik and Pune.

See [http://www.fitfortravel.nhs.uk/destinations/asia-(east)/india.aspx](http://www.fitfortravel.nhs.uk/destinations/asia-(east)/india.aspx)
“Steffenogram”: Current estimates on vaccine-preventable disease incidence among Western travellers to tropical and subtropical destinations—absolute risk of disease/month of travel

Limitations in determining risk in travellers

• Lack of or limited traveller specific data
• Lack of denominator data
• Few prospective studies
  – Ethical constraints of RCTs
• Cases series/Case studies (often small numbers)
• Uncertainty of diagnosis
• Risk to traveller often extrapolated from local populations
  – Risk profile may be different
  – Data often outdated & incomplete
Goat Lungs with Red Peppers
## Communicating Risk

<table>
<thead>
<tr>
<th>Relative Risk Reduction (RRR)</th>
<th>34% reduction in heart attacks over 5 years</th>
<th>88% accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Difference (RD)</td>
<td>1.4% fewer heart attacks (3.9% in Controls vs. 2.5% in treated)</td>
<td>42% accepted</td>
</tr>
<tr>
<td>Number needed to treat (NNT)</td>
<td>71 people treated for 5 yrs to prevent 1 having a heart attack</td>
<td>31% accepted</td>
</tr>
</tbody>
</table>

*Source: Hux & Naylor 1995*
Prevent contracting bird diseases
Don't feed wild birds

Feeding pigeons and other birds may dirty public areas
Offenders are liable to a fixed penalty fine of $1,500
Managing the risks: What are some of the limitations?

• Few interventions 100% effective
• Most mortality and morbidity in travellers is not due to infectious diseases but **accidents** (especially road traffic accidents), things the traveller often has little control over
• How effectively can we change behaviour?
  – Travellers poor compliers/adherers
• People’s health status changes
• People’s itineraries and planned activities change
Risk Minimisation Strategies

• **What we do before they leave**
  – **Health education** e.g. behaving responsibly, food and water, insects, prevention of DVT, environmental stressors...
  – **Optimal stabilisation of any medical conditions** pre-travel
  – **Immunoprophylaxis/Vaccinations**
  – Commencing *chemoprophylaxis* eg antimalarials
  – **Medical kit**
  – Appropriate **insurance** & accessing care overseas

• **What they do while they travel**
  – Remembering and acting on advice!
  – Continuing appropriate *chemoprophylaxis*
  – Use of medical kit

• **What they do on return**
  – Assessment of risk exposures and appropriate testing/treatment if indicated
Travel Health Promotion

• Which is likely to be the most cost effective?
  – Vaccination?
  – Malaria chemoprophylaxis?
  – Advice on preventing travellers diarrhoea?
  – Advice on self-treating travellers diarrhoea?
  – Advice to wear a helmet on motorbikes?
  – Advice to use seat belts?
  – Putting condoms in the medical kit?
So what do we target in our pre-travel consultations?

- Would seem sensible to target health problems which are:
  - Common (even if “only” a nuisance)
  - Preventable and/or treatable
  - Rare but serious and potentially fatal

- Includes
  - Travellers diarrhoea
  - STIs
  - Road traffic accidents
  - Malaria
  - ......
Conclusions

• The pre-travel consultation should be an individualised risk assessment
  – There is a lot to cover
  – Easy to overload
    • Written/web-based resources
    • Spread over >1 visit
    • Use the team

• For some risks we have good interventions, others we don’t
  – Don’t forget accident prevention & Insurance