Ten Travel Medicine Tips
(New or important things)

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ADHB and DML
1. Risks of various health problems during travel

- Travelers' diarrhea (ETEC > 15% of total): 20 - 60%
- Malaria (no chemoprophylaxis West Africa)
- Influenza A or B
- Dengue infection (symptomatic)
- Animal bite with rabies risk
- PPD conversion
- Malaria (with + without chemoprophylaxis Tropical Africa): 0.1%
- Hepatitis A
- Typhoid (South Asia, N/W/Central-Africa)
- Tick-borne encephalitis (rural Austria): 0.01%
- Hepatitis B
- Typhoid (other areas)
- HIV-infection
- Fatal accident: 0.001%
- Cholera
- Legionella infection
- Japanese Encephalitis: 0.0001%
- Meningococcal disease
- Poliomyelitis
Risks vary with destination

- GeoSentinel Surveillance Network: 30 travel or tropical medicine sites on 6 continents saw 17,353 ill returned travellers 1996 to 2004

- Malaria leading cause of fever from Africa
- Dengue ahead of malaria for all other regions
- Dengue, typhoid and malaria virtually equal causes of fever from South Central Asia
2. Some travellers are at higher risk

- Those who return home to visit friends and relatives (VFRs) have significantly higher rates of malaria, typhoid, TB and STIs
- Children particularly at risk eg Hepatitis A
- If you have such patients in your practice try and give them preemptive pre-travel advice
• 21.8% of our population are overseas born
• They and their families travel “home”
• Visiting friends and relatives was the second most common reason for travel from New Zealand in 2006

3. Dengue is increasing dramatically.
- Day time biting mosquito
- Particularly in urban areas
- Vaccine now in phase 3 trials
- NSP1 test positive early in illness

Beware of dengue fever
4. New Water Treatment

• Chlorine dioxide
  – more potent than chlorine
  – minimal taste
  – effective against all water borne pathogens
  – Aqua Mira or Portable Aqua
  – Sensitive to sunlight
5. Hepatitis B

- Most infectious of all blood borne viruses
- Virus air dried is infectious for at least one week
- Recent study showed incidence in Danish travellers to be almost the same as hepatitis A: Hep A 12.8 and Hep B 10.2 per 100,000 non-immune travel months
- Risk increased for males, those travelling alone or in a group of friends, those having sex during travel
6. New Meningococcal Vaccine

- Menactra (conjugate) or Mencevax or Menomune (polysaccharide ones)
- All quadrivalent: A, C, Y, W-135
- Conjugate vaccine stimulates T cell dependent response so:
  - effective at younger ages
  - better booster response
  - reduces nasopharyngeal carriage so herd immunity
Who to give it to?

- Travellers to meningitis belt of Africa
  - Particularly if during dry season, health care workers, infants and children
- Those doing the Hajj pilgrimage
  (meningococcal vaccine in past 3 years is required)
- Consider for adolescents and young adults planning to stay in hostels/ overcrowded conditions
- (Menactra a routine vaccine in US for 11-12 year olds with a booster at 16 years)
7. Educate all travellers about rabies

- Important to explain that in most parts of the world rabies is possible
- Try and avoid mammal bites especially dogs but any mammal including bats
- If bitten wash wound well
- If vaccinated: booster as soon as possible then another 3 days later
Who to vaccinate against rabies before travel?

- **Children**
  - Half the victims of dog bites
  - More likely to bitten on head

- **Travellers to Asia**
  - GeoSentinel study per 1,000 ill returned travellers
  - SE Asia: 124
  - South Central Asia: 90
  - South America: 25
  - Central America: 13
  - Sub Saharan Africa: 9
Who to vaccinate against rabies before travel?

- Travellers to countries where cell culture vaccine not available
  - Pakistan, Burma, Bangladesh, Peru and Argentina
- Long term/ expats
- Those sending time in remote areas
- Those likely to be exposed to animals
- Anyone who wants it
8. Typhoid fever

Protection following typhoid fever is neither complete nor enduring.

Vaccine only protects against *Salmonella typhi* not paratyphi.
9. Dukoral

- Between 19 to 75% of TD is ETEC and about 60% of ETEC have heat labile toxin
- Consider it for those at high risk of TD or who would tolerate it poorly
10. **Malarone for children**

- Previously only mefloquine or cut up (and no data to support this) **Malarone**
- Now Malarone Junior (NZ 11-40kg)

<table>
<thead>
<tr>
<th>Body Weight</th>
<th>Dosage (62.5mg atovaquone/25mg proguanil) per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-20kg</td>
<td>One tablet <strong>Malarone Junior</strong></td>
</tr>
<tr>
<td>21-30kg</td>
<td>TWO tablets <strong>Malarone Junior</strong> as a single dose</td>
</tr>
<tr>
<td>31-40kg</td>
<td>THREE tablets <strong>Malarone Junior</strong> as a single dose</td>
</tr>
<tr>
<td>&gt;40kg</td>
<td>ONE tablet <strong>Malarone</strong> (adult) per day</td>
</tr>
</tbody>
</table>

- The tablet should usually be swallowed whole, but may be crushed and mixed with food or a milky drink immediately before taking.

USA use it down to 5 kg
Not all questions can be answered by Google

St Nic’s Church, Nottingham
You are warmly invited to our Sunday worship at
9.00 and 10.30 am
and 7.00 pm
There are groups for children and young people as part of our 10.30am worship.

www.stnics.org