Special Advice for the Immunocompromised Traveller

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Objectives

- Practical issues in the immunocompromised traveller to be considered during pre-travel assessment
- Options for medical care and insurance issues abroad
- Symptoms immunosuppressed travellers need to be aware of and their possible (self-) management
- Preventive measures that need to be considered.

Travel post stem-cell transplantation

118/153 (77.1%) travelled outside country of residence (> 1 week)

Pre-travel vaccination n %
- Tetanus 89 44.3%
- Influenza 85 42.3%
- Hepatitis B 63 31.3%
- Streptococcus pneumoniae 50 24.9%
- Poliomyelitis 40 19.9%
- Hepatitis A 31 15.4%

Mayo Clinic - Travel Counselling

<table>
<thead>
<tr>
<th>Immunocompromised travellers</th>
<th>N</th>
<th>Malaria prophylaxis</th>
<th>Hep A vaccination</th>
<th>YF exemption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid organ transplant</td>
<td>134</td>
<td>33.6%</td>
<td>77.3%</td>
<td>16.4%</td>
</tr>
<tr>
<td>Connective tissue disease</td>
<td>121</td>
<td>46.3%</td>
<td>77.7%</td>
<td>22.3%</td>
</tr>
<tr>
<td>Inflammatory bowel disease</td>
<td>41</td>
<td>32.6%</td>
<td>76.1%</td>
<td>21.7%</td>
</tr>
<tr>
<td>HIV</td>
<td>21</td>
<td>45.0%</td>
<td>95%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Authors conclusions:
- Low vaccination rates
- Serologic pre-travel testing uncommon
- Early screening for travel plans advisable

National travel advice UK

Serious infection rates in TNF inhibition

2 Risk factors
- Age > 60 years
- Chronic pulmonary disease
- Previous severe infection
Medical risk assessment for travellers

- infectious diseases
- environmental factors
- standard and availability of local emergency medical and dental care
- access to quality pharmaceutical supplies
- requirement for medical evacuation
- cultural, language or administrative barriers

https://www.travelriskmap.com/#/planner/map/medical

Medical risks and availability of care

https://www.travelriskmap.com/#/planner/map/medical

Treatment costs in different regions

Locate adequate medical care options: embassies and consulates, medical insurance or credit card companies; www.istm.org

https://www旅行riskmap.com/#/planner/map/medical 2018

Travel insurance

- Generally covers acute illness
- May not cover
  - preexisting diseases
  - repatriation
  - medical prescriptions
  - ambulance call outs
  - optical/dental service
- Additional trip cancellation insurance

Travel with stable disease condition

Multiple Sclerosis (MS) pseudo-relapse (non-inflammatory progression)

- Infectious
- Psychiatric
- Vertigo
- Temperature related
- Trauma
- Other neurological reasons


Immunocompromised Travellers - symptoms

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Any health problem</th>
<th>Significant clinical events*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunocompromised travellers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid organ transplant</td>
<td>4</td>
<td>2 (50%)</td>
<td>Infection 66.6%</td>
</tr>
<tr>
<td>Systemic immuno-suppressive med.</td>
<td>52</td>
<td>4 (7.7%)</td>
<td>Inflammatory disease 11.1%</td>
</tr>
<tr>
<td>Splenectomized</td>
<td>20</td>
<td>0%</td>
<td>Trauma 11.1%</td>
</tr>
<tr>
<td>HIV</td>
<td>15</td>
<td>3 (20%)</td>
<td>Cardiovascular problem 11.1%</td>
</tr>
<tr>
<td>Active cancer</td>
<td>25</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Healthy controls</td>
<td>116</td>
<td>24 (20.7%)</td>
<td>Infection 100%</td>
</tr>
</tbody>
</table>

52 HIV vs 52 healthy travellers: comparable diarrhoea, vomiting, cough, rhinitis, pruritus, fatigue, or nausea.

Influenza

Influenza affects 1/100 travellers (most frequent vaccine preventable infection)
- Group travel
- Cruise ship
- Elderly
- Chronic medical conditions

Acute travel associated diarrhea

Increased risk
- Previous severe course
- Reduced gastric acidity (antacids, gastric surgery)
- Immunodeficiency
- „All-inclusive“ tourism

IBD

Risk of complication
- Dehydration: previous stroke, diabetes, young/old age
- Electrolyte imbalances: renal insufficiency, IBD

Drug interactions

<table>
<thead>
<tr>
<th>Co-medications</th>
<th>Possible effect</th>
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<tbody>
<tr>
<td>Doxycycline</td>
<td></td>
</tr>
<tr>
<td>Etravirine</td>
<td></td>
</tr>
<tr>
<td>Efavirenz</td>
<td></td>
</tr>
<tr>
<td>Mefloquine</td>
<td></td>
</tr>
<tr>
<td>Chloroquine</td>
<td></td>
</tr>
<tr>
<td>Primaquine</td>
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<tr>
<td>Tafenoquin</td>
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Prophylactic measures against malaria

mosquito avoidance
chemoprophylaxis
stand-by emergency treatment (SBET)

Diarrhoea – treatment

E. coli (ETEC) 40-70%, Campylobacter, Shigella, Salmonella, Aeromonas etc.

- Prophylaxis
  - Not routinely recommended
  - Cholera vaccine (cross immunity)?
  - Bismuth subalsilate (renal toxicity in renal tx)
  - Rifaximin (cyclosporin interaction)
  - Cholinons not recommended

- Empiric therapy
  - Mild – symptomatic (rehydration, electrolyte substitution, anti-motility agents e.g. loperamide, bismuth)
  - Moderate – cholinons?, antiotympic, rifaximin
  - Severe – antibiotic therapy – microbiology testing

- Cave: invasive infections, developing resistance (campylobacter)
Practical issues

- Sufficient medical supply
- Carry-on luggage & suitcase
- Special requirements for fluids and syringes
- Cold-chain (arrange with airline)
- Medical supply certificate

Countries with restrictions for HIV – short term travel

- Azerbaidjan
- Bhutan
- Brunei
- Egypt
- Equatorial Guinea
- Iran
- Iraq
- Jordan
- Kyrgyzstan

- Marshall Islands
- Russia
- Solomon Islands
- Suriname
- Syria
- Tunisia
- United Arab Emirates (UAE)
- Yemen

Yellow fever required vaccinations

Summary – ideal traveller

- Early screening for travel plans done and vaccinations started
- All generally useful vaccines completed: pneumococcus, meningococcus, HAV, HBV, Tdap, Influenza etc. (ImmunoStart Poster 17.08)
- No drug interactions with antimalarials or other antibiotics
- Has medical care at travel destination if needed
- Has no legal travel restrictions
- Has stable disease, is educated about underlying disease and is well insured